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Every single Fighting and Bombing Aeroplane that left the British Isles was equipped with PALMER CORD TYRES and PALMER LANDING WHEELS.

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SANKEY WHEELS FOR LOIV PRESSURE TYRES. We are now manufacturing Sankey Patent Steel Wheels in the following sizes: $715 \times 115,730 \times 130,775 \times 145$. We can How sive immerfiale delitery of these wheels to suit allears JOSEPH SANKEY \& SONS LTD., Hadley Castle Works, Wellington, Shropshire. -Phane: Wrellmaton, Sirnbu. G6. 'Grames. "Satiles. Wellingtam. Shirnbs." London Office Mr. R. Jenkina, Uleter Chambera
$A_{4}$ cdicetiser, and you, and assists the small car movement generally.

It's becoming a regular code wnown on the This name so well known on
road; For whatever the Trial, There can be no denial,
If theres's prizes about, they're for
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## Scottish 6 Days Two RHODES

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Result:-


Prior 1924 Record:-
32 Eniries. Awards-11 Cups, 24
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That's just like the Rhode-the car that wins all the prizes-the car we want you todrive. Any RHODE Agent will demonstrate.
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The G.IV.K., always exceptional value for money, now becomes irresistible. Pounds instead of guineas! that means a saving of 410 even on the cheapest model. You still have the same quality. the same splendid efficiency and simplicity. Why accept without question the compromise of a gear box? Why face the trouble of "tricky" gear changing, and the added expense of unnecessary weight, when the G.W.K. disc drive solves the problem? Have "a gear for every gradient," operated as easily as a brake lever. Write a, soday for full details of all G.IV.K. modcls.

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Akent: Caphi. Rich rad Twelverreen. Fi \& P. Van-
dervell. 199, Piecadilly. W. 1 . Standard Model $£ 200$ $10.8 \mathrm{~h} . \mathrm{p}$. Two-Seater Coupe Model $£ 250$ 10.8 h.p. Four-Seater


THE DOG and the OYSTER SERVICE
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## The ROVER EIGHT £ 160



This mos! popu'ar little crr it supp ied with two or four-seater bo ies me the same price. The two-scater has a dickey seat for two. Theiecart have dynamo lighting. and a most effe:ent all-weather equipment. For twelve pounds axira a itarter can
be filted, this includes a mueh larger batiery and dynnma. A speadomeler ard be fited, this includes a much larger batiery and dynmma. A aneedometer ard
clock, rogether withreal lemher upholat ry.can befited to anymodelloptwelvenoundi. The Rover Nine in, fitted with a lcureslinder engine havirg overhead enclosed valver. The price is $\mathbf{x} \mathbf{8 O}$ ler both two and four-icalers and exras are the same as lor the eight h.p. car. Deferred Terms arranged to suil you.


The Morgan is the fastest and most economical sporling mount oblainabl Tcuring and Family models are also upplied lor Iamor apeeds but novisis ing ithe same wonderful dexree of cconomy, Comolete cataloguc sent on requent. In the
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$\mathscr{E} 190$

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EVERY MODEL (except the Grand Prix, supplied without starter) is equipped with Starting, Lighting, Speedometer, Clock, 5 Tyres.
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Sole London Distrilutors.
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## Hampzon

## Do you remember Nailsworth Ladder ?

and how a certain car toyed with this notorious 1 in $2 \frac{1}{2}$ gradient. literally crowded with passengers? That was the Hampton, the car which to-dny is never happier than when "in the collar."
A sound engineering job aptly describes the chassis, and a fine example of the coachbuilder's art -the body, the two combining 10 make a light car of distinctive deporiment with a capacity for faithful service unexcelled by any other production.

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Specification of 10 hp . 4-Seater
J.cylinder, overhead valves, $63 \times 100 \mathrm{~mm}$., t-epeed gearbox, right-hand control, electric lighting ard slarling. dynamo gear-driven, no belts, double wind creen, Enots grease system, real leather upholslery, Dunlop $x \in 98$ full equipment of tools. Complet: Iax - £ 10

10 H.P. MODELS
complete with fourwheel brakes and balloon tyic: :
2-seater

- 295

| 2-seater | - | £275 | 2 -seater |  | £295 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 4 -seater | - | £298 | 4-seater |  | £318 |
| Coupe |  | £330 | Coupz |  | £350 |


 SEAT WHEN THE ROADS ARE ROUGH
ABRIEL Sumbers smooth away the jolts and jars by checking and controlling the rebound of the car springs.


Simple and effective, Gabriels allow the springs to work naturally on the closing movement, but retard both abrupt and excessive expansion.
Ash for Descrintive Folder-ll's free on request. lorall Cars from $£ 55 /$ perset of four.

## SNABRELES <br> Rebound Shock Absorbers

BROWN BROTHERS LIMITED, GREAT EASTERNSTREET, LONDON, E.C.2. 118 , George Street, Edinburgh, and Branches.

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entered, and they were awarded 11 Gold Medals!

There are cars that are speed-mongers-generally uncomfortable. There are others that are luxurious - generally fat and lazy. Some are the freaks -they make a noise about nothing. Others - just ordinary. Aud the ideal? Well, for the all-round qualities that make for really good motoring - speed, power, fexibility, smoothness, comfort, beauty of line - the Riley i; hard to beat, very hard to beat. Also, there is Rilevability -
and you can enjoy it too!

## A Review of Recent RILEYABILITY

Rileyability! By now you should know the meaning of 1 his strange word if sou are a Riley owner you will have experienced it. if you know a uythiug about Rileys you will undoubtedly appreciate its application. Rilcyabilaty-the super-reliability of the Filey! Aud isu't that perfectly justifiable? Jook at our record intherecentclassictrials. Call it be approached? Is there another body of mensoenthusiasticabout
the car of their ckoice as are the Riley owners? W'e think not. Therefore, in any consideration of purchase, the Riley-the famous Fileven/40 - must euter.

## 3 Rileys <br> Land's End to dohn o'Graats there were 

entered and
each won a Silver Cup! Official car also Complimentary Award

## And in the <br> Scottish 6 Days

there were
2. Rileys
zand ine saiced

## 2 Silver Cups

being the only car with two or more entered to gain Highest Awards!


An 11 h.p."Standard"'"Canley" 2-Seater
at Moreton-in-the-Marsh,Gloucestershire.


The small adecrtisement columns of "The Light Car and Cyclecar" form a unique mart for the

## The Grand Prix of Europe

 At Lyons, Sunday, Aug. 3rd, 1924, Course 506 miles, again WONon SUPERRFLEX LOW PRESSUREE TYRES



4th
Wagner. ALFAROMEO, 7 hr .25 min .10 ser .

History repeats itself. Last year this Race was won on Pirelli Racing Cords. This year on Pirelli Superflex Low Pressure Tyres. This is the first International Motor Race to be won on Low Pressure Tyres.
Identically the same tyres in quality and construction with non-skid treads are available to the Motoring public for use on private touring cars. Prices are the same as those charged for balloon or comfort tyres of other makes. Full particulars will gladly be supplied through your Dealer or direct from



The Argyll 12 h.p. engine has been aptly described as "wonderful" and one that grows in popularity as motor car buyers get to know about it. The body-work is roomy, giving ample leg space and easy seating accommodation without crushing.
Anyone who will try it against other cars of its class will see at once the real reason for any little disparity in price.
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 sure criterion of a car's value. Swift owners are all satisfied motorists, but Swift reputation is not miraculous. It is the result of the design, workmanship, and materials that have characterized the Swift from the earliest days of motoring.

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Maps of the Road in strip form, showing the surrounding country on a sale of 3 miles to the inch. with a contour plan of the gradienis. Roads covered: London to Bath and Brislol: London to Southampion and New Forest: London to Bournemouth and Exeter. 1s. each net: 1s. 1łd. each post free.

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Modified Brescia chassis, 4-cylinder engine, $69 \times 100$, ball $b$ a aring crankshaft. latest type stee ing, shock absorbers, dishboard, etc., etc. Complete with lighting and starting equipment, spare wheel, and tyre and tcol kit -

Chassis as above, equipped with standard type two or three-seated body with speedometer, electric horn and side lamps

Sports Model Brescia chassis, double magneto ignition, available in either of three lengths wheelbase
£475 \&330

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He will tell you that
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(Praprictors: Pritchell \& Gold and E.P.S. Company. Led.)
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50. GROSVENOR GARDENS, VICTORIA-LONDON, S.W.I.
Telaphoue:
Vicroria $3 \dot{c} t{ }^{2}$ (t lines).

DON'TA.B.C. 1921 , Sparts,
kev, 2 seater, dic-
detachable whés. syare, triges wes cood. all act cessories. nluminiuin body, upholstery. paint. eic., first-class, exceptionalls anari and lass, laxed, 89 10a. dowa and 10 colial paybienti, or cash 2 ges. CALCOTT, 1917 i $10.411 .8 . \cos ^{2}$-acaler, dickey, dynamo lightiog, delachable cessorice, taxed, upholsters, -paint, hood, olc, sery sood, in firss-class con: dition throughoul, rery 5 marl and ra pasments, or cash $£ 68$.
CALTHOAPE, $2917,10.4 \mathrm{~h}, \mathrm{n}, 2-$ seater, dirkey, dynamo lighling. de. tachable whecls. apare, 1 yr re good, all
accessories, paint, hood, very good, many extras, whole in excellent condition eliroughoul igs. caceptionaly equal paymenta, or cash cige. CIYROEN, $1920,10.4$ hJu, chummy model, 3-seater, dynamo lightiag and
starter, detachable whecis. SNare, tyrea good, ull accessories, apohimht, ixxed, paint, hood and uphowsery previcel,
 down nad 10 equal paytumbla or cash $\varepsilon 95$.
HILLMAN, $191610 \mathrm{hn}, 2$ seater. dickey, dynamo liching. Uutachabio Wheels, apare, ${ }^{\text {tyses }}$ ters soonies. hood and paint vers good onssories. hood and paint wis good, cal condition, resy imart, reliable car,
eg 10 . down and 10 equal pas monls, or cash $£ 65$.
MERCURY, $1920,10 \mathrm{hr}$, 2-kenter, aunk divkey. dynemo lighiting, delach. aberatories, just completely renainted
 doxn and -O cqual paymeata, or cas $\leq 68$.
PEUGEOY (Babs), $6.4 \mathrm{~h} p$ coupo, 2 acales, electric lighting. Wire nheels.
tyres new; all accepsories, Bedford cord mpholsery, Iramelers windows, painl, cic. very rood, in Brat-class condition throughout, exceplionalls sanart, rery
economical litile coupa. o $510 s$. down economical litile coupn. © 5 10s. down
and 10 oqual parments, or cash $£ 55$.

# BUY!! OUR LISTS OF SMALL CARS all below \&f 100 WHY PAY MORE? 



SINGER, 1917, 2-seater Dicky £65

\author{

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VISIT OUR NEW SHOWROOMS 'BENMOTORS," 30-32, High Street, Wandsworth, LONDON, S.W.18.


 G. N., 1921,87 hp. S-anicr, dynamo
Inghting. delacbablo wiro whects.
gnare epare, lyres very Eood, will accessories,
inyed, many extras, paine, hood and
upholatery very good , indo in in class condition throughout, exception-
ally 10 mqui payments, or cal, $\mathbb{C} 58$.
SINGER 10 , 1920 , dran
dyname dynamo lighting, starter. dectachable cessory, spare, fyres very good, all ac-
Bedford cord unholshery
frameless wandowr, pillit ind hood very cood, exceptionally smare and re.
liable, $8 \mathbf{8} \mathbf{1 0 9}$. down and 10 equal Paymenis, or cash 885 .
SiNGER 10, 1917 linl dron heal whecls, spare, ty2 fu: all acces-
sorics, taxed till Deceruber, inalior up-
holetery, hood and paint ingoratched, excentionally smart and reliable,
c 7 10s. down and 10 cqual fosy

 cash CGS.
SINGER SINGER 10, blo whecls ing and :mati, Ankey

 Maymeath or hany E 85 . ald in first-chas nizchathest condhetion Terms. - from on bath ol itce pur period not excedjus 12 nownhe. Pur Delivery.-Ahss:lyrn in tio country.
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Send for this free booklet containing useful motoring information and particulars of many practical handbooks, mags and journals.


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## Features of this

## week's issue of " The

 Motor," August Eth.MOTOR ADVERTISEMENTS CRITICISED.
Trenchant Comments by a Member of the American Advertisers" Delegation.

SOLUTIONS TO EVERYDAY PROBLEMS.-I.
A New Series which gives Useful and Practice! Information to the Ownet driver.

A COMPLETE TOUR OF THE ISLE OF MAN.
An Article dealing with the Manx Island as a Motor Touring Centre.

THAT REPORT!
Higher Taxation for Motorbuses. Only Officials sign the Man Report-Otherwis: General Disagreement.

NATURE LORE FOR THE MOTORIST.
THE AIMS AND OBJECTS OF FORCED INDUCTION.

Will the Supercharger become generally employed.
A NEW ROTATING-POLE MAGNETO.
An Instrument which embodies a Stationary Contact Breaker and Automatic Advance.

MAINLY ABOUT SMALL CARS.
THE ROAD TEST OF AN UNCONVENTIONAL CAR

MECHANICAL DETAILS OF/ THE GRAND PRIX CARS.

A Summary of the Leading Features in Design.
FIRST FULLY ILLUSTRATED REPORT OF THE EUROPEAN GRAND PRIX AND THE GRAND PRIX DE TOURISME.

BROOKLANDS BANK HOLIDAY MEETING.

Amongst the contents of next Tuesday's "Motor" will be the following :-

THE CASE FOR THE SPRAG
WHEN DESCENDING HILLS.
LESSONS OF THE GRAND PRIX.
SOLUTIONS TO EVERYDAY PROBLEMS.-II.
TOURING IN SCOTLAND.
AN INTERESTING LEATHER-COVERED BODY.

The small advertisement columns of "The Light Car and Cyclecar" form a unique mart for the disposal of all goods of interest to small car users.


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## 146 miles per hour

On
K•LG $\mathbf{G}_{\text {plucs }}^{\text {manc }}$
At Arpajon, near Paris, on July 12 th, Mr. E. A. D. Eldridge, driving a 300 h.p. F.I.A.T. car, broke the following World's Records:-
World's Flying Kilo - 146.002 m.p.h.
World's Flying Mile - 14589 m.p.h.
World's Standing Kilo 85.47 m.p.h.
(Subject to official confirmation.)

Sole Manufactur.rs:
THE IROBINHOOD ENGINEERING WORKS LIMITED,
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THE NIGHT With the Oak Hotel, Surbiton, as the starling point, members of the Surbiton Motor Club set RIDERS. out on Snturdsy night for their annual reliability run to Barnstaple, via Porlock, Lynton and Beggar's Roost. W, G. Hall (Palladium) is seen waiting for the signal to go from the timekeeper on the left.


Not So Simple !
Few light car owners realize the thought and care which are given to the design of their machines. An article entitled "Theories of Steering " in this issue will give them some idea of the claburate requirements which must be met in the design of a single assembly

## Salety White Lines.

It appears that Kirton, in incolnshire has not abandoned the safery white hene; in fact, it now appears with an amplification in the shape of arrowat each end. directing traffic to the left of the line. The practice has been co ed by other villages in the same locality

Three Prize-winners.
Three competitors were awarded the mize, an 8 h.p. Humber saloon car, given hy Humblen. Led., in the competition or unnized in commection with the hospital carmival in aid of the Coventry and War wickslure Hospital. At a meeting of the surces:fut competito:s it was decided to kell the car and share the proceeds. No 611 . Vol. XXIV.

## LIGHTING-UP TIMES

for Saturday, Auguat 9th, 1924.

| London | 2.3 | Edinburgh | 0.32 |
| :---: | :---: | :---: | :---: |
| Newcasile | 922 | Liverpool | 922 |
| Birmingham | 9.13 | Bristol | 9.13 |
|  | lin | 9.35 |  |

Lighting-up time(rearlights) in England, Wiales. Scotland and Ireland is half an hour after sunset.

Moon-Full Moon, August ifth.

## Disabled Drivers.

The Public Control Committee of the London Connty Council on street accidente has issued a report in which it is stated that the Minister of Transport has under consideration the question of amending the law so as to debar those suffering from a physical disahility from obtaining driving licences. Such an amendment, however, would he decidedly unfarr in many individyai cases.

## The Latest Entries

The entries received for the 200 . Mile Race up to Wednesday aftern on last are as follow:-1.500 c.c. class-T. L. Edwards, D. E. Calder and H. IV. Purdy (Horstmans), A. Huntley Walker (Darracq, three entries), E. G. A. Lefrere (Bugatti), 'T'. G. John (Alvis, two entries), E. R. Hall and L. M. Martin (Aston-Martins), S. F. Edige (A.C.), S. H Newsome (Warwick, two entries), 1. ODay (Bugatti, three eutries). N. B. Newton (Newton), N 13 Newton (Ceirano). F. N Pickett (machine unnamed), J. G. Y. Thomits ilhomas Special), G. Duller (Thomas special), P. L. Densham (Bugatti). B. S. Marshall (car mammed). 1,100 c.c. classH. F S. Morgan (Morgan, two entries), A. Bovier (Salmsun, three entries), E. B. Wain (Morgan). 750 c.c. class-E. C. Cordon England (two ethries). I. Waite three entries). (f Hemsls, J I' Dingle. A. Braid and A. Selby Bigge, all Austin Seveh, entries Entries clesed yesterday at urdmary fees

## Austins' Success.

Three Austins competed in the il C.C.C Land's End to John o'Gront's Run. and all succeeded in gaining maximum nwards. Two were Austin Sevens.

## French Hotels Full.

Inteading visitors to France are ad rised by the A.A. to reserve rooms at hotels in advance, especially in the big towns and touring centres. A telephone call on the previous day is generally sufficient to ensure accommodation being reserved.

## A.B.C. Repairs

We are advised hy Mr. R. S. Inglis that he has arranged to cater for general service, including special tun ing and all classes of repairs for $12 \mathrm{~h} . \mathrm{p}$. A.B.C. light cars at $20-21$, Williams Mews, Stanhope Street, V.1. Mr. Inglis is an A.B.C. specialist. and all work will be executed, he informs us by experienced A.B.C. mechanics.

## In Foreign Climes.

A Humber Eight owner, writing from Sydney, Australia, expresses the highest appreciation of the $8 \mathrm{~h} . \mathrm{p}$. model. and states that he has now covered 2,000 miles over exfremely had roads and has not had a second's trouble. Referring to the Australian roads, he states that they are the worst in the world. As an interesting follow-up to the above, a Rover Eight enthusiast writes fron: Rhodesia and speaks in the highest terms of the air-cooled car's performance.

## New Shock Absorber.

A friction-type shock absorber, the special feature of which is that the damping effect is progressive, is a new accessory to be marketed by Industrial Rubber Products, Ltd., Brook House, Totten. ham Court Road, London, W.1. The new shock absorber which is to be known as the Excelsior will be sold at a competitive price, but the exact figure is not yet arailable. A novel point in the construction is that a Soating disc is provided between the frictional surfaces, this dise having projections which may be engaged by a special tool which allows the degree of friction to be easily determined.


MOTOR TERMS TRAVESTIED. No. 24-Query : What is the Term? We offer a prize of Onm Guinca for the m:st apt motcr lam reccived. No sols tion will be judged betore 11 a.m. ( $n$ Ti estay Nex!.
TTe solution to innt rreelis meture will be found in "Around the Trade.")

Pateley Bridge Hill-climb Abandoned.
The hon. secretary of the Vorkshire Automobile Club informs us that the committee of the club has decided not to hold the Pateley Bridge hill climb this year.

Speed Trials at Birkdale.
The third and final race meeting of the year of the North Liverpool Motor Cycle Club will be held to morrow, August 9th, the venue being the Sands, Birkdale, Southport. The event is open to three-wheel cyclecars, and the proceedings will start punctually at 1.30 p.m. Entries have been received from several well-known drivers.

## Summer in ltaly

That this season of the year is unsuitable for a holiday in Italy is entirely disproved by the pablication of a book entitled, "Summer in Italy," written by Major W. Stormont. FRGS. The book is in altractive form and contains numerous pictures and maps covering the whole of the holiday masints in Italy. It niay be obtained from the Italian State Railways and State Tourist Ifepartment, 12, Waterloo Place, Loudon. S. W.1.


A FRIEND
IN NEED.

Sand yachting at Birkdale is a popular pastime, and the cyclecar a very useful adjunct. Incidentally, an o'd four-wheeled cyclecar chassis can be rigged up admirably as a sand yacht.


[^0]Estimating Petrol Consumption. A novel competition has been inaugurated he the Liverpool hranch of the Enited Commerchal Travellers' Asenciation, entrants leing required to - stimato the time it will talke a new

## Roadside Trees.

The Government have decided to in Hoduce a Bill at an early date dealing with the planting of roadside trees. Mr. (iosling made this announcemeint reacently in reply to a question by


The new four cylinder Rover Nine chassis can now be supplied with Weymann saloon body, the price being $£ 235$

9 h.p. Bayliss Thomas four-sealer, carryme thre passengers, to consume a gallon of netrol at an average spred of approximately 20 mp .h. Full details can be obtained from the Competition Ofices, U.C.T.A. Cooper's Buildtion Onices, U.C.T.A. Cooper's Build-
ings, Church Street, Liverpool. S. W. Plilpott (Aotors), Ltd., of Liverpool, have aliered to buy tho car from the wimner for £200. The whole of the proceeds will fu to charities without any deductions.

Holiday Touring Articles. It this season of the year we are always inundated by articles recounting the juys of readers' holiday tours, and, "hile these are invariably most interesting, they arrive in such large numbers that sometimes a dozen have to be re. jected in a singlo day. Readers aro asked to note that before sulmitting holiday articles they should communicate with the Editor advising him of the make of car thoy used, the district loured and giving a synopsis of the proposed article, lagether with a specimen photograph. By doing so they will asoid disappointmert.

## ONE INSERTION SECURES A BUYER.

19th July, 19?.4. "Thunks to my advert. of yesterday in "The Light Cur and Cyclecar' I huse already sold my cyelccar. Kindl! refund cost of second -and thirel insertions."

> J. G. H. Fiald.

