

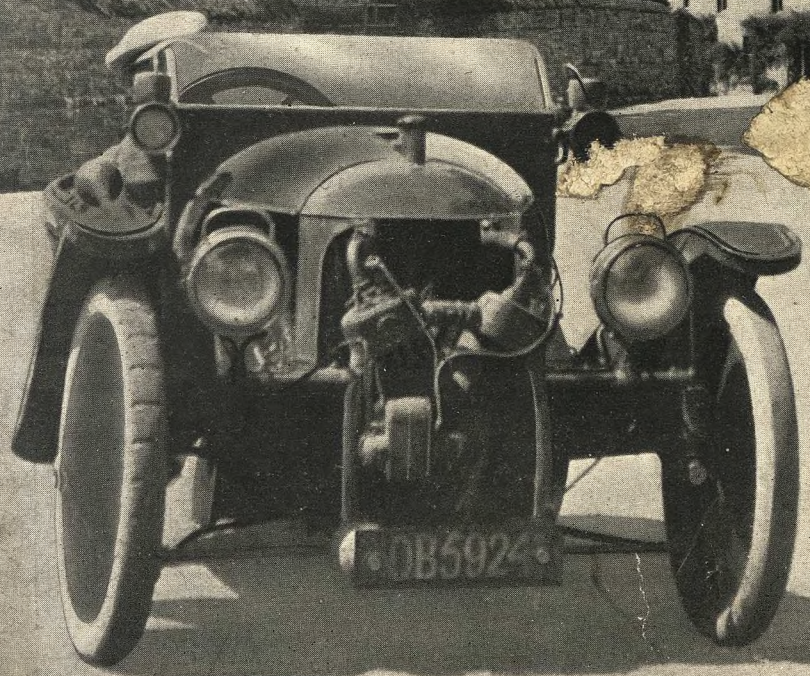
The Light Car and Cyclecar

Founded 1912

The only Small Car Journal



Vol. XIV No. 345
July 5, 1919
*Registered at the G.P.O.
as a Newspaper.*





PALMER

Send for booklet
 "Palmer's Petrol and
 Power" post free
 PALMER TYRE LTD
 119-123 Shaftesbury Avenue
 London, W.C. 2.

FASTEST TIME
 OF THE DAY AT
 SOUTH HARTING
 ON PALMERS.

Class 7

(Racing Class):

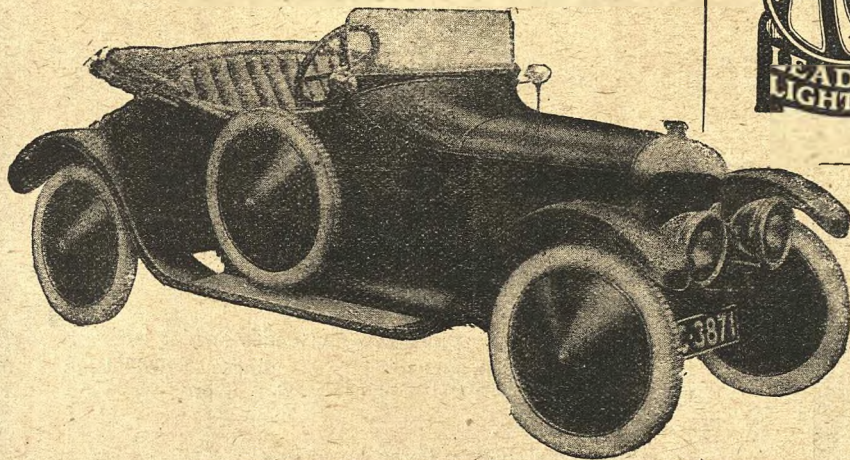
1st - Capt. A. G.
 Frazer-Nash.
 10 h.p. G.N.

2nd - Mr. H. R.
 Godfrey.
 10 h.p. G.N. Vitesse.

Class 8

(Racing Class):

1st - Mr. H. R.
 Godfrey.
 10 h.p. G.N. Vitesse



The VICTORIOUS A.C.

The Six A.C. CARS which entered the London-Edinburgh trial GAINED 6 GOLD MEDALS

This, the first post-war light car trial, proves that the A.C. is still able to hold its own in open competition. Reporting upon the event, the "Autocar" says, "THERE (Edinburgh) FINISHED ALL THE A.C.'s—A FULL TEAM IN ITS PROPER PLACE, AN ALTOGETHER FINE PERFORMANCE," whilst "The Light Car and Cyclecar" says, "ESPECIAL MENTION SHOULD BE MADE OF THE RUNNING OF THE SIX A.C.'s. ALL SIX STARTED AND ALL FINISHED SUCCESSFULLY." Here then is ample evidence that the A.C. is Britain's Leading Light Car.

AUTO CARRIERS (1911), LIMITED

181-183, Hercules Road, Westminster Bridge Road, London, S.E.1.

Telephone : 310 & 311 Hop.

(Opposite Bakerloo Tube Station).

Head Office - THAMES DITTON, SURREY.

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

21

"MADE LIKE A GUN"



10 h.p. Radial Engine Air-cooled Light Car

Some of the advantages of the ENFIELD-ALLDAY RADIAL ENGINE.

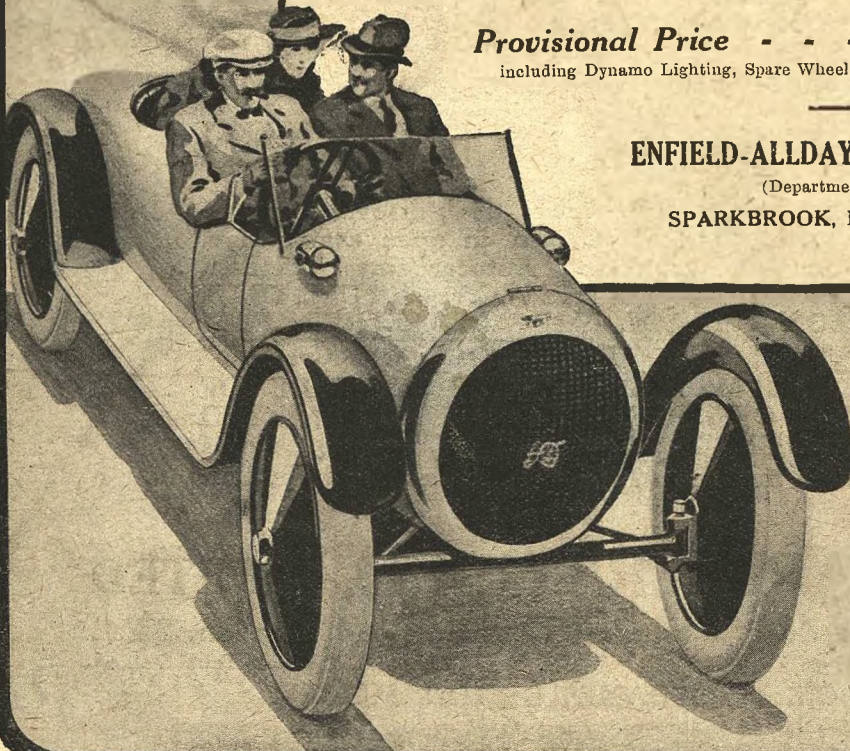
1. **Lightness of weight in proportion to power developed.**
This saves fuel and wear on the tyres.
2. **Almost perfect balance—continuous and steady turning moment.**
Preventing vibration, and giving a steadiness of propulsion not excelled by the most expensive car.
3. **Efficient Air Cooling.**
No water circulation to be attended to.
4. **Extreme simplicity.**
Of importance to the trained driver, and an inestimable boon to the novice
5. **Accessibility.**
All adjustments to engine made easily and comfortably from the front of car. No craning over a possibly dirty mudguard.

Provisional Price - - - £295
including Dynamo Lighting, Spare Wheel, and Electric Horn.

ENFIELD-ALLDAY MOTORS, LTD.

(Department H),

SPARKBROOK, BIRMINGHAM.



**FIVE CYLINDER.
(RADIAL ENGINE)
10 H.P. LIGHT CAR.**



S. SMITH & SONS (M.A.) LTD

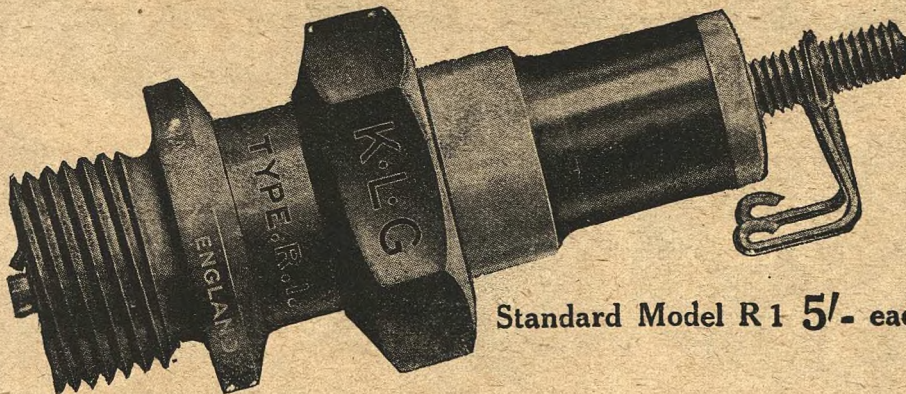
179-185, GREAT PORTLAND ST., LONDON, W.1

announce with the greatest pleasure that they have acquired the World's selling rights for the famous

K.L.G. PLUGS

(Manufactured by The Robinhood Engineering Co., Ltd.)

because in their opinion they are the best plugs yet designed and produced. During the War the K.L.G. Plugs were, and still are, the preferred plugs used on all the most prominent Aircraft Engines, foremost among which is the Rolls-Royce. No higher testimony to their efficiency and serviceability is needed.

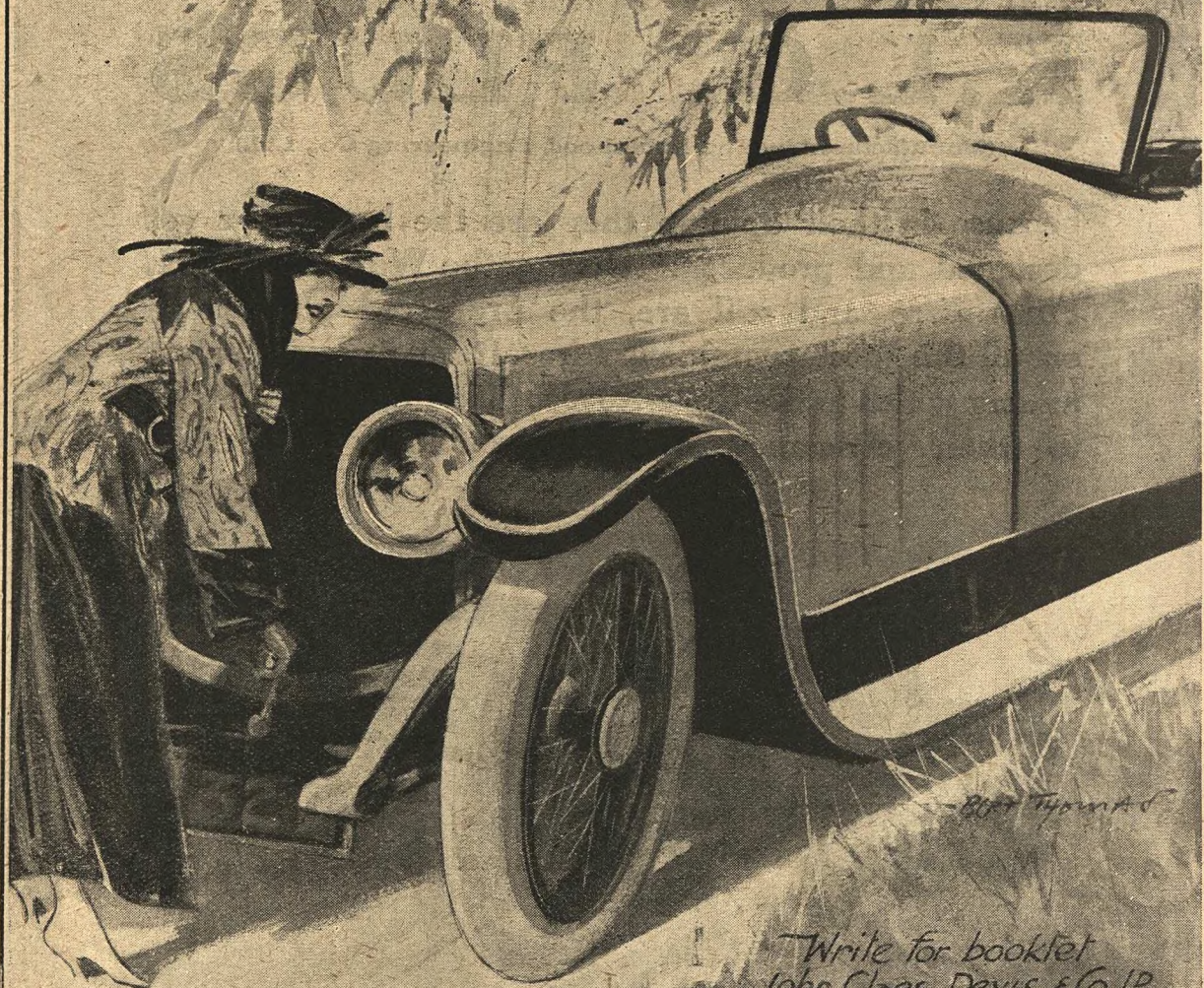


Standard Model R 1 5/- each

The K.L.G. Plugs were used exclusively on the Vickers-Vimy (Alcock-Brown) and the Sopwith (Hawker) Machines in the Atlantic Flight.

FIT A STAENOS CARBURETTER

and ensure easy-starting - perfect slow running
instantaneous acceleration - power at all speeds
noiselessness



Telegrams -
HOWITZER. BOWBUR.

Write for booklet
John Claes, Devis & Co. Ld.
30, Thomas St. LONDON.
E. 14

Telephone Nos.
4636 (4 LINES)

**“SHELL” PERFORMS
THE “HAT TRICK!”**
3 Successive Triumphs.

1st “Daily Mail” £10,000 Prize—
London-to-Manchester Flight, 1910
won by Paulhan on “SHELL”

2nd “Daily Mail” £10,000 Prize—
Circuit-of-Britain Flight, 1911
won by Beaumont on “SHELL”

3rd “Daily Mail” £10,000 Prize—
America-to-Europe-direct Flight, 1919
won by Capt. Sir John Alcock, D.S.C. on “SHELL”

“SHELL”

AVIATION MOTOR SPIRIT

“Shell” Aviation has been released by the Government, and, after fulfilling Air Board requirements for aviation purposes, this Spirit de Luxe will be available for private motorists.

“SHELL” Marketing Co., Ltd., 39-41, Parker St., Kingsway, W.C.2.



SPEED ON HILLS

South Harting Hill-Climb

Results on Time.

CLASS II. (for standard equipped touring 2-seaters).

FIRST	Capt. A. G. Frazer-Nash	1919 "STANDARD" G.N.
SECOND	Mr. C. Finch	1914 "STANDARD" G.N.
THIRD	Capt. W. H. Ogilvie, R.A.M.C.	1913 "STANDARD" G.N.

CLASS VII. (for sporting and racing cars under 1,100 c.c.)

*FIRST	Capt. A. G. Frazer-Nash	G.N.
SECOND	Mr. H. R. Godfrey	G.N. "VITESSE"

CLASS VIII. (for sporting and racing cars under 1,500 c.c.)

FIRST	Mr. H. R. Godfrey	G.N. "VITESSE"
--------------	--------------------------	----------------

Fastest Time of Day.

*FIRST	Capt. A. G. Frazer-Nash	G.N.
SECOND	Mr. H. R. Godfrey	G.N. "VITESSE"

***Record for Hill, all Types of Vehicles.**

It is interesting to note that the "VITESSE" G.N., driven by Mr. H. R. Godfrey which was first in Class VIII, was fitted with the usual "VITESSE" 2-seater body, was fully equipped for touring and beat all machines in the 1,500 c.c. class, including stripped racers, although the G.N.'s engine capacity is only 1,086 c.c.

G. N. LIMITED,
Etna Works,
Albert Road,
Hendon,
N.W.4.

To Silence The Song of the Gear Box

YOU know it, of course, you're tired of hearing it, and yet that gearbox seems to love it; the faster you go the louder, the more shrill it becomes.

To silence that song of the gearbox—and in so doing *make your car last longer*—you need a lubricant that does not liquefy too much with heat and so become thrown off the teeth; you need a grease that *clings to the teeth*—yet does not form into a solid mass through which the gears must *cut* a passage—You need "Ambroleum."

AFTER you have tested "Ambroleum" and have discovered it is the finest gearbox lubricant extant, write us for particulars of the other "Sternol" lubricants.

STERNS,
LTD.,
Royal London House
Finsbury Square,
LONDON—E.C. 2.

Silent Gears
AMBROLEUM
THE GEAR BOX LUBRICANT

STERNOL

"It clings to the teeth."

**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.

Transport is the life Blood of Commerce



*The
Heart of the
Car is the
Engine*

RE-FIT

your old Pleasure or
Commercial Vehicle
with a New and
Original Dorman
Engine 10 to 75 H.P.

DORMAN EXPERTS GIVE FREE ADVICE

Employ your Garage
to Fit.

SEND FOR FULL PARTICULARS
OF SCHEME.

DORMAN'S
of Stafford

SPECIALISTS IN
ENGINE DESIGNING AND BUILDING

Copy D.24 Prepared by HADDON'S ADVERTISING AGENCY,
Salisbury Square, E.C.4

B6 **HELP THE MOVEMENT** by letting advertisers know that their advertisements
in "The Light Car and Cyclecar" interest you.

ELF.

THE
PALLADIUM
LIGHT CAR.

A British Masterpiece.

AS an achievement of the engineer, the new Palladium will rank as a British masterpiece in advanced light car construction — giving in light-weight form the power, luxury and performance of the big car.

FOSTER & TATTERSALL, Ltd.,
Sole Concessionaires for
PALLADIUM AUTOCARS, Ltd.
(Putney),
4, Gt. Marlborough St., London, W.1



TO THE
READER

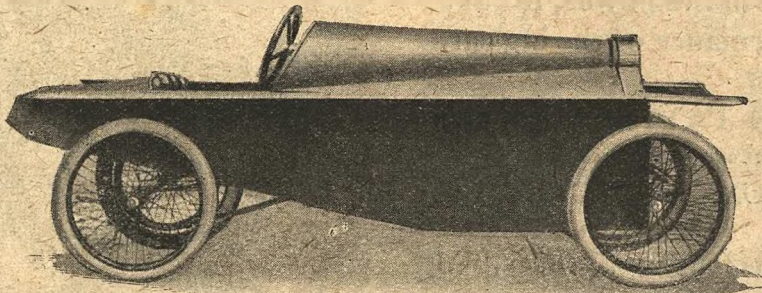
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you will be working for the cause of the new motoring.

B7

**THE CARDEN ENGINEERING
CO. ————— ASCOT,**

have disposed of their whole
output until November of

**CARDEN
MONOCARS**



to **THE RAILWAY GARAGE,
Kingston Road ————— STAINES**

Telephone 139.

(Adjoining L.S.W.R. Station.)

who are now receiving
deliveries, and to whom all
inquiries should be addressed

Price 105 Guineas

Owing to the heavy expenses involved in placing this
model on the market at such an early date it has been
found imperative to increase the price to the above figure.

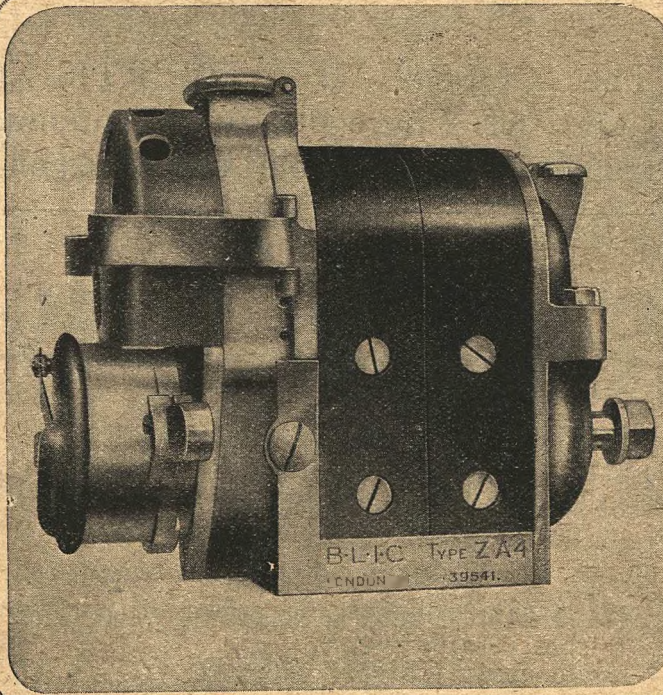
Specification : 8 h.p. air-cooled J.A.P. Engine.
3-Speed Sturmey Archer Gear Box.
Seat Starter.
Perodo Disc Clutch.
Ackermann Steering.
Perfect Accessibility.
Removable Scuttle.

B.L.I.C.

IF YOUR MAGNETO is a B.L.I.C. you can feel sure you will be all right.

Its steady reliability and perfect performance can always be taken for granted.

The BRITISH LIGHTING & IGNITION Co., Ltd.
 Proprietors: VICKERS LIMITED,
 CHESTON ROAD, ASION, BIRMINGHAM.
 London Depot—201, Tottenham Court Road, W.1



B.L.I.C. Type ZA4
 LONDON 39541.



TO THE READER

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B5

Claudel-Hobson

CARBURETTORS

are
MOST SIMPLE,
ECONOMICAL,
 and **EFFICIENT**
 and therefore eminently suitable for
Light Car Work



TYPE M.I.A.

H. M. HOBSON, LTD., 29, Vauxhall Bridge Road, LONDON, S.W.1.

Telephone: Victoria 4670.

Telegrams: "Assemblage, Churton, London."

The COLONIAL ADVERTISING
 COMPANY have pleasure in announc-
 ing that they are Sole British Agents
 for

The Indian Motorist

Particulars of the above and of THE LEADING
 MOTORING AND MOTOR CYCLING
 PAPERS of the Empire Overseas will be sent
 to the Trade on request.

The Colonial Advertising Co.
 (C. COKAYNE-NAYLOR),
36-38, Southampton Street, Strand, W.C.2.

Phone—Gerrard 8836.

Cables—"Colonmotor."

Telegrams—"Naylor, Gerrard 8836."





THE NAME PLATE ON THE RADIATOR
OF THE

PREMIER

SUPER RUNABOUT

will show at a glance that it is the product of the original Premier Co., established in 1875, and the only makers of

Premier Bicycles & Motorcycles

This means that 44 years' experience is behind the new production, and a 44 years' reputation as The World's Standard of Perfection in design, quality, and workmanship.

Remember the name—

COVENTRY PREMIER

and make a note of the address—

COVENTRY PREMIER LTD.,
PREMIER WORKS, COVENTRY,

and Bristol House, 19-20, Holborn Viaduct, London, E.C.1.

**TO THE
READER**

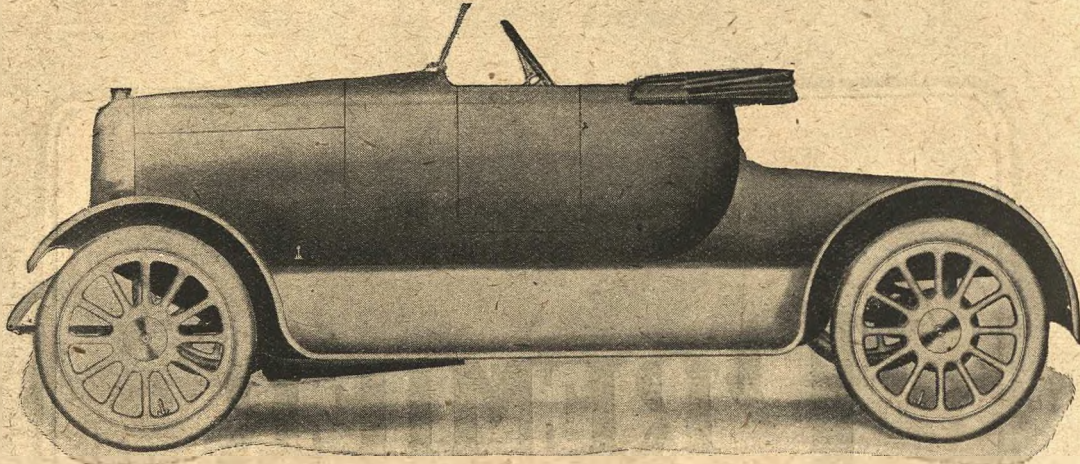
*By mentioning "The Light Car and Cyclecar" when corresponding with advertisers,
you will be working for the cause of the new motoring.*

B11

LIVE AGENTS WANTED

for
DUPLEX CARS

The All-British Production



FITTED WITH 10 h.p. "DUPLEX" SLEEVE ENGINE.

which, on 15th March, 1919, "The Light Car and Cyclecar" stated "is one of the most novel and interesting engines yet produced, with advantages which are important to both manufacturer and user."

YOU CAN HAVE THOSE ADVANTAGES if you decide on purchasing a "DUPLEX" CAR.

The only Light Cars fitted with Sleeve-Valve Engines.

**SILENT RUNNING
AND VERY FAST.**

"At low and high speeds the smoothness and silence are really remarkable."

The Light Car and Cyclecar, 15/3/19.

ENGINE IS PARTICULARLY FREE FROM VIBRATION.

READY ACCESSIBILITY TO ALL PARTS.

These cars are fitted with all modern improvements, including **Electric Lighting Set.**

Full information as to bodywork, prices and delivery arrangements, supplied by

**THE BRITISH COMMERCIAL LORRY
AND ENGINEERING CO., LTD. (Sales Dept.),**

66, Bridge Street,

Telephones: City 773; Central 3720.
Telegrams: "Lancmote, Manchester."

MANCHESTER.

Get it at Harrods!

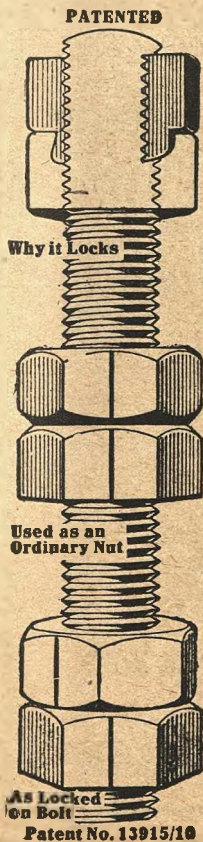
Second-hand Cars

The following cars are in stock at the time of going to press, and are ready for immediate delivery:

- 10 h.p. **ADLER**, light car.
- 10 h.p. **CALCOTT**, dynamo lighting.
- 9 h.p. **RENAULT**, coupe.

Write for latest list of cars and particulars of Harrods Unique System of Deferred Payments.

HARRODS LTD MOTOR SHOWROOMS
116-118 Brompton Rd LONDON SW1



**IF CASTLE AND SLOTTED NUTS COULD SPROUT
WHAT CROPS THE ROADS WOULD GROW!**

Uneven Road Surfaces and High-Speed Engines
loosen the grip of a Castle or Slotted Nut.

Result—

ACCIDENTS, BREAKDOWNS, DAMAGE, DELAYS, DISSATISFACTION

No Vibration can Loosen the Lock of

VISLOK

- DEFIES Intensified and Continuous Vibration
- CANNOT Work Loose Cannot Slack Back
- CANNOT Damage its own Threads
- CANNOT Injure the Bolt Threads
- CANNOT Damage the Mechanism of the Vehicle

PATENTED THROUGHOUT THE WORLD

Test under Your Own Conditions, with Free Sample, sent post free by MAKERS and PATENTEES

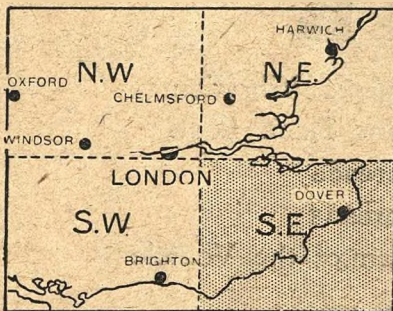
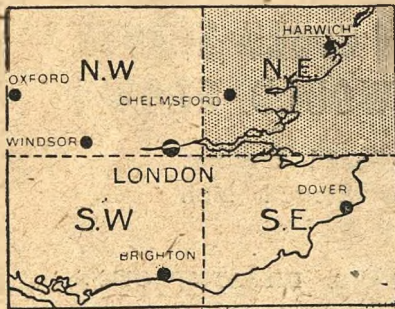
VISLOK Ltd., 3, St. Bride's House, Salisbury Square, E.C.4

Copy M2 Prepared by HADDON'S ADVERTISING AGENCY, Salisbury Square, E.C.4

TO THE
READER

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you will be working for the cause of the new motoring.

B13



A Remarkable Map of 100 Miles Round London

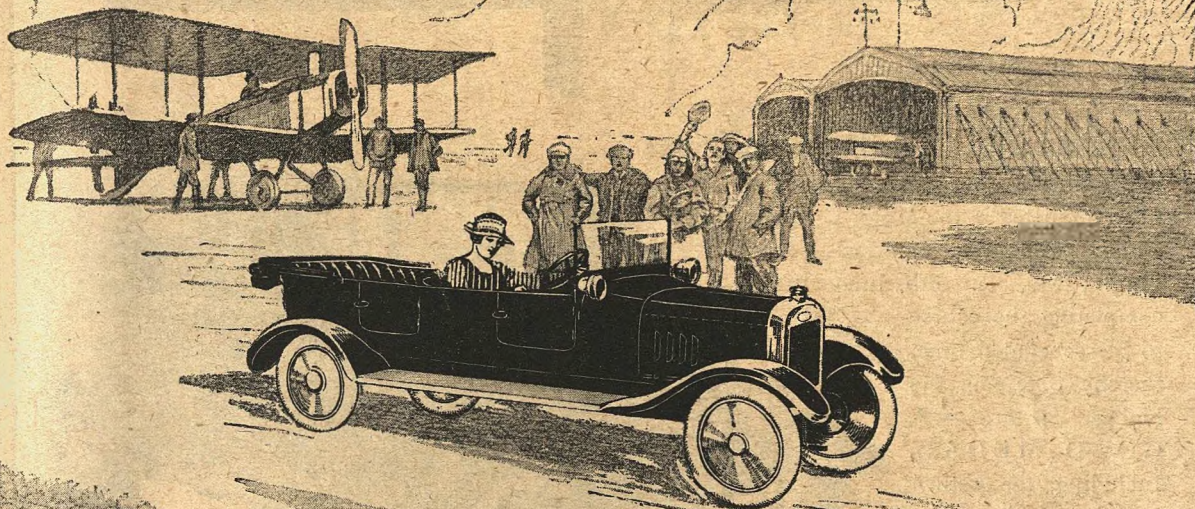
IN FOUR SECTIONS.

