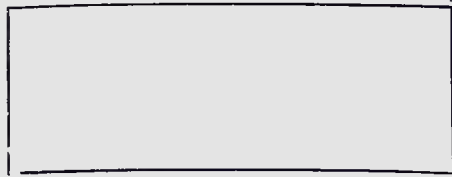


Odell 3^D

Vol. XXIX No. 742
Friday, Feb. 25, 1927
*Registered at the GPO
as a Newspaper*



The superiority of

LODGE PLUGS

is not only evident the moment you restart your engine after fitting a set, but will continue ignition all the time.

Lodge plugs make possible :—

Easier starting.
Better slow running.
More rapid acceleration.
Utmost power
and
No overheating.

Standard Lodge C3

(as illustrated)

5/-

in red box.

**For Sports Engines
use Model HI**

6/-

in blue box.

Sold everywhere.

LODGE PLUGS LTD.
RUGBY

PLEASE REFER TO "THE LIGHT CAR AND CYCLECAR" IN YOUR LETTERS TO ADVERTISERS.

CITROËN

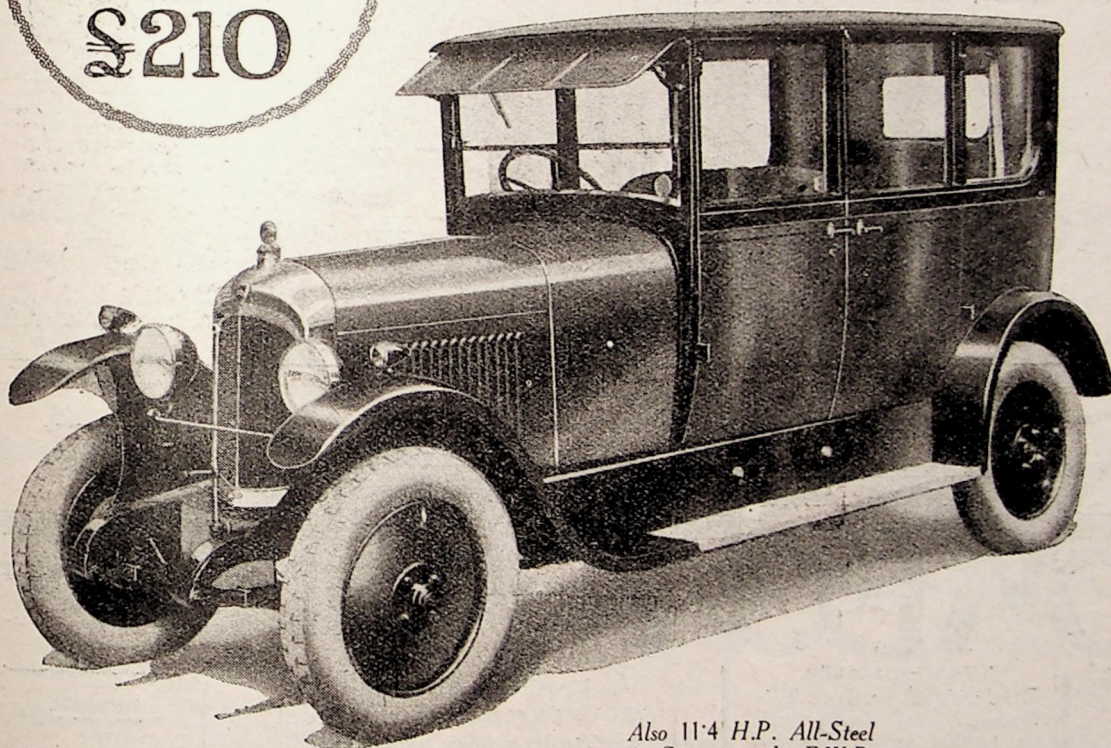
11.4 h.p.
ALL STEEL SALOON

£190

WITH FRONT WHEEL BRAKES
(as illustrated)

£210

4 Door Fully-Appointed Saloons



Also 11.4 H.P. All-Steel
4-Seater with F.W.B.
£165

*Supreme
Closed Car
Value!*

THE bodies of these Saloon models have generous proportions, deep roomy seats, ample leg room for four full-sized persons, and luxurious upholstery. Fitted throughout in excellent taste and with exceptionally complete equipment they have all the appointments and refinements which the owner-driver requires.

Immediate Delivery
from
**BRITISH WORKS,
SLOUGH.**

Send for Citroën Book 18.

CITROËN CARS, LTD.

CITROËN BUILDING, BROOK GREEN,
HAMMERSMITH, LONDON W.6.
West End Showrooms:
Devonshire House, Piccadilly, W.1

MENTION of "The Light Car and Cyclecar" when corresponding with advertisers assists the cause of economical motoring.

D.A.277.

A1

The SILENT SERVICE

that means so much

The wheels of a car are like the strong right hand of a healthy man—they are "taken for granted." It is only in times of emergency that any test can be made; only in a crisis can the strong hand—the sturdy wheel—be appreciated.

