

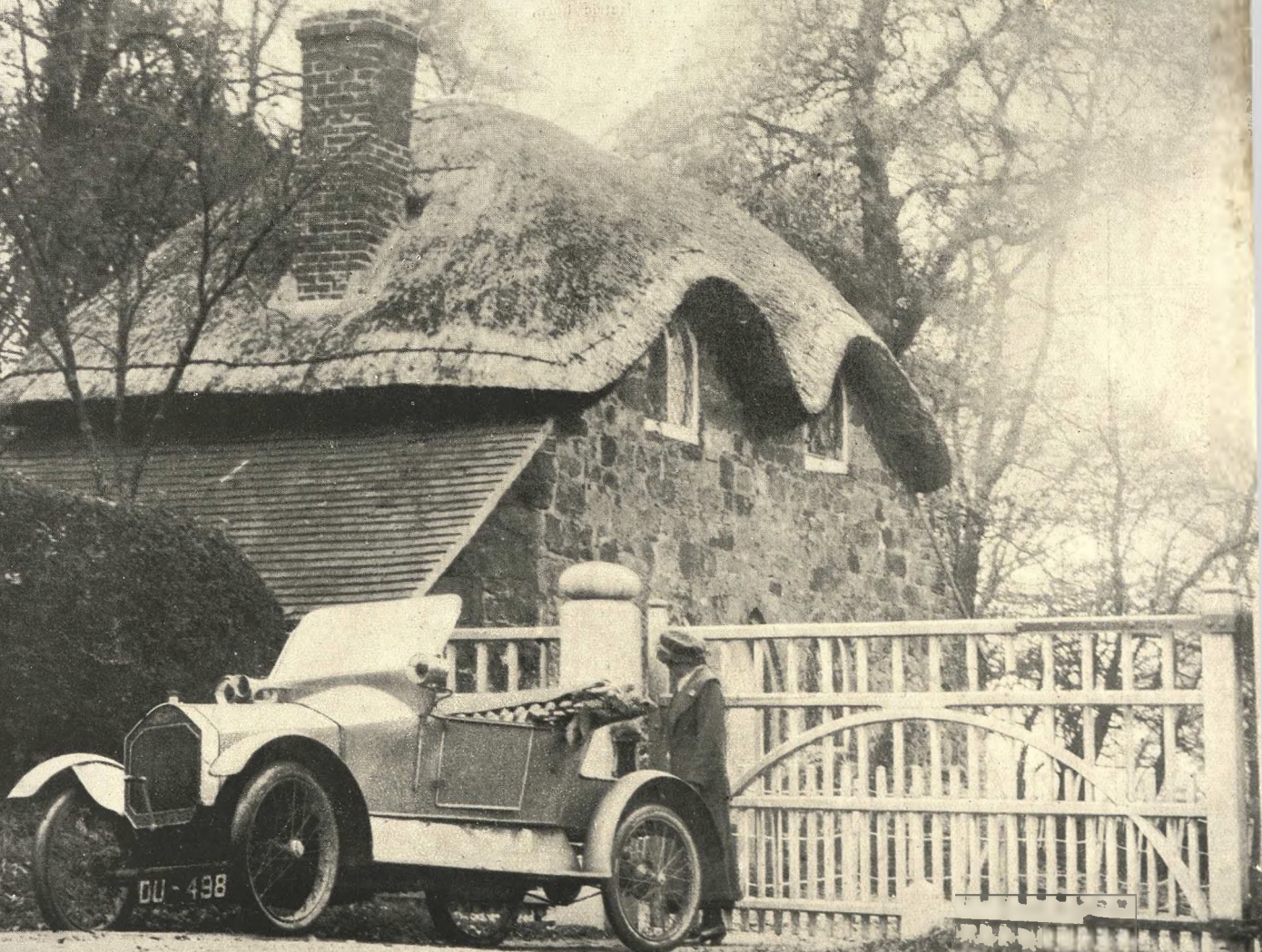
The
Light Car

and

Cyclecar

1^D

Vol. V. No. 110
28th Dec. 1914
*Registered at the G.P.O.
as a Newspaper*



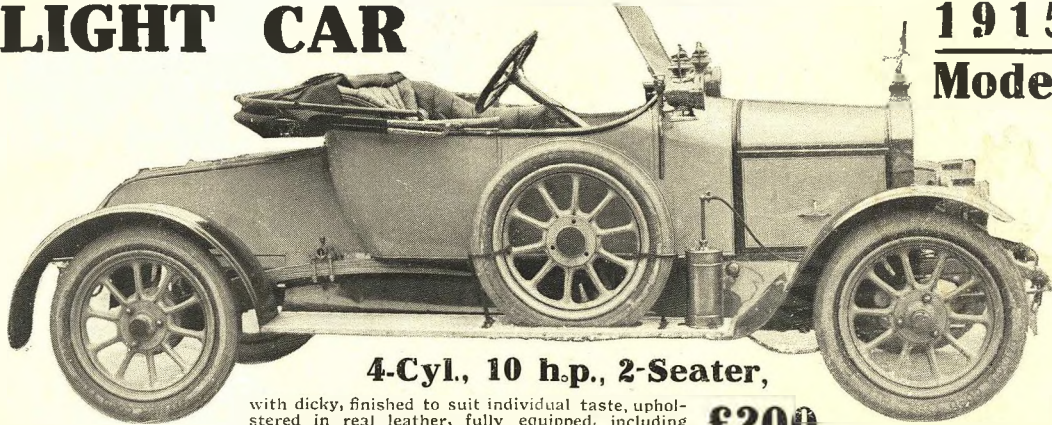
An Afternoon Call

THE ALL-BRITISH

MERCURY

LIGHT CAR

1915
Model



4-Cyl., 10 h.p., 2-Seater,

with dicky, finished to suit individual taste, upholstered in real leather, fully equipped, including hood, screen, lamps, electric horn, dash clock speedometer and mascot

£200

Manufactured by—

Medina Eng. Co., Ltd.,

Gould Road, Twickenham, LONDON, S.W.

Telephone—Richmond 275.

Telegrams—"Medina, Twickenham."

Works—May Road, Twickenham.

Sole London Agents—

Bodilly & Heap, Ltd.,

110, High Street, Marylebone, W.

Telephone—3973 Mayfair.

Telegrams—"Obotrit, London."



Speedometer type 712, indicating speeds to 60 miles per hour. Total mileage counter to 10,000, and repeats. Trip mileage counter to 100 miles, with tenths and repeats. Combined with 8-day Watch 397

Price of Combination, 712-397. **£6 14 0** Nickel, 5/- extra.

PRICES—

Type 716, 3 in. dial - **£3 3 0**
Indicates speeds to 60 miles per hour, with total mileage counter to 10,000 miles and repeats.

Type 712 - **£4 4 0**
Indicates speeds to 60 miles per hour, with total mileage counter to 10,000 miles and repeats. Quickly re-set trip counter to 100 miles.

Type 710 - **£5 5 0**
Indicates speeds to 60 miles per hour, with total mileage counter to 10,000 miles and repeats. Quickly re-set trip counter to 100 miles. Maximum speed hand. With type 397, watch **£2 10 0** extra.



are the outcome of the unique experience of a first-grade English watch manufacturing firm, established in London 1839.

BUY IT BECAUSE IT'S A BETTER INSTRUMENT.

Write for Catalogue to—

NICOLE, NIELSEN & CO., LTD.,

Inventors and Patentees of the Chronograph 1862, Split Seconds 1871, and Speedometer 1904.

THE WATFORD SPEEDOMETER WORKS,

Factory—Whippendell Rd., Watford.

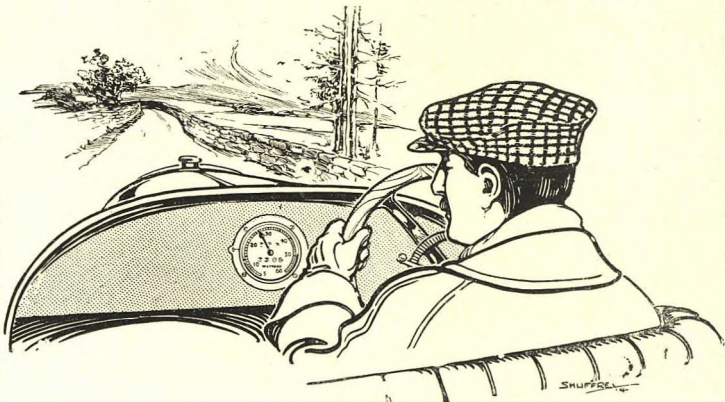
London Showrooms—14, Soho Sq., W.

Telephone—124 Watford.

Telegrams—"Niconielco, Watford."

Telephone—2833 Central.

Telegrams—"Niconielco, London."



Watford Speedometer fitted flush.

KINDLY MENTION "THE LIGHT CAR AND CYCLECAR" WHEN CORRESPONDING WITH ADVERTISERS.

WAUCHOPE'S

MORGANS. MORGANS. MORGANS.
1915 Models for Immediate Delivery.



De Luxe.

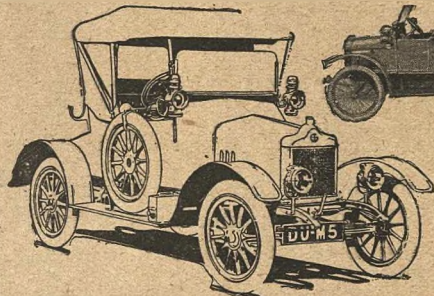


Grand Prix.

FROM STOCK.
No. 1. **GRAND PRIX, £106**, including extra strong rear tyre.
No. 2. **GRAND PRIX, £116**, " " " " " "
SPORTING MODEL, £92, " " " " " "
DE LUXE, £101, " " " " " "

INSPECTION CORDIALLY INVITED.

We will arrange an exchange. Order now, or wire if immediate delivery is required.



G.W.K. 2-seater de luxe, 150 Gns.

G.W.K. 4-seater 175 Gns.

Exchange or Easy Terms.

Immediate Delivery 1915 Models.

STANDARD Light Car, fully equipped, £195
Delivery from Stock. Extended Payments or Exchange.



CROUCH, 8 h.p., water-cooled, 1914, shop soiled, fitted with dicky seat.
To clear at **£115**.
Usual price ... **£138 15 0**



CHATER LEA, 8 h.p., water-cooled ... 136 gns.
CHATER LEA, 10 h.p., water-cooled, 4-cyl. ... 165 gns.

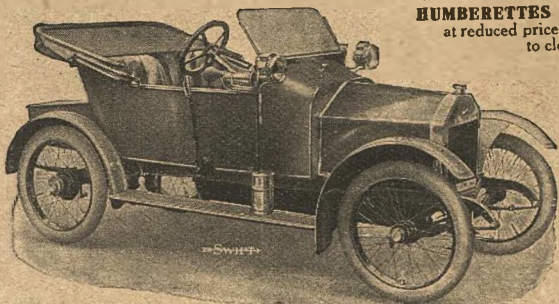


A.-C. 10 h.p. 4-cyl., fully equipped, £175.
Cash or Exchange.



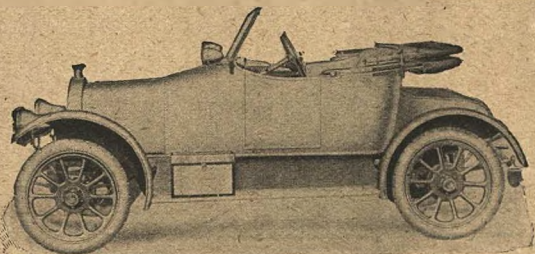
New shop-soiled 1914

HUMBERETTES
at reduced prices to clear.

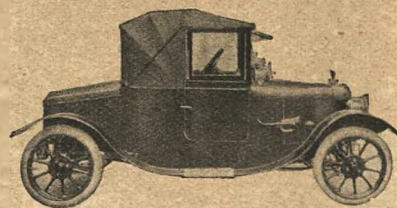


IMMEDIATE DELIVERY FROM STOCK

1914 SWIFT Cyclecar fully equipped, £125.
New 4-cylinder 1915 Models can be supplied at an early date; our contract already placed.



SINGER Light Car, 10 h.p. ... £195
" " " " with Dynamo Lighting Set **£204 15s.**
1915 Models for Immediate Delivery



11 h.p. 4-cyl. LAGONDA, £150.
We have the latest 1915 Model for Immediate Delivery.

A New Year Wish.

MAY 1915 hold for you, in spite of the war, a greater store of motoring happiness than you have ever enjoyed hitherto. May your peace of mind never be disturbed by fears of possible trouble. May your confidence in the reliability of your car be fully justified. It will be if you purchase that car from Wauchope's — in Wauchope's Easy Way.

We take second-hand light cars, cyclecars or motor-cycles in part payment, and always have a splendid selection of second-hand machines in stock. Call and see our new garage, close to 9, Shoe Lane, and inspect the machines in stock there. And remember to ask for particulars of Wauchope's Easy Way.

9, Shoe Lane, Fleet Street, LONDON.

(Just off Ludgate Circus.)

Telephone: 5777 Holborn. Telegrams: "Opifcer, London."

TO THE READER

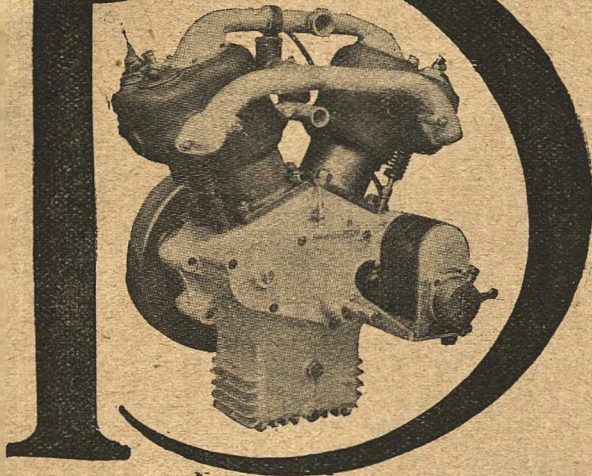
By mentioning "The Light Car and Cyclecar" when corresponding with advertisers, you will be working for the cause of the new motoring.

A1

THE FAMOUS

BLUMFIELD

Air and Water-cooled
V-Twin Engines



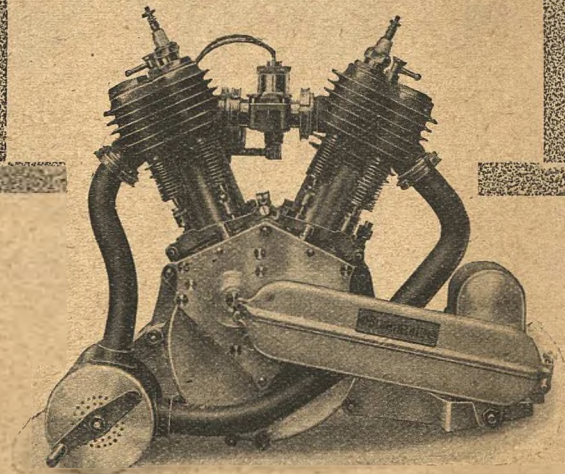
The Blumfield
8-10 h.p. Twin
Water-cooled
cyclecar engine.

THE BEST ENGINE FOR LIGHT CARS.

Our distinctive designs, together with the finest materials obtainable and high-class British workmanship, enable us to offer to the public the most reliable and most efficient engines yet produced.

Blumfield Engines do more work and do it better, on a given fuel consumption, than any others, and bring advantages that are enjoyed every time they are in use.

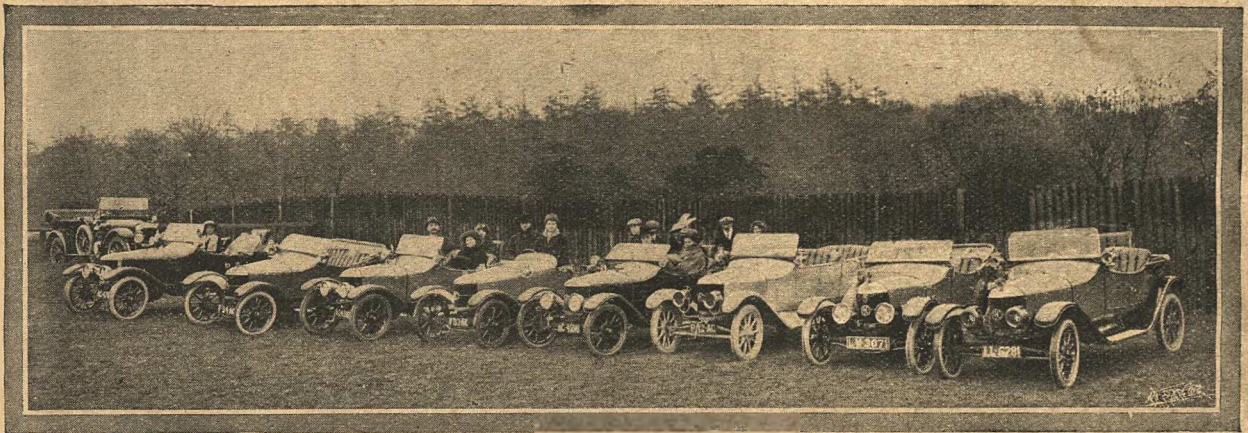
CHEAPEST IN THE LONG RUN.



The Blumfield 8-10 h.p. Air-cooled V-Twin cyclecar engine

Write for Particulars—

BLUMFIELD, LTD.
70, Lower Essex Street,
BIRMINGHAM.



A striking array of A.-C. Light Cars at the Cyclecar Club Rally.

A.-C.'s Predominate!

If proof were needed of the popularity of the A.-C. it was abundantly forthcoming at the Cyclecar Club Rallies at Hatfield and Burford Bridge. A.-C.'s of all types were in evidence. Commenting upon this fact, "The Light Car and Cyclecar," of 30th Nov., says: "There were probably more A.-C. light cars and cyclecars present than of any other make, including the new sporting model, which is very smart indeed." Taking into consideration the great variety of makes represented at this event, the number of A.-C.'s has a special significance which should be noted by prospective light car owners.

An Invitation

We invite every potential light car buyer to visit our Works at Ditton, or our London Showrooms, and try the 1915 model A.-C. Or, if more convenient, a trial can be arranged at any of our Demonstration Agents.

A p.c. will secure the address of the nearest to you.

A.-C. LIGHT CAR, 1915 MODEL.

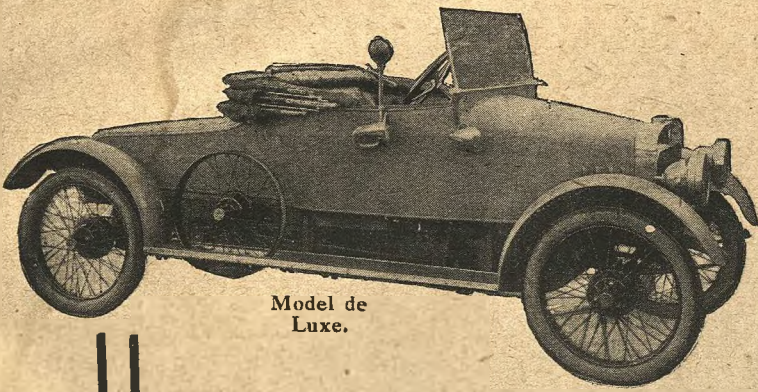
Price **£175** completely equipped.



AUTO-CARRIERS (1911), Limited,
Thames Ditton, Surrey. Telephone: Molesey 245 & 246,
London Depot: 15, Little Portland St., Oxford Circus, W.
Telephone: Mayfair 4294.

**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.



Model de
Luxe.

PRICES 1915 CARS

Standard Car	150	guineas.
Model de Luxe	190	”
Four Seater	170	”
Coupe.	230	”

G. W. K. Ltd.

POINTS :

1. The most reliable car yet produced, proved so in hundreds of trials.
2. The lowest upkeep of any light car in the world.
3. Yearly overhaul about $\frac{1}{2}$ any other make.
4. Note well the Model de Luxe is fitted with Electric starter, Electric lighting, Automatic lubrication, Speedometer, and nickel fittings.

The War Office have purchased a fleet of cars specially equipped for their use.

Particulars to

**HOME WORKS, DATCHET,
BUCKS.**

Telegrams: "Cars, Datchet."

Telephone: Windsor 331.

COST OF 17,000 MILES RUNNING OF A LIGHT CAR. (SEE CENTRE PAGES.)



CONSIDERATION FOR OTHERS.

After all it is thoughtlessness rather than intentionally boorish behaviour that makes motorists unpopular with the general public; and then, again, not all know exactly what is the right thing to do in certain emergencies. The following article conveys some simple hints.

HAPPILY the motorist has now lived down the epithet "selfish" which used so frequently to be applied to him. There are occasionally cases of thoughtlessness, however, which, it must be admitted, appear to the public as purely selfish behaviour. Now this is a point that not every motorist realizes, and, indeed, it requires a little study of the psychology of mankind to make a really considerate driver. The study is worth making.

We want to bear in mind when driving exactly our view of other drivers when we have met them while ourselves on foot. If we drive horses—many readers of THE LIGHT CAR AND CYCLECAR do—we shall not require to be told how to drive when overtaking or meeting horsed traffic. Those of us who are not familiar with horses have got a lot to learn before they can be considered really unselfish drivers, however. We should remember Charles Read, the novelist—"Put yourself in his place."

There are many types of drivers who earn contempt from the ordinary passer-by which, it must be admitted, is not undeserved. We know there is, for example, the driver who imagines he is the

cynosure of all eyes, who pictures to himself the admiration of the onlooker for his skilful driving and the lovely beat of his engine. As a matter of fact, the public hate exhibitions of dashing driving and noisy exhausts, except at Brooklands.

Be it said, too, that the feeling of the onlookers is generally amused tolerance, for the really dashing driver does not show off in public, in crowded city thoroughfares, but keeps his dash for the open road, and it is the would-be dashing driver who, by his lack of dash in a really tight corner, causes amusement.

Many a driver, through lack of experience, is inconsiderate in little ways. On a wet day he is apt to forget how his car will fling the mud up over passers-by if he drives too fast, and he should reduce his speed, avoid the puddles as far as he can, and give as much room as possible when passing cyclists or pedestrians. During dry weather on a very dusty road, the considerate driver will endeavour to raise as little dust as possible by driving slowly when passing people on foot, or, if he is passing a car, to get away from it quickly and not hang about just in front.

Horsed traffic is worthy of great consideration, for

CONSIDERATION FOR OTHERS (contd.).

selfishness on the motorist's part is visited, not on the driver, but on the dumb animal. To make some poor horse, sweating and toiling up a hill with a heavy load, stop and restart is the height of selfishness, and merits a harsher word. Especially is this the case with a heavy horse-drawn dray, as the heavy strain of starting is felt acutely by the horses.

When passing trams, one frequently has occasion to show a little courtesy, for we have before now seen drivers dash through as the passengers are alighting, narrowly escaping knocking them down and splashing them from head to foot with mud. Almost as bad is the driver who pulls up at the last second and starts to blow his horn violently, for he probably alarms some nervous old lady so that she takes twice as long to enter the tram, and he only causes a longer delay to the tram, himself, and the surrounding traffic.

The Use of the Horn.

The use of the horn is quite likely to give offence, especially if it be used indiscriminately or if it is of that peculiarly penetrating note which seems to get on some people's nerves. The horn should have a melodious tone, although, to a certain extent, it should be penetrating. There is of course, another side of the question. We use a very mellow-sounding horn—one that does not give a loud, imperative blast. The result is that many people either do not hear it, or simply pay no attention to so mild a warning, because they think it does not really matter, while to the vulgus profanus it is something to mock and jeer at.

Traffic driving pure and simple calls for much consideration and forbearance. One should calculate the distance in which to pull up so as not merely to escape a collision. When about to pull up while pedestrians are hesitating to cross a few yards ahead, it is a simple matter to signal to them to cross.

When starting up again, do not let in the clutch with a jerk just as a pedestrian is stepping off the pavement to cross the road. When turning out from the side of the road the oncoming traffic should be warned of the driver's intention, and the usual signal is to hold out the right hand horizontally, as if turning off to the right. Neglect of this precaution may mean a sadly-scratched and buckled off-side wing and a very crumpled tail lamp.