TEMPLE PRESS LTD. have just issued a new map in four sheets of the environs of London, mounted on extra stout cloth. The map is on the scale of two miles to the inch, exceptionally clearly printed and produced in colours to show the contour of the land. The contours are shown in seven grades of colour, from the dark green of sea level merging to light green, light brown, and then to dark brown, the darkest shade of brown indicating the highest hills. Important main roads are coloured red, rivers and lakes blue. A map that covers a very wide range of country in one direction from London has been long needed, and it will be found that this map is exactly the article required. The N.W. section takes in the whole of London, but extends north to above Baldock, Fenny Stratford and Buckingham, and west to Oxford. The S.W. section is the largest, taking in the whole of the country from west of New Alresford and Fareham and the coast line to Seaford and extending south from the S.E. suburbs of London. The S.E. section takes in the whole of Kent and the coast line from the Thames to Seaford. The N.E. section takes in the Essex coast and the Thames to Dartford in the south and Saffron Walden in Essex and Felixstowe in the north. The largest sheets are 30 ins. by 22 ins. The series is printed by Bartholomew's, and known as "The Motor Map of the Environs of London."

Price 2s. 6d. per sheet.
Postage 1½d. extra.

TEMPLE PRESS LIMITED,
7-15, Rosebery Ave., London, E.C. 1
Wholesale — E. J. LARBY, LIMITED,
30, Paternoster Row — London, E.C. 4

Miss G.W.K. flies



"It was all too tantalizing, too tame, just to watch"—those were her words, and so she paid her forty shillings and "stunted" for half an hour or so.

On coming back to earth she caused hilarious laughter by her woman-like suggestion that the "bus" would be improved were it equipped with FRICTION DRIVE.

Of course she *knew* it would, and slipping into her G.W.K.—determined to impress her listeners with the practicability of her idea—went through some stunts on *terra firma*.

Most certainly she proved to them that FRICTION DRIVE is quite the right thing for a Light Car—and we can prove the same to you.

Let us send you our preliminary catalogue.

G.W.K. LIMITED,
Cordwalles Works, MAIDENHEAD.

Distributing Agents for London District:
MANN, EGERTON & Co., Ltd., 379-381, Euston Road, LONDON, N.W.



73A

TO THE READER

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E15

LAGONDA

GOLD MEDAL

LAGONDA

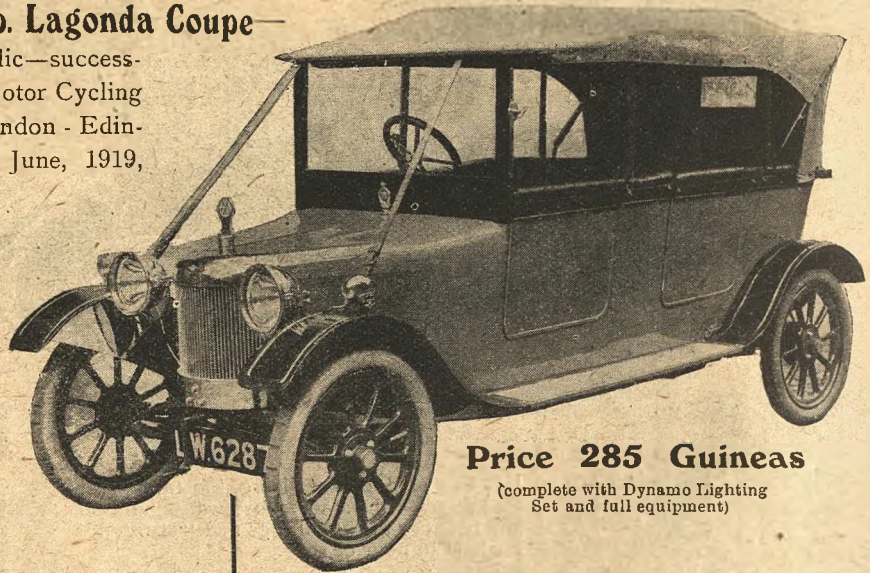
LONDON

EDINBURGH

A Standard 11 h.p. Lagonda Coupe—

as supplied to the public—successfully competed in the Motor Cycling Club Whitsuntide London - Edinburgh Run, on 6th June, 1919, completing the course to the scheduled time, thereby obtaining the highest award — A GOLD MEDAL. Including the return journey, the car traversed in all 900 miles

without a
single
involuntary
stop.

**Price 285 Guineas**

(complete with Dynamo Lighting Set and full equipment)

**Price - - 275 Guineas**

(complete with Dynamo Lighting Set and full equipment.)

Full particulars from

Lagonda, Limited

195, Hammersmith Road,
LONDON,
W.6.

Telephone—575 Hammersmith

Head Office
and Works :
STAINES.

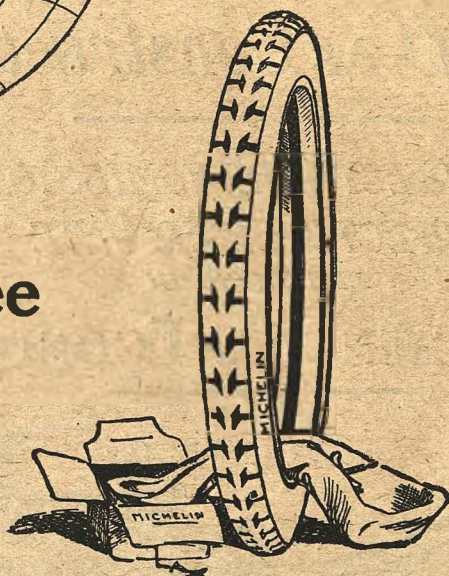
MICHELIN



World-wide
Organisation

Three

Types



but

One
Quality
Only—
the Best



B.I.S. MICHELIN TYRE Co., Ltd., 81, Fulham Road, London, S.W. 3.

TO THE
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you will be working for the cause of the new motoring.

B17



PERFECTION

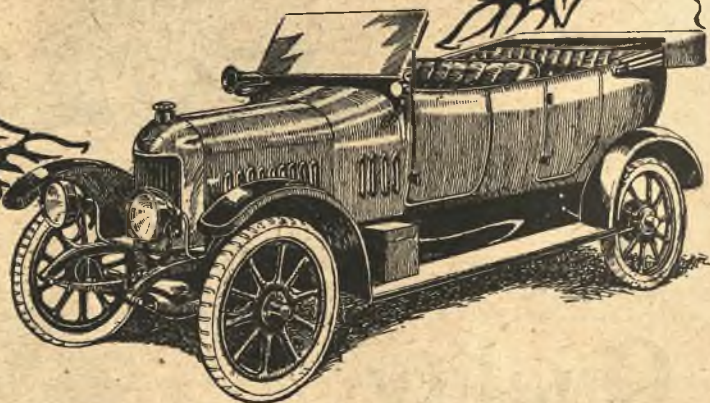
IN

Light Car Construction

*PERFECT TRANSMISSION. &
A PERFECT POWER UNIT.*

RESULTING IN

EFFICIENCY & ECONOMY.



Is attained in

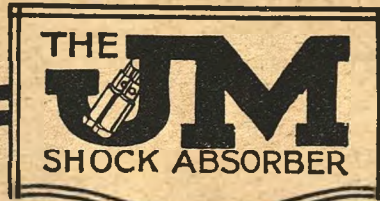
Morris Light Cars

Manufactured by

MORRIS MOTORS, COWLEY. OXFORD.

P.H.C.

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



The following unsolicited testimonials all arrived by the same post. Every post brings a similar batch.

"I could not have believed that your Shock Absorbers would have made such a difference. I took the car over one of the worst roads round here and can only wonder that I had not J.M.'s on before."

"I have a pair of J.M.'s fitted on a Wolseley which I have run over 56,000 miles and find them very satisfactory. Some few years ago I had a pair fitted to a De Dion, which were most satisfactory. I now want a pair for a 10 h.p. Singer."

"I want a pair of J.M.'s for my Daimler. I have used J.M.'s for many years and do not care to be without them."

"We may inform you that we find them an immense advantage and regret we had not adopted them sooner."

The originals may be seen at any time.

"J-M.'s" make Rough Roads feel smooth.

'J-M' Shock Absorbers

Write for Booklet and Particulars to

The
STREATHAM-ENGINEERING
CO LTD

47 Streatham Hill, London, S.W.2

Telephones:- 2010 & 2011 Streatham

Telegrams:- Jayemshoka

Phone, London



TO THE
READER

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

SWIFT

The Car of Successful Service

When many of the present-day makes were unknown quantities, SWIFT Cars had already achieved an enviable fame. In open competition and in private use, SWIFT efficiency and SWIFT consistency have been proved over a period of nearly 20 years. As long ago as 1908, one of the leading daily journals suggested—*apropos* of the wonderful series of SWIFT Successes in Open Competitions—that “*The SWIFT might now retire and give someone else a chance.*”

To crown those years of steady progress comes the new SWIFT. Fitted with the new four-cylinder engine, four-speed gearbox, and embodying maximum efficiency in every detail, it compels the attention of every motorist. In your own interests we should like to send you a copy of our Advance List dealing with this wonderful model.

**SWIFT OF COVENTRY LTD.,
COVENTRY.**

LONDON :
132-134, Long Acre, W.C.



DUBLIN.
15-17, South King Street.



Crossing the bridge at Bangor.

THE ALL-METAL LIGHT CAR. A Peep Into the Future--Metal Hoods and Upholstery.

WE have not yet reached the time when it is possible to pour molten metal into a mould and take out the finished light car therefrom a few hours later, but I do not see why we should not progress a little further than we have at the present moment towards the goal of the all-steel light car. In the old days we had wooden bodies, wooden wheels, wooden dashboards, etc., which have now all been replaced by metal fittings.

There is no getting away from the fact that the modern tendency is to replace wood wherever possible by metal, and it is certainly progress in the right direction. The only parts that are not made of metal in the modern light car are the hood, screen, upholstery, tyres, leather on clutch, and very often in the shape of discs for the universal joints. Let me now take these one by one.

We are all accustomed to the folding aluminium drinking cup, and it strikes me that a hood might be made out of this metal in very thin sheets somewhat on the same principle. I do not think it is outside the ingenuity of the English inventor to come to the rescue regarding this particular point.

The Windscreen.

I next come to the screen. Here the difficulty is not so great, as the metal windscreen has been in existence for quite a considerable time. We have all seen innumerable taxicabs, particularly in London, equipped with this type of fitting. There is no necessity for a screen to stand up very high from the dashboard; in fact, if it is suitably curved it need not be more than six or eight inches high in order to protect the driver and passengers.

Now most people consider that metal upholstery is quite impossible, or, if adopted, would be most uncomfortable. However, I have recently had the good fortune to have a run in a Trident cyclecar in which I travelled on a sheet steel seat without any trace of padding or upholstery being fitted. The framework of the seat itself was not separately sprung, and yet I was taken up on the pavement from the road, which meant a jump of six or eight inches at speed, and during these strange evolutions I was not in the least uncomfortable or severely bumped. In this particular machine this state of affairs has been arrived at by paying particular attention to the suspension of the vehicle, and what has been done with one machine can certainly be done with all others. I therefore assert that upholstery is unnecessary on a well-sprung car.

Pneumatics Superseded.

I grant that the pneumatic tyre seems rather a difficult part to replace, but here again it is only a question of suspension of the vehicle itself. The rubber tyre is only fitted as it is a simple means of damping out the road shocks, which should be absorbed before they get to the occupants of the car by the springs themselves. I feel certain that the car owner of the future will not put up with the inconvenience of punctures and bursts, although these are minimized to a great extent by detachable rims and wheels. During the war I have myself seen large German lorries travelling over atrocious surfaces, shod with iron rims, and from information gathered I do not think that they had any more trouble through broken springs than even we did

ALL-METAL CAR (contd.).

with our rubber tyres. They certainly had shock absorbers fitted, and the steel in their springs was, of course, of the very highest quality. So much, therefore, has been attained in this direction, that it is not difficult to imagine that before many years have passed we may look upon the pneumatic tyre as an antiquated and exceedingly troublesome device.

Coming now to the clutch of a machine, perhaps the majority of light cars are fitted with the ordinary leather-to-metal cone clutch, but as there are already in existence many types of metal to metal,

no difficulty as regards substitution is apparent. The leather disc universal type of joint has also been equally well replaced by very thin metal discs, which give all the necessary flexibility and wear required in a modern car.

When we do arrive at this stage of progress the light car will be a more lasting proposition than it is even at the present day. Metal suitably protected is a very much more lasting commodity than either wood or leather, especially where no friction enters into the case. The risk from fire, too, will be greatly lessened and the machine altogether will prove very much more attractive. PHAROS.

PEACE AT LAST!

AT last the long awaited Peace has arrived, being ushered in by guns and flags throughout the length and breadth of the Kingdom. We hope that the motor industry will now be able to settle down and once more resume its Peace-time activities. During the Armistice period, although in practice it was almost equivalent to Peace-time, there was a certain unsettled atmosphere about it that prevented the industry putting its back into its work and settling down seriously.

The period of the War has extended for practically five years, and during that time we have the satisfaction of knowing that the internal-combustion engine has proved itself to be indispensable in war as it was and is in Peace. Its sphere of operations extended on and under the land, on and under the sea and in the air. Naturally, with such an enormous scope for its utility, a huge number of men with special technical knowledge were needed. To fill these ranks motorists and motorcyclists responded to the call, one and all. In fact, every man, N.C.O. and officer in the Tank Corps, the M.T. R.A.S.C.,

and R.A.F. were, practically without exception, all motorists. In addition to these, many of the personnel belonging to the sea services and to the R.E.s were also motorists or motorcyclists.

Without a doubt motorists have proved themselves during the war, and they may justly pride themselves on the fact that the nation as a whole recognizes the leading rôle that they have played, and we hope that they will see, when all these motorists return to their Peace-time pursuits, that they will not be handicapped or irritated by ridiculous and pettifogging regulations which would prevent them from once more enjoying the freedom of the road on their own soil.

We must not forget, too, the large number of our ranks who have gone out and will never return. They laid down their lives for a noble cause, and it is a consolation for their relatives and friends to know that by having done so they have made certain of this victorious Peace which it is hoped will make the world a better and more pleasant place in which to live.

RUNS WITH AN OBJECT.

Prizes of 2 Guineas and 1 Guinea for the Best Contributions.

IN our last issue we announced a competition in which every reader of *The Light Car and Cyclecar* should be able to enter. In brief, we are offering prizes of two guineas to the sender of the best article and one guinea to the sender of the best amateur photograph centring round the "run with an object." In addition, all contributions which are used will be paid for at our usual rates. The last day for submitting MSS. and photographs is July 31st, all contributions arriving by the last post on that day being eligible for the prizes. Articles should not exceed 1,200 words, and we reserve the

right to print the whole or part of any contribution received; a rough route map should be forwarded showing the spot concerning which the article is written, and the nearest big towns.

Nearly every light car owner has come unexpectedly upon some delightful old-world spot with a history in the background, which, with the aid of a camera, would form the subject for a suitable article, and we want readers to bring these places to light for the benefit of other road users, who may thus institute "runs with an object" and add considerably to the enjoyment to be derived from a light car.

FORTHCOMING EVENTS.

Reliability Run in North Wales.

At a recent meeting of the Lancaster Automobile Club it was decided to hold a reliability run to North Wales on July 19th, providing a sufficient number of entries be received. A hill-climb is contemplated later on, under the auspices of the Lancashire, Manchester and Yorkshire Automobile Clubs, further particulars of which will be published as soon as available.

Scottish Six Days.

The Edinburgh Motor Club's Scottish Six Days' Trial will commence on July 21st. The conditions and

course will be almost the same as in the 1914 event. It will be organized by Mr. Campbell McGregor, 6, Castle Terrace, Edinburgh.

A Floral Fete

The Wolverhampton Floral Fête Amusements Committee will be pleased to receive entries for the Floral Carnival and Battle of Flowers which they are holding in the West Park, Wolverhampton, on July 9th and 10th. There will be two classes for decorated cars, and it is hoped that all car owners in Wolverhampton and surrounding districts will endeavour to make the Carnival a success.

NOTES, NEWS and GOSSIP of the NEW MOTORING.

Protests at Burley.

The Burley Wharfedale District Council has decided to call the attention of the police to the dangerous speed at which many motorcars pass through the village.

The "Knockabout."

The future cheap British car is described by a contemporary as "the British Knockabout." Does this mean that it will be controlled by a "ring"?

Henley Regatta.

Members of the R.A.C. should remember when visiting Henley

LIGHTING-UP TIMES

for Saturday, July 5, 1919.

London ... 9.47	Edinburgh ... 10.59
Newcastle ... 10.16	Liverpool ... 10.12
Birmingham 10.1	Bristol ... 9.57
Dublin ... 10.55	

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

MOON—First quarter on the 5th.

The Victory Loan.

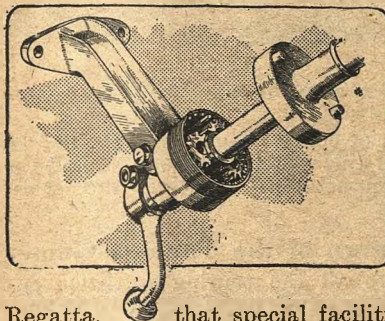
A special Victory Loan Bureau has been inaugurated at the R.A.C. Club House, Pall Mall.

Avoid Chiswick High Road.

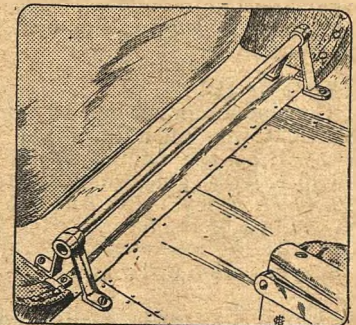
Motorists are advised to avoid Chiswick High Road during the next few months, owing to the fact that the whole of the tramway system is being relaid.

A.-C.U. Membership.

It is interesting to note that no fewer than 32,000 members of the A.-C.U. are now enrolled, over 15,000 having joined this year.



The steering gear of the 1919 G.W.K.



The foot rail provided for the comfort of the rear passengers in the 1919 G.W.K.

Regatta, that special facilities are again available for them this year. Tickets admitting to the Phyllis Court Junior Enclosure are obtainable from the Club's Headquarters, Pall Mall.

A Nasty Suggestion.

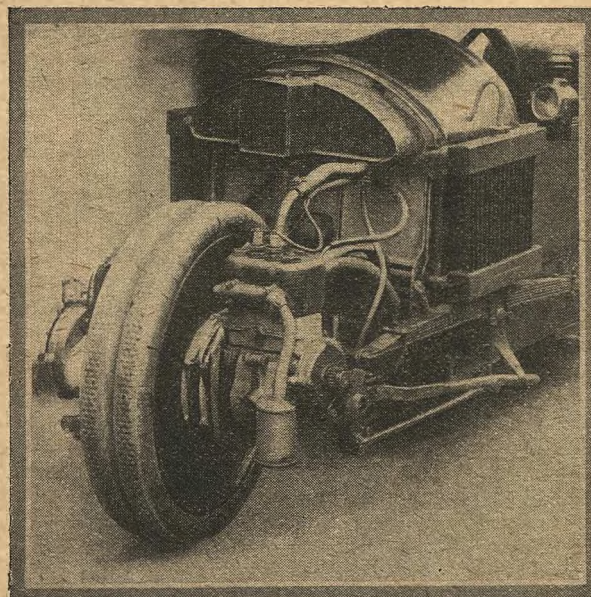
Stopped for exceeding the speed limit, and informed by the constable that he should report her, a lady driver replied: "I hope you will. It is a pity you have not got something better to do."

What Next?

"The method of engine cooling, especially in the medium and small size cars of the future," says a contemporary, "will affect car-drivers to a very considerable extent." Evidently owners would be well advised to carry smelling salts.

"Manchester Guardian" Indignant.

Dealing with the "alarming increase in the number of motoring accidents" and with one accident in particular, the *Manchester Guardian* says that it "is typical of a casualty list that increases as free petrol and fine weather tempt on the road all who can use it." Which only goes to show how much the *Manchester Guardian* knows about it.



The power and driving unit of the Trident cyclecar. Steering and drive are effected through the twin front wheels.

We hear that a new magnesium alloy specially suitable for pistons and connecting rods, has been discovered by the Shawinigan Electro Metals Co., which has sent pistons made of this alloy to the Italian Government for the purpose of further tests.

Our Front Cover Picture.

A G.P. Morgan figures in our front cover picture this week. The photograph, we think our readers will agree, is a particularly picturesque one, and shows the machine in the village of Pooley Bridge, at the head of Lake Ulleswater.

Lifts for Wounded Officers.

Motorists "running light" are reminded that they will be doing a good turn to wounded soldiers, especially in the vicinity of Roehampton Lane, if they will give these crippled veterans a lift, should they happen to be going in the same direction as the car. It is suggested that men requiring a lift should signal to the driver of the car by raising a crutch.

£130,000 for Motorcars.

According to a report, £130,000 was spent in providing motorcars for the officials of the Air Ministry alone.

NEWS (contd.).

The "Death" of the Cyclecar.

Some writers in the lay press certainly have funny ideas, thus: "I have not space enough in this article to enter into the birth, life and death of the true cyclecar. . . ." Good job, too, otherwise the writer might make a serious "faux pas."

The Law-maker and the Law-breaker.

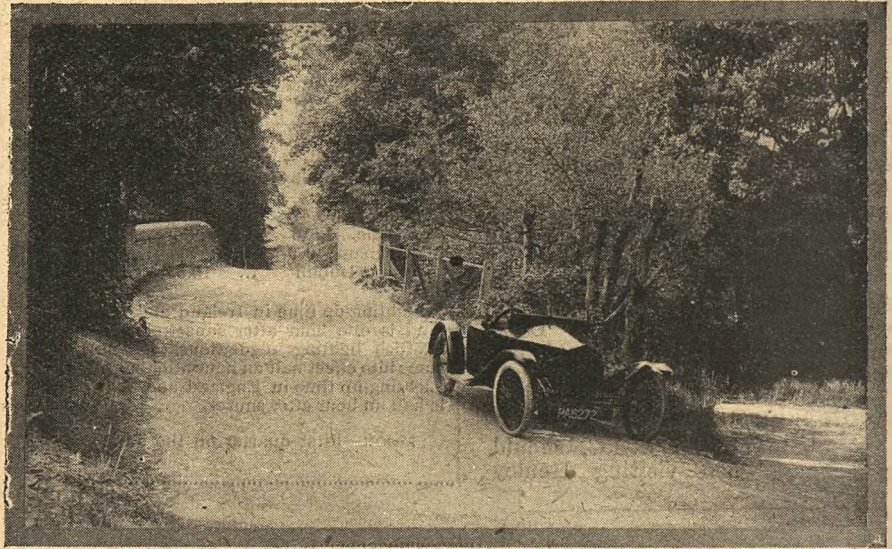
Dealing with a member of Parliament who was fined at Kingston for having brilliant headlights on his motorcar, the mayor said that a gentleman who assisted in making laws should set a good example in keeping them.

There It Is!

Concluding an account of an accident wherein a car broke away from the hauling ropes whilst being loaded on to a ferry, and dropped into the river, the *Hull Daily Mail* says: "It was not insured and remains in the bed of the river." Had it been otherwise, we feel sure the insurance company would have been on the spot within a few minutes.

A Good Example Followed.

It will be remembered that when the Junior Car Club paid their recent visit to Leamington and Coventry, the Standard Motor Co., Ltd., entertained the members to luncheon to which many representatives of rival manufacturers were also invited. It is interesting to note that one of the largest motorcycle concerns in the country has followed this excellent example, as was recently seen by the visit of the A.-C.U. Committee to Bristol. Douglas Motors, Ltd., conducted the members of the party, which included representatives of other rival concerns, round their works and showed them the Douglas motor-bicycle



A Bleriot whipper snapped in a Surrey lane.

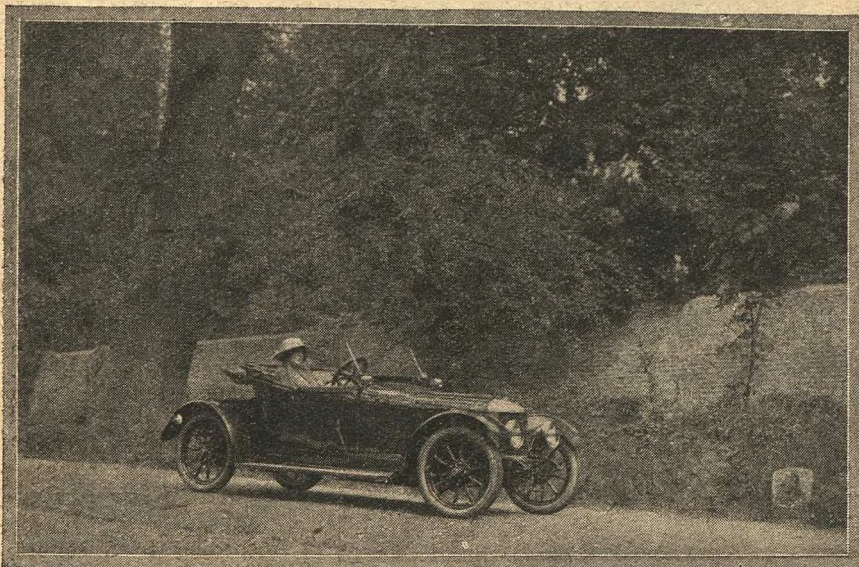
in its various stages of construction. We are happy to be able to record this event and hope shortly to hear of other manufacturers granting the same facilities.

Return of the Touring Guide.

Anxious to restore all the touring facilities enjoyed by members in pre-war days as soon as possible, the R.A.C. has been moving in the matter of re-establishment of its Touring Guides at the various points of embarkation for the Continent and elsewhere. The Club has now succeeded in obtaining official sanction for their guides to resume duty at the Southampton and Folkestone docks.

Finding a Buyer.

Many readers will shortly be taking delivery of their new machines, and will, therefore, require to find new owners for their present light cars. There is no more satisfactory or certain manner of finding a buyer than advertising in the small advertisement columns of *The Light Car and Cyclecar*, as may be gathered from the following extract from a letter received from an advertiser: "I cannot write you without complimenting you upon your paper as an advertising medium. In reply to my Morgan advertisement, inserted in your issue of July 21st, I had three wires before I got my paper, and, in all, seven wires and four letters. I sold the machine on Saturday to a London purchaser at £255." The machine in question was a Morgan de Luxe, the owner of which asked £250 in the first place. As he eventually received £255, he naturally does not regret the trivial sum spent in advertising in our small advertisement columns. Readers are reminded that copy for advertisements should reach us not later than Tuesday morning each week.



The post-war Deemster is a simple machine to handle and is particularly suited to lady drivers.

NOTES AND NEWS (contd.).

Too Late.

Owing to our artist recuperating his health at the seaside, our usual feature "Back to Motoring" arrived too late for insertion in this issue.

Not Yet.

"It exists only in the mind of the writer," says the R.A.C. in reference to a report appearing in a contemporary saying that the R.A.C. Light Car Committee is now in existence.

Motorcars from America.

What are we to believe? Recently we heard that American car manufacturers had decided not to send any cars into this country, in order to give our war-crippled industry a chance to recover: now we learn, according to the *Daily Mirror*, that at least seven American makers are prepared to send cars to England in large quantities and that a rapid fall in prices will assuredly follow. The motoring correspondent of the *Daily Mirror* does not mention what the prices of these cars are likely to be, but we rather imagine they will come as a shock to the man who is looking forward to buying one.

Who Is Responsible?

In a recent case wherein a minor, through her father, sued a motorist for injuries sustained by being run down by a car, counsel for the defence said that if there had been any negligence it was on the part of the parents for not looking after the child in the road. Whereupon His Honour, Judge Parry, remarked: "I do not agree with that. The child has as much right on the road as a motorist." In view of the fact, however, that the driver did everything in his power to avert the accident, and that the accident could not be said to be due to the negligence of defendant, judgment was given for him. No one disputes the right of a child to use the road, but, with all due respect to His Honour, Judge Parry, such a remark is likely to create a wrong impression, and suggests that the road is the legitimate playground for any child.

Transport Bill Modifications.

As a result of strong opposition several modifications to the Ways and Communications Bill have been agreed to by the Government. The Bill proposed to give to the new Ministry control over canals, railways and roads, harbours and docks, and a hand in the development of the National Metrical Scheme. The Prime Minister has agreed to accept an amendment by Mr. Joynson-Hicks providing for the creation of a Road Advisory Committee—a decided advantage gained through the strenuous endeavours of Mr. Joynson-Hicks.

COMING EVENTS.

- JULY.**
 12th.—M.C.C. Hill Climb.
 16th.—York and District Motor Club Reliability Trial.
 19th.—Middlesex County A.C. Penalty Run. Sutton Coldfield and Mid-Warwickshire Auto-Club. Open Hill Climb at Stile Cop, near Rugeley. Herts. County Hill Climb—Members only. Lancashire Automobile Club Reliability Run to N. Wales.
 23rd.—Essex Motor Club Speed Trials at Westcliff-on-Sea.
- SEPTEMBER.**
 1st to 6th.—Junior Car Club "Six Days" Trial.
 13th.—Middlesex County A.C. Club Meet at Staines.
 27th.—Middlesex County A.C. Fox and Hounds Run.
- OCTOBER.**
 9th to 18th.—French Motor Exhibition held at Grand Palais, Paris, for 10 days.
 11th.—Middlesex County A.C. Closing Meet.
- NOVEMBER.**
 First post-war Olympia Show.

The South Harting Hillman.

It is interesting to note that the Hillman which appeared at the South Harting hill-climb was one of the new sporting models which the Hillman Motor Car Co., Ltd., Coventry, intend to market so soon as supplies permit.

A Mystery Accident.

As a result of a motor collision near Ballymena, Ireland, the driver of one car was seriously injured. How the accident occurred is a mystery to both drivers. Such an exceptional case, we think, ought to be recorded.

The Late Mr. G. H. R. Dean.