Sell your second-hand car quekly by advertising it direct to small car enthusiasts through

- The Light Car and Cyclecar.
(See particu'ars o' Special S:heme in Snall Acivertisement Section.

Major Ronald Willians, and added that he was assured that the House of Commons generally would regard such a n:easure as non-controversial. Person ally, he was strongly in favour oi the planting of such trees.

## Now A.C. Service Depot.

A.C. Cars. L.td., have now opened a new service depot at North Road, Lonlon, N.17. It is being run on most up-to-date lines, and includes depots for every branch of service. North Road is easily reached, either via Camden Rond or C'aledonian Road, North Road itself being adjacent to Caledonian lanarl Tulse Station.

## North Road Improvement.

A notable improvement has been effected and a danger-spot removed in the Great North Road between Norman Cross and Wansford, where the main road from Northampton to Peterborough and the cast comes across. Previously the corner was absolutely "blind," but now an vely large piece of land has been acquired on the Northampton side and the road diverted across it.

## Another One-way Street.

An order came into force on Monday last, dugust 4th, making part of Mare Street, Hackney, a one-way road. The portion of Mare Street in question is a narrow part at the northern end from Amhurst Road to Dalston Lane, and traffic intending to take this part will in iuture be allowed to travel onlv in a southerly direction. Traffic wishing to proceed north will be diverted via Amflurst Road to Dalston Lane.

## PETROL TAX IS NOT IMPRACTICABLE." (MINORITY REPORT.)

$\mathrm{A}^{\mathrm{T}}$ITACHED to the main report of Ithe Departmental Committee (Ministry of Transport) on the Taxation and Regulation of Road Yohicles which has just been issued, there was a separate report in which Mr. Stenson Cooke, secretary of the Automobile Association, and Mr. Sidney Straker, representing the Sociely of Motor Manufacturers and Traders, record their grounds for dissenting from the main report. They report strongly in iavour of the substilution of a motor spirit tax for the present unjust h.p. tax. As our readers are aware, the majority report conveyed the view that the Commitles considered the oxisting method of taxation should be retained.
The following are some comments contained in the separate report and expressing the views of Mr. Stenson Cooke and Mr. Sidney Straker:

We do not feel justified in accepting the proposition that there should be unlimited progressive revenue.
"We are in entire disagreenent with the decision of the najority of the Commitleo as to the impracticability oi a motor-spirit tax."
"Wo are convinced that for the purpose of collecting from motor owners their required contribution for road costs a motor-spirit duty is an equitablo and practical method."
"It is our opinion that no satisiactory reason has been given for the re peal of the motor-spirit tax which was in force up to 1921.'
"Wo are strongly of the view that, given the co-operation of the Customs and Excise authorities, a sound method of motur-spirit taxation can be devised."
"On the question of loss to the re-
venue by persons deliberately evading a motor-spirit duty, we consider that undue importance was attached to remote possibilities of evasion.
" In our view sufficient importance Nas not attached to the strong objections of the motoring community-users and trade-to the continuance of a form of motor taxation which is manifestly inequitable to the individual owner, injurious to trade and a contributory cause of unemployment.
' It was clear to us on the evidence that no system of taxation for road costs could possibly be fair unless it was based on the actual usage of the road by each individual vehicle. In othe: words, the individual tax must vary in proportion to the extent of road usage.'
"It is our opinion that mileago, weight and speed are the main factors in the fair taxation of motor vehicles, and that the present system of motor taxation is inequitable in that it takes no account of mileage. In fact, the net result is that the greatest user of the road pays the smallest tax per mile."

We feel that the time has arrived when the Government stwuld appoint a Select Committee of the House of Commons, or a Joint Committec of both Houses of Parliament, for the purpose of investigating the present incidence of highways expenditure upon (a) the taxpayers; (b) the ratepayers; (c) special classes of road users; and (d) the owners of land, with a view to reporting: (1) whether the burden is equitably borne by the various classes, having regard to road usage and other advantages obtained; and (2) whether a fairer distribution of such burden can be devised.'

Aluminium Becoming Popular.
Judgin= by the fact that the A.C Sovereign model is now heing supplied with aluminiunt finisl. al all extra cosi
G.N. Booklets.

We are advised by G N Limiled, East llill, WVatsivorth, l_nmion. S IV. 18, that instruction bouklets and


## AS A

TRADE VAN. Two Clynos with commercial bodies, part of a balch of six, designed to carry A J S wireless equipment
of $£ 5$, this lorm of finish is becoming acreasingly popular, not only on account of the striking tout ensemble, but because aluminium is far casier to licep clean than the average owner driver imagines.

## Northern Hill-climb.

The Yorkshire Centro A.C.U. Hill. climb at Ringinglowe, twn and a half miles from Sheffield will be held on Sat urday, August 16 h, at 133 p.m. There will be two car classes, i.e., for machines up to 1,100 c.c. and unlimited c.c.

## More Plugs, Less Power.

At one time it was ronsidered that in certain types of cylinder head the fitting of two plugs-one of the jump-spark type-improved the power output, but with modern engines the duplication of plugs is not necessarily followed by any improvement; in fact, a recent lest of a well known sporting engine, which was run first with one plug and then with two, showed that the engine actually dropped 50 r.p.m. when the $t$ wo plugs per cylinder were in operation.
spare parts lists for all models of G.N cars are avallable from the address quoted at 1 s and 1 s . 6d respectively The company asks us to point out that they are always pleased to answet inquiries from all G.N. owners.

## Unrest at Leicester.

- How long are the police 10 hold Lecicester up 10 ransom by the weapon of the motorcycle police control? " aslis a local Leicester paper. This is only cne aspect of the unrest which is becoming manfest both amongst Press illid tradesmen as the result of the continued action of the police against mutorists.


## Weatherbound Sidecarists.

Observation along the main roads last week-end made it clear that ariong the cheaper passenger vehicles sinall cais are now numerically superior to sidecars. On Sunday, when there was first a threat of rain and then a steady de. luge, light car owners were enjoying themselies on the opea road, while owners of sidecar machnes were carsing the weather from their drawing-room windows!

The Traveller in France." The August issue of " The Traveller in France" includes interesting articles for the motoriat who is thinking of touring on the Continent

Standardizing Tyre Rims.
The Society of, Motor Manufacturers and Traders has now issued it datasheet form its recommendations for standardizing rims for low-pressure pneumatic tyres. The price per sheet is 3 d ., and application should be made to tire S. M.M. and 1., 85, Pal? Mall, London, S.W

An Opportunily for Inventors.
There is still a wide lield for lhe inventor of motor novelties and in this cornection an invitation is extended by the Notor Necessaries Co., Coohham, lierks., who will be pleased to consider tho manufacture of patented articies and to pay the invenims a reasomable royalty on any scheme which may be taken up.

Light Cars for Commerce. Increasing attentu: : licimg gisen in the fitting of commercial bodies to light car chassis, and the phatorlatith on this page shows two of the six Clyno vates recently ordered by the A J S Co. for the wireless branch of its activity. Tho cars are painted miaroon, and it is in teresting to note that side curtains and general equpment ive identical whl, Clyno standard moilels. The bodies are the production of Nessis. C. W 11 ay. ward, of Wolverhampton.

All About Electric Installation. E. and lf. N. Spon, Lid, are 10 be congratulated on the publication of a little volume which sliould be of the greatest value to motorists. It is en. titled "Electric Wiring Diagrams for Motor Vehacles," the author being Mr. Mortimer A. Codd 'The book consists of numerous large and exceedingly clear diagrams, showing the wiring adopted by different concerns, and as fitted to wellknown makes of car. The price is 3 s . 6d. net, and the publishers' address 57, Haymarket, London, S. WV. 1


THE A.G A. TRAFFIC BEACON

# PLAIN FACTS ABOUT SECOND-HAND BUYING. <br> THE PRIVATE SELLER AND THE AGENT-HOW PRICES ARE FIXEL— AGENT'S REPUTATION IS HIS GUARANTEE. 

RECEN'f correspondence in The Liyht C'ar and C'yclecar focuses attention on an asject of second-hand buying which is seldom dealt with, but which undoubtedly demands detail attention.
In a case which has been discussed a prospective mintorist, knowing very little about cars, was attracted by a low-priced secondhand wehicle, and furcl:ased it practically on the spot. The vendor was is private owner, and was justificed in selling the car as it stood and after an examination by the intendjng purchaser. The transaction having been (cimpleted, however, the buyer complained bitterly that he had been the vietim of his own inexperience, and had actually purchased a car which required the expenditure of no small amount of money in order to put it into what he cousidered to be proper work ing order
()ae must extend a certain meed of sympathy in sich a case, but undoubtedly anyone who frankly admits ignorance of such subjects is ill-advised to make a purchase without first having called in the services of one who is better informed.

In considering the buying of a scond-hand wehicle there is a number of important side issues which must be taken into account. The second-hand market
s made up of vehicles olfered by private owners and afents. To the uninitiated the former seem to offer the greatest possibilities, because, on the face of it, it would appear fhat the purchase price will not include agent's commission and v:erhead charges.

This is true, but it must not be forgotten that keen scllers often hase their prices on those fixed by the agents with the idea of poeketing "hat would be the agent's commission over and above the rockhottom market price of the vehicle itself. In contrast the agent realizes that he has to compele with a very wide market composed of private owners: he must perforce kep, his price as low as possible, therefore, commensurate with making a fair profit.

If it be supposed that an intending buyer believes that he can purchase a car more cheaply by replying to a private advertisement, !et us examine the conditions under which the transaction will be completed.

## The Private Vendor.

The average owner who intends to sell his car does nob, as a rule, spend a great deal on what may be dery necessary overhauls; but, on the other hand, he will probably smarlen the car's exierior to gain effect. Ois his first examination, therefore, the prospective customer is favourably impressed, the car "looks nice," the paintwork is not loo bad, the nickel-plating or brass shines brightly, and the whole car undoubtedly looks. ns though it is worth the money asked for it.

But appearances may be deceptive, and, no matter how smart a car may look, it stoould be remembered that polished filtings and clean paintwork are of minor consideration compared with mechanical efliciency. The buyer, therefore, should go to considerable pains to carry nut the ordinary tests, which should be applied with the idea of ascertaining

whether this etticiency is such as to warrant the advertised price.

It the end of his examination he will be in a good position to judge, but if he dues not possess the necessary technical qualifications ho will be well advised to place the matter in the hands either of a friend with such experience or, failing that, to engage an expert who makes such examinations his business.
From the foregoing it must not bo assumed that any slur is being cast on the private vendor who offers the car at what he considers to be a reasonable figure, invites examination, and is ready to give a trial run. No vendor could do more. The intending purchaser may take it or leave it; but, if he takes it, being fully satisfied in his own mind that his bargain is a good one, he has no reasonable cause for complaint afterwards.

## The Agent.

Turning now to the agent, it is to be regretted that al large section of the public-more particularly those with only a small amount of motoring knowledgeare suspicious. They argue that no agent can keep up expensive showrooms without making large profits ; they also hear whispers that clever but unscrupulous agents can doctor up cars so that they appear to be in first-class condition, whereas, owing to tricks of the trade, they have been merciy vetted" temporarily. Nothing, however, could be further from the truth-that is, provided the wouldbe buyer negotiates only with traders of standing and repute. 1 t the buyer is not well versed in mechanical knowledge, he is advised to obtain an independent and expert opinion, just as in the case of the private offer.
The question of the agent's price compared with that of the private seller has already been discussed, but it remains to be pointed out that in the case of every transaction the agent's reputation is at stake.

Nearly every large agent has, in addition to his showrcoms, a repair depot, where cars offered as second hand are examined and, up to a certain point, put in good order.

Summed up, then, the situation is as follows:The average privately offered vehicle is to be taken as it stands, is seldom overhauled before being offered, and is not often very much cheaper than a similar model offered by an agent. There are bargains to be had for those who look for them, and whereas the bona fdes of the private seller should be beyond suspicion, the buyer would have to accept the car as it stood.

In dealing with an agent he may have to pay a slightiy higher price, but he will have the satisfaction of knowing that the rehicle is backed by tho agent's reputation, and that most probably it has been earcfully examined and overbauled.

Prospective purchasers should not get the impression, however, that it is a bad plan to buy a car from a private seller ; in point of fact. hundreds of good cars are sold privatelyevery weck. The essential thing to remember before busing privately is to "ret" the offer carefully. If you distrust your own ability to detect a dud, have the "vetting" done for vou.


> DICKEY SEATS AND OCCASIONAL FOUR-SEATERS ARE FAR FROM IDEAL, SAYS THE WRITER OF THIS ARTICLE, WHO PUTS IN A PLEA FOR A NOVEL AND HITHERTO UNTRIED FORM OF TWO-SEATER BODY.

SIDECARS were invented because, in the earliest days of motorcycling, solo machines or trailers were found to be too unsociable. In later years, when sidecars came into common use, one of the principal advantages of the type was that a third passenger could be convenientiy, if not comfortably, carried on the pillion seat of the motorcycle, and this fact led to many motorists, before the war, using sidecar combinations instead of small cars. They found that a combination could carry four at a pinch, but that with the existing types of two-seater small car it was almost impossible to accommodate even one extra passenger.
Then came the dickey seat, which in its earliest days was usually a very crude and imperfect arrangement. The space was almost always cramped, little or no weather protection was provided, and the occupant found it extrenely uncowfortable except for short runs.
Dickey seats, of course, have since been perfected, and on many up-to-date small cars double dickey scats are provided, which afford just as much comfort in good weather as the rear seats of many fourseaters. On a rainy day, however, the dickey seat has always been recognized as very unsatisfactory; the occupants are exposed not only to the rain which falls from the sky, but also to occasional deluges precipitated from puddles, which have a habit of forming on top of the hood.

## Advantages and Drawbacks.

About three years ago small car motorists were astonished by the sudden very wide adoption of bodies variously styled as occasional fours, single shells, chummies and so forth. Nany of these might be described as providing the comfort of a fourseater with the discomfort of many early dickey seats legroom is often cramped, access to the rear seats is not always too easy, and the seating itself is often only very poorly upholstered.
The type, however, must not be disparaged ; many regard it, in fact, as distinctly superior to a twoseater and dickey, and it is beyond question that hundreds of motorists find it much more convenient and in every way more satisfactory. Where children are regularly carried, the occasional four-seater is undouhtedly the most satisfactory type of body for a light car.
It is the writer's intention. however, not to discuss bodywork which is designed regularly to accommodnte more than two people, but rather to denl with bodies which are designed to seat a thirrl person on comparatively infrequent occasions. Where such в20
is the requirement, an occasional fons-seater is not altogether satisfactory, particularly as cars fitted with these bodies can never possess such pleasing lines as those which are more essentially two-seaters.

Dickey scats, we haye said already, are excellent in fine weather, but quite the reverse when it is wet. It is clear that something is necred which affords to the third passenger the same comfort as that experienced by the occupants of the other seats, and without the discomfort of a dickey satat and the dis. advantages of an occasional four-seater.

## Clover-leaf Unpopular.

Closer-leaf Lodies of the type illustrated in one of the sketches on these pages have been in use for a considerable number of years, but they have never become popular in England. On the Continent they enjoy more popularity than at home, but they possess the disadvantage that, when only two peoplo are riding in the car, the passenger is more or less isolated from the driver, which is seldom a satisfaitory state of affairs from the point of view of the average buyer of a ear which is intended to be used principally as a two-seater.

It is suggested that a design which is better than the clover-leaf, the dickey seat or the occasional fourseater is a staggered-seated two-seater provided with an occasional seat, which may normally be folded flush with the floorboards, and which will nccommodate a third passenger in the manner depicted in the front-cover picture of this issue.

In this arrangement all the passengers are accommodated under the hood, all are comfortable in wet weather, and each is sufficiently near to the others to be able to converse comfortably without shouting. With a suitable design, moreover, every occupant has plenty of legroom, and there is no reason why even the third passenger. who sits in the forward position, should not be provided with a seat which is just as comfortable as the arerage dickey seat or back seat of an occasional four.

## A Sense of Freedom.

Used as a two-seater, a body of this kind possesses several advantages, and conversation between driver and passenger may be carried on just as easily as when the two are seated exactly side by side. With staggered seating both driver and passenger have plenty of elbow-rnom, even with a fairly narrow body, and this. together with the fact that the passenger sits a trifle behind the driver, and is consequently unohtrusive, seems in some peculiar way to give the driver more confidence and a greater sense of free-

## JHETHITD PASSENGER (conld.).

dom than when he is handling a car with side-byside seating. This may seem pecu!iar, but it is nevertheless a fact, and most drivers who have handled a two-seater with staggered seating will admit that they feel much more at ease at the wheel, especially in traflic, than when they are handling a similar car with conventional seating arrangements.

The chief disadvantages of staggered seating are that it is diffient in winter for the driver and his passenger to share a rug, while, if the driver is in the haloit of smoking a pipe, the ash will probably hlow into the eyes of his passenger: but these two drawbacks are surely more than offect by the advanfages which have been already mentioned.

## Simple, But Strong.

If. shouki he noted that with hodies of this type bery convenient central-control levers can be arranged, as they may be brought well ait without being in the way of the passenger's knees, or liable to the enfolded thy the tail of his coat. An off side

$\stackrel{\text { A }}{\text { SERVICEABLE }}$ DESIGN

Clover-leaf bod ies of the type depicted accommodate three incomfort under the hood, but they have never been very popularin England
door is hardly needed, as with the driver normally seated he can enter or leave his own seat behind the Wheel from a near-side door withont disturbing the passenger or being compelled to climb over his knces. This, from the coachbuilder's point of view, is a distinct advantage, as the more doors which a body has the more difficult it is to buidd, the heavier is its construction, and the less its strength. The very great strength of the apparently frail structure used as is body on most racing cars is largely due to the fact that no doors are fitted. The top rail of the body forms a " backbone" for the car.

## Standing Room.

Most small two-seaters possess the disadvantage that one feels cramped in them, and, owing to the close proximity of the facia board to the forward edge of the scat cushion, it is often almost impossible to stand erect on the floorboards. Those who have become accustomed to such bodies may consider it quite unnecessary erer to stand erect in the car. but they would find, nevertheless, that, if they owned a car in which such a proceeding was possible, the impression of roominess which it conveyed was distinctly pleasing.
There are those, however, who would no doubt object to permanently staggered seating, and for their benefit the writer would put in an earnest plea for a type of two-seater body which incorporates two independent adjustable sliding seats, the legroom at ful! extension being suitable, say, for an $8-\mathrm{ft}$. occupant to be comfortable. It is not suggested that the
need for carrying such giants would ever exist, the height being quoted mercly to indicate dimensions.
With this arrangement there would normally be a space of about a foot hehind the backs of the seats, and this, it is suggested, would be most useful for


Many small two-seaters are too cramped. There is not always enough elbow-room when two big men are in the car. See the illustration below.
accommodating small parcels, golf-clubs and similar impedimenta. By arranging for the seats to have folding backs, very easy access to the boot would be afforded, and the plan would have the further advantage that the lid of the boot could be a fixture, and could be easily and cheaply arranged, in consequence, to be water, rattle and dustproof.

To the best of the writer's knowledge no twoseater of this description has ever been standardized, yet it is apparent that it would be a type that could not fail to make a very wide appeal.

## Numerous Advantages.

A small car body of the type advocated would possess luggage accommodation akin to that available with an occasional four-seater; it could seat a third passenger on an occasional seat in comfort under the hood, and it would embody all the advantages of staggered seating which have been already enumerated. In addition, the driver could sit either close up to, or far away from, the steering whecl, according to his choice, while the passenger, when only two were riding in the car, could also arrange his seat to suit his convenience.
It seems that the trpe of body which has been outlined is one to which manufacturers of small cars might very well turn their attention. The cost would be slightly dearer than the two-seater without dickey, but it should be much cheaper than a two-seater with dickey or an occasiona! four-scater.


With staggered seating there is plenty of elbow-room for driver and passenger, while a third passenger may be accommodated on an occasional seat.

# IN LAKELAND WITH A BAYLISS-THOMAS. 



> A LENGTHY TRIAL RUN IN A COMFORTABLE IO-2O H.p. CAR WHIICH PROVED CAPABLF OF SURMOUNTING, WITH A FULL LOAD. SOME OF THE MOST DIFFICULT ENGLISH TEST HILLS. FULL DETAILS OF THE AERFORMANCE ARE GIVEN.

TO complete 1,500 miles without any mechanical adjustments is an achievement of which any light car owner might be proud, but when the route lies over the tortuous lanes and precipitous passes of the English Lake District, and the car has to be driven to schedule, the daily muleage varying from 150 to 333 , the performance becomes particularly meritorious. Such, however, was the trip which we carried out in a $10-20 \mathrm{~h} . \mathrm{p}$. Bayliss-Thomas, and a more pleasant car for the journey it would be diflicult to imagine.

The car was fitted with an allweather four-seater body and 715 mm . by 115 mm : Michelin Comfort tyres, which added very largely to the comfort of so long a trip

The engine is a 1,247 c.c. monobloc four-cylinder side-valve design, with unit-construction centralcontrol gearbox, giving ratios of $4.5,8.9$ and 17 to 1 , reverse being 22 to 1, while a Ferodo-lined disc clutch and open propeller shaft with fabric universals transmit the power to the spiral bevel rear axle. Cooling is by the thermo siphon system, which, in conjunction with the large radiator, proved so efficient that it was very rare for the water temperature to reach oven the normal mark on the Boyce thermometer fitted to the filler cap

## Pump and Splash.

Lubrication is by a submerged pump, which forces oil to the magneto-shaft bearing, and keeps the bigend dipper troughs filled, while the main bearings and pistons are lubricated by splash. Both brakes operate on the rear wheels, the hand-control lever being conseniently placed. At the beginning of our trip we adjusted this brake-a matter of seconds only, owing to the convenient hand adjustment at the rear axle-and, in spite of the long and precipitous descents encountered, there was no necessity for further adjustment at the end of the 1,500 miles' running.
The Bayliss-Thomas $10.20 \mathrm{~h} . \mathrm{p}$. is essentially a car B22
for the family or business man who reguires reliability without the need for constant adjustment, and a road performance which allows high averages to be kept up over open roads and the most diflicult going to be negotiated with ease and certainty. We found the car pleasant to drive, gear changing being easy to master, while we were assured that so tough are the gear teeth that the novice need have no fear of damaging them.

