# ON CONTROL VOLIV. 9th Not Registered as a New York and Control Vol. IV. No. 103 9<sup>th</sup> Nov. 1914 Registered at the G.P.O. as a Newspaper The Journal

that founded the New Motoring



# THE "STEPNEY"

is the Ideal "Spare Wheel" for Light Cars & Cyclecars.

Light to Carry.

Never Gives
Trouble.



Cheapest in Price.

Fitted in One Minute.

A Reminder.—Before you get tyre troubles is the time to have a "STEPNEY." It is cheaper to buy a "Stepney" than to ride home on a flat tyre.

OVER HALF A MILLION IN USE.

THE STEPNEY SPARE MOTOR WHEEL, LTD., Stepney Works, LLANELLY.

Radiators, Bonnets, Tanks, Ball Control Joints, Fans, Filters, Steering Wheels. Petrol Level Indicators, etc. The Finest
LIGHT CARS AND CYCLECARS
are Water-cooled. The Finest
Water-cooled LIGHT CARS and
CYCLECARS are Fitted with

C.M.F.

Standard,
Singer,
MorrisOxford,
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etc.

As fitted to-

RELIABLE

RADIATORS

They are equally

They are equally suitable for CARS and DELIVERY VANS.

The COVENTRY MOTOR FITTINGS Co.

Far Gosford Street,

COVENTRY.



# THE 11 h.p. 4-cyl. ALL—BRITISH

# PRICE 150 GUINEAS

Complete with 4-seater open touring body, Cape-cart hood, folding wind screen, five lamps, horn, spare wheel and tools.

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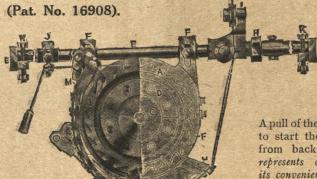
# START YOUR CAR FROM THE DRIVER'S SEAT

DUNHILL'S SAFETY SELF-STARTER (Pat. No. 16908).

Will fit any car up to 20 h.p. where engine and gear box are not cast in one unit.

The only tool required to fit this starter is an ordinary adjustable spanner.

The starter is fixed on the clutch shaft.



A wire cable passes through the floor-boards and is attached to a handle.

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Price - 6 Guineas.

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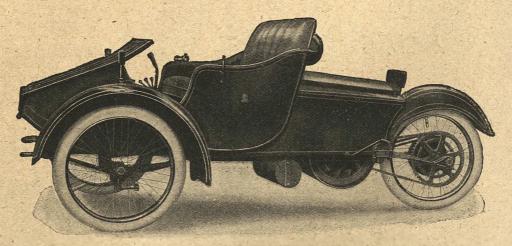
# Dunhills

359-361, EUSTON ROAD, LONDON, N.W.

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

A1

# Bridging the Gulf between the Car & Motorcycle



# The Requirements. The Fulfilments.

I. INDER the title of "Is the popular Cyclecar possible?" the "Light Car and Cyclecar" says: "The original idea of the cyclecar was to provide something simple to drive and economical to run that would bridge the gulf between the car and the motorcycle. One or two concerns have succeeded in fulfilling this ideal: others have not." . . . "There is still an excellent opening for a type of simple cyclecar, but the essentials to its development are a low first cost and the actual proving of its capabilities to the public. Deeds, not words, are what are required. . . . "

THE A.-C. SOCIABLE was first placed on the market in 1907, and was the pioneer of its type. It rapidly attained a popularity that (in spite of latter years' competition) has never decreased, and to-day many thousands are in use all over the world. As "The Light Car and Cyclecar" says, "Its reputation was largely made by its success in many competitions." The A.-C. Sociable will seat three, if desired, and it gives the comfort and protection of a car at approximately the initial and the upkeep cost of a sidecar combination, thus "bridging the gulf between the car and the motorcycle.'

# The A.-C. SOCIABLE

"The Cheapest and Simplest Runabout."

Vide "The Light Car and Cyclecar."

# Price 75 Gns.

- AS ILLUSTRATED. -Equipment Extra.

Immediate Delivery.



AUTO-CARRIERS LIMITED, (1911),

Ferry Works, Thames Ditton, Surrey.

Telephone Numbers: Molesey 245 and 246. London Depot :

LITTLE PORTLAND ST., W.



Changing a plug on a Marshall-Arter; a fair motorist in distress.

# THE POSITION OF THE LIGHT CAR.

Its Place in the Motoring World--How it Excels and How it Falls Short of the Cyclecar—The Tendency of Design.

JUST as the cyclecar is an attempt to provide a link between the motorcycle and the motorcar, the light car of the present day seems to be an attempt to supply a link between the simple cyclecar and the full-sized motorcar.

Two years ago light cars, as typified by the famous 10 h.p. Singer, were developed as part of the cyclecar movement. Miniature cars, not to be confused with what was known as a light car in 1910, which denoted a 12 h.p. car weighing anything up to a ton, aimed at economical running and ease of handling, just as the cyclecar does.

Owing to the restriction placed on chassis weight by the old R.A.C. and A.-C.U. definition, attempts were made to keep the weight down, but the very design of the cars and the constant addition of more luxuries and more seats, resulted in makers breaking away from the fetters of the definition and producing comparatively heavy cars with engines still conforming to the arbitrary limit of 1100 c.c.

In a few cases, the inevitable has occurred. The small engine has not been found powerful enough to pull the heavier chassis and the heavier load occasioned by the demand for more comfort and more seating accommodation, and, hey presto! we find the light car of yesterday rapidly growing up into the touring car of to-day

We have watched the development of this new motoring movement with which we have been identified since its inception in "Motor Cycling" in 1910, and in the course of the past years have had opportunities of owning or driving practically every light car or cyclecar on the market. In view of our leading article last week, which described the present position of the cyclecar, an analysis of the light car may be of equal interest.

There are certain essential differences between the experiences gained as a result of long distances covered on light cars and cyclecars. As one would imagine, from the extra weight of a light car as compared with a cyclecar, the consumption of petrol is heavier. Indeed, if the petrol consumption of the ordinary light car encountered on the road were measured, we should expect more cars to do below 35 miles to the gallon than above it. It is true that, in the majority of cases, this could be much improved by carefully resetting the carburetter, or by the addition of a Bowden extra air supply; but the former would probably result in less easy starting and the uncertainty of the engine ticking over slowly in the neutral -the features much sought after by the modern motorist who does not want great speed.

Again, owing to the greater weight of a light car as compared with a cyclecar, the tyre wear is increased.

## THE POSITION OF THE LIGHT CAR (contd.).

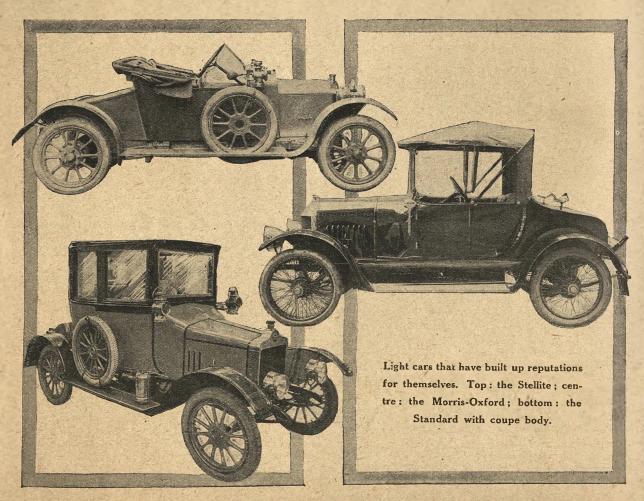
On the other hand, we must set against this the fact that, with a shaft-driven machine, transmission renewals are reduced to infinity, whereas, in a cyclecar, the chain or belt drive must be occasionally replaced. Small troubles, such as are caused by parts dropping off or shaking loose, are much rarer on a light car than on a cyclecar, and this may be attributed to the smoother running four-cylinder engine. On a cyclecar on which a motorcycle V-type engine is often employed, the inherent vibration of the type has always to be reckoned with as a disadvantage. Consequently, with the light car, we have found that there is less of that kind of repair work known as "tinkering," which is certainly a feature of the lighter and simpler types of machines.

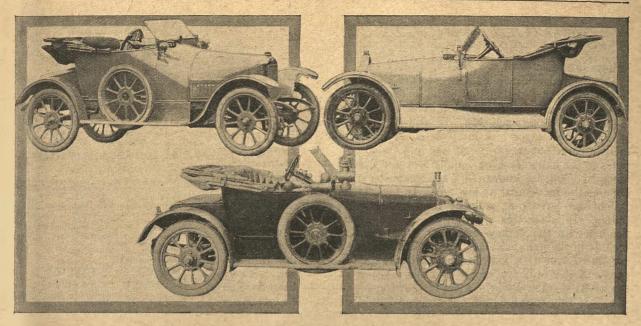
And this brings us to a very interesting subject. When really serious breakages occur on a light car, they are relatively much more expensive jobs to replace than on a cyclecar. A back axle, a gearbox, or a four-cylinder monobloc engine that breaks down requires a good mechanic to handle it, and is quite beyond the capabilities of the ordinary driver. With a cyclecar, on the other hand, any driver could manage to dismantle his engine or gearbox, because not only are the parts much lighter to handle, but much simpler ("cruder," is what the anti-cyclecar critics would say) in design.

Moreover, the cyclecarist is more prone to enjoy a

little tuning than the light car driver, who has been lulled into a state of laziness by the comparative luxury of his machine. There is, too, this difference in the two classes of owners, just as there is a difference in the types of machines they drive. The cyclecarist, generally speaking, motors for sport. Often he is recruited from the ranks of motorcyclists, and hence has an intimate knowledge of the machine he drives. The light car owner more often motors for sedate pleasure and often for business. If his machine breaks down, develops a rattle, or pulls badly, he is vastly annoyed, and takes it to a garage, where the repairer comes to the rescue. It is the increased luxury of his machine that has bred this indolence.

This is a point in favour of the light car. It may not be so speedy, such a good hill-climber, or so economical to run as the cyclecar, but it is certainly more luxurious. Hoods, screens, upholstery, fittings, lighting and starting arrangements are better. The car looks like a car and not like an imitation; the painting is better and the machine shows its superiority in a hundred and one different ways, which is as it should be, seeing that, in the majority of cases, it costs £70 or £80 more than the cyclecar. Under the heading of increased luxury, we must include such things as silence, smooth-running engines, and the ease of slowing down on top gear. Greater flexibility, too, is an important point in the light car's favour, and, of course, the addition of a four-cylinder engine, so greatly in demand at the present time.





Gracefully-constructed light cars that have long since passed the experimental stage. Above are (left) the Calthorpe and (right) the Calcott. Below, the famous 10 h.p. Singer, the prototype of the modern light car.

The whole problem, of course, is a matter of price, and all along the scale, when once reliability has been obtained, it simmers down into a question of the best compromise of economical running and comfort. The sidecar is economical and fairly reliable, but lacking in comfort. The cyclecar surpasses the sidecar in comfort, and the best examples of it are as reliable and economical to run as the sidecar. The light car

is still more comfortable and luxurious than either the cyclecar or the sidecar, but it is not so economical to run. Though reliable, it has not the speed or hillclimbing power of the sidecar, whilst, last of all, we have the touring car, which is still less economical to run, but more comfortable. The type of vehicle giving the best value for money for each class of purchaser is the one that will meet the public's fancy.

# SCOTLAND YARD AND THE LIGHTS OF LONDON.

N order to obtain an official view on the question of the lighting of London, we recently paid a visit to Scotland Yard, and were received by a prominent official there.

Questioned as to the origin of the present orders for reduced lighting, we learnt that it was the Admiralty and not the Commissioner of Police, as has been announced in the daily Press, who gave orders for a decrease of lighting. The object of this decree was to disguise London, and make it impossible for an enemy in the air to recognise particular points.

"It is our business," our informant said, "to see that the Admiralty's wishes are carried out. They are responsible for the safety of London. Their observers, who have seen the city from above, state that it is actually easier to recognize streets and localities by the lighting of headlights than by shop and street lighting. Hence the order about motor headlamps.

"We have not heard of any report that motoring at night might be stopped altogether if people are not reasonable. After all, everyone is aiming at the same object—that is, safety.

"Headlights are absolutely prohibited, even with coloured screens, and the police have orders to stop cars using them and warn their drivers.

"So far, no one has been summoned, though it is surprising how thoughtless some motorists are. We have actually had cases of drivers taking off their headlamps and fixing them on their side-lamp brackets. Some of the electric side lamps are almost as powerful as acetylene headlamps, too."

We suggested that it would be to the common good

if every vehicle were compelled to carry a tail lamp,

and the Scotland Yard official, who is a motorist himself, immediately assented.

Cyclists and horse-drawn vans should certainly fit lamps for their own protection.

"We have not heard, here, of an order for the abolition of headlights all over the country, very possibly because our jurisdiction only extends to the Metropolitan area. Of course, special rules about lighting

have been in force in certain parts of the country.

We showed the official some coloured discs which could be fitted in front of headlamps. He readily acquiesced in the suggestion that the authorities might test these with a view to determining if any particular colour of light would provide motorists with more illumination and yet not show up the localities too much from above.

Yellow he condemned, as he considered that with a strong light behind it, it would be almost as powerful an illuminant as white. Red and green, too, he considered to be too distinctive, and certainly when it is remembered how clearly these lights can be seen when used for railway signalling, there would appear to be

a good deal in his view.

Blue seemed to be the best compromise. It is likely, however, that further tests with coloured headlights will be carried out, and for this purpose we are providing some discs of non-inflammable material.

The official view then is-

1. That the regulations regarding London lighting are made by the Admiralty, who are responsible for the safety of London.

2. That the use of headlights of any kind, whether masked or not, is absolutely prohibited.

A5

# Topies of the Day

When is a Car Not a "Light" Car?

THERE are quite a number of cars that have not hitherto been recognized as belonging to the modern light car movement, such, for instance, as the many 11.9 h.p. models listed by the motorcar manufacturers. Placing such cars "beyond the pale," as we do at present, is in accord with the best interests of this movement. If we begin to include cars that weigh nearly one ton unladen, can only average 25 miles to the gallon and are equally costly in upkeep in other directions, amongst what are known as "light cars," considerable harm will be done to the movement as a whole. In fact, nobody will know what a "light car" really is and the term will lose its significance to the It is for this reason that we use considerable discretion in dealing with the various cars that the manufacturers are seeking to include in the light car class, and we are refusing many advertisements for THE LIGHT CAR AND CYCLECAR of cars that really fall within the scope of the ordinary motor journals. We have, however, recently described the new Perry. After further consideration we have decided that it hardly comes within our scope and have declined the advertisement of it, being convinced that it is a somewhat bigger vehicle than those which it is the object of this journal to encourage, although no doubt a most excellent car and wonderful value for the money. It has, for one thing, an engine of nearly 1800 c.c. capacity, which is a long way bigger than the Singer engine, which is only 1095 c.c., and represents the most typical machine of the light car class. It may be that in the future we shall not be guided by engine size, especially if there is a tendency to fit slow-speed low-efficiency motors of large cylinder bore like the cheap American cars, which do not by any means represent the ideal of economical motoring. This may be the popular type of vehicle in the future, but it certainly is not the most popular type of light car to-day. At present it would be farcical to take in any kind of vehicle that its manufacturers think would find a more ready market amongst our many thousands of readers just because the price is low. Our readers, we are sure, know very well that price is not everything, and that the handiness, lightness, neatness, and good appearance of a light car—not always apparent in an advertisement—are considerations quite as important to them as first cost and subsequent maintenance. They look to us to deal with the modern light car of the day.

# English v. American Light Cars.

T is interesting to have the views of an experienced motorist recently returned from the States on the relative merits of English and

American light cars.

It is his opinion that for ingenuity and up-to-dateness the American production is ahead of the English make, and that owing to the larger outputs made possible by the vast home demand they are able to manufacture light cars at a lower figure than we can in this country, where the home demand is much smaller. At the same time, although the British-made light cars are more costly than the American machines, every line and nut and bolt of them shows up to advantage in cases where a side-by-side comparison is possible.

In this country we have always had a reputation for the excellent quality of our goods, and naturally we can demand a higher price for our productions than the Americans on account of this extra quality. At the same time, however, it is absolutely necessary for our motor business to keep up to date with the latest ideas. It is here that the Americans beat us. They always seem to be scheming to effect still further refinements in their machines, and as an instance of this we have only to quote the case of the self-starter, which has been successfully tried in America for several seasons past, whereas it is only

beginning to catch on in this country.

Conducted by EDMUND DANGERFIELD.

TEMPLE PRESS LIMITED (Proprietors of "THE MOTOR," MOTOR CYCLING," &c.).