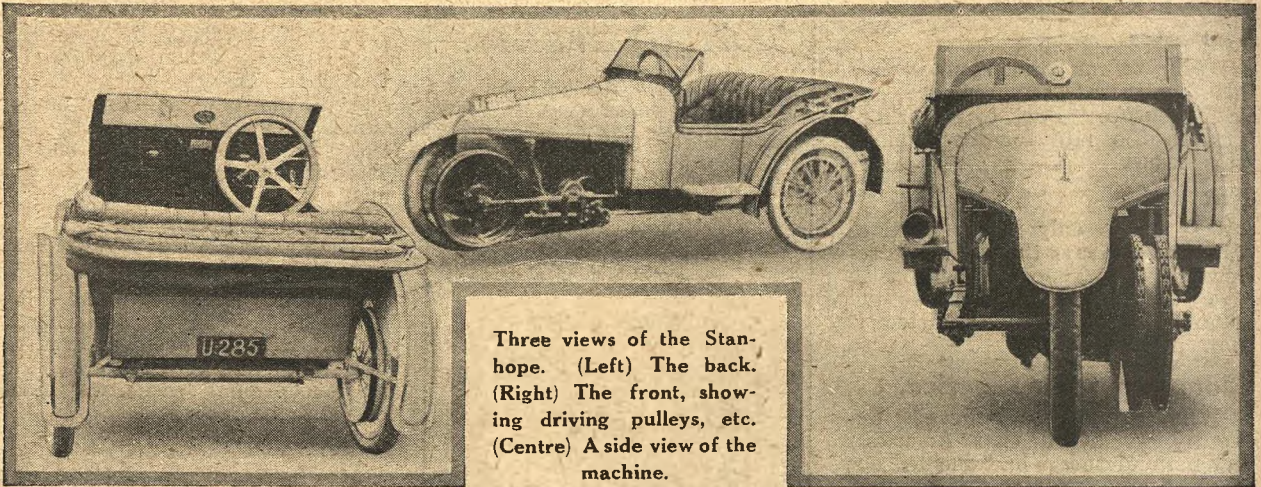
The funeral of the late Mr. G. H. R. Dean took place last Friday at Hendon Park Cemetery, Mill Hill, N.W. The late Mr. Dean was the chief business representative of *The Light Car and Cyclecar*, and among the many magnificent floral tributes we noticed beautiful wreaths from the following:—Regent Carriage Co., Ltd., Rushmores, Ltd., the Junior Car Club, the Motor Club, the Truant Golfing Society, Mr. Jac Pedersen (Fire-



Cottager (to motorist who has filled his petrol tin with water): "Wait a minute, sir, I'll fetch you a glass; you can't expect the lady to drink out of that."

stone Tyre Co., Ltd.), Mr. A. M. McKechnie (Dalgety and Co., Ltd.), Mr. and Mrs. Alex. Mosses, Mr. and Mrs. Jack Woods, Mr. and Mrs. Max Worms, the Old Boys Masonic Lodge, Mr. Alfred Noble (Auto-Carriers, Ltd.), Messrs. G. Caithness and A. Wastnage (A. Wastnage, Ltd.), G. Stewart, J. Wilding, Gerald Adams, Walter Engall, Montague Drew, A. Fellows, and Mr. Edmund Dangerfield and staff of Temple Press Ltd., etc.

We have received a number of letters of condolence from his friends in the trade, and we would like to take this opportunity of thanking them.



Three views of the Stanhope. (Left) The back. (Right) The front, showing driving pulleys, etc. (Centre) A side view of the machine.

A NOVEL TYPE OF THREE-WHEELER.

The Stanhope, with Single Front Wheel Used for Steering and Driving.

ONE of the most interesting transmission systems that we have seen is a feature of the Stanhope three-wheeler. It was produced experimentally at the beginning of the war, and thus has not been marketed, but this, of course, has had the advantage that the trial models have been subjected to a much more thorough testing than is usually the case.

The power unit is an 8 h.p. J.A.P. air-cooled engine, which is situated with its shaft across the frame and almost immediately behind the front wheel. The mounting of the latter is one of the most interesting features of the machine. A substantial quarter elliptic spring is attached to the front end of each of the side members of the frame, and a long stationary axle is slotted at each end to receive the forward end of the corresponding spring which is then clamped in position. At the central portion of this axle, which is turned from the solid steel bar, a ball of about three times the diameter of the shaft itself is formed, the two opposite sides are flattened, and a substantial hole is drilled through, concentric with both flats.

When in position, these flats are horizontal, and an axle sleeve which serves in place of the usual wheel spindle is mounted on them and located by a pin passing through both. In this manner the axle sleeve is free to rotate in a horizontal plane and a stub arm is located on it, which, when connected to the steering gear, imparts the necessary movement to the front wheel for steering purposes. The front wheel hub itself is formed with exceptionally deep flanges giving an overall diameter of about 1 ft., and the rim and wire spokes are of the usual pattern, the hub being mounted on two large diameter M.A.B. ball bearings.

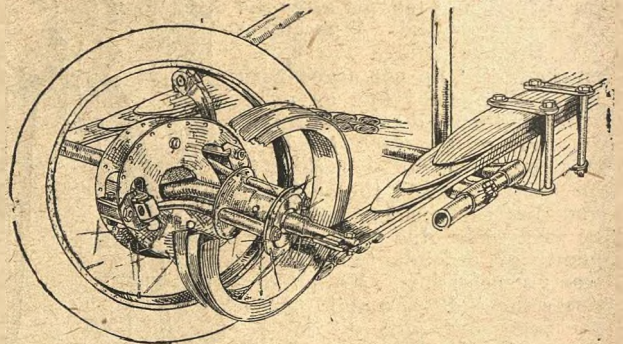
The Front Drive.

Another hub is situated on the front axle, on the near side of the front wheel, but at a sufficient distance from it to allow of the steering movement, and this serves as a mounting for the two large belt rims situated side by side to which the drive is conveyed from the engine. Projecting from this hub are two substantial forks which serve to transmit the power to the road wheel. In order to allow of the necessary relative movement, small rollers are provided at the ends of these forks, and move in suitable guides let into the front wheel hub; in this way the power is conveyed efficiently to the front wheel irrespective of the inclination of the latter for steering purposes.

A variable gear is incorporated in the belt drive, and ratios of from 4 to 1 to 8 to 1 are obtainable. The engine drives directly to a small gearshaft, on which are mounted two belt pulleys, the outer flanges of which are pressed inwards by means of springs, but which are, of course, displaced outwards when the belt tension becomes sufficiently great to overcome the springs.

An Independent Clutch

On the model inspected by us a separate clutch was not fitted, and the belt was used for this purpose, the clutch mechanism simply spreading the pulley flanges. We understand that it is the intention of the makers to fit an independent plate clutch on produc-



A general view of the front wheel assembly, showing springing, etc.

tion models. On the far side of the engine there is a 16 in. fan, driven at engine speed by means of a small Whittle belt. On the same side of the engine there is a chain drive, which provides for a substantial geared-up starting handle, attached to the off-side of the body in a convenient position near the outside end of the dash. The bodywork is neat, and provides exceptionally comfortable and roomy accommodation for two people, while the steering wheel and the controls are most conveniently situated. A hood and screen are provided, and there is a substantial tool locker in the rear; on the new model the question of luggage, etc., is receiving adequate attention.

700 mm. by 80 mm. tyres are used on all wheels. The rear ones are mounted on a tubular axle, and

A NOVEL TYPE OF THREE-WHEELER (contd.).

are suspended by means of cantilever springs, the brakes being fitted to these wheels. The frame is of tubular construction.

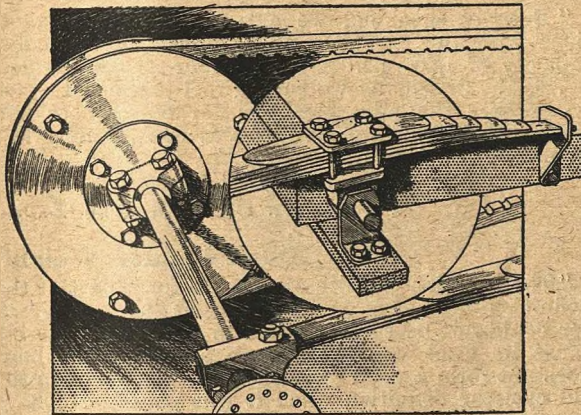
A rather neat point in the bodywork is that a small glass panel is let into the lower part of the dash so that the driver can instantly see the working of the belts and the expanding pulleys while he is actually driving. A special guard is fitted at the front in order to keep all dirt or wet thrown up by the front wheel away from the belts.

The petrol and oil tanks are on the dash, and lubrication of the engine is provided for by means of a hand pump and drip feed, also located on the dash; the carburetter employed is a B. and B. On the present model the clutch operation is by means of a lever situated conveniently under the steering wheel; as a matter of fact, the machine inspected by us was so adapted that, if necessary, it could be driven by a man who had lost the use of both legs.

The machine is made by Stanhope Motors (Leeds), Ltd., 119, Burley Road, Leeds. We understand that no machines will be available for some months.

AN INTERESTING CYCLECAR WITH EPICYCLIC GEARS.

PARTICULARS of a simple and ingenious cyclecar have been forwarded to us by Mr. L. Marcus, 9, Golders Green Crescent, N.W. 4. We understand that the machine was designed and built by Mr. Coult, of Hendon.



The system of springing and the method of carrying out the final belt drive.

It incorporates a single-cylinder engine with two heavy outside flywheels, the drive being transmitted to a countershaft giving two forward speeds on the epicyclic principle (direct drive on top) and the final drive being by 1 in. belt to a large V pulley on the live back axle. A novel point is that only one road wheel takes up the drive, the other running free on the shaft. Both the countershaft and the back axle run on ball bearings.

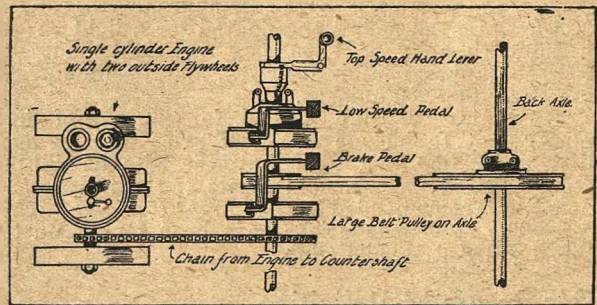
The long belt drive coupled with the large diameter of the driving and driven pulleys should go a long way

towards eradicating any likelihood of trouble which might be thought possible owing to there being only a single driving belt.

The frame is constructed from armoured wood, quarter elliptic springs being provided at the front and special cantilever springs at the rear. The latter are a decided improvement on the ordinary type of quarter elliptic, and we noticed that over a rough cobbled road the car ran very smoothly and without shock to the frame and body. Steering is by wire and bobbin, and the starting handle is fitted on the end of the countershaft.

A light body incorporating two neat bucket seats is fitted, the belt pulley from the countershaft to the rear axle being covered over by a neat casing where it passes between the occupants of the car.

The car is wonderfully flexible, it being possible to engage top speed within three yards of getting away. It is stated that in a recent London-Brighton run, all hills, with the exception of Handcross, were negoti-



A diagrammatic view showing the power and transmission systems.

ated on top, and that the petrol consumption worked out at three-quarter gallon for the whole journey. The machine, it will be seen, has many interesting features, and is very simple in construction.

“COAL: ITS WASTE AND POSSIBILITIES.”

IN connection with the A.A. and M.U. motor fuel campaign an interesting film was shown on the screen at the Gaumont Private Theatre, Piccadilly, on June 30th. It was illustrated how at least 70 per cent. of the heat in coal is wasted when the coal is consumed in an open grate, besides which no use is made of all the valuable by-products. Several examples of lost energy were aptly and convincingly illustrated, after which it was shown how by treating the coal scientifically the full use was made of the by-products; it being possible to obtain 30 lb. of ammonium sulphate, and 100 lb. of tar from one ton of coal.

The process of extracting benzole from the by-products was then portrayed, it being shown that at

least 2½ gallons of this fuel can be recovered from the otherwise wasted by-products of one ton of coal.

The A.A. and M.U. are to be congratulated on this enterprise, for after having seen a film of this nature it is possible fully to realize the possibilities and the wide field open to the production of a fuel such as benzole in this country.

After these valuable by-products have been extracted from the coal, the coke is taken to the iron foundry, where it is mixed with ironstone, the result of which is the formation of “pig iron,” which is the basis of our steel and iron industry. When it is considered that when coal is consumed in ordinary grates and furnaces all these valuable products disappear as smoke, the enormous waste which goes on daily will be appreciated.

"LIGHT CAR" AND "CYCLECAR" DEFINITIONS.

The Junior Car Club's Recommendations on a Vexed Question.

AT their committee meeting last Friday, the Junior Car Club discussed the definition question at great length, and after consideration of many proposals arrived at the following compromise, the proposals being passed practically unanimously:

Definition of a "Light Car."

The Junior Car Club recommend that the first part of the definition of a light car shall be determined by engine size, and that the cubic capacity, which shall be the basis, shall not exceed 1,500 c.c. for a four-stroke engine, and 1,100 c.c. for a two-stroke.

And that the second part of a definition of a light car shall be determined by weight, and that the weight unladen of the standard (as catalogued) open, touring two-seater, equipped for the road, shall be 13 cwt., and for a four-seater, 15 cwt.

Definition of a "Cyclecar."

The Junior Car Club recommend that a cyclecar should be defined as a vehicle having an engine with a cubic capacity not exceeding 1,100 c.c., and a weight limit, unladen, for a standard (as catalogued) open, touring two-seater, equipped for the road, of 9 cwt.

It is interesting to note that for this year's Six Days' Trial organized by the Edinburgh and District Motor Club, the definition adopted for a light car is a cubic capacity of 1,400 c.c., a weight limit of 1,500 lb. (approximately 13½ cwt.), and a selling price not exceeding 200 guineas.

The Junior Car Club decided, for the sake of simplicity, not to include a selling price and an age limit in defining a light car, but otherwise, as will be seen, adopted the principal points of the terms of a definition recommended by *The Light Car and Cyclecar*. The recommendations have been forwarded to the Royal Automobile Club.

Our Suggested Definition.

In our last issue we suggested the following definition:—

- (1) Engine size limited to a cubic capacity of 1,500 c.c., or, in the case of two-strokes, to 1,100 c.c.
- (2) Weight of the standard touring car, ready to run on the road, with hood, screen, proper mudguards and lighting set, not exceeding 12 cwt. for a two-seater or 14 cwt. for a four-seater.
- (3) Price not exceeding £350 for the standard two-seater model (ignoring all special models, and taking

the list price of this model as the basis of recognition); the price to be varied to meet fluctuating conditions: thus, £350, plus increase of 20 per cent. caused by the rise in the cost of material, should it continue. It is worthy of note that this price limit meets the present condition of the market.

(4) No car of earlier date than 1912 eligible in competitions with the exception of the four pioneer cyclecars, the A.-C., the Morgan, the G.N. and the Bedelia—none of which is really a light car if the definition is framed to consider only light cars.

Several manufacturers have written to us agreeing with our definition on the main points, and below we give some extracts from their letters:—

A Plea for Two-strokes.

"Broadly speaking, we agree with your suggestions with the exception that we consider a cubic capacity of 1,200 c.c. ample for four-stroke engines. . . . Personally we should feel inclined to give two-strokes the advantage, as for equal bore and stroke, the actual working area is considerably less than that of a four-cycle engine."

J. ASHTON EVANS.

FOR ASHTON EVANS MOTORS, LTD.

Don't Include Weight.

"The question of price can hardly form part of the definition of what is or is not a light car. . . . A car could not be said to cease to be a light car because its price was heavy. An all-on weight limit does not form a good definition, as was found in the old cyclecar definition when it was possible to have a machine which was at one moment a cyclecar and the next moment, say, by the addition of a thicker and heavier cushion, a car. . . . It seems to me that at present it is better to fix an engine size of, say, 1,400 c.c."

J. T. WOOD.

FOR G. W. K., LTD.

Cyclecars Important.

"So far as light cars are concerned we think your four points of definition would cover the ground very well. . . . We believe a definition of a cyclecar to be equally necessary, for, in our opinion, this type of vehicle has a very important part to play in the near future. . . . We congratulate you on the stand you are taking to create a definite light car class."

JOHN F. HULL, Managing Director.
WOOLER ENGINEERING CO., LTD.

CONDITIONS GOVERNING THE STORING OF PETROL.

Important New Regulations.

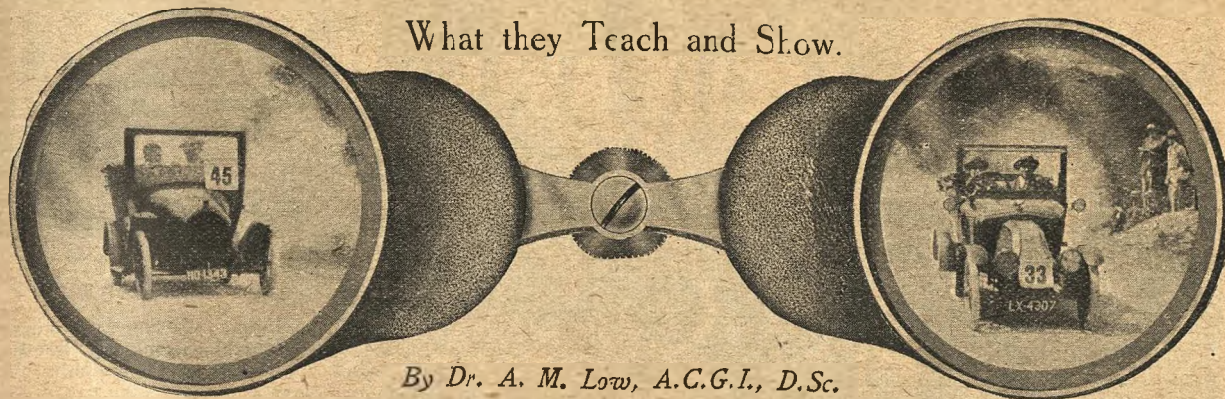
UNDER the "Locomotives on Highways Act, 1896," a regulation has been made by the Home Secretary, which provides that notwithstanding anything in No. 10 of the Regulations dated July 31st, 1907, petroleum spirit may be kept for the purpose of light locomotives (motorcars) in iron or steel drums, or barrels, of a capacity not exceeding 50 gallons. The following conditions, however, must be observed:—

- (1) The store-house must be situated at a distance of

at least 20 ft. from any other building in a highway or public footpath. (2) Provision must be made by excavation or by the erection of retaining walls to prevent the outflow of spirit in the event of fire, if such outflow would be likely to endanger life, or cause damage to the property of others. (3.) Notice must be given to the local authority, and the duly authorized officer of such authority must be allowed to inspect the spirit.

LOOKING THROUGH THE GLASSES AT THE SOUTH HARTING RESULTS.

What they Teach and Show.



By Dr. A. M. Low, A.C.G.I., D.Sc.

A HILL-CLIMB is rather a difficult thing to watch from the point of view of the scientific or would-be impartial observer, because the actual speed of the cars is apt to be impressive and at the same time the noise, risk, and personal knowledge of the machines prevent most people studying in detail the case of cause and effect.

If I comment briefly upon the result of the Junior Car Club Trial at South Harting, it may therefore give rise to that valuable commodity referred to in general as "speculative thought."

In the first place, a weight has got to be translated vertically upwards for a definite rise, and at the same time it has to be moved along horizontally. Nearly all hill-climbs are divided into classes of weights and h.p., apart from the sporting element of using standard cars: and whatever the formula may be it is simply a means of allowing cars of different weights and capacity to compete together, capacity in this particular case implying h.p. and consumption.

than one aspect. If we take the times and read that fastest time of the day was made by a G.N., and that another G.N. also went up in somewhat the same manner, it is no argument to say that to do this it must have skidded, and was it risky?

The G.N. has chain drive which is efficient, it is one of the light class of cars weighing 7 cwt. with passenger, and it has an engine which is efficient from the point of view of power production. Now, contrary to the usual idea, most efficient engines for h.p. burn their petrol effectively and are fairly economical, and light weight still further enhances the possible petrol consumption of such a car.

Again, there are other cars which have fairly good engines, more comfortable than the G.N., with possibly more silent transmission, more silent running, and without the sacrifice of everything to speed: this means giving up engine power in transmission and in the procuring of silence.

It means also that to obtain greater smoothness

The horse-power of an engine falls when the revs. pass a critical point at which gas losses, friction and other causes of indirect loss begin to rise very rapidly. This is of great importance in selecting gears for acceleration, etc., in hill-climbs.

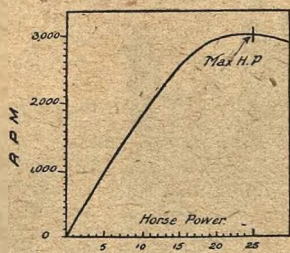


Fig. 1.

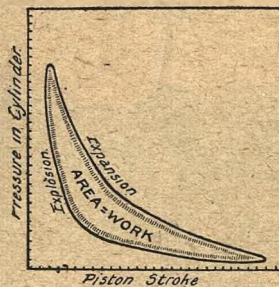


Fig. 2.

An engine must be constructed and adjusted that the area of the power diagram is as large as possible at the practical speeds of the engine. Bad valve timing or slack valve springs may result in the power line taking quite a different position on the chart. The same applies to ignition, timing and wrong gearing.

Most cars of the light car type may be roughly divided into two classes. I will assume them all to be well made and of good material, and will simply distinguish between them as being very light cars with large engines and heavier cars with either the same size or similar engines, not making any allowance for heavy cars with ultra small engines. "Small" engines mean less than 1,000 c.c., because engines of this size do not give, in the ordinary way sufficient power to produce a pleasant car. Comfortable motoring is the idea of everyone, assuming always that we allow for the sporting car by defining comfort as "the absence of the unintentional."

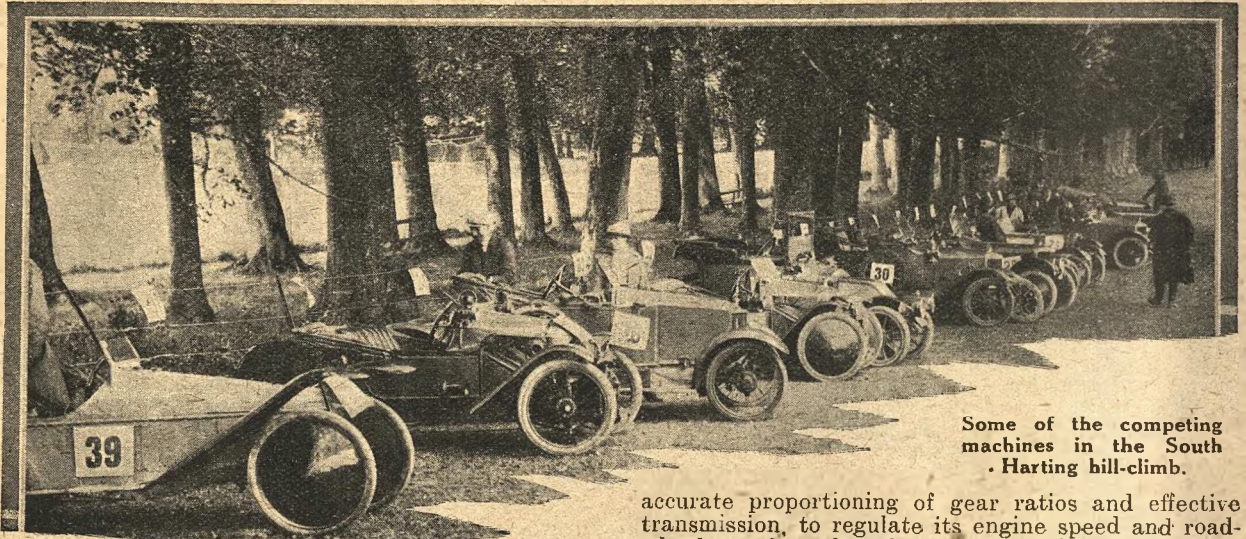
My point will be made clear if I state that to a sporting man, a slow but comfortable car will be "unintentional," and therefore mentally, if not bodily, uncomfortable to him.

There is really more in this than first appears, because we can look at every competing car from more

and comfort of driving a more silent engine is used, because nearly all internal-combustion engines rotate the crankshaft by a series of more or less sharp shocks, and if these are made more continuous it means a splitting up of the exploding gases into numbers of necessarily badly-constructed combustion chambers departing greatly from the spherical form which is so efficient thermally.

Therefore, to obtain a luxury engine, it will mean that the explosion will be to an extent wasted far more than in the case of a racing car. It will not be so efficient, having a lower compression pressure, greater inertia of moving parts, and the surface of the cylinders surrounding the exploding gases will be so big, relatively, that more heat is wasted in this direction, although a slight saving of transmission loss may be effected by enhanced smoothness of torque.

Let me then take a car like the Hillman. On



Some of the competing machines in the South Harting hill-climb.

formula, which is merely a carefully worked out method of balancing the proportional effects of capacity, time and weight, the performance was very good, and if it had not been for the effect of gearing, which, in my opinion, prevented the car running at its best form and brought the engine up to such a high speed of revolution that the power fell away and carburation and induction difficulties arose, the performance would have been better still.

On a test like this, this engine is running perhaps at over 3,000 r.p.m., which it would not do in ordinary use, but even in this case there is much to be learnt, as showing that the friction of gears may be more than balanced by allowing the engine to turn at a speed at which proper "gas travelling" is possible. Perhaps amongst the best performances of the day were the G.N., the Hillman and the Charronette.

The Singer, in spite of heavy weight and moderate capacity, performed very well, and the G.W.K. which, being a comfortable car, was able by

accurate proportioning of gear ratios and effective transmission, to regulate its engine speed and road-wheel speed so that the overall efficiency was maintained during the climb even at the corners.

Cornering on a hill means sometimes good gear-changing, but it always means good carburation, and it is for this reason that in the older, and perhaps more reckless, days a driver would cut out his ignition for cornering rather than disturb the fairly even flow of mixture.

The object of all competitions, apart from the demonstration of reliability and comfort, should really be the production of a large area of work on the indication card of the engine, and it is in this way that the hill-climb helps both manufacturer and buyer to get best value for money and best efficiency.

Cars cannot climb hills fast without power at the road wheels. To lift 10 cwt. up 500 ft. in one minute, apart from all frictional waste, requires

$$500 \times 10 \times 4 \times 28$$

$$1 \times 33,000$$

foot pounds per min. in horse-power = 17 h.p. at the wheels without any frictional or losses allowance



At the foot of South Harting. A G.N. and a Lagonda can be seen.

OFFICIAL RESULTS OF THE SOUTH HARTING HILL-CLIMB.

CLASS 1.—Standard three-wheeled Cyclecars, with engine not exceeding 1,100 c.c. Awards on time and formula.

Name of Driver.	H.P. and Make of Machine.	Bore and Stroke in m/m.	C.C.	Weight of Car and Passengers.	Weight of Car.	Time.	Position on Time.	Figure of Merit.	Position on Formula.
Mr. F. J. Findon...	8 h.p. Morgan	85.5 by 85	976	Cwt. Qs. Lb. 7 3 6	Cwt. Qs. Lb. 5 2 25	x + 0 42 ³ / ₄		1707	
.. D. Hawkes ...	8	85.5 .. 85	976	non-starter					

CLASS 2.—Standard Touring two-seated Light Cars and Cyclecars, with engines not exceeding 1,100 c.c. Awards on time and formula.

Capt. A. G. Frazer-Nash	10 h.p. G.N.	84 by 98	1,086	10 2 12	8 0 2	x + 1 42 ³ / ₄	1	1724	3
Mr. C. Finch	10	84 .. 98	1,086	9 1 14	6 3 26	x + 1 14 ³ / ₄	2	1895	6
Capt. W. H. Ogilvie	10 .. G.N.	84 .. 98	1,086	9 3 2	7 0 2	x + 1 27 ³ / ₄	3	1811	7
Mr. W. Wadham	9.5 .. Standard	62 .. 90	1,086	14 3 22	12 1 6	x + 1 88 ³ / ₄	4	1843	1
.. H. D. Leno	8.5 .. Charronette	58 .. 100	1,056	14 2 0	11 3 18	x + 1 41 ³ / ₄	5	1804	2
.. S. C. Westall	10 .. A.-C.	59 .. 100	1,099	12 2 26	10 0 22	x + 1 48 ³ / ₄	6	1458	5
.. J. H. Wadham	7.5 .. Baby Peugeot	55 .. 90	855	11 1 22	8 3 4	x + 2 7	7	1519	4
.. A. P. Bradley	8 .. Horstmann	60 .. 88	992	12 1 22	9 3 6	x + 2 54 ³ / ₄	8	1072	8
Hon. V. Bruce	9.5 .. Stellite	62 .. 89	1,074	non-starter					

CLASS 3.—Standard Touring two-seated Light Cars and Cyclecars, with engines not exceeding 1,500 c.c. Awards on time and formula.

Lieut. G. C. Stead	10 h.p. A.-C.	65 by 100	1,327	14 1 8	11 3 10	x + 0 57 ³ / ₄	1	1977	1
Capt. J. T. Wood	10.8 .. G.W.K.	66 .. 100	1,368	15 1 6	12 1 10	x + 1 5 ³ / ₄	2	1912	2
Mr. H. R. White	10 .. Bifort	65 .. 100	1,327	16 3 10	14 3 20	x + 1 23 ³ / ₄	3	1870	3
.. A. Noble	10 .. A.-C.	65 .. 100	1,327	15 2 24	13 0 7	x + 1 30 ³ / ₄	4	1656	4
.. A. P. Bradley	10 .. A.-C.	59 .. 100	1,093	14 3 10	12 0 13	x + 1 52 ³ / ₄	5	1652	5
Lieut. B. H. Burroughes	10 .. A.-C.	65 .. 100	1,327	15 2 14	12 2 14	x + 1 53 ³ / ₄	6	1894	6
Mr. W. G. Brownsort	10	65 .. 100	1,327	15 1 0	12 2 10	x + 3 28 ³ / ₄	7	0810	7
.. A. Noble	10.12	66 .. 109.5	1,498	non-starter					
.. H. H. Hoyer	10 .. Mercury	64 .. 102	1,312	" "	" "				
.. C. Eastmead	10	64 .. 102	1,312	" "	" "				
Capt. A. G. Frazer-Nash	10 .. G.N.	84 .. 98	1,086	10 2 12	8 0 2				
Mr. J. G. Grenfell	10.1 .. Fiat	65 .. 110	1,460	non-starter					
.. R. A. B. Heap	10 .. Mercury	64 .. 102	1,312	non-starter					

CLASS 4.—Standard four-seated Light Cars, engine limit 1,500 c.c. Three passengers carried in addition to the driver Awards on time and formula.

Capt. J. T. Wood	10.8 h.p. G.W.K.	66 by 100	1,368	17 1 24	12 1 4	x + 1 19 ³ / ₄		1941	
Hon. Victor A. Bruce	10.8	66 .. 101	1,368	non-starter					

CLASS 5.—Lady drivers in Standard Touring two-seated and four-seated Light Cars and Cyclecars, with engines not exceeding 1,500 c.c. Awards on time and formula.

Miss J. A. Hill	10 h.p. A.-C.	65 by 100	1,327	15 2 24	13 0 7	x + 1 23 ³ / ₄		1749	
Mrs. A. Frazer-Nash	10 .. G.N.	84 .. 98	1,086	10 2 26	8 0 2	failed			

CLASS 6.—Non-standard, or racing, class for three-wheeled Cyclecars up to 1,100 c.c. Awards on time and formula.