Tho car was fitted with several refinements which go far to remove an owner-driver's anxieties, not the least useful of these being a petrol gange on the dash

We took the car over in Birmingham and set out at once, via Coventry, for London The BaylissThomas is a car in which one quickly feels at home, aud we were soon bowling along with the speedometer needle well round the dial. On reaching town we replenished the petrol tank, and found that two gallons brought the level in the gange up to where it was in Coventry-a consumption of comfortably over $40 \mathrm{~m} . \mathrm{p} . \mathrm{g}$

## The Journey Begins.

On the following day an easy 150 -mile run, with two up and luggage, brought us to the heart of Shropshire and the beginning of the trip proper with fall loarl.

On one occasion, where the road swooped down and was wide and deserted, we kept our foot well down for a few moments, and the speedometer was steady on the $60 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. mark for several hundred yards, while on the level we should say that 50 m.p.h. could be maintained.

It was a peculiarity of the car that the faster it went the easier the stecring became, and we were able to steer it anywhere, even over pot-holey roads when all out, with thumb' and finger only, but, as is usually the case with low-pressure tyres, rather more strength was required at low speeds. At no time, however, even when negotiating the moorland tracks

## IN ノAズぼLaND WLTII A 13ALLLSS－TTIOMAS （contd．）．

at speed，did we have the slightest difficulty in hold ing the car on the road，while it was also very steady on corners

Cartway，the precipitous old coach roarl which climbs sheer from the river bridge into the High Town at Bridgnorth，called for low gear only on its acule lefthand hair－pin，another sharp pull on to Wenloch lidge being negotiated on second gear

The following day，with three up and luggage for a week，we set out on a 300 －mile run to Buttermere， by Way of the Dukeries and York，where a halt was called to view the Minster．On the way we took Lincoln Hill，a 1 in 5 gradient，which saves a mile detout in the town of Ironbridge，and in spite of its load the car climbed without a falter．

Litter，at Kieswick，a．discussion was held as to the next move，for the alternatives were a 20 －mile circuit over narrow and tortuous roads with every chance of losing the way，or a 7 －mile run over the notorious Newlands Hause in the dark．The local inhabitants ：advinel the former，dwelling upon the terrors of the Devil＇s Elhow，it stecp domble hair－pin and the sterp，precipice－bordered path over Newlands itself．

## A Severe Test．

With many cars we should have hesitated，but the latyliss Thomas had acquitted itself so well that we decided upon the more sporting route，and set off with the lacas headlamps illuminating a narrow and rough tiack which wound higher and higher into
the mountains．＇The Devil＇s Elbow，being expected， was shorn of most of its terrors，and an early change down and plenty of throttle sent us up with power in hand，but the final 50 yards over the Hause，which included a 1 in $4 \frac{1}{2}$ rock face，immediately preceded by 50 yards of loose stones，was more than the placky liftle car could manage．Had it been in daylight we might have rushed the lower slopes and struck the loose patch with more way on the car，but from safety first reasons we changed early，and when cross－ ing the stones lost the speed which is essential for a high power output from this engine，coming to rest on the steepest portion．

The brakes held perfectly，and，lightened of the passengers，the car made a splendid restart，the low－ pressure tyres giving ample wheel grip．A long and steep descent followed，but the brakes were well up to their work，and we were soon outside the hospit－ able doors of the Buttermore Fotel，where，in spite of the lateness of the hour．we were at once made welcome

## No Faults Apparent．

The following morning was spent in admiring the beatities of Euttermere and looking over the car， but we could find no faults anywhere，and our atten－ tions were confined to cleaning operations．

In the afternonn，a 56 －mile circuit was completed， which included the ascent of Whinlatter l＇ass，on which first gear was called for only on two occasions for a short time，while the generosity of the steering lock was demonstrated on several acute hair pin bends between the foot of the pass and Derwent－

The body of the Bayliss－Thomas is very roomy，bul ar tislic lines have not beensucrificed．

water．Whinlatter Pass is a very beaatiful route from Keswick to Buttermere，and it is not रै ery severe．

Wednesday＇s run consisted of 135 miles， which included Newlands Hause，taken in the reverse direction，and the ascent of the famous Kirkstone Pass．The climb of New－ lands Hause started within a few yards of the hotel，but the engine，after a few seconds＇id！ing to warm up the oil，gave full power from the start．After breasting the first stiff rise in first we were able to cover a long section in the middle of the hill in second gear．The tirst gear was called for again near the summit，and just before

## 1N LAだLLAN WITH A BATLLSS-THOMAS (contd.).

the final hair-pin we eased down to rest the engine, With this type, however, any falling off in "revs" means a very marked loss of power, and the car slowed rapidly, so we hurriedly opened up again, and by easing the clutch for a moment were soon buzzing merrily along again, and swinging round the hair-pin breasted the summit comfortably

Passing along the side of Vilswater we reached the foot of Kirkstone, and could see the road winding away far above our heads. Low gear was engaged about half-way up, but the throttle was never more than half open. Taking the right-hand road at the Travellers' Rest, we negotiated the steep descent which forms the only severe hill in the Loulon-Edinburgh Trial, by letting the car run in first gear, the brakes teing beld in reserve.

A run along Windermere and by twisting lanes to Coniston Water brought us via Esthwaite Water to


> NEAT AND WEATHER PROOF.

The bonnet design excludes rain from the engine; it is sturdy and freedom from rattles is enjoyed.

Ambleside again, whence we turned for Keswick via Grasmere and Thirlmere, and crossed Whinlatter Pass as the sun was setting, to reach Buttermere with the dusk
Our final das in the Lakes gave an opportunity to demonstrate the efficiency of the all-weather equipment, for after a showery morning, during which the ease with which the hood could be raised and lowered without leaving the car proved a great boon amid such lovely scenery, the afternoon settled in wet.


The disposition of the magnelo, dynamo and starter is clearly shown in this illustration. Positive drives are employed and accessibility is a marked feature.

After passing Loweswater, Ennerdale Water, and lunching amid the grandeur of Wastwater, we erected the side curtains, which can, in the event of a sudden heavy shower, be put up without leaving the shelter of the hood. and set the Bayliss-Thomas at the winding eart track which leads from Eskdale over Birker Fell to Ulpha. Here were three miles B24
of really hard climbing in the teeth of half a gale of wind and torrential rain. The car, however, behaved perfectly, and after further rain near Lancaster we made Garstang for the night, the only occurrence of note during the last fow miles being a puncture near Lancaster just before the rain started.

> A battery box sunk in the running boardsisused; it is neatand unobtrusive, the detachable lid giving ready accesp.


Owing to the neat method of carrying the spare wheel we were away again after a delay of only ten minutes, which, when one remembers that the tools had to be unearthed from under the luggage, was very good. Thence we journeyed southwavd through Southport and Liverpool, Queensferry, Mold and Ruthin to stop for tea by the wonder view of the Horseshoe I'ass. Then a final rum in from langollen to. Shrewsbury over the best surface of the whole trip to Church Stretton and back to Longville village nestling under Wenlock Edge.
The trip lasted five days, and 520 miles were covered, always with three up and often with luggage as well. The expenses both for fuel and hotels came out at $\mathfrak{L 3} 12 \mathrm{~s}$. per head, slightly over 1d. per mile, an achievement which could have been done only by having nearly all meals in the car or by the rondside.
After a day in Shropshire with two up we ran down the Severn Valley to Holt, and thence to London via

> One need have
> no fear of running out of petrol with this neat level gauge mounted on the
> facia board It is one of a number of very practical featurcs.


Stratfordon-Aron and Aylesbury, with beautiful scenery all the way in contrast to the rather barren main Birmingham-London road. An early morning run to Coventry, in which the petrol consumption was again in the neighbourhood of $45 \mathrm{~m} . \mathrm{p} . \mathrm{g}$., completed a very enjoyable week's tour, to which the excellent performance of the Bayliss-Thomas contributed in no small degree, for, with the exception of the single puncture, the car never gave a moment's trouble.
A word of praise is also due to the Lucas equipment, for never once did the starter fail to spin the engine from cold at the first touch in the mornings, and we never needed to use the starting handle at all, the batteries, which are very accessibly carried on the running board, being kept well charged by the dynamo.
In short, the Bayliss-Thomas $10-20 \mathrm{~h} . \mathrm{p}$. is a light car which should make a great appeal to the nonmechanical owner-driver who wants a sound performance without the need for giving continual attention to the working parte.

## THE MARKS-MOIR on Tul ROAD.

6423

INTERESTING
CAR TESTED
UNDER THE
CONDITICNS
FOR WHICH
IT WAS DE.
SIGNED

TY HE Marks-Moir car, which was exhibited at Australia House during last autumn, has lately been undergoing road tests over an extended mileage, and wo havo locen ablo to carry out a short lest over the roughest "Colonial" sections we could find.

It will be remembered that the Marks-Moir dispenses with a chassis, all power, transmission, and suspension units being attached direct to the body, which, owing to its unique construction, proves to be actually stronger than the conventional channel-steel chassis.

This is achieved by building up the body from sheets of consuta-sewn plywood, a material which came into prominence during the war as a covering for flyinghoat hulls and is now being experimented with for !ifeboat construction.
The body is so designed that the driver and pas


Numerous departures from convention are noticed in the external appearance of the Marks-Moir; nevertheless it is quite attractive. tons without breaking.
wheels two revolutions of over-run, so that, when cornering, the outside wheel will run free and gain on the inner one, the drive being taken up again when the car regains a straight course.
The shape of the body permits of a girder section of great strength, and it has been estimated that the standard body would support a load of well over 100

In its experimental form, the power unit consists of an $11.9 \mathrm{~h} . \mathrm{p}$. Dorman engine, to which is bolted a Ford gearbox unit, the final drive being by chain-a point which will he appreciated hy the Australians "up country," for whom the Marks-Moir is intended. A back-axle failure in such a locality will often put a car off the road for six months
Suspension in the Marks Moir is by full cantilever springs front and rear, which are so efficient that Trublpruf solid tyres are used.

Over ordinary roads it is difficult to realize that the Marks-Moir runs on solid tyres, for the suspension appears to be quite as good as on a pneumatic-tyred car. When driving over bad pot-holes, there is a certain amount of noise, from the wings chicfy, but no discomiort ; it is not until really had going is encountered that the full adiantages of the car are realized.

We took the vehicle over an unmade road, the scene of some building operations, where the potholes were of more than usual depth. Here the body scarcely moved, and there was no discomfurt whatever. We could see each wheel rise or fall, but felt hardly a. tremor.

Our route then led over open common land studded with bushes and ant hills-a very fair example of what the Marks-Moir will be malled upon to do in Australia, but all were negotiated without a falter or the sign of any construc-
ously receive the minimum of jolting, as those who have sat in both the front and rear scats of a light four-seater when travelling fast will realize.
The radiator in the Marks-Moir is situated in the nose, while the engine and gearbox unit are located transersely immediately behind the seat, the live rear axle heing driven by a duplex Coventry chain.

A differential action is obtained by allowing the
tional weakness
tional weakes whatever. Had such a weakness was driven hard.

As a final test, the car was driven through a 70 yard water-splash, and a stop and restart successfully made in the middle. Our impression after this test was that the claims of the designers of the MarksMoir car are fully justified.


## Stop With Care.

AN old adage lays it down that "evil is wrought for want of thought more than for want of heart," and I think that this applies to many emergencies that arise on the road. A case in point is the driver who for some reason not apparent to others sucudenly decides to slow down or stop).
As a rule, provided he gives due warning of his intention, no harm is done, but there are occasions when even this is not sufficient. For instance, he should on no account voluntarily decelerate or stop if another fast vehicle is approaching from the opposite direction. It is possible that a driver behind will have to pull out to the off side to avoid a collision; but if the ofi side of the road is blocked by a vehicle coming the other way a very perilous situation is çreated. I experienced this myself on Watling Street the other day and escaped disaster only by the preverbial coat of paint.

## Direct Action.

IKNOW a man who holds a theory that when piracy was forcibly suppressed on the high seas, those who sailed under the "Jolly Roger" went ashore and opened boarding houses. I am reminded of this ly the attempts which are jeing made at some small seaside resorts to milk motorists of a shilling fee for merely leaving cars on the beach. Mind you, this is not a case of an iniquitous Lord of the Manor asserting his ownership of the foreshore, but of socalled democratic parish councils trying to wring money out of visitors. At one place, $\bar{I}$ am informed, the motorists-some thirty strong-recently formed a Council of Action and deficd the Parish Witanagemote to do its worst. They won!

## Remember the Reverse.

IT is astonishing to find how many car owners are still unaware of the entergency low gear they possess in the reversc. Recently when in Rutland 1 came across the drive: of a striall car stranded between two very steep hills. His engine was old and very much out of tune ard the gradients were too much for it. The driver had jettisoned his passengers and they wcre all preparing to undertake the heart-breaking task of pushing.
When I suggested to the driver that he should try the effect of going up on his reverse he looked thunderstruck. However, he tried it and successfully surmounted the hiil. He is only one of many I have helped out of a similar dificulty in the same manner. ${ }^{52 C}$

On oceasions the operation has been necessary ihrough the fuel level in the tank being so low that the spinit did not reach the earburetter. I mention this because there may be norices amone my readrrs to whom the wheeze has not occurred.

Reversing up freak hills, nowever, is a plan that is not always it success, especially when the surtace is ioose, as the rear whecls obtain a poor grip, which often leads to axle "judder" and possible tracture of some part of the transmission.

## Various Feasances.

IWAS very interested indeed in the article from a legal correspondent which appeared last week in The Light Car und C'yclecar, explaining the legat position with regard to road repair dangers on which I commented a fortnight ago. It would seem that malfeasance, misfeasance, and non-fcasance are all very different things, even allhough they do share the common disalijity of having two concluding syllables which one has not the remotest idea how to pronounce.
The position, I gather, is that one has a case against the authority concerned if a great depth of hroken stone is laid over the whole width of the road and not rolled so soon as possible; one has also a case, it would appear, if piles of road material are left unilluminated on the highway at night. Orie wonders if that section of the cycling community which declares that no one should ever drive at a speed in excess of that which would allow them to puil up within the area illuminated by their lights would take advantage of their legal position in the event of a collision with a heap of unilluminated road material, or would their moral scruples compel them to forgive the authority concerned and stand the racket of a new machine themselves.

## The Two "'Six Days'."

IKNOW that by expressing the opinion that the Scottish Six Days' Trial was much easier than the R.A.C. Trial held in Wales at the beginning of the summer, I shall he contradicted by most of the drivers who took part in both events, but I covered every inch of both courses' myself and, judging not only by my personal impressions, but also from the condition of the competing cars at the finish, I cannot believe that I am wrong.
My recollection of the Welsh trinl is a continuous thousand miles of narrow, tortuous roads with inaumerable cross-gulleys and ecery imaginable kind

## RIC'II MIXTURE' (contd.).

of unpleasantuess with the one exception of really steep and difieult hills. It must be admitted, of course, that Bwah-Groes is a magnificent test of a car, particularly as the R.A.C. decided that the ascent should be timed, but the hills included in the IA.A.C. trial camot be compared in any way with the Scottish terrors included in the Edinhurgh club's event. Offsct against the difficulty of the Scottish halis was the fact that mobably so per cent. of the yunning was over roads along which it would not be dificul! to average 30 mph . The route impressed me as being, in fact. a series of long crawls or "biinds," according to temperament, over very pratsolatble roads punctuated by brief scrambles up the sicles of impussibly steep-looking mountains.

On the fourth day there was certainly twenty miles or so of protty rough going, but even the worst of this diti not impress me as being much more severe than the terrible track over the mountains on the birecon route in the R.A.C. trial.

## Bumps the Best Test.

HILLS, it seems, no longer form much of a test for ifght cars, for so long as it is possible for rear Whecls to obtain a grip they invariably manage to make non-stop ascents. It is "umpleasantness" which lests them; umpleasant roads with unpleasant gralleys cut across them, pot-holes, ditches and watersmashes. I do not think that the ability to ford the latler provides much useful information from the averase buyer's point of view, but I am convinced that there is no better test of a small car than to drive it hard over bad roads. Such treatment monals every weakness which a car possesses, while the asecht of comparatively freak hills shows, to my mind, nothing more than that the driver is skilful,



Fig. 1.-The essential geametrical features of a satisfactory lype of steering gear.

## THEORIES OF STEERING. PROBLEMS THE DESIGNER MUST STUDY POPULAR FALLACIES AND PRACTICAL HINTS ARE ALL DEALT WITH IN THIS ARTICLE

By J. HARRISON, A.M.I.Mech.E., A.M.J.A.E.


Fig. 2 -If a pivoting axle were used the backward motion represented by $\mathbf{B}^{\prime}$ would result

GOOD steering is one of the most desivable attributes of any car, yet it is surprising to what extent automobiles, including those of good price, vary in this respect-cven-dilferent examples of the same model.

Varsing action in the case of different makes of car is due, of course, purely to the design differing, but when the steering gears of two apparently identical cars give inconstant results, the cause is due in bad erection and faulty fitting. It is essential with the steering gear of any car not only for the design to be right, but also for the designer's intentions to be carried out with meticulous care. This is made clearly apparent by the poor steering which is found on nearly ail cars which have done a large mileage-wear has taken place on the various working faces so that the numerons theoretical reguirements, which in the first place no doubt have been adequately met, no longer apply.
To obtain perfect stecring it is essential that, during a turn, the front wheels should describe concentric ares about a point situated on the centre line of the rear axle produced. Figs. 1 and 2 show these conditions : A is the instantaveous centre about which the car is turning. and the centre lines of the front hubs interscet at that point.

For centurics the axle shown in Fig. 2 has been used for horse traction, but although this device obeys perfectly the fundamental law of steering, it is unsuitable for automobile practice. The wheel


Fig. 3.-A parallel rule acticn such as that depicted would not work as the angularity of the front wheels on a turn must vary. has to be moved through the large distance ( B ), thereby putting great strain on the driver, besides allowing all road shocks a lever advantage equivalent to half the car's track.

A steering layout identical to that depicted in Fig. 2 has been used, however, with success on several makes of mechanically propelled vehicles. It is employed on one of the most popular makes of steam wagon, and many readers of The Light C'ar and C'yclecar will recollect it as figuring on the earlicst Carden cyclecars and also on the A.V. cars.

As early as 1817 Lankensperger and Rudolph Ackerman evolved the forerunner of the steering set shown in Fig. 1, but it was not until 1878 that Charles Jeantand found that in order to produce the conditions set forth in the diagram the steering arms had to be set to converge towards the centre of the rear axle. He thus brought about the steering arrangement of to-day.

So important a discovery merits more detailed explanation. The axle, steering arms and tie-rod together form a structure slightly dissimilar in action to a narallel rule. Suppose that we imagine a steerB2S
ing sot constructed exactly on the lines of a parallel rule (Fig. 3 will help us). We notice that the centre lines of the front hulss fall one each side of the stecring centre. Besides making steering extremely heavy, such an arrangement would either cause the tic-rod to bend or force the tyres off their rims. To obtain the conditions required in Fig. 1 is, in these circumstances, a geometrical impossiliilits, but by setting the steering arms inwards (as in Fig. 4) we are all! approximately to produce the proper arrangement.

It must be understood, of course, that when a car


Fig. 4. - It does not do for the stecring arms to be et right angles with the axie, or an unsatisfactory motion, as shown in Fig 3, would result.
is making a turn the front wheel on the inner side of the turn must be set at a greater angle than that on the outer. This is due to the fact that the radius of the circle described by the inner front wheel-if a car makes a complete circle-is substantially less than that described by the outer front wheel, and this must clearly he compensated for by providing for an automatically varying steering lock between the two wheels.

Wheel and swivel pin rake and castor action are the next points that reguire consideration.

If we cause the centre line of the swivel-pin and the centre line of the wheel to meet at the point of contact with the road, we do away with the necessity for moving the road wheels backwards or forwards during a turn, and we have only to rotate them about their vertical centre. The matter will he madn more clear ly referring tn. Fig. 1. which shows a plan rinur of a normal steering lavont. It will be noticed that if the whels were locked over to the left, the off-side wheel would move slightly forward and the near-side wheel slightly rearward. As a mattrr of fact, however, this is not the case, hecause the wheels and pivot pins are set at an angle ao shown in Fig. 5. In doing this, we eliminate all cffirt

## TIIEORIES Ob STEFRLNG (contd.).

except that required to overcome friction of the mechanism.
The introduction of front wheel brakes has focused attention on this feature (shown in Fig. 5). It is felt, however, that those arrangements which involve a big rake in cither the wheel or the swivel-pin are open to improvement; it is quite easy to make a centrepivoted stecring set with a rake of less than 2 degrees on both whecl and pin.

## Relieving the Stresses.

If the reader refers again to Fig. it he will see that if the front wheels and steering pivot pins were sot phumb as the diagram suggests, the use of frontwheel hrakes-which in retarding the wheels tend to fore them backwards-would place the track rod in (ompression and unless centre pivoting was adopted the stecring arms would be bent when the brakes were violeritly applied or the track rod would bow ont and allow the front wheels to splay.

Is a matter of fact, a slight modification of centrepivoting is usually introduced, throwing the thrustline on the swivel-pin a little in front of the iyre's


Figs. 6 and 7.-Alternative methods of obtaining a caster effect. (Left) the front axle is inclined. (Right) the wheel is set to trail.
point of contact with the ground. This is in order to cause a castor eflect in tho stecring and two wass of doing so are indicated in Figs. 6 and 7.

The castor efiect tends to make a car straighten out automatically after a turn. Its action can be explaned as follows:-The centrifugal force generated by the car's mass being deviated from the straight path acts through the thrust-line ( T ) ; the resistance is set up at the tyre's contact point with the ground (C), and a righting couple is produced. The term caster action is used because it will be seen that the action of the whecls is almost identical with that of the casters on a chair or table. When the car is pushed forward the wheels tend to trail behind the axle in the same manner that easters on a chair trail behind their point of attachment when the chair is moved.