7, 9, 11, 13, 15, Rosebery Avenue, LONDON, E.C.

Telephone-5292 Holborn (four lines). Telegrams-"Pressimus, Holb., London." MIDLAND OFFICES:

Birmingham:—9-10, Burlington Chambers, New Street. Telephone—2488 Midland. Telegrams—"Presswork, Birmingham."

Coventry: -6, Warwick Row, Hertford Street. Telephone-983 Coventry.

NORTHERN OFFICES: 196, Deansgate, Manchester, Telephone- Central 2467. Telegrams—" Presswork, Manchester."

> LIGHT UP Next Saturday, 5.12 p.m.

## FORTHCOMING EVENTS.

NOVEMBER.

Cyclecar Club's 1915 Model Rallies. 23rd-28th,—Motor Showroom Week. 27th-28th.—Bristol Motorcycle Club's Open Trial and Show.

#### NOTICES.

Letters.

EDITORIAL Communications should be addressed to The Editor, "The Light Car and Cyclecar," 7, 9, 11, 13 and 15, Rosebery Avenue, London, E.C. Letters relating to ADVERTISEMENT and PUBLISHING Departments should be

addressed to The Manager. TIONS should be forwarded to the Manager

(rate, 6s. 6d. per annum, or pro rata).

ADVERTISEMENT COPY, Blocks, &c., should come to hand by Wednesday morning to ensure careful attention and allow time to submit proofs, except when an earlier time is specified.

IMPORTANT LATE NEWS and Photographs can be accepted for insertion in the following Monday's issue by special arrangement previously.

Return of MSS., &c.

Drawings, Photographs and MSS, not suitable for publication will be returned if sufficient stamps are enclosed for this purpose, but the Publishers cannot hold themselves responsible for the safe keeping or return of contributions.

Subscriptions.

"The Light and Cyclecar" will be mailed regularly at the following rates:mailed regularly at the following rates:

12 ms. 6 ms. 3 ms.
United Kingdom 6s. 6d. 3s. 3d. 1s. 8d.
Canada ... 8s. 8d. 4s. 4d. 2s. 2d.
Elsewhere....10s. 0d. 5s. 0d. 2s. 6d.
REMITTANCES. — Postal Orders,
Cheques, etc., should be crossed and
made payable to "Temple Press Ltd."

All letters regarding subscriptions must be addressed to "The Manager."

Advertisements of Light Cars and Cyclecars for Sale, new or second hand, Sundry Announcements, and Rates for Advertisements will be found amongst the end pages.



# AMERICAN METHODS-BUT REAL BRITISH QUALITY-PRICE "ALL ON"

The American principle of standardisation has been applied to the manufacture of the Victor cyclecar with such remarkable success that it has been possible to reduce the price by no less than fifteen pounds. The new price—the round sum of £100—includes full equipment. The Victor is now, more than ever, the most attractive proposition ever put before devotees of motoring in its simplest and most inexpensive form.

The Victor cyclecar is a thoroughly simple, efficient, well-built and economical pleasure vehicle, bearing in its appearance the stamp of real British quality, and living well up to its looks.

The price is that of a high-class motorcycle and sidecar, but it has all the comfort, reliability and speed of a highpriced, high-powered car, with the simplicity and low running cost of the sidecar outfit. It does 49 miles to the gallon and, owing to its light weight, is very light on tyres.

Write for the Victor catalogue, and ask us to give you a trial run. We'll be delighted to demonstrate the wonderful efficiency and economy of the Victor,

Concessionnaires for Great Britain and Ireland:-

With well-finished two-seater body, 8h p.water-cooled engine, hood, screen, lamps, horn, generator, tools, etc.,

TYLER APPARATUS CO., LTD., 15, Gerrard Street, LONDON, W.







All British

All British

# HENLEY Tyres

give the freedom from trouble so essential to the Light Car Owner-Driver.

Every tyre a 'heavyweight' with an extra stout casing at the price of an ordinary tyre.

Examine a 'Henley' section—you will need no further convincing.

Write for Catalogue.

W. T. HENLEY'S TELEGRAPHIC WORKS CO., Ltd., Blomfield Street, London Wall, E.C. Telegraphic Address—"Henletel, Ave, London."

# WHITELEY'S for LIGHT CAR BARGAINS.

# SLIGHTLY SHOP-SOILED CARS (never been used)

							List	Pric	e.	Sale	Price	
10	h.p.	SINGER LIGHT CAR with Dyna	mo i	Light	ing !	Set	£204	15	0	£185	0	0
		HILLMAN					200	0	0	190	0	0
		MORRIS OXFORD (Model-de-Lu					199	-		190	0	0
					•••						-	-
- d	h.p.	MORGAN RUNABOUT (Sporting	MO	del)			103	0	0	95	U	U
10	h.p.	AC. LIGHT CAR					175	0	0	160	0	0
11	h.p.	LAGONDA COUPE					150	0	0	140	0	0
		ENFIELD AUTOLETTE					138	0	0	120	0	0
		PERRY COUPE			2		178	10	0	155	0	0
		ALLDAYS (2-seater, 4-cyl.)					175	0	0	150	0	0
		CROUCH CARETTE						0	0	105	0	0

## SECOND-HAND CARS.

8 h.p.	ALLDAYS MIDGET. Run 500 miles	•••	£138	0	0	£110	0	U
10 h.p.	SINGER, 1913 Model. Run 6,000 miles		185	0	0	130	0	0
	PERRY LIGHT CAR, 1914 Model, Run					120		

Any of the above can be purchased by DEFERRED PAYMENTS. Only 2% extra is added.

Write us for particulars.

# WM. WHITELEY, Ltd., Queen's Rd., London, W.

Telegrams-"Whiteley, London.'

A8

Telephone-Park One.

# NOTES, NEWS AND GOSSIP.

# Several New Models are Described this Week.

£100.

Cyclecars at this figure and less will figure as 1915 models.

Wisley Hut is becoming almost a military centre. Every Sunday officers, N.C.O.s, and men flock down there, arriving on large cars, light cars, cyclecars, or motorcycles.

Sidecar outfits are mounting up in price and are being boldly advertised at "£100 complete." Was ever there such an opportunity for a well-designed cyclecar of the simple type?

The value of the light car has evidently been fully realized by most military officers. Aldershot is simply alive with light cars of all descriptions; in practically every case a man in khaki is at the wheel.

The 1915 catalogues of the Morris Oxford light car are now ready, and can be sent free on application to W.R.M. Motors, Ltd., Cowley Works, Cowley, near Oxford, to any reader of The Light Car and

A firm of coachbuilders informs us that there is a great increase in the demand for horsed carriages. One result of the "Lights o' London" farce, and very gratifying news to those seeking not by any means lucrative employment in the motor trade.

One of the roads from Ashford to Rye is at present up owing to repairs to a bridge. In consequence it is necessary to take a by-road, in which there are two tollgates in the course of a mile or so; consequently running expenses are rather high.

We were rather surprised the other day to see an officer get into a machine with two chauffeurs, the three of them crowding into a somewhat roomy two-seater. However, on approaching closer, we noticed that the "chauffeurs" were really naval petty officers.

The gardens at Burford Bridge Hotel, one of the places where the Cyclecar Club will hold its 1915 model rallies, are renowned for their beauty. peculiar fact that, no matter what season of the year one visits this popular rendezvous, there are masses of red geraniums in bloom.

We would far rather run a vehicle really built for two like a cyclecar than such an unmechanical device as the sidecar. There are tens of thousands of people who think the same, who will not go to the expense and luxury of a light car, and only want proof of the reliability of the simple machine.

In spite of stringent regulations regarding the lights of London, there have been many nights recently when the streets were literally flooded with light. The miscreant turned out to be the moon. We are at The miscreant turned out to be the moon. a loss to know what action the police will take in the matter. Something should certainly be done.

A light car owner, who is a special constable, is amongst those guarding a large reservoir in an outlying S.E. district. He carries on his machine another constable to and fro, as well as cooking outfit, including a small stove, hot coffee, and fried sausages. This is much appreciated by the guard in the early hours of the morning, the reservoir being highly placed and very exposed.

A police trap was working on Esher Common last week-end. Have the police still got nothing better to do than playing at amateur theatricals by dressing up as postmen, etc.? We wonder that the special constables in the district who are voluntarily undergoing many hardships, with the apparent object of relieving the pressure on the ordinary police force, do not protest.

Dr. Low, being a Government expert, has a special licence to use brilliant headlamps in London.

The new four-seater Lagonda was noticed on the Portsmouth road recently, and it attracted a great deal of attention.

It seemed strange to see an erstwhile famous hillclimbing cyclecarist engaged with a few friends the other day manufacturing bombs.

Licences should always be carried, but particularly at the present time, for police and military patrols are in many places on the road with instructions to inspect all licences.

Level crossings are being constructed on the Staines-Sunbury road about one mile out of Staines and on the Ashford-Laleham road, and great caution is necessary at night.

A successful climb of a muddy bank with a gradient of 1 in 2 was recently made by Mr. A. G. F. Nash on one of the new "tourist" model G.N.s fitted with a low gear of only 6 or 7 to 1.

Two out of the three directors of the Arden Motor Co. have accepted commissions in the Worcester Regiment, Mr. T. C. Humphries being with the 7th Battn. and Mr. A. E. Humphries with the 6th Battn

We shall be pleased to send posters relating to the forthcoming 1915 Model Rallies of the Cyclecar Club to any reader who will be willing to display them. All that is necessary is a large stamped addressed envelope.

Some private owners are already experimenting with different coloured lights, and in the West End of London have been seen a pair of side lights with blue, light green and orange masks. The blue seemed most efficient and were practically non-dazzling.

Mr. Vernon Busby, happily recovered from his wound, was recently seen at the wheel of a G.W.K. at Aldershot. Roads in the immediate neighbourhood of a military camp should be avoided by motorists, as they generally consist of a series of ditches connected by rivers of mud.

Liverpool motorists have formed the Liverpool Motor Corps with the object of training motorists to render themselves useful in case of necessity. Classes are being held for Swedish drill, map reading, signalling, ambulance, and musketry. The secreing, signalling, ambulance, and musketry. The secretary is Mr. S. W. Phillpott, 60, Lime Street, Liverpool.

Makers who desire publicity for their 1915 models should communicate with us at once in case they have not already done so. They can obtain specification forms from this office so as to be included in the Buyers' Review and Overseas Issue of The LIGHT CAR AND CYCLECAR which will be published on 30th November.

In our last issue we referred to Mr. H. G. Burford as a prominent member of the Cyclecar Club who has enlisted in the Royal Naval Volunteer Reserve, whereas Mr. H. F. Burford, associated with the De P cyclecar, was intended. Mr. H. G. Burford, of course, is the managing director of the Automobile Consolidated Alliance.

Owners of Carden monocars who buy their oil direct from the Carden Engineering Co., Ltd., may be some-what surprised in opening the tin to find the oil coloured a most delicate pink. We understand that the colouring matter has no detrimental effect whatever. Perhaps this enterprising concern may shortly start selling coloured petol. Green petrol with a little peppermint mixed with it would be quite appetizing.

# THE NEW FOUR-SEATER LAGONDA.

Claimed to be the Second Cheapest Four-seater in the World, Price 150 Guineas



Side view of the 1915 four-seater Lagonda, which sells at £157 10s., showing the ample leg room.

IN response to the demand for a light car capable of carrying an extra passenger without recourse to a dickey seat, which is at best a makeshift arrangement, a four-seater Lagonda has been brought out by Tollemache and Griffin, Ltd., of 195, Hammersmith Road, London, W., the sole concessionnaires for Lagonda cars.

The car is to all intents and purposes the same as the well-known 11 h.p. two-seater, but the wheelbase has been lengthened by 1 ft., bringing it to 8 ft. 9 ins., the track remaining the same at 3 ft. 10 ins.

This lengthening of the wheelbase involves a correand this is practically the only other alteration involved. The engine and gearbox unit remains the same, as also do the front and back axles.

The springing has been strengthened, of course, and the same are alteration in the same and the same are also do the front and back axles.

is by a transverse semi-elliptic spring and quarter-

elliptic back springs. The wheels on all models are now 700 mm. by 80 mm. Sankey detachable. The gear ratios are the lower set used by Lagonda cars with a 4.6 top, and as this is not by any means low both speed and petrol consumption are good.

The special construction of the Lagonda with frame and body in one is adhered to, and the flush-sided body is of pleasing lines, further enhanced by the long running boards and graceful wings. A two-fold screen is fitted with Cape cart hood in a dark green finish, which blends very well with the dark green of the body.

The car is sent out complete with two acetylene headlights and generator, two oil side and tail lamps, horn, spare wheel (without tyre), kit of tools, etc., for 150 guineas, a price only made possible by retaining the same units as are used in the "11."

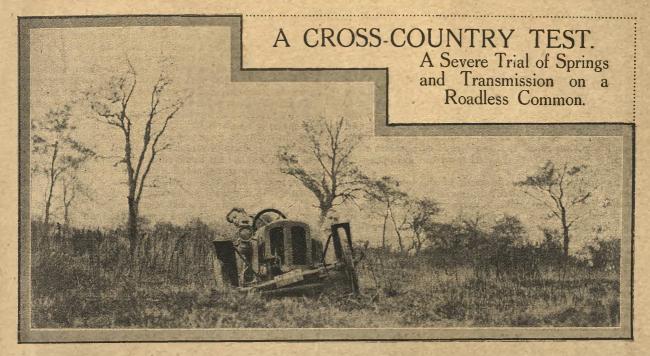
#### M.C.C. CINEMA SHOW. WAR PICTURES AT THE

THE Motor Cycling Club, with its characteristic enterprise, is organizing two big social events in aid of the Belgian Refugees Fund. The first will be a cinema show, admission by ticket only, obtainable free from the organizing secretary, and the second a cigarette smoker, tickets for which will be 1s. each. The cinema show will be unique. Half the programme will deal exclusively with the most thrilling pictures will deal exclusively with the most thrilling pictures from the war; other films will be shown of the Grand Prix races, the motorcycle T.T. races, and "A motorcyclist's dash to death," a particularly exciting picture. Applications for tickets (free) must be sent to Mr. W. H. Wells, 366, Euston Road, London, N.W. The. date is Friday, 27th November, at the Café Monico, commencing 7.30 p.m. Ladies welcomed.

On Friday, 11th December, a cigarette smoker (ladies again welcome) will be given. An absolutely first-class programme is being arranged, and those A10

present at the M.C.C. previous smokers will agree that in the past they have been excellently managed. The venue will again be the Monico. Tickets, price 1s. each, will be issued in due course by Mr. W. H. Wells, 366, Euston Road, N.W. Applications received now will be dealt with as soon as tickets are ready. It is hoped that the Belgian Refugees Fund will retain the testical because the result of the concern. ceive a substantial cheque as the result of the concert.

A lady motorist in Tasmania, who recently ordered A lady motorist in Tasmania, who recently ordered a Morris-Oxford through reading of the prowess of this make in this journal, stated that she was very surprised, on visiting the wharf, to see the machine unpacked and started up at the first pull of the handle after its journey of 16,000 miles. She states that she is very interested in descriptions of light car trials, etc.



Mr. A. Frazer-Nash negotiating one of the worst bumps on the common on an experimental "Tourist" model G.N.

HERE are many disagreeable callings in this life on earth, and one of them, at least to my mind, is that of a passenger. Even if I were paid to occupy continually this seat beside the driver I think I would prefer to earn my living as a crossing-sweeper or by some other inartistic means.

Perhaps I am unlucky, but somehow or other, when I find myself in this benighted seat (a dentist's chair is almost preferable), the driver immediately com-

mences to experiment with his machine.

On account of my abhorrence of filling the empty seat, my appearances there are few and far between. But within the last few months I have been whisked round a tennis lawn at speed, with a beginner at the wheel, I have been hurled against a high pavement at about 30 m.p.h. (a front axle was badly bent on this occasion), while one of my latest exploits was a lap round Brooklands at 75 m.p.h. on a machine trussed together by temporary wire strainers. On this occasion I felt certain at one moment that I was to be shot into eternity unceremoniously, for we hit a bump, the machine leapt into the air, and when we volplaned to earth again the quivering structure to which we had entrusted our lives made a series of awe-inspiring wobbles. Fortunately the driver regained control before a catastrophe happened. Incidentally, I retired from public life immediately after this exploit for nearly three weeks, having contracted an internal chill. I do not, of course, say that it was the result of the speed burst, but, at any rate, it was a strange coincidence.

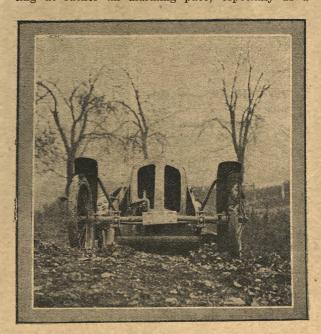
# Touring in the "Tourist" G.N.