Sankey Pressed Steel Wheels have, since 1908, carried millions of people safely and silently through every phase of joy and danger. The catastrophes these unbreakable wheels have averted cannot be catalogued—but they can be borne in mind. When you see the word "Sankey," there also is the word "Safety."

Sankey

WHEELS

Joseph Sankey & Sons Ltd., Wellington, Shropshire

For COMFORT & ECONOMY
CHOOSE AN

THREE-WHEELER

Fitted with 980 c.c. J.A.P. Twin Engine, 27" x 4" Dunlop tyres, quarter elliptic springing front and rear, electric dynamo lighting by 5 lamps, double adjustable windscreen, smart dummy radiator, all controls in body, foot accelerator, and handsomely finished in polished aluminium. Completely weatherproof with hood, side screens and curtains.

"The
Threewheeler
that
runs like a four."

OMEGA "SPORTS."

The Omega offers all the advantages of a four-wheel car, with a very appreciable saving in both first cost and running expense.

PRICES.

POPULAR MODEL ..	£95
DE LUXE ..	£110
FAMILY ..	£115
SPORTS ..	£125

Write to-day for particulars.
W. J. GREEN, LTD.,
Omega Works - COVENTRY.

OMEGA "DE LUXE."

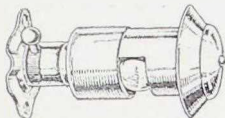
TO THE READER.—By mentioning "The Light Car and Cyclecar" when replying to advertisements, the progress of the small car movement will be assisted.

The Motorists' Money-Saving Opportunity!

GAMAGES 49th ANNIVERSARY SALE

CALL, POST OR PHONE YOUR ORDER.

THOUSANDS OF BARGAINS!

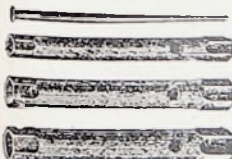


CAR DASH LAMPS

THE "MALL" RADIATOR LAMP.

Keeps the Engine and Radiator warm, thus ensuring protection from frost and giving easy starting in the morning. Will burn for about 24 hours at one filling.

Burns paraffin
Sale Price **10/3**
Post free



TUBULAR BOX SPANNERS.

Wonderful Sale offer of best steel tubular Box Spanners in sets of 3, with Tommy Bars, to fit nuts size 1, 1/32, 3/8, 7/16, 1, 5/8 ins.

Sale Price **2/7**

Write now
for our
SALE LIST
Sent Post
Free on
Application

METAL TOOL BOXES

for running board. Made from heavy gauge steel. Dimpled lid, greatly adding to appearance. As illustrated but fitted with 2 hinged catches and lock and key. Beautifully finished in best quality black enamel, with lock and catches nickel-plated.
Size: 18 x 8 x 6 1/2 in.
Carriage 1/-
SALE PRICE **15/6**

MIRRORS FOR 7 h.p. AUSTIN CARS

Very well made and finished and giving a very wide range of vision of the road behind. Splendid quality throughout and really good value at.

Sale Price **5/9**
Post free. Each.
Order per return.



OIL DRUM PUMPS

Do away with the danger of getting smothered in oil. Well made and strong, at a price within reach of all. To fit 2 gallon drums.
Sale Price **7/6**
Car face extra.

Motorists will also find these wonderful Bargains at our Branch
107, Cheapside, E.C.2.

"SPOT-LIGHT"

Spot-Light with self-contained switch, gives a very penetrating beam of light. Complete with 6 or 12 volt Bulb.
Sale Price **12/6**
Post 6d



SCOPE MIRRORS.

Gauges "Scope" Mirrors for the car. One of the most popular models of the season. Give very large range of vision owing to shape of the reflector.
Post 6d. Sale Price, each **6/9**

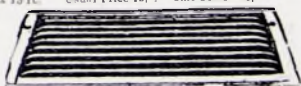


CAR DUST COVERS

Amazing Price Reductions!

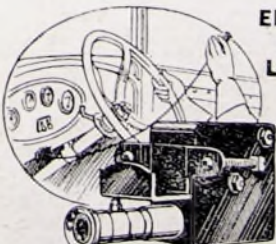
Size.	Dust Covers in Cotton Tick.
10 x 6 ft.	Usual Price 11/6 Sale Price 9/9
12 x 12 ft.	Usual Price 22/6 Sale Price 21/6
14 x 15 ft.	Usual Price 34/- Sale Price 31/6
16 x 18 ft.	Usual Price 38/9 Sale Price 36/6
21 x 15 ft.	Usual Price 45/- Sale Price 35/-

Carriage extra.



RUBBER STEP MATS.

Step Mat in Aluminium frame, with straight bar or Rubber Mat. Size 12 x 8 in. Every car should be fitted with one now before prices return to normal.
Post 6d. Sale Price **4/6**



ELECTRIC CIGAR LIGHTER

SALE PRICE

12/6

Supplied in 6 or 12 volt.
This is a novel addition to the car.

Failure to foolboard, and strong threaded screw lock. End of lock rubber-cased to save vibration. Detachable key, making it theft proof. Finished black with brass lock.
Sale Price, each **3/9**



SCREEN WIPERS

Best quality, with twin squeezers and handle for operating. Fits either plain edge or metal edge type. Green. Post 4d. Sale Price **2/11**
Order NOW before stock is exhausted. You SAVE MONEY!