## Profit and Loss.

Every car with a caster action, in common with any car that has raked wheels or pirots, has at least a slight tendency towards wheel wobble, as any correcting force tends to overreach itself and cause the front of the car to swing pendulum-wise. When the caster effect is small, the tendency is negligible, while the benefits conferred are considerable

A badly designed set of quarter-elliptic springs may cause wheel wobble. When the car rises from a pothole the deflection may be so great as the weight comes off the springs as to produce a reverse caster effect. This action is very infrequent and easily guarded against, but recently a number of cases have come under notice.
The drag link is the connecting link between the axle and the stecring gear, and it may be placed either parallel to the side members (as in ihe Austin 7)
or across the frame (as in the Rover 8 and B.S.A.). External conditions such as the required rake of tho steering column or the position of an ragine arm usually decide which type shall be used.
In operation there is litlle to choose between the two systems. But a badly placed drag link may be a prolific cause of trouble
In Fig. 8 it will be seen that the link end follows the


Fig 8. -The arcs struck bytreexiremities of the drag link and the front axle should $x \mid y$ coincide as nearly as possible
path $Y Y$, the axle's path being represented by $X X$. When these two paths nearly coincide, the mechanism is satisfactory: when there is a wide deviation (as in Fig. 9) chronic wobble is the result.

The catuses of wheel wobble may be summarized as follow:
(1) A wheel which is badly bent or running out of track.
(2) A badly worn or damaged tyre.
(3) A very dirty or mud-clogged dise wheel.
(4) Bad design of drag-link and axle ends.

Stecring hardness, that is to say, "stiff" steering, is a defect that deserres discussion, and may be duo to any or all of the following causes:-
(1) Insufficient lubrication and failure to provide means for keeping grit out of the joints of the mechanism.
(2) Inaccurate machine work or careless assembly causing lack of alignment.
(3) Faulty design with unduly small bearing surfaces.
(4) Under-inflated and unsuitable tyres.

## Geometry Not Guesswork.

Readers who have carefully followed the foregoing will realize that for the steering gear of it car to be easy to operate its design must be right and it must be kept in good condition. The angles at which the various parts are set must be maintained during the whole of the life of the car and the greatest care must be taken to rectify even the smallest derangements immediately they become apparent.
It must not be overlooked that a change from one


Fig. 9.-A badly placed drag link will c-use the two arcs depicted above in Fig. 8 to differ materially and the steering to "wobble."
type of road wheel to another may lead to a number of complications arising, from which those who are contemplating the adoption of different wheels, in order that they may use low-pressure tyres, will gather that the choice of the new wheels and the methods of fixing them are a matter of geometry rather than of guesswork.

## Every Motorist Should Know That LICENCE LAWS MUST BE OBSERVED.

FACTS WITH REGARD TO DRIVING AND EXCISE LICENCES.

THERE is nothing more annoying to the average motorist than to be dragged into the police court over some petty offence concerning his driving or excise licence, and in this article an endeavour will be made to state as clearly as possible some of the more iniportant points of law that arise on the question of licences
To take first of all the driving licence. It really is remarkable that in these enlightened days there are still a lot of would-be motorists who are in doubt as to the age (or, rather, youth) limit that bars many young and (in their own eyes) perfectly accomplished gentlemen from obtaining that litlle piece of pasteboard that will be far too small to accommodate their accumulation of endorsements No one under the age of 17 can obtain a licence to drive a car, but if he or she be over 14, it is possible to obtain a licence to drive a motorcycle.

It is illegal io drive a car without such a licence, but there is nothing to prevent you driving for as long as you like with the licence locked up in the family safe, except that you must produce it (the licence, not the safe) on demand being made by $n$ police officer, and you can be fined if you fail to do so. It is impossible to obtain a fresh licence whilst your old one remains in force or if you have been disqualified by a convicting court from obtaining it for any particular period.

We now come to the question of endorsements, and it should be noted that your licence cannot be endorsed merely for exceeding a speed limit-unless you are so foolish as to be caught doing such a thing on three separate occasions-and even then it is only on the third of these occasions that the Justices can exclaim: "Three times has this man been convicted of driving at the reckless speed of twenty-one miles per haur; this must be stopped ; endorse his licence!" and so on

Again, if you have been unfortunate enough to collect a fow of these interesting little testimonials of the skill (or otherwise) of your driving, and you can manage to survive three consecutive years with out collecting another one, you are entitled to have a fresh, clean and endorsementless licence issued to you.

Any person who is disqualified by the Court from holding his licence olay appeal against the order to a Court of Quarter Sessions. and, pending the appeai, the convicting Court may suspend the disqualification.

A county council is bound to issue a licence to any person applying for one who is prepared to pay his five shillings and is not under any disqualification

Any person employing a chauffer or driver who is not licensed is guilty of an offence, and liable to a fine.

A motor vehicle must be registered with the council of the county in which it is ordinarily kept, and it is necessary to obtain the registration book and licence from such council; the application must be made on one of the forms prescribed for that purpose. If a vehicle is being continually moved about the country, it may be registered in the county in which the applicant has his residence or principal place of lusiness.

In a very complicated fashion, the lioad Vehicles, etc. Act, 1921, lays down exactly where the licence must be attached to the car. The practical ellect of these regulations is that the licence must be clearly visible to an observer on the near side of the carwhether it be stationary or moving

It is necessary that the registration loook should be forwarded to the county council when you change your address and when you sell the car

If by means of any alterations the car becomes subject to a difierent rate of duty, of the description in the registration book becomes inaccurate, the book must again be forwarded to the authorities

A wise motorist will always take care of this book, for although as a means of precatution against theft it is worse than useless, it will cost him five shillings to obtain another one
The police, with their usual kindhearteliness where motorists are concerned, allow 11 day's' grace before they take proccedings against you for driving a car the licence of which has expired. Curiously enougn, these days of grace are only allowed at Christmas time (far be it from me to suggest that Christmas boxes have anything to do with the matter-remember what happened to Scrooge one Christmastide), and if you happen to lay up your car for the winter and take out your licence in the spring, you are allowed no days of grace at all.

There are various other regulations concerning these licences, which would not have a great deal of interest for the average motorist. Who, for instance, would be thrilled to learn that the "aperture within the ring" forming a licence-holder should have a diameter of $2 \frac{14}{\mathrm{~L}}$ ins. I dare say the motoring world would survive the shock even if it were informed that "the Minister" had been graciously pleased to alter this figure to " $223-32$ ins." C.G.

## DETECTING ELECTRICAL FAULTS.

BREAKDOIVNS in the electrical equipment of a light car are very easy to remedy if the correct means for making an accurate diagnosis are adopted. The most important thing to do at the outset, no matter in what direction the trouble may evidence its!lf, is to isolate the circuit which is giving trouble.
If the side and tail lamps, the horn and the starter are in order. but the headlamps are not, the search for a short-circuit or a broken wire may be confined to the headlamp circuit, and this rule applies, of course, wherever the defective circuit is obrious. In many cases, however, it is not, and pains must be taken in consequence to ensure that latour is not
wasted in searching for an obscure trouble in a circ'it where it docs not exist.
Flickering of all the lamps, intermittent chasging and an electric horn which operates in an erratic manner are symptoms, taken collectively, which point clearly to a poor connection at the battery or at the other extremities of the wires connecting to the battery. If the ammeter shows no change, suspect first rhe fuse and then the cut-out.
Before condemning the starter-motor when it fails to turn the engine rapidly enough to start it, make sure the battery is charged and that the connections are sound.


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## The

## LIGHT CAR \& CYCLECAR

was founded in 1912 to cuter for the needs of users and potential purchasers of sarious new types of cyclecars and light cars, and it has consistently encouraged the development of this new motoring movement for nearly twelve years.
Only cars the engine capacity' of which does not exceed 1,500 c.c. (It litres) come within the scope of "The Light Car and Cyclecar," that capacity being generally recognized and ac. cepted as the limit for a light car enginc.

## CONTENTS.



# Topics of the Day 

## What is a Standard Sports Car?

ASOMEWHAT farcical zituation has arisen in comection with the eligibility or otherwise of certain cars to compete in classes for standard sports cars. In one or two cases racing cars equipped with mudguards, windscreen and other touring accessories have erept into these classes

An Increas ingly Diflicult

Problem and have naturally defeated vehicles which more catalogued at a high price, their inclusion in the catalogue being apparently sufficient to satisfy the average provincial clun scrutineer that they are eligible to compete in the class in question.
The matter is more complicated than it may appear at first sight, because there are certain makers who produce in small quantitics and at a high price a sports model which is practically a racing car fitted with roadster equipment. Obviously cars of this class are at an advantage with what the clubs and the public commonly call a sports model, which is generally a specially tuned edition of the staudard production equipped with a sporting type of body, and listed at a higher, although not very much higher, figure.
Now the fact that what we may call the special sports model has been allowed to creep into the sports claos has encouraged other entrants to follow suit by entering equally special machines. Their fellow competitors do not generally like to be accused of unsporting conduct, as would be the ca:e were they to protest, with the result that the tendency is towards the sports class becoming an event for a few racing cars with touring equipment to the exclusion of the standard sports car. The Junior Car Club has shown us how to deal with this kind of situation in the past, and the sooner that the provincial clubs follow suit the better it will be for the sport.

## Light Car Coachwork.

WONDERFUL strides have been made in the evolution of satisfactory bodies for small cars, but it is impossible to deny that there is still room for improvement, and one of the most pressing needs, so far as two-seaters are concerned, is the provision of suitable accommodation for a third pas-

## The Third

Passenger. senger. An article which appears elsewhere in this issue puts forward a very valuable suggestion, while it tackles the question of providing comfortable seating for a third passenger from an aspect which is entirely new. So far. it has always been considered that if a third person is to be carried in a two seater he must necessarily be accommodated at the rear, but it is suggested in the articio in question that the correct place to provide a seat for him is in front of the other passenger and the driver.

It is not long since we accorded a hearty welcome to the singleshell type of four-seater, which has undoubredly solved the problem for the family man, and which, judging by the large numbers in which it has sold, has clearly proved very popular with the public. It is an arrangement, however, which, like tho dickey seat, has certain limitations, but these, it must be remembered, are inevitable where first cost is an important consideration. The single-shell body allows, on a chassis of a given size, more accommodation than any other type, and for this reason it cannot fail to make a considerable appeal for many years to come. It seems extremely prebable, in fact, that bodies of this kind, with those of the type which the article we have referred to outlines, may before very long prove the most popular among smal! car enthusiasts.

DESPlIE very threatening condituns a the mornmer the weather was almost ideal for the August l3ank Holiday meeting at Brooklands last Monday. The sky throughout was overcast which completely eliminated the usual glare which is reflected from the concrete, and most of the spectators who were present agreed that it was a thorowshly enjoyable day

The many counter-attractions of August IBank Holiday naturally reduced the gate, but a fairly large crowd was present. Many regular habituees had not returned from wawling the Grand Prix, wrich was run in France the day before, and in this respect it was unfortunate that the dates of the two events were so close.

Light cars took part in nearly all the races. and it was noteworthy that they acquilled themselves well. Three first prizes were secured by cals with engines of less than 1,500 c.c., while a litule Austin Seven racer, which had conceded time to three cars with engines larger than its nwn, very nearly succeeded in winning the coveted Brooklands President's Gold Plate. The race was the most infportant of the day, and it was only herause the 749 r.c. Austin har conceded 20 secs. to a 3,334 c.e. Lanches ter that the trophy did not fall to a light car.

## An A.C. Win.

E. L. Meeson's A.C., in the capab?e hands of Kaye Don, was a surprise winner in the fifth race, passing the post strects ahead of a field of eight.
In the first race of the day G. Duller, driving the 1,493 c.c. Thomas Special, won very comfortably at 853 m m.p.h. from a field of 11 , receiving 28 secs. from a Bentley, which received 9 secs., and 3 4,441 c.c. Sunbeam, which also received 9 secs. The limit car (R. J. Dauncey's Alvis) received 1 min . 15 secs.

Duller started the race a very hot favcur:te: so much so, in fact, that the odds offered against him were so sho:t that very little money changed hands. J. P. Dingle, who is still trying very hard with his Austin Seven, got a"ay in his usual finished style, and led the field for a considerable distance. Duller, with the Thomas Special, who had been streaking round and passing several of the other cars as though they had been stationary, overtook him towards the end of the second lap. An Austin Twenty passed the post second and a Bentley third.

## Alvis v. Vauxhall.

Light car enthusiasts were rewarded in the second race with a fine contest between C. M. Harvey's Alvis and Major Ropner's 4,234 c.c. Vauxhall. A Bentley established a good lead earjy in the race and retained it to the finish, Ropner and Harvey's duel being for second place; the bigger car proved, however, to be too fast for Harvey's very neat little racer, and passed the post with a useful lead

Havey had two of the new racing Alvis cars at Brooklands; these the first of which was described in The Lighe Car and Cyelecar immediately it made its appearance, are extremely steady on the lack. and Harvey seems very pleased with them. They will, of course, figure in the 200 Mije Race next month A noteworthy fenture of their desimn is in the much wider track of the front whepls than the eear, which aives the

## LIGHT CARS DO WELL AT B

Three Firsts and Two Seconds were Secured by Small and Fine Weather Contributed to the Enjoyment of N

cars a somewhat peculiar appearanco when viewed head on.

An interestiog car in the third race was D. Chinery's Gwynne Eight-a neat little sports model painted orange, and, of course, stripped of its wings and irnning boards. A little metal plate mounted on the top of the tail bore the legend "Nosuail." This car has been seen at hill-climbs of late, but it has scemed that Chinery could not quite oet the revs. for these events.
On tho track the little Gwsnne secmed steady and controllable, but its paces are not ret all that thev might be. With a starit of 1 min . 19 secs. from an Amilcar
(53 secs.), Dingle's Austin (44 gecs.), Waite's Austin (39 secs.), and England's Austin (31 secs.), the Gwynne managed to hold a big lead for two laps, but the field then began to overtake it. F. Scrivern ( 3,601 c.c. Austin) proved to be the winner, with Gillow (Riley) second and Chinery (Gwynne) third. Tho winner's average speed was $84 \frac{3}{4} \mathrm{~m} . \mathrm{p} . \mathrm{h}$.
The fourth race had drawn six entries. all of which were large cars: nnly three started, however, and J. G. P. Thomas, at the wheel of his magnificent LeylandThomas racer, was victorious at an average speed of 103k m.p.h. Diring the race he set up a new lap record

## 2OOKLANDS HOLIDAY MEETING.

Jars at the Brooklands Bank Holiday Meeting. Large Fields merous Spectators, While Two Track Records were Beaten.


Kaye Don, in the by no means new A.C., was the winner in the fifth race, Barnato (Wolseley) being second and Gordon England (Austin Seven) third. Kaye Don's was a popular win, and Gordon England received congratulations for his third place. The handicapping lately scems to have been against him, and at recent meetings it has beell very seldom that he has been fortumate enough oven to secure a place, despite the remarkable capabilities of his 749 c.c. racer
To the astonishment of the crowd J G. P. Thomas, in the Levland Thomas, again broko the lap record in the sixth race. In the fourth race he
had established a record with 127.38 m.p.h., and in the sixth race he improved upon it by nearly a mile an hour, clocking a lap at $128.36 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. At this colossal speed the Leyland streaked past the post in second place, G. A. Fandervell ( 4.531 c c. C. Talbot) being first and C. M. Harrey (Alvis) third. The little Alvis had received 1 min. 15 secs. for the $8 \frac{1}{2}$ mile race from the Levland.Thnmas, and it had conceded 5 secs. to the big Talbot
Gillow's Riley, which had gained second place in the third race, and thus revealed its paces, proved to he the winner in the seventh race. although 7 secs. had been knocked of the 1 min

7 secs. start which it had been originally allowed. Despite this, however, the Riley started farourite at evens, justitying its numerous supporters' choice by coming in just in front of Kijue Don's A.C., which was second.

Kaye Don had been rehandicapped as the result of his previous win, starting with only 34 secs. lead from the scratch man instead of the 60 secs. lead announced on the programme. In this race Duller (Thomas Special) started 3 secs. before the A.C., and conceded 23 secs. to the Riley. J. G. P. Thomas drove a 6,178 c.c. Lanchester into third place, after having started scratch

The books had been open from the beginning of the mecting for the eighth race, the principal trophy for which was the Brooklands l'resident's Gold Plate. J. G. P. Thomas, in the Thomas Special, started a very hot favourite at evens; 2 to 1 was to he had against W. Barnato's Wolseley, 4 to 1 against T. Hann's Lanchester, and 6 to 1 against Calder's Horstman and Chinery's Gwinne; all others were offered at 8 to 1 . Much to the surprise of the backers, a 4 -to- 1 chance, in T. Hann's Lanchester, was the winner.

## The Principal Race.

D. Chinerv (Gwrine) was the limit mian and the Thomas Special was on the scratch mark. The race was over three laps. Chinery led for the first round, followed by Duller, Capt. Waite (Austin Seven), and J. P. Dingle, in a similar car. On the completion of the second lap, Chinery was still in the lead, but Duller, experiencing some trouble, had dropped back a considerable distance and let the old Lanchester " Softly-Catch-Monkey," driven by Bellingham-Smith, into second place belind Capt. Waite, with Chinery lying third

At the end of the rallway straight in the concluding round the Lanchester took first place, but was unable to make much impression upon Waite's Austin, which continued to hang on tenaciousiy. Another rival also hove in sight, in the shape of Cant. Barnato's Wolseley, which displaced Chinery for third position.

In the rua-in off the hoyse banking there was a terrific duel between the Lanchester and Waites Austin, and the two came up the straight so close together that they appeared almost locked. Waite got his radiator alongside the Lanchester driver, and at one minute looked as though he was going to win, but it seemed as though Bellingham-Smith had just a small bit of power in hand, and this sufficed to get him first over the line by a matter of half a-length, Barnatu finishing a good third.

## Austin's Hard Luck.

It was an extremely fine performance on the part of Waite's Austin, which had to concede the Lanchester, which had an engine over four times the size, no fewer than 20 secs. The winner's arerage speed was $88.07 \mathrm{~m} . \mathrm{p} . \mathrm{h}$.

The ninth and concluding race of the meeting attracted only three startersthe Leyland-Thomas, which started favourite, a Vauxhall, and a Sunbeam. J. G. P. Themas was compelled to disappoint his supporters, however, on account of continual misfiring, due to carhuration tmuble, and ran in after the second lap, leaving Campbell (Sunheam) the winner

# GRAND PRIX DE TOURISME. 



$T^{+}$HE Grand Prix de Tourisme, which as neld of Saturday last over tho difficult and dangerous circuit at Lyons, was a unique event, the like of whil is never seen in England. It combined the essentials of a strictly observed high speed and reliability trial with the gruelling punishment which engines and chassis receive in a road xace pure and simple

The night was fine, and as the cars burbled or roared their way to their starting positions by the timing box, the clouds, whence a soaking deluge had just fallen. rolled away and the stars shone brightly out of a velvet-black firmament.
Slowly a group of loud-speakers called out the minutes. then the seconds, and there was a pause of breathless silence as suddenly, with a burst of activity the wurd to start was obeyed.

## Feats of Agility

Nows. as earlit eugine had to be started from oxid asid by its own self-starter. the dives: $: \because 40 \cdot 0 \cdot:$ ond on the rizht. hand side o! the ietsicts. Tisey had,

 conce. Corsequast? पौन ? given, one kew ite i.tionto drisers rush round their cas. .as: igs, thes the starter butsons, acd roas wll inte the blackness
Sume cars had difficulty in stastine notially Gabriel's dries, which, with cardmefter spotting, popping and bang ing. went of in the wake of the facter ran Bocch's Mathis also was late in folting away, but when it did go the
B3 1
ngine seemed to be puring smoothiv The Senéchal, with an unusual body, which, although complying with the official regulations, resembled the Voisins which ran in the last year's Grand Prix race, was first round, and it hummed past the stand going very well in deed. A host of larger cars, the othet Senechal, Lefebvre's Voisin, also of unconventional appearance, and the Aries and Mathis cars obeyed not only the letter but the spirit of the regulations, and were, in fact, equipped with perfectly standard two-seater bodies, ob viously no attempt having been made to take advantage of weak points in the legulations.
Lalaurie (Aries) stopped his engine through misjudging a colner, but, re starting on the starter motor, got away again without loss of marks.

Above each pit was a luminous number, over which the names of the cars were written. At a surprise signal turnn g the white number to red, each comretito was obliged to stop at the pits, erect his hond and do three laps, at the rind of which it would be examined for uyy signs of weakness

## A Senechal Crashes.

L.eonard, driving a Sénéchal, had rather an exciting time. First of all. Pougier, on a big Voisin, crashed through a fence and fractured an arm while trying to overtake him. Not lougr afterwards he himself (Leonard) alsn hit the pallisade. This put him ont of the race. for he hent his font axle.
Lefebve, on : Voisin, stopped for a

HE VICTORS
A close up of the successful Mathis eam after the race. On the lelt is a general view of one of the trickiest bends on the circuit.

## whule hour in the comse oi thas wiabtit

 effecting virious reparirs, Lut got whay agath, and so, with ath incontinal antsomeone else had tried cunclustons will a fence or had been reputted as hat whe of more lights out, the lapping of the course contmued.baty bradually dawned. Prople bearan to wend then way back to the stamds. It was everybody'z ambition to finish the night trial absolutely to time at 8 o'clock. Lams, on a Maths, even stopped for while so as not to arrive too early, andi thus was able to cross the line with his team-nates Bocchi and de Bremmade. Senechal pushed his car in in order to spin out the time still further.
The cars were then examined hal reported to the marshals the bene ownt he had sufiered a loss of ballast owing for one of the bags bursting. There was certainly a great deal of sand in the car, but the regulations and officials were inflexible, ind Semechat, who had yone though the whole eight hours' endurance est, and was the only light cay to finish vithout loss of marks, was forthwith disqualified.

## The Speed Event.

At 12 o'clock on Saturday the speed event staried. In this three Mathis were the only survivors among the light cars, and were handicapped according to matks lost during the night, so that Lams started 25 secs. late, de Bremonde 32 secs. and Bocchi 42 secs. Inter. The last-named could not start on the selfstarter, so pushed his car single-handed past the stand until the slight downgrades below the footbridge gave the cat a run; then he climbed in, statting of successfully

Finally, after 13 laps ( 187 miles) had been covered. the Mathis came in with Tams leading, in 3 hrs. 57 mins, de Bremonde, who lad been third for a long lime, had passed Bocchi on the 111h lap. ant so came in scond.
There were. of course, the usual rap firnus welcomes foom the inmates of the Mathis nit, and champagne Howed freply. while some gay spirit imporoved a paindy of a well-known masic hal tune, singing the glory of the victors.