My latest experience, however, has outshone all my previous excitements, my hero at the helm being Mr. Nash, of G.N. fame.

Being up at their works recently, Mr. Nash showed me the new "tourist" G.N., the principal feature of which is its extremely low build. "Jump in," he said quite innocently, and the command was immediately obeyed. A sense of security, combined with a very comfortable sitting position, were my first impressions. but before I had really examined anything in detail the engine began to fire. At first I thought I had unconsciously operated some new kind of seat starter which came into action when one sat down, but I was soon disillusioned by finding Mr. Nash standing by my side, armed with a starting handle, which he had evidently just used to good purpose.

I had seated myself in the driving seat, but I meekly and reluctantly offered to evacuate it in favour of Mr. Nash, but, to my astonishment, he crept in beside me, pushed the clutch out, leant over me, and moved the gear lever, and the next instant we were out of the building and in the open.

The road leading from the entrance of the works is particularly narrow, and we appeared to be travelling at rather an alarming pace, especially as a



The G.N. climbing a gradient of 1 in 2.

## CROSS-GOUNTRY TEST (contd.).

right-angle bend confronted us at no great distance. "Shall we get round?" I thought, at the same time praying hard that the gods would look upon us with a kindly eye, but, to my astonishment, we shot off in the opposite direction, left the road, and took to the grass. Whether my passenger had suddenly become demented or the steering gear had failed I knew not, but they were the only reasons that occurred to me for this extraordinary deviation from the straight and narrow path. Either alternative did not arouse happy thoughts within me, but a few words of comfort from my driver-passenger prevented me from stamping on

all the available pedals. I have read in various journals of the terrible testings of certain cars over impassable Colonial-like tracks, but to take a simple cyclecar, of particularly low build, over such a course appeared to me to be the height of foolishness. This was no ordinary field that we were traversing. My first impression of it was a vast expanse composed of innumerable mounds, probably the spilled-out contents of ash pits grown over with grass. Heavy carts had been traversing it at some time or other, and, in places, there were deep ruts. It must not be thought that the mounds were all nicely rounded off with sloping edges. No; many had precipitous sides, down and up which we

bounded and jolted.

Our journey was all the more remarkable that at no time was the clutch slipped, and our speed was quite respectable. My sensations were more akin to those usually experienced in a very small boat in a very "choppy" sea, with the added excitement of dropping sheer down a few feet every now and again. Every moment I thought I must be thrown out; but

the most appalling-looking crevices were traversed without any undue shock. The springing was, indeed, On several occasions we would strike a rut, and the wheels would then buzz round, while we slithered sideways; then the tyres would get a grip, and the machine would shoot headlong towards a "bunker." The surface was of an ever-varying character, but, instead of getting better, it got worse.

In the distance a lane appeared, and at last I gave a sigh of relief. A haven of refuge was near at hand. We made a bee-line for it, but, to my horror, I saw that, in order to gain the roadway, we had to negotiate a sheer drop of about 2 ft. or 3 ft. Here, indeed, was the climax. An upset seemed unavoidable. But, as before, the unexpected happened, and the seemingly impossible was accomplished. We dropped down without upsetting or any terrific shaking.

It was certainly a most extraordinary test, and even with a high-powered car having an enormous ground clearance, we would hesitate to undertake it; but the G.N. never seemed in trouble, in fact, it revelled in the task. The strength of the frame, axles and springs must be abnormal to withstand the enormous shocks to which they were subjected. such a machine, a road seems almost a luxury.

Now that I am safe at home, I recall my experiences with a certain amount of pleasure, but at the time my nerves were all on edge. These freak drives are always undertaken when I am the passenger, but I sincerely wish drivers would not reserve all their weird experiments for my benefit. On this occasion no photographer was available, so the illustrations on the preceding page were taken with Mr. Nash at the wheel on a later day, when the machine succeeded in climbing a bank on the common which has actually a gradient of 1 in 2. A.P.B.

# THE 1915 J.B.S. FOUR-SPEED 10 h.p. FOUR-CYLINDER.

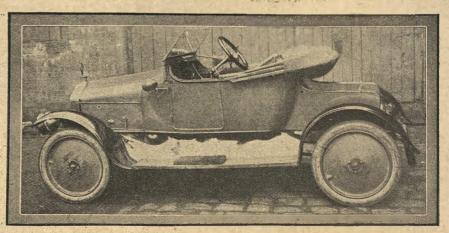
HE two-cylinder 10 h.p. two-seater J.B.S. has not been altered much from a chassis point of view, but the body has been considerably improved. The seats are decidedly more comfortable, and the sides are higher. The price asked for this is £150, complete with hood and screen, headlamps, side and tail

The tyres are tion is by a Zenith carburetter. 700 mm. by 80 mm. The price for this model is £175. The de luxe model of the 10 h.p. car has the very latest of everything, and the car "bristles" with conveniences and luxuries. The C.A.V. lighting outfit and starting motor add to the complete comfort.



The 1915 J.B.S., complete with disc wheels and fourcylinder engine.





lights, and full tool kit. The 1914 10 h.p. four-cylinder is a very smart piece of work. The power unit consists of a Dorman engine, which transmits its power through a Ferodo cone clutch to a four-speed gearbox, which gives a direct drive on top; from thence to the back axle, which gives a gear reduction of  $4\frac{1}{4}$  to 1. Instead of wire, disc wheels are used with detachable rims, the manufacturers thereby showing some consideration for the owner-driver. mann magneto supplies the ignition, and the carbura-A12

From the Front.

A well-known light car manufacturer who is at present serving his country at the Front in the A.S.C. (M.T. Section) writes to say that on one occasion the silencer on his machine became choked. As there was no time to clean it out in the orthodox manner, the driver discharged his revolver up the exhaust pipe, which had the desired effect. We hear the exhaust valve was not hit, but we would warn our readers not to adopt this method of cleaning out the jet.

# ---- THE -----

# £100 CYCLECAR AS A PRACTICAL PROPOSITION.

THE enterprise of the Victor Co. in deciding to market their 1915 model at the magic figure of £ 2100 will, if properly directed, probably fore-shadow a considerable development in the simple

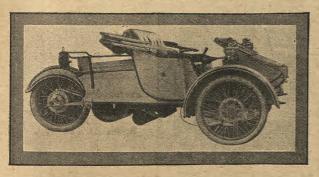
cyclecar of the future.

The original idea of all cyclecar pioneers was to produce a machine which would provide the comfort of a car at the price of a motorcycle and sidecar. The vogue of the sidecar machine during the past two or three years has been enormously and rapidly widening. Like every other form of motoring, the tendency seems upwards in weight, in horse-power, in price, and in complication, and, indeed, we find that in certain instances the best forms of sidecars cost about £100, and this even though they are produced in quantities such as the average cyclecar manufacturer would envy. Yet with all these advantages the sidecar combination lacks considerably the comfort for both driver and passenger provided by even the simplest form of cyclecar. It is a fact that with the average sidecar the driver is absolutely unprotected from the elements, and hence has to attire himself in outlandish-looking overalls to prevent himself getting bespattered with mud.

In a £100 cyclecar such as the Victor, G N., Morgan, or A.-C., it is even possible to go to the theatre at night in evening dress without fearing any disarrange-

ment or disfigurement of one's clothes.

Let us look at the simplest and lowest-priced cyclecars at present on the market. First of all there is the Victor. This is equipped with decent-sized tyres, a big twin-cylinder engine, driving by a chain to a two-speed-and-reverse gearbox on the countershaft, at each end of which are mounted large pulleys for the double belt drive to the back axle. This machine is now being produced in quantities by Victor Motors, Ltd., at their model works at Eynsford, Kent, and it is by systematic arrangement in the production of the machine that the price reduction is pos-



The A.C. Sociable, which is priced at £75.

sible. The machine is really a good deal simpler than the expensive forms of sidecar, for there is only a chain, two belts, and a gearbox, as representing the

transmission side of the car.

A machine somewhat similar, which is produced at just over £90, is the new Buckingham, with a singlecylinder water-cooled engine. Here two chains are employed from the engine to the countershaft, in which an arrangement of double-cone clutches is fitted, the final drive being by two belts, in the same way as it is arranged on the Victor. It is possible by the arrangement of the cone clutches and foot-controlled gear to start from a standstill on either speed.



The £100 Victor, which sells complete, with full equipment, for £100.

On the old models the noise of the two chains from the engine to the countershaft was rather noticeable, but Mr. Buckingham has now overcome this by a special fitting in the form of a hanging sprocket which

bears on the chains.

The cheapest of all simple cyclecars is the famous A.-C. Sociable, which has now been on the market for a number of years, and figures at £75. It is probably one of the most reliable machines on the road, for, having received such a tremendous testing in its commercial form on the streets of London and other large cities, it is, naturally, up to the work that is required of it as a pleasure vehicle.

On Novel Lines.

It is a machine which has been produced in quantities for years past: it is not a copy of any existing type, but is constructed on entirely novel lines, being a three-wheeler with a rear driving wheel, combining a two-speed gear, and probably later on a three-speed gear at the back. The engine is fitted just in front of the rear wheel, and drives by a single chain. Air cooling is used, assisted by fans driven off the flywheels, which also help to produce a draught.

The machine is not fast, but is an excellent substi-

tute for a 3½ h.p. sidecar machine, and considerably

more comfortable.

Another three-wheeler also selling for well under £100 is the Morgan, which has made a reputation second to none for speed and reliability. Here again we find the advantage accruing to an original design produced by a practical man who has confidence in his own production and has proved it to the public. This machine is quite different from the A.-C., as the engine is placed right in front of the chassis, and drives by means of a propeller shaft to a countershaft and thence by high and low gear chains to the rear wheel. One might almost say that this machine has been produced in quantities, or, at any rate, was before

### THE £100 CYCLECAR (contd.).

the War broke out, the output being approximately 20 a week. It can be recommended as an excellent substitute for any powerful sidecar combination, and, with a neat and well-upholstered body, wheel steering, two-speed gear, and free engine, it is a most attractive little turn-out.

The G.N. is another example of a machine which has been developed on original lines, and the Grand Prix model has been supplemented by a new and very

cheap design, priced at 88 guineas.

Messrs. G.N., Ltd., the makers of this machine, have, of course, an unexampled experience in building these vehicles, and the new popular model is as graceful in appearance as anything they have produced before.

All these machines, with only one exception, are provided with wheel steering, which in itself is an attraction to those who have hitherto done their

motoring from a saddle and handlebar.

There are one or two points we should like to emphasize in dealing with the £100 cyclecar. Appearance is of the utmost importance and neatness should be studied as much as appearance. Flapping belts, untidy methods of fitting pipes, rods, levers, wire controls, are all apt to do harm to the cyclecar movement. Those opposed to it have, with some

justice, criticised the untidiness of many of the machines, and great efforts should be made to eliminate these sources of complaint. Again, those people who have confidence in their production, and subject them to official tests, can prove to their own, as well as to the public's, satisfaction that their machines can do everything the sidecar can, and that they are reliable, handy, and economical little mounts.

Already several of these machines have proved themselves. The A.-C., for instance, on the streets of London has thousands upon thousands of miles to its credit. The bigger edition of the cheap Bucking-ham has won practically every hill-climb it has been in this year, but its successes would have been wider still had it followed up these sporting events by participating with equal success in reliability trials, to which the public attaches very great importance.

The Morgan has, of course, proved itself times without number, and many a sidecarist has forsaken his mount for it. The G.N. wants pushing energetically, and its success, which will be bound to follow, advertised widely. Emissaries should be sent out to the Colonies to see what market there is for cyclecars there, but machines must be well made, and very likely special models for overseas motorists produced. In the past too many manufacturers have been playing with the subject. Price and appearance are the watchwords they should study.

# THE MOTOR Publishes its FIRST SPECIAL BUYERS' REVIEW (Classifying Cars According to Price) on Tuesday, 17th November.

# PETROL CONSUMPTION TRIAL HELD IN SOUTH AFRICA.

The trial for the Graaff Cup, over a distance of 107 miles, took place recently.

Among the big cars ranging up to the 30 h.p. Cadillac, there appeared at the starting-point of the

lentlessly, and at one time both rear tyres went down at the same time. Mechanical trouble presented itself through a pin dropping out of the driving shaft, but after much waste of time it was remedied.



Mr. A. B. Godbold's Standard, which averaged 42 miles to the gallon in a recent South African trial.

10000

trial a 9.5 h.p. Standard, driven by its owner, Mr.

A. B. Godbold.

The route was planned over some typical Colonial roads, with here and there a drift to cross and mountains to ascend.

The tyre fiend followed the baby of the trial re-

In the timed hill-climb on the famous Sir Lowry Pass, the Standard's performance was good, while in the petrol consumption test it easily took the lead over the bigger cars, doing 42 miles to the gallon or 35.6 ton-miles per gallon. Altogether the little Standard signally distinguished itself.

# THE 1915 METEORITE.

Entirely New Chassis—Bigger Bore Engine—Good Braking System— Full Floating Back Axle.

E were enabled a few days ago to view next year's model of the Meteorite chassis, and it struck us as simply bristling with interesting points and evidence of really good engineering

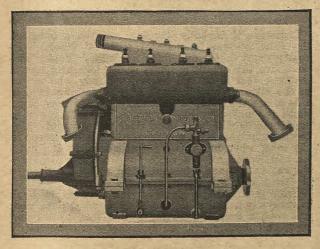
practice and design.

It is really hard to know where to start to give the premier point. The engine has had an enormous amount of improvement besides being increased four millimetres in the bore. The drive of the camshaft and magneto is now carried out by silent chain, a feature which is rarely to be found in a car under £400. The adjustment is carried out by moving the magneto on its base by an adjusting screw and locking it up in place again.

The exhaust pipes are carried from both ends of the cylinder casting, and in this way back pressure is absolutely prevented. The valve caps are made large, so that one cap only is needed for each cylinder, it being possible to get either valve out of the one

valve cap.

The clutch, instead of being a sliding member on a squared shaft, is keyed solid to the clutch shaft, and when it is withdrawn the amount required to free it is given by the leather universal joint which comes immediately in front of the three-speed gearbox.



Side view of Meteorite engine, showing the double-exhaust pipes and mechanical oil pump.

The gearbox is evidently the result of much care and experimenting. The sliding gears instead of being in one piece are all separate, thus very materially reducing the cost of production and also of replacement.

The universal knuckle joint behind the gearbox is a very interesting point, and having suffered innumerable troubles from universal joints, which, as a rule, are uncovered, or even if covered let the grease get away from the joint, we are delighted to find a maker taking real trouble over this important item.

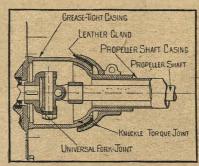
The back axle, which is full floating, is a particularly sturdy job, and we examined several of the parts, which all showed careful thought.

The brakes were next looked at with a view to find ing some little flaw in this direction, but the idea of putting both brakes on the rear wheel hubs is, as everyone knows, the best plan in the long run, though

the method of applying the brakes is sometimes a

In this, however, the designer has realized the fact that there are lady motorists, and that they prefer a brake which is easy to manipulate. The pressure required to put both brakes on is made very; small owing to the large leverage. The brakes are Ferodo. covered, and are very smooth in action.

The springing is carried out by semi elliptics in front and by three-quarters at the rear. The throttle pedal is placed conveniently clear of the clutch and brake



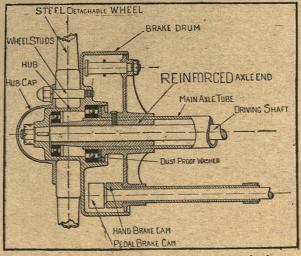
Details of the universal joint and hollow torque tube connection behind the gearbox.

pedals and also in close to the floorboards, so that it is possible to keep the heel on the ground all the time. The clutch and brake pedals are so designed that the holes they go through are very small and not long slots that allow the smell of the engine to come

through the footboards along with dirt from the road.

The bodies that are fitted as standard are the twoseater, three-seater, and the cabriolet. The cabriolet at £225 is a very nice production and neatly finished. The three-seater body is only slightly altered from the 1914 model, the price being £195. The Meteor Motors, Ltd., are very comfortably situated with regard to works, and we found that practically every part is machined in jigs, thus ensuring that replacements will require the minimum of fitting, as well as ensuring accuracy in the work, which cannot be maintained if the workman is depended on too much.

The manufacturers are Messrs. Meteor Motors, Ltd., Harrington Road, South Kensington, London.



Brake work, axle, and method of attaching wheel on the new Meteorite.

A15

Experiences on a Stellite-How to Change Gear.