The usual signal when turning off to the left is to

hold out the right hand and arm in a position below the horizontal, signalling to the oncoming traffic with a beckoning movement of the hand to proceed and pass on the right-hand side. If a passenger is with the driver, he may hold out his left hand, keeping it horizontal and stationary, but the driver's signal is generally better, as it is more visible to oncoming traffic. When drawing in to the side of the road, the driver should signal to the traffic by indicating that it is to pass on the outside as usual.

Police Instructions.

Consideration for the police in a traffic block should be shown by obeying their signals immediately, and, when pulled up by the outstretched arm just as one is about to turn to the left, a signal of one's intention to the man in blue will generally win a nod of assent, and one may make the turn and proceed. Passing on the wrong side of a street refuge or island is, of course, a heinous crime and a glowing example of inconsideration. Woe-betide the offender if the police catch him, as he will, in all probability, be made to look extremely small by having to reverse and proceed on the correct side of the island.

Out on the open road consideration for others is just as necessary as in town, when passing restive horses, sheep, or cattle, for example. Also one cannot always expect a large motor lorry or traction engine to give way if the road is very wet and soft, and, as the light car is such an easily-handled vehicle, it is no hardship for the driver to give way to the slower-moving vehicle, while it is less likely to be troubled by the loose and soft ground at the side of the road.

When turning in to the side after overtaking and passing a vehicle, it is not desirable to do this too rapidly, cutting across in front of it. Such a proceeding is very likely to startle a restive horse, while it is at the least very discourteous.

When being overtaken by a car, it is usual for the overtaking driver to sound his horn. Acknowledgment of the warning should be made by drawing in to one side and by giving a gentle beckoning sign. To wave the arm violently and impatiently is very bad form, and only causes amusement.

In these and many other little instances the motorist can show his consideration for all road users, and it generally follows that those who give most consideration for others also receive most themselves.

Olympia Available for Spring Show.

Possible to Have a Light Car and Cyclecar Exhibition Between 15th February and 31st March.

IT is no secret that many light car and cyclecar manufacturers earnestly desire a Spring Show. One obstacle has been the fact that the Government had taken over Olympia for the internment of prisoners, and no other hall considered to be suitable has yet been found. Olympia, however, is now free. On Monday last the Government, who have been using Olympia as a concentration camp, gave up possession of the building, and informed the company that they would no longer require the building.

We have been in communication with the proprietors of Olympia, and we are informed that if a Spring motor Show is wanted it can take place between the

15th February and the end of March, during which period the hall will be free. We suggest to the Society of Motor Manufacturers and Traders that it should obtain an option on the hall at once, for although the motorcar trade generally does not desire a Spring Show, in the light car branch of the industry there is a very deep feeling indeed that one is absolutely necessary, bearing in mind the great improvements which 1915 models show, and the large number of new cars which need a show at Olympia properly to introduce them to the agents and public. Further, a Spring Show would be a selling show, and that would meet the requirements of many manufacturers.



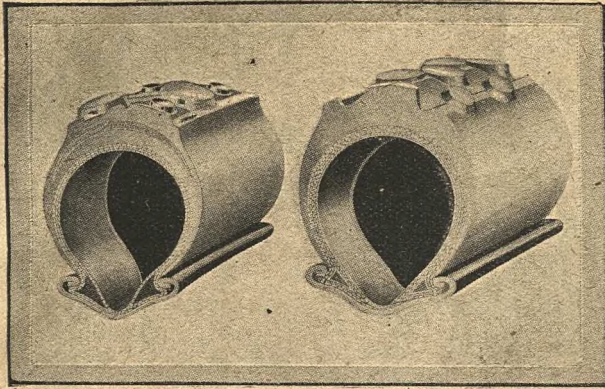
YOUR LICENCE, _____
PLEASE!—_____

Since the Scarborough raid, motorists driving at night are being frequently stopped, their licences examined, and sometimes the car as well. Stoppages are usually made at important railway bridges.

The Dunlop Range of Tyres for 1915.

Two Very Interesting Non-skids.

ONE or two new tyres have been brought out this season by the Dunlop Rubber Co., Ltd., which are particularly suitable for light cars. A remark-



The Dunlop combination rubber and steel-studded tyre (left) and rubber-studded non-skid (right).

able tread is undoubtedly the new combination tyre. This is built up on a heavy three-ply casing, and has a tread made up of large rubber studs and

small steel studs, reinforced with six layers of fabric, which should make one of the best all-round non-skids at present on the market. This tyre is made in several sizes to suit various light cars and cyclecars.

A new cover with the popular triple ribs has also been produced, an exceptionally strong tyre. The extra heavy rubber-studded tyre is another. The pattern of tread consists of large rubber studs in the centre and small ones at the edges. The result should be much less tendency to wear smooth in the centre, which has been the fault of most rubber-studded covers in the past.

Dunlop tubes have long enjoyed a great reputation, owing to the quality of the rubber used, which naturally gives them good life and postpones the evil day of porosity.

In the Dunlop catalogue numerous useful tools for tyre fitting are illustrated. Those who have trouble should try the Dunlop "Third Hand," which is an ingenious device for holding the tyre on in one place whilst the fitter works the tyre on with only two other levers.

Several useful accessories and outfits for the repair of tube and covers are also shown, and in fact a complete range of tyre accessories and spare parts. A copy of this catalogue will be sent free to any reader of THE LIGHT CAR AND CYCLECAR who sends a post card and mentions this journal to the Dunlop Rubber Co., Ltd., Aston Cross, Birmingham.

The M.A.G. Air-cooled Engine.

A V-twin engine of remarkable design and one of which more will be heard is made by the M.A.G. Engine Co., Ltd., Harrow Road, Willesden Junction, London, N.W. This is an engine built on the lines adopted for motorcycle engines with two flywheels enclosed in the crankcase, and is being taken up for use on Morgan three-wheelers, we understand.

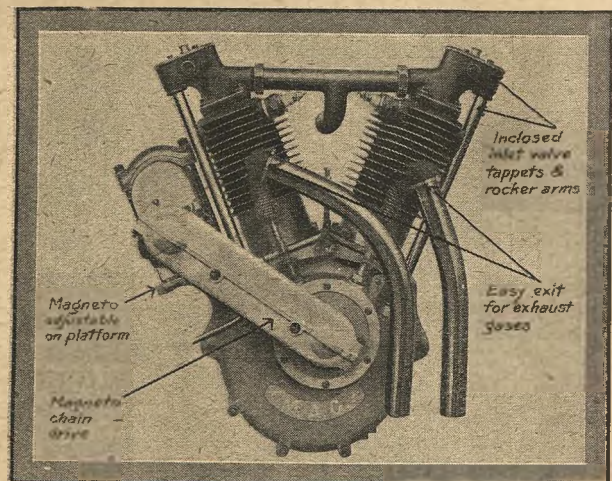
The cylinders are set at an angle of 45 degrees to each other, and are provided with thin, deep, radiating fins. The bore and stroke are 82 mm. by 103.5 mm., giving a cubic capacity of 1095 c.c.

The inlet valves are placed directly over the exhaust valves and operated by rocker arms and long tappet rods. The operating gear is enclosed and is lubricated from the crankcase, oil being drawn up the tubes which contain the tappet rods. This valve arrangement makes the use of large valves quite easy. Both the inlet and exhaust ports and piping have clean, straight-through lines, which materially benefit the ingress and egress of the gases.

The magneto is chain driven, provision being made for adjusting the chain by moving the magneto on its base. The priming taps are a feature of this engine, for, instead of being placed in the cylinder head as usual, they are put on the sides of the cylinders and lead direct to the piston and rings. These taps have dust-excluding caps to prevent any foreign matter being taken into the engine while priming.

Adjustable tappets are fitted and the engine is re-

markable for its silent running and the absence of all valve gear noises which make so many V twin engines objectionable. The castings are extremely fine pieces of work and the workmanship is on a par with the material employed.



The M.A.G. air-cooled twin for 1915.

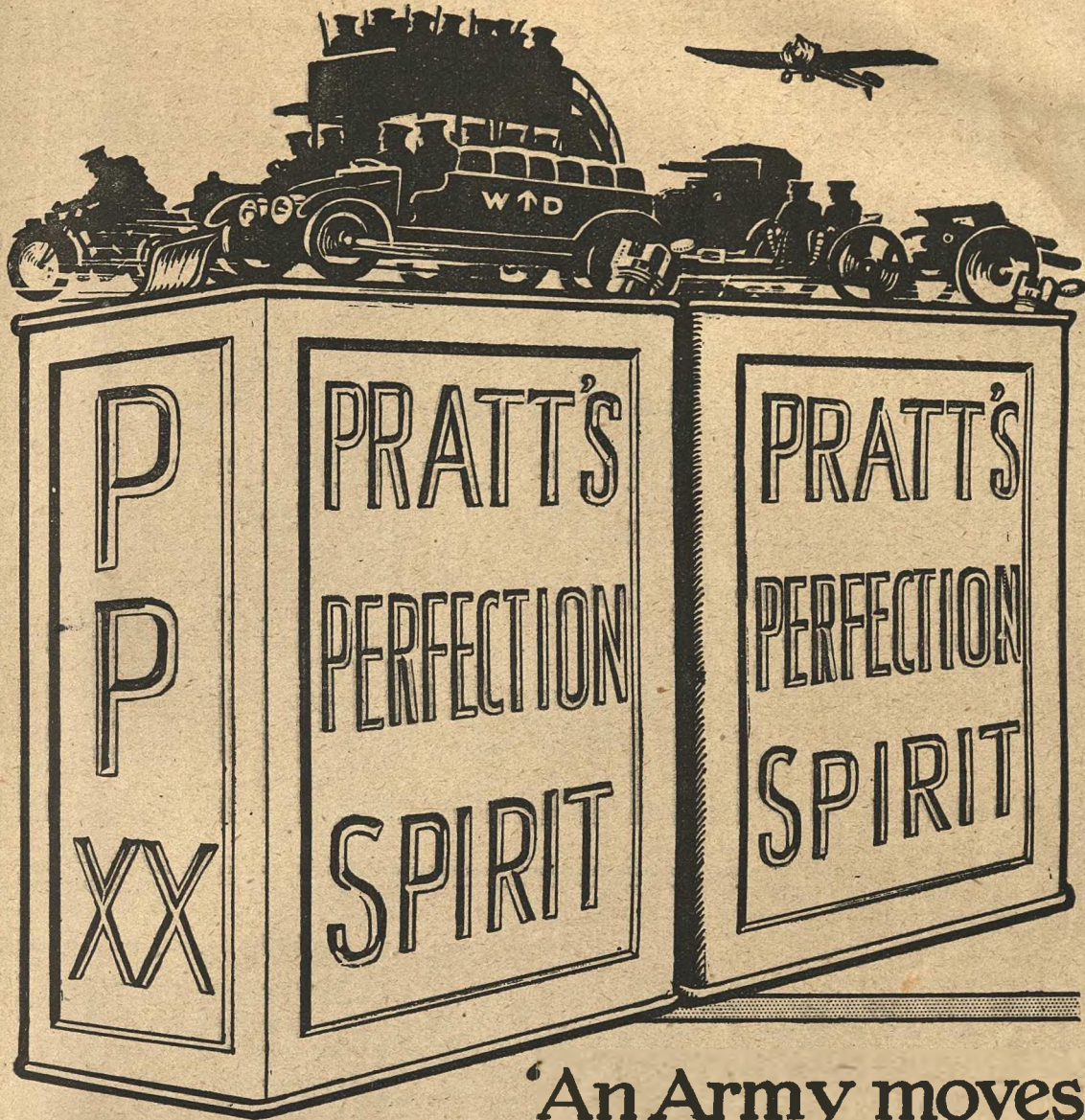
The title of the Lynton Wheel and Tyre Syndicate has now been changed to the Lynton Wheel and Tyre Co., Ltd., and their address is Warrington, Lancs.

The Low generator may be obtained through all dealers, but wholesale only from Ward and Cunningham, Craven House, Kingsway, London, W.C., which, by an error, was not made quite clear in their advertisement.

AS

Autobestos brake lining, which was formerly handled by the Autobestos Syndicate, is now taken over by Alex. Mosses, Ltd., 21, Mercer Street, Long Acre, London, W.C.

The Service Co., High Holborn, are selling a very cheap line of woollen gloves, lined with fleece, for using inside a pair of ordinary leather gloves or alone. They cost 10½d. per pair.



'An Army moves
on its Petrol supply'
(Napoleon revised)



By Appointment.

ANGLO - AMERICAN
OIL COMPANY, Ltd.,
36-38, QUEEN ANNE'S GATE,
WESTMINSTER, S.W.

PRATT'S

has been selected by the
ALLIES for every conceiv-
able operation at the Front
in which petrol plays a part.

**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.

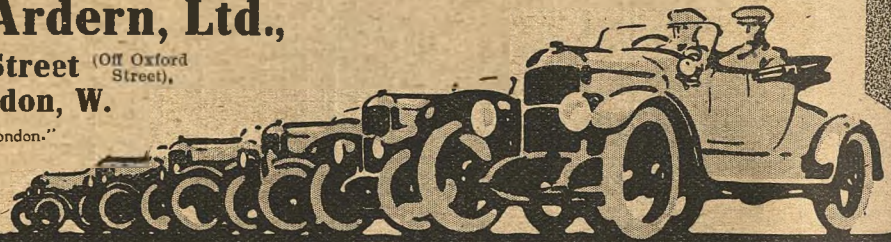
1915 **MORRIS-OXFORD** 1915
 1915 — 1915 — 1915
SINGER.
G.W.K.

Special Inclusive Quotations for Immediate Delivery with
Free Tuition and Delivery to your door.

Stewart & Ardern, Ltd.,

18, Woodstock Street (Off Oxford Street),
Bond Street, London, W.

TELEGRAMS—"Essandaymo, London."
 TELEPHONE—5462 Mayfair.



THE
Pytchley
 AUTOCAR CO L^{TD}

. . . 1915 . . .
STANDARD
LIGHT CAR

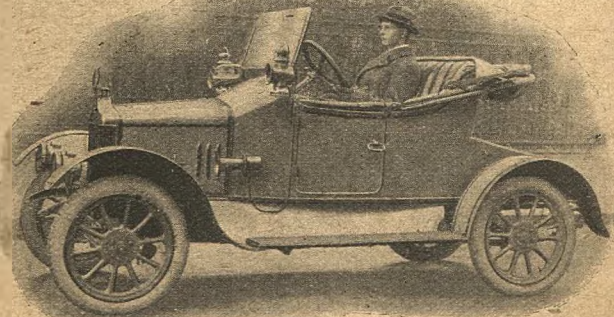
Complete with five lamps, **£195** five detachable wheels, etc.

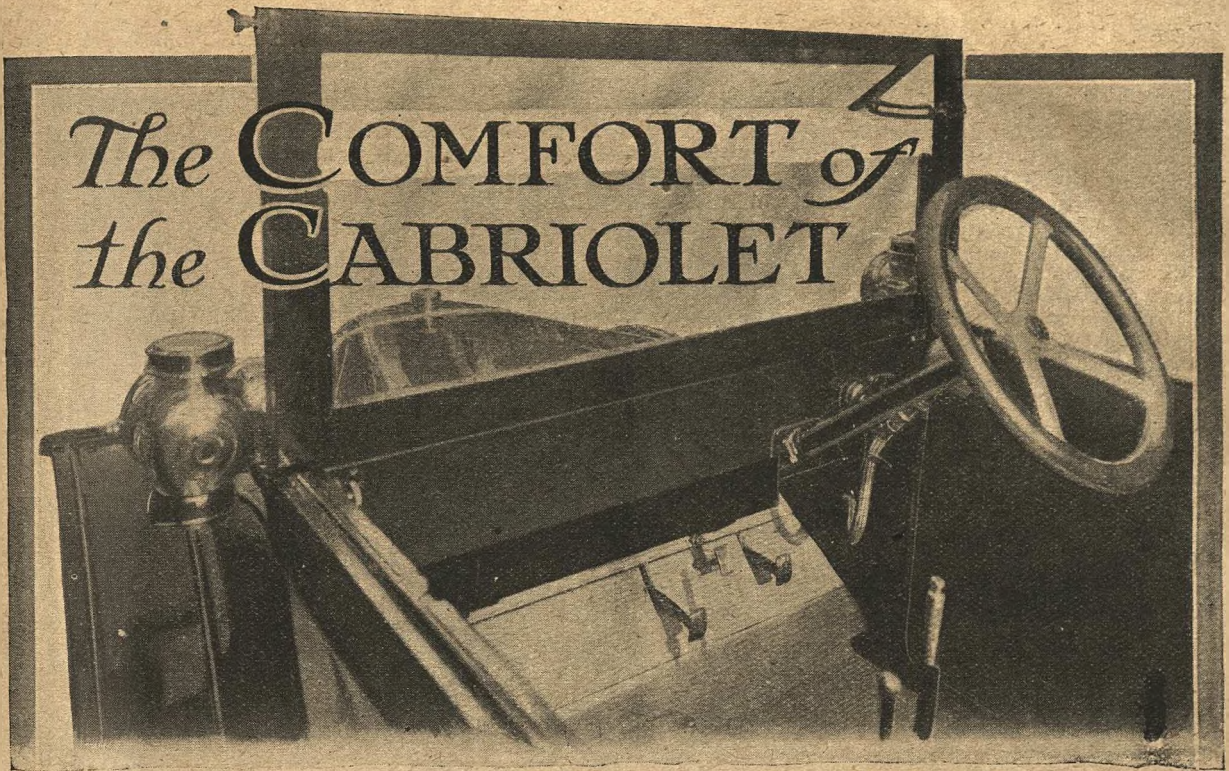
216, Great Portland St.,
London, W.

Sole London Agents.

"A very comfortable body with ample leg room, and will take three abreast if necessary."

- Dickey Seat** - £3. 0 extra
- Coupe Model** £15. 0 ,,
- Lighting Set** £15. 15 ,,
- Lighting and Self-starter** £31. 10 ,,





A view of the interior of the Lagonda cabriolet, showing the central control.

Three Hundred Miles in Pouring Rain on a 1915 Lagonda.

UNTIL one has actually driven 300 miles in pouring rain, first in an open sporting light car, then in an ordinary touring model, with hood and screen, and finally in a neat little cabriolet, it is difficult to judge comfort for what it is really worth.

We recently set out on a 1915 Lagonda cabriolet for a week-end run. It was pouring heavens hard, and as we stowed away a suit case in the large rear locker, we used all haste in starting the engine and making a dash for the shelter of the cabriolet body. Running down the Strand in the dense traffic, we found no difficulty in driving the closed car, for a window at the back gave a very good view of the oncoming traffic.

At Charing Cross Station we picked up a passenger, and added another suit case to the contents of the rear locker, and were soon gliding quietly down the Uxbridge Road. Thanks to excellent non-skid tyres, the greasy road surface troubled us not a whit, but some R.N.A.S. motorcyclist despatch riders were obviously far from happy, and one of them skidded and narrowly missed colliding with us.

Nearing Uxbridge, the tram lines were in places under water, but although the rain still fell ceaselessly, we sat in absolute comfort, chatting and smoking as if by some comfortable fireside. Between Uxbridge and Beaconsfield the road is at present in a very rough state, but the excellent springing and weight distribution of the Lagonda saved us from all unpleasant road shocks and skids.

After Beaconsfield, the road improves slightly, and we were able to improve our average, until we ran into the long 10-mile limits of the Wycombes. Here two terriers, busily engaged in killing each other, nearly ended by committing suicide, but the climax came when a butcher boy, too interested in the dogs to look where he was going, drew his horse almost across our path. Instinctively, we did the only thing

possible, and skidded the rear of the car clear, but it was entirely due to the instant response the car made to wheel and foot brake that saved the paint, at least, from injury.

One does not expect to do Dashwood on second with a covered car heavily laden, but had we changed down a second or so sooner we should have achieved the unexpected. As it was, we dropped to first for the last few yards, the engine toying with the gradient.

Just past the Lambert Arms there is a magnificent stretch of road surface, which lasts, with the exception of one or two short stretches, almost into Oxford. Here, on deserted roads, it was obvious that the car could encompass speeds of 40 m.p.h. and over with ease, and we soon ran into Oxford.

Now, with the two-fold screen slightly open, we had enjoyed plenty of fresh air, and accordingly we deemed it wise to feed both the human animals and the machine. After lunch and a glance at the deserted colleges, we set out for Birmingham just as the clock was striking. The rain had temporarily ceased, but the roads were wet and treacherous, and we had cause to bless the steadiness of the Lagonda when we were able to overhaul and pass two large cars.

Soon we were gliding down the mile-long descent into Long Marston, and here the quickly-gathering gloom made it imperative to light our lamps. Raising the bonnet, for the generator is just inside, we turned on the water and then lit the side and tail lamps, and by the time this was finished a smell of acetylene assailed us. Lighting the headlamps, we were pleased to notice their steady, long-reaching beam, for we still had some 40 miles to cover.

We pulled up the starting handle, one, twice, but no low mutter of exhaust followed. Then we swung the engine violently—all to no use. We raised the bonnet again, to notice a strong smell of petrol. The

COMFORT OF THE CABRIOLET.—contd.

carburetter was flooding—evidently a bit of grit in the needle valve, for a twirl of the needle and the flooding stopped, the engine then starting with the first pull over compression, as usual.

All this was a matter of seconds, and we were soon on the way to Stratford-on-Avon, over streaming wet roads and with the rain coming on again. Stratford appeared a huge, bright city after the darkness of London, and it was quite cheering to run through the old town instead of following the main road round it.

As we rolled silently through Henley, a bright beam of light suddenly lit up the interior of the cabriolet, and a backward glance revealed two large cars with huge electric headlamps. Before we could accelerate, one swept past—a big six-cylinder with only the driver on board. As we took the lower slopes of Liveridge

busy Midland city behind us, en route for Coventry. This stretch of road has been hopelessly ruined by heavy motorbuses, and we were glad indeed to reach Coventry. A good road awaited us we knew, and, without stopping, we ran through endless rainstorms into Daventry, Weedon, Towcester, and Stony Stratford. Here we thought of hot coffee and stopped.

We now began to meet Tommies in twos and threes, and as they were almost invisible in their khaki, we were additionally glad to have good lights. The running of the car was beyond comment; top gear accounted for all the hills with ease, and the silence of the engine made conversation easy. Dunstable was soon passed, and then more Tommies till St. Albans was put behind us.

Anon we reached London Colney, and had to reduce our lighting considerably. Thanks to taps on the generator, we were able to put out the near side head-



The Lagonda in competition. A successful climb of the Old Wyche Cutting (1 in 3) at Malvern.

Hill, we were but a few feet behind, with the second large car some yards behind us. As the gradient steepened we drew slowly level, and then the chauffeur's hand moved to the gear lever.

Click! A beautiful change, and he slowly gained on us; then we remembered the parting words of the Lagonda's genial sales manager, "Change down early." Changing gear is child's play on the Lagonda, and one prefers the central position of the gear lever to the usual position after a few minutes use.

When we changed, the big car was half-a-dozen yards ahead, but we immediately began to gain, and ere the crest of the hill was reached we were a good fifty yards ahead. Then we slowed up, to take advantage of the big car's lead into Birmingham. A momentary halt by the police patrol on the outskirts, and we were passing the Town Hall exactly two and a half hours after leaving Oxford. We congratulated ourselves on a comfortable and easy run.

The return to town was made on Sunday evening, and, lighting our magnificent headlamps, we left the

lamp without losing gas, and then, with the remaining headlamp turned low, and side lights out, we were able to proceed. Highgate was soon reached, and our passenger deposited at the Tube station, en route for Charing Cross, and then the trusty Lagonda was garaged, having done the journey without the slightest trouble beyond a temporary flooding carburetter, and at an average of 25 m.p.h.

Never before had we experienced such a comfortable long-distance run. We were able to step out of the cabriolet body quite spotless and free from mud.

As for the running of the Lagonda, it was perfect, and when we started up in the morning the first pull-up was sufficient. Long hills could not make her hot, and, in fact, we ran for part of the journey with the fan belt removed. The 700 mm. by 80 mm. tyres fitted have doubtless improved the comfort, while the weight distribution and road worthiness are such that skidding need never be feared.

The sole distributors are Tollemache and Griffin, Ltd., of 195, Hammersmith Road, London, W.

The Light Car and Cyclecar

Mondays—1d.

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—2498 Midland.
Telegrams—"Presswork, Birmingham."

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

NORTHERN OFFICES:

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

NOTICES.