SPARK PLUG TESTERS

Combined Pencil and Spark Plug Tester. This handy little instrument at once denotes any faulty firing of your plugs or leak in your electrical circuit. No motorist should be without one. Post 3d. Sale Price **2/3**

CLEANING KIT.

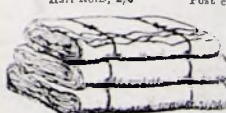
A cleaning Kit for the Car greatly reduced in price.



CLEANING CLOTH.

Splendid quality Cleaning Cloth. Nic- and soft, and made up into 50-yard rolls. Far superior to waste or mutton cloth. Sale price per roll Half Rolls, 2/6 Post extra.

4/6



CHAMOIS LEATHERS.

Fine quality, soft, yet long-wearing. Size about 21" x 22" Sale Price **4/-** Each. Post extra.

3 for 11/6

SPONGES.

Fine quality Honeycomb Sponges 4/3

3 for 11/6

Extra size

3 for 3/6 Post

Honeycomb Sponges 8/6 SALE PRICE **6/3**

CLEANING BRUSHES.



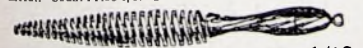
TRIANGLE MOTOR SPOKE BRUSHES.

Best quality bristle. A fine serviceable brush. Post 3d. SALE PRICE **4/3**



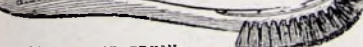
ORDINARY SPOKE BRUSHES.

Good quality fibre mixture. Wellmade, in a handy size and very useful. Usual Price 4/6. Post 4d. SALE PRICE **1/10**



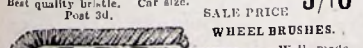
CLEANING BRUSH.

Specially suitable for cleaning wire wheels. Post 3d. SALE PRICE **1/10**



BENT SPOKE BRUSH

Specially shaped for getting at awkward places. Best quality bristle. Car size. Post 3d. SALE PRICE **3/10**



WHEEL BRUSHES.

Well made and finished. Post 3d. SALE PRICE **2/4**

A. W. GAMAGE, LTD., HOLBORN, LONDON, E.C.1.

FACILITATE BUSINESS, and ensure prompt attention to your enquiries, by mentioning "The Light Car and Cyclecar" when writing to advertisers. They will appreciate it.



A Gwynne Car Gained
Premier Award R.A.C.
Light Car Trials
and
"Daily Chronicle"
250 Guinea Gold Cup.

'Phone:
1780, 1781 Chiswick.
'Grams:
"Gwynne Cars, Chiswick."

THE NEW GWYNNE 10 HAS AN ASTOUNDING PERFORMANCE

THE GWYNNE RANGE INCLUDES:—

9 h.p. Grand Sports, Fabric Body, £275
70 m.p.h., F.W.B.

10 h.p., 2 or 4-seater, F.W.B. £220

10 h.p. 4-door Saloon, Fabric or £260
Panelled, F.W.B.

Dunlop Tyres are fitted to all Gwynne Cars.

GWYNNE CARS, L^{TD}.
CHURCH WHARF, CHISWICK, W.4

WHERE'S THE SENSE

A few examples—

1922 A.B.C. Sports...	£28
1921 A.B.C. de Luxe...	£48
1922 A.B.C. Sports Special...	£55
1921 A-C, 4-seater...	£68
1921 A-C 2-seater...	£58
1923 AUSTIN 7...	£68
1924 CALCOTT, 2-seater...	£78
1921 CALCOTT, 11-9, Coupe...	£85
1922 CALCOTT, 10-4...	£55
1924 CALCOTT, 10-4, 4-seater...	£78
1924 CALTHEORPE, 2-seater...	£68
1921 CALTHEORPE, Sports...	£46
1922 CALTHEORPE, 10 h.p., 4-seater...	£58
1923 CITROEN 7, 2-seater...	£58
1924 CITROEN, 2-seater, Coupe...	£78
1923 CITROEN, 11-4, 4-seater...	£75
1923 CITROEN 7, cloverleaf...	£78
1923 CITROEN 7, cloverleaf...	£75
1923 CLYNO, 2-seater...	£88
1923 CLYNO, 4-seater...	£98
1923 CROUCH, 11-9, 2-seater...	£58
1924 JOWETT, 2-seater...	£58
1922 JOWETT, 2-seater...	£58
1923 MAYHEW 7-5, 2-seater...	£68
1924/5 RENAUDY, 2, 2-seater...	£98
1923 ROYER 8, 2-seater...	£58
1923 ROYER 8, 2-seater...	£55
1924 ROYER 8, 2-seater...	£58
1924 ROYER 8, 4-seater...	£68
1924 SALMON, 4-seater...	£68
1923 SALMON, 2-seater...	£58
1923 SALMON, 2-seater...	£55
1924 SINGER, 4-seater...	£88
1923 SINGER G.P., 2-seater...	£58
1923 SINGER 10, 4-seater...	£68
1923 SINGER 10, 2-seater...	£75
1923 STANDARD, 11-4, 2-seater...	£75
1924 STANDARD, 11-4, 2-seater...	£78
1923 STANDARD, 11-4, 2-seater...	£75
1923 SWIFT 5, 4-seater...	£78
1923 SWIFT, 5-5, 2-seater...	£78
1922 TALBOT 8, 2-seater...	£78
1923 TALBOT 8, 2-seater...	£85
1923 WOLSELEY, 2-seater...	£88
1923 WOLSELEY 7, 2-seater...	£55