Major A. C. Hardy	8 h.p. G.P. Morgan	85.5 by 85	976	7 0 13	5 3 6	x + 0 60 ³ / ₄	1	1719	1
Mr. F. G. Layzell	8	82 .. 109.5	1,093	8 3 20	6 1 2	x + 1 3 ³ / ₄	2	1451	2
.. D. Hawkes	8 .. Morgan	85.5 .. 85	976	non-starter					
Lieut. W. Cooper	8 .. G.P. Morgan	85.5 .. 85	976	non-starter					

CLASS 7.—Non-standard, or racing, class for Light Cars or Cyclecars up to 1,100 c.c. Awards on time only.

Capt. A. G. Frazer-Nash	10 h.p. G.N.	84 by 98	1,086	7 1 11	5 3 7	x	1	2558	2
Mr. H. R. Godfrey	10 .. G.N. Vitesse	84 .. 98	1,086	7 1 3	6 0 2	x + 0 15 ³ / ₄	2	2013	3
.. R. O. Lowe	8 .. A.V.	85.5 .. 85	976	5 0 0	3 2 4	x + 0 21 ³ / ₄	3	1446	4
Capt. J. S. Coats	10 .. Singer	63 .. 88	1,097	11 0 14	9 3 10	x + 0 29 ³ / ₄	4	2566	1
Lieut. D. S. Macaskie	8 .. A.V.	85.5 .. 85	976	5 1 0	3 3 19	x + 0 30 ³ / ₄	5	1358	5
Mr. L. Sadler	10 .. Calthorpe	62 .. 90	1,087	non-starter					
.. H. G. Severn	5 .. A.V.	70 .. 85	654	3 3 6	2 1 26	failed			
.. T. B. Andre	10 .. Marlborough	59 .. 100	1,093	non-starter					

CLASS 8.—Non-standard, or racing, class for Light Cars or Cyclecars up to 1,500 c.c. Awards on time and formula.

Mr. H. R. Godfrey	10 h.p. G.N. Vitesse	84 by 98	1,086	7 1 3	6 0 2	x + 0 14 ³ / ₄	1	2051	3
.. G. Bedford	10 .. Hillman	63 .. 120	1,496	15 1 26	12 3 4	x + 0 21 ³ / ₄	2	2794	2
Capt. J. S. Coats	10 .. Singer	63 .. 88	1,097	11 0 14	9 3 10	x + 0 22 ³ / ₄	3	2787	2
Mr. H. G. Severn	5 .. A.V.	70 .. 85	654	3 3 6	2 1 26	x + 0 25 ³ / ₄	4	1556	6
.. C. A. S. Peto	10 .. Eric Campbell	66 .. 109.5	1,498	8 2 11	7 2 4	x + 0 37 ³ / ₄	5	1896	4
.. G. Calthness	10 .. A.-C.	63 .. 100	1,327	12 2 5	10 0 22	x + 0 48 ³ / ₄	6	1276	5
.. B. Marshall	11.9 .. Chiribiri	65 .. 98	1,300	13 1 8	9 3 6	x + 1 0	7	1854	
.. A. McCulloch	10 .. A.-C.	65 .. 100	1,327	11 3 3	10 0 6	disqualified			
Capt. A. N. C. Macklin	10 .. Eric Campbell	66 .. 109.5	1,498	non-starter					
Mr. L. Sadler	10 .. Calthorpe	62 .. 90	1,087	non-starter					
Capt. A. G. Frazer-Nash	10 .. G.N.	84 .. 98	1,086	7 1 11	5 3 7				
Mr. A. P. Bradley	10 .. Calthorpe	65 .. 95	1,261	non-starter					
.. A. Noble	10.12 .. A.-C.	66 .. 109.5	1,498	non-starter					

x denotes fastest time of the day.

OVER · THE · WIRE

Inside
News of
Current
Events

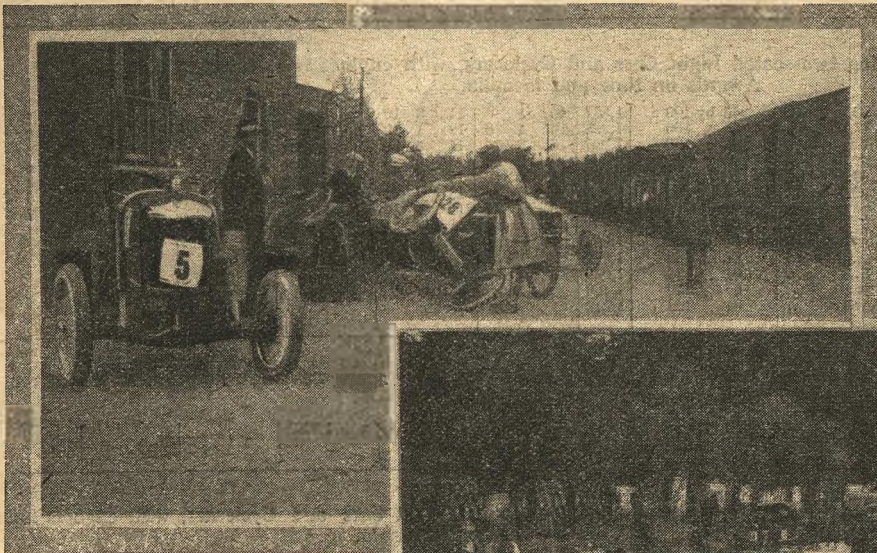
A Luncheon Club—Our Road Engineers and a Failing
—Beating the Boche—An Expert on Knocks—The
Weighers—Weather Next Week-end.

A LUNCHEON CLUB.

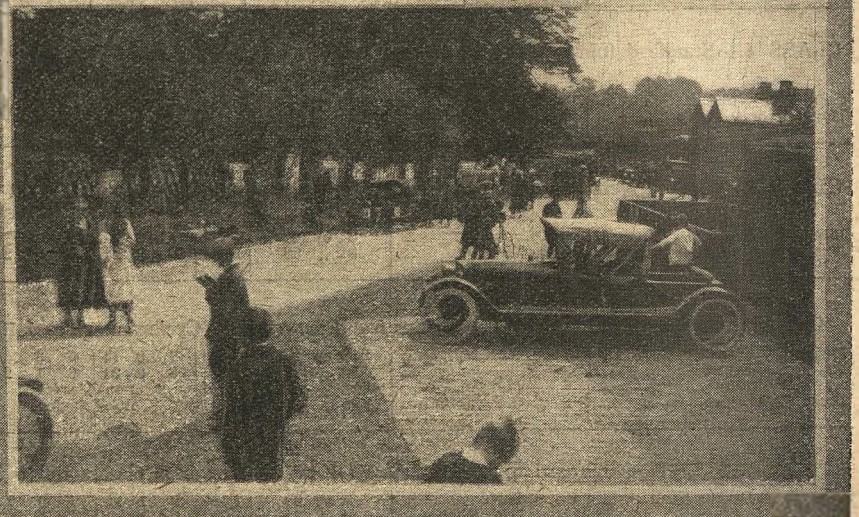
I NOTICE there is a great tendency for officers and men of the same regiment to form clubs in order to keep in touch with each other after demobilization. I think this is an excellent scheme, and one to be encouraged. Perhaps one of the best known examples is the Royal Air Force Club. Another similar institution which, however, has nothing to do with this, is

ALWAYS A BEND

WHY is it that the English road engineer seems incapable or has a violent dislike to making a road perfectly straight? His great object seems to be to place as many bends in a given length as possible. A very good example of this is the road between Chichester and Selsey. No sooner has one negotiated one bend which is carefully bordered with high banks and hedges, than one has started to go round the next. I shall be told, I suppose, that this is due to some landlord or other not wishing to sell the necessary portion of his property so as to make the road straight from point to point, but I rather doubt this explanation. At any rate, supposing for the moment that it is good, why in the name of goodness do our old gentle-



South Harting scenes at the weighbridge. (Top) Captain Nash demonstrates the lightness of his G.N. by lifting it up to effect an adjustment. No. 5 is Mr. G. Bedford's 10 h.p. Hillman. (Bottom) A general view of the machines waiting to be weighed.



called the "Ex R.A.F. Officers' City Luncheon Club." This latter club's sole object is to provide a place in the city where officers of the R.A.F. can go and have luncheon, knowing they will meet there only brother officers of the same Force. It is not in any way pretentious as to its aims or as to its growth, but it serves a very useful object, and I am not surprised to hear that owing to its rapid increase in membership the club has had to look round for more accommodation and has transferred from Messrs. Pimm's Restaurant, Threadneedle Street, to larger premises at Spiers and Pond's Restaurant, in the Mansion House Underground Railway Station. I would like to see the Junior Car Club take a step in a similar direction. They may not be rich enough at the present moment to blossom out with a fully fledged clubhouse, but they might select some restaurant, either in the City or West End, where members could lunch.

B32

men of Westminster not wake up and compel the landlord to sell the necessary land? The highways in France are usually as straight as a die. Of course in hilly districts one can naturally understand that a road must twist about to a certain extent, so that suitable gradients may be made, but even where conditions are absolutely favourable for a straight road, the English engineer makes the inevitable bend. Out in the desert during the war, where military metalled roads were made by the mile, this failing was evident. There was no gradient and there were no landed interests to consider, yet, in very few cases, did I see a road which was straight for more than a mile on end.

BEATING THE BOCHE.

ONE of the miracles of the war has been the remarkable production of the all-British magneto. Figures are very often misleading, and sometimes bewildering, but

OVER THE WIRE (contd.).

I have been supplied with some which leave no doubt as to the magnitude of this now all-British industry. One concern, viz., the M.L. Magneto Syndicate, Ltd., have turned out nearly 100,000 magnetos since 1914, and between 40,000 to 50,000 of these have been made for use on aeroplane engines. Reliability is absolutely essential on an aeroplane, for there is no getting out and tinkering with a contact breaker in mid air.

A MODEST ENTHUSIAST.

WHEREVER the Junior Car Club meet one is almost certain to see Mr. E. R. R. Starr. He is one of those refreshing individuals who is imbued with an enthusiasm which refuses to be stifled. Not having any direct interest in light cars beyond being the prospective owner of one, his enthusiasm is all the more genuine and catching. My illustration



Officials at the weighbridge. (From left to right) Mr. E. R. R. Starr, Major Bale and the station-master at Midhurst Station.

shows him, along with Major F. H. Bale, and the station-master at Midhurst Station. These three individuals were responsible for the weighing of the machines at the recent South Harting Climb. Mr. Starr at present is not known to very many light car owners, or even to members of the Junior Car Club. This is due rather to his retiring nature and to his natural dislike of coming out into the lime-light.

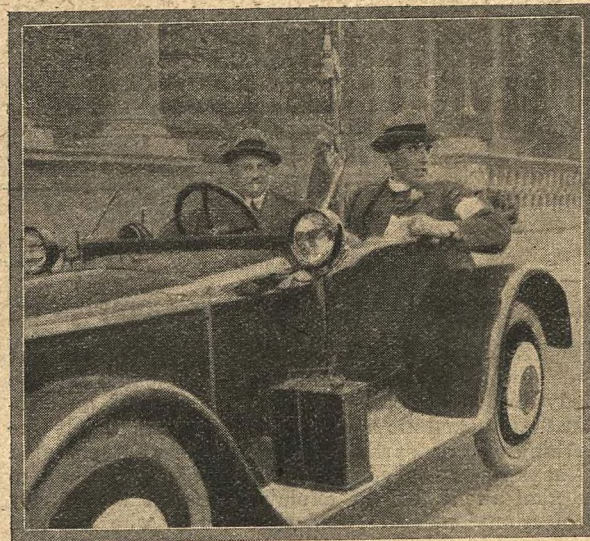
THE WOMAN DRIVER.

I SEE that the much vexed question of the woman-driver has cropped up again, and although I do not wish to take sides in this controversy, I must say that I think the police officer at Hyde Park Corner was rather severe on our women folk in advising them to give up driving. After all, had it not been for the way in which women came to the rescue in the earlier days of the war, we might have been very hard pushed to find drivers. The other side of the question is put forward very ably by "A Lady Instructor" in our "Thoughts and Opinions" pages this week, and although I am not at liberty to disclose the lady's identity, I can say at any rate that she is in a position to talk, being a driver of seven years' experience, also a driving instructor, and finally holding an important position in the W.R.E.N.s. up to the time of her demobilization. No doubt her letter will call forth more interesting views on what after all is a very momentous question.

AN EXPERT ON KNOCKS.

IN my Army career I naturally came into contact with many people possessed of more or less extraordinary ideas. One of my fellow officers I shall

never forget because he was one of those placid individuals who generally knew everything there was to know about any subject which was under discussion. I remember him one day telling me that he could always tell exactly when there was a knock on a car, where it came from, and what was the cause. I must say I rather doubted his assertion, and I hope for his own sake it was not correct. One of the chief attractions I consider in driving a car is in endeavouring to diagnose the various little things that go wrong with it from time to time, and amongst these is the elusive knock. Not so long ago, I was privileged to drive a brand-new Singer, and on the third day whilst I was on the road a most audible knock occurred. For all the world it sounded like a big-end gone. In Army language, I was possessed of a distinct vertical breeze. The following day, however, this knock disappeared as quickly as it had arrived, and I cannot guess even now what was the cause of it. Just think, had I been possessed of my friend's knowledge what joy I would have missed when the irritating noise was no more. He, of course, had he heard the knock, would have known in his own mind the cause, and probably how long it would last. He would have calculated to the thousandth of a second when it was due to take its departure. Instead, I retired to rest that evening, almost trembling to think that I had "done in" a brand-new car which incidentally did not belong to me. Imagine, therefore, my relief at 11 a.m. the following day, when the little machine ran as sweetly and silently as a Singer usually does.



Mr. Willie Douglas, and Rev. E. P. Greenhill (Chairman of the A.-C.U. Competitions Committee), in a Douglas light car at the recent Bristol Rally.

A PENETRATING SOUND.

AT this very moment my second-hand bus has developed a similar annoyance. The engine had plenty of oil, the machine was going on the level, when suddenly its sweet running was interrupted by this penetrating sound. That occurred some days ago, and now on the day on which I am writing these notes, it is non-existent. The previous day it was there in all its glory, and I am hoping to-morrow it will not return. I am quite conversant with all the usual causes, but, unlike my friend, I cannot definitely say that the big-end of No. 3 cylinder has $\frac{1}{16}$ in. play. Such knowledge, as I have said, would deprive me of a lot of the joys of motoring, though it might perhaps impress my passengers

OVER THE WIRE (contd.).

WHY TWO WATCHES ARE USED.

I ASKED Mr. Ebbelwhite the other day why he always carried two watches. He replied: "I have done so for many years, and I will tell you the reason. I was at Paris watching an attempt on the hour record (cycling) being made at the Parc des Princes track. Suddenly, when the attempt was three-quar-



A halt for tea. The machine is a Morris-Cowley.

ters of the way through, I saw the time-keeper throw up his hands. His watch had stopped. Watches are not infallible. There is always a risk of one stopping. With two watches, however, the possibility is so remote that it is not worth considering, and one is always on the safe side."

A HOSPITAL MOTOR SQUADRON DINNER.

ON Thursday next a complimentary dinner to Mr. A. J. Wilson, the Commandant of the Hospital Motor Squadron, will take place at the Royal Automobile Club, when General Fielding, the General Officer Commanding the London District, will occupy the chair. Amongst other guests who will be present will be Major-General MacIntyre, V.C., Major the Hon. Lucius Cary, who will explain something about the work which the squadron was to have done for the Guards in the event of invasion, and Mr. Julian W. Orde, the Secretary of the Royal Automobile Club.

CELEBRATING PEACE.

PEACE was duly celebrated last Saturday night and, in spite of my determination not to be drawn into a crowd, I found myself the centre of a more or less hilarious group. Looking over the heads of the surrounding mass, I saw a poor little Singer light car, the owner of which was driving gaily along with a load of about 20 people sitting in all positions and at all angles on the diminutive machine. I feel certain that that poor Singer will remember Peace Night for many a day, and so will its unfortunate owner. Of course, if people will bring out their machines where there is likely to be a certain amount of mafficking, they must put up with the consequences. Certainly everybody had been warned what might be expected, and what was expected took place.

WARM WEATHER RETURNING.

"WARM weather will return about the end of this week," says my weather prophet, writing last Sunday, "and your readers can look forward to a nice week-end. I think you will admit that my forecast for last week-end, of changeable weather, but fine on the whole, was very accurate. I do not think it is 'ambiguous,' as you describe it."

UPHOLSTERITIS!

A Baffling Complaint—How It Was Diagnosed.

THE following letter was written by a light car owner to the coachbuilder responsible for the bodywork of his car:—"I saw my medical man today. He asked me how I felt. I said that I felt like nothing else on earth. He replied he was very glad to hear it. I told him I did not see what he had to be glad about, but he explained that it was purely professional pleasure, and that a man who felt like that would no doubt constitute an interesting case.

"He thumped me all over and listened intently. Then he went and fetched a stethoscope thing out of a box and listened again. He listened for quite a long time, and then became quite excited. I asked him what was the matter. He said, 'I can't find it.' I said, 'Find what.' He said, 'I am looking for your heart.' I replied, 'My dear sir, you are wasting your time looking for my heart anywhere about my chest. Try the small of my back.' He did, and evidently had a find, for he grunted in a satisfied way. Then he went and looked up 'H' in the medical encyclopaedia.

"He came back with a dazed sort of look. 'Never known a case like it,' he said. Then he X-rayed me, and I read an article on springing of light cars in *The Light Car and Cyclecar* while he developed the negatives.

"He came back looking more puzzled than ever, and showed me a confused sort of blur near my neck,

which he said must be my liver, and another down by my right hip, which he surmised must be my left lung, as there was no trace of it in the normal position. There were, he said, a number of interesting points, and he proposed to make a note of them all and to read a paper on the subject before the British Medical Association at an early date.

"Then he sat down in the chair opposite me and said, 'What are your habits?' I assured him that they were all right now. I admitted that I had had a somewhat hectic career until recently, but that I had now bought a light car and settled down to a sedate and thoroughly respectable existence.

"When I mentioned light cars he seemed to have a sudden idea. 'That's it; I've got it,' he exclaimed. I told him I was glad to hear it, and pressed him for further details.

"Then he became communicative, and assured me that my complaint had puzzled him completely at first, but that he was quite certain of his diagnosis now. What I had was, he said, a severe attack of 'upholsteritis.' I asked him if it was contagious. He said, 'No; but that it required careful treatment, and he wrote out a prescription. It read:—Four meals and two pipes per day. Sit still for half an hour after each meal. Get some more springs put in the squabs.

"So I am bringing the car over on Wednesday morning and I want you to finish it by Friday night."

The Light Car and Cyclecar

Conducted by EDMUND DANGERFIELD.

TEMPLE PRESS LIMITED

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

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The . . .

LIGHT CAR & CYCLECAR

was founded in 1912 to cater for the needs of users and potential purchasers of various new types of cyclecars and light cars, and it has consistently encouraged the development of this new motoring movement for more than six years.

The journal is published every Friday, dated Saturday. Should there be difficulty in obtaining its regular supply, the reader is advised to place a definite order either with a newsagent or direct with the publishers, as it is impossible to cater for "chance" sales.

NO RETURNS.

THE LIGHT CAR AND
CYCLECAR is OBTAIN-
ABLE only to ORDER.

Topics of the Day

The Junior Car Club's Definition.

THE Junior Car Club have framed a definition of a light car and a cyclecar which, if it is not sufficiently complete actually to define the types of vehicle referred to, does at least determine certain important limits. Thus, the cyclecar limit, if this definition were adopted, would be 1,100 c.c. for engine size, and 9 cwt. for the completely equipped weight of an open touring two-seater. This obviously is inadequate as a definition, because the Baby Peugeot, which is not a cyclecar, would just about come inside these limits, while it is probable that some of the more elaborate and expensive cyclecars would overstep the mark in the matter of weight, and would therefore come into the light car classification! It is necessary to define the types of vehicle by some clause appertaining to construction; although, in the case of the light car, this may not be so necessary. The limits selected for a light car by the Junior Car Club are 1,500 c.c. for engine capacity, and 13 cwt. for the touring two-seater completely equipped, with an additional 2 cwt. in the case of a four-seater. These are generous allowances which will probably prove acceptable to the industry, the Royal Automobile Club, and those interested in the development of light car motoring. It is quite time that a definition was accorded approval by the parent body of automobilism, for we notice that in the Scottish Six Days' Trials the quite obsolete limits of 1,400 c.c. for engine capacity, with 1,500 lb. as a weight limit, and a selling price of 200 guineas have been chosen. The selling price, of course, is too low, and we doubt if any light cars are sold at a price anywhere approaching this figure. We should like to see a selling price included in the definition chosen by the Junior Car Club, however, for it does seem absurd to say that this new motoring movement should consider vehicles selling, say, at £700. Admittedly it is difficult to fix a limit, but if a price of £400 were selected it would meet present conditions just as, as we pointed out earlier in the year, a price limit of £350 would of itself define the difference between a light car and a larger car. So far as *The Light Car and Cyclecar* is concerned, we shall adopt the same standards, as heretofore, and rule out cars which, because of their weight, engine size, general dimensions, age and price—either one of these items separately or several taken collectively—rule the vehicle as being out of the class of cars with which we deal.

An Extraordinary Rumour.

AN extraordinary rumour was published in the Press during the past week, in which it was stated that the Government intended to manufacture cheap light cars in the near future. The idea was to make use of some of the large national factories which are at present without any work. The rumour, however, was hastily denied by the Director of Publicity of the Ministry of Munitions, who was reported to have said that "No such project was contemplated, and no such proposal is under consideration. Nothing is further from the intention of the Government than to manufacture in competition with private traders." We are unable to say how this rumour originated, but it is quite possible that the Government may have used it in the nature of a "feeler," in order to test public opinion. If such a plan were adopted we would look upon it in a very serious light, particularly in view of the fact that the motor industry has perhaps done more than any other industry to help to win the war. It would, indeed, be a very poor recompense for its loyalty to have a serious competitor at home in the shape of a Government motorcar factory. We have no doubt whatever that the industry would put up a very strenuous fight against the scheme if it were put forward as a serious proposition. We trust that the Government will take the hint and not embark on any such plans.



The new model Autovac.

THE AUTOVAC FEED SYSTEM.

How It Works—Interesting Details of an Improved Instrument.

A PETROL feed system that is rapidly gaining favour is the Autovac. The manufacturers have brought out a new model, which, besides retaining the principles and features of their previous model, has been improved in several points of detail.

The instrument, as will be seen from the illustration, is cylindrical, and is normally located under the bonnet. On the top there are two connections, whilst a third connection is situated at the bottom. One of the top connections leads to the petrol

tank, which may be situated in any position on the car, whilst the other is run direct into the induction pipe; the bottom connection runs direct to the carburettor.

Inside the outer casing is an inner casing containing a float, the action of which governs the admission of petrol in the following manner:—When the float is at the bottom of its travel, such as when the instrument is empty, the float mechanism opens a small valve in the induction pipe connection, and, assuming the engine to be running, a partial vacuum will be created in the inner casing, with the result that a supply of petrol will be drawn in from the main tank, until the inner case is almost full.

The body of petrol now in, what might be called the float chamber, will cause the float to rise, thus closing the valve to the induction pipe and opening the air release. Opening the air release immediately destroys the partial vacuum in the inner casing with the result that the weight of the petrol opens the valve in the bottom of the inner casing and so becomes transferred to the lower compartment. With the release of the petrol from the float chamber the float will, of course, fall again, thus closing the air release and opening the suction pipe valve.

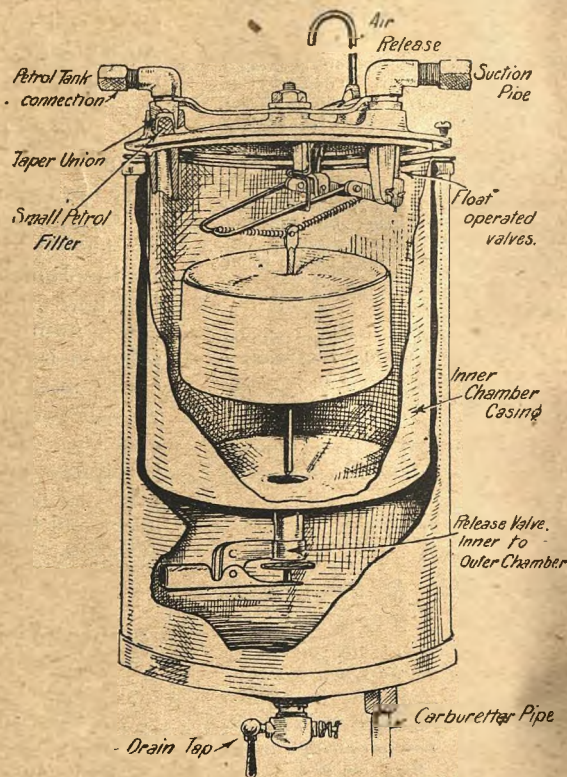
The valve at the bottom of the inner casing now being closed, the partial vacuum is restored, petrol will fill the float chamber, and, as described above, will be again discharged into the lower chamber. It must be understood that the cessation of this cycle of operations only comes about when the engine is not running or when the level in the outside chamber is such that the outflow valve is not released. By this description it will be gathered that whilst the engine is running the supply of petrol is absolutely certain and entirely automatic.

Improvements in the details of this model have effected a reduction in the overall dimensions, which

is a desirable feature, although three distinct models are made so that the Autovac system may be applied to light, medium and high-powered cars.

On previous models the two top connections, together with the air release, were attached by means of unions screwed direct into the top plate. On the instrument under notice these connections are made by means of tapered nipples, the bosses on the top plate being tapered to correspond. These connections are held in place by a single plate with fingers extending to the flanges on each nipple; to secure the finger plate itself a single nut threaded on to a stud in the top plate is provided.

An interesting feature of the Autovac system, and one which is not generally known, is that the instru-



A sectional view of the new Autovac, showing inner and outer chambers and operating parts.

ment will function correctly should the main supply be from a two-gallon tin of petrol, providing the tank connection be taken to the tin. This feature cannot be over-estimated, as in the event of the petrol tank becoming damaged whilst on the road, a few minutes work with the connection will enable the driver to carry on, and so enable him to reach home or a garage when the necessary repair to the tank can be carried out.

The interchangeability of all the parts is also interesting, although the dimensions of the outer casing naturally differ on the various models. The manufacturers of the Autovac in this country are Messrs. Arundel and Co., Sovereign Works, Stockport.



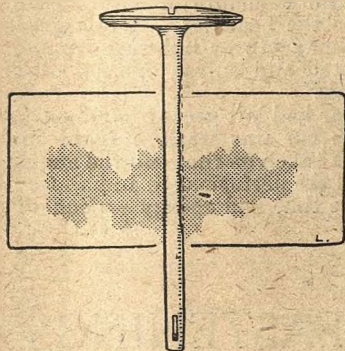
The Siager "10" on the road.

OVERHAULING A SINGER "10."

Hints that Every Owner-driver can Follow.

It had always seemed to me that mere man was immune from the attacks of the spring-cleaning germ until recently a falling off in the tune of my Singer "10" induced me to undertake a complete spring cleaning, both external and internal. The process commenced by clearing out the tool-locker, door pocket, and accumulator box and putting the car on the wash at the local garage. While the accumulated mud and dust of the winter were being removed I sorted over the contents of the tool-locker and door pocket, ruthlessly throwing out the perfectly useless odd tools, nuts and bolts, washers, old sparking plugs, etc., that one gradually acquires and hoards for no explicable reason.

This done, I turned my attention to the accumulators, and having carefully vaselined the terminals afresh, I emptied out the old acid and a good deal of the mud which gradually accumulates at the bottom of the cells. The cells were then filled with clean water and emptied, removing more mud, and the process repeated two or three times. The cells were then delivered to the garage to be filled with fresh acid and placed on charge. It



The stems of the inlet valves were badly worn.

is as well to empty the acid on to the ground and not down a drain, but do not expect to cultivate roses where the acid has been poured!

Dismantling the Engine.

The car itself was now clean externally, and a start was made on the engine. The rubber water connections were first undone and, the clips having been slackened, a twisting motion easily worked the connections on to the inlet and outlet elbows of the radiator. The carburetter was now removed bodily, also the two bolts and nuts joining the copper inlet pipe to the aluminium inlet manifold. The small nuts were then removed from the studs by which the aluminium water uptake is secured to the two cylinder castings and by the judicious and most gentle forcing of a small screwdriver into the joint the water uptake was persuaded to come away, carrying the copper inlet pipe with it.

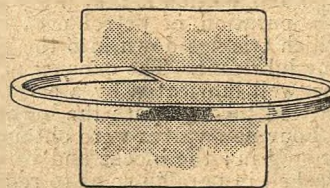
The inlet manifold was next removed, and then the exhaust manifold tackled. The nuts securing the flanges to the cylinders are fairly accessible and the only difficulty experienced was in removing the four nuts and bolts joining the two square flanges of the

exhaust manifold and exhaust pipe. These flanges come just under the dash and there is little room for even a box spanner, but a hammer and chisel can just be used and in this case solved the difficulty. If carefully manipulated little damage is done to the nuts. The joint between the two cylinder blocks consists of a rubber ring and clip and should be broken with care so that it may be used again.

A Useful Tip.

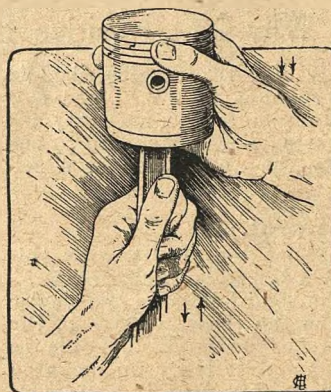
The aluminium cover plate of the valve stems was next removed, and I thought for a moment that it would be necessary to take off the magneto in order to lift the valve cover plate away from the cylinders. A few minutes sleight of hand disclosed the right method, however, and by keeping the cover plate as much towards the flywheel as possible it just cleared the magneto.

The cylinder holding-down nuts were then dismantled and the two blocks lifted without difficulty, care being taken to hold the pistons before they were entirely free of the bore, as otherwise they might fall against the tappets and crack the skirt or rings. The cylinders were then well cleaned with paraffin and a stiff paintbrush in order to remove as much dirty oil as possible.



Black patches on the piston rings show that they are not gastight.

While the cylinders were draining, the pistons and connecting rods were carefully examined. By holding the rod firmly in one hand and the piston in the other and trying to find any up and down motion at the gudgeon pin end a very good idea of the state of this bearing may be gained. Luckily all four gudgeon pin bearings were in good condition. The big ends were then examined for wear by endeavouring to find up and down motion of the connecting rods. Thanks to the efficient lubrication of the Singer there was no appreciable wear, and it was decided not to dismantle the engine further.