Readers should ask for

**"MONDAY'S 'LIGHT CAR
AND CYCLECAR'"**

from their newsagents.

If there is any difficulty in obtaining it a copy can be sent by post and will arrive at the breakfast table every Monday morning for a subscription of 6s. 6d. per annum

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. SUBSCRIPTIONS should be forwarded to the Manager (rate, 6s. 6d. per annum, or pro rata).

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

Press Times.

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:—
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."

LIGHT UP

Next Saturday, 5.2 p.m.

Topics of the Day

1915 Prospects.

THE news that business in the light car trade is improving may not strike the ordinary reader as very interesting. The light car owner is not very much concerned with the prosperity of the motor trade or the reverses that it suffers. Unless he possesses a car made by a concern that goes into bankruptcy, and therefore fears that there will be difficulty in obtaining spare parts, or disposing of it second-hand, the collapse of this or that company does not interest him. Yet if the light car industry, being but a young one, had crumpled up as a result of the war, and half the manufacturers had gone out of business, the effect upon the pastime would have been a serious and a lasting one. The price of second-hand cars would have depreciated very considerably, and such a slump would have been occasioned that in all probability the light car, as a type, would have become extinct.

The light car trade has come through a very anxious period indeed. It was anticipated that, with this country involved in a European war of a magnitude never reached before in all the great wars from the days of ancient Egypt to 1870, motoring would absolutely cease. We declined to take this view, and strongly combated the suggestion that was put forward in some motor journals that there was any reason why those of us who could not serve our country direct should not continue to do so by helping the industry to "carry on," and thus make those "silver bullets" which will be absolutely necessary to bring the war to a satisfactory termination. Were the industries of this country paralysed, it would fare badly with the Allies. Were motorists to give up motoring, the loss, the unemployment, and the misery created would be appalling.

We have done our best to keep things going, and it is no secret that THE LIGHT CAR AND CYCLECAR has been instrumental in many ways in helping the trade to keep going. Instances of this are to be found in the series of successful rallies organized by the Cyclecar Club, which were put forward, carried out, and widespread publicity given to them by those responsible for this journal. The recent Buyers' Review numbers published by this and other journals was an idea that also emanated from our offices, and has undoubtedly put the public in possession of compendious information regarding 1915 models at a time when, with no Shows, it looked as if the motor trade did not contemplate producing any deviation from the 1914 models.

The result of these efforts is now becoming very plain. On all sides business is reviving, and although 1915 will not be so successful a year as its predecessors—unless, of course, the unexpected happens and the war terminates much sooner than is anticipated—there is little doubt that there will be as much work in the factories as there are hands to cope with it, and more. Several concerns are now regretting that they have taken up Government contracts for making the munitions of war, so great is the promise of business.

The light car trade has entered very thoroughly into the question of new models, and the improvements that were so badly wanted in many small cars have now been embodied. It generally takes about two years for the weak features of design to be discovered and eradicated, and the period was just ripe for the appearance of greatly improved light cars, based on the past two years' experience. Had there been a Show, the public would have been immensely interested in the 1915 models staged at Olympia, and a tremendous "boom" would have followed. It is not too late now to hold a Show, and we earnestly repeat our suggestion to the Society of Motor Manufacturers and the Cycle and Motor Cycle Manufacturers and Traders Union, Ltd., to hold jointly a spring exhibition of light cars and cyclecars in 1915. Olympia is now free for this purpose.

NOTES, NEWS AND GOSSIP OF THE NEW MOTORING.

A prosperous New Year to all.

May it see the confusion of our enemies and the opening of new and lasting business enterprises.

A big demand for light cars and cyclecars of all descriptions is anticipated by the manufacturers early in the New Year, and inquiries are very considerable.

Business is looking up. Although the week before and after Christmas are usually the quietest of the whole year, in the motor trade, there was quite a lot of orders taken.

To avoid confusion, always ask for Monday's LIGHT CAR AND CYCLECAR, and you will get what is, in the opinion of thousands of our readers, the best and most helpful of all the motor papers.

By being able to do the work of three by means of a light car, a traveller, who gives particulars of his running costs this week, says that he was able to increase the turnover of his firm by 40 per cent.

Norfolk Bridge on the lower road between Worthing and Shoreham is in a very unsafe condition at present, and two vehicles must not be on the bridge at the same time, while the speed on it must not exceed 5 m.p.h.

On Monday, 21st December, Mr. Sydney Westall, well known as a skilful driver in light car competitions, was married to Miss Hilda Madeleine Thruston. Mr. Westall's many friends will join with us in congratulating him.

In an area largely occupied by street vendors of Christmas toys a little cyclecar, with hood up, passed along. This was too much for a wag, who immediately yelled out: "'Ere y'are, little toy motor; all made to work; one penny the little motor!'"

On the authority of "The Motor," "Better smoke the pipe of peace with one leg than have both legs in the chains of slavery" was a happy phrase used at the Optimists' dinner. Personally we prefer a pipe without legs, or arms either for that matter.

"How the Motorcar Dodges the Railway" is the title of an illustrated article in "The Motor" this week. It sets forth some interesting and little-known facts concerning favourite motoring resorts and how they would have to be reached by rail.

A correspondent to "The Motor" suggests that it is time the motor trade advertised its goods in plain figures instead of in guineas. We think so, too, and in our Buyers' Review Number (30th November) we gave the exact price of every light car and cyclecar in £ s. d.

At the end of the first week after the London new rear light regulation was promulgated we passed one night on the Embankment between Westminster and Chelsea 13 vans without a tail light, only five of which had any light at all, while the only cyclist carrying a tail light was a policeman, who had wisely discarded the "reflex" reflector.

Contemporary fiction: "Peter . . . lives two miles away, and that's nothing to a man with a cyclecar. There's a deep groove worn in the road between his place and hers. Nan, by the way, calls it a 'power-pram,' and then he pulls her hair"—and so on, and so on for pages. Altogether, a very destructive young man, who must own a steam tractor kind of cyclecar.

A14

Next week—a special article on engine position and weight distribution, a point that greatly influences the ability of a light car to hold the road.

Wanted—the ideal tyre! We certainly cannot name any one tyre as a perfect preventer of skidding. We deal very thoroughly with this matter this week.

On tyres the light car scores over the cheap American car, for, as a contributor shows this week, a light car can run at a cost of only .32d. per mile for tyres.

It is always a debatable point whether depreciation should be included in running costs, but our contributor obtains the figure 1.8d. per mile with this item excluded, or 2.8d. per mile on an estimated depreciation, which is generous.

An illustrated article of great value, in view of the recent raid, appears in the current issue of "The Motor Ship and Motor Boat" on "How to Identify a German Warship." Diagrams of the distinctive features of the German boats are given.

Light car owners who join the A.A. now are covered by a special subscription of £1 6s. 6d. until 30th April, 1916, and cyclecar owners pay 13s. 6d. for the same period. The A.A. definition of a cyclecar is an engine capacity not exceeding 1000 c.c., which, as Euclid would observe, is absurd.

Most clubs, including the Cyclecar Club, are proposing, at their annual general meetings, not to ask for subscriptions from their members elected prior to the war for next year, unless the war terminates earlier than expected, in which case a proportionate subscription would be asked.

What has happened to our dear old friend "The Morning Post," which says that "doubtless the ultimate light car will be a vehicle scaling not an ounce more than a hundredweight per person accommodated"? The two-seater car as a 2 cwt. vehicle will be nothing more or less than two motorcyclettes coupled together in the future—we don't think.

Will Mr. Massac Buist kindly tell us how much horse-power is "absorbed" to work the hand or foot starter of the Horstmann or Dunhill type, as he suggests that the mechanical self-starter is placing too great a tax on the engine and is out of place on a light car? Why, even an electric self-starter won't worry the power unit much in recharging the accumulator!

Kentucky, U.S.A., is leading the way in the matter of motor proficiency certificates we gather from an overseas journal. All chauffeurs will shortly have to possess a licence which will only be issued to them upon passing a set examination, paying two dollars, and supplying a certificate as to honesty, sobriety and general character, signed by three reputable citizens.

There are 14,000 men attached to the Army Service Corps, Motor Transport Section. On their behalf, "The Commercial Motor" has organized a remarkably successful fund, which has exceeded £1000 so far, for the distribution of all sorts of campaign comforts in this section of our forces. Warm scarves, body belts, gloves, sweaters, underclothing, tobacco, and other presents have been despatched, 125 56 lb. cases having reached their destination so far. Contributions to the fund are earnestly requested, and should be sent to the Editor, "The Commercial Motor," 7-15, Rosebery Avenue, London, E.C.

WHAT IS THE IDEAL NON-SKID TYRE?

Some Practical Notes on Various Types of Treads for Different Road Surfaces, and a Suggestion for an Idle Fifth Wheel.

WE never remember a winter before in which the road surfaces have been so treacherous, and not a few light car owners have voiced the general plaint that in the whole gamut of non-skid tyres there is not one that is proof against sideslip and skidding under all conditions.

It is only within comparatively recent years that a multitude of non-skid devices have appeared as a variation of the conventional combination of rubber-grooved and steel-studded covers, which, fitted in pairs on opposite sides, is still the customary tyre equipment of the car manufacturer. It is by no means the most satisfactory, even for all-round conditions, but we look in vain for the absolutely perfect non-skid tyre or combination of-tyres.

The Light Car Skids.

The small car, by reason of its weight, is rather prone to skid, and often we have found that the better it held the road at speed, owing to low build and weight distribution, the worse it was for keeping a straight course on a greasy thoroughfare. Further, the London streets have never been allowed to get in such a thoroughly hopeless mess before since the beginning of the motor era, which is probably due to lack of scavenging, for hosing down the more important thoroughfares at night time is decidedly difficult when street lighting is reduced to the minimum.

The time is certainly ripe for inventors to produce the perfect tyre—one that shall be reasonably fast, yet grip on all surfaces, from a chalky hill to a normally slimy asphalted city street.

The steel-studded tyre is probably the most unsatisfactory non-skid device, and yet it answers under certain conditions. To be sure, the studs do not pull out so readily as formerly, and one may be expected to give 5000 miles on a driving wheel, but it fails utterly on wet or dry asphalt or a hard, dry road. It scores best on ordinary untarred macadam, whether wet or dry. The three-ribbed tyre, now so popular a type, is one of the fastest, cleanest, and most durable, and will stand up far better than a plain rubber tread. It certainly reduces the tendency to slip sideways, but if one locks the wheel in braking on wet asphalt it skids woefully. In the multitude of rubber and steel combination treads, not one is absolutely perfect, but the best all-round non-skid tyre is to be found in this type.

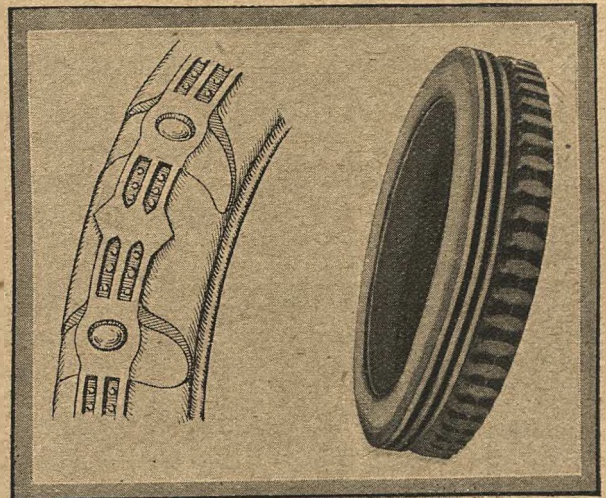
Treads to Suit Various Surfaces.

The average driver will meet with a great variety of surfaces, and, so far as our experience goes, the following types of tyres best meet the varied conditions of town and country driving.

Driving in town, there are four principal kinds of roads. Firstly, asphalt, on which, when dry, any plain rubber tread will grip perfectly, but the most pronounced rubber tread falls just short of the necessary adhesion when wet or greasy. When merely wet, the "suckers" of the Kempshall type of cover certainly get a pretty good grip, but not strong enough to prevent a slip sideways. The very bold diamond-shaped "lozenges" of the Stepney "Road-Grip" and deep V edges of the Beldam also afford a fairly good

hold of the surface, but when a thick, pasty mud covers the paving, only a steel-studded tyre has any chance, and not always then.

On wood paving the steel-studded tyre holds fairly well if the surface is dry, but the studs wear down, lose their grip, and the wood paving is often polished by the wheels of many thousands of vehicles until it is as hard and as slippery as asphalt, and not even a new steel-studded tread will grip as quickly as plain rubber then. On wet wood paving we have found a Stelastic tyre, which has innumerable spiral steel springs incorporated with the rubber of the tread, grips better than any other. In the first 2000 miles or so, the steel projects, so that it scores the hard if passed over the tread, but after a time wears down flat and becomes practically a plain, square-treaded cover, which will give many thousands of miles of



TWO NON-SKID SUGGESTIONS.

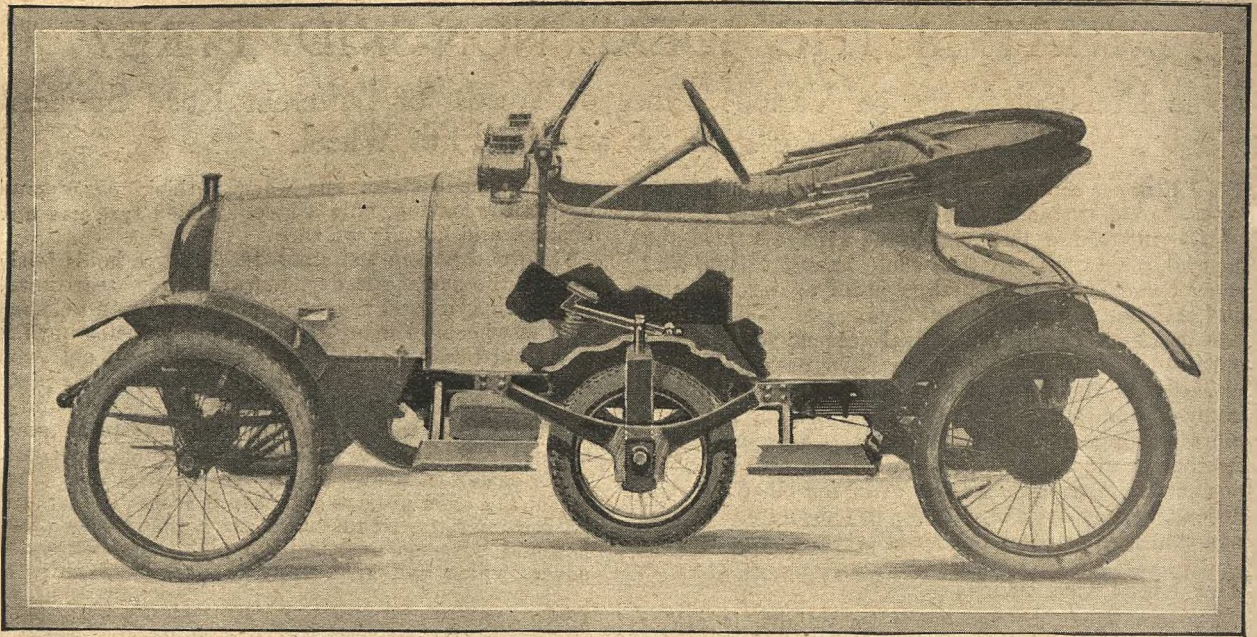
Left: a combination tread in which the Kempshall suckers, the Palmer ribs, the Goodyear rubber studs and steel studs figure. Right: a twin wheel with Stepney road-grip, and Palmer three-ribbed tyres.

useful work, but not as a non-skid. We know of no tyre, however, that will give a perfect grip on very greasy wood paving, and the greatest care is necessary when it is encountered.

The greatest risk on a tramroad when greasy is a skid promoted by catching either a front or a rear wheel in the lines, and where wood-paved the risk is greater. As a rule, this latter type of road is the most treacherous of any, and we have not found any combination of steel and rubber proof against skidding on it.

Various types of stone setts are now being tried for town roads, where there is a great deal of traffic. The best is undoubtedly that with very small square bricks, set in curves, rather than in straight lines. It affords a good foothold for horses, and even a plain, square rubber tread seems to get a grip of it. The bigger the blocks, and the more they are set in regular lines, the worse the grip, but here a rubber tread is better than one with steel studs.

On the country roads, when tarred, a most treacherous surface is provided in wet weather—one that



WOULD A FIFTH TYRE PREVENT SKIDS ?

This is a suggestion by one of our artists, who has ingeniously drawn in a fifth wheel, brought into action on a greasy surface by a pedal.

has caused many accidents. Most motorists think they can drive with impunity on a tarred macadam road, even when wet, or just drying, which is worse. A thin, greasy paste seems to work up, on which we have found a rubber-studded tyre gets as good a grip as any; the more prominent the studs, the better. The disadvantage of this type of cover, however, is that the studs in the centre soon wear down, and make it difficult to pull up quickly in an emergency. The grooved tyre, especially the Avon Sunstone, gets a fair grip, and will also stand violent braking without a great tendency to skid on the surface. A thicker sort of slime forms on the cambered edges, on which it is usually most difficult to keep a straight course.

On Ice-bound Roads.

On dry, ice-bound, rutty roads any form of non-skid tyre fares badly, and the wheels are pulled about considerably as the ruts are caught by the projecting studs or ribs. A plain round tread seems to hold best, or, properly speaking, is able to roll freely over the ridges. If the ice is just thawing, round-section tyres, with plain rubber treads, are just about as useless as anything could be, and steel studs are not much better. The only tyre that seems to get a grip is one with very prominent rubber studs, like the Stepney aforementioned or, alternatively, one with deep grooves, like the Avon Sunstone. The Kempshall "suckers" can hardly come into action on a rough surface, but on a half-thawed, smooth-tarred road they would undoubtedly.

There are so many and varied road conditions that the evolution of one perfect tyre suitable for all is well-nigh impossible. We should want small, prominent, steel studs (they must be small to be really effective on a light vehicle), to meet the condition of dry or wet untarred macadam: Kempshall "suckers" for wet tarmac; rubber studs for other conditions; and prominent ribs of the same peculiarly hard and durable rubber of the Palmer cord type, all combined

in one. Even then there would be some condition on which the wheels would fail. If we could use twin tyres, our difficulties would be less, but they are hardly suitable for a small car.

Failing that, one with very prominent, separated rubber studs or bars, each at least an inch from its fellow and $\frac{1}{4}$ in. deep, would prove a good non-skid tyre, but every time the wheel was violently braked on a dry road some of the studs or bars would be torn off, and the tyre would not last long.

As a compromise, it is suggested that different tyres should be used on the four wheels, and, indeed, a fifth on the spare wheel for certain conditions. We should specify a three-ribbed Palmer cord, an Avon Sunstone, or a Kempshall, a Dunlop steel and rubber-studded combination, and a Stepney Road Grip or Beldam, with a rubber-studded cover, like the Good-year, on the spare wheel. The Palmer we should put on the near side front wheel, to prevent front-wheel skids when rounding corners. We are wondering what would be the effect of a tyre with a tread composed of a "grooved" centre section of rubber, such as is used on one commercial solid tyre. We believe that this is to be produced on a pneumatic cover for small cars.

A Fifth Wheel Suggested.

To entirely prevent skidding, it seems feasible that a fifth wheel, running in the centre of the car, between the two axles, and capable of being separately braked, might prove effective. We should have it carried rigidly in a pair of forks pointing forward, so that it would have a tendency to "dig" into the ground when braked, and so stayed that it could not shift laterally. With a prominent tread, the fifth wheel should, in theory, prove most effective when braking, and absolutely prevent skidding.

When the fifth wheel punctured, it would be a horrible proposition to repair it, but, running idle, it would probably not offer any drag on the machine when deflated.



The Night Before the Rear Light Regulation Was Published.

A THIN beam from a solitary street lamp shimmers across the wood paving in dots and dashes of light. To the left one can dimly make out the hazy south bank of the river, by piecing together the positions of sundry pin-points of light, and catching a reflection on the water. In the distance a red tail lamp is disappearing. On the right, some gloomy warehouses can be made out with difficulty. It is all very dark and very mysterious, and with the grim uncertainty of what lies beyond the restricted range of a pair of dimmed sidelights and the more definite knowledge that the road is as treacherous as half-dry wood paving can be it is necessary to proceed cautiously.

It is not easy in this fumbling darkness to know what is one's speed. The engine purrs slowly on second speed, and is not very audible to other traffic, although with so few vehicles about the streets are relatively silent and sounds echo in ghostly fashion, but one judges it to be 10 miles an hour. The speedometer, like the rest of the car, is in darkness, and there is only a fitful yellow gleam on the edge of one wing, where the paint has been grazed away, to warn the driver that one sidelamp, at least, is alight.

Suddenly a beam of intense white light shoots across the sky. The searchlight crews are practising again. For a few minutes its silvery radiance illuminates the whole road, and reveals an unlighted cart some 100 yds. ahead. The light vanishes, and the darkness is intensified by contrast. Nerve-wracking work this, with the prospect of overtaking other unlighted traffic. We proceed even more slowly.

A light flashes across the front of the car, and the spokes of a bicycle wheel are discerned. Instinctively one's foot seeks the brake pedal. The tail of the car wriggles awkwardly on the greasy surface, and the cyclist disappears in the impenetrable darkness towards the kerb. Evidently, a cyclist on the wrong side of the road, and, hitherto unperceived, has thought it opportune to cross our track in blissful ignorance of his own elusiveness. Yet surely he could turn his head and make certain the road was clear? If he is invisible to us we cannot be to him. Keeping to the centre of the road, and accelerating slightly, his presence is made out by the fitful glimmer of his lamp, and we remonstrate with him.

"Want all the — road?" is all we can hear of his response.

Ah, what is that? Against the distant glow of a subdued street lamp at a bridge crossing we can just discern a moving object. Two, and yet another.

Three cyclists, bobbing to left and right, proceeding slowly along the centre of a wide highway as if no such thing as motor traffic existed. It is possible to admire their sangfroid; or are they merely ignorant? We give a short blast of the horn; two move to left and one to right. Another blast, and edging towards the off side, hoping that no unlighted vehicle will worm out of the darkness too late to avoid running into it, we essay to pass. All three shift to their near side, and then, just as we are level, the uncertain individual executes a frightful wobble perilously near our near-side front wheel. A hasty swerve, the brakes crashed on, the engine stops, and the car pirouettes round sideways. We catch a comment which sounds like "ruddy motorist."

We overtake them again, and notice that one has no light at all, while another appears to be hanging on to the car, the reflection of his lamp in the wind-screen bobbing up and down in a disconcerting way.

The angle of the screen is altered to get rid of this inconvenience, and then another dark patch of road, and once more we crawl along. This is too much for the cyclist, who comes dashing by and swerves right across the car. Heavens, if he side-slipped on this greasy road! Nothing could save him. No wonder there are so many night-traffic accidents.

At every illuminated stretch of road we overtake and pass him, the hanging-on tactics and the violent swerve across our wheels are repeated. Evidently this is done maliciously, albeit the cyclist is a fool for whom no jury would feel much sympathy, as our passenger remarks. Sooner or later we may run into him, and taking advantage of increased traffic and a lighter thoroughfare we get away, the last we see of him being an apparent mix-up with an unlighted pair-horse van.

A heavy rumble behind, and a light that gradually steals across the car, catching the instruments on the dash, warns us of an overtaking vehicle. It is a Red Cross car, and we envy the driver's immunity from the lighting regulation as he sweeps along at a good 20 m.p.h. His light, too, reveals various obstructions, which are noted and passed with greater ease.

Now there is another dark patch, and then—almost into it. A lorry across the road, the driver attending to the horses, apparently, and not a vestige of light. What are the drivers thinking of to-night?

We slow up for another bridge crossing, and note the ghostly skeleton of a tram as it glides across our track, all lights extinguished.

LONDON LIGHTS (contd.).

Many more encounters with cyclists. One we pass quite unknowingly until he is level with the side of the car, so close that we dare not swerve. He is painfully labouring up the steep rise of Putney Hill at walking speed. Twice on the journey home we stop for a few seconds relief from the strain.