IN GOING MANY MILES TO SEE JUST ONE CAR THAT
MIGHT DO. COME and SEE

100
SMALL CARS
ALL **UNDER** 12 H.P.
AND
£100

Just come and walk round our stock every day (all cars are conspicuously marked with the date and price) till you see the car you want; you won't be worried to buy as we know very well that you will go further into the matter when you see the particular car you fancy. If it's not convenient to call,

GET OUR DAILY LISTS

in which you will find an unparalleled selection of small Cars under 12 h.p. and under £100, also carrying our Full Guarantee.* We have always maintained that

IT PAYS TO SPECIALIZE.

Therefore, if your requirements come within these limits, or perhaps you just hope they do—

WRITE, 'PHONE OR CALL.

All Cars open to A.A. or R.A.C. examination.

30-32, High Street, Wandsworth.
Next the New Town Hall. S.W.18.
'Phone—Battersea 1509.
Telegrams—"Benmolas, Wands, London."
Nearest Station - Clapham Junction.
Hours - 8.30 to 7.30 except Sunday.

Distance no Object.

You are quite safe in dealing with us through the post, your protection being our

* Guarantee.

Every Car is sold on the understanding that if you are not satisfied for any mechanical reason within 7 days of purchase, return the Car and your money will be credited on any other Car in stock.

Exchanges.

We will quote you a definite allowance, per return, on your present Car or Motor Cycle on receipt of full particulars.

Delivery.

For the sum of £2:10:0 we will deliver (and collect if part exchange) anywhere in England, Scotland, or Wales.

Terms.

We can take any deposit from 1-10th of the purchase price upwards to 1-3rd down and the balance up to 18 months, so let us have your suggestions.

WHEN REPLYING to advertisements, mention "The Light Car and Cyclecar." It helps the advertiser and you, and assists the small car movement generally.

Pains.....and pleasures



An infinite capacity for taking pains..... That's Genius. Infinite pains are taken in producing each and every Jowett Car. We take pleasure in taking pains, because we know the result for you is infinite pleasure.

The running cost per mile is less than $\frac{1}{2}$ d. per passenger. Any road with any load.

"The little engine with the big pull."

7 h.p.

£7 Tax.

Short two, £139.

Long two, £150.

Chummy, £145.

Full four, £150

Saloon, £185.

Deferred payments.

£35 down, which includes one year's insurance and registration.

Dunlop Balloons and Stewart Speedometer standard.

JOWETT CARS LTD., IDLE, BRADFORD

READERS, NOTE.—It assists the small car movement and the advertiser, and ensures you prompt attention, to mention "The Light Car and Cyclecar" in your enquiries.

RUBBERCLOTH

will stand this kind of weather for years—it won't sag and it will retain its smart appearance. It makes ideal Hoods, Hood Envelopes, Spare Wheel and Tyre Covers, and is absolutely waterproof.

REXINE LTD., HYDE, MANCHESTER.
LONDON: 60, Wilson Street, Finsbury, E.C.
BUY BRITISH GOODS—SELL BRITISH GOODS.

M.5.

"CLUB" Black Enamel

Dries in twenty minutes, and is petrol, grease and oil proof.

Small Size - **7 $\frac{1}{2}$ d.**

Large Size - **1/3**

Of all Iron-mongers, Stores, Garages and Cycle Dealers.

Sent post free if unobtainable from your local dealer.

Sole Manufacturers:

SILICO ENAMEL CO.,
WARTON ROAD, STRATFORD, LONDON, E.

MOST BRILLIANT & DURABLE
DRIES QUICKLY

"WELLINGTON" LIQUID METAL POLISH

A
POLISH
THAT,
with a
minimum
of labour,
GIVES A
REAL
BURNISH
THAT
LASTS.



CLEANS
and
POLISHES
ALL
METALS
(including
Silver)
and
GLASS
(Windows,
Mirrors),
Motor-Screens
(Glass or
Celluloid).

TRY IT
and
PROVE IT.

In TINS, 3d., 4 $\frac{1}{2}$ d., 7 $\frac{1}{2}$ d. & 1/3; also in $\frac{1}{2}$ & 1 Gallon Cans.

JOHN OAKLEY & SONS, LTD.,
WELLINGTON MILLS, LONDON, S.E.1.

*Tuesday,
March 1st.*

The NEW CAR NUMBER of The Motor



Price 4^d.
as usual.

Offices of "The Motor,"
7-15, Rosebery Avenue,
London, E.C.1.

THE New Car Number of "The Motor,"
an issue of the utmost interest and
value to all who are thinking of buying a
new car or who have just bought one,
will be published this year on Tuesday,
March 1st. Place an order now for this
important special number!