# CROSS-COUNTRY COMMENTS.

8|2|2|2|3|3|3|3|3|3|3|3|3|3|3

Why the Cyclecar Needs Energetic Booming.

SPENT a recent wet and clammy week-end on a Stellite—a splendid little vehicle for the family man without a family. By this it is intended to suggest that the Stellite is an excellent no-trouble light car for a middle-aged man and his wife. The last time I was at the wheel of one of these machines was in the R.A.C. light car trial at Harrogate, where the excellent springing and flexibility of the engine were the chief points that impressed themselves upon me. The car, it will be remembered, is only a two-speeder, but it is quite possible to do over 30 miles in an hour on a good main road, and to climb hills of quite 1 in 15

or 16 on top gear.

The gear change may present difficulties for the novice, owing to the difference between the two ratios, but if an appreciable period is allowed to lapse be-tween taking the gear out of low and putting it into high it will be found quite easy to engage the top gear smoothly. Again, to come down to low, all that is necessary is to double clutch whilst keeping the throttle fully open, pausing a moment between high and low gear before engaging it.

## Keeping the Crown of the Road.

The run from Birmingham to Brighton and back to London was devoid of incident, save for the pro-longed ding-dong pursuit of a Rolls-Royce, the driver of which insisted on keeping on the wrong side of the road and not allowing the Stellite to pass.

Incidentally, in passing or meeting many cars, I noticed the unwillingness of the driver to take his own side of the road and allow fair play to a small car, which has as much right to the road as he has.

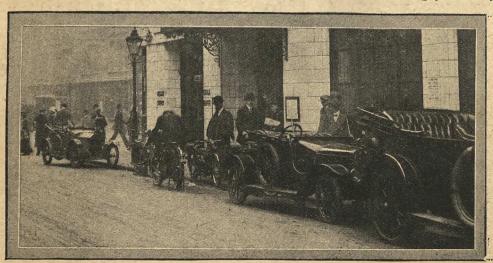
If this has been universally noticed to be the case, then it is high time that some of our motor schools included in their instruction a lecture or chapter on "How to behave on the road," in which the position of the motorist, the cyclist, and the pedestrian could be clearly explained.

It was rather amusing on the Brighton road to notice that the advertisements of a celebrated tyre firm had been posted over with the words "Made in Germany," the work, I understand, of a big rival tyre concern, who have a fleet of cars going round the country plastering German tyre companies' posters with these words. Unfortunately the day was wet, with these words. Chlorumately the day was wet, with the result that the comparatively thin paper employed for the "Made in Germany" slips very soon became wet through, and the lettering was almost illegible. Perhaps when the weather is fine again it will be more effective. I suppose the next thing we shall see if this kind of thing continues will be labels tied to any magnetor, by contact when the same transfer. tied to our magnetos by secret agents when we leave our cars in the garages, belts painted in red with the words "Made in Germany," lamps, horns, and other paraphernalia of the car decorated with streamers with the same legend. In any case it will give employment to a few, and will make producers of the British commodities happy.

### Visitors' Books:

I wonder if anybody has ever written a book on the Curiosities of the Hotel Visitors' Book. In nearly every hotel one finds a visitors' book, and many are the quaint remarks and interesting names that one sees in it. Of course, anybody who writes in the visitors' book always says something favourable about the hotel in question. If only they could write the unfavourable criticisms as well, the visitors' book would be a good deal more useful. Unfortunately this description. fortunately, this does not seem to be done except in the case, when in writing a testimonial to the hotel he had stayed at, the visitor added some disparaging remarks about a famous hotel a few miles down the road, which he advised nobody to go to.

From the motorists' point of view the visitors' book is generally useful in determining on what date such and such a tour was carried out. Thus, by turning back and finding your entry some years previously



Group of motors. during lunch time, outside Lyons' Corner House, Leicester Square, London, a well-known motoring rendezvous.



#### CROSS COUNTRY COMMENTS (contd.).

in the book, with possibly the name of the car you were driving, a whole vista of pleasant memories is called to mind. You remember that So-and-so was with you on that tour, and how you went hill-climbing in Wales or wandering in the wooded lanes of Devonshire.

#### If We Were Invaded!

Probably the Lygon Arms, Broadway, has had as much written about it, in motor papers especially, as any other hostel in England, but it is certainly a place that every motorist should know.

I was there a few days ago, and noticed that more garages have been put up for the accommodation of visitors' cars. Inside, the place does not seem to have changed much, despite the number of American raiders that have carried off the precious furniture as trophies to their own land. The Lygon Arms is but a step from the Mecca of Americans—Stratford-on-Avon—and it is an excellent base for visits to Shake-speare's Land, hence its popularity with Yankee tourists.

It is about as much like a private house inside as

day that THE LIGHT CAR AND CYCLECAR had not done much recently on behalf of the simple belt-driven cyclecar, to which I replied that as soon as the simple belt-driven cyclecar did something to help itself it could rely upon the whole-hearted support of this journal at any rate. I am still firmly convinced in my mind that once the belt-driven cyclecar proves itself right the present prejudice will fall away. That is, if any belt-driven cyclecar marketed, of course, at a figure below the shaft-driven machine, will prove itself as good and reliable as a sidecar, then we should not have this talk about the failure of the cyclecar and the sneering remarks of the anti-cyclecar Press every week. The salvation of the simple ma-chine rests with the makers themselves. First of all they must make a reliable machine, a machine that is as good as the very expensive sidecar of to-day, and equally reliable. Then they must put it on at



The Stellite on the road. It has a distinctive and pleasing appearance and attracts the attention of the man in the street.



it is possible for a hotel to be, and the German General Staff would revel in it for their headquarters. It seems to be just the kind of place that they would select, judging by their weakness for chateaux and castles. With their guns ranged on the summit of Broadway Hill they would overlook the whole Vale of Evesham, towards Malvern, Worcester, Bristol, Gloucester, and Cheltenham—but perhaps I had better cease these pen pictures, for I might find cement beds on the quarries at the top of the hill. However, they have got to get there first.

A prominent man in the trade said to me the other

an equivalent price, or at any rate a very little more than a sidecar. This done, they will meet with an enormous sale, but they will have to have capital and enterprise and energy in order to develop business. Unless we get this capital and enterprise and energy we shall find that the Americans, who have their plans well prepared, will benefit more than our trade by the war on the Continent. The Americans are well ahead with their plans for 1915. Their emissions always always in the land, and their models are saries are already in the land, and their models are ready, and what are our people doing? Wait and see, unfortunately, seems to be their attitude rather than get busy and do the best you can under the circumstances. This is with certain exceptions.

On more than one occasion it has struck me as being curious that no manufacturer has fitted the filler cap to the dashboard tank in a position where (1) the overflow will not spoil the paintwork, and (2) where the windscreen does not have to be raised entirely

to allow access to it.

It is a little point that when one has slopped petrol, or, worse still, benzole over the bonnet and scuttle dash many hundreds of times, as would naturally be the case in the course of a year's motoring, or, alternately, when one has had to raise or lower the screen countless times, the annoyance of the thoughtless fitting of the filler cap becomes quite appreciable. McM.

# PICTURES THAT POINT THE



"Business as usual" is a motto that all the British nation is trying to follow. It naturally includes motoring as usual, since motors are nowadays not luxuries, but necessities. Our series of pictures points the need to keep on motoring. 1. Motorists by using their cars contribute to the employment of a vast number of people. 2. If they cease motoring the garages at once feel the pinch and many will have to close their doors. 3. The next step is that the motor works become empty owing to the falling off of business in repairs and orders from agents.

EW of us ever stop to ponder over the countless processes which go to complete the cars we drive in, the far-distant lands from which the raw material comes, and the minute divisions of labour to which even the smallest part is subjected. Thousands upon thousands of men and women are employed indirectly as a result of the demand for the motorcar. In far-distant lands we have the natives gathering rubber on the plantations in which enormous sums of British capital have been invested. Then there are the mines from which the metals are extracted, and these in turn are employing thousands of men, and have enormous sums of capital invested in them. Instances of this kind dealing with the pro-

duction of raw material for the component

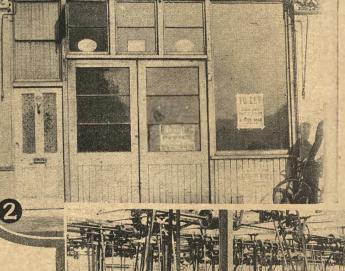
parts of the car could be multiplied. Le ebonite are just a few of the substances w up the cars we drive so thoughtlessly.

Great works have been established Some specialize in body building, others i facturing and tempering, pressed-steel we and one other parts which have become wonderfully equipped with the latest typ thousands of workmen, and then again w being brought together in the motor wo

further till they are ready to be built up The motor works in their turn have l are employing great numbers of workpe families alive out of their hard-earned we countless small shops and traders with w quence of this the producers and handl prosperous. The cycle of operations con

It will be seen line of ramification movement howes such as these tha should, so far as sue the even tend it is the general lies the power to tion, as it were, mighty machine c

As we have exp the general moto continuing moto keep first of all' and traders carr ness; they in the on the wherewith going to other wh deal in accessorie to manufacturers their turn are em vide the supplies ing for. When t



# EED TO KEEP ON MOTORING.

ther, steel, iron, fibre, rubber, porcelain, ich, when worked and treated, go to make

deal with each of these raw materials. wheel building, tyre making, spring manuk, glass-screen production, and a hundred ighly specialized. These great works are sof machinery, and employ between them find the products of the specialized works to be assembled or worked down still the same works into a complete car.

dd vast sums of capital sunk in them, and ole, who in their turn have to keep their es. They in their turn help to keep alive om they deal week by week, and in consers of food stuffs are also kept busy and

titutes bad or good trade.

om this rough outis of the motorcar ential it is in times the general public hey are able, pur-of their lives, for public with whom rovide the lubricao keep this whole mankind running. ained before, it is ng public who, by ing, are able to e garages, agents ng on their busiturn are handing l to keep things lesale agents who and fittings, and all of whom in oying men to prone agents are calle garages have to





4. The deserted motor works cause thousands of men to be out of employment, and bring distress to hundreds of families dependent on their success. 5. The pinch of bad times is soon felt by the small shopkeepers and tradesmen who supply the wants of the vast army of workers now unable to afford the smallest luxury. 6. And last of all we find the labour exchanges and employment agencies crowded with out-of-works, unfitted, perhaps, for the Army, and yet compelled somehow or other to struggle to support their starving families. The contrast between the first and last pictures needs no emphasis.

close down the wholesale agents will follow immediately. The works will have to run on short time or to get rid of some of their men. Acute distress will soon follow, whole families will be out of employment, their hard-earned savings will be grudgingly spent in obtaining lessened supplies from the aforementioned shopkeepers, and the last stage of all will be hopeless unemployment.

And so it is our duty, if we cannot serve our country in other ways, to keep motoring, and thus continue giving employment in a useful manner to as many people as we can. We have been told that the war will be won by the nation with the longest purse, and by helping the motor trade, one of the most important industries in this land, motorists are assisting in bringing the war to an end.

# THE DUNHILL SEAT STARTER.

# Interesting Device Working on the Pawl and Ratchet Principle—Price Six Guineas.

THE ability to start the engine from the driver's seat cannot be overrated, and a simple mechanical starter which can be fitted to any make of machine having the engine and gearbox in separate

units has been put on the market at six guineas by Dunhill's, Ltd., of Euston Road, London, N.W.

The device consists of a toothed ratchet wheel, which is fitted on the clutch shaft and rotated by which is fitted on the clutch shaft and rotated by means of a pawl and wire cable. The wheel is made in two pieces, which, when bolted together, form a taper bore. A split taper sleeve is bored to the size of the clutch shaft and forced into the bore of the wheel, thus taking a tight frictional grip on the shaft.

A cross member attached to the frame carries a guide frame which acts as a bearing to carry an arm or lever, to which a loose pawl is attached. From the pawl arm a strong wire cable runs over guide pulleys and is brought within convenient reach of the driver,

a handle being attached to the end.

When the handle is pulled the pawl engages with the ratchet wheel and revolves the clutch shaft, thus starting the engine. When the arm reaches the limit of its travel it is returned to its original position by

means of a spring, and the pawl is automatically lifted out of contact with the wheel.

The simplicity of this starter is its great feature, as there is no bearing or any part in frictional contact while the engine is running, and therefore nothing to wear out. Another advantage is that no alteration to the car is involved, no keyway, ecc., is necessary on the clutch shaft, and the frictional grip on the shaft is so great that there is no possibility of the wheel slipping.

In the illustration E is the cross member attached to the frame, F the guide frame, G the pawl arm carrying the pawl (M), and A the ratchet wheel.

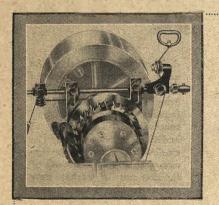
The handle should be pulled until the engine is on

ompression and a fresh stroke then taken by allowing the starter to return. A complete revolution of the engine can now be obtained, and the speed of revolution is such that the engine invariably starts first pull, given that carburetter and magneto are in

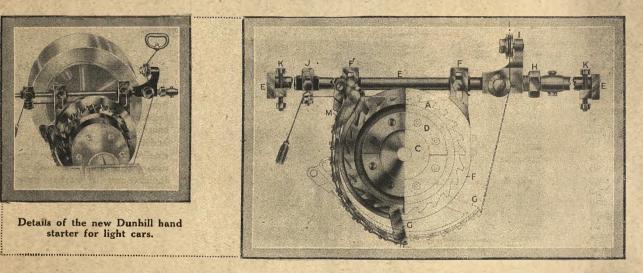
an ordinary state of efficiency.

The value of such a fitment on a car that is to be driven by a lady to any extent can hardly be over-

estimated.



Details of the new Dunhill hand starter for light cars.



### Rally Concert.

In connection with the Rally at Burford Bridge, a concert will be organized jointly by the Cyclecar Club and the Acton and District Motorcycle and Cyclecar Club, under the direction of the hon. secretary of the latter body. Offers of assistance in the musical numbers would be welcomed by Mr. F. A. Hudson, 56, Gordon Road, Ealing, London, W. The concert will begin about 8 p.m., earlier if possible, at the Burford Bridge Hotel, on Saturday night, 21st inst., and all readers of The Light Car and Cyclecar are heartily welcome.

## The Attempts on Dr. Low.

The publicity given to the reported attempts to assassinate Dr. A. M. Low has given him intense annoyance. He succeeded in getting the story stopped in certain daily journals only to find it given great prominence in the technical Press, but not in The LIGHT CAR AND CYCLECAR and its sister journals. It is, of course, asking weak-minded individuals to make similar attempts by giving publicity to such occurrences for the sake of a little journalistic sensation.

## A Cosmopolitan Cyclecar.

Most owners fondly imagine that their machines are all-British, but very few are really entitled to this description. We were recently rather surprised when we came to inquire into the nationality of the various component parts of a well-known cyclecar. The engine was British, the frame French, the radiator Swiss, the gearbox Belgian, and the magneto German. Truly a cosmopolitan collection!

# The Lights o' London.

Some current propositions:—(1) All motorists must extinguish their lights under bridges. (2) No headlights to be allowed on country roads. (3) No motoring at night. (4) No motoring at all. Meanwhile we have information that observation from aircraft over London has shown that the diministic of lights beg London has shown that the diminution of lights has made little difference to the glare. What also of the two or three moonlight nights of last week when the bright moonlight put all diminished lighting regulations to naught? Surely arrangements might be made to forgo such rigid regulations when the light of Nature renders them null and void.

# A NEW G.N. AT 88 GUINEAS.

# Simplified Transmission—Wider Track—Luxurious Springing.

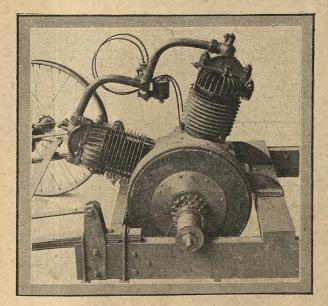
T is something of a change to find a manufacturer putting a cheaper model of his productions in his programme for 1915. The general tendency appears to be towards an increase in price, and therefore the policy of Messrs. G.N., Ltd., of Etna Works, Bell Lane, Hendon, London, N.W., who are intro-

The plate clutch and the chains for the two-speed gear on the new cheap model G.N.

100000

ducing an entirely new model at the price of 88

mess. G.N., Ltd., have tackled the problem from the right point of view, namely, that of simplicity. No doubt a £100 cyclecar, with shaft drive, four-cylinder engine, and other large car features, is possible but either the output has to be engrouse. sible, but either the output has to be enormous or the quality of the materials used very poor for the retail price to approach the £100 mark.