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## ARRANGING THE ACCESSORIES

## THE RIGHT THING IN THE RIGHT PLACEUSEFUL HINTS AND TIPS FOR THE OWNER. DRIVER.

IN somo respects a car is like a house, for after taking possession the owner desires to add extra 1."furniture," and it is in the disposal of this furniture that he shows good or bad taste.

Car purchasers are not so fortunate as to be able to fix the position of the spare wheel, accumulator, specdometer and clock

If, however, they were in that position they would no doubt enjoy a far greater degree of comfort later, even though they had to pay slightly extra for the modifications in the first place
The spare wheel is a case in point It usually finds a home on the running board and, thanks to the reliability of modern tyres and tubes, it is schiom called upon to do even an hour's work for the first 5,000 or 6,000 miles' running of the car.

## Sun Spells Rot.

Whereas the owner need not trouble about the cover being exposed to rain and wind, the effects of the sun are quite different, and probably a wheel unused for three or four months world suffer more from King Sol than it would by becoming thoroughly dry in a protected position. Again, on the running board, it is a constant temptation for the thief, and for this reason also the writer strongly recommends that, if possible, a proper lacker should be provided for it.
Accumulators are somewhat heavy, and this


Furnishing the dash. The clock is on the extreme left and the speedometer as far over to the right as the switchboard will permit. On the extreme right are ignition con'rol, engine awitch, rev. counter and starter switch.
accounts for the fact that they are generally slung in strong iron straps under the floorboards. They are not, however, entirely accessible, and on many points it is preferable to have them firmly lixed to the running board. The cover then may easily be removed, the celis examined in comfort and distilled water added regularly. Care should be taken, however, to see that they are firmly fixed to the running board, which must, of course, possess adequate strength.

The position of the speedometer is a point to which every owner-driver should give serious attention. It is essential that it should ke placed so that it is always in casy view.

Only too often it is found that the speedometer is fixed on the extreme left-hand side of the dash, or at any rate nearer the passenger than the driver. This, generally, is due to the fact that when so placed it is easier to carry up the cable so that it clears the lighting switchboard and starter button.


Preferable to the more usual position on the running board. The wheel is protected againat sun and thieves.

ARHANGRGG THE AC'C'ESSORLES (contd.).
Obviously $n$ speedometer which is placed on the extreme left of the dashboard is not only inconve-


WELL BALANCED AND USEFUL.
nient, but may lead to disaster, because the driver must take his eyes off the road and concentrate all his attention on reading a dial which is set obliguely to his vision.

It shonld be possible for the driver to drop his eyes moinentarily from the road ahend to the instrument immediately in front of him on the dashboard, during which he may still subconsciously be watching the rond

In contrast with the speedometer, there is no reason whatever why the clock should not be on the passenger's side of the dash; in fact, generally speaking, it is preferable, because one's passenger should also be one's timekeeper. Nor is there the necessity for the oil gauge or indicator to be on the driver's side, because a rapid glance is all that is necessary to ascertain whether the reading is correct.

## Troublesome Tools.

The tool kit xiways has been, and probably always will bc, a constant source of perplexity to the owner driver, for the ordinary strap-up lool-kit roll wastes precious minutes if each tool is restored to its proper loop alter use, and few ownerdrivers go to this trouble.

The writer recommends the con struction of a special locker which can be bolted firmly to the underside of the running board, and which should contain the jack, wheel brace and pump. This will remove three fairly buiky articles from the ordinary tonl epace. I'o carry the remainiug equipment, a strong wooden box shouid be made, rattle: being prevented hy cotton waste, which forms a parking between the tools and the !id. Never store the D38

Here is the writer's ideal dashboard, with clock on extreme left and speedometer on extreme right.
magneto spanner and jet key in this toolbox, but keep them in a special receptracle in the door pocket.

The owner-triver with constructive ability often will be able to rearrange the furniture of his car, even to moving the spare wheel to a position which is considnred more desirable and such conversions often more than repay one for the labour invoived. An insiance may be quoted where the speedometer was filted on the extreme left of the dash, and it was desired to add at clock. The sperdometer was remored and the clock inserted, the former then ibeing refitted more towards the centre of the dash, where the driver could read it with far greater ease.

The majority of modern lighl caus are fitted with haud control for the throttle, usually in the form of it lever working in a quadrant eithrer above or below the steering whect Where such a refinement does nout exist, however, an improvised control is often arranged hy means wir Bowden wire and lever: Naturallo. the handiest position should he chosen for the operating lever, but it is most important make sure that the slecte wi one's orelcoat or macintusfi does not foul it as the arm is moved, say, from the wheel t: the gear lever. 'Ilis cantion applies also in the rase of Bowden-operated extra-ar inlets, screen wipers, electric horn pushes, and so forth.
$A$ ear the fittings and controls of which have been snecially designed-either in the firsi place or subsequently -to be suitable for its owner is vastly more enjoyable to drive than one on which the placing of the etceteras is in the nature of a compromise. The manufacturer, it must be remembered, must cater for all sorts-tall and short. In sceking the happy medium to may fall between two stools.
An awkwardly-placed spare wheel. It gets in the way of the driver's elbow. and is chafed by the hood sticks.

Jack, brace and pump should be carried in a special Iccker under the running board. The dotted line shows that it would be unobirusive.

# OOOLSELEY CARS 



WHEN REPLYING to advertisements, miention "The Light Car and Cyclecar." It helps the advertiser and you, and assists the small car movermenl generaliy.

and here's yet more evidence of Rileyability
Brooklands Holiday Meeting
$\mathbf{X}$ One first One second on a Standard sports Speed $81 \cdot 63$ m.p.h.

## A NEW FRENCH THREE-WHEELER.

FEATURESINCLUDE FOURCYLINDER RUBY WATER - COOLED ENGINE, THREE SPEEDS AND REVERSE, CHAIN DRIVE, NOVEL SUSPENSION AND 60 M.P.H PERFORMANCE.


An attractive and very aporting appearance has been gained without alacri ficingaccommodation. Siag gered seating is employed

AN intercsting new three-wheeled cyclecar has just unille its appearance in I'aris. This machine, which is known as the D'Yrsan, is a very highgrade production
French threc wheclers are few in number, but they make up for this in quality, and the D'Yrsan is a worthy example. In the general layout of this machine the special problems attaching to the design of a chree-whecled vehicle have been carcfully studied.

The frame is a rigid and substantial affair in heavygauge steel tuling. The power unit comprises a four-cylinder overhead-valve Ruby engine, with clutch casing and gearlon in one. The Ruby is a well-known proprictary engine, which is exceedingly popular :in France. It is used in many of the best-known sportirg cyclecars. The engine fitted to the D'Yrsan is the T.S. 1ype Ruby, having a bore and stroke of 57 mm . and 95 mm .
Overhead valses, which are in tungsten steel, are operated by push-rods and rockers. The pistons are aluminium. A Solex carburetter is used and a Saga high tension magneto. A metal-to-metal single-dise clutch is fitted, running in oil.
The gearbox gires three forward speeds and a re-

versc, with central gate change of the ball type. The whole makes up a particularls neat and cleanly finished unit.

In the front suspension of the D'Yrsan, the idea of allowing independent movement of each wheel has been adopted. This idea appears to be gaining ground amongst French designers, and it certainly makes for smooth running, even over the most appalling road surfaces. In the D'Yrsan, as in the case of several other independent springing arrangements which embody the same principle, there is no front axle, properly speaking.
Two long flat transverse springs are attached to the frame, the central points of attachment for the upper spring being very much wider apart than those for the lower one. The ends of these springs are anchored above and below the steering pins, and the

whole arrangement is completed by single-armed Hartford shock absorbers on each side.

The rear suspension is a masterly piece of work. The forks are composed of two very substantial dropforgings in special steel. They are stiffened by a cross-member and hinged to the back of the bevelgear casing, the latter being a steel casting.
The bevel gearing gives a reduction of two to one. Both the propeller shaft and the countershaft are mounted on S.K.F. ball races, and the driving sprocket comprises a spring and ratchet type of shock absorber on motorcycle lines.

Both the front-wheel brakes and the transmission brake, which is located on the countershaft, are operated simultaneously by pedal. The lever operates the transmission brake only, a neat compensating arrangement preventing the front brakes from going into action when the hand brake is pulled on.

## Detachable Wheels.

The whecls are all detachable and interchangeable, and the arrangement for taking out the rear wheel without disturbing the chain or sprocket is particularly good. The rear sprocket, which is mounted on ball bearings, remains on the fork.
Changing the back wheel takes even less time than that usually required to change the wheel on an ordinary car. The wheel hubs are provided with two dogs, which engage in slots in the sprocket. When it is desired to change the wheel, a nut and lock-nut are removed, the taper spindle is pulled out, and the wheel, with its ball races, instantly comes away.
The bodywork on the D'Yrsan is quite good, and the machine has most attractive lines, whilst mechanic ally speaking, the machine presents many retinements which are not always to be found on a fourwheeled cyclecar; the engine is arranged for an electric starter, but this is an extra. The price of the touring model is 9,650 francs and that of the special Sports model 10,500 francs.

Needless to say, the D'Yrsan is a yery fast machine. Modern French cyclecars are very lively, and usually capable of something like $60 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. Without tuning. The D'Yrsan has only just made its debut in competition work in the Circuit du Nord, where it did exceedingly well. The makers' address is Les Cyclecars D'Yrsan, 111, Quai d'Asnières, Asnières, and we understand that they would like to get into touch with a progressive English agent. The price in England would be about £120.

## MOTORING MATTERS IN PARLIAMENT. <br> GOVEKNMENT'S ROAD PROGRAMME-NEW MIAIN ROADS-LEVEL-CROSSINGS-SLIPPERY SURFACES.

AN interesting and important explana. tion of the Goverment's new road programme was given in the House of Commions recemls by the Chancellor of the Exchequer (Mr. Siowden).

The Chancellor said that the coming of rade transpert had completely altered the situation with regard to the roads, which were unfited for this new form of traflic. Each yerr no less than $\pm 40,000,000$ was speut on the roads. The (invernment liad approved a further rad programme of $£ 13,500,000$, to which Their contribution wonld be $£ 10,400,000$. sir Richar: Redmanne had been sent to rpport on the merits of certain altemative mates in comection with the projosed Manchester-Liverpool road. The finvernment had made up their minds to rime to a decision whether or not to luild the rad without waiting for anchlier lengthy period, and so soon as it was shown in be practicable that the rond could he constructed he did not llink the differences between the Gore:mment and the local authoritics, as to their shaves of the contribution, would 1:esen: any insuperable diffculty.

## Glasgow-Edinburgh Road.

The fovernneent had also agreed to sulend $£ 5,000,000$ on the reconstruction of new main roads. and he helieved the work would be well in hand before the "inter his passed. The scheme for the Vhisgow-Edinburgh road was so advanced that in the next week or so the Minister of Transport would cut the first sod. The proposal for a tunnel under the Thames had been considerably idvanced. The question of a big road to 1 lie docks was also under consideration. This would perlaps be the most im potant scheme foi the relief and im"rowement of T.nndon traffic that could lis ronceived.

Mr. Snowden ardded that he was a Ewat enthusiast for roads. He would
like to see-and if he remained a member oi the Government sufficiently long he should press it upon the Govermment, because he believed it was essential in any scheme of national reorganizationthe magnificent Great West Road catried right through to Penzance ; a main roard from London to Aberdeen: and nnother road throngli Carlisle on to Glasgow. Ife belie:ed that would be taken in hand some day, and the sooner the better. The Govemment liad also under consideration the gusstion of a bridge over the River Tay.

## Level-crossing's to Go.

In the course of the discussion which followed, Dr. Macnamara asked what road and bridge programme it was for which $£ 13,500,000$ had been authorized. Mi: Shaw, the Minister of Labour, said that that sum was for entircly new works. The liverpool and Manchester road would absorb $£ 3,000,000$, the new Chertsey road $£ 1.500 .000$; the various vad schemes, $£ 3,000,000$; bridges, $£ 1,000,000$. and the remaining $£ 5.000,000$ would be for reconditioning and remaking national arterial roads at the cost of the nation.

Apropos of the Thames Tunnel the Ninister of Tinnsport has informed Sir Frederick Wise that an eminent engineer, acting under his instructions, had for some time past been studying the problem of constructing a road tumnel under the river between Kent and Essex. So soon as his investigntions were completed. the matler would receive his (Mr. Gosing's) careful attenfion.

Motorists will learn with interest that the Minister of Transuort proposes to ret rid of a number of level-crossings. Replying to Viscnunt Curzon. he stated that, as a result of his inquiries, and as part of the general scheme now under consideration for the improvement of some of the principal trunk roads, it
was intended to do away with certain of these crossings. He was always ready to consider fayourably applications from highway authorities for assistance to any practical proposals o! a similar nature on mpatami roads.
'The Minister' alsu informed Lord Curzon that cumplaints as to tho slippery natura of certann road surfaces were being earelully investigated. Contimuous attention was given to the whole problem of combining smoothness of surface with adequate grip for tyres. He now had it Bill awaiting its second reading which would enable him to make full enperiments. Mi: Gosling further told Captain Brass that on the Great North Road atrangements were being made for the trial of certam expedients designed to improve the foothold under adverse weather conditions. The experiments would bo made by experts.
Mr. Gosling has been questioned as to the practicability of enforciner more stringent regulations with regard to the size, design and equipment of road vehicles in order to lessen the damage done to road surfaces. Replying to Mr. Rentoul, he said the point was considered by the Departmiental Committee. IIe did not consider it practicable to make the existing regulations mors stringent at present. He had no poser to make tests or offi. cial experiments in order to encourne improved types of velicle, but he was seeking such powers in the Roads In. provements Bill.

## Petrol Pumps.

Jt.-Col. James asked whether the Western Road woald shortly he open for general traffic, and Mr. Gosling issured him that the arrangements made for Ascot week would again nperate in about a fortnight's time. Traffic, by making use of Adelaide Road and Boston Park Road, would then be able to procead from the Chiswick High Road to the Bath Road wilhout interruption.
Mr. Alexander, on behalf of the Board of Trade, assured Mr. R. Marrison that a Bill to make petrol measuring pumps subject to the provisions of the Weights and Measuras Acts had passed the House of Lords. He hoped it would be possible to proceed with it in the Ilouse of Commons after the Stummer Recess.

TMIE Surbiton Motor Club's annual 1 Jondon-Barnstaple trial started at the Old Oak Hotel. Surbiton, at 10 p.m. on Saturday last, the entry being open in motorcycles. three-wheelers and cars. Of the last named there were 19 starters, whilst $F$. W. Dame was the only represestative of the threc-wheeler and was driving a Morgan.

Although the weather had been threatening, it was fine at the start and, fortunately, rain held off during the night. The run to Andover was without incident and all checked in on time. Although the route from Farnham to lasingstoke was somewhat tortuons, it uns well arrowed, and no one found any difficulty.
After refreshment at the White Hart Hotel, the next stage of the journey to lirdgwater was undertaken, and here, arain, there were no late comers, despite the fairly severe time limit-two minutes carly or five minutes late
Followed the real business of the trial cimmencing w:th Porlock, w!hich was in 1.42

## THE LONDON-BARNSTAPLE <br> PORLOCK ANL LYNTON ACCOUNT FOR SEVERAL FAILURES.

fairly good condition. In spite of this, however, there were several failures. Amongst the light cars excellent ascents were inado by W. G. Hall (11.9 h.p. Palladium), Ian MacDonald ( $12.20 \mathrm{h.p}$. Calthorpe), V. IV. Derrington ( $9 \mathrm{h.p}$. Salmson), and J. W. Havers (11 h.p. Riley). R. G. Spikins ( 9.5 h.p. Salmson) came up very fast, but suffered from excessive wheel-slip after skiddin round the second hair-pin, and actually came to a standstill momentarily. G. Ewens (11.9 h.p. Palladium four-seater) had to shed two of his passengers, and E. Volk ( 10.8 h.p. Clyno) only managed to get up solo. The following failed :J. A. Driskell (9.5 h.p. D.F.P.), A. J. Whitehend (11 h.p. Riley), and R. C. Webster (12 h.p. Talbot)

Lynton was loose and very greasy,
which accounted for severnl failures. A. Warren Lambert, in a $25.30 \mathrm{~h} . \mathrm{p}$. Crossley, showed what a high-powered car can do by making a very fine climb and heartening those who followed. Then on to Beggar's Roost, which was loose, as usual, but not greasy-a fact which made chains unnecessary. The star turn was provided by Spikins in his sports Salmson, who came up at great speed. Good climbs were made by S. D. Marr 11.9 h.p. Palladium). J. W. II (11 h.p. Riley). V. W. Derrington (9 h.p. Salmson), and Ian MacDonald (Calthorpe).
The remainder of the run provided some fairly rough going, and a wntersplash, and by the time Barnstaple was reached five of the car starters had been weeded out.

## Terformanceis Proof <br>  <br> CORD TYRES <br> and the <br> SCOTTISH ‘SIX DAYS’

(generally acknowledged to be the stiffest trial of the year).

## Awards gained on DUNLOP <br> (In the Light Car Section).

Silver Cups
.... .... 77 \%
Gold Medals
.... .... .... Silver Medals Bronze Medals .... .... For speed and reliability there is no better tyre in the world.

ESSEX MOTOR CLUB 18th Annual Race Neeting BROOKLANDS, July 23rd FOUR FIRSTS FIVE SECONDS THREE THIRDS all gained on DUNLOP

| The |
| :---: |
| DUNLOP CORD |
| MOTOR |
| TYRE. |



DUNLOP RUBBER COMPANY LTD., BIRMINGHAM, and Branches throughout the VVorld.


[^1]

The services of the staff of "The Light Car and Cyclecar" are always at the disposal of readers. Queries of general interest will often be answered under this heading, but a stamped addressed envelope should alway's be enclosed. Correspondents are requested to write upon one side of the paper only.

Renewing Viorn Brakes.
A. ( E (Withy) - If your brake drums are undills "...7 the best courso which you wall adupt is to fit new ones, althonish is maty be possible to weld a new rimin man the old drum, provided that it a linecl out true to allow for the ithertion of a limer

Picturesque Route to the North. I,C. (Doncaster).-As an alternative to the Gireat Nurth Road and to avoid several of the industrial centres wo can ertainly recommend tho Doncaster, Sclby, Jork, Filey, Scarborough, Whitby, Stockton and Sunderland route. Although marlied as tertiary on many roid mi mis, the road from Filey to Whithy is in grood condition and very picturestue.

Eenzole Mixtue.
C.I. (Ifendon). - In our experience a henzole mixture has been found to give entire satisfaction. The formation of carbon is nether greater nor more rapid than when petrol is used, and sweeter running, together with better pulling, is ofter obtained. Any tendency toward's "knocking " due to preignition is largely overcome, and we advise you to give it a trial, as no harm can result in any case.

## Gear-changing.

P.S. (Howden).-Difficult gear-changing on a Salmson car is usually due to insufficient lubrication of the clutch withdrawal mechanism. This operatiou should ho frequently performed, using thick oil. If, after attending to this point, you still experience difficulty in changing down, we suggest that, instead of doublo declutching in the usual manner, you merely ease tho clutch slightly, at tho same time keeping the accelerator depressed and moving the gear lover smartly into the desired position.

## Camphor in Petrol.

A.C. ('Tottenham). - The idea of introducing camplior-balls into uno's petrol tank is one which is fatrly generally known, but opinions difer as to its efficiency. $\quad 4$ well-known preparation which enjoyed a large sale some timo ago, and which was guaranteed to decrease petrol consumption by at least 25 per ecut., as well as lessening the carbonization of the engine, was said to be largoly compnsed of ordinary camphor. So far as we know, the use of such subEtances is not necessarily harmful.

## Dual Ignition

H.E. (Gloucester).-We do not think that you would derive any appreciable benefit from the fitment of dual igmition to your car, and in any case the expense would hardly be justified. There are a few sparking-plug manuacturers who market double-poic plugs, and wo think we are right in saving that the Lodge concern is among this number.

Transmission Shock Absorbers.
D.G. (Teddington).-The fitunent of a shock absorber in the transmission of your car is primarily intended to ensure smooth runting and to prolong the lifo of the chains The shock absorber is particularly beneficinl at low speeds, especially when travelling on a high gear ratio, as without it the running would be harsh and jerky and the chain drive would be submitted to oxcessive strain, which would, sooner or later, cause it to break. Whon correctly alljusted the shook absorber should allow a certain amount of initial slip in the transmission before tho drive is positively taken up.

## Sleeping en route.

L.H. (Leicester). With reference to the suggestion that you should sleep in your car on the roadside during your forthcoming tour. we believe that there is an ancient Highways Act which prohibits this practice on the King's highway, originally framed in connection with vagrants and gipsies. However, provided that you select a secluded place (as you doubtless would). preferably situated in some quiet by-lane, we do not think that you need fear any interference from the law, especially as you would not remain in the same spot for more than a few hours at a time.

## Piston Clearance.

B.L. (Cardiff)-The correct clearance for cast-iron pistons 85 mm . in diameler should be ten-thousandths of an inch at the skirt and four thousandt hs of an inch at the top. For air-cooled engines these figures should be twelve and seven rospectively. In the case of aluminium pistons fitted to a water-cooled car the usual allownes at the top is a uumber of thorsandths of an inch equal to a quarter of the boro in millimetres, e.g. with a bore of 80 mm . 20-thousandths of an inch would bo allowed. At the skirt. in a similar instance, this figure is halved. It is customary to reduce the waist of a piston by about one-thirtysecond of an inch in order to assist lubrication and to diminish oil friction.

## Low-pressure Tyres.

A.R.F. (Lincoln).-It is quite a sound plan to use low-pressure tyres on tho rear wheels only. In the event of one of them being punctured there is no reason why a normal pressuro " spare" should not temporarily replace it, the circunferences of the two patterns being almost identical.