In the outer suburbs there is more light—too much, in fact—for the very bright electric sidelamps of a car are so dazzling that we do not see another unlighted van, pulled up at the side of the road, until, by great good luck, one of our lamps catches a golden

“L,” part of the name painted on the back. The side brake is pulled on hard, and the car stops in its own length, with inches to spare, and, as we pull up, a cyclist, lamp out, flits by on the offside. Another lucky escape. We look round for the driver of the van—but no, he is not there—reverse the car and get away, and arrive home, safe once more, after two miles along a country road, with aimless pedestrians to dodge, as well as cyclists and carts.

And next morning we read the glad news that rear lights on all vehicles, even down to the lowly handbarrow, are to be compulsory.

About time, too!

JOHN GILPIN, JNR.

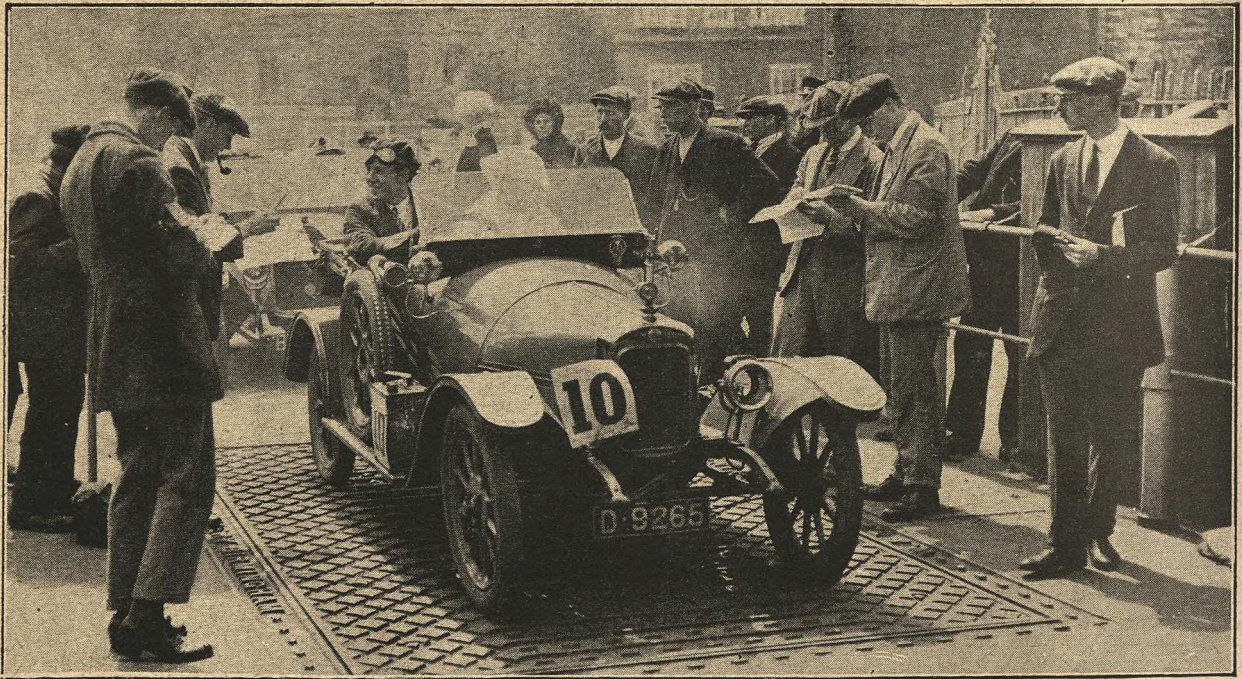
“A CERTAIN LIVELINESS.”

THE expression used of the North Sea and our Fleet is very applicable at the present time to the motor trade and the Midlands, for a “certain liveliness” prevails.

It is made apparent in many little ways, for example, one famous light car concern recently supplied some light cars to the War Office, and so well are they performing that a three-fold repeat order has been received. In addition, an order for what we know, but may only describe as “munitions of war,” was received early in the war with thankfulness, but now

found in the daily Press of the Midlands, for in one daily paper we counted no fewer than 26 well-known firms in the motor trade advertising for all kinds and conditions of workmen and mechanics. Many of the firms have lost some of their best men, of course, but that so many of them should find themselves in difficulties owing to a shortage of labour was unthought of in the first weeks of the war.

In other cases large car manufacturers who, before the war, were contemplating turning out light cars, are now proceeding with their manufacture, and one



Mr. J. Avory Tickell and his Calthorpe Minor at the weighbridge on the occasion of the Cyclecar Club's hill-climb at South Harting last July. He took part in the Cyclecar Club's August Wye Valley tour, during which, owing to a side slip, to avoid a big dog, he was very seriously injured. We are glad to hear that he has now quite recovered from his injuries, which included a fracture of the base of the skull. Other well-known people figure in the photograph. On the extreme right is Mr. John Bryan, the well-known artist, and next him Dr. Low, who is conferring with Mr. Frank May, well known in the motor-cycling world. The hon. secretary of the club, with pipe in mouth, will be discerned on left.

that business is returning to the normal it is likely to prove a thorn in the flesh, although the works are in full swing for long hours seven days in the week.

In another case a well-known motorcycle and cycle concern has long been making exhaustive experiments with a view to entering the new motoring movement, but now this has had to be shelved indefinitely owing to the amount of ordinary work.

Yet another instance of the certain liveliness is

or two new models may shortly be expected. In fact, the amount of experimental work being carried out is surprising, but in many cases this will now have to give place to the ordinary work.

When it is realized that the mid-winter months are always the slackest part of the year, there would seem to be good ground for anticipating a more complete return to normal conditions in the early spring. But we must have a Spring Show.

LITTLE THINGS THAT MATTER.

Readers are Invited to Contribute Useful Hints and Tips. All Matter Accepted will be Paid For.

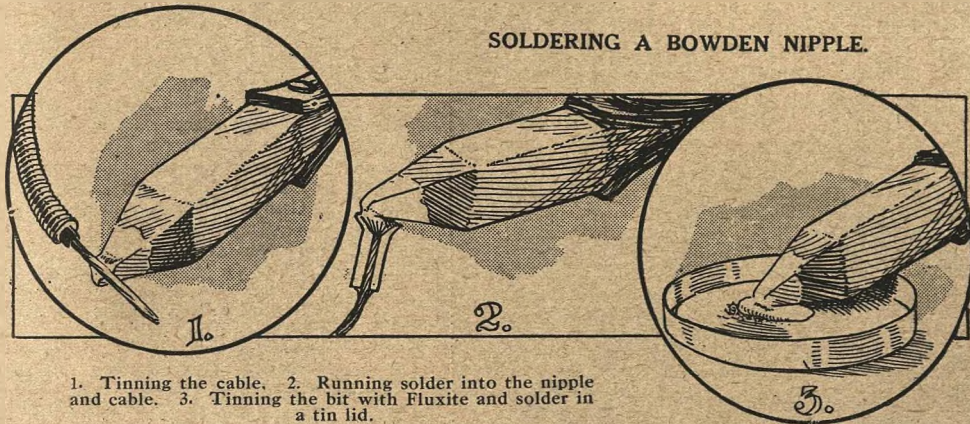
Simple Soldering Methods.

THE light car or cyclecar owner who undertakes his own repairs will find the soldering iron an invaluable tool when correctly used. It may be the fixing of a nipple on a Bowden wire that confronts him, and as this is a fair example for the use of a soldering iron, we describe it in detail.

The necessary tools are a soldering iron and some method of heating it, a tin of flux, a stick of solder, and a file for cleaning both the work and the iron. The essential point for a successful job is cleanliness, and the work should be chemically clean and free from

The soldering "iron" is, as everyone knows, a piece of copper, and, in choosing the iron, a fairly large one should be obtained, as it will not require such frequent heating as a smaller one would. A large iron has the disadvantage that it is tiring for the inexpert to handle, and if quite small jobs are undertaken a small iron will suffice.

The whole success of soldering lies in cleanliness, as already pointed out; but too much stress cannot be laid on this point, as it is useless to attempt to make the solder take on a dirty piece of metal. When the



1. Tinning the cable. 2. Running solder into the nipple and cable. 3. Tinning the bit with Fluxite and solder in a tin lid.

any trace of grease. The wire should be threaded into position carefully, as it is annoying to find that to put the wire in place the nipple has to be removed after it has been soldered.

The end of the wire may then be wiped with a petrol-soaked rag and scraped with the file to remove any film of oxide and expose the clean metal. The brass nipple should also be cleaned with petrol, and both wire and nipple should then be coated with the flux. A lot of trouble will be saved by using one of the prepared fluxes, such as Fluxite, in preference to the "killed spirits."

While these preliminary operations have been in progress the soldering iron should have been heating, and a certain amount of care should be taken over this. The iron may be heated in a gas burner of the Bunsen type, or in a clear fire, and it must be watched to see that it does not get too hot. A green tinge in the flame shows that the iron is at about the correct temperature to use.

The tip of the iron should be scraped clean with one or two strokes of the file, then dipped into the flux and touched with the stick of solder, when a blob of molten solder should adhere to the iron, which is then said to be "tinned." The end of the Bowden wire should now be gently rubbed with the tinned end of the iron, more solder being taken up by the iron as the wire becomes coated.

The wire nicely coated, it can then be cut to length easily, and the nipple slipped into place. Solder should now be run into the joint, the iron being kept on the nipple until the solder is all molten, when, on removing the iron and allowing the solder to set, a sound joint should result.

If the operations are not performed quickly, it may be necessary to heat the soldering iron again; but the tinning process should not be necessary, a touch of flux bringing the shining surface of the tin out again at once, unless the iron has been allowed to get too hot in the reheating.

surfaces to be joined are clean, the solder will flow evenly over them as soon as the iron has made them hot enough to melt the solder.

A word of warning should be given to those who wish to solder a leaky petrol tank. This is generally impossible with the tank in situ, and may require more heat than can be applied with a soldering iron. If a blowlamp is used, great care must be taken that no petrol or petrol vapour is left in the tank, as fatal accidents have occurred through the explosion of tanks which have contained petrol vapour.

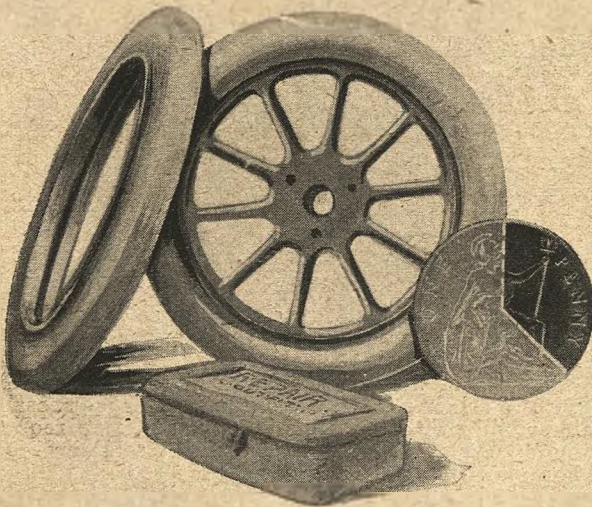
Some trouble may be experienced at first in "tinning" the soldering iron. Obtain an ordinary tin lid. A little flux is put on the lid and a drop of solder melted on to it, and if the tip of the iron is filed clean and instantly placed on the flux and solder it will take up the solder. If this is not done quickly, a film of oxide forms on the surface of the copper and the solder will not adhere to it.

When the article to be soldered is large it becomes necessary to use a blow lamp, especially if a small soldering bit is used. Much trouble is often experienced with blow lamps, simply from lack of care, for the first essential is absolute cleanliness, as the hole in the nipple through which the paraffin or petrol vapour issues is extremely small. Also, when starting up the lamp, it should be made hot enough to give proper vaporization of the fuel before this is turned on and allowed to issue from the jet.

A very useful blow lamp for the motorist is the Imp torch, and this can be obtained almost anywhere for 5s. There is no pump or anything to get out of order, and it consists of a petrol container into which a wick dips, this wick being contained in a tube on the end of which is the nipple and burner. On heating the tube the petrol in the wick is vaporized, and issues from the nipple with sufficient pressure to burn properly in the Bunsen burner. The lamp is quite small, and may easily be carried on the car in the tool locker ready for instant use.

17,000 miles for a Running Cost of Under 2d. per Mile — A Northern Traveller's Remarkable Detailed Record.

WHEN many readers discover that it was only in the early part of 1913 that I started using my little Singer for business purposes, I shall fully expect to be bombarded with letters signed "Veteran" or "Old Stager," saying that they have been using a 6 h.p. De Dion or an old M.M.C. since 1903, and so on. However, if people will regard the present 10 h.p. light car as a distinctive type, then I can lay claim to being a pioneer, for my 10 h.p. Singer was the first to be running about the streets of Manchester. Great amusement it caused, too, amongst the crossing "bobbies," tram drivers, etc., as it sped about, dwarfed to insignificance by the heavy traffic of the northern city. I purchased the Singer



Tyres cost only '32d. per mile.

primarily for business journeys within a 40-mile radius of this city, and anyone knowing the condition of the roads connecting the many small Lancashire towns will realize what a severe test of the whole machine is such travelling.

There is not the slightest doubt that a light car for their travellers' use is a proposition that ought to be considered by every up-to-date firm.

The economy of upkeep, protection from weather, and ease of handling cannot be approached by any other form of motor in spite of all one reads about the wonderful fuel economy, etc., of certain American cars which one sees in dozens.

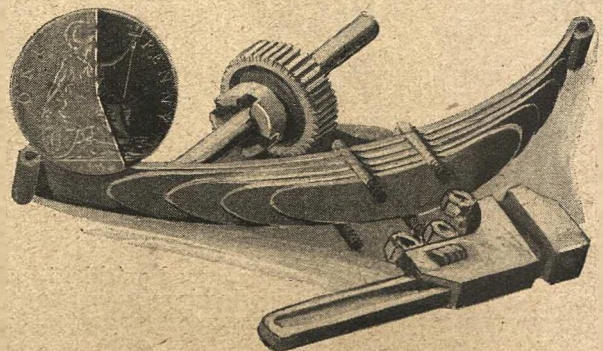
Now, as this article is written mainly for the benefit of business men, no doubt they would like to know more about the commercial aspect of the question. I cannot do better than cite my own personal experiences, and as these are backed up by a carefully-kept and tabulated list of running expenses, they should form an interesting guide for those who are hesitating about the purchase of a light car.

Of course there are very many travellers to whom a car would be of no use, but very many more who, like myself, have a large number of towns at which to call, and perhaps only two or three calls to make in the smaller towns: to these travellers such a car is invaluable. Now, in my own case, these smaller towns were not worth "working" when one had to depend



Original Cost and

1912.	CAPITAL EXPENDITURE.	£	s.	d.
Nov.	Deposit on car	50	0	0
1913.				
Jan.	Motor house	6	0	0
	Iron fitting	0	9	6
	Asphalting	3	6	0
Feb.	10 h.p. Singer (No. 51)	135	0	0
	Suede grey finish	0	10	6
	Valances	0	12	6
	Number plates	0	10	0
	Delivery charges	1	18	0
	Luggage carrier	0	9	6
	Extra for oil lamps	1	4	9
	Compression taps	0	4	0
	Watford speedometer	4	4	0
	Watch	0	12	6
	ADDITIONS.			
	Special h.-t. terminals	0	3	6
	Lodge plugs	0	11	6
	Spanners	0	3	0
	Wash brushes	0	8	0
	Rear lamp bracket	0	3	0
	Hood separators	0	2	0
	Three funnels	0	5	0
	Sundries	0	17	9
March.	Washing hose and union	0	15	7
April.	Screwdrivers	0	1	0
	Rug	0	7	6
May.	New pattern cylinders	3	0	0
	New 11.4 to 1 gear	3	0	0
June.	Screwdrivers	0	0	8
Aug.	Tyre lever	0	2	0
Sept.	Springs	0	0	6
Oct.	...			
Nov.	Spanners	0	1	11
	Brass caps for shock absorbers	0	1	0
Dec.	Starting handle cover	0	1	3
1914.				
Jan.	Tin case for oilcan	0	1	6
March.	Petrol can holder	0	4	4
	Washleather	0	0	10
	Set electric lamps	1	12	0
	Four-volt bulb and switch 2/9	0	4	1
	New pattern camshaft	3	0	0
April.	Bulbs and fixings for lamps	0	4	8
	Dry battery	0	1	6



Replacements account for '33d. per mile.

The Complete Running Costs for Two Years of a Typical Light Car Used for Business and Pleasure.

Cost of Upkeep.

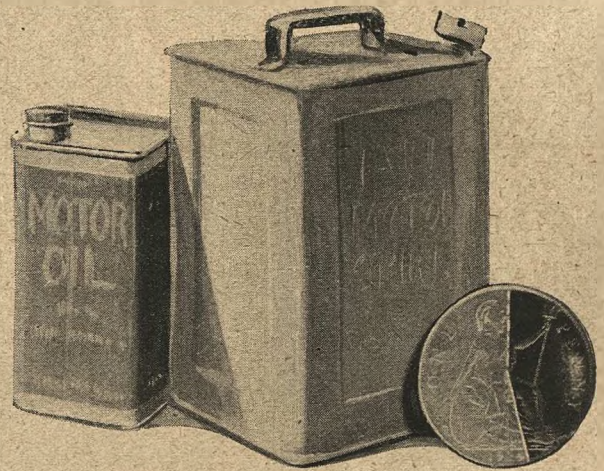
1914.		ADDITIONS (con.).	£ s. d.
April.	Hood covering		0 1 7
	Second-hand accumulator		0 17 6
	Pair goggles		0 0 10
May.	New 1914 shock absorbers		1 15 0
July.	Tubing for lamps		0 3 0
	Spanner		0 1 0
	Total		£223 14 3

1913.		REPAIRS AND REPLACEMENTS.	£ s. d.
Feb.	Asbestos packing, bolts, etc.		0 3 4
March.	Plugs, dry battery		0 2 7
April.	Washers, bolts, etc.		0 0 10
May.	Broken spring		0 2 0
	Adjustments at Singer's works		1 10 0
June.	New switch		0 3 6
Aug.	Bolt		0 0 3
	Borrowed tail lamp lost		0 7 6
	Cycleclean of cylinders		0 15 0
Sept.	Engine overhaul		0 12 0
Oct.	Lamps		0 2 6
Nov.	New leaf and re-tempering rear springs... ..		0 18 6
	Water joint		0 4 2
	Repair to wheel		0 10 0

1914.		REPAIRS AND REPLACEMENTS.	£ s. d.
Jan.	Adjustments		0 2 6
Feb.	New brake shoes		0 15 0
March.	New cylinder casting and engine overhauled		4 0 0
	Transmission overhauled		2 0 0
	Steering overhauled		1 0 0
	Reassembling and road tests		2 0 0
April.	Washer, blacklead, etc.		0 0 5
	Speedometer repair		0 1 0
	Rear spring leaf		0 2 6
May.	Engine packing, nuts, washers		0 4 6
June.	Plugs		0 1 0
July.	Tarring garage roof		0 3 0
Aug.	New ball race for wheel		0 5 3
	Transmission and steering overhaul		7 10 8
	Total		£23 18 0

on the train and tram service, as it meant, perhaps, wasting an entire morning or afternoon over a few insignificant firms and many weary hours in desolate railway stations.

With the light car all this is altered. I am able to make all these calls without the loss of a minute, taking them en route for the larger centres. As to reliability, I can only say that in all the 17,000 miles the little car has never yet failed to bring me to my destination. Perhaps not always to time, for the puncture fiend is no respecter of tyres or persons, and even fine gauze strainers do not prevent that source of annoyance—a choked jet. With the latter, I have had a lot of trouble, as the small-size jets used on the



Petrol and oil cost '54d. per mile.

modern light car seem peculiarly liable to get choked. Further, I have had to pay the penalties of a pioneer. I had a very early model—No 51—and many points needed alteration, notably the original valve-plate cylinders, which were soon replaced by the present screwed valve cap. The springs were also found too light; but in all these matters I must say that the Singer Co. showed a desire to please that should win them many future orders. The fact of my being a pioneer, therefore, partly accounts for the "repairs and replacements" being rather heavy, but I believe in keeping the machine in first-class order, and, at the time of writing, there is not a loose bearing anywhere in the whole machine.

With the latest models of any well-known light car, all these troubles are over, thanks to the experiences of others like myself. I have now brought my own small car to such a state of reliability that I can undertake trips of three and four hundred miles continuous running without the slightest hesitation, knowing that, beyond supplying it with oil and petrol, it will not require any other attention.

For a business man, this sense of reliability and security is of paramount importance, and I can safely advise all who are hesitating to buy one of these fascinating little machines and become absolutely independent of trains and trams. Better attention can be given to customers, a better impression is created, and much better business will result.

The amount of extra business thus obtained far



Licences, insurance and fines, cost '235d. per mile.

REMARKABLE RUNNING COSTS (contd.).

exceeded my most sanguine expectations. During the first year of use I increased the turnover of my firm over 40 per cent. The secret of this is that, by means of the car, I am able to do the work of at least three men. I find it quite an easy matter to cover 60 or 70 miles in the day and make between 30 and 40 calls. This all depends on the district, and would, therefore, be increased or decreased accordingly.

Readers may take my figures as being as accurate as very carefully-kept accounts can make them, and I should be only too pleased to furnish anyone interested with any further information desired.

Tyres do very well on these small cars, and average 8000 to 10,000 miles on all wheels.

The expenditure on tyres is interesting, for when the car was delivered in February, 1913, two studded and three grooved Dunlops were specified, this involving an extra £5 2s. 6d., which is rightly reckoned in tyre costs. In April a Dunlop inner tube was purchased at 14s. 6d. and one of the studded tyres retreaded for £1 8s. 5d. The next large tyre expenditure was in August, when a new Dunlop grooved tyre was purchased, £2, and two Almagam retreads, £1 3s. 3d., followed by two more retreads in September at the same price.

In March, 1914, an Avon fluted tyre was bought, £1 7s. 10d., and in April a Dunlop grooved, £2. In June two more Avons cost £3 10s. 8d., and two retreads £2 1s. 10d.

A few items appear as puncture repairs or sundries, varying from 1s. 3d. to 2s. in cost.

Under the heading of petrol and benzole, 26 gallons of benzole were used in April, 1913, six gallons in July and 10 in September. Not until February, 1914, was benzole used again when two gallons were consumed, four gallons in June and three in August completing the benzole consumption.

Garage, of course, was frequently necessary, but the item of £6 11s. 3d. for the whole period cannot be considered excessive. The largest monthly charge for garage was in June, 1913, and was 15s. 8d., but on an average the cost was just over 6s. per month.

Under lighting is included carbide, paraffin and accumulator charging, totalling £1 3s. 1d.

Cleaning also is a very small item, and £1 12s. 4d. for this is very reasonable, especially when it is considered that on some calls the car would be required to look at its best.

Another item may need explanation, the £2 11s. for fares to and from the Singer works, but these were incurred when leaving the car for the thorough overhauls it received. Doubtless the freedom from trouble is largely due to the care the car received.

SUMMARY.

Total mileage, 17,162.		Period 19 months.		
		£.	s. d.	Per mile.
Petrol (462 gals.—37.06 m.p.g.) ...	...	33	17 3	.473
Oil and grease (oil 24½ gals.—350 m.p.g.)	...	4	15 6	.066
Tyres ...	...	22	18 8	.320
Lighting (paraffin, carbide, accumulator charging) ...	...	1	3 1	.016
Cleaning ...	...	1	12 4	.022
Garaging ...	...	6	11 3	.091
Repairs and replacements ...	...	23	18 0	.334
Sundries ...	...	3	10 5	.049
Fares to and from Singer Works ...	...	2	11 0	.035
Insurance, licenses, subs. and fines ...	£20 13 0			
Less unexpired insurance ...	£2 6 0			
Licenses ...	1 6 3			
Sub. ...	0 4 3			
		3	16 6	
Interest on capital (£224 at 5 per cent.)		16	16 6	.235
Capital expenditure ...	£224 0 0	11	4 0	.156
Estimated present value ...	150 0 0			
Balance ...	£74 0 0			
Depreciation ...		74	0 0	1.034
		£202	18 0	2.831

Total cost per mile 2.831d.

Perhaps I had better add that I have not the slightest interest in the makers of my car; but I think they deserve the success they have achieved, for having had the courage to place an absolutely new type of machine on the market.

CECIL KIMBER.

DETAILS OF GENERAL EXPENDITURE AND RUNNING EXPENSES.