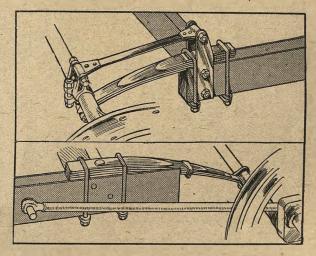
How the 90 degree engine is fitted in the frame of the new "Tourist" model G.N. The plate clutch and the two chain sprockets for the high and low gears are easily discernible.

The engine, which is the standard one as used in this year's Grand Prix model, is set so that the flywheel is parallel to the main frame members. In order to assist the cooling, the engine is fitted in the frame so that the rear cylinder is almost vertical, the front one being, of course, horizontal. This arrangement prevents the rear cylinder from being overlubricated, as is usually the case, while it also greatly increases the accessibility of the engine, and inci-

Increases the accessionity of the engine, and incredentally allows of greater leg room.

The carburetter is a B. and B. fitted with the well-known G.N. pilot jet, and the U.H. magneto is placed on the off side of the engine and driven by a roller chain. The magneto, by the way, is the only part of the machine which is not British made, and experiments are being conducted with the view of adopting ments are being conducted with the view of adopting a British-made model in the near future.

The clutch design is, we consider, one of the neatest yet adopted in any cyclecar. It consists primarily of one flat steel plate, Ferodo-lined, pressed against the outside surface of the flywheel. Although simplicity is its great feature, its efficiency is marvellous, and when



Details of the front (top) and rear (bottom) springing on the new "Tourist" model G.N.

fully engaged there is not the slightest sign of slip. Again, its sweet "picking-up" qualities are marked. The great advantage of the design, however, is that it allows a really good clutch to be mounted on the crankshaft, without any undue overhang, thus doing away with the necessity for an extra external bearing. The idea is illustrated on this page.

When disengaged, the plate revolves on a phosphorbronze bush, which is made so as to retain an appreciable quantity of grease. Mounted on an extension which is bolted to the plate are two chain sprockets, which provide the two forward speeds. These sprockets are close up to the flywheel, so that there is practically no end pull on the grankshaft tically no end pull on the crankshaft.

The spring which keeps the clutch in engagement is placed at the extremity of the crankshaft, and is encased so as to prevent the ingress of dirt. The method of withdrawing the clutch is particularly neat and interesting. The spring is compressed by means of two circular cam-like collars, one of which is fixed, while the other when rotated through a small are moves laterally and presses against one end of the spring through the medium of a ball-thrust washer, and thus releases the clutch.

The drive is taken by two Renold chains from the

### A G.N. AT 88 GUINEAS (contd.).

engine to a countershaft, on which are mounted two sprockets that are free to revolve independently. Either of these can be connected so as to drive the shaft by means of dog clutches, and the final drive is by belts to the back wheels, the forward pulleys being 8 ins. in diameter. The gear ratios fitted are about 4 to 1 and 8 to 1, but although the latter ratio is not very low, the hill-climbing qualities of the machine are remarkable; in fact, we witnessed a demonstration of this at the works. The machine—the first to be turned out with an experimental low gear of about 6½ to 1—successfully climbed a loose clay mound, the gradient of which was found to be 1 in 2, in a neighbouring field, with two up.

The frame is of armoured ash, giving great strength, and the quarter-elliptic springs both fore and aft are attached to it on the upper edge, thus giving a very low position. The radius rods in the front are made of flat rectangular steel, while those at the rear are tubular. The other ends of the springs are fixed underneath the axles, both of which are tubular and of 11 in. diameter and of 10-gauge tube. The wheels are shod with 650 mm. by 65 mm. tyres, and the hubs are fitted with special oil-retain-

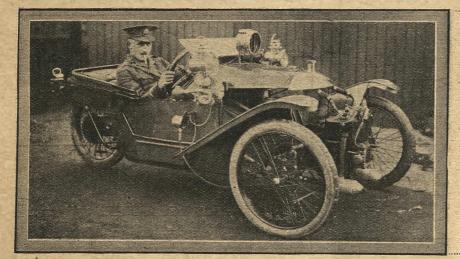
ing washers. Extra large shoe brakes on the back wheel belt rims and a band brake on the countershaft are provided.

The body is much wider than that previously fitted to G.N. machines, and, by the provision of a deep well in the footboards, a very comfortable and very low position is obtained. Although the machine is underslung and looks very low, there is actually 8 ins. ground clearance.

The comfort of the occupants has been well looked after, and the springing, which one can only truly describe as luxurious, adds materially to their ease. The wheelbase is 7 ft. 6 ins. and the track 3 ft. 8 ins. The usual G.N. cable and bobbin steering which has proved so efficient is fitted, and the price of the machine is as low as 88 guineas. The weight of the machine is only 5 cwt., which makes it one of the lightest cyclecars on the market. We anticipate a very large demand for this machine, as the running costs should be infinitesimal, due to the transmission and low weight, while the simplicity of construction should allow the machine to be driven and well looked after by the veriest novice.

It is in no sense an experimental machine, as it

It is in no sense an experimental machine, as it has been tested very severely by the makers. We hope to publish further details and illustrations in an early issue.





Mr. Geoffrey Day, a Fellow and Tutor of Emanuel College, Cambridge, who was Mr. H. F. S. Morgan's passenger in the Grand Prix of 1913, and has himself driven in several competitions, is now one of the many cyclecarists on active service.

(CC 500)

# ACCIDENTS AND THE DIMINUTION OF LIGHTING IN LONDON

The following is the text of a letter we have sent to Sir Edward Henry, the Commissioner of Police:—
With reference to your announcement regarding the disquieting increase in the number of accidents caused by motor traffic in the County of London, during the last two months, may we point out two

very probable causes?

The first is that marked increase in the carelessness of drivers of horsed vehicles has been discernible since the war broke out. Apparently there is an impression that the police are not troubling much about the traffic, hence the rule of the road is being grossly abused, while at night-time there has been an increased number of vehicles either improperly lighted—as, for instance, displaying a white tail lamp, which is highly dangerous to overtaking traffic—or bearing no light at all. There are also a considerable number of cyclists who are not carrying lamps.

The second probable cause of the increase in accidents is the very greasy state of the streets in the Metropolis during the past month. This must be due to lack of proper cleansing, for an ordinary shower does not necessarily make a street greasy if previously reasonably clean, and we would like to suggest

that the attention of the authorities is drawn to this. We have never known the roads so bad as they have been during the last month.

We have many opportunities of observing the traffic, for we and our staff are driving daily in London and district.

## A 60 h.p. Buckingham?

The new Buckingham light car, with its 2200 c.c. engine and the overhead valves and camshaft, though quite outside the official limit, should be one of the fastest machines on the road, bearing in mind that the 1100 c.c. Buckingham is said to develop well over 30 h.p. Mr. J. F. Buckingham has just recently produced a splendid little booklet of successes during 1914. A coloured picture on the front cover shows the famous Buckingham at speed at one of its victorious hill-climbs, whilst a series of photographs, many of them reproduced from The LIGHT CAR AND CYCLECAR, form excellent illustrations for the text pages. A copy of this booklet will be sent free to any reader of The LIGHT CAR AND CYCLECAR on application to J. F. Buckingham, 159 Spon Street, Coventry.

# THE CYCLECAR CLUB'S 1915 MODEL RALLIES

Saturday and Sunday, 21st and 22nd November, 1914.

1. Three rallies of 1915 models are to be held by the Cyclecar Club. The first takes place at 2 p.m. on Saturday, 21st November, at the Red Lion Hotel, Hatfield; the second at 11 a.m. on 22nd November, at Burford Bridge Hotel, Burford Bridge; and the third at 3 p.m. on 22nd November, at Wisley Hut Hotel, near Cobham, on the Ripley road.

2. There is no entry fee or charge for motorists inspecting the new models or taking part in the rallies.

3. The 1915 models will be lined up apart from the cars of

those visiting the rallies.

those visiting the rallies.

4. After the rally at Hatfield cars will proceed via a set route to Burford Bridge, where the night will be spent previous to the rally next morning. Special week-end terms have been arranged with the Burford Bridge Hotel, dinner, bed, breakfast and lunch being provided for 9s.

5. Each 1915 model will bear a card clearly stating its name

and price as it stands.

6. Any driver who at any time during the rallies drives to the danger of the public, or otherwise makes himself a nuisance, will be prevented from taking part in any further rallies or competitions that may be held by the Cyclecar Club.

7. In case of dispute, all matters must be referred to the

hon. organizing secretary.

8. Certificates will be offered for the 1915 model with the best appearance, the most novel 1915 model, and the 1915 model which has come the farthest distance to the rallies. A committee has been appointed to award these prizes. Their names are Dr. A. M. Low, Mr. T. W. Loughborough (secretary A.-C.U.), and Mr. W. Cooper.

9. There is no limitation as to the number that may com-

pete in or attend the rallies, nor is there any limitation to the

number of machines of the same make taking part.

10. A driver can attend one or all of the rallies, though he will only qualify for certificates presented at the rallies

11. The space at the disposal of the Cyclecar Club is limited. and will only be reserved on advice being given immediately of the intention to participate in the rallies to the hon. organizing secretary.

12. Once the machines have been arranged in order, drivers are forbidden to move their cars until they have been allowed

to do so by the Committee of Inspection.

13. Those wishing to be present at the rallies of 1915 models must fill up the attached form and return at once to the hon.

must fill up the attached form and return at once to the hon. organizing secretary.

14. The Committee of Inspection will judge for the Appearance Certificate at Hatfield on Saturday, the 21st November; the Novelty Certificate at Burford Bridge on Sunday morning, the 22nd November; and the Long Distance Certificate at Wisley Hut on Sunday afternoon, the 22nd November.

Hon. organizing secretary, Mr. W. G. McMinnies, 7-15, Rosebery Avenue, London, E.C.

### A Concert at Burford Bridge.

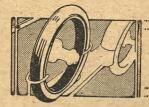
An impromptu concert is to be organized by the Acton and An impromptu concert is to be organized by the Acton and District M.C. and Cyclecar Club, on Saturday evening, 21st November, at Burford Bridge, at which any members or guests of the club are invited to be present. The concert will be held in conjunction with the Cyclecar Club, and both the organizers and the members of the Club will provide talent. It is advisable to book rooms at the Burford Bridge Hotel immediately if it is desired to spend Saturday evening, 21st November, there, accommodation being limited.



A FLIGHT OF FANCY.

Bill (to his mate on seeing two Territorial cyclists on a light car, and being evidently misled by their forage caps): "Members of the Flying Corps, I guess, and that be one of their balloons, too, on the side there.

A19



# THOUGHTS AND OPINIONS.

"The suggestions of to-day may be the realities of to-morrow."



# SIDECAR OR CYCLECAR?

Running Expenses of "Simple Type" Machines Compared.

Having just completed a year's running of a Morgan runabout sporting model the following account of running costs may interest your readers, especially those who are now motorcyclists and are chary of taking up the new motoring on account of the higher cost of upkeep.

During the 1912-13 season I ran a 2\frac{3}{4} h.p. lightweight motorcycle, but, being an all-weather motorist, decided to try a cyclecar on account of its greater safety and protection from the elements, and therefore purchased a Morgan second-hand. The following is a comparison of the actual cost of running:

	13	912	-13.	19	13-1	14.
				M	org	an
	24	h.	э.	run	abo	ut
	mo	otoi	r-	spo	orti	ng
	cy	ycle		me	ode	1.
	£	S.	d.	£	S.	d.
Garage, licence and insurance	2	10	0	6	13	0
Oil, benzole and carbide	4	8	11	10	19	6
Tyres		10		8	13	7
Renewals, repairs and spares	6	5	11	13	14	3
Depreciation (actual)	13	16	0	11	0	8
	-	_	-	-	-	
	£35	11	7	£51	1	0

 Mileage by speedometer
 ... 6000
 7000

 Running cost per mile
 ... 1.423d.
 1.75d.

 Benzole consumption
 ... 109 m.p.g.
 60 m.p.g.

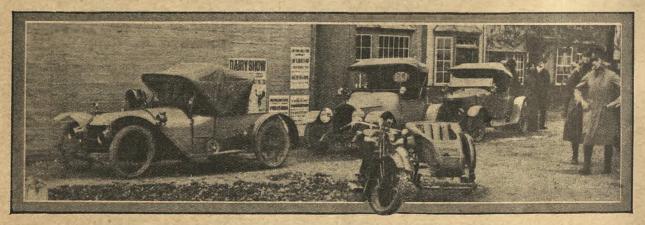
I think that the extra comfort of the Morgan is well worth the small increase in the cost of running, besides which one can carry a passenger and a considerable amount of luggage; in fact during the August Bank Holiday week I covered 1244 miles without a hitch, principally in the Lake District, which speaks volumes for the reliability of this marvellous little machine. Its hill-climbing powers are superb, and quite an eye-opener to many motorists used to high-powered cars.

I find benzole most satisfactory in practice, as it appears to be less sensitive than petrol, and, the spark advance lever of the Morgan being fixed on the dash, it is not necessary to alter this for hills when using benzole.

I got 4000 miles out of the 26 in. by 3 in. combination tyres fitted to the back wheel, but as I have indulged in long runs at speed this figure is capable of improvement.

I have no interest in the Morgan Co. Wishing you continued success. "Convert."

Twickenham.



Dr. Low's Adamson cyclecar and Nardini and Wilton light cars at Horley (M.C.C. run)

# The All-important Question of Weight.

With reference to the "Buyers' Guide" numbers which have been announced by the several motor journals, I should like to bring the factor of weight forward. As you have several times remarked in your columns, the tendency of the light car manufacturers of to-day seems to be to increase the weight of pleasure cars, which is not a desirable feature from the user's point of view. More weight means more expense in upkeep.

As I understand it, the idea of the light car movement is to endeavour to attain a minimum of weight with the maximum of power and comfort. This seems to me to be in danger of being overlooked, but it should seriously be considered by potential pur-

chasers. I contend that the makers of all light cars should show in their catalogue the approximate weight of the car complete. I think these details should be published in the "Buyers' Guide," so that a prospective purchaser would know exactly what he is going to get, and not be in the position of some people who have bought cars which have been quoted at 8 cwt. approximately, but which are actually about 12 cwt. or 14 cwt.

THE JOWETT MOTOR MANUFACTURING CO.
Bradford. ED. SHOTTON.

[More weight undoubtedly means an increase in running expenses, as we point out in our leading article this week. At the same time there is no means of preventing makers underestimating the weight of their cars in their announcements.—ED.]

# RELIABILITY OR RACINESS?

# Charge of Neglect of Vital Details Refuted by Cyclecar Enthusiast.

Permit me to draw your attention to some remarks upon cyclecars of Mr. H. Massac Buist in "The Observer" of 1st November. After stating that the firms that have produced "substantial and refined" machines have improved their products for next season he states:—

"Those that have been making the flimsier and cheaper sort, more particularly of cyclecars, have not improved the vital parts of the product, but are, instead, so developing the tin shells of these vehicles as to suggest by the streamline contours of the bodywork that types of armoured cars of the most solid sort are being offered for the money. It is time a note of warning was sounded, alike to the public and to the industry, concerning a tendency for a section of the industry to proceed in an entirely undesirable direction by studying only appearances and leaving vital matters in an undesirable state. These remarks particularly apply to sundry belt-driven types of light vehicles. There is no intrinsic reason why belt-driven cyclecars as satisfactory as motor-bicycles should not be evolved. But it seems an extraordinary thing that the majority of those who manufacture belt-driven machines are, instead, apparently concentrating their attention on catching the eye of the customer by the merest externals, leaving such vital matters as steering systems, and so forth, in the crudest conceivable state. By contrast, the firms making the more expensive and most successful classes of light cars on thoroughly sound engineering lines are troubling not at all about suggesting enormous speed possibilities by mere streamline bodywork and so forth, the reason being that these folk are conducting their businesses, not with the idea of catching chance trade as the result of a passing vogue, but by the excellent process of building up an ever-increasing reputation for embodying in the vital parts of their vehicles the stuff that is efficient and that will endure."