## Loss of Compression.

C.II. (Sydenham).-Your loss of compression, with consequent overheating and effect on the engine efficiency, is probably due to an air leak past the plug which has taken the place of the "hot spot" in the cylinder wall. We suggest that the plug hole should be drilled out, retapped and replugged.

## Skidding Without a " Diff.

O.S. (Bromley). - It has heen our experience that, so far as skidding propens:ties are concerned, the absence of a differential is advantageous rather than otherwise. With d differentialless car skids are much more easy to correct than in cases where a difierential is fitted, whilst the even braking obtainable of the "diff."-less machine allows of a much more rapid pull up on zreasy roads.

## The Light Car Limit.

T.G. (Durham).-The present controversy with reference to the engine capacity limit for light cars is the result of the Royal Automobile Club's decision to allow cars with engines up to 1,600 c.c. capacity to compete in their Small Car Six Days' Trials which were recently held in Wales. The fgure which was previously recogaized, and which is still recognized on the Continent and in the U.S.A., is 1,500 c.c. General opinion is against the adoption of the larger figure, and we ourselves are umable to see any reason for the change; io fact, we share the view held by tho trade and the motoring public generally, that it is definitely detrimental to the light car movement.

## Oil on Coachwork.

II. L. (Lowestofl).-To remove oil which has become sprayed on to your bodywork we would recommend the application of one of the numerous preparations specially marketed for the removal of tar stains from paintwork. Failing this suggestion. the use of lard or butter might possibly achieve your object. On no accounit use petrol, benzine or parafin, as any of these, although they might remove the oil, roould very probably remove the paint as well.

## Electric Starter Cables.

E.R.P. (Edmonton). - The reason why rery stout cables aro used to convey current from the battery to tho starter is because it is essential that as littlo resistance as possible to the How of cur rent should be introdnced. In the case of your own light car, on which the chassis frame (termed "earth") is used to conduct the negative current from the batlery to the starter motor, one strand of 8 -gauge copper wire would suffice to convey the current the distance of eight miles from the battery terminal to the frame, but we should certainly advise you either to employ several str:unds or to untain a short length of the inrect type of cable.


#### Abstract

He uchcome at all times letters sent us by readers for publication in these colnmos, and, while takinn no responsibility for the opinions expressed therein, give preference to thosc letters which alcal tuilh subjects of mencral intcrest. No amonymose commonicafions will be accepted, but the rurifer may use a mons de plime if desired. Lefters shomld be as bricf as possible, bill not abbreviatce. W'e resertic the right fo make any alterations or deletions which tue deem necessary.


## First-aid Outfits - S.O.S. Signals - Average Speeds.

## First-aid Outfits

Sour correspondent, Mr. John Havers, suggests that it would be of use for every motoriot to carry with him a small firstaid outfit. The Auto-Cycle Union approved an outfit similar to this early this year, and it has
A.C.U. Ap. been on sale at over 7,000 chemists proved Pattern. Throughout the country ever since. The contents are very similar to those sub. ofsted by Mr. Havers, and the retail price is 2 s . The Union has heard from many of its members already how valuable they have found the outfit, and I can heartily endorse all that Mr. Havers says as to the desirability of including this small entra amongst one's "spares."

IT. W. Lofghyorolgh, Secrelary, A.C.U.

## A Suggested Distress Signal.

F. M. Inwood seems to have been unfortunate in his ex. perience of the road courlesy shown by moturists. My experience has been exactly the apposite.

But there is no doubt that some furm of distress signal, easily recognized, would be useful when help is desired.
I would suggest that three "toots" on the horn in quick successton be the recognized S.O.S. of motorists.
This signal would operale for traffic in either direction past a stranded car or cycle, and would be effectise in day light or darkness.
E. W. Batten.

## The Camaraderie of the Road.

I notice in a recent issue of your paper that a reader comments on "The Camaraderie of the Road." There are, how--rer, a few puints in this letter which may be distinctly misleading to new motorists. The tirst is

## S.O.S. Signals Heeded.

 that there is no doulst that this "camaraderie" exists among old motorists. Tho next point that strikes one as curious is that if the lucal garage was going to tow the car, why it could not be pushed a few fect, and the fact that the car was jacked up 4 fi. from the kerb would mean that it would be repusing at least 9 ft . of the roadwar.The prohability is that the majority of motorists that passet 1houghe that the car was jacked up because of tyre trouble. and our quandam cyclist friend has got another guess coming if he thinks that perple are going to stop on the road every ime they see a person with a puncture.

I have on many mimilar occasiuns stopped, only to find that the person in charge of the car did not know the tirst thing about it. and. after doing the garabe man's work. have heen rewarded with a rasua? ur begadged Thank you!" for my


I heartsly agree with your suggestion that some form of distress signal should be devised by one of the motoring organizations, and I offer a suggestion to then through your journal: that they supply them members with an adhesive disc oi paper in some distinctive form to denote that they need assistance from a passing motorist, when I am sure that such a distress signal would never be disregarded. even if it were only to help to get the car to the side of thu road, thus removing what would be probably an inconsentenco and danger to uther rond users.
hugi l'. McConnell.
38 m.p.h. Aveiage Speed.
I wonder if any of your readers can beat a very remarkable run which was mado by one of the competitors in the scottioh Trials when returning south from Edinburgh. Iie left at half-past eight in the morming and reached home, some 322 miles away, at six minutes past
Three-wheeler five the same alternoon. His gross lime Acceleration was 8 hirs. 36 mins., from which 11 mins. hiad to ke deducted for various stops, so that his average speed works out at just over $38 \mathrm{~m} . \mathrm{p} . \mathrm{h}$.

The fastest part of the juurney was that magnificent stretch of road between Carlisle and Penrith, this 18 -milo section being covered in 21 mins. The 97 miles from Eidmburgh to Carlisle? was covered at an average speed of $45.4 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. , while the average for the rest of the journey from lenrith sonth varied between 34.2 mp p.h. and $36.6 \mathrm{~m} . \mathrm{p} . \mathrm{h}_{1}$. Tho machine, which was a three-whecler, was capable of 62 m.p.h. as a maximum, but its remarkable average must havo been due principally to its rapid acceleration to $50 \mathrm{~m} . \mathrm{p} . \mathrm{h}_{\text {. }}$ and to the efficiency of its front-whee! brakes. Summarized the average speeds for the run were as follow:-

| Edinburgh-Carlisle | 97 miles in $128 \mathrm{mins}=45.4 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Carlisle-Pemith | ... 18 |  | 21 | , | $=51.4$ |  |
| Pemrith-Lancaster | .. 52 |  | 91 | , | $=34.2$ |  |
| Lancaster-Warringtorn | 51 | - | 89 |  | $=34.3$ |  |
| Warringtun- Whitchurch | 33 |  | 56 | , | $=35.3$ |  |
| Whitchurch-Bridgnorth | 35 | , | 61 |  | $=34.4$ |  |
| 13ridymorth-Malv:m | 36 |  | 59 |  | $=36.6$ |  |
| Edinburgh Malvejn | 322 |  | 505 |  | $=38.2$ |  |

It must be admitted that rery few small car owners could sately keep up such a high merage speed, but I can vouch for the facts which are furnished to you by

His Confivinit.


You'll be off the beaten track this August.
And it is off the beaten track that Goodyears made their name. In the wild places of the earth they have built an outstanding reputation by unequalled performance.
Where cars had never run beforeGoodyears carried them; over stony mountain passes, over rutted prairie trails, over the shifting sands of the desert.

You'll want your car to travel trouble-free these holidays - to picnic spots remote from the main road's dust, to moorland heights, to that secluded bathing cove.
Choose the tyres that have proved their tough, enduring strengthtyres with the toughest tread there is-Goodyear Cords with the surefooted, slipless traction of the AllWeather Tread.



12/50 h.p. Four-Seater Super Sports, O.H.V. £575

## McKENNA DUTIES

MOST thoughtful people view with grave apprehension the Government decision to expose the great British Motor Industry at a most critical period to unrestricted slaughter by the foreigner.

Everybody, however, is unanimous in agreeing that the one British Car which has nothing to fear from foreign competition is the ALVIS.

Several thousands of enthusiastic owners are always spreading the Gospel of ALVIS Perfection, and for them and for many others it is the only car which completely satisfies.

To appreciate the delights of Motoring-ride in an ALVIS!


# ALVIS CAR \& ENGINEERING CO., LTD., 

OUR READERS' OPIYIONS (contd.).

# Furthur Opinions of the Light Car "Limit." 

## A Boycott Advocated.

Wo have yet to reccive sufficient reason from the R. A.C for increasing the capacity limit of light cars. Why the governing body should endeavour to alter the keynote of the iight.car movement-efficiency with economy-it is difficult to understand; but motorists have the remedy in their own hands. It is only necessary for those who are members of the Club in question to resign their membership and for new car owners to refrain from joining the Club, then the R.A.C will soon realize that the ruling section cabnot make unnecessary and drastic changes aganst its members' interests without first consulting them. Richard Bathgate

## The R.A.C Urged to Reconsider.

I have read your very interesting cditorial, "Tropics of the Dav," advocating the retention of the 1,500 c.c. limit for light cars, and most strongly supporl your views

Originally the light car was designed to provide cheap motoring, and cars with engines not exceding 1,500 c.c. lave proved entirely satisfactory.
In my opinion, therefore, it is very obvious that the Royal Automobile Club, in fixing the engine limit at 1.600 c.c., is pertalizing any 1.500 c.c. engrne which competes in the same class, and manufacturers fitting a 1,500 c.c. engine must eventually, to protect hemselves, increase the capacity of their cunine.
This ill turn will lead to their cars being strengthened else where, and conseguently the light car will become heavier
Increascd rmming costs are inevitable with a larger and heavier car, whereas the entervour of every light car manufacturer should be to cut down woight and obtain greater officiency, Lhus giving the public the benefit of still more economical motoring.
I strongly urge that great pressure should be brought to bear on the Royal Automobile Club by the Press, manufacturers, agents and the motoring public to reduce their present limit of 1,600 c.c. to 1,500 c.c. and thus encourage British mannfacturers to improve their light cars in the real senso of the word, as we know it to-day.
Thers is very little doubt that the British light car is the best light car in the world at the present time; it is far ahead of its foreign competitors and without doubt will hold its own if our manmacturers are encouraged to keep it a light ear.

For 'The Clyso Firainivaing Co. (1322), J.td.
Frank Smith, Managing Director.
"Decrease" Rather than "Increase.


I was extremely interested to read your very pertinent remarks on the subject of the $1 \frac{1}{2}$-litre limit for the ecoriotny car.

It is my personal opinion that all definitions should be renewed from time to time; "facts" have a dis tinctly pronounced habit of changing their character with the passing of time! The economy car of to-day will probably be considered very extrava gant ten years hence owing to the relatively small size of engine which may become standardized.
This naturally renders any uttempt to increase the capacity of the small car limit which has become widely recognized rather unfortunate.
However different may be the racing car from the touring model, the fact remains that with a capacity of 1,500 c.c. 100 miles per hour is not a very difficnlt object of attainment

Fuel costs are increasing almost daily and the twin subjects of comfort and economy are becoming so important that constant changing of definition is liable to remove nttention from more serious matters than engine efficiency alone.

A very large number of cars which are made with engines exceeding $1,500 \mathrm{c} . \mathrm{c}$. will not give a petrol consumption regu larly of over 30 miles per gallon on rough roads, largely because weight and a variety of accessories have increased to such a pitch that economy is almost forgotten.

Continental manufacturers regard the 1,500 c.c. limit as ample; they are indeed devoting their attention to the smallengine car of the future
Even American manufacturers are now taking up this attitude. If, therefore, competitions are encouraged in this country which suggest to the public that 1,500 c.c. is not ample for the economy car, it can only result in unfavour able comparison during the next few years when our Conti nental and transatlantic friends produce their light $1 \frac{1}{2}$-litre nachines.
If the attention of the governing bodies could be drawn to this fact it would be of the greatest service; success in ally industry can be obtained only by eccurately predicting a demand.
It seems almost unnecessary to add that the adrent of the forced induction engine may completely alter our ideas
I cannot believe that the small car of the future will be fitted with an engine exceeding 1.000 c.c. or that its petrol consumption will ever be less than 50 miles per gallon
A. M. Low.

## Disabled Drivers.

I notice in the l'ress that there is again a proposal to refuse driving licences to those of us who are in any way disabled, notwitistanding the fact that disabled drivers are

## usually more careful than those not so

 R.A.C., A.A. and A.-C.U. will lend their support to protest against this measure of the Ministry of Transport.To ride is practically the only pleasure and recreation we can get in life, and apparently we have now to resign oursolves to sitting it home by the fireside and gracefully grow old.

I would suggest that every disabled driver immediately writes to his M.P., asking for support against this proposal.
It would be interesting if statistics were available to show what percentage of accidents is due to the shortcominge of disabled drivers. The figure would be very small. Let us have a test by all means, bet no barring direct.

Any reckless driver could be involved in a dozen smashes, while his innocent victims, perhnps badly crippled, are debarred ever afterwards from taking nny active part in life.

Merely to walk is painful to many, whereas we can drive cars, and thus get some small enjoyment out of life. B.

- Our correspondent states the case for the disabled driver in an admirable manner it is to be hoped that definite oflicial action will be taken. - Ed.

The Light Car in Australia. On looking through your recent issues for March, 1924. I see animat ed discussions carried on by "G.N.-a-Car" and other contributors on the reliability of the G.N. cyclecar. 1 do not propose to enter into this discus-

## British Cars

 Wanted. sion, but, being a light car enthusiast and having only left Eugland eight months ago, I should like to know why it is that there are very few cars of this type in Australia-or, I should say, in South Australia? For what reason I cannot see The roads are not too good, admittedlv, but, considering that these cars usually get through the "Colonial section" of most trials in England, I rather think that they would do perfectly well out here. I refer especially to such cars as the A.B.C., Rover Eight and others of their class. These cars are well built, speedy and, if properly handled, have plenty of power. Why does not some enterprising English manufacturer start a big agency business out here? Adver tising would help, and a few demonstration cars would soon set the sales going. I see from your paper that the Clyno firm are going to start. I only hope they will succeed.May I say that I look forward to every English mail, as I know it will bring a copy of your journal-always interesting and full of useful information.

Ligit Car Entbusiast.
Kyancutta, South Australia

* Increasing attention is being given by British manufac
- turers to the possibilities of the overseas market.-Ed


## UU゙R READE゙RS' OIMNIONS (contd.).

## A Talbot $S$ Improvement.

In reply to "E.G.B." (Portsmouth). I may say that I had the same troublo with a Talbot Eight. This was cured by cuthon a nurow ring of rubber from an old inner tube, and

A Suggested Cure. slippine it over the filler cap, thus plugging up the aperture. If the joint in the body up the aperture. If the joint in the body enter at this point and drip on to the driver's ankles. To eflect " cure insert some putty and fill up tho crack, after wards painting over. Trusting that this will help "E.G.B Sheffield.
F. Tиompson.

I sympathize with "E.G.B." (Purlsmonth) concerning his unfortunate experience. If he were to change his present pattern of tank for the new one would it not be possible to

> A Similar
> Complaint. fit rentiater in the hole left by the petro
> splashing up through the gate on to my legs.

There has been some correspunduce on high averare speeds vour columms. I recently undertook a journey from Six Hills to Newark with two passengers. The distance, which is 23 miles, was covered in 33 minutes, with the hood and side curtains up. All reasonable precautions were taken at crossroads and comers, slowing down to $15 \mathrm{~m} . \mathrm{p} . \mathrm{h}$ and less, and the bighest speed recorded was $53 \mathrm{~m} . \mathrm{p} . \mathrm{h}$,

I have no comection with the manufactmers, except that of a satisfied owner.
Bradford.

## Holiday "Snaps.'

Your recent paragraph on holiday photographs has wompted me to forward the accompanying "snap." With Oban as a centre, three days may be profitably spent in

The Western around. Surfaces are fair, but the roads Highlands. are narrow and twisting-blind corners are many, calling for ant easy pace, frequent use of the horn as a preceding warning and close attenlion at the driving wheel.
The scenery wifl repay those who care to explove this dis. frict, and it cannot be said that even the most attractive spots are inaccessible

Thus. M. Dunn


A pleasing souvenir of a holiday happily spent. A
photograph of Loch Awe in the Highlands of Scotiand.

## Air versus Water Cooling.

Some little time ago I wrote you of my experience with a Jowet car, in connection with correspondence in your columns under the above heading. At the time I had cum-

## Further <br> Experiences

 pleted 13,000 miles without decarbonizing.the opportunity and removed advantage of
cylinders remarkably tree from carbon deposit, which speaks well for the lubricating system of the Juwelt engine in conjunction with a first class vil (Price's Hujle de Luxe has heen in use during the whole period)

I must sily the Jowett has given me every satistaction at small expense, notwithstanding the fact that my business juarneys take me over very diflicult roads and up some of the stiffest hills in the Lake country, on none of which has it crer failed me. Necdless to nay, 1 have no interest in the dowett firm.

Tunvelek.

## INFORMATION W ANTED.

Owing to pressure on our space it is impossible to include readers' replies to queries in " Our Readers' Opinions," and correspondents anxious to help fellow car owners are courteously requested to communicale direct with the address which is given in most cases.
G.N.

I should be very pleased if any reader would loan or sell mo a 1921 instruction book for ©.N. cyclecar.
" Strathbourne," C. L. Russele. Sycamore Arenue, Harehnlls Lane, Leeds

Jcwett.
I shall be obliged by readers' experiences of shock Wsorbers which they have fitted to Jowett cars
W. Lormsley. School House, I.eyburn, N. Yorkshire.

Reclaskids.
I should be ubliged by any reader's opiniuns and experi ales of Rectaskids, particularly when fitted to a Bayliss'Thomas.

Northdene, Lymm, Cheshire.
Scolt Sociable.
Will any reader oblige me with his opimons ol, and . periences with, the Scott Sociable, particularly with regat o general wear in all parts? W. J. Humbithes
40, Elliscombe Road, Charlton, S.E. 7.
Windscreen Wiper.
Winperienced gratefully received of an electic wimdsereen wiper fitted to a single panel screen as on the $1 . C$. Also comparison of makes and prices. L. lliand.
6, Church Road,
Forest IIIII, S.F.26.
Bugalli.
Opinions wamted of the $11.9 \mathrm{~h} . \mathrm{p}$. Bugratti, suitability for noring at about $25 \mathrm{~m} . \mathrm{p} . \mathrm{h}$. , efficiency of brakes, clutch, petrol and oil consumption, general upkeep and reliability
A. C. Hons.

24, Priory Road, Dunstable

## CONDENSED CORRESPONDENCE

H.C.-A. (Barnsley) writes in nppreciation ol the 1 epair service afforded him at a reasonable price by Willians and Sons, Bala, North Wales.
H.S.IB. (Maidstone) recommends the Roval Native Garage, Northwood Road, Tankerton, Kent, to. fellow light-carists for prompt and efficient service.
A.D. (Stockton Heath) wishes to recommend the speedy and excellent service which he obtzined when on tour in Devonshire recently from Sellers, Ltd., the Arcadia Garage, Eixmouth
G.'I'E. (Helensburgh) writes in appreciation of the prompt atid courteous setllement of msurance clains made under a policy issued by John Godsal and Co., insurance agents, 7, Camomile Street. London, E.C.3.
E.E. (Merioneth) writes giving details of n recent journey of 165 miles along the Welsh Border and through North Wales which he undertook in a 1923 Rover Eight. II is aver. age speed was $27 \frac{1}{2} \mathrm{~m} . \mathrm{p}, \mathrm{h} .$, the greatest distance cuvered in one hour being 30 miles and the shortest mileage covered in the same length of time being 23 .

One of unr readers, H S. B. Booth, would like to get into touch with anyone willing to join him in a motor tour com mencing September 13 th. He has three seats available for passengers in his car. Any reader who would care to acconpany Mr. Buoth shonld write him at "Strathmore," 116, Wivilesley Ruad, Harlosden, London, N. WV. 10.


FACILITATE BUSINESS, and ensure prompt allention to your enquiries, by mentioning The Light Car and Cyclecar "when writine to advertiscrs They will appreciate it.

## Flawityind? <br> THE"SOLEX" SUMMER TOURING SCHEME

IN order to focus attention on the pleasures of Summer Touring we have inaugurated the "Solex Summer Touring Scheme." Motorists are invited to send us a short description of their tours, accompanied by photographs if desired, and for the most interesting entries we are offering the following awards:

## 1st Award £50

## 2nd Award £20 3rd Award £ 10

Together with 20 Consolation Awards of $\mathscr{2} 1$ each.
NO details of Solex performance need be included, just a short story of the tour itself, the route followed, and any interesting features associated with it. Any make of car can be employed, but it must be "Solex" equipped. The description should not exceed 200 words.
TF you are using some other make of carburettor. 1 avail yourself of our special 30 Days' Free Trial Offer, have a Solex Carburettor fitted without obligation, and test for yourself its economy, simplicity and efficiency. You can then enter for our touring scheme at the same time.
Ask your local garage - or send direct for full particulars and


## AROUND THE TRADE

Mebes and Meles the well-known liglte car specialists, of 144. Git Portland sifeet, IV: I, have been apminted trade and retail agents for Remault cars.

The Arc Atomizer is one of the most ingenions of extra air inlets. It is handled lav J. W. Pickavant (Himsolf), Lid 27. Summer Row, Birmingliam. The new reduced nrice 57s. 6d.

Orer 100,000 motorists in Eurcpe are using Michelin low pressure "Cable-Coniort" tyres, and wo have received from the makers of these tyres a concise leanet giving the information necessary to convert practically any mako of car to take Mishelin Tyre Co., Lid., 81, Fulkara Road. Lemdon. S. WV.


The attractive new premises of Bernerd Norris, Ltd., in Broad Street, Birmingham

Awards gained by machines using Dunlop tyres in tho Scottish Six Daj's' Trial were as follow


The Ashton Engineering Co., Jtd., advise us that they have just secured the appointment of solo Aidand distributors of Wonder Mist, a figuicl proparation for sclentifically cleaning coachwork. The appointment of agents is desired amongst motor traders in all principal centres, and wo understand that the Ashton Engirecring Co., l.td will be pleased to offer suitable literature and attractive terms to anyone interested.