	MILEAGE PARTICULARS			PETROL AND BENZOLE.		TYRES. Total for month.	OIL AND GREASE. Total for month.	INSURANCE, LICENCES, FINES, Etc. Total for month.	SUNDRIES. Total for month.	REPAIRS AND REPLACE- MENTS. Total for month.
	Pleasure.	Business.	Total for month.	Gallons.	Total for month.					
1913.					£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
February ...	146	—	146	10	0 15 8	5 2 6	0 10 8	9 18 6	0 3 10	0 3 4
March ...	1451	408	1859	52	4 2 2	0 2 0	0 3 0	—	0 3 1	0 2 7
April ...	531	523	1054	42	3 1 11	2 4 5	0 17 9	0 13 6	0 2 1	0 0 10
May ...	838	307	1145	21	1 11 10	—	0 4 1	0 2 6	0 1 7	1 12 0
June ...	953	842	1795	43	3 6 3	0 1 6	0 1 0	—	0 1 3	0 3 6
July ...	627	750	1377	30	2 3 3	0 1 0	0 1 0	—	0 2 0	—
August ...	1081	110	1191	34	2 11 2	3 5 3	0 4 0	—	0 8 7	1 2 9
September ...	657	137	794	26	1 18 4	1 4 6	0 1 0	—	—	0 12 0
October ...	153	213	366	7	0 8 5	—	0 1 9	—	0 1 4	0 2 6
November ...	283	—	283	2½	0 4 5	—	—	—	0 6 6	1 12 8
December ...	535	174	709	12	1 1 8	—	0 6 4	—	0 7 0	—
1914.										
January ...	165	98	263	47½	2 7 9	—	0 1 0	8 18 6	0 6 3	—
February ...	384	385	769	10	0 14 8	0 11 0	0 6 6	0 7 6	0 1 0	0 2 6
March ...	416	469	885	16	1 5 8	1 10 4	0 8 11	0 1 0	0 4 11	9 15 0
April ...	789	429	1218	34	2 11 2	2 0 6	0 7 6	—	0 5 0	0 3 11
May ...	421	157	578	19½	1 9 4	0 1 0	0 8 3	0 10 6	0 5 11	0 4 6
June ...	919	365	1284	29	2 2 10	6 6 4	0 7 3	0 1 0	0 6 0	—
July ...	443	464	907	18	1 7 2	0 6 0	—	—	0 3 6	0 4 0
August ...	524	25	549	8	0 13 7	0 2 4	0 5 6	—	0 0 7	7 15 11
Totals ...	11,316	5856	17,172	461¾	£33 17 3	£22 18 8	£4 15 6	£20 13 0	£3 10 5	£23 18 0

AGENTS.

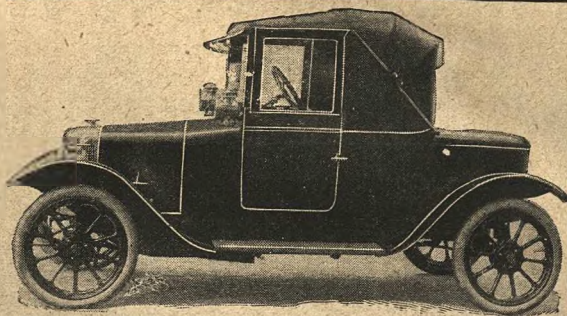
LAGONDA

11 h.p. 4 cyl. CARS.



£150

5 cwt. Light Delivery Van.



£150

Write for Catalogue.

TOLLEMACHE & GRIFFIN, — Ltd.,

195, Hammersmith Road,
London, ————— W.

Messrs. Edgar Harding,
241, Deansgate, Manchester.

Messrs. St. Stephen's Autocar Co.,
40, Dawson Street, Dublin.

Messrs. Neath & Dist. Auto. Co., Ltd.,
21-22, Alfred Street, Neath.

Messrs. John Huie & Co.,
62-64, Longrow, Campbelltown.

Messrs. T. Green & Son, Ltd.,
Smithfield Iron Works, Leeds.

Messrs. Travers, Ltd.,
77, Pilgrim St., Newcastle-on-Tyne.

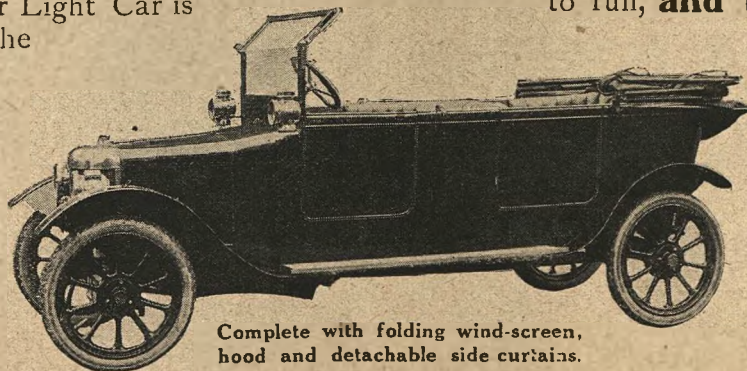
Messrs. J. Mather & Co.,
Lombard Street, Newark.

Messrs. Goad & Grillage,
Plympton, Devon.

A Splendid Car at a Wonderful Price.

The new Lagonda four-seater 11 h.p. four-cylinder Light Car is absolutely the **cheapest** four-seater car in the world. Not the **lowest** in price, but the very

best value for money, the **cheapest** to run, **and the lowest in price but one.**



Large and expensive touring cars provide no more leg room.

Complete with folding wind-screen, hood and detachable side curtains.

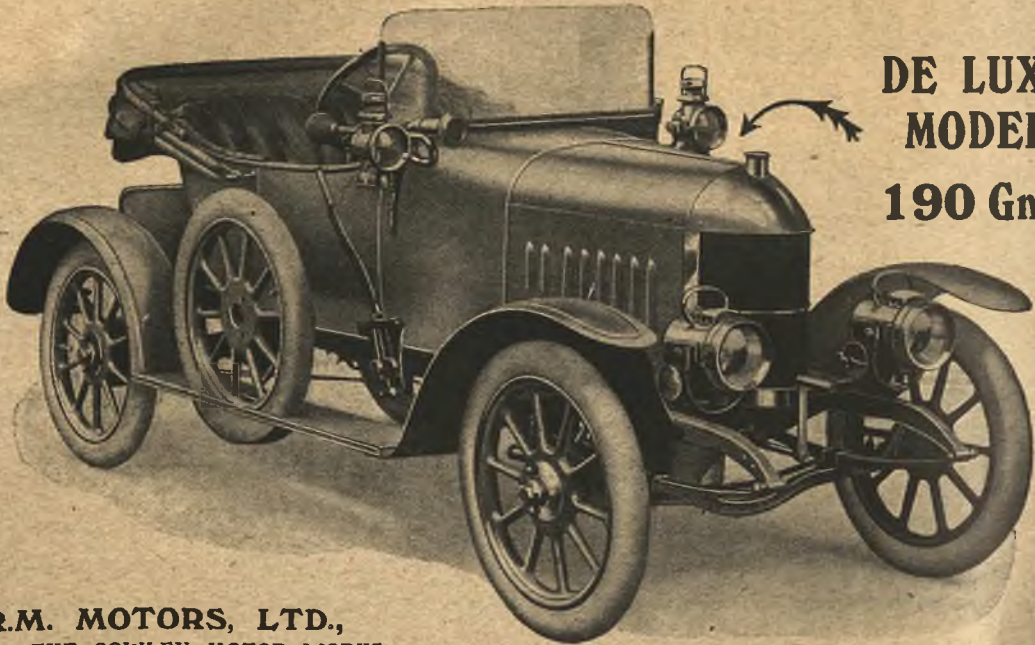
Price — 150 GUINEAS — Complete

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.

B7

MORRIS OXFORD



**DE LUXE
MODEL
190 Gns.**

**W.R.M. MOTORS, LTD.,
THE COWLEY MOTOR WORKS,
COWLEY, near OXFORD.**

Telephone: 590 Oxford.

Telegrams: "Voiturette, Cowley-Oxon."

London Agents:
Stewart & Arden, Woodstock St., Bond St., London, W.

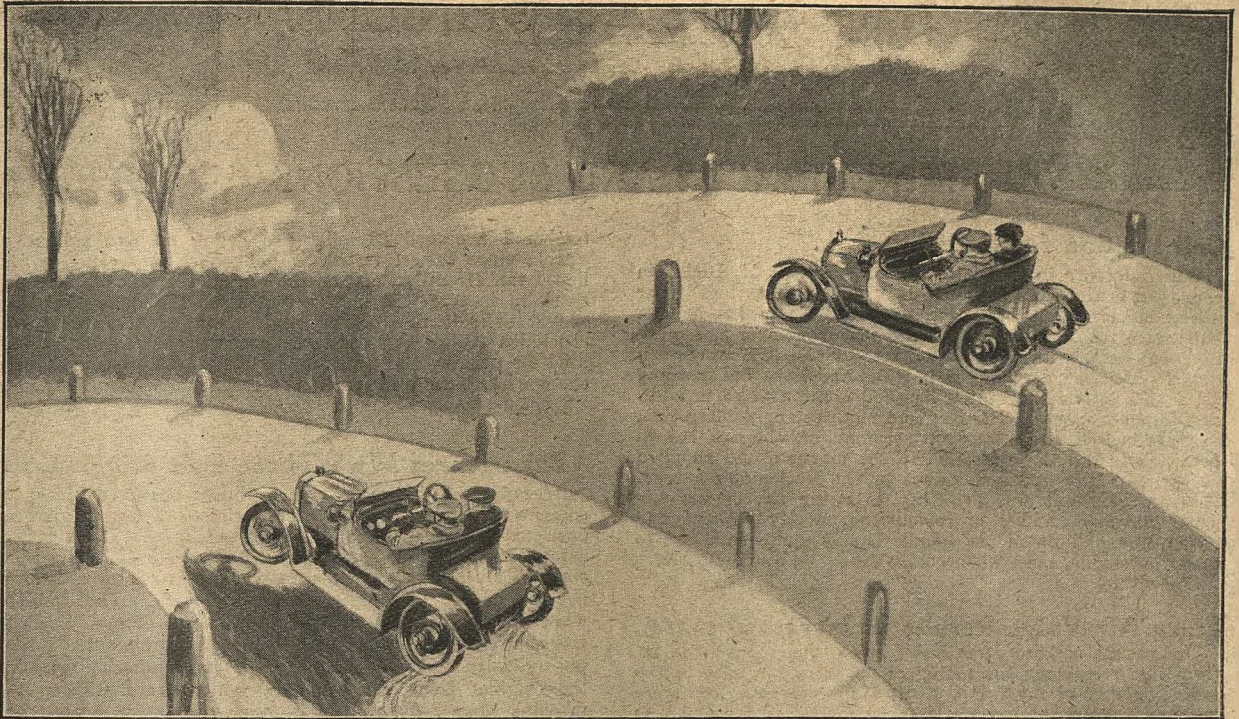
Wholesale and Shipping Agent:—
W.H.M. Burgess, 36, 38, 40, Glasshouse St., Piccadilly Circus, W.

"All Mechanism but the Engine."

WRIGLEY'S

**E. G. WRIGLEY & CO., LTD.,
FOUNDRY LANE WORKS,
SOHO, BIRMINGHAM.**

HOLDING THE ROAD.



Right : How a light car should hold the road on a corner, keeping an even keel and hugging the bend. Left : How many light cars do not hold the road, skidding to the outside of the bend and the body lifting slightly.

AN expression often applied to a car is that it "holds the road well," but this is a matter which depends upon the speed of the car. Unfortunately, many light cars hold the road passably well at low speeds, but are far from comfortable at anything over 35 m.p.h., although capable of between 40 and 45 m.p.h.

Road racing has taught large car manufacturers how to make their cars hold the road, and as soon as the light car makers started to build racing models they found that they had the same problem to solve before they could attain high speed.

It is frequently stated that the ability to hold the road depends upon weight and that a light car cannot possibly be made to hold the road on account of its low weight. Now, during the last few weeks I have had the opportunity of driving two light cars which were considerably lighter and faster than the majority of light cars, but these two machines both held the road in a wonderful manner, thus proving that a light car can be made to hold the road.

One of these machines was a sporting model A.-C., which weighed but a fraction over 9 cwt., and yet, at speeds well up in the fifties, it held the road as easily and comfortably as at 20 m.p.h. There was no clinging to the wheel and bouncing out of the seat, as there would have been on most standard light cars at that speed; in fact, it was quite as safe to loose the wheel as at the lower speed.

The reasons for this were manifold. In the first place, great care had been given to the distribution of weight, the seats being staggered and the passenger sitting some inches behind the driver had the effect of throwing more weight on the back axle.

The frame also was set slightly lower on the springs, and as the occupants were practically sitting on the floor the weight must have been carried considerably lower than is usual on touring models.

The rear springs had also received attention and had been bound with cord to damp out the rebound after going over a bump.

The effect of these adjustments was wonderful, for on a bad road there was no bouncing of the back wheels and none of that annoying swaying of the back of the car. This would also have a marked effect on the life of the tyres, of course.

It is, therefore, not so much in the weight itself that the ability to hold the road lies, but in the correct distribution of the weight, and the method of settling this on large racing cars is interesting. The experimental car is built with the weight distribution as near that which theory and previous experience dictate, and the car is then tried out on the road.

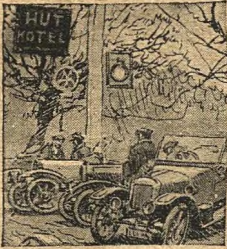
The weight distribution is then slightly altered by moving the engine backwards or forwards in the frame, or possibly by moving the seats, and the car is again tested. This will be repeated many times and the data gained carefully kept and compared until the best result is obtained.

It is also well known that the racing Singer, which was a star performer at Brooklands in the days of peace, holds the road or the track in a marvellous fashion, and it is, of course, considerably lighter than the majority of touring light cars.

It will be evident from these examples that it is not an impossibility to build a car in which light weight is combined with the ability to hold the road, and it is only necessary for the motoring public to demand such cars, and to refuse all others, for them to be forthcoming.

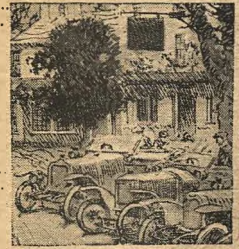
Many people will say that if their car holds the road at 30 m.p.h. it is all they desire, but with the majority this ceases to be the case after a few months and even the most timid of drivers will be found doing his 40 or 45 m.p.h. and glibly talking of "all-out" sprints.

A.G.D.C.



THOUGHTS AND OPINIONS.

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



EXPERIENCES AND SUGGESTIONS.

Coil Ignition for Easy Starting.

With reference to the letter from Mr. W. J. M. Dicks, in your issue of the 7th December, on "Difficult Starting," your correspondent might have noticed that in *THE LIGHT CAR AND CYCLECAR* of 19th October and 2nd November this question was dealt with by two writers. I can say for myself that I purchased a small car in June and have had nothing but bother in starting until I had coil ignition fitted in addition to the magneto. The magneto requires slight alteration, a special switch, and a four-volt accumulator. Messrs. Brown Bros., Ltd., did the alteration to the magneto and supplied the switch. The fitting was done by the local motor garage. Whereas before it was necessary to swing the engine violently for any number of revolutions, mostly without any result, one pull up of the handle is now quite sufficient to start the engine, even when cold.

J. R. BOGER.

Lostwithiel.

Extra Air Valve Results in Increased m.p.g.

Under date of 23rd June last I wrote you for a little information respecting the fitting of an extra air inlet to the induction pipe of my 7 h.p. Swift 1914 cyclecar. You were good enough to give me the information asked for and also expressed the opinion that I should not improve much on my consumption at that time of 50 miles per gallon, and I thought you might be interested to know the result of my experiment. I fitted the extra air inlet in the position you suggested and at the same time I also fitted a smaller jet to the carburetter. When away for holidays early in Sep-

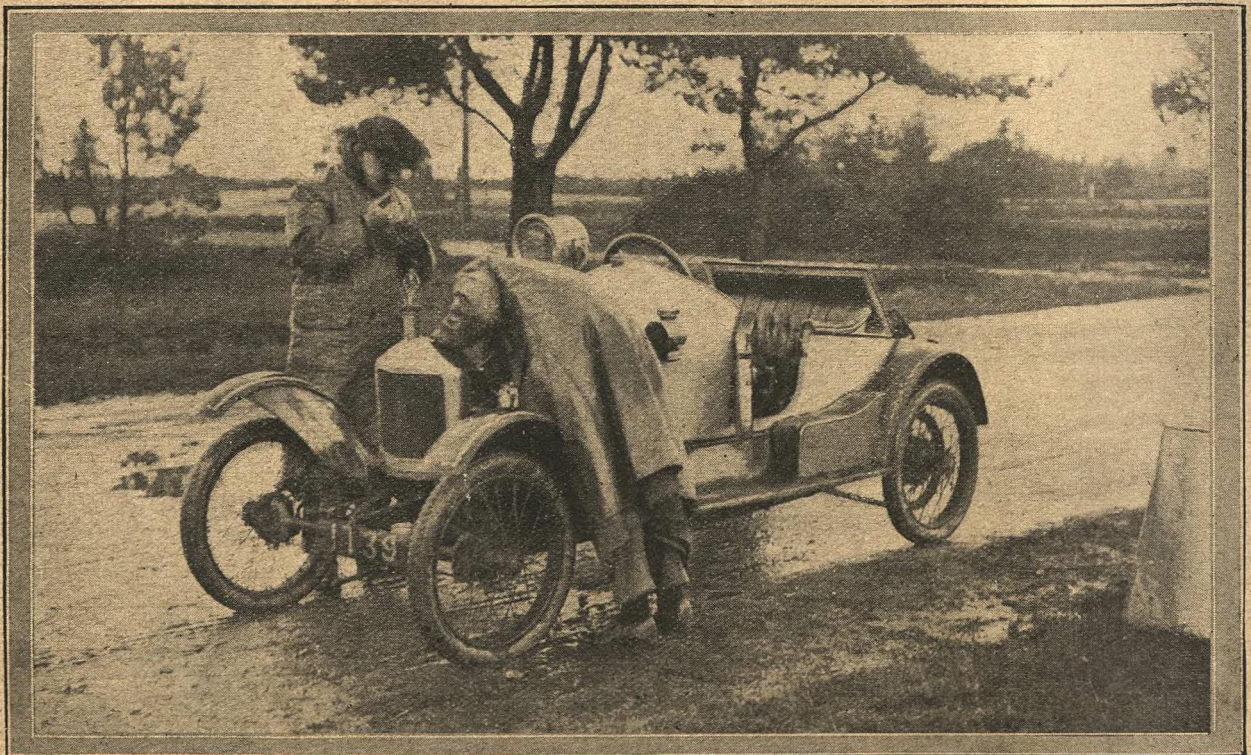
tember I averaged 58 miles per gallon on five gallons of petrol; since then I tested on two gallon tins, and on the first I ran 115 miles, and on the second 125 miles. I did not specially measure the petrol, but took the quantities as I bought them in the ordinary tins. None of these tests was concluded in one day, and the consumption includes petrol used for priming the cylinders for starting, so I consider the change has been well worth the trouble and small expense.

Hyde.

L. BATEMAN

Experiences With Three Belt-driven Cars.

Regarding the letters which have appeared in your columns respecting belt drive on cyclecars, I beg to give my own experiences. I have had three machines. The first was a tandem-seated Sabella, fitted with 8 h.p. J.A.P. air-cooled engine. By the way, I have never been troubled with overheating of air-cooled engines on cyclecars. The machine when purchased was fitted with 650 mm. by 65 mm. Michelin tyres, which ran for 4000 miles before giving out. I then put on a pair of Clinchers for the back wheels, retaining the original front wheel covers, which were still on the machine when I disposed of it, having done 600 miles. The belts did not give me the slightest trouble the whole of the time, covering a period of 14 months, and I have not experienced the "slipping and breaking" of belts so much talked of by alleged "experts." These gentlemen, by the way, are always conspicuous by their absence when it comes to a practical test of their opinions. My petrol consumption



A wayside halt on a wet day. The trouble was a choked jet.

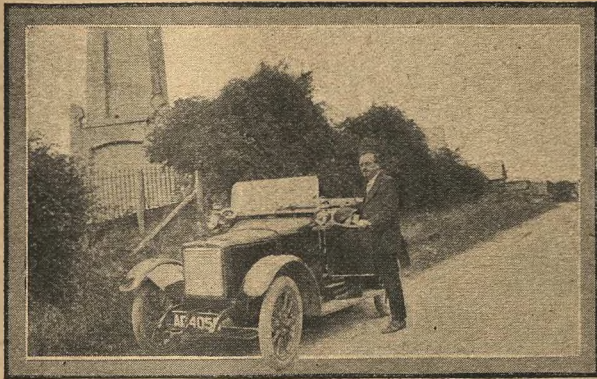
THOUGHTS AND OPINIONS (contd.).

worked out at an average of over 50 miles to the gallon, including a good deal of heavy traffic work through London.

I next bought a Warne, but neglected to keep any accurate data. The petrol consumption was approximately 45 miles per gallon. - Again no trouble with belts, mud making no difference whatever to the running. I now have a Victor, this, of course, having fixed belt drive over large pulleys, with a two-speed and reverse gearbox. The reverse I find most useful, while a fixed drive and clutch make for much easier starting on a gradient. The petrol consumption works out at about 50 miles per gallon, and the belts are, as usual, "no trouble."

W. L. HOLLAND.

Golder's Green.



Mr. G. Pontin, N.B.A., and his twin-cylinder Perry.

Friction Drive with Multiple Discs.

As a regular reader of THE LIGHT CAR AND CYCLECAR, and one interested in the production of a low-priced efficient car, allow me to suggest a couple of improvements in the "Ideal Cyclecar Transmission."

In the friction-disc drive, matters can be somewhat reversed, the driving disc can be faced with Ferodo, or similar material, the driven discs being of cast steel about $\frac{1}{4}$ in. thick at the edge.

Instead of one driven disc, ten or a dozen can be used, almost touching each other, but not quite.

These multiple discs revolve at a speed, or speeds, coinciding with the face of the driving disc. In fact, at a very low gear ratio—say, about 1000 to 1—some of the discs would revolve in a clockwise direction and some in a counter clockwise direction.

These driven discs are not connected rigidly to the driven shaft, but by a simple and ingenious arrangement of ordinary steel balls the cumulative power transmitted by each disc is transferred to the driven shaft through one disc only, solid with it. In effect, the arrangement becomes a compound frictional differential gear, but the component parts being merely cast steel discs and steel balls, the cost of production and assembling is very low, while the grinding effect at the contact of driving and driven discs is largely eliminated. It will be seen that a line contact of about 3 ins. is given instead of the usual $\frac{1}{2}$ in., and that gear ratios from zero to maximum can be obtained, and, incidentally, probably the dimensions or diameters of discs can be reduced below present practice.

In the rear axle of an ideal machine a differential gear can be incorporated and mounted outside the chassis. This gear being very narrow—say, about an inch in width—will take up little more room than the usual hub brake drum; the gear consisting of a few steel discs and steel balls, the cost is almost negligible, while the axle is a solid though live

one, enclosed in a length of drawn steel tube, which renders it dust proof, and oil or grease retaining. The objection of the usual bumping of the back seat on the central differential casing is eliminated, and with a single chain drive outside the chassis the transmission is efficient and easily get-at-able.

Like all other improvements, these need a severe testing. Will any reader incorporate this transmission?

Aberbeeg, Mon.

W. E. BURGESS.

Experience with a Home-made Belt Machine.

You may remember publishing details of my car in "Motor Cycling," 26th March, 1912. Since then I have altered it a little to a longer belt drive and double chain (Renolds' 1 in.) from engine to a simple two-speed gear, and have been thoroughly satisfied with it ever since.

I have now done about 19,000 miles and have never once been stuck on the road with a breakdown. The belts give no trouble whatever, and there is no worry about oiling and greasing differential, etc., and it is always ready for the road, no matter what the weather may be. My mileage this year is 5000; expenses one set of tyres, petrol gives from 40 to 50 miles per gallon, tyres last from 6000 to 8500 miles, belts last 8000 miles and never slip.

ROBERT SMELLIE.

Easterhouse.

58 m.p.g. on a Perry.

I notice some of your Perry readers wish to hear from other Perry owners. I enclose a photo. of my new model, taken on the top of Portsdown Hill, by Nelson's Monument.