Leading Contents.

A COMPREHENSIVE COMPENDIUM OF ALL THE CARS ON THE BRITISH MARKET.—The specification of every chassis available, together with particulars as to price, bodywork, dimensions, and any special features.

THE TREND OF CHASSIS DESIGN.—The ways in which the design of the chassis has been altered during the past four years.

INFORMATION FOR THE NEW CAR PURCHASER.—A clear account of the various things which must be done when taking over a new car.

WHICH TO CHOOSE: SALOON OR TOURER?—An impartial discussion of the relative advantages of the two most popular types of car.

THE FIRST 500 MILES.—Why care is necessary when running in a stiff engine and chassis.

A LOG-BOOK FOR LONG RUNS.—A novel record of times and distances.

DRIVING HINTS FOR THE NEW MOTORIST.—The elementary principles of safe driving explained.

ACCESSORIES OF VALUE AND INTEREST.—Some of the fittings which add to the pleasure and convenience of motoring.

SIMPLE ENGINE TROUBLES AND THEIR REMEDIES.—How to remedy simple troubles which might cause delay on the road.

10 h.p. Swift 4-Seater, £210

THE FINEST "SWIFT" EVER PRODUCED!

This year's SWIFT Cars should receive the careful consideration of every motorist. The improvements now introduced, combined with the old Swift integrity of workmanship make them astounding value for money. You take no risks if you buy a Swift. There is long and arduous service in every detail of its specification. Why not arrange for a Trial Run?

Write for full particulars:

SWIFT OF COVENTRY Ltd., COVENTRY

London Showrooms—133, Long Acre, W.C.2.

10 h.p.

4 wide doors to four-seaters.
Four-wheel brakes. Three-bearing crankshaft. Engine develops 22 b.h.p. at 3000 r.p.m.
55 m.p.h. on top gear.
Wonderful acceleration on hills.

Two or Four-seater .. £210
Saloon .. £275

SWIFT

The Best Cure for Worn Cylinders

Let **LAYSTALL**
*regrind the
Cylinders
and fit
DE LUXE
LIGHTWEIGHT
CAST IRON
PISTONS*

Absolute Accuracy
in the Grinding
The Most Satisfactory
Piston in the World.

**SPECIFY
LAYSTALL**
to your Repairers
for the very best
in Accuracy.
Quality & Results

THE FINEST
CYLINDER
REGROUNDING
PLANT IN
THE WORLD.

CRANKSHAFT
REGROUNDING

Telephone
HOP
6140
(seven
lines)

LAYSTALL

SPECIAL MOTOR REPAIRS

EWER ST., SOUTHWARK, LONDON, SE1
Northern Branch Works: 55 FONTENAY STREET, LIVERPOOL.

HOMAC'S

FOR

CARS—TERMS & SERVICE

Homac's Service is built on a genuine desire to do more than is expected.

To satisfy you and ourselves by making use of many years' specialised knowledge. That, and advice is yours freely.
Why not pay us a visit?

1927 MORGAN PRICES REDUCED.
**IMMEDIATE DELIVERY
OF MORGAN, CITROEN,
AND ROVER.**

DEFERRED TERMS ARRANGED.
WRITE FOR CATALOGUE.

EXPERT MORGAN SERVICE AT

Trade
Supplied

HOMAC'S

MOTOR AGENTS

Phone:
Clissold
2408.

243/7, LOWER CLAPTON ROAD,
Works: 46, London Rd., Clapton, E.5

MENTION of "The Light Car and Cyclecar" when corresponding with advertisers assists the cause of economical motoring.

THE NEW
10/20 HP
SALMSON

WITH

SEVEN DIFFERENT TYPES OF COACHWORK

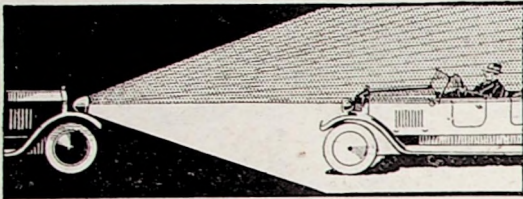
CAN BE SEEN AND TRIED AT THE SHOWROOMS OF THE SOLE LONDON DISTRIBUTORS:—

== **GORDON WATNEY & Co., Ltd., 31, BROOK ST., W.1** ==





HEADLAMP LENSES



**INCREASE ROAD-SURFACE ILLUMINATION
ELIMINATE DANGEROUS DAZZLE.**

In addition to the above, Parabolite Lenses fulfil in every way the requirements of the proposed new regulation of the Ministry of Transport. Satisfaction is guaranteed.

You merely replace existing glasses **7/6**
from per pair.

Write for our List 110 L. and copy of R.A.C. Certificate No. 600.



RADIATOR MUFFS ARE THE BEST

In addition to being well made and fitting perfectly, the loose front is made in two sections, giving a remarkably wide range of temperature control. Prices for any car from **18/-**



THE GAITER WITH THE WICK TUBE.