## MOTOR TERMS TRAVESTIED



Solution to No. 23
The holiday season appears to have had a doleftil effect on the cerebral grey matter of our readers, for this week's travesty was productive of very few scintillating efforts. Surely our readers have not been owerting their guinea-earning facultics in other directions-such as spotting representatives of various daily papers at Mud-ville-on-Slush, or designing mastorpieces of architecture in the sand of Little Mugglehampton? Mowever, Mr. J. L. Moort, "68, Goschen Street. Devon-

A Rel ability Trial. port, is this week's winner with "A Reliability Trial," as
his solution. "Out of Track " and "Shedding his Parson's
年 his solution. "two other praiseworthy attemple, but other chains were two other praseworthing calculated to arouse enthusiast ic admiration. "A W'orn Cover" and "Tracing Troubles" would seem to be efforts particularly difficult of application. "Touring at Sixty," although perhaps somewhat presumptive, was, none the less, a rather ingenious solution.


These TripleX Soqgles sowed her sight


Triplex Goggles are supplicd by all garages, opticians, stores, ctc. Prices: 8/6, 12/6, 15/-, 21/- and 25/-. Aviation Mask, 42/-. Anti-glare, anti-dazzle tints $1 /$ - per pair extra.

Miss Majorie Cottle in her monderful 3,404 miles round the coast of Britain ou her Raleigh unfortunately met with an accident which but for Triples Goggles would have been disastrous.
Miss Cottle was thrown over the bandlebars on to her head and her goggles, which we reproduce herewith, undoubtedly saved her sight.
Miss Cottle asserts that she will never think of having any other than Triplex Goggles in future.

Miss Cottle finally won the premier award and Gold Medal.

[^2]
price 2/- net.
Obsasnable from all booksaliess or directifrom the publishers.2/3part fred.

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AUNIQUE work, dealing in simple language with the secrets of engine tuning for speed, power and economy, and the tuning of carburetters of all makes, and for any purpose.
The functional working of an internalcombustion engine is also dealt with in a complete and concise manner.

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TEMPLE PRESS LTD., 7-15. Rosehery Avenue. London, E.C.I. Wholesale igents: E.J. Larby, Ltd.,30, Paternosier Row E.C. 4



## " Hump-back" Bridges

THESE bridges can always be relied upon to provide a little sensation to the motorist. Take them at speed and as you dash over the crest you get that "left in the lift" sensation... if the road is clear. But there may be another sort of sensation when you top the rise-in the shape of a lorry, car, or farm waggonthen it is a case of steady nerves and smart brake work. Brakes correctly adjusted and lined with leerodo Lining will take control immediately you press the lever. Fer do Linings never let you down-their grip never weakens. They stand the terrific stress of brake friction without slipping or seizing and they never break up.

 Nuscasthe olasgow, Curlisic, Brightan.
Andio. Livertoon.



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 Officially appointed bv the Margan Motor Co. Ltd.EARLY DELIVERY

of all models from $£ 110$. Deferred Terms arranged Every Spare lart in Stock. Repairs by Specialists. Your Oid Machine Accepted in Hart Payment. Guaranteed Second hand Machines Always in Stock. Homacs
 TRADE SOPPLIED. 243, Lower Clapton Rd.. LONDON, N.E.


Ash for full particulars from JOHN LECKIE \& Co., Ltd. Goodall st.


## GRADIENT METERS

 PROVE YOUR CAR'S PERFORMANCE.With TAPLEY on your car sou know its capabilities and can prove them. is is a barometer of your engine's welfare. It indicates road gladients. acceleration, brake horse-power. ipecd, air resislance, ele., with absolute accuracy. BRACKET TYPE, suifable far any instru.
inenf board. Brasi inic, Nickel or BLack, 721 . Whenarderinf sive finish and tybe of dial reguired, and state whether the dashboard - - wood. stcel, ar alu ond inium.

FLUSH TYPR. Bran. Nichel or Black, 90\%-. Angle of alope of dashboard from verlical must be given roficn ordering. We supply
abecial brotractor for tha burbose free.

THEIDEAL HOLIDAY Hire a Trailer Caravan We have modelasuitable for nay car and from 2 to 3 persona

Agents for
ECCLES CARAVANS.
TOM TENTS, and Everything for Camping. FORD FOLDING BOATS.
holiday ${ }^{\text {THA }}$ CARAVAN Co. Llayds Bank Chamhers.
Carfax - - Oxford

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 cannot buy to belter advantage than from us. We are specialists and our reputation depends

Box of assoried Motor Springs, specially selected. 15/- per box. Assorted Spring Washers, all sizes and types in stock, $1 / 3$ fer 1 gross box. (Posta ge extra.) La minated Springs, Light Car Springs, Valve Springs, always available.
UNITED SPRING CO Hawthorn Street, West Smeth wick.

Tolephone .. 113 Smetbilek. Telegrasus .. ". Tension, Smelbwick." Birmingham Office .. 11, Warsiek Chambern, Corporation Strees. London Oftice .. .. 14. Aantin Friam, E.C. 2. Talephono .. London Wall 心̌ฟ1.
Scottish Afcrits: Wm. Greenien \& Ci. 93, Hope Street, Glagav. Teliphone: Central 4SS6.


Always in Stock
A-C, ALVIS, AUSTIN, CLYNO CROUCH, HU.IIBER, IIORGAN RILEEY, ROVER, SINGER, STANDARD, W OLSELEY, Etc

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C IVrile for a Copy of "THI: CAR YOU SHOUL1) BUY."

## AUSTIN ' 7 ' <br> Sports . . $£ 175$ <br> Standard ! £165

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CO.. LTD., 8-9-10-11, Royal Parade. WEST CROYDON.


## MORGAN from $£ 110$

## CAR-AND OUR PERSONAL GUARANTEE WITH IT!

DELIVERY NOW

LAMB'S Lid.'s policy goes farther than merely selling you a car-it guarantees you complete satisfaction. For we believe that unless you are satisfied with the car you buy from us, it would have been betler not to have sold you one at all. We realise that the best advertis. pleased customer-our business isment is a example of itstruth. Come and buy your

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nool Street Station. Nos. 2 or 42 Hilat form Phone: Watt baman Now 1111 (four lines). 2 or 4 Hat 50. High Road, Wood Green, Londs). (Ten doore from Empire.) Phone London, $N$. Euston Road, London, N.W 1 (Onposite Grent Portiand Sirect Sut Sution. Met.)
Phone : Museum 49/8.
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 Luxo 1020 Levil. a/a. 1029 Wooler, 3 apd. 1023 Nudge Mulid
1024 Filleld 1024 Enllech, ${ }^{202}$
1014 Thlumph, 2.0



 and 19 rayments of 211 16s. .ded, with ontion of a mecial
rebato. rehato.

## SECOND-HAND AND NEW

## LIGHT CARS, CYCLECARS, and ACCESSORIES FOR SALE

The Light Car and Cyclecar" deals with its oun types of machnes exclusively. Old cars produced before 1912 as distinct from modern light cars, and cars with an engine of a cubic cappactly exceeding 1.500 c.c., cannot be accepted for its adivertisement columns.

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Copy for, and all matter relating to. advertisomenta must reach our Moad
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## NOTICE

Owlog to portal delaya and irregularities, it is advisable to post advertisement! EARLY ON MONDAY so as to ensure. as lar as posaible, that they reach un by tho FIRST POST on Tucsilag. Lately several advertisements hare been received $1 \infty$ lato for inclusion althourb despatched on Vondas

## SECOND-HAND

## LIGHT CARS AND CYCLECARS FOR SALE

A.B.C. Gordon Watney and Co Lid., 31 Brook St., W I iPhone, May
 A.B.C. cars. Repairs of every description and special tuning by experi29 Enper Marplebone St., Gi. Portland St. W. Wpecialist, head ofiec 2 . Work
 A.B.C. 1923, Sports, 2seater, dynamo, self-startor, licensed, fally
A.B.C., 1922, Hegent, 2-senter and dickey, dyamo, specdometer. 2 horns, spotlight, atc. aplondid order, 110, Guineas; exchangea or deA.B.C. 1922 2-sealer, special eport, 8115 : also 1921 2-seaver and
dickeg, wilh starter, élos. Bartetes, 93 Gi. Portiand St. $611-146$ A.B.C. 1922 , morts model, new condition, E115. Parker's, Led., 611 radA.B.C. 1923 , Regent model, with atarter, exceplionally fine condition.
£135. Smath' and Mumier, 90 Gt. Porthand St. Phone, Moserm $\mathbf{8 1 5 0}$ A.B.C. £ 1051921 Surbiton model, purchaged 1922 drnamo 611.856 Decomber. 5 good isres, side screens, 2 doors, dickoy, speedameter, ynirror, in 1924 condition throughout, just had . 40 spent on 11 barsain. Empiro Motorn, 325 High Rd., Chisnick, W. 4. Phone 303.677
A.B.C. 1923 sports, 9,000 miles only, orerhauled last month by manulacturers, $£ \overline{S O}$ worth new paria, including new cglinders, Spccinlaid nistons, alyo $\overline{3}$ new. Michelind, running absolute pariection, conchwork owner forced to sell to ralso immediate cash 110 guineas. Crowe. 51
Tabley Rd. Hollowny. Phone frot. Central 476 . tabley Rd., Holloway. Phone hrot. Central 476. A.B.C., 1924 , sporta, 2-seater, excellent condition, fully lirensed, e 125 ;
oxchango or hire-purchase. Tho Light Car Co., $351,410-414$ Ension oxchango or hire-purchase. The Lighe Car Co., 351, 410-414 Enstod
611. London. A.B.C. 1921. Sporia, George England engine, rery fast and In splendid condution throughoul. dsmamo lighting and every conceirable accessorg,
 A.-C. Wanled, second-hand A.-O.'s for cash or in part exchange for new A.-clebs. Mighest market value allowed, halance by delerred termin it required Immediate delliverv of new modelu Cathneas and Co. Ltd.
65 Gr . Porland St., W. 1 . Tel., Lengham 2172 . A.-c., 1924 . Empirc, ans-weather, 2-seater, painted dark blue, inlly

 A.-C., 1922, special sports moded, 2-scater, aluminium bods, dsamomo and small miveaga, £22ธ. Maudes', 100 Gt. Portiand St., London
 A.-C., late 1921,2 -seatcr, starter, donblo acreen and dickey, blue leather. all-weathor equipment. 3 spare whecla and mangextras, 160 . Thorp,
14 Upper St. Martinis Lane, W.O. 2. Regent 1384 . $611-96$ A.-C., 1921 , sports, inx paid lor sear, alamininm body, unmarked, and In axceptionally nice condition, $\frac{f}{167}$ 10s.: extented terms. A. P Rey
$378-384$ Euston Rd. Museum 7600 . A.-C., 1921, Sporis model, polished aluminium body, dramo lighting, ing hood, many other extras, taxed till Decomber, exceptionaliy smart
 A. 192 611-162

 ALBERT, G2 modol, 1921,2 -scatcr, double sunken dickey dsnamo lighting and startor, speedomoter, clock, etc. electric and bulb horn,
loggage grid, fax paid, Decomber, very smart appenrance and mechanically perlect: f118: exchanges and torms arranged Kirk and Co.. 22
Praed St. Paddington. W. 611.174 ALVIS. New or econd hand. Try Healy's. The Sole London Diatriba
 ALVIS, 1922, 2-seated coupe, with dickey. dynamo and startcr, excelKnis, 410-414 Euston Rd., London. ALVIS 1921-2 11 hp 2 -seater, dickey, atarter, \&150. Bartlett's, 93 Gt,
 ARIEL, 1923 , 9 hp , 2-crlinder, Water-cooled, dynamo lighting, chummy Poritind St London. $611-\mathrm{BO} 4$ ARIEL, 9 bp , model de lumg 1923 , chummy body. side curtains, mirror, berweis New Rd., S.E.5. paid for sear. ARIEL 9, 1923, with dynamo lighting set, sperdometer, twin-cylinder
 AUSTIN 7, 1924. apecial demonstration car, condition as new spedoMuStiNS. Try Henly Yon cannot beat their termit 91 and 155


Readers are referred also to "THE MOTOR" (Tuesdays, 4d.), which contains each week many hundreds of advertisements if new and second-hand cars of all kinds.

## SECOND-HAND <br> LIGHT CARS AND CYCLECARS FOR SALE (continued).

AUSTIN SEVEN, 1924 Bronklands, fitted with slaping $V$ windscreen, wing and numerous other extrns, milenge under 1,000, winner of numer whs allaris at open hill-climband sjecet eventa thin zeason, over 80
 AUSTIN 7, 1924 inaurcu \& 150 March, 1925 , anx pald September,
 l:lliot. 284 Ifills Rd. Cimbridge. $611-b 170$

 ne new. ©125, choice of
Sl. W. Wanehnm 1998.
 AUSTIN 7, 1923, chumms, ifensed, specially coach palnted cherry rde nll ne: tsios, beautiful crier, 2112 10s. Dioncer Garage, Morlake. 611.674 A.V., a.seater, IOhp Blacklurne engine, dyramo lighting, inxed, orer mount. Dyson. Market Place, llkestor
A.V. sports 2 -scater, aluminium bocly, 9hn Blackburne, 3 apecels, rover-e homl. Central Motome. Cbe!hain, lsucks.
$\therefore 53$
A.V. runabout, 1922, dynamo lighting. clectric horn, ${ }^{2}$
A.V. bicar, 1920, Gtied with electric lamps, lax paid, £3J

A.V. C25: exchangen deterred pagments 1921 A. Vonocar, $\quad$ mhr jinst Uulwich. Sydenturn 2452
 Whito Hart Ianc. liarne
BELSIZEBRADSHAW. Gordon Waloey and Co Lld, 31 Hrook St W 1 'Phone. Maylair 2966), London agents. Several second hand 10 Loct. Luarani z2z.169 BELSIZE-BRADSHAW, 1922 , 2-beater. Rosni blic, anceciometer, gradiy110. See below
GELSIZE-BRADSHAW J 923, 2-seater, dynamo lighiling and gelfestarter
 BRITON, 1915, 2-3-sealcr, rery, good conditlon, Uargain, e45. IRhind snd Co, Slation Gusage. Quecn's Rd. former of Oldham IRd) Man BELSIZE.BRADSHAW, 98 bn, coupe. registercd Fcbrunry, 1924 , dickey,
 BLERIOT.WHIPPET 1921 2-seater, 8-1Ohp Blackburnc engine. elcetric lighting, appearance as new, fully equipped and in perloot condilion, tax
jaid, E29. G. $R$ Naylor. 406 Garratt Lane, Earlifield, 5 W. 18 . CLER\&OT.WHIPPET, 1923, 84D. 2-scater. brand new electrle 1, 年hilig nnarc wheel. mechanical starter, etc., 79 gns. Below.

 BLERIOT.WHIPPET, 1923 , 2-scater, electric lighuling, original tyres.

 (ncar Tulc). 611.696
 ti35: anolher, but uilh dirkey seat. S35: exchanges delerred terme BUCKINGHAM, 1923 20hp, 2-seater, dickey, dynamo lighting, all.
 BUCKINGHAM, 558 , 1922 10hp, 5-seater, elover-leal, dyamo, spare Wheck, fully equipped, low mileage, condition Rarlation bargain; ex viere 4388 .
-


CALCOTT, 9922 Junci, 10 Shn. 2-seater, dickcy dyramo lighting, self alniter. apeedometer, allweatber hood, slde curiains, donble sercen, elec new lundop Isres all round taxed till December, sepaloted and in aplen dis condition. bargnin. flis5 Whkins, Simpson. opposite Olyiapia, Lon CALCOTT, 1921. 2-rcahrs dickes. Lucas lightiry and starter, apcedo mani December. $\leq 135$. Maudes', 100 Gt . Portiand St., London. $611-805$ CALCOTT. 1Ohp, 2.eater, diches, clectric lighting, new hood and oldn
 CALCOTT, £95, J919. 10lipineseater, dickey, dynnano lighting, etc.
 CALCOTY. 2 -scaler, 7922 medel, dickey, starter, rery good tyres, lovely


## SECOND-HAND <br> LIGHT CARS AND CYCLECARS FOR SALE (conlinued).

CALCOTT, ${ }^{1916,10.4 h p, ~ 2-s e a t e r, ~ d i c k e y, ~ d y m a m o ~ l i g h t i o g, ~ u c t a c h a b l o ~}$ "hecis, sparoo tyTcs good, all accessories, thicd till December, upholsery. pletely repainted, excentionally last, smart and rellialse, fins, exicnded corms. Benmotors.
1509 . CALTHORPE. Moores Presto. Croydon agents Calthorpe cars Promptest dand cara io solect from. Detlicient service to tollow Largo stcck sccond North End, Croydon, Phono 2624. CALTHORPE 1921 2-ecater, starling, lighting, liocnsed, ©85 Tamplin
 CALTHORPE, 1922, 10.4hn, 2-seater, maroon tinith, lealher uphoter
 Itd.e onposilo 1100 St. Sition, Wailhamatow: 50 Migh Itd Wiloni CALTHORPE, 1917 , 10hp, 2.seater and dickey geat, nood candition Manchester. CALTHORPE, 1921. 4-seater, Etartiog and IIRhting overlasuict


 CALTHORPE, 1922, J.senter and dickey, all-weather equipment jovely



 CALTMORPE, 191\%, 10hp, \&ull drop.head coupe. dynamo lighsing, de-

 CARDEN o Omcial repair depot
Alt aparas for Carden cars stocked; complote cverhauta nodertaken send
for list ol tmprovernenta
 CARDEN, ${ }^{1921, ~ f 30, ~ s p e c i a l ~ m o d e l, ~ w i t h ~ a l u m i n l u m ~ s c u t l e c, ~ j u a t ~ j e-~}$

 Hart Lance, Baraer. CARDEN, lato 1y2.3, electric lipht, ehnmmy madel, bought fur clicnt who
 CMARRONLAYCOCK, late 1921, 10.5 hp , 2.seater, dickey, isymamo lighting, atarter, clock, specdomeler, other extras, phinted lighe blue,


 CITROEN, 1923, 2seater 7.5, lighting, shartlog spectlometer nill

 2728
CITROEN 1922 2-meater, 7 hp , fax pald lor tho year scli-starter. electrlo
 CITROEN, $1924,114 \mathrm{hp} .4$-sealer current model. Gitted balloon 19 res
 CITROEN, 1921, 1Ohp, 4.acater, dynamo lightiog and self-starter. olock, speedometer, Decer, excellent running order and condifion $\mathbf{x} 97$ gerer 83 Penshurst Rd., Thornton IIeath. Phono 1572. CITROEN 19214 senter. lighting and starting. excentiumnly good, con-
 Rd. Mnncheater.
 CITAOEN, 1922. 11.4. de luxe, 10und conditlon thronghout, tax. indur.


 Paddington 6049 .
CITROEN, 7.5 hp, yellow louring 1923 matiel, vaual nocessorice, spari



## SECO:VD-HAND <br> LIGHT CARS AND CYCLECARS FOR SALE (conlinued).

 CITROEN COune, $£ 97$ 10\%, 11 hp , purchased new 1921 but very little ascil inke, very ecmpletely equipped with full dynamo lighting act and ouphotwry, spatheht, 5 delachablo whecls and almont rew tyrea, tho
 CITROEN 7, 1923 , licensch ycar, lightling, sharling, liko newi sman


 CLYNO, 1924 1e 8 hp de luxe 4 -seater, used only for a few demonstra
 OVENTRY PREMIER 611 -b2io
 COVENTRY.PREMIER 5 -wheler, dickey, dyamo, elcetrio born,
 COVENTRY-FREMIER, 1 ITO 1922 modil 2-Ecater. dyamo lighelog.
 CCVENTRY-pREMIER, 1922 tax paid, excellent order throughout, any
Gili-i47 CROUCH, ibhn, 192 Jiconomic, 2-seater, dickeg, IIght blaue, black counc,
 D.F.P., 1023 . 8 ship. Finglish 4seater body, real leather upholstary




 EnIC.CAMPBELL Z.water, good running order, Bosch. Zenlth, IIrit Edmunts 611-a387 ERIC-LONGDEN. 1923 Tric.Longden, pollshed aluminium bods, L., W' 1. 'Pbonc, Muscumb



 C.N. 1922, all-wealher, standard equipment, dickes, overhauled, pericet, Rd. Weymouth. G. N. 1921 (September), dynamo lighting, ongino rocently rebushed and
 ham Aspal, Stowmarkot. G. N., S52, exchanges, delerred pasments. 1921 G N. 2 -senter, hood screcn, electric lamps, clock, snecdometer, nice condition. Scabridge. 35
IIanslor Rd., East Dulwich. Sydeaham 2452 .
$611-845$
 G.N., 1920, Lucas dsmamo lighelng, spectometer, very smart. Eparo St., Paddington. W.2. Pbono. 6049 Paddington. C.N., $1922,{ }^{2-s e a t e r,}$ with dickey. excelent conditlon, racently orerN. Whare 611.b211 G.N., 1922 , Vitebso, o.h. special ports model, 2 -scaler, doublo Trinlex acrecns, dynamo highting, detachable wire whecle spare, in very good
mechanical condition, bodywork oncn to improvement, exceptionally fast, mechanical condition, bodywork open to impro
C.N., 1921,2 -seater, 8.7 hp , dynamo likhting, detachable wire wheels opare, tyrca good anl accessorios, hood, paint and upholstery good, in
 C.N., ${ }^{1923,} 10 \mathrm{hp}$, 4 eylinder, 2 eenater and dickey, dynamo, otc. M N 1022 Bho 2 .
C N., 1922. Bhp, 2 seater and dickey, Frazer-Nash o.b.r. engine, dynamo, side curtains, mang exiras, 95 guíncas. Helow
O.N., 1922, 8hp, 2-aeater, dickos, dsnamo, licenced, as new throughout G.N., 1922. 8hp, 2 -seator, all-weather, dickey. d5namo, fully equlpped,
C.N. 1920 , 8 hp, 2 enater, dynamo, specdometer clock, spary whecl, Ot. Portland St.a W. Maytair 4027 .