Is not Mr. Buist himself misled by what he sees in the way of illustrations in the technical journals? Has he ever made a close examination of a G.N., a Grand Prix Morgan, or a Buckingham, for instance, and seen how weil these machines steer and hold the road, and their superior speed compared with the average light car, in spite of their "streamline contours" which are

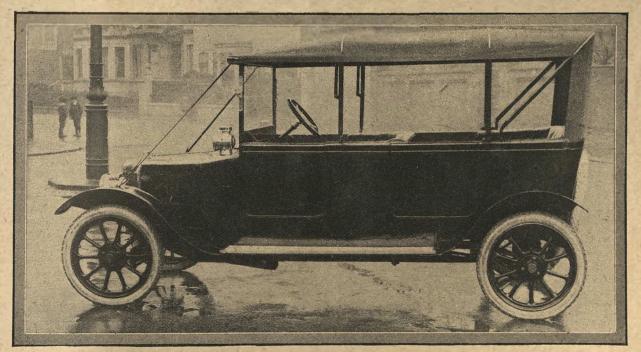
supposed to cover a multitude of sins. The fact of the matter is that Mr. Buist, used to the finest work of the motorcar manufacturer, cannot get down to the problem of the £100 three or four-wheeled passenger machine, every part of which, to be successful, has got to be designed afresh. We cannot have reliability in a cheap design of, say, rack and pinion steering, but we can have cheap and absolutely ideal steering with the ordinary bobbin and cable adopted by cyclecar manufacturers (and before them by the Rover Co.) when properly designed. The ease with which these cable-steered cyclecars answer the wheel, and the way they hold the road, are advantages this type of machine has over the light car, where steering failures in the past have been common.

The average light car is not a thing of great beauty, and there is undoubtedly room for improvement in the direction of "streamline contours." The cyclecars, on the other hand, or at least most of them, have not been so badly designed, bodywork constructed of sheet steel on complete members, without side doors. being easy and cheap to handle, capable of giving pleasing results, together with lightness. Half the charm of a cyclecar is its low weight, which makes it easy to handle, dispenses with the need for a reverse, which simplifies and cheapens construction, gives great mileage to the gallon (at least 60 m.p.g.), and speed on hills which is generally superior to most cars, long life to tyres, etc. A few months experience of a simple cyclecar built on the lines that Mr. Buist condemns would probably cause him to change his mind, especially if he could also find time to run a sidecar machine as well.

machine as well.

In conclusion, I would say that I hope sincerely that the light car trade will embody in "the vital parts of their vehicles the stuff that is efficient and will endure." It is time. I have seen a few bad smashes caused by faulty axles, steering breakages, gearbox and back axle trouble during the past twelvemonth.

London, S.W. "27,000 MILES."



The new four-seater Lagonda, which sells at 150 guineas complete.

## THOUGHTS AND OPINIONS (contd.).

The Advantages of the Horizontallyopposed Engine.

I would like to endorse Mr. J. W. Rhodes's praise of the horizontally-opposed engine (in his case that made by the Jowett Co.), for my recent experience with an experimental Douglas cyclecar has confirmed up to the hilt the soundness of my advocacy of this engine at my lecture on cyclecar design delivered before the Cyclecar Club.

The balance obtainable is superior to that of a fourcylinder engine, and in such small sizes the four is rather inaccessible, has necessarily about 60 moving parts, and more internal friction than the more

robust double-opposed engine.

The latter is cheaper to make, but why put it across the frame? In practice 10 per cent. is lost in the right angle drive, and this is a large proportion of the total transmission losses of 40 per cent. to over 50 per cent. common to first-class car practice.

At the above-mentioned lecture I also advocated the incorporation of the radiator as part of the engine, an arrangement conducive to real economy.

Penge Lane, S.E.

A. E. PARNACOTT.



A Singer light car that is doing 53 m.p.g. on benzole in a hilly district. (See letter below.)

## Fine Petrol Consumption Figures.

The photograph shows two nurses using a Singer light car at Penzance. Might I ask if it is very unusual for such a car to do 53 m.p.g. on benzole, while still retaining its power and acceleration

This, by the way, is on Cornish hills and not on long journeys, but includes a lot of stopping, running, standing, and general shifting about, sometimes with three people in the car. A. LIVINGSTONE ORE.

Penzance.

[The consumption, if properly measured, is extremely satisfactory, and, considering that it is obtained in a hilly district, must have necessitated considerable carburetter tuning. Will the writer give readers details of his experiments ?- ED. ]

The Green Engine.

In your issue of the 26th ult. you gave a description of the Green engine. Without in any way wishing to belittle the efforts of Messrs. Green and May I think it is only fair to mention that the idea of using a rubber seal for the water jackets was used by Messrs. Crossley Bros., of Manchester, for many years. Its object was to cope with the differences in expansion.

Frank Henderson.

Torquay. A22

## Reciprocity in the Motor Trade.

With the Continental markets practically closed to English trade, I think I am not far wrong in saying that English motor manufacturers will look to the Overseas Dominions for the trade that will carry them over hard times.

They must remember that the Dominions also have produce to sell, and, so far as this Colony is concerned, we are very far from a trade boom at present, with our rubber market closed and the tea trade affected.

Imperial reciprocity should now become more than a political phrase. Let English tyre manufacturers insist on buying English-grown plantation rubber, and they will be giving prosperity to an English trade in an English colony.

Can we be certain that South American Para is not

produced and sold by an alien enemy?

I think a well-known tyre manufacturing company experimented with tyres made of plantation rubber, and I believe the experiments were satisfactory.

It is all very well to say buy English cars in preference to American; our retort is, buy English-grown rubber in preference to South American, and then we rubber in preference to sold shall be able to buy English cars.
"Rubber Planter."

### A Morris-Oxford in the Antipodes.

Last December I came across your journal, and, after careful perusal, chose a Morris-Oxford light car, and cabled for a 1914 model de luxe. I ordered it on the 20th January, the chassis arrived here on 30th April, and the body was completed on the 28th June. Since then I have done just on 1600 miles and have

never had the slightest trouble in any way.

I averaged 35 miles to the gallon in flat country and 30 m.p.g. amongst the hills. I have tested it well over the worst roads I could find, and beyond two punctures the machine has not given me a moment's trouble. The White and Poppe engine, when I start it up, is so silent in its running that my light car friends

say nothing, but stand around with open mouths.

The only adjustment I found necessary was to give the carburetter two extra holes in the air inlet, namely, from one to three. I suppose the difference in our atmosphere accounts for this. It is certain that in the summer it will take more extra air.

Several other makes of light cars here crumple up on our roads, being brought home to local garages principally with bent front axles, others with sagged chassis, and lots of other troubles. I am writing this letter to you so that I may express my gratitude to your paper, as through its columns I have been able to get that which has given me greater pleasure than I have had for three times the cost in the past. There are, or will be, seven Morris-Oxfords on the roads here before this reaches you.

There is a great future for the light car here, as we have many thousands of miles of roads on which one can average 25 miles per hour, also I have not found a hill I could not climb on second gear.

Victoria, Australia. A. P. GILLINDERS.

#### Switching Off the Tail Light.

I should like to call your readers' attention to a strange occurrence I noticed whilst returning from Maidstone to London the other night. I was passed by a light car, the headlights of which were very noticeable. On passing through villages I noticed that the headlights were switched off and the side lights switched on. This happened several times, but whether it was a coincidence or not I do not know. The tail light went out as well, and remained so for quite a long distance, being apparently switched on to pass through villages.

The performance was interesting, but whether it was done intentionally or not I do not know. H.J.F. London.



# After 5923 and 9238 miles.

These reproductions are from untouched photographs kindly sent in by Mr. H. Bradley, of Leeds, who, up to the moment of writing, had obtained 9,238 miles from the Palmers on the front wheels of his Morgan, and 5,923 miles from the back tyre.

He goes on to say "The tyres (26 x 3 in.) seem goodenough for another 10,000 miles."

This is quite unsolicited testimony to the outstanding durability of



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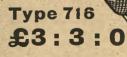
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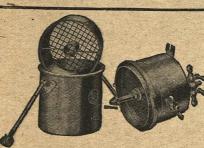
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A.-C. Sociable, 1912, 1913 engine in absolutely new condition, double ignition, hood, screen, four lamps, front brakes, luggage carrier, fans, spares, £35, trial run at Gerrard's Cross, Bucks. Simon, 11 Maddox Street, W. Telephone, No. 287 Mayfair.

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Trade 103-554

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H1rrods, Ltd., Brompton Road, S.W.

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#### LIGHT CARS AND CYCLECARS FOR SALE (continued).

A.-C. light car, latest model, 10 and 12 h.p., for immediate delivery from stock, demonstration cars always available. Apply, Mitchell's Garage (authorized London agents), 114 Wardour Street, W. Trade zzz-177

A.-C., latest model, 10 h.p., deposit £35 secures. balance 12
monthly payments £11 19s. 2d. Other terms considered.
Exchanges entertained. Service Co., 292 High Holton.

Trade zzz-338 A.-C. 10 h.p. light car, new, not run 50 miles, being disposed A.C. 10 h.p. light car, new, not run 50 miles, being disposed of owing to war, complete with horn, lamps, spare wheel, tools, spare parts, £159. Can be seen at Acton or in Central London, and trial given any time, appointment. Box No. 4206, care of "The Light Car and Cyclecar." zzz.367 A.-C., four-cylinder, 10 h.p., used only as a demonstration car, thoroughly overhauled and absolutely as good as new, usual price £1/5, special figure £150 or £37 10s. deposit and 12 monthly instalments of £10. Colmore Depot, 49 John Bright Street, Birmingham.

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Trade zzz-563 ALLDAYS Midget, brand new, 1914, four-cylinder, list £175, accept £145. P. J. Evans, John Bright Street, Birmingham.

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AUTO-CARRIER, 6 h.p. Warwick, in good running order, does 40 m.p.g., box body, 4 ft. by 3 ft. by 2 ft. 6 ins., in good condition, tyres practically new, car at present in service, good reason for selling. Dickins and Jones, Ltd., Regent Street, W. Street, W. AUTOCRAT, the prettiest little car on the road; don't fail to see it; early delivery. T. G. Hall, Barton Street, Gloucester.

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AUTOCRAT. Have you seen it? If not, give us a call. We are agents for the Northumberland and Durham; latest models on view; 160 guineas. E.G.S. Co., Pudding Chase, Newcastle-on-Tyne. on-Tyne.

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BABY PEUGEOT, 1914, 6 h.p., very little used, price £120.
Waters and Sons, 80 Pentonville Road.

BEDELIA, 8-10 h.p., late 1912, perfect order, condition as new, photo. and particulars exchange motorcycle, £39 10s. or nearest. Abergele Motor Co., Abergele, N.W. Trade 104-h149
BUCKINGHAM, 1914, 10-12 h.p., 90 degrees, two-cylinder water-cooled, sporting model, with special racing engine, guaranteed 65 m.p.h., two-seater aluminium body, headlamp and generator, three oil lamps, 75 m.p.h. speedometer, mechanical horn, tools, etc., 700 by 80 tyres, cost £150, accept 105 guineas. Cass's, The Light Car and Cyclecar Specialists, 5 Warren Street, Euston Road, W. 'Phone, Museum 623.

Trade 103-522

Trade 103-522 BUCKINGHAM, 8 h.p., single-cylinder, water-cooled, slightly showroom soiled only, one year guarantee, £75 cash. 31 Vauxhall Bridge Road, Victoria, S.W. Trade 103-544 BUCKINGHAM, twin, 1914, hood, screen, Palmer tyres, a special demonstration car, 56 m.p.h., 40 m.p.g., better than standard cars, specially good acceleration, newly painted and varnished, in A1 condition, six months guarantee, £90 cash. 31 Vauxhall Bridge Road, Victoria, S.W. Trade 103-545 CALCOTTS, from stock, on deferred terms; write for Buyers' Guide. Harrods, Ltd., Brompton Road, S.W. Trade zzz-617 CALCOTT cars. Watkins and Doncaster, Ltd., The Hall, 95 Great Portland Street, authorized retail and sole wholesale agents for London and the Home Counties. Telephone, 6565-6 Mayfair. Trade zzz-345 CALCOTT, 1915 models, now in stock, immediate delivery. BUCKINGHAM, 8 h.p., single-cylinder, water-cooled, slightly

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#### LIGHT CARS AND CYCLECARS FOR SALE (continued).

CALTHORPE Minor light cars, a few shop-soiled models to be cleared at end-of-season prices, send for particulars. Sole London agent, R. D. Storey, 118 Gt. Portland Street, W.

Trade 111-116 CALTHORPE Minor coupe, 1914, electric light, clock, etc., not done 100 miles, as new, £75 down and balance in 12 monthly payments of £7; motorcycle or light car taken in part payment. Julian, Broad Street, Reading. Biggest dealer in the South; 43 years reputation. Trade zzz.457 CALTHORPE MINORS. Call and inspect the 1915 models now on view in my showrooms or send for catalogue. Light delivery vans, 160 guineas; two-seater, 170 guineas; two-seater and dickey, 180 guineas; four-seater, 190 guineas; doctor's coupe, 200 guineas; having contracted for 200 of these popular light cars guarantee earliest possible delivery; sole selling agent for London, Kent, Surrey, and Sussex; a few sub agents required. R. D. Storey, 118 Great Portland Street, W Trade 111-115 CALTHORPE, 1914, 10 h.p., new June, dickey seat, hood, screen, five lamps, spare wheel and tyre, tools, etc., excellent condition, £127 10s. G. N. Higgs, 31 Vauxhall Bridge Road, Victoria, S.W.

Trade 103-549 CALTHORPE Minor, brand new, 1914, ready for the road, list £168, accept £145. P. J. Evans, John Bright Street, Birmingham. Trade 103-529 CARDEN, November, 1913, 33 h.p., Precision engine, chain drive, Albion clutch, U.H. magneto, finished green, lamps, horn, tools, complete, splendid order, trial, £32. Lofting, 300 Earlsfield Road, London, S.W. Earlsfield Road, London, S.W. CHATER LEA, 8-10 h.p., four-cylinder, delivered from makers May this year, owner buying higher power car offers. for sale the above, special body to carry three abreast, been carefully used by owner only and guaranteed in perfect running order, only recently been painted for first time, fawn, five lamps, including three electric, spare back wheel with new tyre, Stepney with steel-studded tyre, speedometer, vision glass, all tools, new felt mat specially made fit car. This splendid turnout has cost owner over £200 and first serious offer near this will be accepted as higher power car wanted shortly. Can be seen and tried by appointment by applying to Burnham Lodge, Maidstone Road, Southgate, London N. CHOTA, 6-8 h.p. Buckingham engine, two speeds, leather cone clutch, screen, hood, etc., almost new, any trial, £50. Care of Offord's, 67 George Street, Portman Square, W.

Trade zzz-341 DEEMSTER light car, only been 100 miles, delivered in October, five Sankey detachable wheels, hood, screen, and lamps, bargain, £130. 23 Albert Road, Luton. 103-h155 DEEMSTER 1914 light car, four cylinders, three speeds and reverse, Sankey wheels, hood, screen, lamps, cost £195, bargain £110, motorcycle part. Smith, 45 Wherstead Road, Ipswich.

DE P., 10 h.p., complete equipment, just arrived 130 guineas. Cash, exchanges or extended payments. Service Co., 292 High Holborn.

DOUGLAS light car, 9.6 h.p., water-cooled, three-speed and reverse, two-seater, sporting body, painted, upholstered red, C.A.V. dynamo lighting set, lamps, horn, speedometer, fast, climb anything, 100 guineas, trial run arranged. Gibb, 103-h152 Worcester Street, Gloucester.

D-ULTRA (bevord everything), 1915 models, the light car with the perfect drive, no noisy gearwheels, no messy belts, 8 h.p., water-cooled, four speeds, reverse, underslung, neat streamline body, domed wings, hood, windscreen, lamps, etc., complete, £110, detachable wheels no extra; agents, your chance; art catalogue by return. D-Ultra, Charlotte Place, North Street, Clapham. One shop-soiled D-Ultra demonstration car, been 1000 miles, £70. Trade 103-h124 demonstration car, been 1000 miles, £70. ENFIELD Autolette, twin, water-cooled, November, 1913, three speeds, reverse, hood, screen, speedometer, Bowden air inlet, five lamps, generator, Avons (700 by 75), thoroughly overhauled, £85 or near offer. Rector, Outwood, Redhill.

103-b163 ENFIELD Autolette, repainted and renovated, completely overhauled, bargain £95; cash or deferred payments. Colmore Depot, 49 John Bright Street, Birmingham.

Trade 103-553

#### LIGHT CARS AND CYCLECARS FOR SALE (continued).

ENFIELD, four-cylinder, 10 h.p., victoria body, dark green, three gears, full equipment, £175, or £40 deposit, and the balance by monthly instalments of £10. Colmore Depot, 49 balance by monthly instalments of £10. Colmore Depot, 49 John Bright Street, Birmingham.

Trade 103-555 GLOBE, 10 h.p., 1913, two-speed and reverse, fitted with smart coupe body, painted blue and black, upholstered Bedford cord, five lamps and generator, horn, Stepney whese and tyre, speedometer and tools, etc., cost £220, £100. Cass's, The Light Car and Cyclecar Specialists, 5 Warren Street, Euston Road, W. 'Phone, Museum 623.

Trade 103-520 GORDON, 1914, water-cooled, complete with hood, screen, lamps, detachable spare wheel, actual Six Days Trial car, £100; two air-cooled models, £80 and £75, all in perfect order; the cars that do 53.98 m.p.h. Gordon Armstrong, Beverley.