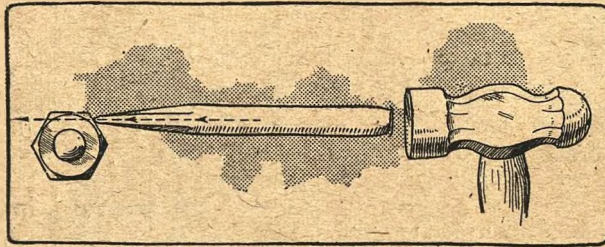
Testing the gudgeon pin bearing.

The pistons were scraped clean and the tops polished with emery paper. The rings were removed and the grooves also cleaned, and it was deemed advisable to replace three of the rings, as a black patch showed only too well that they were not gastight. During this process the particles of carbon were prevented from falling into the crankcase by stuffing clean rag round the connecting rods. The engine was then thoroughly flushed out with paraffin and the very dirty state of the oil when it was drained off showed that this was a wise precaution.

Attention was now given to the cylinders and the

OVERHAULING A SINGER "10" (contd.).

valves were stripped down first of all. The valves were already numbered for their respective places, the numbers running from 1 to 8, No. 1 being at the front, i.e., nearest the radiator. The carbon was then chipped and scraped from the combustion heads and valve pockets. The valves were examined, and



As a last resort, or if it cannot be got at any other way, a nut may be slacked off as shown.

although the seats were in fair condition the stems of the four inlet valves were found to be badly worn. The explanation is that probably a certain amount of condensation of petrol occurs on the valve stem, which trickles down into the guide and washes away any lubricant. The exhaust valves on the other hand are well lubricated by a certain amount of oil being carried through with the burnt gases.

Four new valves were obtained and all were lightly ground in; the blocks and valves were then carefully washed in paraffin so as to remove all trace of dirt or grit. For wiping out the cylinders chamois leather only should be used, as rag, however clean, is liable to leave particles of fluff. The cylinders were next assembled and, having been liberally coated with oil—as also were the pistons and rings—they were replaced on the engine, great care being taken to ensure that the pistons and rings entered the bores easily and without strain.

The reassembling process was of course the reverse of the stripping operations. The holding-down nuts were pulled up tight, diagonally-opposed nuts being

tightened first so as to avoid any strain being thrown on the foot of the blocks. The valve tappets were then adjusted and the cover plate replaced. The exhaust manifold was bolted up and next the inlet manifold. The water uptake and induction pipe were next fitted and the water joints worked into position and clipped tight. Care was exercised to avoid air leaks in the induction pipe and inlet manifold joints. The carburetter was cleaned out and replaced and, the radiator having been filled and the base replenished with fresh oil, the engine was started up and allowed to tick over slowly in order to distribute the oil to all working parts before being opened out.

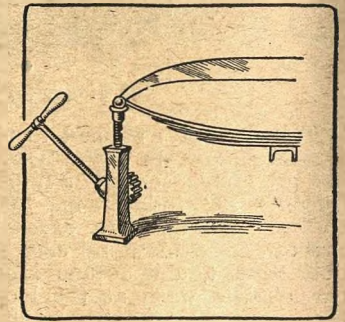
The combined gearbox and back axle were next examined and filled with thick oil, which seems to suit this type of gearbox construction very well. The car was jacked up so as to allow the springs to separate and an old knife was used to smear the leaves liberally with grease and graphite. The brakes were adjusted and all pin joints lubricated, greasers, filled etc.

The magneto contact breaker was cleaned and the platinum points trimmed and burnished.

The lighting dynamo required nothing beyond wiping the commutator with a clean rag, and a spot of oil in the bearings. It is a great mistake to over-oil the magneto or lighting dynamo, as ball bearings are fitted and only a spot of oil is required at long intervals.

All this work on the car had left greasy hand-marks in places, so finally the car was washed again and carefully polished. When taken on the road the engine was once more lively and the performance and appearance were well worth the time and energy expended.

A.G.D.C.



Where to fix the jack so that the weight is taken off the springs, enabling the latter to be lubricated.

SIMPLIFYING BOWDEN CONTROL FASTENINGS.

Why Not Positive Controls for Cyclecars ?

THE recent experience of a reader, described in the correspondence columns of *The Light Car and Cyclecar*, draws attention to the necessity for a simpler method of securing a Bowden wire to the controlling lever than by the application of a soldering iron.

An Awkward Predicament.

The average driver is not an expert with this tool, and in the event of a breakage occurring he is absolutely hung up on the road unless he can devise a means of propping open the throttle valve in the carburetter. By this means he might be able to reach the nearest garage, but it is by no means a pleasant experience to drive on a fixed throttle, and in the event of a fairly wide throttle opening the racing of the engine does not do it a great deal of good.

To finish off the fastening with a daub of solder is certainly extremely neat, but the writer suggests that a fastening quite as neat, effective and useful could be provided by treating the ends of the Bowden wires as though they were electric cables entering a terminal. In a fastening of this descrip-

tion, should the wires break, it would be a comparatively simple matter to shorten the cable casing slightly, clip the wires an even length in the case of an uneven break, pass them through the hole, and tighten up the "terminal" screw. The idea has this disadvantage, that, owing to vibration, the terminal screw might slacken off, but the inventive genius of control manufacturers should be equal to devising a means to prevent this.

Dispensing with the Flexible Control.

In view of the fact that the carburetter is a rigid connection is there any reason why positive controls, i.e., by rod and levers, should not be fitted? The ordinary foot control works very well, and two rods should be quite as easy to fit as one, coupled up to the steering column.

There is certainly a good deal to be said for the Bowden control, especially as regards the ease with which it can be fitted, but when the control is likely to give trouble on repairs being necessary, positive controls obviously possess advantages. The views of other readers should prove interesting and the writer welcomes their criticisms.



STANDARDISATION *of* CHAINS

THE unprecedented demands of the Allied Governments for driving chains for all purposes during the period of the war, made it necessary for the British Driving Chain Manufacturers to collaborate in order to use the whole of their resources to the best advantage. As a result, the needs were met, both as regards quantity of production and quality of product. The benefits accruing from co-operation were so marked, that a permanent Association has now been formed.

The main object of the Association is to foster and develop the use and application of chain gearing, the value of which is not yet fully appreciated by power users. In view of this, and in the face of competition with other forms of transmission, it is the policy of the Association to keep down the cost of chain driving to the user. This will be attained by:

1. Standardisation of chains, wheels, and chain wheel cutters to ensure interchangeability.
2. Elimination of unnecessary sizes of chains, which have been a source of confusion and difficulty to the user.
3. The increase in output resulting from the above.
4. The more comprehensive research made possible by co-operation.

Further, it is confidently anticipated that the policy of the Association as set out above will enable British Driving Chain Manufacturers and their customers to secure a larger share of oversea business than hitherto.

Members of A.B.D.C.M.:

ALFRED APPLEBY CHAIN CO., LTD., Tilton Road, Birmingham.	"THE COVENTRY" CHAIN CO., LTD., Spon End, Coventry.
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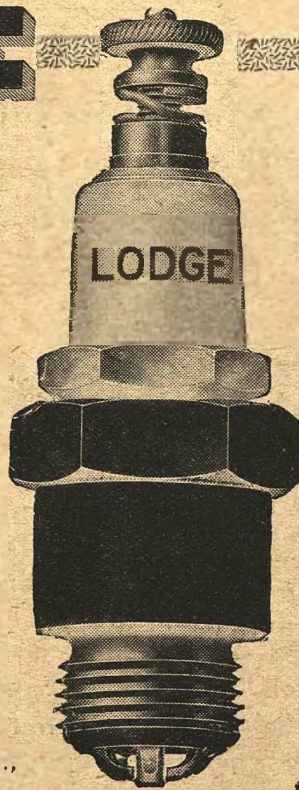
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Because they were able to produce and maintain maximum power, Lodge Aero Plugs were a distinct success in long-distance flights, and were more used on British aeroplanes throughout the war than any other aircraft plugs.

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Of all garages and dealers.

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H.F. Vulcanizing gives New Life to Damaged Tyres

H.F. "Baby" Vulcanizer

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The H.F. "Baby" is a most popular model. It repairs cut covers and damaged tubes by the perfect H.F. Process, covers being repaired in position on the wheel. The price, complete with outfit, is £4-4-0, plus 25% advance, but we will gladly send one for 14 days free trial to bona fide motorists. Write for Leaflet No. 327.



THIS, at the present juncture, is of supreme importance. Tyres are scarce and costly, roads are bad, injuries to tubes and covers are of more common occurrence than ever, perfect restoration is essential if cars are to be maintained in service.

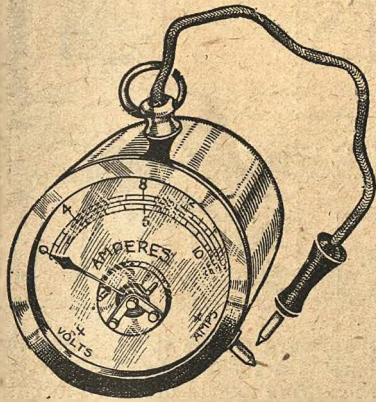
H.F. Vulcanizing **remakes** the damaged parts of tubes and covers. It restores original strength and elasticity. It prevents the occurrence of progressive trouble. It eliminates the uncertainty of makeshift repairs. It does, in fact, give **new life** to damaged tyres.

When writing for particulars, please state whether you are interested in trade or private appliances.

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The SPICE of NOVELTY.

Some of the Latest Inventions and Accessories.



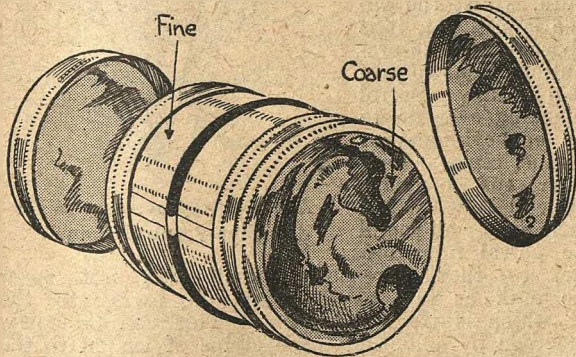
The combined volt and ammeter marketed by Brown Bros. Ltd.

An exceedingly neat combined voltmeter and ammeter is being marketed by Brown Bros., Ltd., 22-34, Gt. Eastern St., London, E.C. 2. The top scale shows the

volt reading, whilst from the bottom scale the amperes can be read off. It is handsomely finished in nickel and is invaluable to the owner-driver whose car is equipped with electric lighting. The price is 15s. (approximately).

Grinding Compound in a Handy Form.

Another very handy commodity is the Clover Grinding Compound, which can also be obtained from Brown Bros., Ltd. It is made up in a double-ended tin, or, in other words, a tin divided into two compartments. On one side is the coarse compound for fairly rough work, whilst on the other side is the

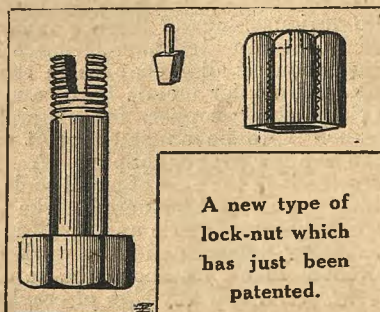


How the "Clover" grinding compound is packed.

finishing compound for finer work. The compound itself is a mixture of an abrasive and hard petroleum cutting oil ready for use as sold. It contains no emery glass or grit, and is of uniform consistency. It sells for 1s. 3d. per tin (approximately).

An Ingenious Lock-nut.

Almost every amateur knows the workshop tip of nicking the end of a stud and introducing a small wedge so that when the stud is screwed home the wedge expands the end of the stud, enabling it to obtain a firm hold.

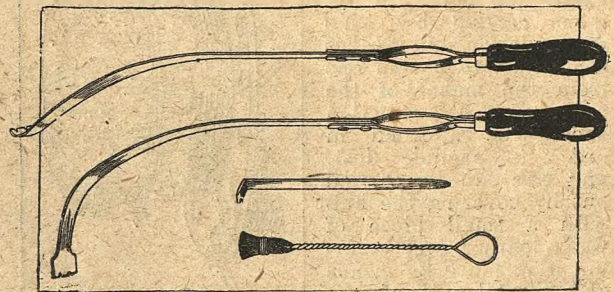


A new type of lock-nut which has just been patented.

A refinement of this idea, which is applied to lock-nuts, has been patented by the Kingsland Research Syndicate, and Mr. M. F. Torrazzi, 16, Victoria Street, Westminster. The top end of the bolt is split so as to receive a conical or tapered plug, which is pressed home by the closed end of the nut as it is screwed down, expanding the bolt and thereby locking the nut. A stem is provided on the tapered plug, and this projects through a hole in the nut, so that it can be burred over. This enables the plug to be withdrawn when it is desired to remove the nut, by slacking it off.

Useful Decarbonizing Tools.

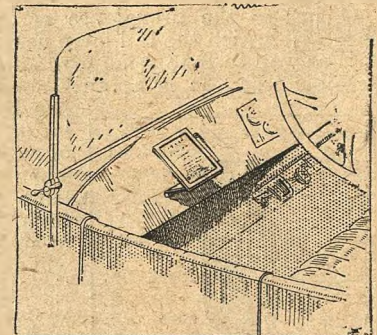
To be able to decarbonize an engine without removing the cylinders is a great advantage; and this



The "Success" decarbonizing tools.

can be carried out very effectively by means of a "Success" outfit, which consists of two scrapers, a carbon collector and a brush. The scrapers themselves are long and flexible, one being suitable for removing the carbon on the combustion head itself, and the other for tackling the crown of the piston and the valve pockets. The instruments are introduced through either the exhaust or inlet valve cap, or both, and having been worked about systematically a few strokes with a fairly powerful tyre inflator will blow out the carbon which has been removed. The retail price of the "Success" outfit, which is packed in a strong cardboard box, is 10s. 6d.

It can be obtained from Brown Bros., Ltd., 22-34, Gt. Eastern Street, E.C. 2.



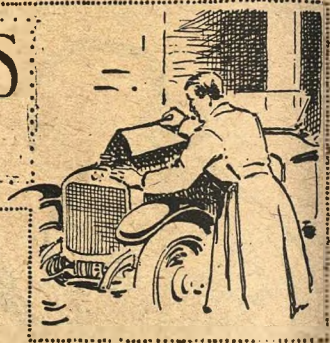
A memo tablet for the dash.

A Neat Memo Tablet.

There are many occasions upon which the owner-driver desires to make rough notes whilst on a journey, and in this connection a useful little memo tablet which can be fixed to the dash is worthy of note. The device is neatly constructed, having a pencil holder fixed on one side and being arranged in such a way that when not required for writing on the support behind it can be folded back and the whole tablet arranged flat on the dash itself.



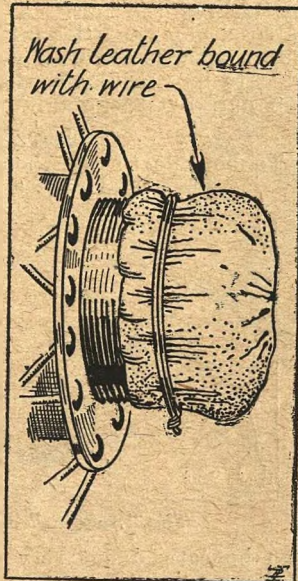
THE MOTORISTS WORKSHOP



A Few Useful Hints & Tips.

Improvising a Hub Cap.

Owing to the fact that no adequate locking device is provided, hub caps have an irritating habit of slacking off and eventually becoming lost. As spare hub caps are seldom carried by the owner-driver, and it takes some time to obtain one from the maker of the car, some protection should be afforded in order to exclude dust, and this can be carried out by covering the hub with a small piece of wash leather and securing it in place by means of a short length of copper or other wire. Although this is only a temporary measure it is very effective, and will enable the owner-driver to carry on without the fear that dirt or moisture is finding its way into the bearings. The sketch shows how the temporary cap is fastened in position.

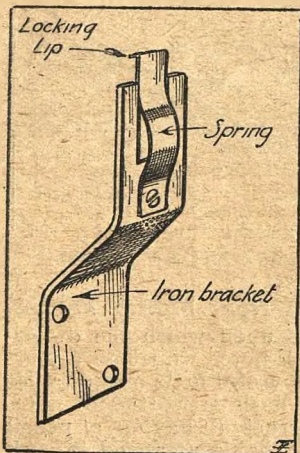


An emergency hub cap made from wash leather.

W.G.

Safeguarding the Tail Lamp.

Owing to the prevalence of car thieves and the ease with which the tail lamp usually can be removed, it is as well to take some precaution to guard against possible loss. It is a fairly simple matter to fix a bracket either in the tool locker or under the dash of a cyclecar, so that when it is not wanted the lamp can be removed from the tail and placed in such a position that it will not prove a temptation to the car thief. A simple little bracket for such a purpose is illustrated: it has this advantage, however, that it is not necessary to screw up the lamp every time it is put on the bracket, unscrewing it to remove it, but automatically locks the lamp in position and prevents vibration by means of a small spring. The top of the bracket is slotted or cut away so that this spring is free to



A spring-locked bracket for carrying the back lamp in the locker or under the dash.

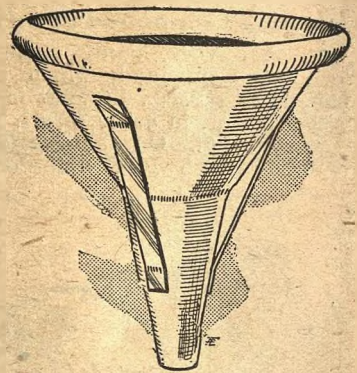
B43

move backwards and forward within it whilst at the top of the spring there is a locking lip. When the lamp is pushed on, the spring exerts pressure in both directions, and when the lamp is pressed down firmly, the locking lip springs over the top of the socket in the lamp itself, preventing any upward or downward movement. The bracket would not accommodate any type of lamp, as the effectiveness of the device depends upon the depth of the lamp socket, but a small set-screw passed through the bottom of the bracket itself, in a position previously ascertained by trial, will enable a firm and satisfactory job to be made.

S.E.

Economizing in Petrol.

When the petrol tank is situated over the engine, as in some makes of cyclecar, and it is necessary to replenish the tank en route, whilst the engine is still hot, it is advisable to take precautions so as to prevent any petrol splashing over on to the hot cylinders or exhaust pipes. Very often the ordinary funnel beds itself fairly evenly all round the petrol filler orifice, so that the petrol itself will not enter the tank as fast as it should do, owing to the air which is trapped within. This can be easily remedied by soldering three strips of tin on to the petrol funnel, as shown in the sketch. These strips will have the effect of preventing the funnel from making a joint, and whilst in no way interfering with the operation of filling up, will provide adequate escape for the air which is being displaced, and thus prevent splashing.



A useful improvement to an ordinary petrol funnel.

C.N.L.F.

Hardening by Hammering.

Although the majority of motorists who have a practical workshop are acquainted with the general ideas of hardening metals by heating and plunging into various kinds of liquids, it is not always recognized that repeated hammering will, in many cases, bring about similar changes in the molecular condition, and render metals hard, and even brittle. In working sheet copper, for example, the metal has frequently to be annealed or it would become too hard to allow proper shaping. Another aspect of this question is in the case of small tools, cold chisels, etc., which are much hammered. The ends are liable to spread, become brittle and fly off in small chips which are rather dangerous to the worker. If not actually softened, such ends should be kept trimmed down with an emery wheel and any sign of cracking ground away.

S.F.B.L.

THOUGHTS & OPINIONS

NOTICE TO CORRESPONDENTS.

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

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

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

The Position of Front Lamps.

As your contributor "John Gilpin, Jnr.," in his article on front lamps, mentioned the new G.W.K. car and objected to the lighting system fitted to it on the score of position and light, may we be permitted to point out that we have adopted this system to avoid the unnecessary use of four lamps, and also we have placed them well to the front to avoid the light being reflected back into the driver's eyes from the polished parts of the car.

The lamps give the maximum light allowed under present regulations, and have a resistance which can be switched in to reduce the light for town driving.

"John Gilpin, Jnr." objects to the position on the score of

vulnerability. May we point out that the lamps are placed behind the front wheels. If "John Gilpin, Jnr." wishes to adopt the practice of stopping his car by running it into a brick wall, or some other obstacle, then the lamps may suffer, but so, too, might the rest of the car to such an extent as to render the use of lamps unnecessary. However, we feel sure that "John Gilpin, Jnr." is not such a bad driver as his name would imply, neither is the average motorist. This being the case, we think that the lamps are reasonably safe in the position in which we have placed them.

G.W.K., Ltd.,

Cordwalles Works, Maidenhead. J. T. WOOD, Director.

The Cheap American Car versus the Light Car.

The multitude of models of light cars is really oppressive! If there were as many models of tyre covers or wheels as there are cars where would the rubber companies be?

Light car manufacturers are catering almost entirely for new motorists; for owing to their inability to provide spare parts for the cars in the hands of customers in any reasonable time, based on pre-war experience, most men who were enthusiastic British light car owners are giving up the British car and taking to the cheap American car, the simple reason being that it is possible at any garage to get replacements and tyres suitable for the car.

If light car manufacturers only met and decided to standardize, for all cars, (1) wheel size—tyre cover and tube; (2) gears—valves, valve springs; (3) shackle, shackle bolts, electric bulbs, mudguards, stays, etc., they would sell a far greater number of cars.

The necessity of the hour is in the minor details of the car. I have found, on a holiday jaunt, that comfort and the certainty of carrying out one's programme is far more insured by having any age of American car to even the newest type light car. To give one instance, a friend with a new light

car went on tour. It had unusual-sized tyres. He struck a length of newly metalled road, and though he had been pushed into having two spare wheels with tyres (to safeguard him from unusual-sized tyres) he was held up by tyre trouble and could not get tyres for a fortnight.

As a contrast, I went on the same route on a 1914 American car, and broke the back axle coming down a mountain road. In two hours I was towed into a "garage" in the next village, and a few hours later had replaced the axle from stock. I went off on the next morning and finished the tour, but had tyre trouble on the same road as the light car. I obtained a full set of tyres at the very next garage. The new light car remained a fortnight, miles away from the owner's home. Disgusted, he sold it and bought one of the cheap American cars.

TRUTH.

* * Our correspondent was certainly unfortunate, but we * have been living in unusual times and light car manufacturers have been far too busy on war work to concentrate on the production of spares again; as a set off what of the cost of running this American car compared with a light car?—Ed.

In Defence of the Woman Driver.

In reply to the somewhat scathing comments upon the merits of women drivers under the heading "Reply Urgent" in *The Light Car and Cyclecar*, I wonder whether the zealous police officer in question has ever given a moment's thought to the fact that a large proportion of the women drivers passing and repassing, among other places, Hyde Park Corner, during the last few years, are pupils undergoing instruction at one or other of the Service or private motor schools?

Very few cars used for purposes of instruction are labelled as such, and when a mishap occurs during a pupil's first entry into traffic, and in spite of every care on the part of the instructors, smashes of a more or less serious nature are sometimes unavoidable; then, quite naturally, the much tried policeman, who does not realize that everything must have a beginning—however violent—promptly says "let them be taken off the road"!

The great demand for women drivers of all classes during the war has given rise to the inclusion of women in most of the Services who have undergone merely a course of training at a school which, however efficient, cannot supply more than a smattering of that necessary qualification—road experience.

These women, many of whom are totally unfitted to control a car of any description, are put on the road, probably with a powerful car, and practically no knowledge of the many pitfalls which are bound to beset the inexperienced.

As an instance, it is by no means unusual for the passenger in a Service car, if he be in a hurry, to encourage his driver to do the required trip in record time. If the driver is un-

used to controlling a heavy car at high speeds, inability to correct a bad skid or to judge to a foot the exact distance necessary to bring the car to a standstill will certainly result in disaster, when the driver—and incidentally women drivers in general—will certainly be blamed.

Circumstances of this kind are apt to blot out most effectually the work done throughout the war at home and abroad by the numbers of efficient and properly trained women drivers, who could be brought forward to prove that an expert woman driver is quite, if not more, as dependable than most men.

In justice let it be said that there are at present many drivers of both sexes who would be better off the road! I have seen drivers other than women attempting to take short cuts through a bus, to say nothing of descending the area steps of an unfortunate householder and transfixing the cat, if not in Hyde Park Corner, certainly in Trafalgar Square!

It is, of course, obvious that far fewer women than men possess the qualifications necessary to the expert driver—mechanic—the requisite amount of nerve or rather ability to control it, smartness, alertness, a "bent" for mechanics, in a word—"good hands," and last, but by no means least—unlimited patience and perseverance.

Given these virtues, there is no reason why a woman should not rise to the rank of a first-class driver or mechanic, provided that she has sufficient knowledge to overcome her natural handicap in the matter of physical strength, and this handicap can be almost done away with if she knows how to use her available energy to the utmost advantage, and to supplement it by mechanical contrivances.

Taunton.

A LADY INSTRUCTOR.

THOUGHTS AND OPINIONS (contd.).

Is the Cyclist Really "Dangerous" ?

Mr. Cecil W. Cooke, Hon. Sec. North Middlesex and Herts. Cycling Association, is labouring under several delusions. In the first place he suggests that I am ashamed to disclose my name, and although a denial is scarcely necessary to such an infantile suggestion, I have no intention of gratifying Mr. Cooke's curiosity, but admit being flattered by his obvious anxiety to know more of me!

In the second place I am not narrow-minded, and have had sufficient road experience, both on bicycles and motor-cars, to appreciate the dangers of the cyclist to faster moving traffic. It is news to me that motorists are "impervious to danger" owing to the speed and type of a motor vehicle. Very often the cyclist escapes unscathed because the motorist swerves in a determined effort to save him, experiencing a bad smash in consequence.

Mr. Cooke jumps to conclusions, and I must ask him to be good enough to withdraw his remark referring to myself. "Obviously, like most motorists who write anti-cycling

letters to the Press, he hates to see cyclists 'evidently thoroughly enjoying themselves.'" The inference put upon my remark by Mr. Cooke is not at all "obvious"; in fact, it is totally incorrect as I made a plain statement of fact without any intention of malice.

As for emerging from the "winter of discontent," we motorists have had other things to do since August, 1914, and Mr. Cooke evidently needs reminding that there has been a war on which motorists contributed towards winning in a modest way on land, sea, and in the air.

Why, might I ask, is my allusion to the cyclist, whom I narrowly missed running down, cheap? It illustrates the whole point of my letter, and if the cyclist's version of the affair did not correspond with mine there were plenty of pedestrians about who, without perjuring themselves, must have borne out my statements had the incident not closed happily as it did, without an accident.

London, W. 9.

F.J.F.

The Home-built Machine.

The accompanying photograph shows my home-built cyclecar on a picnic outing. Perhaps a few particulars of the car will interest your readers. The frame is tubular and carries

55 m.p.g. on petrol. The machine is very light on tyres, which are 26 ins. by 2½ ins. I have been very interested in your correspondence on the light cyclecar, and think there is a market for a light belt-driven two-seater (without dickey) and without the over elaboration of the modern light car such as



Hotel expenses are things of the past if the science of camping out is fully understood. The cyclecar in the photograph is home-built (see letter from Mr. A. F. Payne).

a 5-6 h.p. a.-c. Blumfield engine, 67 mm. by 95 mm., with fan, Chater Lea cone clutch (Ferodo lined), chain to two-speed gearbox, chain to countershaft carrying two 7 in. pulleys, driving by 7 in. Whittle belts to the back wheels, no differential being fitted. The steering is effected by a 2½ in. drum on the end of the steering column, to which are fastened two cycle chains, the other ends of which are carried to angle irons 1 in. by ½ in. by 5 ins., the chains being threaded through holes in the upturned portion and anchored, after passing through strong compression springs, by a nut and bolt. The other ends of the angle irons are suitably drilled and mounted on the fork ends of the distance rod of the front steering, a method I considered much safer than steel wire and bobbin.

Braking is effected by compensated brakes acting in the belt rims of the back wheels. These are very powerful and preferable to brakes on the countershaft only, as they are used less in case the belts break. A drum brake is fitted on the countershaft to comply with police regulations, but is seldom necessary. On benzole I have obtained 65 m.p.g. and

Sankey spare wheel, electric lighting and starting, electric horn, and speedometer.

Harborne.

A. F. PAYNE.

Points for Drivers of Three-wheelers.

With reference to the article signed "F.J.F." in your issue of June 21st, on "Points for Drivers of Three-wheelers," I venture to disagree with his suggestion that the rear tyre should be pumped up on the "soft side."

I use a 700 mm. by 85 mm. plain cover and pump from 45 lb. to 50 lb. pressure. Owing to the fact that this wheel takes all the driving strain there is a fatal tendency for the cover to creep unless pumped almost board hard and fitted with security bolts, or, if a disc wheel, with a valve bolt shoe.

The side strains set up also in cornering, crossing tramlines, and by tail-wagging on bumpy roads will tend to pull the cover off the rim, play havoc with the valve seating and valve tab, and very likely nip the tube as well.

Bristol.

THOUGHTS AND OPINIONS (contd.).

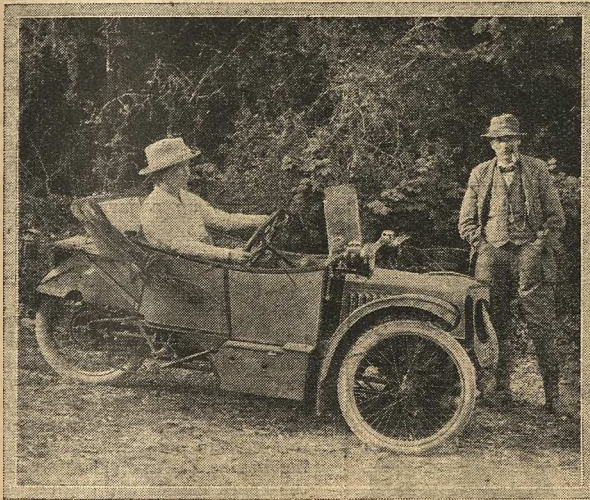
Trouble with Motor Lighting Sets.

I think "S.F.G." must have been very unfortunate in his choice of an acetylene outfit. Although I admit all the advantages claimed for electric lighting, I contend that with a very small amount of attention acetylene will give perfectly satisfactory results. The fact that the headlights fixed to your correspondent's car repeatedly went out points to something fundamentally wrong, which it should have been within his power, or the power of any local repairer, to put right in a few moments. As for the flickering, with the consequent poor light complained of, this, I think, depends to a very great extent on the kind of lamp chosen, and on the regulation of the flame itself.

To give satisfaction, the whole lighting system must be kept scrupulously clean, and when I set off for a fairly long run after having laid up the car for perhaps a few weeks, or, at any rate, when I have not been out at nights for some time, I clean out the old carbide and do not recharge the generator, but carry the spare carbide in a tin in the tool locker until such time as it is required. Acetylene has one advantage over electric lighting, i.e., that, provided spare carbide is taken, water can always be obtained, and one need never be afraid of being "let down" on the road when the lights are most urgently required. An exhausted battery is obviously a very different matter. F.L. Cheshunt.

The Popular Morgan.