I seldom meet any Perry owners, but should be pleased to correspond with any and compare notes. I drove home from the works a few months back, and the car has given satisfaction ever since. I find starting up easy, and can get 58 m.p.g. on petrol II. I should like to have someone's experience of benzole, however.

I can sympathize with "E.J.W.," of Brunswick, Melbourne, on the state of the Colonial roads. I knew them before the motoring era.

GEO. PONTIN, N.B.A.

Gloucester.

Easy Starting.

I have been troubled lately with difficult starting, but have been able to effect considerable improvement by closing the gaps of the sparking plugs and setting the throttle slightly more open. I had previously thought of fitting a hot-water jacket to the induction pipe.

A.T.

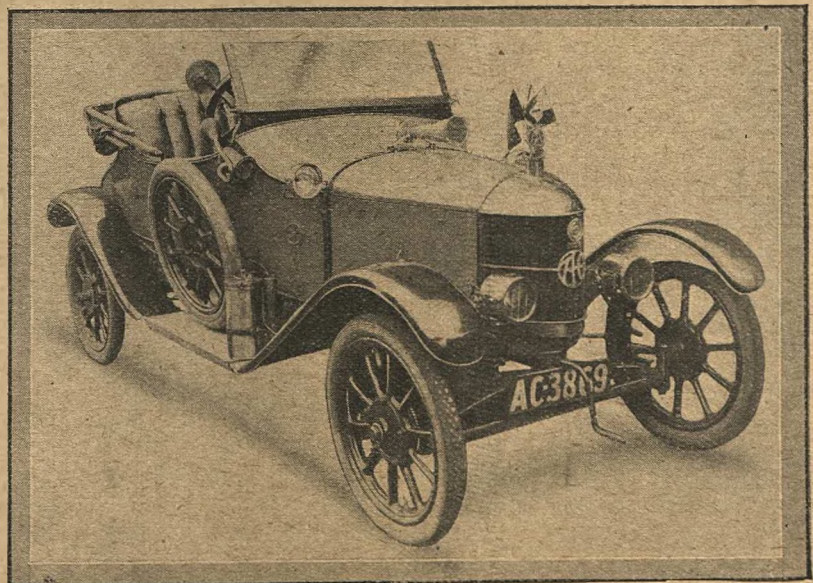
London, N.

"Tweencar."

With reference to your invitation for a term to describe the new motoring, I beg to submit the "Tweencar," as it covers everything between the motorcycle and the large car.

London, S.E.

A. F. MARKHAM.



How a reader has mounted the horn on an A.C. light car.

NOTES AND QUERIES.

RULES FOR CORRESPONDENCE.

We are always pleased to give advice on choice of a light car or cyclecar, on technical matters, legal queries, touring queries, etc. All letters should be written on one side of the paper only, queries of different categories on separate slips, and addressed to the Editor, "The Light Car and Cyclecar," 7-15, Rosebery Avenue, London, E.C.

SOME PRACTICAL MATTERS.

Wear of Clutch Mechanism.

A READER from Dunfermline sends us four queries which are likely to interest others. He writes:—"I am contemplating using benzole on my Swift light car.

"1. What proportion of petrol ought I to mix with the benzole?"

"2. Is carburetter adjustment necessary?"

"3. Is there any objection to the practice of injecting petrol for easy starting in cold weather?"

"4. On declutching, the clutch is not entirely free. Thus, going down a certain hill, the engine rotates faster than it ought to do, and, of course, gear changing is not so smooth as is desirable. The clutch is not fierce. I have oiled it with collan oil, but this appeared to make matters worse. I have also washed it with paraffin."

He adds further:—"I once wrote you for advice on the purchase of a light car, and the Swift is the one you recommended. I have done over 4100 miles, and I had the first replacement last week—the brake shoe cracked. I average 44 m.p.g. and about 1000 m.p.g. of oil, but I have not yet been able to ascertain this figure quite accurately."

The use of benzole is perfectly satisfactory if sufficient air is given for complete combustion, and a mixture of petrol and benzole is not necessary, as benzole alone may be used. The carburetter may need adjusting by the substitution of a smaller jet, or, alternatively, the provision for more air. It may also be necessary to weight the float slightly by means of a small washer, in order to obtain the correct level.

With regard to injecting petrol, it is more usual to use paraffin, as this does not remove the lubricant on the cylinder walls to the same extent as does petrol, although it makes the engine as free.

Our correspondent is, we gather, in the habit of coasting downhill by declutching, and apparently this has worn the clutch withdrawal mechanism, so that the clutch does not properly disengage. This may be cured by adjustment, but may mean new parts.

If it is desired to coast down a hill, the correct procedure is to declutch and get into neutral, leaving the engine to tick over in slow running position. On reaching the foot of the hill accelerate the engine until it corresponds with the speed of the car, then declutch and get into top gear. If this is done correctly it will be noiseless, and it is only a matter of experience in estimating the engine speed correctly.

Carburetter Adjustment.

Good running depends very greatly upon correct carburetter adjustment, but to vary the jet by four sizes, as a Brentwood correspondent says has been done with his carburetter, will quite upset the mixture. He writes, with reference to his G.W.K., with Solex carburetter, that "it requires just over an 80 jet to give easy acceleration from cold, but even with this jet it sometimes takes me five minutes to accelerate from pilot jet to main jet. The peculiar point is that the engine will keep cleaner, cooler and will pull better on a 60 jet when once it has got away, and it then has the excellent petrol consumption of 54 m.p.g. and a speed of 45 m.p.h. with three up.

"The carburetter was tuned by the engine makers, who left it with the 60 jet, but the tester of the car manufacturers considered this was far too small, and

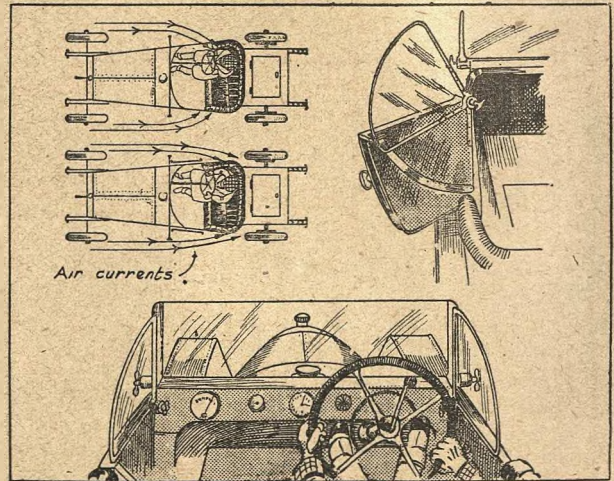
put in an 80, which certainly improved the acceleration. My suggestion is that the mixture is too weak for good acceleration on the 60 jet, but too rich for ordinary running on the 80 jet. This seems to be endorsed by the fact that the engine is sooted up badly after 1000 miles running, although not over-lubricated and the water boils frequently."

Our correspondent's deductions are probably correct, but the excellent running on the small jet proves that very little can be wrong with regard to the size of it. With most automatic carburetters the acceleration is poor until the engine has become thoroughly warm, especially in cold weather.

Some improvement may be effected by the use of a very slightly larger jet, say, a 65 or 70, but most carburetters are designed to give the best results when hot. It is frequently advisable to start up the engine some ten minutes or so before the car is needed, and allow it to tick over gently until thoroughly warmed up, to get the best results when running.

Eddies and Wakes.

Mr. E. H. Davis writes:—"I was very much interested in the series of diagrams in a recent issue of THE LIGHT CAR AND CYCLECAR illustrating eddies and wakes caused by different settings of the windscreen.



How side extensions to the screen will overcome side draughts.

"My windscreen is set exactly as diagram 1. Nevertheless the wind cuts round and catches the right side of my head, and twice recently, after fairly long runs in cold weather, I have suffered from earache.

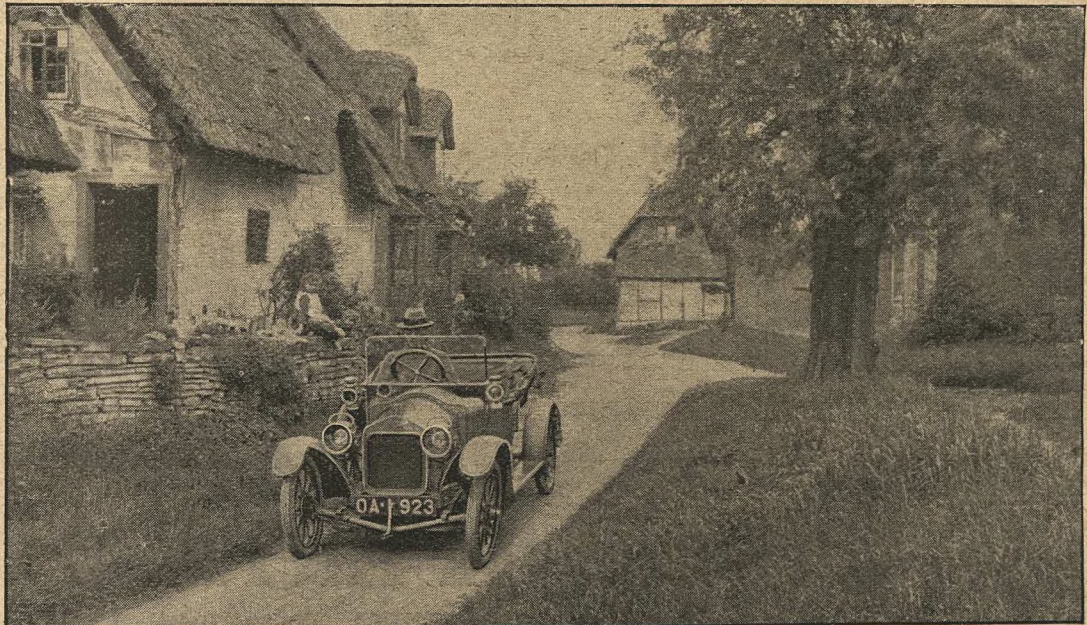
"Is there anything I could do to stop this side draught? Otherwise I shall have to drive muffled in something like a soldier's sleeping helmet."

This trouble is to be found on many machines. The diagrams referred to were concerned with the passage of air currents over the hood, and there is undoubtedly a side current, as suggested by our correspondent. It is sometimes possible to arrange the screen so that the side draught just misses the passengers, but it can be effectively overcome by side extensions to the windscreen as shown. The patentees are Viking Motors, Ltd., King William Street, Coventry.



Better Invest in Construction
than spend in repairs.

Modern shop methods, men and machines, combined
with correct design, material and workmanship, give



STELLITE CARS

Wolseley Design

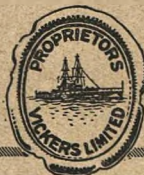
an enviable reputation for soundness and quality. Light and compact. Exceptionally strong in all mechanical parts, simple and thoroughly reliable. Four-cylinder engine, 9.45 h.p., R.A.C. Rating.

£157 : 10 : 0, Two-seater. £170 : 0 : 0, Three-seater.
Hood, screen, horn, side lamps and tail lamp included.

THE ELECTRIC AND ORDNANCE ACCESSORIES COMPANY, LTD.,
ASTON, BIRMINGHAM.

London Agents:
WOLSELEY MOTORS, LTD.,
York Street, Westminster, S.W.

Telephone : 6220 Victoria (6 lines).
Telegrams : "Autovent, Vic, London."



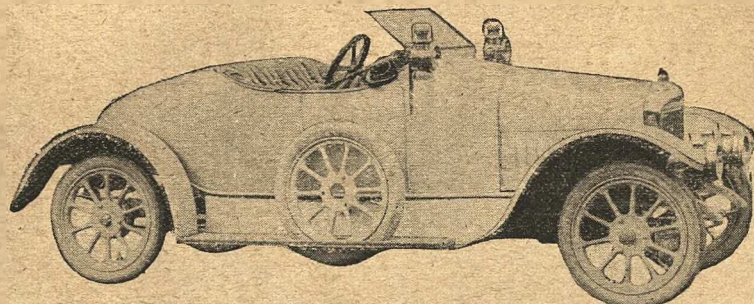
**TO THE
READER**

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

NEWWEY

10 h.p., 4-cylinder.

Unquestionably the Light Car for 1915



A few
District
Agencies
still open

Early
Delivery
Guaranteed
Write for
Specification.

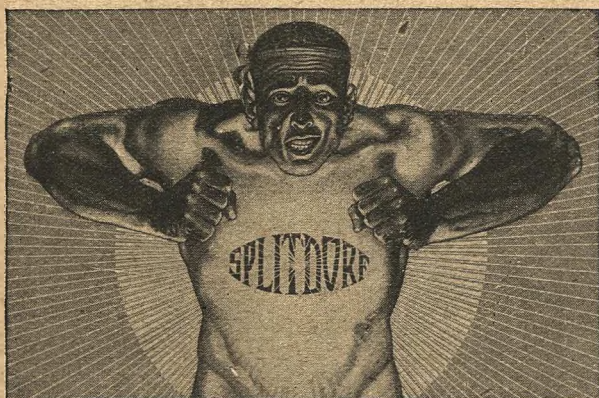
Complete for road - 195 Guineas.

GORDON NEWWEY, LIMITED,

77-81, BRISTOL STREET,
BIRMINGHAM.

Telephone:—
1472 Midland.

Telegrams:—
"Stais, Birmingham."



WHEN IN TROUBLE

with your ignition consult the SPLITDORF experts. They are at your command to give you advice—to lend a helping hand.

At this time of stress the SPLITDORF American factories are standing back of their London Branch House—everything there is at your service.

Magnetos can be supplied in large quantities within 30 days

Full information or catalogue upon request.

SPLITDORF ELECTRICAL COMPANY
162, GREAT PORTLAND ST., LONDON, W.

Factory: NEWARK, NEW JERSEY, U.S.A.

PANTASOTE

(Registered Trade Mark)

For Light Car UPHOLSTERY & HOOD MATERIAL

Equal in appearance and
durability to the best leather.

Waterproof—Stainless Durable.

Write for Patterns Book—

WM. E. PECK & CO.,

31, Bartholomew Close,
LONDON, E.C.

The KENNEDY



Price 125 Guineas, all on.

A LARGE car in miniature, the same perfect reliability and ease of handling, at the price and upkeep of a simple cyclecar.

The 1915 list is full of interest, and will be convincing. It is mailed free on receipt of postcard to the Sole Concessionaire:-

HAROLD PETTY,
32, King Street, Leicester.

Enfield Autocar, . . .
Horstmann, Morris-
Oxford, Standard,
Stellite, Singer,
Swift,
G.W.K.,
A.-C.

Exchanges & Easy Payments

Also
Morgans.

Motorcycles and Light Cars accepted in exchange. Let us quote you terms. Earliest deliveries of all models.

MAUDE'S MOTOR MART,
136, GREAT PORTLAND ST.,
LONDON, W.

'Phone: - - - - 552 Mayfair.
'Grams: - "Abdiccate, Wesdo, London."

—1915— Light Cars

SEEMANN & STONES, LTD.

HAVE FOR

Early Delivery

**SINGER, STANDARD,
MORRIS-OXFORD,**

CALCOTT,

SWIFT,

HILLMAN.

Any other make quoted for, and early delivery given.

Deferred Payments.

Your present Car in Part Exchange

SEEMANN & STONES, LIMITED,
Norwich Union Building,

39, ST. JAMES' STREET, PICCADILLY, W.
Phone—Regent 312. Telegrams:—"Royaler, London."

WHITELEY'S Light Car Bargains

THIS WEEK'S SPECIAL BARGAIN.

9 h.p. HILLMAN (2-seater), slightly shop-soiled, never been on the road. Listed £200.

**BARGAIN PRICE,
£185 - 0 - 0**

We have a few 1914 Light Cars slightly show-room soiled we are offering at Bargain Prices.

Full descriptions on application.

DEFERRED PAYMENTS.

Any make of car supplied on our DEFERRED PAYMENT PLAN. ——— EXTRA CHARGE

2% only

Motorcycles taken in Part Payment. Balance may be paid by Instalments.

W^M. WHITELEY, L^{TD}.,

QUEEN'S ROAD, LONDON, W.

Telegrams: "Whiteley, London."

Telephone: Park ONE.

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.

THOROUGHLY RELIABLE
LIGHT CARS and VANS.

That is the reputation of the

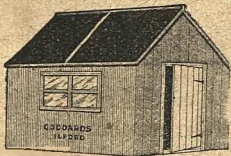
DAY-LEEDS

We can arrange
Immediate Deliveries.

If you have not had a trial run, send us a postcard, and allow us to submit **PROOF OF VALUE.**

Catalogues and full particulars—
TRUEMAN Motor Co., Ltd.,
14, Tempest Hey, LIVERPOOL.
Phone: 7500 Cent.

GODDARD'S MOTORCYCLE AND CYCLECAR HOUSES.



Ft.	Ft.	Ft.	£ s. d.
6 x 4	x 6	high	1 17 6
7 x 5	x 6½		2 7 6
8 x 6	x 7		2 15 0
9 x 6	x 7½		3 2 6
10 x 7	x 8		4 5 0
12 x 8	x 8½		5 5 0

Wide double doors,
2/6 extra.

These houses are made in sections to bolt together. Easily fixed. Made of well-seasoned ¾ in. T. & G. and V-jointed Matchboards, and complete with floor and window. Roof felted with Patent Vulcanite Roofing. New Illustrated Catalogue with prices of other houses post free.

Note New Address:

GODDARD'S, Ltd., Crown Works, Vicarage Lane, Ilford, ESSEX.
Telephone: 880 Ilford.

LAYSTALL

FOR

**CYLINDER GRINDING
WELDING
CRANKSHAFT GRINDING
REPLACEMENTS**

Laystall Repair Works,
34, Queen Street, London, E.C.

Telephone: 12901 Central,
8428 City.

Estd. 1902.

The Motor Britain's Pre-eminent Motor Journal. . . .

Every phase of Motoring. Practical articles well illustrated. All the news of the automobile world.

TUESDAYS 1d.

Offices: 7-15, Rosebery Avenue, E.C.

Temple Press Publications.

Motor Cycling Manual. The best and most up-to-date guide to the motorcycle. In cloth cover. Over 200 pages and 100 illustrations. 1/6 net; post free 1/9. 2nd Edition

The Motor Manual. A complete guide to the motorcar. 17th (new) Edition. Completely revised, 82 new illustrations. 1/6 net; post free 1/9.

The Motor Boat Manual. All about marine motors for pleasure purposes. Fully illustrated. 5th Edition. 1/6 net; post free 1/9.

The Marine Oil Engine Handbook. Instruction in the working of oil engines in small commercial craft. 2nd Edition. 1/- net; post free 1/3.

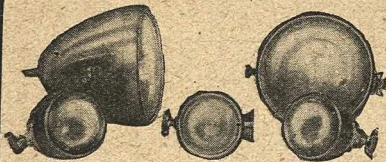
Map of Fifty Miles round London. Four miles to the inch. On paper, 1/- net; on linen, 1/6 net; postage, 1d.

Profile Road Book of England and Wales. No cyclecarist can afford to be without this book. Small and handy, it shows a Profile Plan—the "ups and downs" of the main roads of England and Wales, and many cross routes. Heights above sea level, distances and turnings are shown. 1/- net. Post free 1/1½.

TEMPLE PRESS LIMITED,
7-15, Rosebery Ave., LONDON, E.C.

Wholesale Agent—
E. J. LARBY, 30, Paternoster Row, London, E.C.

5 Lamps,
£5:16



A "well-lit" Light Car—

will be the natural sequence to the installation of an F.R.S. Electric Set. Our Lamps have a reputation behind them—if you write to-day for Booklet, "My Lamp," you will find that we have a lamp to suit your requirements.

SEND A POSTCARD NOW.

F.R.S. LAMP S, SPECIAL AGENTS—Service Co., High Holborn, W.C. Taylor & Co., Store St., Tottenham Court Rd., W.C. Manchester Birmingham. Agents—Messrs. Peay & Co., 12 Jackson's London Address: 57, Hatton Garden. Row.

Maps for Motorists

Fifty Miles round London.

Prices: Paper, 1/- each, net.

England and Wales

Shows all the roads from Oxford to Dover, and from Harwich to Portsmouth. It is still the best of such maps published, and no London Motorist should be without it.

Mounted, 1/6 each, net.

is another very useful map for the motor man. The quality of the roads is indicated by means of colouring. These features are just those that a motorist will appreciate.

Postage 1d.

Temple Press Ltd., 7-15, Rosebery Avenue, London, E.C.
Wholesale: E. J. LARBY, 30, Paternoster Row, London, E.C.

"BRITISH BUILT."

The HORSTMANN Car

The London Agents and Sole Agents for Kent can give IMMEDIATE DELIVERY of

1915 MODELS

Horstmann Car complete . . . £155
" " de Luxe . . . 175 Gns.
" " Light Van (not including Lamps, etc.) . . . £145

WALTER ENGALL & Co., 21, Mercer St., Long Acre.
Telephone: Gerrard 1918 (2 lines).

HOLLOWED WINGS OR FLAT WINGS for . . . CYCLECARS



Cheapest House in the Trade.

JOSEPH R. BRAMAH,
Chapel Walk, Sheffield.

MODELS
of the
Calthorpe
Minor for

1915

Calthorpe Minor 2-seater Torpedo, complete with Cape hood, single folding screen, including 5 Detachable Sankey wheels, 5 Palmer Cord Tyres, 2 acetylene head lamps, 2 electric side and tail lamps, horn and all tools, complete, ready for the road ... 170 Gns.

Grand Duke Michael type (two-seater Torpedo with dicky seat), same specification as above ... 180 Gns.

Calthorpe Minor 4-seater Torpedo, fitted with one-man hood, double folding screen, two acetylene head lamps, two electric side lamps and tail lamp, five Sankey wheels, five 700 x 85 Palmer Cord Tyres, complete with horn and all tools ... 190 Gns.

Calthorpe Minor Coupe, luxuriously finished, upholstered in best cloth, fitted with spring cushions, 5 tyres, two acetylene head lamps, two electric side and tail lamps and all tools ... 200 Gns.

Calthorpe Minor Delivery Van, with 5 Palmer Cord Tyres, 700 x 85, oil side and tail lamps and all tools. Screen head lamps & wiring extra 160 Gns.

If you would like a trial run, drop us a line and say so.

Calthorpe

DRIVE THROUGH 1915 IN A CALTHORPE MINOR COUPE

THAT'S the sure, certain way to happiness and satisfaction—to drive through 1915—and 1916—and 1917—and all the years to come in a delightfully cosy, roomy, handsome, and responsive Calthorpe Minor Coupe—the car that has shown what a light car coupe *can* do.

Every line of the body breathes refinement, and the almost imperceptible hum of the engine tells of power, speed and silky, silent running—of design and workmanship unexcelled.

Let us show you how easily it picks its way through crowded city streets—how quickly it leaps forward at the slightest pressure of the foot on the accelerator pedal.

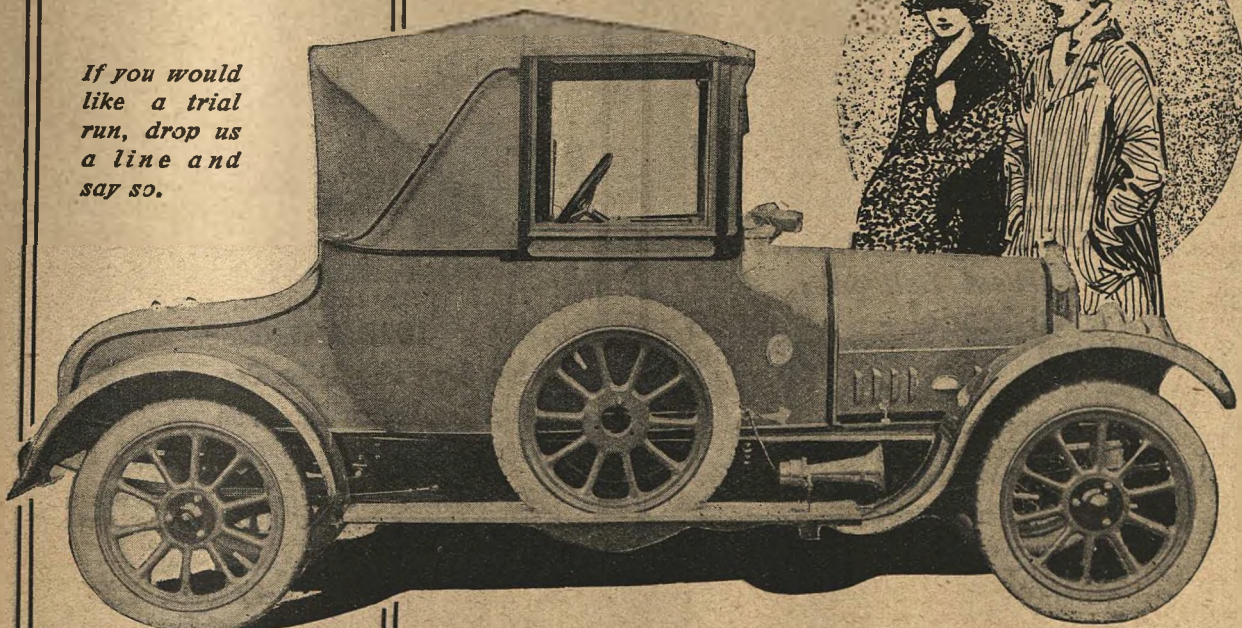
Then let us show you how it devours the miles on a long country run—how it makes light of hills and bad roads—how far it will travel on one gallon of spirit.