**—one hand —one push
lubricates the entire spring.**

CITROEN (11'4) 1927	£4 : 10 : 0
JOWETT (8)	£4 : 4 : 0
LEA-FRANCIS (8, 9 & 12)	£4 : 5 : 0

Prices for any car on application.

COVER YOUR CAR WITH A FABRAM DUST SHEET	COVER YOUR- SELF WITH A RAMSO COVER COAT
---	--

Write for Free Illustrated Lists to Dept. L.

RAMSDENS (HALIFAX) LIMITED
147/9, GT. PORTLAND ST., LONDON, W.1
& STATION WORKS, HALIFAX, ENGLAND.

ALL AUSTIN 7 OWNERS

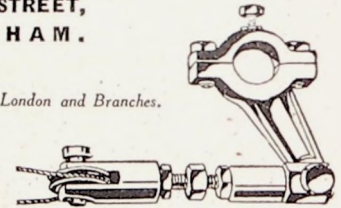
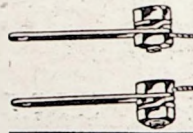
should fit the **BODELO BRAKE ATTACHMENT** to their Austin 7. It is easy to fit and effective in use. The **BODELO BRAKE ATTACHMENT** enables all four brakes to be utilised simultaneously by pressure of the foot pedal, but at the same time it does not interfere with the operation of the hand lever for the front brakes only.

**PRICE
30/-**

A post card will bring our illustrated leaflet, giving full particulars.

LLOYD & DEELEY,
177, BROAD STREET,
BIRMINGHAM.

Wholesale Stockists: Brown Bros., London and Branches.



What you Get for what you Spend. Search where you will, you cannot get better value.

The OWNER-DRIVERS' Garage

Built of Thornber's Locjoint Weatherboards—the only suitable boards for outdoors. All sections complete, ready for easy erection. No loose timber. All fittings sent. Gliding out-of-way Doors. 2 windows. Insured. Built to last. 2 sizes.
Size: 16' x 9' x 7' x 9' **£15** Carr. fwd.
Floor £4 extra. Carr. fwd.
Size: 19' x 9' x 7' x 9' **£18** Carr. fwd.

The SAFETY FIRST

Asbestos Fireproof Garage. All frame sections complete ready for Asbestos Sheets, which are supplied. Gliding out-of-way Doors. Two windows. All fittings supplied. Insured. Built in 3 sizes.

14' 5" x 8' 1" x 7' 12' **£12** Carr. fwd.
Floor £3 10 extra Carr. fwd.

16' 5" x 9' 1" x 7' **£15** Carr. fwd.
Floor £4 extra Carr. fwd.

20' 5" x 9' 1" x 7' **£19** Carr. fwd.
Floor £5 10 extra Carr. fwd.

Carriage paid price on request. Deferred payments can be arranged. Both Garages can be seen at works.

THORNBERS
FOR EVERYTHING IN WOOD

Send for Folder and state requirements.
9, MYTHOLMROYD, YORKS.
London Office: 47, Victoria Street, S.W.

A Thornber Garage will last a lifetime, because everything is solid in its construction. It is sent from works in sections—every section complete, ready for erection, which requires no skilled labour. No loose timber whatever is sent. All Garages have Gliding-out-of-way Doors, which move at a child's push, occupy no room when open, and obviate hinged door weakness. All fittings supplied. Two windows, top half to open. Tenant's fixture. 12 months' free fire insurance.



FREE! 12Guineas
CARR. PAID.

FACILITATE BUSINESS, and ensure prompt attention to your enquiries, by mentioning "The Light Car and Cyclecar" when writing to advertisers. They will appreciate it.

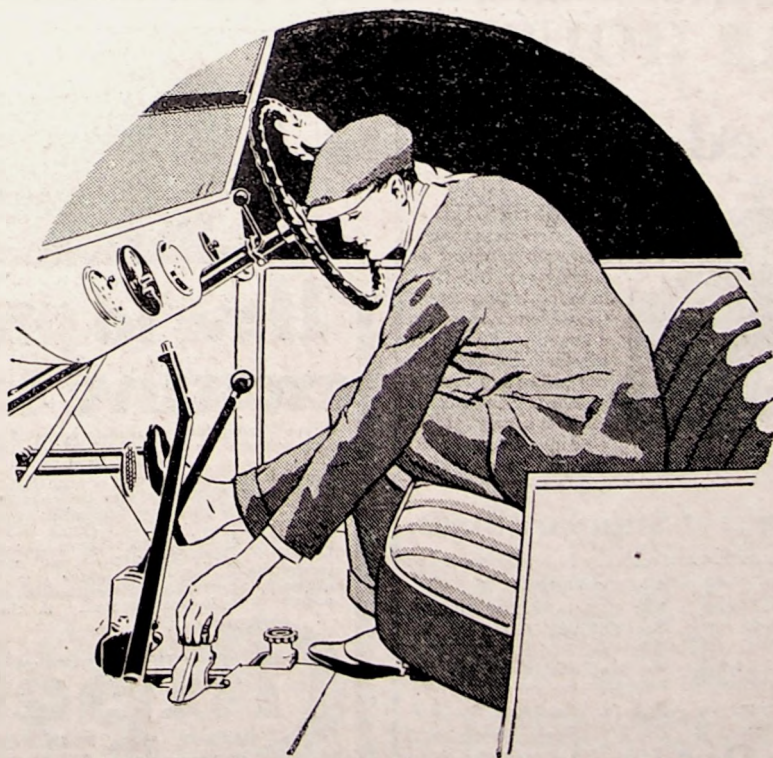
Fully Compensating Four-wheel brakes which can be automatically adjusted from the Driver's seat—while travelling if necessary—are a feature of the new 10·30

Rhode

£198

Two Seater with large double dickey, and Four-five seater models in standard blue or maroon with a beautiful Cellulose finish.