Trade 2zz-232 Trade zzz-232 G.W.K.s from stock, on deferred terms; write for Buyers' Guide. Harrods, Ltd., Brompton Road, S.W. Trade zzz-614 G.W.K. light cars, always in stock for immediate delivery. Stewart and Ardern, 18 Woodstock Street (off Oxford Street), Bond Street, London, W. Trade 111-f37 G.W.K., 1914, just repainted and upholstered, and thoroughly overhauled, really first-class, £115. The Uxbridge Motor Co., Ltd., 101 High Street, Uxbridge. 'Phone, 184 Uxbridge. Trade 104-389

G.W.K., 1913, good condition, in good order throughout, £95.
The Uxbridge Motor Co., Ltd., 101 High Street, Uxbridge.
'Phone, 184 Uxbridge.
Trade 104-390 'Phone, 184 Uxbridge.
G.W.K., 1913, recently repainted and upholstered, and thoroughly overhauled, 100 guineas.
Ltd., 101 High Street, Uxbridge.

Trade 104-350

'Phone, 184 Uxbridge Motor Co.,
'Phone, 184 Uxbridge.

Trade 104-391

G.W.K., 1913 model, engine recently overhauled, hood, screen, spares, and tools, oversize tyres on back wheels, £70 cash. C. B. Bell, 16 Breakespears Road, Brockley, London, 1975. G.W.K., 1914, fitted with speedometer, lamps, hood, screen, tools, jack, etc., in nice condition, any severe trial, given, 100 guineas; motorcycle or motorcycle and sidecar taken in exchange. Seen, Wauchope's, 9 Shoe Lane, London, E.C.

G.W.K., immediate delivery of 1915 models. Sole district agents, The Exeter Motor Cycle and Light Car Co., Ltd., 1 Bath Road, Exeter, and 28 Tavistock Road, Plymouth.

Trade 103-561 Trade 103-507

G.W.K., de luxe, 1914, 8 h.p., two-cylinder, water-cooled, four speeds and reverse, five quick detachable wheels, 650 by 65 Michelin tyres, five lamps, generator, horn, speedometer and tools, fitted three-seater body, upholstered blue, painted grey, run only 29 miles. Cass's, The Light Car and Cyclecar Specialists. 5 Warren Street, Euston Road, W. 'Phone, Museum 623. C.W.K., two-seater, fitted with hood, screen, Stepney, head, side and tail lamps, just overhauled, in beautiful condition, £70. Smith and Francis, 22 Panton Street, Haymarket.

Trade 103-539

Trade 103-539
G.W.K., 1914, new, £125, catalogue price £150. Eyles and
Eyles, St. Aldates, Oxford.
G.W.K., 1913, painted grey, hood, screen, five lamps, speedoneter, Stepney, free trial, £85. Plastow, Grimsby.

Trade 103-543
HILLMAN, 1914, guaranteed new, shop-soiled, £180. Smith
and Francis, 22 Panton Street, Haymarket. Trade 103-538
HILLMAN, 1914, light car, hood, screen, five lamps, spare
wheel and tyre, etc., £150 cash. G. N. Higgs, 31 Vauxhall
Bridge Road, Victoria, S.W. Trade 103-548
HUMBERETTES, from stock, on deferred terms; writerfor
Buyers' Guide. Harrods, Ltd., Brompton Road, S.W.

Trade zzz.611

Trade zzz-611 HUMBERETTE, 1913, in perfect order, done small mileage, painted primrose, tyres good. acetylene lamps, hood, screen, special undershield, price £70, bargain. Richardson, 177, 1017 wood, Darlington. HUMBERETTE, 1914, fully equipped, slightly shop-soiled, £25 down, 12 monthly payments of £7; discount for cash. Service Co., 292 High Holborn. Trade 104-499 HUMBERETTE, 1914, water-cooled, fully equipped, extra large headlights, speedometer, tyres almost perfect. spare cover and tube, perfect running order, owner must sell, not done 2500 miles, £90. Apply, Captain Normand, care of Henshaw Travis, 16 Vauxhall Road, Livecpool. 103-g356

# LIGHT CARS AND CYCLECARS FOR SALE (continued).

HUMBERETTE, 1914, water-cooled, with dickey, almost new, nearest offer to £100. Alfred Wastnage, Portland Court Garage, Great Portland Street, W.

HUMBERETTE, 1913, thoroughly overhauled and repainted, hood, screen, four lamps, speedometer, bargain, £65. R. D.

Storey, 118 Great Portland Street, W.

Trade 103-h61

HUMBERETTE, great bargain, chocolate, new June last, run about 250 miles, driven by lady, 84 guineas. 41 St.

John's Wood Road, N.W.

103-h109

HUMBERETTE, December, 1913, air-cooled, elaborately equipped, unscratched, £90, Douglas or Triumph part, colour chocolate. 11 Lesley Road, Southport.

HUMBERETTE, 6 h.p., w.-c., new Bosch magneto, three speeds and reverse, running order, sacrifice £15. Abergele Motor Co., Abergele, N.W.

Trade 104-h150

HUMBERETTE, air-cooled, excellent condition throughout, owner gone to the Front, £67 10s. Samson and Veal, 12

Woodstock Street, Oxford Street. Mayfair 6826.

Trade zzz-412

HUMBERETTE, 8 h.p., 1913 model, a sound and reliable second-hand machine, excellent in appearance, complete with hood, screen, lamps, tools, £67 10s., unprecedented bargain. Wauchope's, 9 Shoe Lane, Fleet Street, London.

HUMBERETTE, 1914 model, water-cooled engine, three speeds and reverse, two new spare covers, any severe trial given, machine in specially good condition, inspection cordially invited, £97 10s.; motorcycle or motorcycle and sidecar accepted in part payment. Wauchope's, 9 Shoe Lane, Fleet Street, London.

Trade 103-506
HUMBERETTE, 1913, 8 h.p., two-cylinder, air-cooled, three-speed and reverse, two-seater body, painted green and upholstered to match, two lamps and generators, tail lamps, hood and screen. Stepney wheel and tyre, in excellent condition, £70. Cass's, The Light Car and Cyclecar Specialists, 5 Warren Street, Euston Road, W. 'Phone, Museum 623.

Trade 103-524

HUMBERETTE, painted light grey, a very fine car, in good condition throughout, Stepney, with new tyre, hood, screen, speedometer, electric head, tail and dash lamps, three oil lamps, tools, mats, etc., recently overhauled, £73. 31 Vauxhall Bridge Road, Victoria, S.W. Trade 103-524

HUMBERETTE, 1913, perfect running order, 58 guineas, very great bargain. Julian, Broad Street, Reading. Biggest dealer in the South; 43 years reputation. Trade zzz.456

IMP cyclecar, 1914 model, almost new, cost £98, hood, screen, etc., complete, exceptional bargain, £49. Beardwood, Portman House, East Sheen, S.W. 'Phone, Richmond 1179.

Trade 103-512

Trade 103-512
LAGONDA, 11 h.p., coupé, detachable wheels, fully equipped, £150; also one demonstration model, many extras, £127 10s. Taylor, Ltd., 21a Store Street, W.C.
Trade zzz-919
LAGONDA, 1914, 10 h.p., four-cylinder, three-speed and reverse, gate change, fitted with coupe body, painted green and upholstered to match, five quick-detachable wheels and tyres, five lamps and generator, clock and mirror, in excellent condition, the very thing for the winter, £115. Cass's, The Car and Light Car Specialists, 5 Warren Street, Euston Road, W. 'Phone, Museum 623.

LAGONDA, 1915, 10 h.p., four-cylinder, three-speed and reverse, coupe body, five Sankey wheels, tyres 700 by 80, five lamps and generator, for immediate delivery, £150. Cass's, The Light Car and Cyclecar Specialists, 5 Warren Street, Euston Road, W. 'Phone, Museum 623.

Trade 103-519
MORGAN Grand Prix monocar, 90 bore, air-cooled twin J.A.P. engine, all tyres in splendid condition, 700 by 80 covers, painted white and black, guaranteed to lap Brooklands at 50 m.p.h., two headlamps and generator, offers. Box No. 4204, care of "The Light Car and Cyclecar." zzz-166
MORGAN, 1914, Grand Prix, finished in yellow, winner of certificate in General Efficiency Trial, £90. The Uxbridge Motor Co., Ltd., 101 High Street, Uxbridge. 'Phone, 184 Uxbridge.

MORGAN, 1912½, property of officer in France, excellent running order, good condition, recently overhauled, Harrod's body, roomy, upholstered seats, hood, screen, lamps, speedometer, 1914 B. and B. carburetter, good tyres, cost £120, accept £65. Mrs. Barnes, The Cedars, Hartley Wintney.

# LIGHT CARS AND CYCLECARS FOR SALE (continued).

MORGAN, 1913 standard, £65. The Uxbridge Motor Co., Ltd., 101 High Street, Uxbridge. 'Phone, 184 Uxbridge. Trade 104-394 MORGAN, 1913, grey, sporting, recently overhauled, repainted, reupholstered, complete lamps, Watford, hood, screen, perfect nearest £75; trial by appointment. Williamson, Cromwell House, Twickenham. 103-g352 MORGAN, 1913, sporting, £70. The Uxbridge Motor Co., Ltd., 101 High Street, Uxbridge. 'Phone, 184 Uxbridge.

MORGAN, 1914, sporting body, good as new, special large tyres all round, hood, screen, lamps, horn, gong, spares, tools, and jack, cost £108 10s., bargain, 80 guineas or near offer. Box No. 4476, care of "The Light Car and Cyclecar."

MORGANS, MORGANS. Buy of the agent who studies your interests, driving lessons and running repairs free for three months, repairs, spare parts. Boddington, Worcester.

Trade 103-h136 MORGAN Grand Prix, run 3500 miles, marcon, new 85 tyres all round, two spare tubes and covers, two four-guinea head-lamps, three-guinea generator, electric tail lamp, lapped Brooklands 57, cost £150, £90 or near offer. Waley, Ramillies Barracks, Aldershot. 103-h137 MORGAN, 1913, smart, side flaps, fast, wonderful climber, excellent condition, four electric and acetylene lamps, accessories, Klaxon, two new tyres, bargain, 65 guineas, motorcycle taken part payment. Wright, Radcliffe Road, Croydon. 103-h143

MORGAN, late 1913 sporting, inside gear change, hood, screen, acetylene head, electric side and rear lamps, 3 in. front, 85 mm. Kempshall back, speedometer, £65. Stacey, 2a Replingham Road, Southfields, S.W. 103-h146 MORGAN, 8 h.p., 1913 model, complete with hood and screen, acetylene side and tail lamps, excellent order and condition, £55. Maudes, 136 Great Portland Street, London, W.

Trade 103-h154
MORGANS, 1915. Potter, Leicester Grove, Blackman Lane,
Leeds. Tel., 4046. Immediate delivery 1915 Morgans, sporting and Grand Prix in stock here; inquiry and inspection
invited.

MORGAN, 8 h.p., 1915, standard model, fitted with speedometer, lamps. hooter, hood and screen, complete, a bargain at
£57 10s. Wauchopes, 9 Shoe Lane, Fleet Street, London.

Trade 103-h154

MORGAN, 1915 models, delivery seven days. Write for catalogue to Cass's Motor Mart. The Light Car and Cyclecar Specialists, 5 Warren Street, Euston Road, W. 'Phone, Museum 625. Trade 103-525 MORGAN, special de luxe, Harrod's body, complete, all accessories, excellent condition, £65. P. J. Evans, John Bright Street, Birmingham. Trade 103-531 MORGAN, 1913, standard, hood (new Pluviusine leather), screen, two P. and H. headlights and generator, tail lamp, Cowey speedometer, good tyres, recently overhauled, revarnished and re-upholstered, £70; open to close offer. G. N. Higgs, 31 Vauxhall Bridge Road, Victoria, S.W.

MORGANS, immediate delivery of 1915 models, sole agents for Devon, from 85 guineas. The Exeter Motor Cycle and Light Car Co., Ltd., 7 Bath Road, Exeter, and 28 Tavistock Road, Plymouth.

Trade 103-560
MORRIS-OXFORD. For quick deliveries write to H. W. Cranham, Wholesale and Retail Agent, 221 Deansgate. Manchester.

Trade 112-583
MORRIS-OXFORD light cars, always in stock for immediate delivery. Stewart and Ardern, 18 Woodstock Street (off Oxford Street), London, W.

Trade 111-636
MORRIS-OXFORD, 1914 model, cabriolet de luxe, built specially to connoisseur's requirements, C.A.V. electric lighting outfit, two-seater, can seat three, in perfect order, only used for town work, ideal for doctor, can be seen in London, and trial run given at any time, cost £270 in April. Box No. 4343, care of "The Light Car and Cyclecar."

MORRIS-OXFORD, 10 h.p., special body, dickey seat, de luxe finish, detachable wheels and spare, hood, screen, shock absorbers, extra air, speedometer, etc., cost £215, take £160, new condition. Williamson, 41 Fernbank Road, Redland, Bristol.

# LIGHT CARS AND CYCLECARS FOR SALE (continued).

MORRIS-OXFORD, sole agents for Surrey and parts of Sussex and Hampshire, the quality light car, best delivery dates, free tuition, etc. The Haslemere Motor Co., Ltd., Haslemere. 'Phone, 43. Trade zzz-261 MORRIS-OXFORD, immediate delivery, popular model 165 guineas. The Exeter Motor Cycle and Light Car Co., Ltd., 7 Bath Road, Exeter, and 28 Tavistock Road, Plymouth.

MORRIS OXFORD, model de luxe, latest 1914 model, hardly used, just as new, £175. Watkins and Doncaster, The Hall, 95 Great Portland Street, W. Trade 103-558 PERRY, 1915, four-cylinder, 11.9 h.p., Lucas electric lighting set, 200 guineas, immediate delivery, cash or easy terms. Campion Depot, Moor, Sheffield. Trade 139-689 PERRY light cars, trial runs arranged; also Humberette, Morgan, and Marlborough. Turpins, 22 and 29 Preston Road, Brighton. Trade 125-f556 PERRY, complete, with lamps, horn, spare wheel and tyre, slightly shop soiled, £50 down and balance in 12 monthly instalments of £8; wonderful bargain. Julian, Broad Street, Reading, biggest dealer in the south, 43 years reputation.

PERRY, 1915, 12 h.p., four-cylinder, three-speed and reverse, gate change, two-seater body, hood, screen and dynamo lighting outfit, five lamps, £210, delivery 10 days. Cass's, The Light Car and Cyclecar Specialists, 5 Warren Street, Euston Road, W. 'Phone, Museum 623.

Trade 103-516 PERRY, 1914, 9 h.p., two-cylinder, water-cooled, three-speed and reverse, two-seater body, painted and upholstered green, hood, screen, five lamps and tools, five Sankey wheels and tyres, clock, mirror, in splendid condition, £115. Cass's, The tyres, clock, mirror, in splendid condition, £115. Cass s, The Light Car and Cyclecar Specialists, 5 Warren Street, Euston Road, W. 'Phone, Museum 623. Trade 103-517 PERRY, 1915, four-cylinder model, all on immediate delivery, 190 guineas; four-seater, 200 guineas; lighting set, 10 guineas; Birmingham and district agent. P. J. Evans, John Bright Street, Birmingham. PERRY, 1915, four-cylinder, two-seater, dynamo lighting, 200 guineas. Yorkshire agents. Central Garage, Ltd., Guildford Trade 104-557 PERRY, 1915, delivery next week of 11.9 four-cylinder model, with electric lighting set and dickey seat, price 205 guineas, motorcycle or light car taken in part exchange. Julian, Broad Street, Reading. Biggest dealer in the South. 45 years Trade zzz-564 PERRY, 1914, complete with hood, screen, lamps, horn, four grooved Dunlop and one plain Dunlop tyres, not done 200 miles, customer buying larger car, offered at 120 guineas, cost over £150, one of the best bargains on the market. Julian, Broad Street, Reading. Biggest dealer in the South. 43 years Trade zzz-565 reputation. reputation.

PREMIER cyclecar, 1913, hoods, screen, five lamps, tools, tyres and coachwork good, perfect running order, bargain, £63, or exchange for motorcycle and cash. Box No. 4461, care of "The Light Car and Cyclecar." 103-h128

RANGER, 1914, fully equipped, just delivered, £23 down, 12 monthly payments of £7 17s. 2d. Service Co., 292 High Holborn.

Trade zzz-505

Toda zzz-505

PREMIER cyclecar, five lamps, tools, sorting years, tools, sorting years, years, years born.