## SECOND-HAND LIGHT CARS AND CYCLECARS FOR SALE (conlinued).

C.N., 1920 touring model, s45: 1920 tourlag, alyminium bonnct


 bood, screcn, 2 horns, insurance and tax paid. . 50 . Ariel Mrators, 32 C
 C.N., 2-seater, dynamn lighting, epeadnmetor, tax paid and fally
 C.W.K., 10.8 , late 1922 , fust completely repainted maroon, do lura ooupo body with large double dickey pertect condition, pery litcle pard, 5 wire whels,
C.W.K. 4 -scater, $1920-2110.8 \mathrm{hp}, 4$ speeds and reverse, C.A.V. dynamo lighting, spare wheel, apeedometer, Dunlop tyres, as new, overbauled and
 c.W.K. 2 -seater, water-cooled, Ust repainted, in excellent mechanicai eondition, any trial sis.
'Phone, Wimbledon 204 . R. Naglor, 406 Garrate Lanc, Earisfield
$611-66$ C.W.K. Soreral good eccond hand cara in slock from f65 upwards: axchanges and dolerred verms arranged. North Esscex Motor Co. Sanfron C.W.K. FO.C.I., Ltd, olter 1920-21 G. W. K... 2 -seater and dickey, dsTumbe). excellent condution, bargain. 5 Heath St., Hampstend inear C.W.K., 1921, 2 -8cater, dickey, all-wczther, taxed, paint as new, s70-
 GWYNNE sharcr, many 1923 , 2-seacer inste, erchauled s138; also Gwynue 8 . 1923 chummy. starter, peedometor and many cxtras fally Licensed, 6 milh Rd., Kensington. Phone, Western 4140 and $356 \dot{8}$. GWYNNE $\mathrm{B}_{1}$ 1923, small 4 -seater, 3,000 miles' guarantce, tax pald, E140. Seo below.

 HILLMAN cars OMrial repaircrs, London diatrice, J. C. Brodie, Led.
 HILLMAN racing car, run consistently at Brooklands, streamlined.

 HILLMAN coope, 1921.2, with dickes, lighting staring. Bedford cord, recently overharied, repalated dark blue, 115 Eulneas. Pioneer Garage;
Glortase.
 HORSTMAN, 1924, 12-30hp Anzani engine, 4-Eater, touring modes. uphostercd in real leather, spare whecl, lools, 5 lamps apeedometer,

 HORSTMAN. 9hp,
out. what olfers? HUMBER, 1925. ship, chammy, excellent condition, just overbanaled,
 HUMBERETTE, 8hp 2-seater, 3.c., \&डO. Davar Aatocar Co., Dover JOWETT. November, 1922, double dickey, perfect condition, nem cyres.
 JOWETT 1923 7hp 2 -seater, dlckey, donama llghting, fully equipped. new. condition, 130 mungeas: carchan.

611-134 JowETT, 1924, P-seater, doubls iickey, electrio starter, crecsize Dunlip
 Palmers Green 19 Elineas. 161 Bowes Rd., Bowta Rark. 611-b15.5 LACONDA 12 bp 1924 A-scater, grey. black wings. dynamo lightipr.



 Very 6 . Pice order, shone, Eammersmith 80 . Notor Co., 2to Hammersmirh 6 .715 LAGONDA coupe 1 n21, repainted, tax pald, now hood, $\boldsymbol{f 1 2 0}$. Streftan
and Smith. 12 Wooristock St., Oxford St.. Lonlon. LAGONDA, 1923. coupo model, palnted dart blue complete equipment.
 LITTLE MIDLAND, 1919, cost f200. J.A.P. enzine. electric lighting,
 MARLBOROUGH, $1 \mathrm{C14}$. 2-seater. 2porting appesnace, nice order. f55

## SECOND-H.4ND <br> LIGHT CARS AND CYCLECARS FOR SALE (continued).


 MAYCHLESS, 192.5 IOhp 4 -anter, dynamo livensed, cquipped, new 4027 , 611.235 MATHIS, $1923-24$, very specinl 8 hp 2 -seater sporls, milenge negligible,

 MIDLAND, 1922-23. 2.seater ann dicter, rery nice order, hardly used sacrifice, 59 gulueas 31a 1fydethorpe Rd. Ballam. 611-179

 MORGAN Epecialists James and Co IShetineld, Lid. 263 Ucelesal
 If In dimealls wire us. New and second-hand machince ncarly alwnysin
MORGAN Serrice Depor. OMclai appolnted repalrers by the Morgan Motor Co lor London. Full range of apares entried New and serond

MORGANS, Gecond-band, in slock, orerbauled and guranteed: cash, ex


MORGAN. Specialls built!1! Super-sports all-aluminium Morgan, red wings now unholsters, chain, yre, special back torks, rebuehed engine.
 MoRGAN, late 1923 . de luxe, 8 hn J. $P$. w.e. insurance. apares, aplendld condition, c95. Challen. 64 Walm Lanc, Willesden Green
MORGAN, 1924 , Grand Prix. J.AP, Bho, all neresionies, new condi-

MORGAN de luxe, 1920, a.-c., door, speerlommer, cloct Trinlex screen
 MORGAN Homacs luve the folloning Mongans for sale, als fully guarnotem
1922 Grand Pris, lOhJ, w.c. M.A.G., spectencler, elc., just overhnuled, lax paid. C 90
1922 Grand Pris. 10hy w.e. M...G., Lucas dynmo, de., s95, tax
1924 Acro moiel, we. J.A.P., aluminium pistons, I.ucas dsnamo, discs, cle., $£ 158$, tax paid.
1924 de luxe, 8 hg w.e. J.A P., Lineas dyenmo, cte., 8125 , tax paid.
1924 de luxe, 8 bp w.e. J.A.P., standard quipraent. $\Sigma 140$
1920 Grand Prix, 8 hin w-c. J. A Pe extra acal for child at rear. $\Sigma 75$. cent machine accepled in part payment. Homac Margna Service Degor, 245 Lower Clapton Rd., NE. Phone, MORGAN. £45. exchunges, celerred payments, about 1916. JA Pi, hood,
 sydenkan 2452 . $611-847$
MORGAN, J.A.P., late molel, rngine, efc, as ners, benutitul apprarance,
 MORGAN, 1522 do luxe, w.c. M.A.G. laxed, specdumeter, foot-con-


MORGAN, 1921-2, Aern modul, 20hp, M, A. water-cooled, dynamo light.



NEW CARDEN, lain $1923,1,000$ mile. ppectometer, spare, side curtains. hool corer, laxed, $\mathbf{\Sigma} 65$. $\overline{3} 61$ London Ikl,, Sloke-on-Trenti-bl7
NEW CARDEN. ${ }^{1923}$ lanily madel, in perl:ct running order and new

NEW HUDSON, 10hp, w-ec. MA.G cugine fully enuipped, spare whecl, first registration Nay, 1923 . excellent colndition throughout. any trial HEW HUDSON, 10 bhs. W.-c. MAG, engine fully cquippet, Eparo wheel,
 PERRY 1915 7hy 2 -eater, water-cooled, dynamo litiog, tyres nearly

PEUGEOT, 1922. Thp, 4-criiniler. good cendition, periect order, quick
Phenix 19202 -feater, starting and !ighling, new igrea all round mantiful condition throughout, Eso. Exchanges and extended pasmente

61 1-826
PniNCESS, 1925 simnt new 4-ec:ater, dynami lightink, 9 hn, 3 speedn,



## SECOND-HAND <br> LIGHT CARS AND CYCLECARS FOR SALE (conlinued).

RENAULT 8bn 2-door English oanpe fregistered March, 19241,2 month balloon tyres, elcetric rear marning sign elock speedometer, year.

 RHODE, 95 hp, 1922 occasional A-reater, grey, black wings, Aynamo lighting spericmeter, olors, dash lamp, cocoanut mank, fully equipped, RHODE, 9.5 hp , 1925 , all-weather salonn, dynamo lighting. scit tarter,



| RICHARDSON light cara Spare parts in stock. Rtchardmon's. Mill |
| :--- |
| thorpe, near Sheđueld. |
| $z z z-27.5$ |



 RILEY 11 hp saloon, palnied carmine lake. Upholstered leather. Hanforel


 ROVER, 1922, splendid coudition, guarantect mechanicalls perteel. dymamo fighting, aide curtnins, mirror, mat, perol carrice. 2 she ROVER EIGHTS. If yoll want to bay a
BoVER8. 11 yort want to soll
ROVER 8. Write, call or 'phone The Mamplon Eag. Co
Yout can be cerlain of a wraight deal.

 ROVER, 8 hp, 1924. 4 -scatcr, de fuse, slarter, slewt, speetoincter, a-w. | nartains ama |
| :--- |
| el 145 . Below |



 ROVER, 192 ROVER, 192\%. Ehn de luxo 2 -seater, clock anri ypectomoter, dynamo, fully


 ROVER 8. Decembor, 1921, 2-seater, in first-class condition, little and
 ROVER 8, 1922 , 2.scater, repainted Royal bluo and black, re-uphol-



ROVER, 8 hp, 1921, 2 seater and dickey, dynamo lighting, 6 naro whecl,
 ROVER, $£ 98$, 1923 . 8bp, 2 seater and dickey seaf, dynamo lighting, now condition 'throughout.' 5 Putney Bridgo Rd., Wandsworlh. Putncy
2728 .
$611-101$
ROVER, 1924 , 8 hp, 2 -seater, dickey, finished bluc, many eniras, iaxed
 ROVER, 1924, chummy, run 400 miles onls, fully hicensed, fl35: or hire-purchase. Tho Light Car Co., $331,410.414$ Enaton lld, London nover, 1922. 2-seater, lax paid, new tyres, guarantecd condillon, 75 gulnena. J1a is sdelhorpo idd., Dallam.
ROVER 8, 1921, painted bluc, speedometer, nice condlion, cood lyres, Cojs. Sydenlam 2432. liflicr, Moore Park Uotel, Woodvile. M11-187
Uak, S.E. $2 \overline{3}$.
ROVER, 1922, 2 -scater, and dickey seat, dynamo lighting, very nico Rondition throughout, spare wheck, \&80. Below.
ROVER, 1923, 2 -fcater, dynamo lighting, apecially filted dash, clock, ancedometer, ampero and rolt melers, dash, spoligh, ctc. side screens.




## SECOND-HAND <br> LIGHT CARS AND CYCLECARS FOR SALE <br> (continued).

ROVER 8,1921 , 2 ner, dickes, dynamo lighting, dotachablo whecla, nit hood rery food, acre"n wiper, wholo in firat-class condition throurh
 noVER 8, 65 gunea, 1921 , dickey sent, laxed fear, all equlpment.

 ROVER, 1222 do Whe. 8hp. leather upholsters, clock, apoedometer, ROVER, 1 ge2, 8 hp dynmmo lightin, plasa sido ecreens, specdometer, lectro born




 SALMSON. Mann and Handorcr. Lid., authorized acenta for Salmaon
 SALMSON, 5 ge , acetal moria, highly polished aluminium atreamlino
 Mitchani. - Lovatt, Streatham Rd.
 ( 109 Goldhurat Terraco 612 -891 SINGER, Jinc, 14 se In Jize, 4-scater, sell-starter, tax paid for year,
 SINGER, 1924 , medil , luxe, 4 -seater, self-starter, tax paid for ycar,
well cquirne

 SINGER syy5: exchanaws, deferred paymenta, very nice 1919-20 Singer counce, dickey, lishting atarter, Bedlord cord, 5 detachables, smart,
 Garaze, Leves. set. elidient condition, ittle uned, s140. The Eastgale SINGER, 1915, 2-satir, good condition, licensed to Soptembor, $\mathbf{x 8 0}$

 SINGER, 1921, aswine, in exceptionally nice condilion, taxed Decem-


 SINGEA 10, 1917, 2-acaler, dickeg, dynano lighting, dotachable whecls,


 Thone, Mammeremith 80 .



SINGER, Anloon coupe $1916-17$, 10hn. upholstered Bedford cord, electrio RMhtingidickey, oxcelient oondition. 848 : exchanges, termo. 63 Solon SINGER, 1 G14, $10 \mathrm{hp},{ }^{2}$-scatcr, dickey, 3 specd, roverso, now raclintor


## singer. Threo vory gocd ents for salo nt moderato prices.

1923 Singer do luxo, blue 2 -seator with double dickey seat, all-weather naid tor 1924. guarantece norfect. R165, exchango or paymenta. Anither

 tendod nayments Frank. Whltworth, Litd., Singer Wholesalo nod Metati STANDARD 9.5 hN 2-acater, dickey, all-weather, 1920, logg whelbase, chario, clock, speodomoter, litice nsed slizO; exchavere, inatalmonts. SYANDARD. Moores Presto, Croydon agonts Standard cark. Promptest
delivery new models with onciciont service to tollow. Large stock second-


## SECOND-HAND <br> LIGHT CARS AND CYCLECARS FOR SALE

## (con!inued)

STANDARD, 1923. 95. 2qeater, with double dickey, lighting grarting
 STANDARD $1915 \quad 95$ 2-acater and dickey, always ownerdriven. tay paid, engine and body igrey) in excellent condition, Brolt lighiting $100-150$ miles, 885 ; seen by appointment. Richards, Led. 12 Spring Sh., l’addington, W.
STANDARD 2-acatcr, dickey, 19-20, dynamo, clectric horn, clock

 SANDARD 2 seacor, exceptional condition, 870 . Parker'n, Lid. brad STANDARD 9.5 bp 1914 2-seater. dickoy, engine jusi overhanled at a coat of $\mathbf{e 2} 20$, accept $\mathbf{2 5 5}$, lax pald. Bassell, High SL., Doncaster. $611-a 99$
STANDARD, 1924, Nile-blue finluh. 4acater, fully licobsed, $\mathcal{L} 195 \mathrm{cash}$ or $£ 48$ 15. down and 12 payments of $£ 1216$., with option of a pecial rebate: also anothor nt $\boldsymbol{\ell 2 0 5}$, cash or on deterred nasments. Motorcsclo
 STANDARD 1924 11.4hp 4-seater, lay paid, s195. Bartlettis. 93 Gc . STANDARD, 1924, 11.4, t-scater, very small miteage, practically sew,
 STANDARD, 1924, 11.4 hp , 4 -geater, very amall mileaze, jears $19 x$, 1998. Ackworl and Muh, 107 Gi. Yortand St.. W.. $\begin{aligned} & \text { Langham } \\ & 611721\end{aligned}$
sTELLITE, 1919, No. 1,369, 2zenter, overbaulad and repainted green.

 SWIFT. Moores Presto, Croydon agenta Swith cars. Promplest delivery mew models with empient acrice to dollow. Large stock second-hand cary Croydon. Phone 2624 yzrmeds SWIFT, 1924, 10 hp , 2menter, sunk dickey. dynamo, elock. apeedometer exchanges or deferred. 175 Gt Portland St., W. Maytaiz 4027 . SWIFT, 1921, 2-seater and dickey, lighting and starting, exceptionally ood condition, shp, as paid, omerion $611-\times 462$ TALbors. Try Henly Mou eannot beat their terms. 91 and 155 TALBOT, 1923, 8-18, 2-scatcr, with dickey, aldo curtains. etc., bargaia frice. Stanlurd and Gray, Lru., Regent homec, Regent St., W.1. 518 . 890 tALBot, 1925. 10-23, 4-bealer, lightigg. atartor, orerbauled, 225 guincas. 'Smith and Iuntor, 90 Gc . Porlland St. Phone, Mosenmil 8136. TALBOT $192 \overline{3} 2$ ecziter, 8 -18hp, 2165 , or terma. Bantigss Exchango 611.78 and Mart, Wcaldstone, Muddleac
TALBOT, 1923, 8-18 2-encater, Harthords, 2165 . Stretton and Smith,
12 Woodstock St., Oxford St., London.
$611-75$ TALBOT 1924 10-23 4-seater, all-weather equigmont. clock. apeedo
 TALBOT, 1923 2-seated coupa with dickos. dynamo and atarter, full licenaed, in new condttion. s215. Exchanse or bira purchase. The Light Car Co., $531,410-414$ Euston Rd., London. TAMPLIN 1922 8hp 2-seazer (aldeby-atdel. 3-apeod and reverse. dy.
 TAMPLIN, 1923 2-scater, sido-by-ide, 8 hp J.A.P. 3 gpeeds and reverse, clecerio lighting, year tax as new, milage onder . Tedilncium TAMPLIN, 1923, absolutely pertect. taxed, any trinl. examination, 65 per gallon, \&63. Mayne, 11 Mcnry St., St. John \& Nood. specdsmeter


 WOLSELEY-STELLITE 2 -seater and dickey, overbanled, and very meu
 WOLSELEY 7, 1923, lighting, startor, taxed, beautiful conditioa, $\mathfrak{f 1 5 0}$. Bellow.
WOLSELEY 10, 1923, 2-seater, fullest equipment, perfect throoghout, 611-858 WOLSELEY 1924 10hp model de lure, acw, but elightly showtoorn payments. Wilkins, Simpson, opposite Olympia, London. Phone. Hanimersuith 238.
WOLSELEY 1923 10hp do inxo 2 ocater and dictey, starting and ightivg. new condition throughnnt, lax pabl for the jeir. 190 guineas; exchanges, ertended payments.
Rd. W.6. IIammersmith 2230 .
WOLSELEY 9 -sater 7 bp . lighting and starter, Cay paid, in beavtilul Allop Pi., Baker St. Siation. Phoac, Langham 1307.


## SECOND.HAND <br> LIGHT CARS AND CYCLECARS FOR SALE <br> (continued)

WOLSELEY, 197 guin $2 \mathrm{~S}_{\mathrm{s}} 1924$ model, 10 hp . 2-teater de luxe, tay
 Grosvenor 1804. 613-68 WOLSELEY, $192 \overline{3}$ 10hp, 2-sealer, sunk dickey, dynamo, all-weather quipment, eplendit order, 175 , kuineas: exchanges or delerred. WOLSELEY, 1923 , $10 \mathrm{hp}, 2$-scater, with double dickny, slarler, lighting. clock, spendometer, taxed, condition like new. e215. Nownham 1325.

611-714 LE TEBRE 19218 hp 2 -seater, 4 -cyllinder, self-starter, sparc wheel lynamo lighting, 4 speci and reveree, apprarance a, new, merhanically ound, 283. G. R Nastor, 400 Garratl Lanc, Eatisheld, S.W.1811.65 LE ZEBRE, 1922, brand-new, chummy 4-seatcr, el45; 1922 2-seater c 125: 1921 2-sealer, dynamo and starter, £65; exchango or hirc-pur-
chase. Tho Light Car Co., $531,410-414$ Eusion Rd., London. 611-126 LEEEBRE, halt list price, brand new, 8 hn chassis, 4 cylinders, 4 -speed, seater boay complete, 1135 . All spares alocked. Boon nind Porter, It

## SPARE PARTS FOR LIGHT CARS.

 C.N. spares. Every part in stock: trade upplied; overhaula and tuning Olley Rd.. Leeda. Phone. Headingles 480 . Wire. "Trubie. Leeds:; C.N.s. Southern Service Agents. All aparea slocked. Expert G.N. merhanics. A number of kood accond-uand G.N.s for alc. Tho EastMORGAN sparta. The Stevenage Notor Co., Lid., Stevenage, Herts. pairs and overhaula carried out by experis. Write, wita pequirementa. Prompt attention given. Pbone, Stevenage 53 . zzz-599 RICMARDSON pare parta to sloci. Artbut Franks, 34 Lenton St. RICHARDSON light cara. Spare parta in atock. Richardson', Mill
 a ONOON Yorgnn Eervice Depot. Tho only firm officinlly appainted as
 OEEMSTER spare parts. We can aupply any snare parts for any model
trom stock. Fiophant Motors, Ld. Flephant Honse, $97-101$ Nowington
Guusoway, S.E.1. Telephone, iJop 3161-2. Moncan Sparc Parta Deprot. Spares for all modelifrom slock: list free 5548

## NEW LIGHT CARS AND CYCLECARS

A.B.C.. 4-seater demonstraton car, as new, unlicensed; best offers. Webb. $611-3$.
Bradiord St., Walsall
 A.-C. cars.

Chithaess nod Co. Lid., tho leading A.-. agents and specialists, can
gire immediate delivery of tho new 1925 models at tho new reduccd
prices. prices. Gur ferms for axtended payments and part exchanger cannot be beaten A.C.

## Aordon Watney and (o., Ltd. (Weat End Agenta) All model itu stoct from $\mathbf{N} 275$.

Wo specialize in part exchanges and deferred term
61 Brook St povdon, W 1. 'Phonc. Maylair 2965-2966. 2zz-659 A. C. G. L. Francla and Co, authorized agevts lor A.C cara, can give
 A.C., 1925 models, now nvallable for fmmediate delivery ni reduced prices. All models in stock. Second-hand cars part payment: exchinges arranged in any part of the country de
 Hondon, W. 6. Phone, Hammeremith $80 \quad 611.705$
 AUTOVEYORS, LTD. (Authorizid Agents), offer immediate delivery all Anow i. derred icrine to suit cusiomers ALVIS. Debnam, Atheratone Mews, Giloucester Rd Station. Ken. 2917 AMILCAR conceasionnaire. Spares and repair services. Vernon Balls.
25 Hizh St., Fulbam. Puiney 1995
$616-\mathrm{g} 558$
 righehand control, 45 mpg : your car or motorcycle part payment; ex ictuded terma arranged: spare parta alocked for all Aricla irom 1899 moilels Ariel Mctore and General Repaira, litd, Scrvice Depor, 320-2 ARIEL. Gole agenta for Bournemouth and district. Primavesi, ARIEL, 10hp, 1994, 4-cylinder 4-seater models, £196; de tuxo models E.C. 4

## NEW LIGHT CARS AND CYCLECARS (conlinued).



 ARIEL
earliest
deliverices. austin.



 AUSTIN. Rootes. Letd, distributors and apecintists. 7 hp , hatest model AUSTIN 7. Immediato delivery can be giren of thin wondertul hittlo car
 Austin. Weybridge Ausomobiles, Led, Austio apecialists, oan Eive int


 AUSTIN 7. Immediate deliveries Wo aro the autborized agents tor thi

 Austin. A. P. Rey for Austin Sevens: extented terms and ciohan izon A. Mstin,

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