Drop us a line to-day for all details. There's a Catalogue and all literature available and there's a trial run with your agent quite at your disposal—no obligation of course.



THE RHODE MOTOR CO., TYSELEY, BIRMINGHAM.

WHEN REPLYING to advertisements, mention "The Light Car and Cyclecar." It helps the advertiser and you, and assists the small car movement generally.

This luxuriously equipped and expensively finished SINGER 4-Seater at **£220** **YOURS** for £50 down

THIS puts real luxury Motoring at your disposal immediately.

Roomy, Pneumatic Upholstered Real Leather Covered Seats, Balloon Tyres, Shock Absorbers, Automatic Screen Wiper, 12-volt Lighting Equipment, and every other luxury you need.

As completely protected from weather as a Saloon. Fast, quiet, and effortless on hills.

£50 down and you can drive away this Value-For-Money Car.

Prices arranged for twelve months or eighteen months at your convenience.

May we send you further particulars?

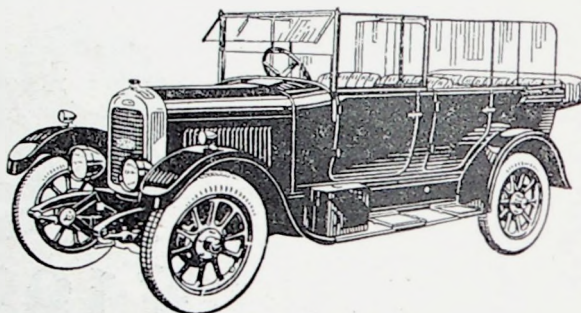
SOLE LONDON DISTRIBUTORS:

COOK & PALMER, Ltd.,

202, Great Portland Street, W.1.

'Phone - - - - - Langham 3314.

New Model
2-Seater with Dickey
£220
Luxurious Coachbuilt
Saloon £260



"SENIOR" ALL-WEATHER, £220

Wandsworth

MOTOR HOUSES at Reduced Prices.



CONSTRUCTED of first-class materials and designed to comply with the by-laws of Urban areas, these Motor Houses are a sound proposition at any time. But now that the prices are further reduced, these models become a very profitable investment. Start saving your garage bills now.

Present Prices of Standard Sizes.

These houses are tenants' fixtures and may be easily erected or dismantled by any handy man. High grade finish in every detail.

No. B217 Urban Motor House

Size 14' x 8' x 6' 6" high

to eaves, for two-seater **£15 5**

Size 16' x 8' x 6' 6" high

to eaves, for four-seater **£17 10**

Carriage paid to stations in

England and Wales.

No. B216 MOTOR HOUSE

Size 14' x 8' x 6' 6" high

to eaves, for two-seater **£16 10**

Size 16' x 8' x 6' 6" high

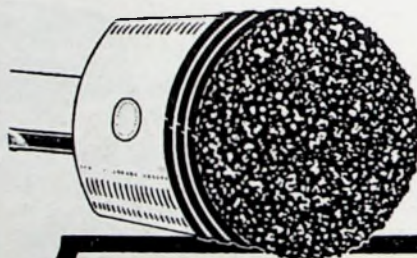
to eaves, for four-seater **£18 10**

Ask for Catalogue No. 629.

Boulton & Paul Ltd

Telegrams: **NORWICH** NORWICH
LONDON OFFICE 135-137 QUEEN VICTORIA ST., E.C.
Telegrams: Boulton & Paul Ltd. London. Telephone 4642 Cent.

Examples of B. & P. Standard Motor Houses can be seen at our London Showrooms, 135, Queen Victoria Street, E.C.4



How to prevent excessive carbon

Carbon Deposit, the ever present bogey of every motorist, can be easily overcome by fitting CLUPET Patent Piston Rings in place of the old ones. Many motorists are not aware that Carbon Deposit is often due to faulty or worn Piston Rings, which allow the oil to get past them into the cylinder heads in excessive quantity, thereby causing pre-ignition, overheating, and many other troubles. The CLUPET Patent Piston Ring, by reason of its Double Coil and Bridge, prevents oil getting into the cylinder head in any excessive quantity, and ensures also proper compression. The Patent Bridge (see illustration) stops all waste of power, and the Double Coil automatically adjusts itself to any inequality in the cylinder wall.