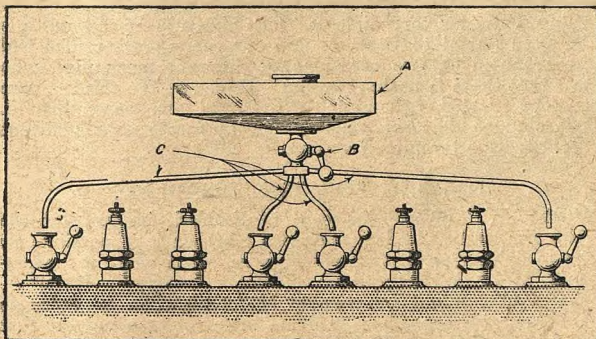
The accompanying is a photograph of my little Morgan which I hope may be of interest to your readers. It is everything that could be desired; very reliable and easy to drive.



Mr. E. J. Garrett's Morgan snapped on the road.

Comparatively speaking, it is a "poor man's car," and though in itself it gives no cause for complaint, there are certainly times when one envies the owner of a four-wheeled vehicle. However, for those of us who have to consider our income it is a remarkably good investment, and gives promise of some pleasant times every season. In this locality there are some very stiff hills, but I am glad to say that the Morgan shows no signs of bashfulness when surmounting them, and we hold our own on the road for speed and reliability, if not for size and appearance. E. J. GARRETT.

16, Queen's Parade, Brandon Hill, Bristol.



A simple type of "easy starting" device. (See letter from Mr. W. H. Jones.)

For Easy Starting.

Having noticed an article in *The Light Car and Cyclecar* concerning easy starting, may I point out that I have fixed up several cars with the idea illustrated in the accompanying sketch. Of course, drivers who have an electric starter would like it controlled from the dashboard, but if hand cranking is necessary I think the idea is difficult to beat. "A" is a small tank made out of a suitable tin, "B" is a small cock, "C" a lead of $\frac{1}{8}$ in. bore pipe to compression cocks. The method of operation explains itself, I think. W. H. JONES.

Fenders for Motorcars.

As one who has suffered considerably at the hands of the careless garage attendant, I was glad to see the excellent suggestion put forward by "M.N." in your issue dated June 21st regarding standardized fenders for motorcars. I have thought seriously of fitting the ordinary round bar type of bumper, but it occurred to me that this would not be of great



The famous "George" Inn at Piercebridge, Co. Durham, where stood the subject from which the old song, "Grandfather's Clock" was written. The car is a 10 h.p. Singer.

assistance except in exceptional circumstances, and I therefore abandoned the idea.

Of course, the critical person will say that to standardize fenders would be an impossible task, but, as a matter of fact, legislation would soon put this matter in order.

Tottenham.

D.N.
B45



NOTES & QUERIES

Selected Replies
TO
The more interesting
Questions

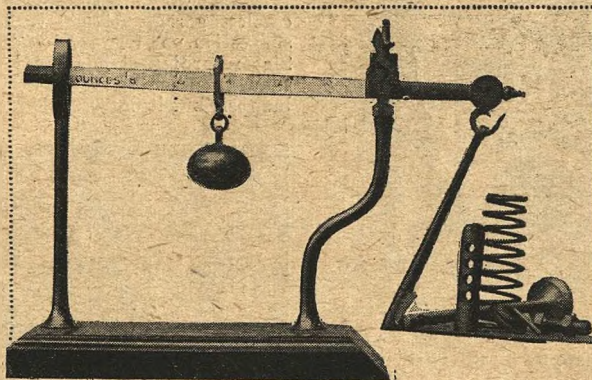


NOISE FROM THE BEVEL BOX.

"H.E.G." (Stockport) has a cyclecar wherein the final drive is by bevel to a countershaft, and he complains that lately an unpleasant rattle almost amounting to a knock has been emanating from the bevel box, and is gradually increasing in volume. He filled up the bevel case with lubricant quite recently, and is unable to account for the trouble. He asks whether it might be caused by worn bearings. **REPLY:**—We do not think that the suggested cause of the trouble is correct, but the noise undoubtedly points to lack of lubrication between the teeth of the bevel wheels, the knock or rattle being caused by the impact between the teeth owing to the slight play allowed in the first place. It looks as though the lubricant introduced into the bevel box was too thin and has worked out. We suggest that our correspondent tries something thicker.

WEIGHT OF VALVE PARTS.

"A.S.D." (Stockport) asks if the efficiency of his engine will be increased if the valve parts are lightened, the assumption being that the tendency to "bounce" at high speeds will be lessened owing to a reduction in the reciprocating weight. He asks what we consider to be the lightest valve parts made. **REPLY:**—Provided that the various parts are of sufficient strength, the lighter they can be made the better. We cannot actually say which make of valve is the lightest, but the illustration shows the valve parts of a standard four-cylinder Deemster light car actually on the scales. It will be seen that the weight per valve is only $4\frac{1}{4}$ ounces. To obtain the reciprocating weight half the dead weight of the valve spring is deducted, the total then being $3\frac{3}{4}$ ounces.



The valve parts of the Deemster light car weigh $4\frac{1}{4}$ ozs. per valve, the reciprocating weight being actually $3\frac{3}{4}$ ozs. when half the weight of the valve spring has been deducted.

DANGER FROM FIRE.

"A.J.C." (Devizes) has constructed a cyclecar and fitted a J.A.P. engine, but owing to the nature of the construction, the carburetter can only be fitted so that it is about 6 ins. away from the cylinder fins, or by reversing the inlet pipe so that the float chamber just touches the cylinder fins, the latter being the most convenient way. We are asked whether we consider there will be any danger from fire owing to the carburetter being so close to the cylinders. **REPLY:**—We do not think there is any fear of a conflagration if the carburetter is placed in the proposed position, in fact it will certainly help the vaporization and improve the running of the engine. If possible, however, a slight clearance should be allowed between the float chamber and the cylinder, as the vibration when running with the float chamber just touching the fins might set up a jarring noise and perhaps damage the carburetter.

CAUSE OF KNOCKING.

"J.C." (Hull) has an 8 h.p. two-cylinder water-cooled Perry light car, which he has just decarbonized. He now finds that the engine starts up slowly and then accelerates up to a certain point when knocking begins. Any variation of the spark causes the engine to knock to a greater extent, and when it is running slowly our correspondent states that he detects a grating or dragging sound in the engine. **REPLY:**—From the information given, we suspect an ordinary engine knock due to worn bearings, and we suggest that before any further investigations are made the bearings should be examined for wear.

CLUTCH TROUBLE ON MORRIS-COWLEY.

"Capt. A.C.S." (Witham) has a Morris-Cowley, but is experiencing considerable difficulty with the clutch, the trouble being that when the clutch pedal is depressed the clutch is still slightly engaged, thereby rendering the operation of engaging first gear very difficult. The clutch is of the multiple disc type (metal to Ferodo), and our correspondent has had it overhauled on two occasions by different mechanics, who state that there is nothing wrong. **REPLY:**—We think a cure could be effected if the clutch withdrawal gear were adjusted. It is obvious that the plates do not separate to a sufficient extent to give complete freedom.

DRIVING FOR THE DISABLED.

"E.W.W." (West Norwood) is disabled, having lost the right arm and right leg, and asks whether it is possible for him to drive a small two-seater; if so, what make we recommend, and what alterations will be necessary. **REPLY:**—Several cars might be capable of modification in order to enable our correspondent to drive them, but we suggest that the friction-driven G.W.K. will be most suitable, and advise him to get into communication with the makers of this car, G.W.K., Ltd., Cordwallers Works, Maidenhead

PURCHASE OF A SECOND-HAND MACHINE.

"A.H.C.B." (Dublin) wishes to exchange a Zenith combination for a tricar, and has been offered £70 for the former. He inquires whether he would be able to obtain a genuine article for £70, what make would be advisable, and where to obtain the car. He points out that second-hand motorcars in Dublin are very scarce, and wishes to purchase a car in England. He asks what arrangements can be made for the carriage to Ireland in the event of his obtaining a machine. **REPLY:**—The present-day prices of second-hand cars are such that £70 would not go very far towards purchasing a reliable machine; in fact, the only second-hand machine at this price which could be depended on would be an A.C. Sociable of a fairly recent make. A Morgan would be suitable, but these machines are fetching anything from £80 to £180. We advise our correspondent to study the advertisement columns of *The Light Car and Cyclecar*, and should he be successful in obtaining a machine, no doubt the vendor would make all arrangements for its transfer to Ireland. At the present time second-hand prices are steady and not on the increase.



Road Service.

How the Automobile Association Provides Telephone Facilities "On The Road."

The system of telephones installed by the roadside is only one of many unique facilities provided by the Automobile Association. The telephones are placed in patrols' sentry boxes and can be used free by members for local calls; fees for trunk calls being paid to the patrol in charge.

number are now in use throughout Great Britain. The A.A. is still extending the service both in regard to the number of instruments and their utility.

Other privileges enjoyed by members of the Automobile Association include the service of A.A. Patrols, Free Legal Defence and Advice, Engineering Assistance, Special Insurance Facilities, First Aid Machines, Appointed Agents and Repairers, A.A. Hotels, Foreign Touring Assistance, etc., etc.



Full particulars of the benefits which the Automobile Association extends to its members are contained in the booklet, "The Key to the Open Road," a copy of which can be obtained, post free, from the Secretary, A.A. and M.U., 29, Fannum House, Whitcomb Street, London, W.C. 2. Motorists in London who wish to join the Association without delay are invited to call at Headquarters, where a staff of experts is always in attendance

By means of these telephones motorists can ring up hotels and book accommodation or order meals in advance; garages can be instructed to send out replacements or mechanics to deal with urgent repairs and the latest news from home or office can be picked up en route.

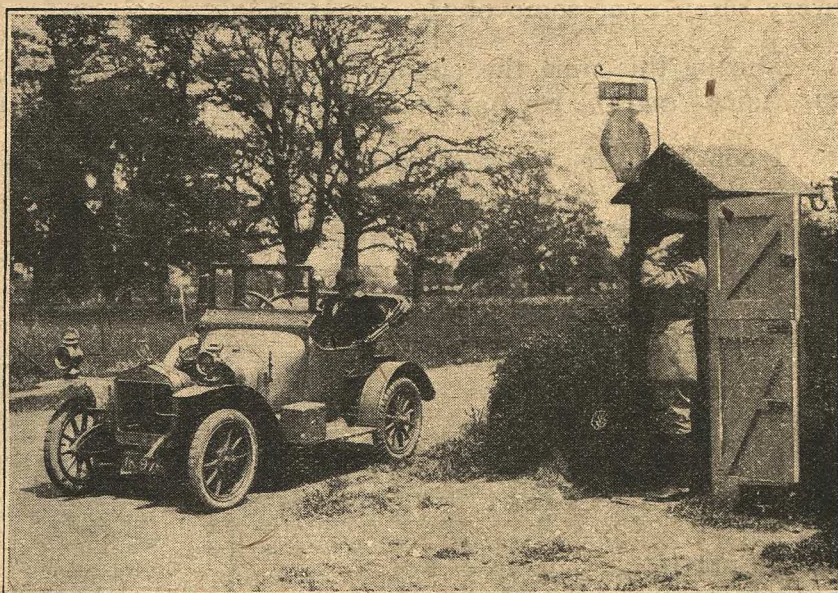
ready to give information on any question relating to Motors and Motoring.

Alternatively, a member can be reached whilst on a journey. The number of his car is telephoned to selected boxes on the route, and when the car passes it is stopped by the patrol and the member placed in communication with the inquirer.

If unable to call, send a postcard to-day, and the booklet will be despatched by return of post.

In this manner members have been recalled far quicker than is possible by the ordinary facilities.

The first roadside telephones were erected about seven years ago, and the advantages were so greatly appreciated that a large



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.

B47

The SINGER "10"



**ILLUSTRATION OF 10 h.p. SINGER LIGHT CAR USED
ON ACTIVE SERVICE FOR OVER THREE YEARS,**

THE DRIVER OF WHICH WRITES US AS FOLLOWS:

France,

March 1st, 1919.

"Dear Sirs,

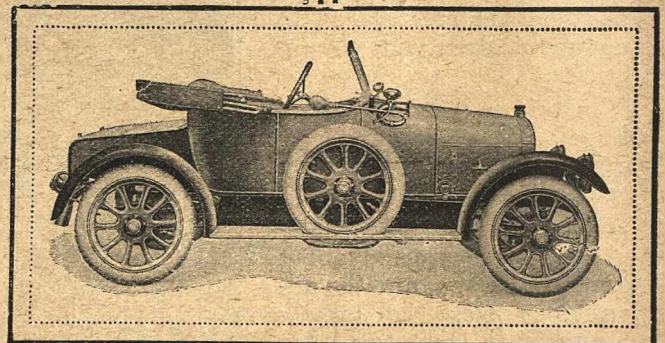
Enclosed please find photograph of Singer Car 14116, taken on the 23rd of February, 1919. I have driven this car almost daily since August, 1915, in the forward areas—very often over some of the worst roads in France.

During this time the engine has been overhauled but four times—and the car has had just one complete overhaul.

I consider this a record to be proud of with a Light Car of this type, and one which will certainly interest the proprietors of Singer & Co., Limited."

FULL PARTICULARS OF
SINGER & Co., Ltd.,
COVENTRY.

LONDON DEPOT:
17, HOLBORN VIADUCT. E.C.



THE PEACE TIME MODEL.

B48 **HELP THE MOVEMENT** - by letting advertisers know that their advertisements in "The Light Car and Cyclecar" interest you.

GUIDE TO DETAILS OF POST-WAR MODELS.

A Summary of Light Cars and Cyclecars of which Details are Available.

Make.	ENGINE.					Seating.	GENERAL FEATURES.	Price.	Described in issue dated
	Bore and stroke.	Cubic capac.	A.C. WC	Nom. H.P.	No. cyl.				
A.B.C. ...	m.m. —	c.c. 1200	a.c.	10	2	2	Horizontal twin engine. Bevel-drive. Wheelbase, 8 ft. 6 ins. Track, 47 ins. A.B.C. Motors, Walton-on-Thames.	£195	April 26, 1919
A.-C. ...	66 by 109.5	1498	w.c.	10	4	2 and 3	Three speeds and reverse, final worm drive. Dynamo lighting set. Wheelbase, 8 ft. 5½ ins. Track, 3 ft. 10 ins. Auto-Carriers (1911), Ltd., 181-182 Hercules Road, London, S.E	£395	Oct. 23, 1918
A.-C. BANTAM	—	—	—	10	2	2	Horizontally-opposed twin-cylinder engine with shaft drive. Auto-Carriers (1911), Ltd., as above.	Not settled	Dec. 9, 1918
AIREDALE ...	68 by 120	1496	w.c.	10	4	2	Four speeds and reverse. Final drive by bevel. Dynamo lighting. Nanson, Barker and Co., Esholt, Yorks.	about £300	May 17, 1919
ASHTON ...	—	—	w.c.	—	4	2	Three speeds and reverse. Final drive by bevel. Wheelbase, front, 4 ft.; rear, 8 ins. Ashton Evans Motors, Ltd., Liverpool Street, Birmingham.	about £250	May 17, 1919.
ASTON-MARTIN ...	—	—	w.c.	—	4	2	Four speeds and reverse. Final bevel drive. Bamford and Martin, 16, Henniker Place, Callow Street, London, S.W.3.	Not settled	June 7, 1919
AUROCRAAT ...	69 by 100	1496	w.c.	11	4	2 and 3	Three speeds and reverse, final drive by bevel. Lighting and starting set. Wheelbase, 8 ft. 6 ins. Track, 4 ft. Auto-crat Light Car Co., Edward Road, Balsall Heath, Birmingham.	2-seater £395 4-seater £425 Coupe £450	Nov. 4, 1918
A.V. ...	85 by 85 85 by 85 70 by 85	961 961 654	w.c. a.c. a.c.	8 8 5	2 2 2	2 2 1	Two speeds and reverse, single chain drive. "Standard" Two speeds and reverse, single chain drive. "Runabout" Two speeds, single chain drive (monocar, arranged for second seat as an extra if desired). Ward and Avey, Ltd., Somerset Road, Teddington, Middlesex.	£155 £150 Not settled	Jan. 11, 1919
BIFORT ...	65 by 100	1327	w.c.	10	4	2	Three speeds and reverse, final drive by bevel. The Bifort Motor Co., Fareham, Hants.	Not settled	June 28, 1919
BLERIOT-WHIPPET	85 by 68	988	a.c.	8	2	2	Variable gear. Final belt drive. Air Navigation Co., Ltd., Addlestone, Surrey.	about £175	June 7, 1919
CALCOTT ...	65 by 110	1456	w.c.	10.5	4	2	Details remain unchanged. Calcott Bros., Ltd., Coventry. Open Model Cabriolet	£355 £395	—
CALTHORPE ...	65 by 95	1261	w.c.	10	4	2 and 4	Three speeds and reverse, final drive by spiral bevel. Lighting and starting set. Calthorpe Motor Co. (1912), Ltd., Cherrywood Road, Bordesley Green, Birmingham.	2-seater 325 Gns. 4-seater 350 Gns. Coupe 400 Gns. Sporting 2-seater 350 Gns. Sporting 4-seater 375 Gns. 100 Gns.	April 5, 1919
CARDEN ...	85 by 85	661	a.c.	8	2	1	Monocar. Three forward speeds. Kick starter; transmission chain and belt. Wheelbase, 6 ft. 6 ins. Track, 2 ft. 10 ins. Carden Engineering Co., Kennel Ride, Ascot, Berks.	£100	Feb. 8, 1919
CITROEN (French)	65 by 100	1327	w.c.	10	4	3 and 4	Three speeds and reverse, final drive by live rear axle, employing Citroen type gear. Wheelbase (three-seater), 8 ft. 2 ins.; (four-seater), 9 ft. 2 ins. Track, 3 ft. 4 ins. Andre Citroen, 115-149 Quai de Javel, Paris.	In France 8-seater about £300 4-seater... about £318	March 1, 1919
COSMOS ...	75 by 75	1000	a.c.	10	3	3	Three-cylinder radial engine. Three speeds and reverse, final drive by spiral bevel, no differential. Weight, 6 cwt. The Cosmos Engineering Co., Ltd., Lodge Causeway, Fishponds, Bristol.	about £200	—
CROUCH ...	85 by 90	1018	w.c.	10	2	2 and 3	V-type engine, three speeds and reverse, final drive by chain. Wheelbase, 7 ft. 9 ins. Track, 4 ft. Weight, 8½ cwt. Crouch Motors (1915) Ltd., Tower Gate Works, Cook Street, Coventry.	2-seater £230 3-seater £235	Feb. 22, 1919
DEEMSTER ...	62 by 90	1086	w.c.	10	4	2	Three speeds and reverse, final drive by bevel, seat starter, dynamo lighting. Wheelbase 7 ft. 6 ins. Ogston Motor Co. (1918), Ltd., Ogston Works, Southfield Road, Acton, W. 4.	£315	March 1, 1919
DOUGLAS ...	92 by 92	1225	w.c.	10	2	2	Special helical suspension (A.F.S. system). Three speeds and reverse, starting and lighting set. Wheelbase, 8 ft. Track, 4 ft. Douglas Motors, Ltd., Kingswood, Bristol.	—	April 29, 1918
DUPLEX ...	56 by 75	1479	w.c.	10	8	2	Three speeds and reverse. Final drive by spiral bevel. Wheelbase, 8 ft. 6 ins. Track, 4 ft. British Commercial Lorry and Engineering Co., Ltd., 66-68, Bridge Street, Manchester.	2-seater about 375 Gns. 4-seater about 415 Gns.	June 14, 1919.
ENFIELD-ALLDAY	68 by 80	1247	a.c.	10.25	5	3	Aeroplane type static radial five-cylinder engine. Three speeds and reverse, spiral bevel drive. Track, 4 ft. Enfield-Alday Motors, Ltd., Fallows Road, Sparkbrook, Birmingham.	about £295	Dec. 2, 1918
ERIC-CAMPBELL	6 by 109.5	1498	w.c.	10	4	2	Three speeds and reverse, final bevel-drive. Wheelbase 9 ft. Track 3 ft. 10 ins. Eric-Campbell and Co., 16 Gloucester Road, S.W.	Not settled	June 28, 1919
F.I.A.T. (Italian)	65 by 110	1460	w.c.	10.5	4	4 and coupe	Four speeds and reverse, final drive by spiral bevel. Track, 4 ft. 2 ins.	—	March 15, 1919.
G.N. ...	84 by 98	1098	a.c.	10	2	2	90 degree balanced twin engine, three speeds and reverse. Transmission shaft and chain. Wheelbase, 8 ft. Track, 3 ft. Gins. G.N., Ltd., Etna Works, Albert Road, Hendon, N.W. 4.	Standard about £140 "Vitesse" about £170	Jan. 25, 1919

GUIDE TO DETAILS OF POST-WAR MODELS (Continued).

Make	ENGINE.						Seating	GENERAL FEATURES.	Price.	Described in issue dated.
	Bore and stroke.	Cubic capac.	A C WC	Nom. H.P.	No. cyl.					
G.W.K. ...	m.m. 66 by 100	c.c. 1368	w.c.	10	4	4	Friction drive. Wheelbase, 8 ft. 9 ins. Track, 4 ft. Weight, 11 cwt. G.W.K., Ltd., Maidenhead.	£275	Jan. 11, 1919	
HAMPTON ...	63 by 120	1496	w.c.	10	4	2	Three speeds and reverse, final bevel drive. Wheelbase, 8 ft. 6 ins. The Hampton Engineering Co., Dudbridge, Stroud, Gloucester.	£325	Feb. 22, 1919	
H.F.G. ...	85 by 110	1244	a.c.	10	2	2	Friction drive, final drive by bevel, wheelbase, 8 ft. 10 ins. Track, 4 ft. C. Portass and Son, Ltd., Broadfield Road, Sheffield.	about £195	Feb. 22, 1919	
LAGONDA ...	67 by 77.8	1099	w.c.	11.9	4	4 and coupe	Three-speeds and reverse. Final worm drive. Dynamo lighting set. Wheelbase (two seater) 7 ft. 9 ins.; (four seater) 9 ft. Track 8 ft. 10 ins. Lagonda Ltd., Staines.	Two seater 275 Gns. Four seater 285 Gns.	—	
LM. ...	85 by 85	961	w.c.	8	2	2	Three speeds forward and reverse, chain transmission, disc wheels. Little Midland Light Car Co., Ltd., Blackburn.	£175	April 19, 1919	
L.S.D. ...	85 by 85	961	a.c.	10	2	2	Three-wheeler, two speeds and reverse. Final drive by chain. Wheelbase, 6 ft. Track, 4 ft. Sykes & Sugden, Ltd., Huddersfield.	about £140	March 15, 1919	
MAJOLA (French)	59 by 90 65 by 105	1000 1398	w.c. w.c.	8 10	4 4	2 4	Three speeds and reverse. Four speeds and reverse. 4, Rue Ney, St. Denis, France.	£540 £480	March 22, 1919	
M.B. ...	85 by 85	961	w.c.	—	2	2	Three-wheeler. Two speeds and reverse. Final drive by chain. The Premier Motor Engineering Co., Premier Motor Works, St. George's Road, Bolton.	about £200	Feb. 15, 1919	
MENDIP ...	67 by 89	1255	w.c.	11	4	2	Three speeds and reverse, final worm drive. Wheelbase, 8 ft. 8 ins. Track, 3 ft. 10 ins. The Mendip Motor and Engineering Works, Chewton Mendip, Somerset.	£255	March 8, 1919	
MERCURY ...	64 by 102	1312	w.c.	10	4	2 and 3	Three speeds and reverse, final drive by bevel. Wheelbase, 9 ft. Track, 4 ft. Mercury Cars, Ltd., May Road, Twickenham.	£350	March 1, 1919	
MILTON ...	—	—	w.c.	9	2	2	Friction drive and final chain. Two-stroke engine. The Lanark Motor Co., 108, North Vennel, Lanark.	£150	Jan. 18, 1919	
MORGAN ...	85.5 by 85 85.5 by 85	976 976	w.c. a.c.	8 8	2 2	2 2	J.A.P. engine. Transmission, shaft and chain, 2 forward speeds. Wheelbase, 6 ft. Morgan Motor Co., Ltd., Worcester Road, Malvern Link. Grand Prix De Luxe (A.C.)... De Luxe (W.C.)...	Sporting £145 £150 £150 £160	Nov. 25, 1918	
MORRIS-COWLEY ...	69 by 100	1496	w.c.	11.9	4	2	Three speeds and reverse. Final helical bevel drive. Morris Motors, Cowley, Oxon.	about £285	May 31, 1919	
MORRIS-OXFORD ...	69 by 100	1496	w.c.	11.9	4	2 and 4	Three speeds and reverse. Final helical bevel drive. Electric lighting and starting set. Morris Motors, Cowley, Oxon. 4-seater, about Coupe	2-seater abt. £335 £365 £425	May 31, 1919	
PALLADIUM ...	59 by 107	1330	a.c.	10	2	2 and 4	Friction drive. Final by chain, no differential. Wheelbase, 8 ft. 6 ins. Track, 4 ft. Palladium Autocar Co., Putney, London. 4-seater, about	2-seater about £175 £195	Feb. 1, 1919	
PEUGEOT (French)	66 by 105	1497	w.c.	10	4	—	Four speeds and reverse, final drive by worm. London Agent, 10, Brompton Road, London, W.	Not settled	March 15, 1919	
PREMIER ...	80 by 105	1055	w.c.	10	2	2	Three-wheeler runabout with twin V engine. Three speeds and reverse. Final drive by single, enclosed chain. Coventry Premier, Ltd., Coventry.	Not settled	Dec. 16, 1918	
RICHARDSON ...	85 by 85	961	a.c.	8	2	2	Friction drive. Three speeds and reverse, final chain drive. Wheelbase, 6 ft. 6 ins. Track, 3 ft. 9 ins. G. E. Richardson and Co., Ltd., Finbat Works, Aizlewood Road, Sheffield.	about £175	June 7, 1919	
SINGER ...	63 by 88	1096	w.c.	10	4	2	Three speeds and reverse; transmission shaft; dynamo lighting. Wheelbase, 7 ft 6 ins. Track, 3 ft. Weight, 10½ cwt. Singer and Co., Ltd., Coventry.	Phaeton £350 coupe £410	—	
STANDARD ...	62 by 110	1328	w.c.	9.5	4	2	Two-seater and four-seater. Three-speeds and reverse. Standard Motor Co., Ltd., Coventry.	2-seater £350 4-seater Not settled	June 7, 1919	
STELLITE ...	62 by 89	1074	w.c.	9.5	4	2	Three speeds and reverse. Final worm drive. Electric and Ordnance Accessories Co., Ltd., Ward End Works, Birmingham.	£285	June 7, 1919	
SWIFT ...	63 by 90	1122	w.c.	10	4	2	Three speeds and reverse, final drive by bevel. Dynamo lighting set. Swift of Coventry, Ltd.	£340	—	
TRIDENT ...	—	—	—	10	2	2	Three-wheeler, two-seater, tandem, front wheel drive, three speeds, cantilever springs. Federated Exporters, Ltd., 11, Haymarket, S.W.	£160	June 23, 1919	
WILTON ...	69 by 100	1496	w.c.	11.9	4	2 and 3	Three speeds and reverse, final worm drive, dynamo lighting. Wheelbase, 9 ft. Track, 4 ft. Weight, 11½ cwt. Wilton Cars, Ltd., 120-4, High Street, Tooting, S.W., 17.	Not settled	Jan. 25, 1919	
WOOLER MULE ...	85 by 90	1018	a.c.	10	2	2	Three-wheeler. Horizontally-opposed air-cooled engine, triple belt drive, final drive by shaft and worm. Wheelbase, 6 ft. 6 ins. Track, 4 ft. Wooler Engineering Co., Ltd., Alperton, London.	£130	Feb. 8, 1919	

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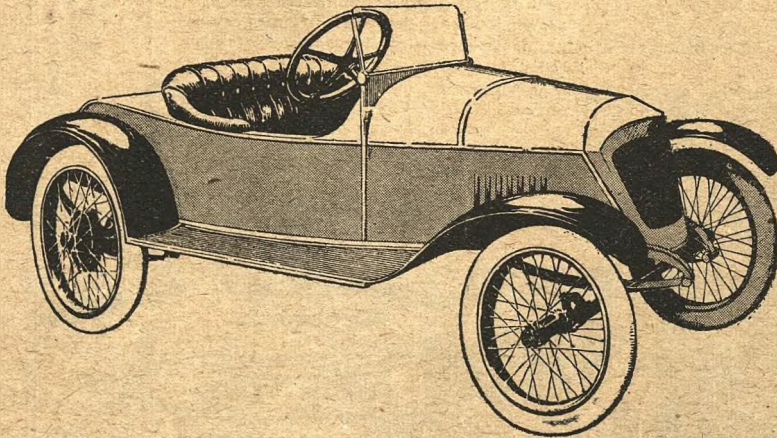
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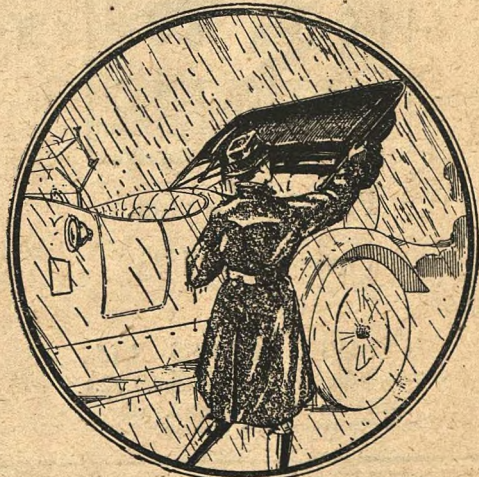
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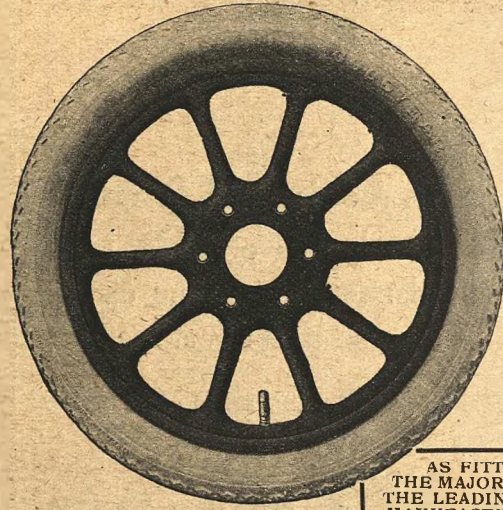
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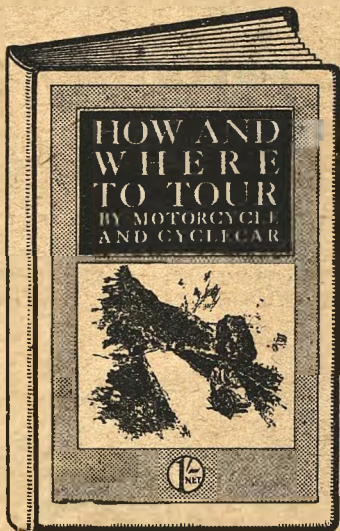
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12	6 15 0	7 10 0	8 2 6	8 15 0	9 7 6	10 0 0
13	7 7 6	7 17 6	8 10 0	9 5 0	9 12 6	10 0 0
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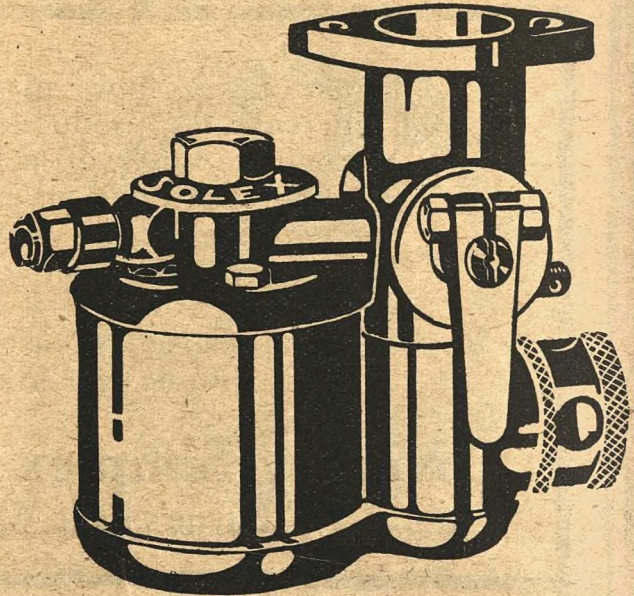
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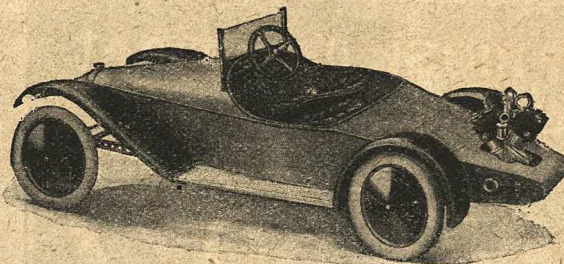
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LLOYD'S BANK BUILDINGS, KING ST., MANCHESTER.
Established 1885.