Let us give YOU a trial run in the famous Calthorpe Minor Coupe. All particulars on receipt of post card.

CALTHORPE MOTOR CO. (1912), LTD.,
BORDESLEY GREEN, BIRMINGHAM

Telegrams—"Chassis, Birmingham."
Telephone—135 Victoria.

Sole London Agent—R. D. STOREY,
118, Great Portland Street, London.

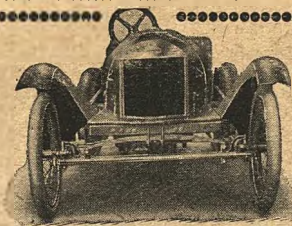


**TO THE
READER**

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

CHEAPEST TO BUY.

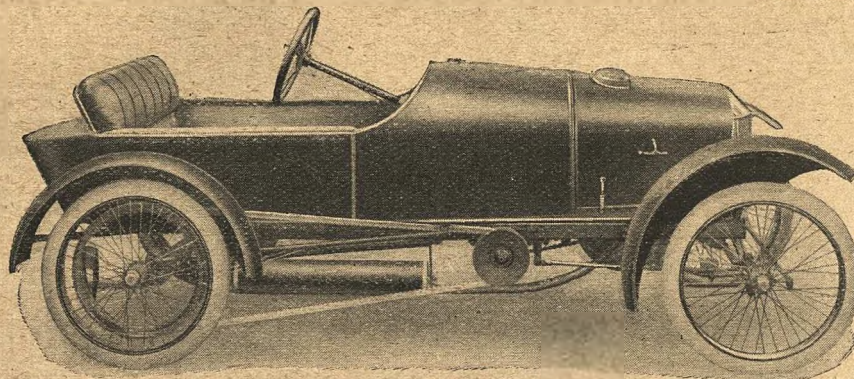
87 Gns.



CHEAPEST TO MAINTAIN.

— 60 M.P.G. —
— 40 M.P.H. —

THE IDEAL SIMPLE CYCLECAR.



THE BABY BUCKINGHAM. Model A.

Write for LISTS of this and other models to Sole Manufacturers:—

J. F. BUCKINGHAM, *Engine Specialist*,
The Buckingham Engine Works,
SPON STREET, COVENTRY.

HORSTMANN CARS

1915 MODELS.

The car without a starting handle **ALL BRITISH** Starts from driver's seat.

The best light car on the market, irrespective of price.

Special and Unique Features.

EDWARDS & PARRY

SPECIAL LONDON AGENTS.

Earliest Deliveries.

Standard Model - - £155
De Luxe - - 175 gns.
Light Van - - - £145

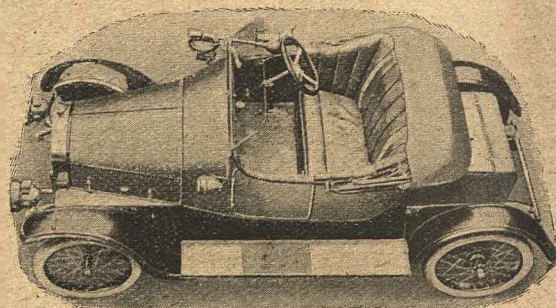
Every car specially tuned & tested by our Brooklands racing expert—
No Extra Cost.

Write for Specification.

OFFICE AND SHOWROOMS—
69, GREAT QUEEN STREET,
KINGSWAY, W.C.

Telegrams—Regent 5086.

"J. B. S."



10 H.P. 4-CYL. LIGHT CAR.

1915 MODELS.

10 h.p. 2-cylinder Light Car £150
10 h.p. 2-cylinder Light Van £150
10 h.p. 4 cylinder Light Car £175 10s.

All Models fitted with our 4-speed and reverse Gear Box and Bevel Drive Axle.

FULL PARTICULARS FROM:—

J. BAGSHAW & SONS, LTD.,
BATLEY, Yorks.

NEW
OR
SECOND-HAND
LIGHT CARS, CYCLECARS,
ACCESSORIES FOR SALE AND
Sundry Advertisements

RATE FOR ADVERTISEMENTS IN THIS SECTION.

SIXTEEN WORDS, 1/- (MINIMUM).
6d. per eight words after.

The Rates for Trade Advertisements are 18 words 1/6, and 1d. per word after. These are designated "TRADE," for the guidance of the reader. Subject to a discount of 5 per cent. for 13 consecutive insertions, 10 per cent. for 26, 15 per cent. for 52. Terms: Cash with order, and otherwise net. N.B.—In the interests of our readers we shall not hesitate to take proceedings against any persons in the trade who succeed in obtaining the insertion of their advertisements as "Private" and shall insist to the utmost upon the payment of all law costs incurred.

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

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

Copy for, and all matter relating to, advertisements must reach the offices first post Wednesday, and should be addressed to THE MANAGER, "THE LIGHT CAR AND CYCLECAR," 7-15, ROSEBERY AVENUE, LONDON, E.C., to whom all communications concerning advertisements should be sent. If proof of displayed advertisements is required, copy should be forwarded in sufficient time to allow of it being submitted and returned.

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

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

Northern Offices:—186, Deansgate, Manchester. Telephone: Central 2467. Telegrams: "Presswork, Manchester."

LIGHT CARS AND CYCLECARS FOR SALE.

A.-C. Sociable, run under 1000 miles, indistinguishable from new, hood, side curtains, screen, side guards, fans, headlight and generator, three oil lamps, front brakes, Liversidge on back, spare tubes and valves, horn, tools, etc., cost over £100, a bargain at £62 10s. G. N. Higgs, 31 Vauxhall Bridge Road, Victoria, S.W. Trade 110-968

A.-C. Sociables, two reliable, one 1913, also a 1914, both fitted with hood, screen, lamps, etc., tools, fully equipped, ready for the road from £48. Wauchope's, 9 Shoe Lane, London. Trade 110-6

A.-C. Sociables, new and second-hand, prices from £55, cash or deferred terms. Colmore Depot, 49 John Bright Street, Birmingham. Trade 110-989

A.-C., 1914, 10 h.p., light car, slightly soiled, painted grey, full equipment, £150. Colmore Depot, 49 John Bright Street, Birmingham. Trade 110-990

A.-C. light car, immediate delivery of 10 h.p. or 12 h.p. models from stock. Sole district agents, F. G. Cox and Co., Perry Road, Bristol. Trade 110-k643

A.-C., 1913, for sale, perfect running order, and in good condition, owner bought car. Box No. 4718, care of "The Light Car and Cyclecar." 110-k583

A.-C.s from stock, on deferred terms; write for Buyers' Guide. Harrods, Ltd., Brompton Road, S.W. Trade zzz-616

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. We can now give immediate delivery of the most recent four-cylinder model of this magnificent car, complete with hood, screen, lamps, Sankey wheels, etc., price £175; easy terms arranged; motorcycle or light car taken in part payment; we give free delivery, expert tuition in driving and overhauling, and assist our customers in every possible way. Julian, A.-C. specialist, Broad Street, Reading. Biggest dealer in the south; 43 years reputation. Trade zzz-745

LIGHT CARS AND CYCLECARS FOR SALE
(continued).

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 Holborn. Trade zzz-338

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. Trade zzz-844

BUCKINGHAM, 1914, 12 h.p., two-cylinder, Standard, hood, screen, two headlights, generator, tail light, speedometer, Stepney, new, run 600 miles, £95. Cass's, the Light Car Specialists, 5 Warren Street, Euston Road. Museum 623. Trade 110-981

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

CALCOTTS from stock on deferred terms; write for Buyers' Guide. Harrods, Ltd., Brompton Road, S.W. Trade zzz-617

CALCOTT, 1915, with dynamo lighting set, immediate delivery, £200. Seeman and Stones, Ltd., 39 St. James Street, Piccadilly, W. Phone, Regent 212. Trade zzz-837

CALCOTT, 1915 models, immediate delivery, £185; dynamo lighting set, £15 extra; dickey seat, £4 10s. extra; all models in stock; best prices allowed for exchanges; free trials. We are Calcott experts and special authorized agents. Wilkins, Simpson and Co., 11 Hammersmith Road (opposite Olympia), London. Phone, Hammersmith 238. Trade 112-r360

CALCOTT Cars. T. Smirthwaite, Automobile Engineer, Northallerton, authorized Agent in North Yorkshire for these splendid cars. District including Hawes, Reeth, Richmond, Leyburn, Masham, Bedale, Thriick, Helmsley, Stokesley and Yarm. Trials by appointment. Trade 135-k587

CALCOTT, 10.5 h.p., the ideal light car, all 1915 models in stock for immediate delivery. Rippon Bros., Coachmakers and Automobile Engineers, 73 Albion Street, Leeds; North Parade, Bradford; Works, Huddersfield. Trade 113-k586

CALCOTT, 1915, fitted with dynamo lighting set, in stock. Colmore Depot, 49 John Bright Street, Birmingham. Trade 110-991

CALCOTT, 1915, special price, used for demonstration only, latest pattern radiator, dome-shaped mudguards, dynamo lighting set, dickey seat, complete, £190. Robinsons, Green Street, Cambridge. Trade 110-983

CALTHORPE Minors. All 1915 models in stock. More powerful engine, longer wheelbase, larger radiator and tyres, much smarter in appearance, having gained 1st and 2nd prizes at the Cyclecar 1915 Rally for appearance. Standard, two seater, 170 guineas; G.D.M., three-seater, 180 guineas; four-seater, 190 guineas; coupe, 200 guineas, with dickey, 205 guineas; my own sporting model, 180 guineas; with third seat, 185 guineas; my own special design of three-seater, 190 guineas. Send for catalogue. Sole Selling Agent for London, Kent and Surrey. R. D. Storey, 118 Great Portland Street, W. Trade zzz-363

CALTHORPE Minor, 1914, demonstration car, perfect, £130, cash. Colmore Depot, 49 John Bright Street, Birmingham. Trade 110-992

CALTHORPE, 1915, four-seater, in stock, 190 guineas. Colmore Depot, 49 John Bright Street, Birmingham. Trade 110-993

CALTHORPE Minor, 1914 model, second-hand, complete equipment, hood, screen, electric side and tail lamps, acetylene headlamps, generator, horn, five detachable wheels and tyres, £130. F. G. Cox and Co., Perry Road, Bristol. Trade 110-k639

CARDEN monocar, November, 1913, 3½ h.p. Precision engine, excellent order, complete with accessories, £32. Elce and Co., 15 Bishopsgate Avenue, Camomile Street, E.C. Trade 110-982

C.F.L., Grand Prix cyclecar, very fast, good climber, disc wheels, electric lamps, Klaxon horn, new, sacrifice £95 or offer; owner serving with the Colours. Apply, by letter, Oak Lodge, Whytecliffe Road, Purley. 110-k654

DE P, 1914, 8-10, Blumfield, w.-c., twin, pump lubrication, two-speed and reverse, coachbuilt body, detachable wheels (spare with tyre), victoria hood, screen, three Lucas electric side and tail lamps, 46 m.p.h., 42 m.p.g., cost £140, in A1 condition, £80. G. N. Higgs, 31 Vauxhall Bridge Road, Victoria, S.W. Trade 110-969

**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. A27

LIGHT CARS AND CYCLECARS FOR SALE

(continued).

ENFIELD, 1915, 10 h.p., four-cylinder, fully equipped, spare wheel and tyre, dynamo set, just delivered; cash, exchange, or £37 deposit, and 12 monthly payments of £12 12s. 8d., less rebate. Service Co., 292 High Holborn, London.

Trade zzz-642

ENFIELD Autolette, four-cylinder, fitted with dynamo lighting set, 1915 models, in stock, cash or deferred payments. Colmore Depot, 49 John Bright Street, Birmingham.

Trade 110-994

G.N., 1912, 8 h.p., J.A.P., all accessories, good condition, thorough order, £42. 5 Bouser Road, Twickenham. 111-k572

G.N., 1913, hood, screen, lamps, spare wheel with tyre, horn, good condition throughout, £66. G. N. Higgs, 31 Vauxhall Bridge Road, Victoria, S.W.

Trade 110-970

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.g. Gordon Armstrong, Beverley.

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 111-137

G.W.K. de Luxe, fully equipped, immediate delivery, deposit 30 guineas secures, balance 12 monthly instalments £10 15s. 3d., less rebate, exchange entertained. Service Co., 292 High Holborn, London.

Trade zzz-643

G.W.K., last year's, newly painted, perfect condition, Lucas lamps, speedometer, spares, heavy tyres, £105, bargain. Motor Supply Co., Oxford Street, Manchester. Trade zzz-953

G.W.K., latest 1915 model, £157 10s., in stock, immediate delivery; tuition free; free trials; best prices allowed for exchanges. Wilkins, Simpson and Co., 11 Hammersmith Road, London.

Trade 112-k361

G.W.K., brand new de luxe, with hood, screen, spare wheel and Kempshall tyre, speedometer, clock, headlamps, generator, electric side and tail lamps, etc., specially painted dark red with black mouldings and dark-red upholstery, very smart, special price to clear, £155, including free delivery; another, stone grey, with green upholstery, and one dark green with green upholstery. Specially appointed agents, Stewart and Ardern, 18 Woodstock Street (off Oxford Street), Bond Street, London, W.

Trade 110-k443

G.W.K., 1913, Stewart speedometer, five lamps (three electric and two acetylene), a bargain, £95. Wilkins, Simpson and Co., 11 Hammersmith Road, London. Trade 112-k362

G.W.K. G.W.K. G.W.K. 1915 delivery one week; write for list, tuition free. Cass's, the Light Car Specialists, 5 Warren Street, Euston Road. Museum 623. Trade 110-979

G.W.K. G.W.K. G.W.K. 1913, 8 h.p., four-speed, reverse, two headlights, two side, and one tail lamp, hood, screen, etc., tyres almost new all round, painted dust-coloured grey, £80. Cass's, the Light Car Specialists, 5 Warren Street, Euston Road. Museum 623.

Trade 110-980

G.W.K., 1915, immediated delivery. The Exeter Motor Cycle and Light Car Co., Ltd., 7 Bath Road, Exeter, and 28 Tavistock Road, Plymouth.

Trade 110-955

G.W.K., 1914, complete, hood, screen, lamps, speedometer, £105. Miss Haymes, Manor House, Cleobury Mortimer.

110-k579

G.W.K., 1914, fitted with dynamo lighting equipment, speedometer, clock, dash lamp, Stepney, remarkable bargain, £125. Below.

G.W.K., late 1913, fitted with car tyres, speedometer, five lamps, Stepney, hood, and screen, condition as new, £95. Smith and Francis, 22 Pantom Street, Leicester Square.

Trade 110-986

HILLMAN, 1914, just overhauled, hood, screen, five lamps, speedometer, spare wheel and tyre, splendid condition, £150. G. N. Higgs, 31 Vauxhall Bridge Road, Victoria, S.W.

Trade 110-971

HILLMAN light car, the latest model, complete with dynamo lighting equipment, very slightly shop-soiled, £200. Smith and Francis, 22 Pantom Street, Leicester Square.

Trade 110-985

LIGHT CARS AND CYCLECARS FOR SALE

(continued).

HORSTMANN. The best light car irrespective of price, luxurious economy combined with efficiency. Edwards and Parry, the special London agents, can give delivery from stock; every car specially tuned and tested by our Brooklands racing expert; increased power and more miles per gallon guaranteed, no extra cost, trial runs by appointment. Write for illustrated catalogues, or call at 69 Great Queen Street, Kingsway. Regent 5086.

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

HUMBERETTES from stock on deferred terms; write for Buyers' Guide. Harrods, Ltd., Brompton Road, S.W.

Trade zzz-611

HUMBERETTE, 1913, 8 h.p., air-cooled, hood, screen, Stepney with tyre, in excellent condition throughout, £58 cash or nearest offer. W. J. Coe, Crown Street, Ipswich.

Trade 110-855

HUMBERETTE, 1914, fully equipped, slightly shop-soiled, £20 down, 12 monthly payments of £7, discount for cash. Service Co., 292 High Holborn.

Trade 110-851

HUMBERETTE, 1913, newly repainted, overhauled, splendid condition, speedometer, complete, hood, screen, large lamps, £75. Motor Supply Co., Oxford Street, Manchester.

Trade zzz-954

HUMBERETTE, 1913, just overhauled, painted grey, hood, side curtains, screen, three oil lamps, P. and R. electric headlight, dash and tail lamps, speedometer, Stepney, with new tyre, luggage carrier, all tyres practically new, £65. G. N. Higgs, 31 Vauxhall Bridge Road, Victoria, S.W.

Trade 110-972

HUMBERETTE, late 1913, hood, screen, lamps, horn, Stepney wheel and tyre, speedometer, Klaxon hooter, etc., condition perfect £70. Eastern Garage, 418 Romford Road, Forest Gate, E.

Trade 110-961

HUMBERETTE, latest 1914 water-cooled, fully equipped, a few trial runs only, maker's guarantee, offers wanted. Lankester, 83 Victoria Road, Surbiton.

Trade 110-959

IMP, 1915, four-cylinder, w.-c. model, friction drive, two seats side by side, hood, screen, etc., run under 1000 miles, cost £120, owner will accept £90. Seen at G. N. Higgs, 31 Vauxhall Bridge Road, Victoria, S.W.

Trade 110-974

HUMBERETTE, as new, 1913 model, complete with all standard fittings, scarcely soiled, looks like new, special bargain to clear, £70. Wauchope's 9 Shoe Lane, London.

Trade 110-5

LAGONDA, 1915 model, 11 h.p., four-cylinder, five detachable wheels, coupe body, fully equipped, £150, immediate delivery; also demonstration model, £125. Taylors, Ltd., 21a Store Street, London, W.C.

Trade zzz-802

MATHIS, 10 h.p., 1914 model, hood, screen, detachable wheels, headlamps, etc., splendid running order, £145. Watson's, Renshaw Street, Liverpool.

Trade 110-949

MAXIM, all-British light car, four-cylinder, 63 by 110 (1375 c.c.), forced lubrication to all bearings, three-speed and reverse, five 750 by 85 Sankeys, hood, screen, 12-volt dynamo set (five lamps), £200. Sole Concessionnaires, G. N. Higgs, 31 Vauxhall Bridge Road, Victoria, S.W.

Trade 110-975

MORGAN Grand Prix monocoar, 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, immediate delivery of 1915 sporting model, complete with lamps, hood, screen, headlights, etc.; send for list. Julian, Morgan Specialist, Broad Street, Reading; 43 years reputation.

Trade zzz-657

MORGANS, Morgans, Morgans. Potter, Leicester Grove, Blackman Lane, Leeds (Tel. 4046), invites inspection; 1915 models; delivery from stock.

Trade 110-k460

MORGAN, 1915, Grand Prix model No. 2, finished blue, disc wheels, special bodywork, exhibited at Cyclecar Club's recent rally, complete with accessories, £125, exchanges or easy payment terms if desired. Elce and Co., 15 Bishopsgate Avenue, Camomile Street, E.C. 'Phone, Avenue 5548.

Trade 110-958

MORGANS. Immediate delivery, 1915 models; Sole Agents for Devonshire; trade supplied. The Exeter Motor Cycle and Light Car Co., Ltd., 7 Bath Road, Exeter; and 28 Tavistock Road, Plymouth.

Trade 110-956

LIGHT CARS AND CYCLECARS (continued).

MORGAN runabout, 1914 Grand Prix model, overhead valve, air-cooled, 8-10 h.p. J.A.P. engine, Zenith automatic carburettor, fitted with beaten metal streamline two-seater body, adjustable screen, horn, 80 m.p.h., Watford speedometer, new 700 by 80 Avon combination cover on back wheel, just overhauled and body repainted and varnished battleship grey, £100. F. G. Cox and Co., Perry Road, Bristol.

Trade 110-k640

MORGAN runabout. Immediate delivery of any model from stock. Bristol and district agents, F. G. Cox and Co., Perry Road, Bristol.

Trade 110-k641

MORGAN de luxe, August 13th, in fine condition, Bink's 1914 carburettor, three electric lamps, 8-volt accumulators, spring seat, new tyres, painted grey, cost £110, bargain-£75. Burton, 5 Blake Street, York.

110-k645

MORGAN, 1915, Grand Prix No. 2, recently exhibited at Cyclecar Club's Rally, disc wheels, special body, complete, with large tyres to all wheels, accessories, £125; exchanges. Elce and Co., 15 Bishopsgate Avenue, Camomile Street, E.C.

Trade 110-933

MORGAN, sporting model, finished biscuit colour, complete, all extras, very smart car, £104 10s. Colmore Depot, 49 John Bright Street, Birmingham.

Trade 110-995

MORGAN, Grand Prix, like new, latest 1915 improvements, used for demonstration runs only, fitted with windscreen, lamps, hood, complete, £99; sound condition, fast and reliable. Seen at Wauchope's, 9 Shoe Lane, Fleet Street, London.

Trade 110-4

MORGAN, Grand Prix, special finish, with or without Lucas dynamo lighting set, write for particulars and terms. Colmore Depot, 49 John Bright Street, Birmingham.

Trade 110-996

MORGANS, all 1915 models in stock, cash or deferred terms. Colmore Depot, 49 John Bright Street, Birmingham.

Trade 110-997

MORGAN, de luxe model, painted white enamel, lined black, all refinements, suitable for lady, £112 10s., cash or deferred terms. Colmore Depot, 49 John Bright Street, Birmingham.

Trade 110-998

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 Arden, 18 Woodstock Street (off Oxford Street), London, W.

Trade 111-f36

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. De Luxe chassis, new last April, done about 3000 miles, with wings, running boards, valances, bonnet and lamps, perfect condition, price £130. Can be seen at the West Central Garage, Kenton Street, Russell Square.

110-k582

MORRIS-OXFORD. Popular model from stock. The Exeter Motor Cycle and Light Car Co., Ltd., 7 Bath Road, Exeter.

Trade 110-957

MORRIS-OXFORD, all models, immediate delivery, tuition free. Colmore Depot, 49 John Bright Street, Birmingham.

Trade 110-1

PERRY light cars, trial runs arranged; also Humberette Morgan, and Marlborough. Turpins, 22 and 29 Preston Road, Brighton.

Trade 125-f356

PERRY, two-cylinder two-seater, 1914 model, hood, screen, three lamps, horn, five detachable wheels and tyres, shop-soiled, £135. F. G. Cox and Co., Perry Road, Bristol.

Trade 110-k642

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

Trade zzz-340

RANGER. 8 h.p. car, hood, screen, lamps, complete, nearly as new, cheap, any trial. 11 Raleigh Road, Coventry.

110-k573

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.

Trade 129-g766

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

LIGHT CARS AND CYCLECARS FOR SALE (continued).

SINGER light car, 1915 model actually in stock. This wonderful car is fitted with dynamo electric lighting set, hood, screen, horn, painted suede grey, upholstered brown leather, with new type body, and is a most luxurious car. Price complete with dickey seat 200 guineas. Motorcycle or light car taken in part payment. Easy terms arranged. Free delivery included. We give expert tuition in driving and overhauling, and do everything possible to assist purchasers. Julian, Singer Specialist, Broad Street, Reading. Biggest dealer in the South; 43 years reputation.

Trade zzz-746

SINGER, 10 h.p., with dynamo, 1914, used week-ends only, speedometer, almost new, special engine, £150. Simpson, 29 Oxford Street, Manchester.