Trade zzz-540

ROLLO, 1913, streamline body, side-hy-side seating, very low,
J.A.P., 8-10, Bosch, Shefko bearings, good tyres, lamp, horn,
tools, upholstered red, French grey, cost £100, trial run. £40.

G. B. Hamel, Bole Hall, Tamworth.

103-h151

ROLLO, late 1913, special sociable two-seater, torpedo body,
8 h.p. J.A.P. engine, variable gear, complete, hood, screen,
lamps, handsome little car, very economical, cost £115, bargain, £55, offer, photo and particulars sent.

Joynes, 20

Chaucer Street, Leicester.

103-h162 SABELLA tandem, 8-10, J.A.P., large 8 in. variable pulleys, 1's in. new Service belts, glass screen, lamps, and all parts plated, fast, and perfect in every detail will guarantee. any trial, must sell, offers wanted. H. A., 55 Wetherell Road.

trial, must sell, offers wanted. H. A., 55 Wetherell Road, South Hackney, N.E. 103-h135 SABELLA, latest water-cooled cyclecar, 8-10, J.A.P., magneto, hood, screen, beauty, any trial, £45, easy terms. 1 Ebner Street, Wandsworth. Trade 103-h70 SAXON, 10 h.p., for sale, nearly new, £90 or near offer. Recce Garage, Reece Mews, Sussex Place, South Kensington. S.W. 'Phone, Ken. 6294. Trade 103-443

SINGERS, from stock, on deferred terms; write for Buyers' Guide. Harrods, Ltd., Brompton Road, S.W. Trade zzz-612

TO THE

READER

# LIGHT CARS AND CYCLECARS FOR SALE (continued).

SAXON! SAXON!! SAXON!!! The super-excellent light car, 10 h.p., four-cylinder, two-seater, complete, 100 guineas Communicate with the pioneer agents, Western Motor Works, Chislehurst, Kent. 103-554
SINGER, 1914 dynamo lighting set, purchased June, not done 3000, special dickey seat, clock, speedometer, electric horn, new condition throughout, owner giving up, cost £220, price £165. 63 Poppleton Road, Leytonstone, N.E. 103-h161
SINGER light car, 1915 model, with dynamo lighting set, hood, screen, horn, suède grey, upholstered brown leather, new type body, very luxurious car, complete with dickey seat, 200 guineas, motorcycle or light car taken in part exchange, easy terms arranged. Julian, Broad Street, Reading. Biggest dealer in the South. 43 years reputation. Trade zzz-567
SINGER, 10 h.p. coupe, painted reddish-brown, picked blick, recently overhauled and repainted, upholstered Bedford cord, spare wheel and tyre, speedometer, five lamps, inside lights, sundry interior fittings, tools, etc., as good as new, cost £260, accept £175. G. N. Higgs, 31 Vauxhall Bridge Road, Victoria, S. W.

Trade 103-550
STANDARD, 9.5, new April, owner driven, dynamo lighting set, electric horn, speedometer, clock, mats, perfect condition, any trial, cost £220, £170, no offers. Box No. 4478, care of "The Light Car and Cyclecar."

104-h131
STANDARDS, 1915, early deliveries, exchanges entertained. Bradshaw's, The Motor House, Preston. Tel., 988.

Trade 105-h116 STANDARD, 1914, 9.5, nearly new, complete with all accessories, dickey seat, clock, speedometer, spare wheel, non-skid heavy tyres. cost £210 July, bargain at £140 or nearest offer. Box No. 4474, care of "The Light Car and Cyclecar."

STANDARD, 9.5, two-seater, 1914 model, as new, £150. Alfred Wastnage, Portland Court Garage, Great Portland Street, W.

Trade 105-h3
STANDARD, 1915 model, complete with dickey seat, electric lighting set and self-starter; write for full particulars and price of this magnificent little car; motorcycle or light car taken in part exchange; easy terms arranged. Julian, Broad Street, Reading. Biggest dealer in the South, 43 years reputation.

Trade zzz.566
STANDARD, 1914, 10 h.p., four-cylinder, three-speed and reverse, gate change, two-seater body, with dickey, hood, and screen painted biscuit, upholstered green, five Sankey wheels and tyres, 700 by 80, five lamps and generator, horn and speedometer, run 2500 miles, cost £205, accept £155. Cass's, The Light Car and Cyclecar Specialists, 5 Warren Street, Euston Road, W. 'Phone, Museum 623. Trade 103-526 SWIFT, cost £155, speedometer, clock, spare tyre, tubes, hood, curtains, accessories, £105. Hastie, 98 Wimpole Street.

SWIFT 1914 light car, only used but little and carefully, mechanically sound throughout, complete with all lamps, hood, screen, £1.10, or exchange. Wauchope's, 9 Shoe Lane, Fleet Street, London.

SWIFT. 1915, 10 h.p., four-cylinder, three-speed and reverse, gate change, two-seater body, hood, screen, Rotax dynamo lighting outfit, five lamps, five Sankey 700 by 80 wheels and tyres, delivery two weeks, £200. Cass's, The Car and Light Car Specialists, 5 Warren Street, Euston Road, W. 'Phone, Museum 625.

Trade 103-521

SWIFT, 10 h.p., four-cylinder, late 1913, two-seater, fully equipped, and in new condition, great bargain, £150. Smith and Francis, 22 Panton Street, Haymarket.

Trade 103-540

SWIFT, 1913, 8 h.p., three speeds, complete, hood, screen, lamps, and horn, good tyres, excellent condition, £85. P. J. Evans, John Bright Street, Birmingham.

Trade 103-527

TRIUMPH, 1914, 4 h.p., and sidecar, speedometer, lamps, many spares, cost £85 in July, for Swift or Singer cyclecar, cash adjustment. 9 Wellesley Gardens, Ilford.

TWEENIE, two-seater, four cylinders, light car, complete hood, screen, electric side and tail lamps, very smart and fast, £115, cost £160 four months ago, real bargain. Apply 247 Vauxhall Bridge Road. 'Phone, 5486 Victoria. 103-g389 VICTOR cyclecar, 1914, brand new, 8 h.p., two-speed and reverse, water-cooled, £105. The Exeter Motor Cycle and Light Car Co., Ltd., 7 Bath Road, Exeter, and 23 Tavistock Road, Plymouth.

Trade 103-559

WALL, 8 h.p., twin-cylinder, light delivery tricar, hardly used, bargain at £62, photo. Jenkin, Watering, St. Austell. 103-h125

#### MISCELLANEOUS LIGHT CARS AND CYCLECARS.

BRIGHTON. Perry, Humberette, Morgan, Marlborough. Trial runs given. Easy terms arranged. Turpin, 22 and 29 Preston Road. Trade 114-842 BARG AINS in Morgans, G.W.K.s and other cyclecars and light cars at Spencer's Garage, Uxbridge.

Trade 132-36 TWO monocars, ready for the road, one new 6 h.p., special finish, £50; one 8 h.p. J.A.P. engined monocar, done 600 miles, £50, in splendid running order, a great bargain. Cumbria Motor Works, Cockermouth. Trade 103-h107 SEVERAL good second-hand light cars to be cleared cheap. Bradshaw's, The Motor House, Preston. Tel., 988.

Trade 105-h117

A.-C. Sociable, £39 10s.; 8-10 twin Bedelia, £39 10s.; 8 h.p. Sabella-J.A.P., £49 10s.; cash offers or exchange considered. Motor Exchange, Westgate, Halifax. Trade 105-h142 HURLIN and Co., Ltd., offer clearance lines at specially low prices of following and considered following follow prices as follows:

A.-C. Sociable, three-wheeler, complete with all accessories,

good condition, reliable, £45. HURLINCAR, last 1914 model, only delivered fortnight, com-

plete with all accessories, £180. AVIETTE monocar, 1915 model, 4 h.p., complete with hood, screen, lamps, etc., £65.

AVIETTE two-seater, 8-10 h.p., water-cooled, gearbox model,

brand new, £35. HURLIN and Co., Ltd., 295 Mare Street, Hackney. Trade 103-510 Dalston 2989. Dalston 2989.

CASS'S Motor Mart, the acknowledged light car and cyclecar specialists, can give you immediate delivery of 1915 Lagonda, and earliest delivery of 1915 A.-C., Morgan, Perry, Swift, and any other make, and can supply several new and second-hand 1914 light cars and cyclecars at bargain prices, write for list. The Light Car and Cyclecar Specialists, 5 Warren Street, Euston Road, W. 'Phone, Museum 623. Trade 103-515

#### FOR HIRE.

REECE Garage. Cars for hire, two-seater, landaulets, touring cars. 8 Reece Mews, Sussex Place, S.W. 'Phone, Ken. Trade 103-444

#### 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 Road, Leytonstone, London. Trade zzz-505 VALVE-GRINDING compound, fast cutting, clean finish, 10 years reputation, no emery; large tin, 7½d. post free. Williams Bros., Lytham. Trade 118-b923 Bros., Lytham.

NEW, guaranteed worm-driven back axles, suitable for cars up to 12 cwt., 4 ft. track, complete with hubs, price £24 cash; also radiators at clearance prices.

Turners, Lever
Trade zzz-43 Street, Wolverhampton. Trade zzz-43
SPECIAL chassis, special parts, or complete cars built to SPECIAL chassis, special parts, or complete cars built to specifications, repairs, oxy-acetylene welding, wheel building, goar cutting, accurate machining. M'Connochie and Russell, Engineers, 210 Wellington Street, Leeds. Trade 103-d140 SPECIAL line. Brand new two side and tail electric lamps, heavy brass or nickel-plated, latest torpedo design, best English make, complete with Osram metallic filament bulbs, armoured wire to each lamp, tumbler switch and 25-ampere hour actual lighting capacity Essex accumulator in metal case, the whole set ready for immediate use, 54s. Send for illustrated catalogue to the Essex Accumulator Co. 497.499 Grove trated catalogue to the Essex Accumulator Co., Green Road, Leytonstone, London, N.E. Trade zzz-506 LANGLEY, Sheet Metal Specialists; radiators, any pattern, made and repaired; bonnets, tanks, wings, panels, etc., maker of the famous all-metal bodies. Unity Works, Malvern Link.

Trade 114-g379 trated catalogue to the Essex Accumulator Co., 497-499 Grove

Trade 114-g379

OWNER, having bought larger car with dynamo, will sell pair Fallot lamps, latest 7 in. model, brass, cost £9, cash £7 10s.; latest Fallot generator, cost 55s., take 45s.; Stepney wheel, with unsoiled Stelastic 650 by 65 tyre, cost £5 11s., take £4 12s. 6d.; J.M. shock absorbers for light car, cost £4 15s., cash £3 18s. 6d.; pair Torpedo electric side lamps, bargain, £1; all unscratched, used a few days only. Box No. 4475, care of "The Light Car and Cyclecar." 103-h148 SMALL car being dismantled, all parts for sale, inquiries invited. 26 Starley Road, Coventry. 103-h139

#### MISCELLANEOUS (continued).

HUMBERETTE chassis, complete with the exception of tyres and radiator, £15 or nearest offer. Bellingham, Marlborough 105-h153 Road, Banbury THREE-WHEEL cyclecar, A.-C. pattern, 5 by 6, two speeds and clutch, water-cooled, good tyres, all in good condition, less magneto, £10, offer. 385 York Road, Wandsworth.

103-h129 CYCLECAR front axle, track 38 ins., 26 in. by 2 in. wheels, ball-bearing wheels and steering heads, mudguards, 40s. Gar-103-h127 lands, Caterham, PAIR of Sylverlite electric headlamps, new plated, cost £7, bargain £2 5s.; Oliver visible typewriter, first-class condition, £5; Douglas 24 motorcycle, complete, guaranteed, £18; new sidecar with Michelin tyre, £3 5s. Dew, Charlotte Place, North Street, Clapham. Trade 103-h125 THREE tricar wheels, two new, one second-hand, Dunlop covers, three tubes, wings and tank, offers cash, or exchange wings, hood, etc., for cyclecar. Sanford, Thornaby, Stockton.

FOUR-CYLINDER model. Look out for the Winter 10, new design, price 100 guineas, at the Cyclecar Club rally; there is a lot of experience behind this stolid, racy model; chassis sold separately and adaptable as monocar tandem or com mercial, lists. Winter, Cyclecar Specialists, 62 West Hill, Wandsworth, S.W. Wandsworth, S.W. FOR SALE, at low figures, three-speed and reverse gearboxes, complete differential back axles for chain drive, fitted with spring drive, dome wings, front axles and steering heads, 8 h.p. J.A.P. engines, £15; steering universal joints, chassis springs, steering wheels, tool-kits, etc. Prices on application Cumbria Motor Works, Cockermouth.

LUST bound driven heads axle fitted 700 by 65 wire wheels. LIGHT bevel-driven back axle, fitted 700 by 65 wire wheels. £3 10s.; light gearbox, two-speed and reverse, complete, £3; cyclecar ball bearing wire wheels, 700 by 65, 8s. 6d. pair; light car tubular frame, 8 ft. long, 2 ft. wide, strongly made, 15s.; light steering column (worm and segment) with steering wheel and fittings, 20s. Elephant. Below. 8 h.p. J.A.P. air-cooled engine, m.o.v., fitted Chater Leaclutch carburetter and magneto, practically new, £14 10s.; 6 h.p. water cooled engine and true read each true

clutch carburetter and magneto, practically new, £14 10s.; 6 h.p. water-cooled engine, carburetter and two-speed gearbox attached, £5. Elephant. Below.

CARBURETTERS. Elephant patent automatic carburetters, complete with control, 30s.; easy to fit and give splendid results; 1 in. Stewart carburetters, 10s. each; Solex No. 26, £2 5s.; Sthenos No. 26, £2. Elephant. Below.

TWO-SEATER cyclecar body; painted grey, fitted petrol tank, 4 ft. 6 ins. long; 29 ins. wide, 30s.; ditto off Riley, painted green, 25s. Elephant Motor Mart, 10-18 Elephant Road, London, S.E.

Trade 103-513 Trade 103-513

## DYNAMO EQUIPMENT.

PHONOPORE 12-volt lighting set, including lamps, dynamo, switchboard and accumulator. Sole agents, Samson and Veal, 12 Woodstock Street, Oxford Street. Mayfair 6826.

Trade zzz-302

#### EXCHANGE.

8 h.p. WATER-COOLED Williamson combination with £12 of accessories for cyclecar, sell £60. 40 Replingham Road, Southfields, S.W.

SHOP-SOILED 1914 Calthorpe, Victor-Precision, G.W.K., and Lagonda cars, also Grand Prix Morgans, liberal exchange allowances. Motor Exchange, Westgate, Halifax.

Trade 105-h141

SWIFT, 1914, light car, 7 h.p., done 3000, perfect condition, all tyres unpunctured, Stepney wheel (unused), electric light, speedometer, etc., etc., just repainted blue and black, will exchange for a good four-seater, not later than 1913, or would sell. Green, 64 Cranhurst Road, Willesden Green. 103-g350 EXCHANGE. Motor-bicycles of all makes can be taken in part exchange for light cars, balance in cash or extended payments as preferred. Service Co., 292 High Holborn, London.

#### EXTENDED PAYMENTS.

EXTENDED payments, all makes supplied, lowest terms. Service Co., 292 High Holborn, London. Trade 105-533

#### EXPORTERS, SHIPPERS, Etc.

PACKING, forwarding, and shipping abroad of cars or accessories. Apply to Robert Park and Co., Ltd., 91 to 97 Clerkenwell Road, London, E.C. Packing works, Backchurch Lane, London, E. Branch agents and correspondents throughout the world. 119-332

#### GARAGES.

SOUTH KENSINGTON. Reece Garage, Reece Mews, Sussex Place. 'Phone, Ken. 6294. Cars stored, 5s.; bikes, 2s.

#### HOODS AND SCREENS.

SEVERAL sliding extension hoods, in good condition, from £2; hoods re-covered from 27s. 6d. Todd and Ellis, Duncan Street, Islington. 'Phone, North 249. Trade 103-h166 WAR prices. Sliding extension hoods, £2 8s.; folding windscreens, 30s.; re-covering, 25s.; distance no object. Lang, 1 Jackson Road, Holloway, London. Trade 103-h165

#### MAGNETOS.

MANCHESTER. Magneto repairs of every description, any make; rewinding, remagnetizing, coil and accumulator repairs; several good second-hand magnetos in stock. J. H. Runbaken, Magneto Specialist, 7 Peter Street, Manchester, Telephone: 6111 City. Sole Northern Agent for the Eisemann Trade 122-382 Magneto Co.

#### OILS AND GREASES.

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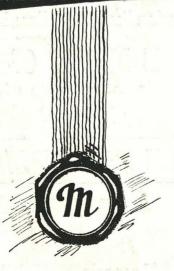
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