F.C.B.S.

THE CYCLECAR WITH LOW UPKEEP REPUTATION

is undoubtedly

THE "L.M."

It was the **First British Cyclecar to be Really Practical**, and has remained so **SINCE 1910.**

EXPERIENCE DOES COUNT.

The "L.M." has participated in many Reliability Trials, and has never yet been put to a hill it could not climb.

"L.M." IS EQUALLY A GOOD PULLER WHETHER ON HILL OR LEVEL.

ALWAYS RELIABLE. SIMPLE IN CONTROLS. SPRUNG FOR COMFORT.

Can we add your name to our Waiting List for Post-War Model. Deliveries in August.

The great improvements will make it worth your while waiting

Details of specification from—
Little Midland Light Car Co., Ltd.
Lynwood Road, BLACKBURN.
Telephone—5718. Telegrams "Elm."

Beldam

All British Tyres

Any user of Beldam Tyres will tell you that they are *THE* tyres for grip, for long mileage, and no skids or punctures. Please apply for Booklet "Testimony" written by users.



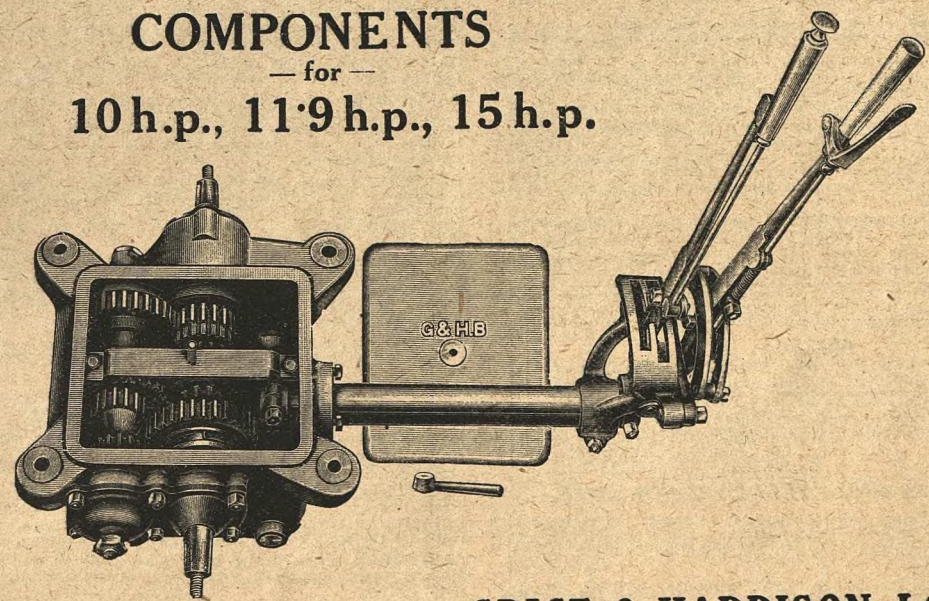
for long mileage and no skids

THE BELDAM TYRE CO. LTD.
BRENTFORD & MIDDLESEX.



COMPONENTS

— for —
10 h.p., 11.9 h.p., 15 h.p.



GRICE & HARRISON, Ltd.,
Sherborne Street,
BIRMINGHAM.

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.

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

Rate for Private Advertisements in this section: eighteen words, 1/6 (minimum), 6d. per six words after. The Rates for Trade Advertisements are 18 words 2/-, and 6d. per four words 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 20, 15 per cent. for 52. Terms: Cash with order, and otherwise net. Cheques, Postal Orders, etc., should be crossed and made payable to Temple Press Ltd., N.B.—In the interests of our readers we shall not hesitate to take proceedings against any persons in the trade who succeed in obtaining the insertion of their advertisements as "Private" and shall insist to the utmost upon the payment of all law costs incurred.

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 No. c/o "The Light Car and Cyclecar," count part of the advertisement.

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 £; 2/6 minimum), on amounts deposited up to £50, 1 per cent. on amounts from £50 to £100, and 3 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," whose decision shall be final and binding on both parties.

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.

DISPLAY ADVERTISEMENTS. Scale of charges, with reduction for series, sent on application.

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 "Copy" is subject to the approval of the Publishers generally, who also reserve the right to reject any advertisement, in whole or in part, referring to cars or accessories which in the opinion of the Publishers are outside the scope of the journal, 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.

Advertisements received too late for insertion in the issue then closing for press will—unless accompanied by express instructions to the contrary—be inserted in the following issue.

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

Copy for, and all matter relating to, advertisements must reach the offices first post Tuesday, and should be addressed to THE MANAGER, "THE LIGHT CAR AND CYCLECAR," 7-15, ROSEBERY AVENUE, LONDON, E.C.1, 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.1. Telephone No. 5292 Holborn (four lines). Telegrams: "Pressimus, Phone, London."

[Addresses of Branch Offices and other Business and Editorial Notices will be found on the last page of this section.]

NOTICE.

Owing to postal delays and irregularities, it is advisable to post advertisements EARLY ON MONDAY so as to ensure, as far as possible, that they reach us by the FIRST POST on Tuesday. Lately several advertisements have been received too late for inclusion, although despatched on Monday.

LIGHT CARS AND CYCLECARS FOR SALE.

A.-C. spare parts. We are now in a position to supply the majority of replacements for our cars direct from stock. All communications to Auto-Carriers (1911), Ltd., Service Dept., Hercules Rd., Lambeth, S.E. 1. 'Phone, Hop 311. Trade 349-523

A.-C. Sociables, several for sale, from £60, inspection and trial. 29 All-rop St., Upper Baker St., London, N.W. 1. Trade 346-f439

A.-C. Sociable, 1915, excellent condition throughout, 700 by 80 tyres, £95, R., 14 Hythe Rd., Willesden, N.W. 10. 345-e604

LIGHT CARS AND CYCLECARS FOR SALE

(continued).

A.-C., 1914, 10hp, oil lighting and detachable wheels, in perfect condition throughout. This car is fitted with a very roomy 2-seater body, and is also exceedingly well sprung. British and Colonial Motor Co., 3 and 140 Long Acre, London, W.C. 2. Gerrard 2668 and 9. Trade 345-910

A.-C., 1914, 4-wheeled, streamline cyclecar, single-cylinder, air-cooled, hood, screen, rack and pinion steering, speedometer, Klaxon, electric light, etc., re-upholstered, painted and many improvements. Condition and tyres absolutely perfect, only wants seeing, any trial, offers over £150. Kirkham, 26 Albert Rd., Bell Lane, Hendon, N.W. 4. 345-e534

A.-C. Sociable, 1914, fully equipped, hood, screen, lamps, new Stepney Roadgrip on rear, 2 spare covers and tubes, stored 3 years, overhauled and repainted, as new, £90, delivered within 100 miles. Cook, Builder, 233 Clapham Rd. 345-e567

A.-C., 10hp, late 1914 model, 2-seater, fully equipped, in excellent condition, £315. Alfred Wastnage, 65 Gt. Portland St., W. 1. Tel. May, 3005. Trade 345-915

A.-C. Sociable, 3 front lamps, 1 rear, Binks carburetter, hood, screen, etc., in perfect running order, £90. Meridian Motor Co., Caverdish St., Grimsby. Trade 345-e574

A.-C. Sociable, 1914, completely equipped, splendid condition, tools and spares, £95, expert examination invited. Churches, Bank House, Salcombe. 345-e202

A.-C. Sociable, splendid condition, hood, 3 lamps, newly repainted by coachbuilder, upholstery good, tyres almost new, price £65. Milnee, East Ter., Northallerton. 345-g942

ALLDAYS, 1914, 10hp, fitted with dynamo lighting and detachable wheels, in perfect condition throughout and ready to drive away. British and Colonial Motor Co., 3 and 140 Long Acre, London, W.C. 2. Trade 345-911

ALLDAYS Midget, 1914 model, coachwork as new, recently overhauled, electric lighting set, offers wanted. Hartley, Electrician, Cleckheaton. 345-e570

ARDEN, spacious 2-seater, 10hp, water-cooled J.A.P., Bosch magneto, 3 speeds and reverse, hood, windscreens, lamps, tyres (including Stepney) almost new, splendid hill-climber, recently overhauled, would accept £185 or nearest offer. Box No. 759, c.o. "The Light Car and Cyclecar." 346-f498

A.V. monocar. Universally acknowledged to be the smartest, fastest and most economical 4-wheeled light car on the market, complete with single-seater racing type body, 4 disc wheels, windscreens, 2-speed gear and accessories, brand new, latest model, £125. Cecil Motor Co., Ltd., 69 Gt. Queen St., Kingsway. 'Phone, Regent 1207. Trade 222-675

BABY PEUGEOT. Snap! Something exceptional. 1915 Baby Peugeot de luxe, 3-speed model, electrically equipped with large C.A.V. dynamo lighting set of 5 brass lamps and horn, sporting body, with luggage boot, running boards, adjustable screen, hood, Stepney, inside mat, all brass round edge radiator, etc., first £295 secure. 8 St. James Rd., Kingston-on-Thames. 'Phone 1873. Trade 345-e553

BABY PEUGEOT, 1916, 2-seater, 4-cylinder, with all accessories, Stepney, etc., painted black and white, in excellent condition, £230. Wallis, The Cottage, Bayleys Hill, Sevenoaks. 345-g538

BUCKINGHAM, 1914, 2-seater cyclecar, 4-wheeler, 8hp, air-cooled, in splendid condition, trial given, £125 or near offer; seen after 7 p.m. 15 St. Margaret's Rd., Tottenham, London, N. 15. 345-g559

BUGATTI, 1914, 10-12hp, sporting 3-seater, in exceptionally good condition, hood, screen, speedometer, electric lighting set, disc wheels, a fine opportunity to acquire one of these famous cars, any reasonable trial, £495. Elce and Co., 15 Bishopsgate Avenue, Camomile St., E.C. Trade 345-923

CALTHORPE, sporting 4-seater, 1918 model; Calthorpe coupe, 1917 model, self-starter; Calthorpe 4-seater, 1915 model, self-starter. Several others at Storey and Co., 118 Gt. Portland St., W. Trade 222-445

CALGOTT, 1919, double dickey, new June, not run 250 miles, dynamo lighting, £550. Box No. 1032, c.o. "The Light Car and Cyclecar." 345-e615

CALTHORPE coupe, 1916, just overhauled and re-upholstered Bedford cord, colour grey with black wings, 5 detachable wheels, a really good car, mechanically perfect, fast, and very comfortable, detailed inspection invited; after 3 p.m. Saturday; £485, no offers. Allen, Wandie Court, Beddington, Croydon. 345-e235

CALTHORPE coupe, 1918, 10hp, Brodt dynamo lighting and self-starter, 5 detachable wheels, fitted with Palmer cord tyres, upholstered Bedford cord, and repainted blue and black, car has only run 1,000 miles, indistinguishable from new. Cass's Motor Mart, Ltd., 243 Brompton Rd., S.W. 3. Tel., Kensington 2194. 345-889

CALTHORPE coupe, 10hp, 1918, grey, black wings, Bedford cord upholstery, Brodt dynamo lighting and self-starter, Palmer cord tyres, detachable wheels, good tyres, very handsome car, fully equipped. Mebes and Mebes, The Original Light-Car Specialists, 144, 154-6 Gt. Portland St., W. 1. Tel., 3426 Mayfair. Trade 345-928

CALTHORPE coupe, 10hp, 1916, blue, dynamo lighting, self-starter, dickey seat, very handsome car, little used, fully equipped, £500. Mrs. Morgan, 3a Albert Rd., Southport. 345-e543

CALTHORPE, 1914, acetylene and electric lighting, practically unused for over 2 years, thoroughly overhauled, brakes, etc., renewed, 5 wheels, new tyres, accessories, tools and spares, inspection and trial by appointment, best offer over £220. Capt., 186 Evering Rd., Clapton, E. 5. 345-e547

CALTHORPE Minor, 10hp, 1914, 2-seater and dickey, 5 detachable wheels, clock, speedometer, recently painted biscuit colour, black wings and wheels, in splendid condition and very smart, price £320. Taylor, Butcher, 353 Lordship Lane, Dulwich. 'Phone, Sydenham 915. 345-e548

CALTHORPE Minor on sale, 1914, in good condition, recently painted, ready for the road, offers. Wynne, Tanygraig, Denbigh. 345-e549

CALTHORPE, smart 2-seater, in splendid condition, run under 2,500 miles, £365. Johnson, Rockcliffe (next North Dulwich Station), 14 Red Post Hill, Dulwich. 345-e569

CALTHORPE coupe, 2-seater, speedometer and detachable wheels, engine No. 5802, finished grey, £375. Shipside, opposite Victoria Station, Nottingham. Telephone, Nottingham 946. Trade 345-920

Readers are referred also to "THE MOTOR," which contains each week many hundreds of advertisements of new and second-hand cars. "THE MOTOR" is published on Wednesdays, price 3d.

LIGHT CARS AND CYCLECARS FOR SALE
(continued).

LIGHT CARS AND CYCLECARS FOR SALE
(continued).

CALTHORPE, 1916. coupe, dynamo lighting, usual equipment. Royal blue upholstered cord. Smith and Hunter, 74 Gt. Portland St. Trade 345-991

CALTHORPE, 1918 coupe, self-starter, dynamo lighting, £250 Deighton and Co., 89 Gt. Portland St., W. Trade 345-942

CALTHORPE, 1916. G.D.M., 2-seater, dickey, dynamo lighting, £235 Deighton and Co., 89 Gt. Portland St., W. Trade 345-943

CARDEN monocar, 1914-1915, in splendid mechanical condition, any trial given, accept £80 Hayee, 344 Euston Rd., N.W. Trade 345-893

CARDEN monocars, 1919 models, deliveries daily. The Railway Garage, Staines (Phone 139), sole concessionaires. Specification: 8hp J.A.P. engine in front, 3-speed Sturmey-Archer gearbox, seat kick-starter, removable scuttle, 105 guineas, accessories, tandem seat extra, delivery in strict rotation; call and take trial run. Trade 345-687

CRESCENT, 1916, sporting 2-seater, 8-10hp, condition as new, not done 2,000 miles, torpedo body, electric lighting, spare wheel, speedometer, price £200, 1 Leyton Rd., Stratford, E. Trade 345-682

CROUCH cars, post-war models, 10hp, the super-cyclecar, completely fitted with hood, screen, lamps, etc., £235. Orders now being booked for early deliveries, in strict rotation. Sole concessionaires for London, Middlesex, Essex, Surrey, Kent and Berkshire. Mebes and Mebes, The Original Light Car Specialists, 144, 154-6 Gt. Portland St., W. I. Tel. 3126 Mayfair. Trade 345-930

DEEMSTER, 10hp, 2-seater, late 1915, 5 detachable Sankey wheels, Claudet-Hobson carburetter, automatic sight drip feed oiling, new acetylene headlamps and generator, oil lamps dash and tail, tyres excellent, one new, original paint practically unscratched, engine perfect condition, complete with tools, hood, screen, clock, mechanical horn, etc., seen any time, trial with pleasure. 285 guineas, no offers. Belgrave, South St., Dorking. Trade 345-657

DEEMSTER, 1916, 10hp, 2-seater, plated Prince Henry type radiator, polished aluminium bonnet, and polished aluminium disc wheels, C.A.V. lighting set, large plated headlamps, small torpedo side lamps mounted on wings, streamlined sporting body, painted light grey, very fast, most sporting and attractive car in its class on the road, price £400, part exchange entertained. Deemster, c/o Pool's, 180 Fleet St., E.C. Trade 345-940

DOUGLAS, 10hp, sporting 2-seater, bulbous back, C.A.V. dynamo set, disc wheels, painted red, black domed wings, will do 60 m.p.h. Smith and Hunter, 74 Gt. Portland St. Trade 345-903

ERIC 3-wheel runabout by P. and C. Syndicate, Bedford, 1914, 3 speeds and reverse, 5 h.p. twin water-cooled engine, shaft drive, all accessories, side entrance, wheel steering. This economical little car is equal to new, both in appearance and mechanically, £135, or exchange with motorcycle. No Sunday business. Bunting, Mason's Ave., Wealdstone. Trade 345-936

GLOBE, 1913 or '14, 8hp water-cooled, 2 speeds and reverse, hood, screen, speedometer, acetylene headlight with generator, 3 new tyres, economical on oil and petrol, good supply of spares, smart little car, price £135, no offers. 8 Knighton Park Rd., Sydenham, after 7 o'clock, not Saturday. Trade 346-612

G.N. cars, Mebes and Mebes, the Original Light Car Specialists, being the largest contractors for this famous cyclecar, can offer early deliveries of both the Standard and Vieste models. Orders booked in strict rotation at makers' list price only; no premiums entertained. Book now and avoid disappointment. 144, 154-6 Gt. Portland St., W. I. Tel. 3126 Mayfair. Trade 345-929

G.N., 1914 model, spare wheel, lighting set, £120; call after 5. Seaford Cottage, Parson St., Hendon, N.W. Trade 345-636

G.N., Red Grand Prix, 1914 model, complete with lamps, Klaxon, new hood screen, spare wheel and tools, recently overhauled throughout, fitted new brass dummy radiator and disc wheels, excellent appearance and condition. £135 or nearest, Sussex district. Box No. 1028, c/o "The Light Car and Cyclecar." Trade 345-651

G.N., standard, July delivery, now postponed till August, owner getting larger car, what offers? Reply, Box No. 1019, c/o "The Light Car and Cyclecar." Trade 345-645

G.W.K., November, 1915, perfect mechanical condition, 5 detachable disc wheels, 700 by 80 Steppney Roadgrit tyres, as new, Smith's speedometer, hood, screen, horn, clock, acetylene lamps, small mileage, seen by appointment, £250, Verney, Bahinda, Holmwood, Dorking. Trade 345-642

G.W.K., 2-seater, acetylene bead and side lamps, Smith speedometer and Stewart horn, finished grey, £215, Shipside, opposite Victoria Station, Nottingham. Tel., Nottingham 946. Trade 345-919

G.W.K., stored since June, 1916, speedometer, lamps, hood, screen, Steppney, £165, Brighton Long Melford, Suffolk. Trade 345-656

G.W.K., 1914, 2-seater, hood, screen, Steppney, speedometer, lamps, nearly new oversize Dunlops, overhauled last January, first-class order, £210, Gubbins, Granville Crest, Meads, Eastbourne. Trade 345-696

G.W.K., 1915, 8hp, 2-cylinder, 2-seater, just repainted and upholstered, sound mechanical condition, tyres excellent, 5 detachable wheels, 2 brass headlamps and tail lamp (acetylene), screen, new hood, Zenith carburetter, jack, pump and tools, privately owned, offers invited, no dealers. Box No. 782, c/o "The Light Car and Cyclecar." (London district.) Trade 345-692

HILLMAN, 8hp, 1915, 2-seater, double dickey, Lucas dynamo and lamps, hood, spare wheel, etc., £360; seen by appointment after 6. Lubbock, Magpie Cottage, Weston Green, Thames Ditton. Trade 345-635

HORSTMANN, 4-cylinder, 1915, mechanical starter, electric lights, 5 detachable wheels, £250. At Nurton's Garage, Blackheath, S.E. Trade 345-878

HORSTMANN, 4-cylinder, 1915, mechanical starter, electric lights, 5 detachable wheels, £250. C. T. F. Osman, Colonnade House, Blackheath, To be seen at Nurton's Garage, Blackheath, S.E. Trade 345-887

HUMBERETTE, 1915, water-cooled, first-class order throughout, speedometer, mirror, many special fittings. Below.

HUMBERETTE, 1914, air-cooled, recently repainted, overhauled and new tyres fitted. Smith and Hunter, 74 Gt. Portland St. 7078 Mayfair. Trade 345-899

HUMBERETTE, 1913, a.c., complete, hood, screen, lamps, excellent condition and appearance. £135. Harris, c/o Adams, 4 Elm Grove, Taunton. Trade 345-659

HUMBERETTE, w.c., fine condition, guarantee engine, gears, etc., as new, fast, climb anything, lamps, speedometer, £175, no offer. 16 York St., Dover. Trade 345-655

HUMBERETTE, 1913, a.c., 3 speeds and reverse, hood, screen, lamps (unused), speedometer, 3 spare covers, tube, Harcourt radiator and fan, 2 spare pistons, piston rings, gudgeon, valve springs, extra air, tool roll, strengthened back axle, sound tyres, carefully used, upholstery and paint top hole averages 52 m.p.g., splendid running condition; trial, appointment, Thursday afternoons, Sunday mornings; £135. Judd, 97 Munster Rd., Fulham, S.W. Trade 345-637

HUMBERETTE, 1913, a.c., hood, screen, lamps, clock, mirror, Steppney, etc., splendid condition throughout, £145. H. Wright, Arlesey, Beds. Trade 345-639

HUMBERETTE, 1914, a.c., fully equipped, oversize tyres, good condition, £150. A. Phillips, 56 Leghorn Rd., Harlesden, N.W. 10. Trade 345-655

HUMBERETTE, 1914, a.c., 3 speeds, reverse, excellent condition, recently overhauled, original paint, tyres as new, Steppney, 4 lamps, electric and acetylene, electric horn, clock, jack, pump, spares, including crown wheel, pinion, set of tappets and guides, 2 rings, all new, any trial after 3 or by appointment. £145. Fenton, Intake Farm, Butwith, near Selby. Trade 345-656

HUMBERETTE, 1915, water cooled, hood, screen, speedometer, lamps, new 700 by 80 tyres, tubes and spare, just been overhauled by makers at the cost of £30, repainted purple, black wings, last week, everything perfect, £200. Hall, 82 Brompton Rd., S.W. Tel. Ken. 3265. 5 p.m. to 8. Trade 345-675

HUMBERETTE, 1914, w.c., just been thoroughly overhauled and painted purple and black, new black hood and cushion covers, smartest of its make on the road; can be driven away for £165; view after 5.30. Drayson, Hamilton, Basingstoke. Trade 345-635

HUMBERETTE, 1915, water cooled, 3 speed and reverse, electric lighting, hood, screen, horn, complete, as new, stored since August, 1918, very smart car, best offer over £200 secured. Apply before 9.30 a.m. or after 2.30 p.m. at 158B Norwood Rd., West Norwood. Trade 345-603

HUMBERETTE, 1914, a.c., just completely overhauled, beautiful condition, hood, screen, headlamps, side and tail lamps, generator and spare can hold on running board, pump, jack, 3 spare tubes, 90 m.p.g. £140. Bush, 19 Church Rd., Bromley, Kent. Trade 345-638

HUMBERETTE, new 1904, original single-cylinder, water cooled, steering column control, offers wanted, to Ellis, Garage, Oswestry. Trade 345-684

LAGONDA coupe 11hp, 1919, post-war model, dark green, black wings, green upholstery, Stewart speedometer, C.A.V. dynamo lighting, Klaxon and ordinary horns, 5 detachable wheels, plated fittings, smartest coupe offered on the market, only done 300 miles, fully equipped. Mebes and Mebes, The Original Light Car Specialists, 144, 154-6 Gt. Portland St., W. I. Tel. 3126 Mayfair. Trade 345-931

LAGONDA coupe, in excellent mechanical condition, now in daily use, 5 detachable wheels, acetylene headlamps and generator, oil side and tail lamps, £250. Box No. 1027, c/o "The Light Car and Cyclecar." Trade 345-633

LAGONDA coupe, 1915, 2-seater, 4-cylinder, 11hp, with 5 Sankey wheels, in perfect condition, £325. Box No. 1021, c/o "The Light Car and Cyclecar." Trade 345-639

L.E.C., 9.5, sporting 2-seater, disc wheels, spare wheel, just overhauled and repainted black and grey, speedometer, luggage grid, etc., mileage 6,000. £200 or near offer. R.H., Little Barrs, St. Valerie Rd., Bourne-mouth. Trade 346-613

MARSHALL-ARTER, 1914, 10hp, fitted with oil lighting and 6 detachable wheels. This car has just been thoroughly overhauled and repainted, and is being offered at an exceedingly reasonable figure. British and Colonial Motor Co., 3 and 140 Long Acre, London, W.C. 2. Gerrard 2863 and 9. Trade 345-913

MEDINGER light car, 2-cylinder, 2-stroke engine, water-cooled (thermo-siphon), 3 speeds and reverse, shaft drive, 5 detachable interchangeable wire wheels, 2-seater body, domed mudguards, enamelled green and black. Write Underwood, Kendal, Pembroke Rd., Sevenoaks. Trial by appointment, £125. Trade 345-611

MERCURY, 10hp, 1919, new, all latest improvements, including dynamo lighting, 2-seater and dickey, accept, £400, delivery middle July. Wright, 98 High St., Hornsey, N. 8. Trade 345-908

MERRALL-BROWN light car. Mebes and Mebes, The Original Light Car Specialists, have pleasure in announcing that they have been appointed the sole agents for London and 30 miles radius, including Reading, for this famous light car; early deliveries anticipated, your inquiry esteemed. Completely and fully equipped, price £215. 144, 154-6 Gt. Portland St., W. I. Tel. 3126 Mayfair. Trade 345-912

MORGANS, Hall's Garage, Ltd., Stevenage, Morgan specialists. Repairs and overhauls. Trade 374-614

MORGAN, 1916, Grand Prix, disc wheels, electric lamps, in exceptionally good order. Other models expected in a few days. Smith and Hunter, 74 Gt. Portland St. Mayfair 7078. Trade 345-902

MORGAN, 1916, G.P., in excellent condition throughout, £155 cash, or exchange combination or 4-wheeler. 52a Burghley Rd., near Turnell Park. Tube. Trade 345-913

MORGAN, air cooled, in good running order. Brown, Black Hill, Snitterfield, Stratford-on-Avon. Trade 345-653

MORGAN, 1917, Grand Prix, w.c. J.A.P., oversize tyres, hood, screen, acetylene lamps, disc wheels, Klaxon horn, special mudguards and running boards, tools, spares, condition as new, has not been run 300 miles, owing to illness, 185 guineas cash, no offers. V.P. Williams, Lieut., Burnt House, Sidley, near Bexhill-on-Sea. Trade 345-652

MORGANS. We have several second-hand Grand Prix models for sale; call and inspect. Elce and Co., 15 Bishopsgate Avenue, Cannonville St., E.C. Trade 345-926

MORGAN, 1917 (November), de luxe, 10hp M.A.G., a.c., o.h.v., complete with hood, screen, lamps, disc wheels, Klaxon and tools, new tyres, perfect condition and little used, £175. Cogan, Surgery, Ferndale, Glamorgan. Trade 345-673

MORGAN, 1919, sporting, J.A.P., a.c., nearly new, cash offers over £205. 108 Saltergate, Chesterfield. After 7. Trade 345-669

MORGAN, a.c. M.A.G., sporting model, 1917, B and B pilot, disc wheels, hood, windscreen, lamps and accessories, sound condition, good tyres, £165; by appointment. Baillie, Woodcroft, Arnsde. Trade 345-605

MORGAN, 1919, air cooled, de luxe, delivered last Saturday, highest offer gets machine; also 1914 ditto. 12 Rockmead Rd., South Hackney. Trade 345-694

MORGAN, 1916, model de luxe, M.A.G., 10-12, B.B. pilot jet, marvellous performer, good condition, bargain, £153. Galpin, The Hermitage, Aylesbury. Trade 345-658

LIGHT CARS AND CYCLECARS FOR SALE

(continued).