Trade zzz-952

SINGER, 10 h.p., latest 1915 models, £195 and £204 15s.; best prices allowed for exchanges. Wilkins, Simpson and Co., 11 Hammersmith Road, London.

Trade 112-361

SINGER, late 1914, dickey seat, dynamo lighting, hood, screen, spare wheel and new tyre, speedometer, etc., mileage just over 2000, condition excellent, £160. Eastern Garage, 418 Romford Road, Forest Gate, E.

Trade 110-962

SINGER, coupe, dynamo lighting set, speedometer, many interior fittings, just overhauled, a handsome little car, most suitable for lady or professional man, £175. G. N. Higgs, 31 Vauxhall Bridge Road, Victoria S.W.

Trade 110-973

SINGER, perfectly new, 1914, beautifully finished in dark royal blue and black mudguards, dynamo lighting set, three heavy grooved Dunlop tyres, two plain, Jones trip speedometer, clock, £168 for quick sale. Entwistle, Clothier, Haslingden.

110-k653

SINGER, 1915 model, immediate delivery. Colmore Depot, 49 John Bright Street, Birmingham.

Trade 110-999

SINGER, new 1915 model, owner cannot take delivery, must realize at once. Mills, 8 St. Albans Road, Arnold, Notts.

110-k647

SINGER light car, four-cylinder, good condition, £120. The Yews, Woodborough, Notts.

110-k648

STANDARD, 1915 model, complete with dickey seat, electric lighting set, self-starter, grooved tyres on back wheels, price £231 10s. Send for full particulars of this magnificent car. Motorcycle or light car taken in part payment. Easy terms arranged. We include free delivery and expert tuition in driving and overhauling, and generally do everything possible to assist customers. Julian, Standard Specialist, Broad Street, Reading. Biggest dealer in the South; 43 years reputation.

Trade zzz-748

STANDARD, 9.5, absolutely as new, cost over 200, price 165 guineas. K., 25 Leam Terrace, Leamington.

110-k581

SWIFT, 1915, 10 h.p., four-cylinder, dynamo and full equipment, £200, or £40 down and 12 monthly payments of £13 13s. 4d., subject bonus; exchanges arranged. Service Co., 292 High Holborn, London.

Trade zzz-629

SWIFT cyclecar, 1914, complete, in excellent condition, £100 to clear. Freeman Oakes, Devonshire Street, Sheffield.

Trade zzz-306

SWIFT, 10 h.p., 1915, four-cylinder, complete electric equipment, £200, early delivery. Taylor's, Ltd., 21a Store Street, London, W.C.

Trade zzz-803

SWIFT, 1915, 10 h.p., with dynamo lighting set, for early delivery. Seemann and Stones, Ltd., 39 St. James's Street, Piccadilly, W. Phone, Regent 212.

Trade zzz-839

SWIFT light car, late 1913, five lamps, shock absorbers, extra air control, aluminium running boards, horn, screen, hood and side curtains, speedometer, mats, tools, spare tyre carrier and petrol can carrier, all in perfect condition and open to any trial, £85. no offers. Box No. 4685, care of "The Light Car and Cyclecar."

110-k428

SWIFT, 1915, high model, in stock. Colmore Depot, John Bright Street, Birmingham.

Trade 110-2

SWIFT, 10 h.p., late 1913, two-seater, detachable wheels, speedometer, fully equipped, £145. Smith and Francis, 22 Pantom Street, Leicester Square.

Trade 110-987

SWIFT, 1915, four-cylinder light cars for early delivery. Write for catalogue and full specification. Exchanges, easy terms. Elce and Co., 15 Bishopsgate Avenue, Camomile Street, E.C.

Trade 110-924

SWIFT cyclecar, 1914, new April last, cost with extras £156, extra heavy Dunlop tyres, Stepney wheel, speedometer, clock, accumulator, electric lighting or acetylene perfect, £110, no offers. Smith, The Nook, Grand Drive, Raynes Park S.W.

110-k645

LIGHT CARS AND CYCLECARS FOR SALE

(continued).

SWIFT, 1914, 7 h.p., new April, hood, screen, lamps, Stepney, excellent condition, price £95. Box No. 4724, care of "The Light Car and Cyclecar." 110-k655

VICTOR, late 1914, 8 h.p., two-speed, reverse, hood, screen, horn two headlights, generator, spare wheel, painted royal blue, almost new, £85. Cass's, the Light Car Specialists, 5 Warren Street, Euston Road. Museum 623. Trade 110-978

WHITING-GRANT. Whiting-Grant. Whiting-Grant. 1915 models, immediate delivery, £135; English body, £145; self-starter, dynamo outfit, £150; with English body, £160. Cass's, the Light Car Specialists, 5 Warren Street, Euston Road. Museum 623. Trade 110-978

MISCELLANEOUS LIGHT CARS AND CYCLECARS.

BRIGHTON. Perry, Humberette, Morgan, Marlborough. Trials runs given. Easy terms arranged. Turpin, 22 and 29 Preston Road. Trade 114-842

BARGAINS in Morgans, G.W.K.s and other cyclecars and light cars at Spencer's Garage, Uxbridge. Trade 132-36

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, N.E. Trade zzz-505

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 Street, Wolverhampton. Trade zzz-43

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 Green Road, Leytonstone, London, N.E. Trade zzz-506

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

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

ALUMINIUM number plates, best quality, any number, raised letters, very handsome, 8s. 6d. per pair. Freeman, Oakes, Devonshire Street, Sheffield. Trade zzz-805

CYCLECAR components: Channelled steel reinforced wood frames, with quarter-elliptic springs, £3 17s. 6d.; counter-shafts, friction sets, axles, wheels. Denby and Co., Ltd., Ilkley. Trade zzz-936

GEAR-CUTTING. Spur, sprocket and bevel wheels cut, case-hardening; steels stocked. R. H. Morse, 27 Elder Place, Brighton. Trade 160-k427

NEW pattern dome wings, extra strong, 8 ins. wide, for light cars and wheels up to 30 ins. diameter; front and back valances, £3 5s. set; without, £2 5s. set. W. H. Crossley and Son, Castle Street, Stockport. Trade 120-i446

TWO self-contained, brass acetylene Rotax headlamps, cost £7 10s.; two brass Rotax side lamps, cost £3, bought last June, as new, £6 10s. J. Twigg, Broadway, Spencer Park, Coventry. 110-k584

CYCLECAR Sundries. First P.O. secures following bargains: 4 h.p. water-cooled White and Poppe engine m.o.i.v., £4 10s.; 26 by 2½ wheels (pair), 8s. 6d.; Kempshall cover, 12s.; front axle and wheels, 12s.; two-speed gearbox, 40s.; silent chain, 7s. 6d. Clapham, King George Street, Greenwich. 110-k571

8-10 PRECISION engine, V-twin, water-cooled, carburetter, magneto, clutch. Motorist, 6 Kensington Gardens Square, London. 110-k578

AGENCIES.

WANTED, first-class firm to undertake part or sole concession or distributing agency in a large way for a well-tried and well-known cyclecar, two-seater, selling at £75, now getting too large a sale for makers to handle in the right way. This is a first-class offer for a real good selling car. Reply to Box No. 4720, care of "The Light Car and Cyclecar." 110-960

AGENCIES (continued).

AGENCIES. Well-known light car, selling at £190 complete highest class workmanship and finish. The makers now find it impossible to cope with the demand in a proper manner and wish to confine themselves to the output only. They are desirous of entering into contract with a high-class firm willing to take the sole or part concession. The same firm are producing four other cars including a four-seater at under £200 complete. This is a fine opportunity for handling real selling propositions for the coming season—cars which already have a name. Reply Box No. 4725, care of "The Light Car and Cyclecar." 110-7

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.

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. Trade zzz-689

EXCHANGE 80 fully paid up £1 shares in Hippodrome for good cyclecar. London House, Dinnington, Rotherham. 110-k471

WILL give a 1913 Singer motorcycle, 3½ h.p., clutch model, splendid condition, and 1913 Invicta cyclecar, 9 h.p., water-cooled J.A.P., three speeds and reverse, all complete, done 900 miles, cost £140, for a 1913 Singer, Calthorpe or other good four-cylinder light car, to private owner or dealer. Dickinson, "Lyndhurst," Ormskirk Road, Aintree. 110-k574

EXCHANGE. 1915 G.W.K. models from stock; keen exchanges or easy payments quoted. Motor Exchange, Westgate, Halifax. 111-k576

EXCHANGE, 1913 Crouch carette in good condition cash adjustment for 1913 Singer. Toms, Catherine Street, Leicester. 110-k652

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

EXTENDED PAYMENTS.

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

FINANCIAL, Etc.

THE Service Co. has accommodation for a number of cars for sale on commission; substantial advance pending sale if desired. Featherstone Buildings, High Holborn. Trade zzz-630

HOODS AND SCREENS.

TWO-SEATER hoods, brand new, but slightly soiled, for A.C.s and Morgans, on approval; also screens. Esmond, Holborn Hall, Gray's Inn Road. 'Phone, 6492 Holborn. Trade 110-j446

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 Magneto Co. Trade 122-382

MOTOR CLOTHING.

MOTOR in comfort. We have a large number of new pile motor rugs for disposal. Warmth and wear guaranteed. Usual price £3, clearance price 30s. each. Send us post-card and we will forward one on approval. Kenworthy and Co., Acre Mill, Golcar, Huddersfield. Trade 111-j498

PATENT AGENTS & CONSULTING ENGINEERS.

FLETCHER WILSON, of Coventry, Chartered Patent Agent. Telephone, 136k. Nineteen years experience in motor patent matters. 120-j613

REPAIRERS.

YOU cannot be certain of the results if you put your car in the hands of an unknown repairer. Having specialized in the repairs to light cars and cyclecars since 1909, when Mr. Higgs first introduced the A.-C. to the public, we know our job thoroughly and can guarantee satisfaction. Our terms are as low as consistent with first-class workmanship. G. N. Higgs, 31 Vauxhall Bridge Road (one minute from Victoria). 'Phone, 1215 Victoria. 110-967

SITUATIONS WANTED.

ADVERTISER is seeking reappointment; he has been successful in establishing more than one car in England, and would be useful to a manufacturer of any light car about to be placed on the market. Full particulars, including satisfactory credentials, Box No. 4717, care of "The Light Car and Cyclecar." 112-964

TUITION.

BRITISH School of Motoring, being the practical training institution for the motor industry, gives special courses for car owners. Unlimited tuition until the pupil signs that he or she is satisfied. We teach you how to motor economically. Apply for "C.C. Booklet," The British School of Motoring Ltd., 5 and 6 Coventry Street, Piccadilly Circus, London, W. 110-965

ONE week's continuous instruction from 9 a.m. to 7 p.m. daily, under fully qualified instructors, fee £2 10s., including driving lesson each day on four-cylinder 20 h.p. modern car garage work, H.F. vulcanizing, tyre changing, and technical instruction on the car two hours daily; a different part of the car being taken each day. Motor Schools Training Institute, Heddon Street, Regent Street, W., and 21a Loudoun Road, St. John's Wood, N.W. Appointed by the Royal Automobile Club since 1907. Call or write for prospectus. 'Phone, 7527 Gerrard and 1597 Hampstead. zzz-17

TYRES.

TYRES, tyres, our telegraphic address is "Tyres," our speciality is tyres. Reduced prices of all makes now ready. Graham, Vine Street, Birmingham. Trade 141-843

ELITE. We have the following special clearance lines, and are willing to send goods on seven days approval against cash. Elite Rubber Co., 264 Vauxhall Bridge Road, Victoria (one minute from Victoria Station), and 260 Coldharbour Lane, Brixton, S.W. All post orders to Victoria Depot. 'Phone, Victoria 6553 and Brixton 2042.

ELITE. Dunlop 650 by 65 covers, 21s., list price 50s., 1913 pattern; Clincher 700 by 80 ribbed, 22s. 6d.; Henley oversize covers, 700 by 80 to fit 650 by 65 rims, 27s.; Kempshall heavy non-skid, 650 by 65, 45s., list price 67s. 6d.; 700 by 85 57s. 6d., list price £3 15s.; Clincher 700 by 80 tubes, 6s. 6d. each. ELITE. Cyclecar covers retreaded, 650 mm., heavy tread, plain, 10s., grooved 12s. 7d., steel-studded 20s.; 700 mm., 11s. 2d. plain, 14s. 2d. grooved, 28s. steel-studded; relining 4s. 6d.

ELITE Rubber Co., 264 Vauxhall Bridge Road, Victoria, and 260 Coldharbour Lane, Brixton, S.W. 'Phone, Victoria 6553 and Brixton 2042. Trade zzz-749

WANTED.

IF you want to sell your car quickly, send it to us. We constantly have large numbers of inquiries for good second-hand cars, and we will sell your car on commission, or buy it outright for cash, or, if you prefer it, we will make you the best possible allowance in part payment for a new car. We are also prepared to advance cash on second-hand cars pending sale. Vivian Hardie, Ltd., 10 Upper St. Martin's Lane, W.C. 'Phone, Regent 5444. Trade zzz-571

WANTED, several good second-hand light cars, cash waiting, or would take in exchange for any new make of car. Seemann and Stones, Ltd., 39 St. James's Street, W. 'Phone, Regent 212. Trade zzz-838

WANTED, G.W.K. light car, exchange smart 27 ft. petrol river launch, complete. Seen Taylor and Bates, Chertsey; photo. Robinson, 21 Maiden Lane, Strand. 110-k575

WANTED, G.W.K., Singer or Morgan, for spot cash, low price essential. Box No. 4719, care of "The Light Car and Cyclecar." 111-k577

WANTED, acetylene headlamps for cash, or exchange electric horn, complete. Westfield, Wilton Road, Crumpsall, Manchester. 110-k580

AUTO-CARRIER epicyclic-gear back wheel, or Root and Clark gear. Orrinsmith, 10 Well Road, Hampstead. 110-k585

WANTED (continued).

WANTED, light car, in exchange for new £100 Player piano, combining every possible improvement, illustration sent. Box No. 4716, care of "The Light Car and Cyclecar." 111-k588
CASS'S Motor Mart require good light cars and cyclecars for cash or exchange, and to sell on commission; quick deals arranged by consulting the specialists, 5 Warren Street, Euston Road, W. Museum 623. Trade 110-977

GOOD second-hand light cars and cyclecars, bought for cash, or taken in part exchange for new or second-hand cars. G. N. Higgs, 31 Vauxhall Bridge Road, Victoria, S.W. Trade 110-966

WANTED, 50 cyclecars, spot cash paid. Despatch, Palmer's Garage, Tooting Trade 110-3

WANTED, immediate, 1914, good light car, Singer preferred. Newbert, The Cottage, Daybrook, Notts. 110-k649

WANTED, G.N., recent model in first-class condition for cash. Hampshire, Box No. 4722, care of "The Light Car and Cyclecar." 111-k638

WANTED, 100 cyclecars, light cars, any make, spot cash paid. Wandsworth Motor Exchange, Ebner Street, Wandsworth Town Station. Trade 110-k613

1914 BUGATTI, chassis or complete car, reasonable price for spot cash. Stone, Camberwell Garage, Warner Road, Camberwell, London. 110-k644

BOOKS AND PUBLICATIONS.

A TEXT book for every motorist, just published, fourth edition, 200 practical points in questions and answers dealing with every part of the motorcar, by post 1s. 1d. Motor Schools, Ltd., Heddon Street, Regent Street, W. zzz-887

"THE LIGHT CAR MANUAL." Written throughout with a scrupulous choice of the simplest wording. Makes every detail of the light car clear as it goes along. Economical running and upkeep specially considered, and all driving problems dealt with. Contains a most instructive section on the control systems of most light cars now on the market. Price, bound in cloth 1s. 6d. net, in paper 1s. net, postage 1s. 9d. and 1s. 3d. respectively from "The Light Car and Cyclecar" Offices, 7-15 Rosebery Avenue, London, E.C. zzz-684

NOTICES.

REGULATIONS WITH REGARD TO ADVERTISEMENTS.

All advertisement orders are subject to confirmation in writing from the Head Office.

All advertisements and contracts are accepted and made upon the express condition that the Publishers have the absolute right to refuse to insert copy to which they may object for legal, public, or trade reasons, and such refusal of copy shall not be a good ground for advertisers to stop a current contract or to refuse to pay for the same or for taking action for breach of contract.

Whilst every precaution is taken to ensure accurate printing, the Publishers will not be responsible for printer's errors, nor will they be responsible for advt. blocks that are left in their possession for more than one year.

SUBSCRIPTIONS.

"THE LIGHT CAR AND CYCLECAR" will be 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."

DEPOSIT SYSTEM.

For the convenience and security of our readers we have an approval-deposit system. The intending buyer forwards to our office the amount of the purchase money, which will be acknowledged to both parties. Notes or money order save time. Cheques must be made payable Temple Press Ltd., and are acknowledged to seller when "cleared." If a sale is concluded, we forward to the seller the amount agreed upon. If no sale is made, we return the amount deposited. In either case we deduct a commission of 1 1/2 per cent. (3d. in the £, 1/- minimum), on amounts deposited up to £50, 1 per cent. on amounts from £50 to £100, and 1/2 per cent. on amounts exceeding £100, to cover our expenses of booking, postages, etc. Carriage is to be paid by the buyer. If the article is returned, each party pays one way. The risk of damage in transit is the seller's. Articles on approval are not to be retained more than three days, unless by arrangement between the parties. All disputes to be settled by the arbitration of the Editor of "THE LIGHT CAR AND CYCLECAR."

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

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.

Ready Shortly.

LIGHT CARS & CYCLECARS — of 1915. —

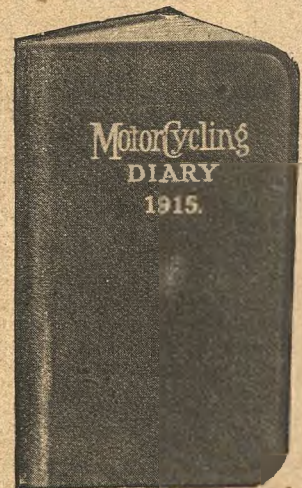
An invaluable guide for purchasers.
Full specifications and illustrations
of all the leading makes of light cars
and cyclecars now on the market.

6d. net; post free, 7½d.

TEMPLE PRESS LTD.,
7-15, Rosebery Avenue, London, E.C.
Wholesale—E. J. Larby, 30, Paternoster Row, London, E.C.

MOTOR CYCLING DIARY *and* MOTORISTS' POCKET BOOK.

Q Invaluable to all motorists. Complete diary for 1915 together with the following useful information: Taxation, Gradient table, Speed in miles per hour, Tyre sizes, Cylinder bores, Lighting-up table, Index marks, Mileage record, Fuel and Oil consumption, Renewals and Repairs, Tyre wear. An aid to economical motoring.



7^{D.} net,
post free.

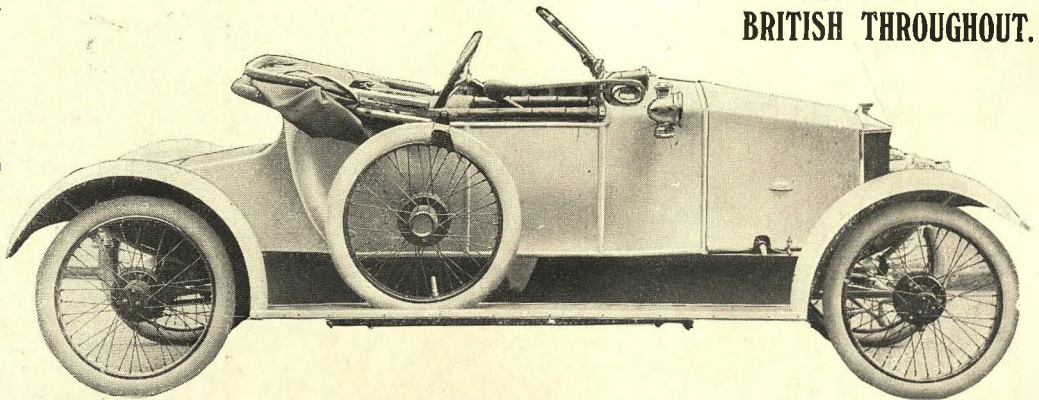
*Order your copy now before
strictly limited edition is exhausted.*

TEMPLE PRESS LTD.,
7-15, Rosebery Avenue,
London, ———— E.C.

1st *The* **Horstmann**
"The Car Without a Starting Handle"

PRIZE
 for
NOVELTY
 Cyclecar
 Club's Rally.

BRITISH THROUGHOUT.



Showrooms:
 64, Gloucester Rd., S.W.

Price £155 complete.

Works:
BATH.

COVENTRY MAKE

£200 Complete, two-seater body, hood, screen, 12-volt lighting, Sankey detachable wheels, 5th wheel, tyre and tube.

DEFERRED PAYMENTS

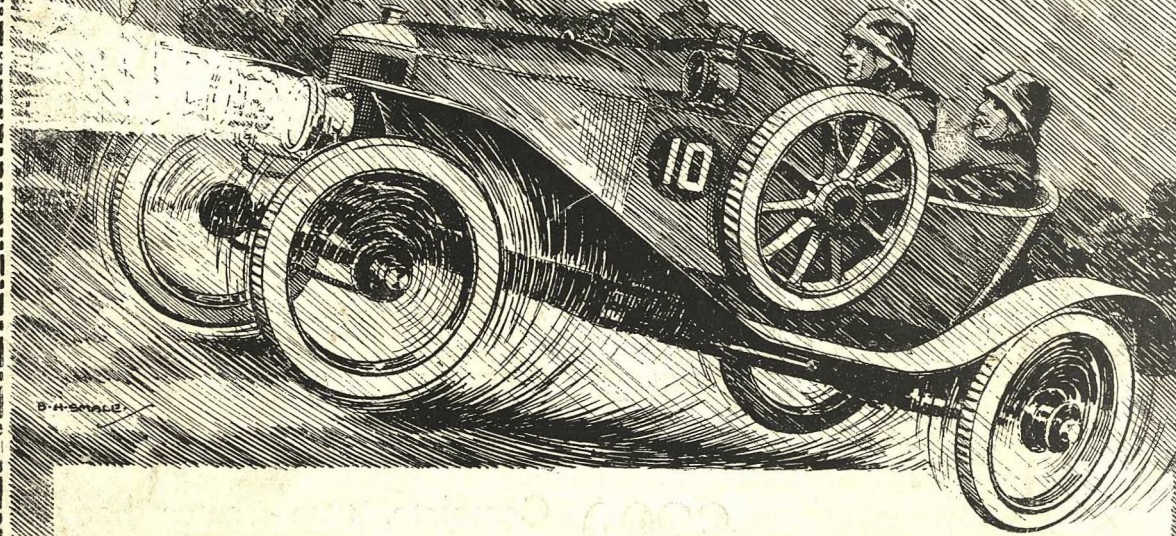
Your present car in part payment.

WATKINS & DONCASTER, LTD.,
 95a, Gt. Portland St., London, W.

Telephones—
 6565 | MAYFAIR.
 6566

CALCOTT CARS, 1915 MODEL

A "Solo Triumph for the "A.C." &
AVON
 TYRES



BRISTOL M.C.C. NIGHT TRIAL, 27th Nov.

Magnificent Performance by Avon-shod "A-C."

The list of starters, including light cars, cyclecars, and motorcycles, totalled 22. One A.C. only—a sporting model, 10 h.p., with its standard equipment of Avon Tyres—competed.

The Trial commenced at 9 p.m. on Friday, 27th November, at Bristol, on wet roads. Competitors were allowed to make their own time to Porlock. The first arrival was the A-C., fifty minutes ahead of schedule.

On the upper slopes of Porlock Hill were long stretches of loose stones, while on top the unrolled metal made the roads very rough. The A-C. and its Avons, however, "made very light of the climb."

At Exeter the A-C. was the only four-wheel car left in the Trial!

At Launceston the A-C. arrived dead on time. Through Tavistock and across Dartmoor torrential rain, fog, and inky darkness were experienced. The severity of the Trial may be judged from the fact that

the only car to finish was the
Avon-shod "A-C."

THE AVON INDIA RUBBER CO., LTD., 19, Newman St., Oxford St., W.

Works: Melksham, WILTS.

Depots: MANCHESTER, BRISTOL, BIRMINGHAM, GLASGOW, PARIS, Etc.