- MORGAN**, 1919, new sporting model, a.-c. 8hp J.A.P. engine, hood, screen, lamps, tools and spares, one of the latest Morgans on the road, £200, no offers. Newton, 142 London Rd., Preston. 345-6585
- MORGAN**, 1916, G.P. 10hp, magneto, new condition, hood, screen, extra large heavy tyres, discs, Jaffa shield, 2½ in. exhaust, speedometer, clock, £185, no offers; seen evenings between 6 and 8. Elms, 127 Loughborough Rd., Brixton, S.W. 345-6543
- MORGAN**, sporting, perfect condition, 1914, hood, screen, lamps, any trial, £130. Stimpson, 36 Cromwell Rd., Malvern Link. 345-6607
- MORGAN**, privately owned, 1916, a.-c. J.A.P., 700 by 80 tyres, hood, screen, lamps, horn, just overhauled, good condition, £180. Box No. 1025, c.o. "The Light Car and Cyclecar." 345-6635
- MORRIS-COWLEY**, 1916, 2-seater, dynamo lighting, mileage 7,000, overhauled, repainted, new hood fitted, very smart car, £470. Smith and Hunter, 74 Gt. Portland St. Trade 345-856
- MORRIS-COWLEY**, 1918, 4-seater, dynamo lighting set, spare wheel, one-man hood, fine condition throughout, £345. Stretton and Smith, 23 Woodstock St. (off New Bond St.), W. 1. Trade 345-885
- MORRIS-COWLEY**, 1917, 4-seater, dynamo lighting set, 2 spare wheels, one-man hood, speedometer, clock, very fine condition throughout, £530. Stretton and Smith, 23 Woodstock St. (off New Bond St.), W. 1. Trade 345-884
- MORRIS-COWLEY**, 1919 model, 2-seater, chocolate brown, Lucas dynamo lighting, detachable wheels, good tyres, done very small mileage, Mebes and Mebes, The Original Light Car Specialists, 144, 154-6 Gt. Portland St., W. 1. Tel., 3426 Mayfair. Trade 345-933
- MORRIS-COWLEY**, 1916, 2-seater, dynamo (Lucas) outfit, with headlamps; seen any time; £460. Woodlands, London Rd., St. Albans, Herts. 345-6601
- MORRIS-COWLEY**,—**MORRIS-OXFORD**. Having been the premier agents since their introduction, our agency arrangements enable us to continue quoting the best delivery dates. We also possess unrivalled facilities for their overhaul, repair, repainting, etc. Stewart and Ardern, 18 Woodstock St. (off Oxford St.), Bond St., London, W. 1. 5162 Mayfair. Trade 353-160
- MORRIS-OXFORD** de luxe, late 1914, 2-seater, spare wheel, speedometer, new tyres, just been overhauled and repainted, fine condition throughout, £350. Stretton and Smith, 23 Woodstock St. (off New Bond St.), London, W. 1. Trade 345-881
- MORRIS-OXFORD** de luxe model, 1914, 10hp, detachable wheels and spare, nice order throughout, price £370. Midland Garage, Colwyn Bay. Trade 345-835
- MORRIS-OXFORD**, 1916, de luxe, chassis 1965, best offer about £375. Miller, 7 Newbold Terrace, Leamington. 345-6542
- MORRIS-OXFORD**, 10hp, 4-cylinder, laid up during war, mileage 6,000, engine perfect condition, 3 tyres new, lamps, speedometer, price £280, seen by appointment, trial run. 36 Elm Park Rd., Chelsea. Telephone, Kensington 3114. 345-6606
- PERRY**, 1914, 8hp, 2-seater, hood, screen, speedometer, lamps, detachable wheels and spare, £215. Elce and Co., 15 Bishopsgate Avenue, Camomile St., E.C. Trade 345-925
- PERRY**, 1914, 8hp, enclosed valves, hood, screen, lamps, 5 wheels, smart, streamline. £195. 24 Beauval Rd., East Dulwich. Trade 345-6561
- RANGER** light car, late 1914, 8hp, twin, w.c., hood, screen, lamps, Stepney, spares, absolutely sound mechanically, tyres, paint, bodywork perfect, carefully stored 3 years, inspection, trial, week-ends by appointment; this is a genuine private offer of a sound little car; £165. Harrison, 9 Victoria St., Bury St. Edmunds. 345-6580
- SINGER** light cars, phaeton or coupe models. Particulars of delivery on application from Singer and Co., Ltd., 17 Holborn Viaduct, E.C. Telephone, Central 13173. Trade 345-39
- SINGERS**, 10hp, brand new 1919, dynamo lighting sets, self-starters, dickey seats, speedometers, ready for delivery. Stretton and Smith, 23 Woodstock St. (off New Bond St.), W. 1. Trade 345-882
- SINGER**, 1914, 10hp, dynamo, dickey, speedometer, 4 nearly new tyres, perfect mechanically. Smith and Hunter, 74 Gt. Portland St. Trade 345-900
- SINGER**, 1914, 10hp, 2-seater, Rotax dynamo lighting, 5 detachable wheels, speedometer, hood, screen, etc., just repainted suede grey and black, car in beautiful condition and completely equipped. Cass's Motor Mart, Ltd., 243 Brompton Rd., S.W. 3. Tel., Kensington 2194. Trade 345-890
- SINGER**, 10hp, in good condition, £300. Gerrard, 99a High St., Stoke Newington, N. 16. 344-917
- SINGERS** (5), 10hp, 1919 models, 2-seaters, buff, black wings, Rotax dynamo lighting, fully equipped, only done very small mileage, actually in stock. Mebes and Mebes, The Original Light Car Specialists, 144, 154-6 Gt. Portland St., W. 1. Tel., 3426 Mayfair. Trade 345-934
- SINGER**, brand new, 1919 model, 2-seater, dynamo lighting set and self-starter, in stock for immediate delivery. Alfred Wastnage, 65 Gt. Portland St., W. 1. Tel., May. 3065. Trade 345-916
- SINGERS**. We have several ready for immediate delivery, 10hp, dynamo lighting, dickey seats, 1914 and 1915, and in first-class condition, from £300 to £350. Shipside, opposite Victoria Station, Nottingham. Tel., Nottingham 946. Trade 345-918
- SINGER**, 10hp, late 1915, 2-seater, special car, dynamo lighting set, disc wheels and spare, finished white, with black guards, special fittings, in sound order throughout, £360. Elce and Co., 15 Bishopsgate Avenue, Camomile St., E.C. Trade 345-924
- SINGER**, 1916, 10hp, engine C3639, chassis C3500, with dickey seat, recently overhauled, paint good condition, no dealers, £350. Box No. 1024, c.o. "The Light Car and Cyclecar." 345-6636
- SINGER**, 1914, 2-seater, concealed dickey, 5 detachable wheels, speedometer, Klaxon, excellent condition, private owner, £300, or near offer. Stoaite, 22 Northumberland Rd., Bristol. 345-6582
- SINGER**, 10hp, 1915, roomy 2-seater, dickey seat, buff, black domed wings, 5 detachable wheels, Rotax dynamo lighting set, horn, Stewart speedometer, and tools, complete, in splendid running order and condition, price £375 or nearest offer for quick sale. Snowden, Grocer, New Seaham, Co. Durham. 345-6581
- SINGER**, 1919, brand new, 2-seater, 10hp, just arrived from works, self-starter, dynamo lighting, what offers? Box No. 1018, c.o. "The Light Car and Cyclecar." Trade 345-6545

LIGHT CARS AND CYCLECARS FOR SALE

(continued).

- SINGER**, 10hp, 1917, coupe, Royal blue, red lined, Bedford cord, seat covers, Brolt dynamo lighting and self-starter, Stewart speedometer, 8-day clock, electric horn, dash lamp, dickey seat, detachable wheels, good tyres, fully equipped, appearance as new. Mebes and Mebes, The Original Light Car Specialists, 144, 154-6 Gt. Portland St., W. 1. Tel., 3426 Mayfair. Trade 345-938
- STELLITE**, late 1914, lately repainted, fine condition throughout, £275. Stretton and Smith, 23 Woodstock St. (off New Bond St.), W. 1. Trade 345-883
- STELLITE**, 10hp, 1915, special coupe body by Flewitt, Birmingham, buff, black wings, C.A.V. dynamo lighting and self-starter, speedometer, mirror, dickey seat, spring gaiters, interior light, detachable wheels, good tyres, fully equipped. Mebes and Mebes, The Original Light Car Specialists, 144, 154-6 Gt. Portland St., W. 1. Tel., 3426 Mayfair. Trade 345-937
- STANDARD** light cars. The latest model Standard light cars may be seen at the company's London showrooms, full particulars, prices, etc., being obtainable on application to The Standard Motor Co., Ltd., 49 Pall Mall, S.W. 1. 353-719
- STANDARD** 9.5 light cars and their date of manufacture. As advertisements have appeared recently offering for sale Standard 9.5 h.p. light cars described as "late 1916 models," the Standard Motor Co., Ltd., desire to state that no Standard 9.5 h.p. two-seater cars were manufactured by them between November, 1915, and the date of the Armistice, November, 1918. 346-745
- STANDARD**, late 1915, 5.5hp, dynamo lighting, self-starter, car just repainted and overhauled, fine condition throughout, £450. Stretton and Smith, 23 Woodstock St. (off New Bond St.), W. 1. Trade 345-879
- STANDARD**, 9.5hp, 1919, 2-seater, Standard grey, black wings, Brolt dynamo lighting, detachable wheels, side curtains, fully equipped, as new only done 300 miles. Mebes and Mebes, The Original Light Car Specialists, 144, 154-6 Gt. Portland St., W. 1. Tel., 3426 Mayfair. Trade 345-936
- STANDARD**, 9.5hp, 1916, No. 11,862, special model 2-seater, all-weather coupe body, grey, black fine, double dickey seat, Brolt dynamo lighting, speedometer, electric horn, black and plated finish, very handsome car and appearance as new, fully equipped. Mebes and Mebes, The Original Light Car Specialists, 144, 154-6 Gt. Portland St., W. 1. Tel., 3426 Mayfair. Trade 345-935
- STANDARD**, 9.5hp, 1915, Brolt dynamo lighting, owner-driven, engine just overhauled, fine condition throughout, detachable (5) wheels, speedometer, £350. Box No. 1028, c.o. "The Light Car and Cyclecar." 345-6534
- STANDARD**, 9.5hp, 1914, electric side and tail lamps, acetylene head, detachable wheels, good tyres, £300 or offer. Shelley, Manor House, Tittensoor, Stoke-on-Trent. 345-6609
- STANDARD**, 1915, overhauled and repainted, electric side and tail lamps, bargain, £320, private owner. 112 Coldharbour Lane, Camberwell, S.E. 5. 345-6583
- SWIFT**, 1914, 7-9hp, done 4,000 miles, speedometer, lamps, booter, etc., and all accessories, excellent condition, price £195. Write for appointment to 8 Farnan Rd., Streatham, S.W. 16. 345-1407
- SWIFT**, 1914, 7-9, 2-seater, dickey, lamps, speedometer, Stepney, new tyres, overhauled and repainted, £220. Smith and Hunter, 74 Gt. Portland St. Trade 345-897
- SWIFT** coupe, late 1915, 10hp, dynamo lighting, spare wheel, roof light, leather upholstery, car just revarnished and overhauled, £470. Stretton and Smith, 23 Woodstock St. (off New Bond St.), London, W. 1. Trade 345-880
- SWIFT**, 1914, 7-9, 2-cylinder, excellent condition, spare tyre and tube, £200. Wells, Crimscoot St., Bermondsey. Hop 115. 345-6550
- SWIFT**, single-cylinder, 2-seater, dual ignition, 3 speeds and reverse, hood, screen, well tired, excellent condition and appearance, ready to drive away, £98. W. A. Owens, Kingston, Herefordshire. 345-6540
- SWIFT**, 1913, 7-9hp, monobloc, enclosed valves, gate change, hood, screen, lamps, repainted, smart, £165. 24 Beauval Rd., East Dulwich. Trade 345-6562
- SWIFT**, 7-9, twin, 2-seater, fully equipped with all brand-new fittings, just completely overhauled, re-upholstered and painted by Angus Sanderson's, 5 new Wood-Mine tyres, Stepney, clock, a smart little car, ready for the road, £210 cash. Langlands, Langholm Rd., East Boldon, near Sunderland. 345-6614
- SWIFT**, 2-seater, 10hp, dynamo lighting, 2 spare wheels, perfect running condition, any examination and trial, £420 or nearest offer. Beacon Works, Bradford St., Birmingham. 345-6600
- SWIFT**, 10hp, 2-seater and dickey, just overhauled and painted, new condition throughout, £190. Fairhurst, Rylands Bow, Wigan. Trade 345-6556
- SWIFT**, 7-9hp, 1914, newly painted, new tyres, full accessories, in first-class condition, trial, 1 gallon among the Derbyshire hills, price £200. Apply for appointment, Box No. 1029, c.o. "The Light Car and Cyclecar." 345-6560
- SWIFT**, 1919, 10hp, 2-seater, absolutely new, list price £340, what offers? Box No. 1030, c.o. "The Light Car and Cyclecar." 345-6552

MISCELLANEOUS LIGHT CARS AND CYCLECARS.

- DEIGHTON and CO.** have a selected stock of light cars, fitted with 2, 3 and 4-seated bodies, also coupes, prices from £150. Note address, 69 Gt. Portland St., W. Mayfair 4744. Trade 345-729
- SMART** cyclecar, almost completed, 3-seat torpedo, 5-6hp Avon engine, C.A.V. magneto, B. and B. variable, De Dion gearbox, final belt drive, round front radiator, quarter-elliptics, 650 by 65 tyres, screen, electric lamps, etc., everything except bonnet and 2 chains, could be finished in week, £25. Seen, Electricity Works, Walton-on-Naze. Write, Colford Cottage, Hadleigh, Suffolk. 345-6228
- CASS'S MOTOR MART, LD.**
- CASS'S MOTOR MART, LD.**
- CASS'S MOTOR MART, LD.**, have in stock for immediate delivery, Calthorpe coupe, Singer 2-seater, Perry 2-seater, and many other makes of cars. Call "phone or write for full details. 5 Warren St., Euston Rd., W. 1 (Tel., Museum 623), or 243 Brompton Rd., S.W. 3 (Tel., Kensington 2194). Trade 345-899
- LIGHT** car, 2-seater, 11.9hp, 3 speeds and reverse, going condition, £125. 49 Robinson Rd., Tooting. 345-6544
- FOR** sale, Precision a.-c. twin cyclecar, belt drive, 3 speeds and reverse, hood, screen, etc., photo sent, trial here. Dunn, Brewers Arms, Peterborough. 345-6588

MISCELLANEOUS LIGHT CARS AND CYCLECARS
(continued)

CHAPUIS-DORNIER 4-cylinder 8-10 car, 3 and reverse, Hele-Shaw clutch, smart, silent, speedy, worm drive, speedometer, side tail lamps, Rushmore headlights, hood, and 2 sets side curtains, convertible entirely-closed car, Auster double screen, controls inside, seats accessible both sides, will be repainted, any trial and examination. Fisher, Coachbuilder, Hanley. Trade 345-6514

LUCAS King's Own projector set, acetylene, for light cars, 2 headlamps, all brass, Mangin lens mirror reflectors and generator, black finish, as new, unscratched, offset. Ellis, Baden Ter., Cleckheaton. 345-6543

MISCELLANEOUS.

ALUMINIUM number plates, best pressed, on black background, any number within 24 hours, post free 12s. 6d. per pair. Freeman, Oakes and Co., Ltd., Devonshire St., Sheffield. Trade zzz-639

SPUR gears, case-hardening, etc., manufactured to specifications. Send your inquiries to R. H. Morse, Elder Pl., Brighton. Trade 351-531

5,000,000 **NEW** bright-steel engineers' hexagon bolts, nuts, studs, metal screws, available. Send 10s. for parcel of 250 assorted, useful sizes, Whitworth, metric, B.S.F., B.A. threads, guaranteed perfect goods; sent carriage paid; write for catalogue. Palmer's Garage, Tooting. Trade 349-313

50 NUTS, screws, washers, assorted, 2s. 6d., post free, send for list. Eric Meadows, Bankfield Lane, Southport. Trade 349-299

THAT tyre and everything else you need, Sunday or weekday, is at Youngs', 2, 3 and 5 The Parade, Kilburn. Phone, Hampstead 4807. Trade zzz-616

HAVE driving pinton for 1914 Humberette, what offers? Deane, 102 Shakespeare St., Nottingham. 345-6538

PAIR acetylene headlamps on brackets, with step generator, in stand, £6. 10 Ashgrove Ter., Gateshead. 345-6577

ACCUMULATORS, shop soiled, otherwise new: 4 volt 20 ampere, 13s. 6d.; 4 volt 40 ampere, 20s. 6d.; 4 volt 60 ampere, 28s.; 4 volt 80 ampere, 35s.; 6 volt 40 ampere, 30s.; net cash; carriage extra. Ignition coils, high-speed trembler: small, 2s.; medium, 2s.; large, 3s.; net cash; 2-cylinder, 60s.; carriage extra. Essex Accumulator Co., Ltd., 499 Grove Green Rd., Leytonstone, E. 11. Trade 392-643

3-SPEED and reverse gearbox, £1; light differential rear axle, artillery wheels, £25; pair semi-elliptic springs, 16s. Haldane, 8 Kingsburgh Rd., Edinburgh. 345-6579

PIGNIC basket, absolutely new, elegant fittings, including copper kettle on stand, nickel sandwich boxes. 26 Fountain Rd., Edgbaston. 345-6590

GEARBOX, suitable for light car, Epicyclic, 2 speeds and reverse, complete with chain sprockets. £3 5s. Skeoch, Motor Works, Dalbeattie, N.B. Trade 345-6547

AUCTIONS.

ENGLAND'S CENTRAL MOTOR MART, Severn's, Alfreton, Derbyshire. Auction sales of upwards of 130 motor vehicles every alternate Wednesday. Next sale July 9th. Lorries, cars, vans from all parts, 50 motorcycles and 200 lots of motor accessories. Commencing 10.30. Catalogues 3d. J. G. Severn Co., Auctioneers, Alfreton. Telephone 17. 345-721

BODIES.

BODIES and vans for light cars built to order, hoods made and re-covered. Morris and Laxon, Motor Body Builders, 7 Roman Rd., Bristol. Trade 345-6510

CONSULTING ENGINEERS.

HUGH P. McCONNELL, automobile engineer and service expert, independent advice on the purchase of post-war and second-hand cars; buyers relieved of all detail worry in connection with coachwork and sundry accessories. Write, Service Dept., 199 Piccadilly, W. 345-947

LEONARD BAYNES, The Motorists' Advisory Engineer. Second-hand cars examined and reported on, bought or sold; orders taken for new cars; accessories of every description supplied. Poland House, 167 Oxford St., W. 1. Phone, 4125 Museum. zzz-63

EXCHANGES.

MOTOR-BICYCLES and light cars taken in part exchange for light cars or motorcycles, balance in cash or extended payments as preferred. Service Co., 292 High Holborn, London. zzz-400

WISH to exchange Swift, 7-9, late 1914, 2-seater, Stepany, speedometer, clock, extra air inlet, good tyre, splendid condition, only run 4,000 miles, for 3-seater (no dickey), not earlier 1914. Swift preferred, and balance in cash. W. Haberland, 200-204 City Rd., Sheffield. 345-6508

HOODS AND SCREENS.

HOODS for light cars re-covered in best khaki material, 65s. Stockport Garage Co., Parsonage St., Wellington Rd. North, Stockport. Trade zzz-189

HOODS, Cass's Motor Mart, Ltd., have in stock new hoods, suitable for Morgans and light cars. 5 Warren St., W. 1. Museum 623. Trade 345-888

30 SHOP-SOILED 2-seated hoods, low price to clear, various sizes from 3 ft. wide upwards. Send width and length and make of car. Dawson and Co., 105 Brightwell Ave., Westcliff-on-Sea, Essex. Trade 345-6599

GARAGES.

ONE or two light cars accommodated in private garage, excellent facilities. S., 21 Kempe Rd., Kilburn. 344-214

IGNITION.

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

MAGNETO repairs. Rewinding, remagnetizing, overhauling and general repairs promptly and efficiently executed at moderate charges, average despatch 3 days, satisfaction guaranteed. Electrical Trades Supply, Ltd., Gt. Charles St., Birmingham, T.A., "Motors, Birmingham." Tel. No. 1601 Central. Trade 351-433

INSURANCE.

DREADNOUGHT light car policies at Lloyd's. Premiums from £2 10s. per annum, payable yearly, quarterly or monthly. Before insuring elsewhere, write for prospectus. Roys, Ltd., 170 Gt. Portland St., London. zzz-434

ROYS, LD. Light car insurance at Lloyd's. Lowest premiums, payable yearly, quarterly, or monthly. Write for prospectus, 170 Gt. Portland St., London. zzz-577

COMPLETE comprehensive policies: light cars, 85s.; Morgans, 75s.; immediate repairs permit. Wrigleys, Lancashire's Premier Motor Insurance Brokers, The Corner, Houghton St., Southport. 350-6616

PARTNERSHIPS.

FACTORY premises offered free of rent for 3 years, 32 miles from London, 3,000 ft., with large yard, by a gentleman, practical, with a view to working partnership. Box No 1023, c.o. "The Light Car and Cyclecar." 345-9537

PATENT AGENTS.

INVENTORS advised free. Write for free handbook, King's Patent Agency, Ltd., 165 Queen Victoria St., London E.C. zzz-376

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LIVERPOOL RADIATOR CO., skillful radiator repairers at economical prices, makers wings, bonnets, oxy-acetylene welders. Fontenay St., Liverpool. Trade 367-888

G.W.K. radiator, £6 10s. or offer, perfectly sound, as good as new. Box No. 1020, c.o. "The Light Car and Cyclecar." 345-6511

RADIATORS made and repaired, wings, bonnets and petrol tanks, cheap, prompt and efficient. Alford, Kimber and Co., 7 Earl's Buildings, Featherstone St., City Rd., E.C. 1. Telephone L.W. 9071. Trade 357-945

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CAR repairs of all descriptions and to any make; high-class coachwork, painting, etc.; inquiries invited. Swift of Coventry, Ltd., 132-134 Long Acre, W.C. Trade zzz-401

N.W. LONDON district. Repairs of every description undertaken. Apply, The Daleham Garage, 37 Daleham Mews, Belsize Lane, Hampstead, N.W. 347-179

RUSH repairs. We undertake to repair or overhaul your car thoroughly in the quickest possible time. Estimates of cost and time required submitted at once. Gear cutting, etc., undertaken. Smith and Hunter, 74 Gt. Portland St., Mayfair 7078. 345-905

REPAIRS, overhauls, any make, turning, scr.-w.-cutting, etc.; Morgan improvements a speciality. Write for particulars, Cranbrook Engineering Works, rear of 204 High Rd., Wood Green, N. 22. 348-6532

SHIPPERS.

COLONIALS. Turner Brothers, 134 Upper Thames St., London, supply and ship light cars, motorcycles and accessories, inclusive prices. 382-37

SITUATIONS VACANT.

JUNIOR clerk required for spare parts department, some knowledge of motor parts essential, good opening for smart youth. Apply by letter only, stating age, experience and salary required, to Auto-Carriers (1911), Ltd., 181 Hercules Rd., Lambeth, S.E. 345-907

GENTLEMAN required, capable of organizing sales department of syndicate handling patented motor specialities, big money for the right man, small salary and share offered, state age, experience and amount of capital at command. Box No. 1031, c.o. "The Light Car and Cyclecar." 345-6658

TUITION.

MOTOR TUITION. The British School of Motoring, Ltd., gives the highest standard of training in driving, mechanism and repairs for the lowest fees in England. Call or write for full particulars, The British School of Motoring, 5 Coventry St., Piccadilly Circus, W. zzz-91

TYRES AND TUBES.

TYRE shortage? Not a bit of it. We can supply all sizes, with one or two exceptions, from stock. 550 by 65 and 700 by 80 covers available. All inquiries promptly dealt with. Smith and Hunter, 74 Gt. Portland St. 45-955

SET Anderson's Ropewalk, 650 by 65, non-slip grooved covers and Dunlop tubes, only run hundred miles, owner fitting larger wheels, what offers? Singleton, Summerlands, Yeovil. 345-6556

ECONOMIC TYRE CO. We have the following special lines in stock for immediate delivery, on approval, carriage paid, against remittance.

ECONOMIC. 650 by 65 Goodrich safety, 66s. 6d.; 650 by 65 Avon, steel stud, 85s. 9d.; 650 by 65 Bates, special heavy 69s.; 710 by 90 Kempshall Antiskid, 101s. 9d.

ECONOMIC 700 by 80 Goodrich safety tread, 73s. 3d.; 700 by 80 Palmer cord, 3-ribbed (4-ply), 65s., listed 79s.; 700 by 80 Avon, steel stud, 103s. 3d.

ECONOMIC. 710 by 85 Palmer cord, 95s. 6d.; extra heavy oversize for 650 by 65 rims, 710 by 85 Palmer tubes, 16s.

ECONOMIC. 28 by 3 extra heavy Dunlop, for American light cars or high-power American combination; 28 by 3 tubes, good make, to fit, 10s.

ECONOMIC TYRE CO., 314 New Cross Rd., New Cross, London, S.E. 14. Phone, New Cross 1393. Repairs and retreading. Trade 345-946

WANTED—Cars.

WANTED, 1915 light cars, all makes, but especially water-cooled Morgans, very best prices paid for cars in sound condition. Maudes', 100 Gt. Portland St., London, W. 1. zzz-957

WANTED, Morgans, air and water-cooled, any type, spot cash down. Wandsworth Motor Exchange, Ebner St., Wandsworth (Town Station). Trade, 353-74

WANTED, Humberettes, air and water-cooled, spot cash down. Wandsworth Motor Exchange, Ebner St., Wandsworth (Town Station). Phone, Battersea 337. Trade 353-75

THOUSANDS of cars wanted for cash, only late models, cash waiting. Storey and Co., 118 Gt. Portland St., London. Trade zzz-203

DO not sell your car elsewhere until you have offered it to us. We are by far the largest light car buyers in Great Britain. We offer exceptional high prices. We pay you cash on sight. Percy and Co., 319, 321, 325, 337, 374 Enston Rd., London. Phone, Museum 1337. Trade zzz-556

AT once. Any make of light car or cyclecar, any condition or appearance, best offers. Gerrard Engineering Works, Ltd., 91c Dynevor Rd., Stoke Newington, N. 16. Telephone, Dalston 3097. Trade zzz-786

GENUINE inquiry wanted for shipping abroad quantity of light cars and cyclecars, any make, description, condition immaterial, any number wanted, more the better. All offers replied by return. Hurlin, 91c Dynevor Rd., High St., Stoke Newington, N. Phone, Dalston 3097. Trade zzz-737

GOOD prices paid for any make of light car, any condition, not earlier than 1914. Full particulars and cash price to B. S. Marshall, Ltd., 17 Hanover Square, W. Trade zzz-3

CYCLECARS wanted immediately, condition no object, good price given for runners. C. B., 10 Peshurst Rd., London, E. 9. Trade zzz-141

WANTED—Cars—(continued).

WANTED, any make of light car (not earlier than 1914) bought for cash or exchanged. Nottbeck, 37 Turnham Green Ter., Chiswick. Trade zzz-183

WANTED, light car, good make. A. Davey, 8 Osborne Rd., Clifton. 350-d641

H. MERGER LD., 53 Chancery Lane, W.C., will purchase for spot cash any light car of recent model. Best prices given. Representative sent with bank notes any distance on receipt of particulars. Bankers, Lloyd's, Holborn Circus, E.C. Trade 349-413

WANTED, Morgan car, combination motorcycle and light car, good prices paid. Burrows, 97 Sheffield Rd., Earsley. Telephone 160. Trade 542-d631

25 BONUS to anyone giving information as to where suitable light cars can be purchased immediately at a reasonable price. Write in confidence, Box No. 426, c.o. "The Light Car and Cyclecar." Trade 349-498

WANTED, a light car, 2-seater, in first-class condition throughout; no dealers by request. 37 Daleham Mews, Belsize Lane, N.W. Trade 347-4976

ANY light car or cyclecar from private owners, distance no object. Marsh and Son, Ld., Southport. Trade 353-628

WANTED, new light car; send price and delivery date. Elshpik, 7 St. Mary's Rd., Golder's Green. 345-1353

WANTED. We will pay exceptionally high prices for any good 2-seater, 4-seater and interior-driven cars, also landaulets, immediate spot cash. Write, phone or call, the Largest Automobile Buyers in the United Kingdom. George Newman and Co., 307 Euston Rd., London. Phone, Museum 1563 and 9. Trade 391-414

F.O.C.H. (Fair Offer Car House). If you wish to buy, sell or exchange a car, get on to us at once; cash in every instance; our name implies our business methods. 5 Heath St., Hampstead, N.W. 3. (near Hampstead Tube Station). Phone, Hampstead 3752. Trade 355-777

WANTED, Morgan, any model, not earlier 1914, also delivery date and price 1919 new model. Chaston, Blackwood, Mon. Trade 346-1596

WANTED, cyclecar, in good condition, G.N. or similar make. Watts, 122 Dalberg Rd., Brixton, S.W. 345-e227

PRIVATE gentleman requires new Standard, Singer, Calthorpe, Calcott, Morris-Cowley or other good light car for immediate delivery. Agents not having all their early deliveries allotted, please write Box No. 892, c.o. "The Light Car and Cyclecar." 345-840

STRETTON and SMITH are immediate buyers of cars of reputed make. It is acknowledged that they pay the highest prices. 23 Woodstock St. (off New Bond St.), W. 1. Trade 345-886

WILL pay liberal premium for delivery of new car within 3 weeks, or good price for second-hand 1919 model, any make. Box No. 1017, c.o. "The Light Car and Cyclecar." Trade 346-904

CASS'S MOTOR MART, LD., require new cars.

CASS'S MOTOR MART, LD., require modern second-hand cars.

CASS'S MOTOR MART, LD., urgently require new and second-hand cars, all types, best prices paid for high-class cars. Send full details and arrange for our representative to call; distance no object to secure genuine business. 5 Warren St., Euston Rd., W. 1. (Tel., Museum 623), and at 243 Brompton Rd., S.W. 3 (Tel., Kensington 2194). Trade 345-891

WANTED for immediate use, A.-C. car, 2 or 3-seater, in good condition, not earlier than 1914. Write particulars and where it can be seen to Le Grove, 21 Sidney Rd., Forest Gate, E. 7. 345-894

WANTED, Horstmann or similar small car, condition immaterial if engine sound. Particulars to Efford, 15 The Mansions, Hillfield Rd., N.W. 6. 346-914

G. L. FRANCIS and CO., 169 Shaftesbury Ave., will give very high prices for any well-known modern car; open or closed, must be of recent date and in good condition. Phone, Gerrard 3268. Trade 345-909

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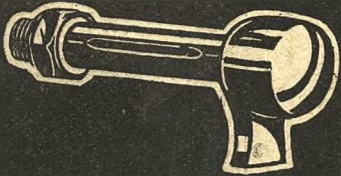
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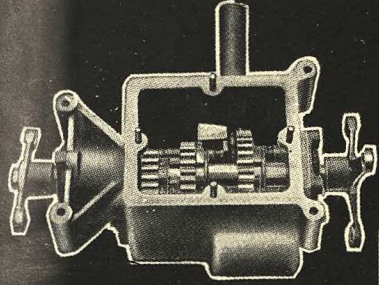


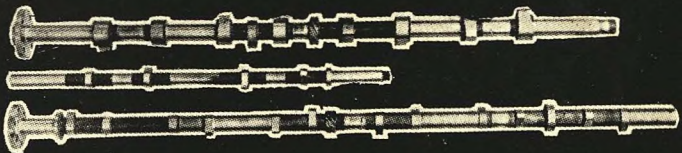
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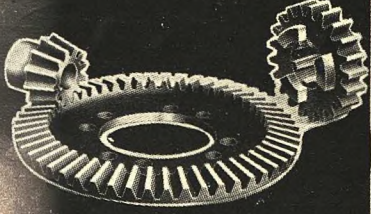
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