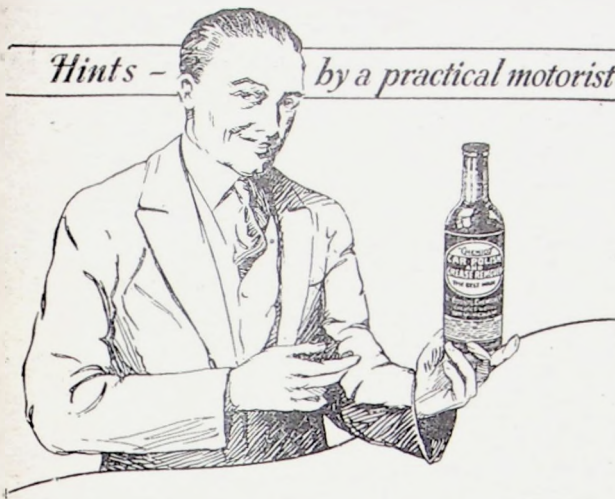
Clupet
PATENT PISTON RINGS

Send for Free Illustrated Leaflet to Dept. L.A.
THE CLEWS PETERSEN PISTON RING
& ENGINEERING CO., LTD.,
West Heath Works, Mill Lane, West Hampstead, N.W.6. Telephone: Hampstead 8691.

That's
the point

READERS, NOTE.—It assists the small car movement and the advertiser, and ensures you prompt attention, to mention "The Light Car and Cyclecar" in your enquiries.

Hints - by a practical motorist



Here are two time and trouble savers!

"Chemico" Car Polish.

I have discovered that "Chemico" Car Polish will clean and polish an average-size car in 30 minutes, more economically, with less effort, and with far better results than any other coachwork polish.

"Quikko" Metal Polish.

And I know "Quikko" Metal Polish is good to the last drop. Metal Work is soon polished with it, the resulting polish is brilliant and lasts a surprisingly long time. "Quikko" is also excellent for removing scratches from and polishing celluloid side curtains.

THE COUNTY CHEMICAL CO., LTD.
CHEMICO WORKS, BIRMINGHAM

CHEMICO
Car Polish
and
Quikko' Metal Polish
Make your Car a Shining example



The triangle for Safety and Philips Lamps for Double Security.

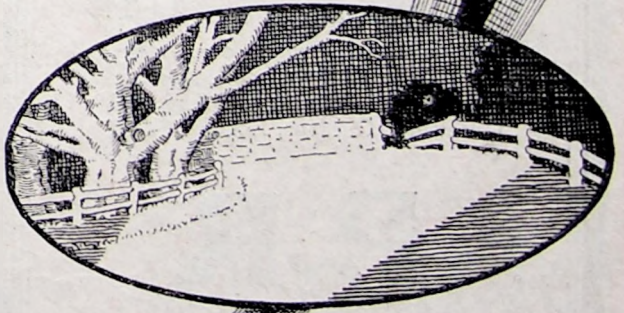
Blue daylight auto bulbs to turn night driving into day.

For Perfect Road Security

Use Philips Lamps—and See.



Obtainable from your local garage or electrician



PHILIPS
AUTOMOBILE LAMPS
M.L.

Advt. Philips Lamps, Ltd., Philips House, 143, Charing Cross Road, London, W.C.2.



After all, what do you want an accumulator for? Except when you're starting, burning your lights or playing on the Klaxon, it's a passenger. It's dead weight, most of the time, and *what* a weight.

Because, if you had your way, you wouldn't have an accumulator at all, is the main reason why you should have a P. & R. Accumulator. The P. & R. knows its place. It's respectful. It has a job. It does it. It does *not* suddenly conceive the notion that it is frightfully important and so sit down till you've coaxed it. It *works*. And says nothing. No back answers.

There are bags of sound reasons why the P. & R. gives so much power for its weight; why it lasts longer (the "Dagenite" case of it, for instance); why it works better. We can't tell them here. No room. So we've written them down in our booklet. It's free. Will you send a postcard for it to Peto & Radford, 50, Grosvenor Gardens, London, S.W.1

P AND R
PETO & RADFORD
ACCUMULATORS
The beginning and the end in
POWER

C 12

For Better Spark- instant Start

7,500,000 (Seven Million Five Hundred Thousand) car users have praised the Delco-Remy Coil Ignition System with its Better Spark—instant start, at any speed, and on the coldest day.

Not only is the spark more certain—

**SPECIFICATIONS
DO COUNT**

in fact, absolutely certain, but the wider range of advance

and retard of Delco-Remy Coil Ignition System gives better top-gear performance at low speeds than **any other form of ignition.**

78½% of the different makes of cars of the world using Coil Ignition are equipped with Delco-Remy Coil Ignition.

fit

You can have your NEW CAR, whatever its make, equipped with the Delco-Remy Coil Ignition System.

DELCO-REMY COIL IGNITION

For existing cars order

**The Delco - Remy Coil
Ignition Magneto Replacement Unit.**

Suitable for many light cars.

Prices from

£3 - 15 - 0

to

£5 - 10 - 0

(Postage 1/6)

Wiring and Switch 12/6 extra.

Write for quotation for your car.

The Delco-Remy Coil Ignition Magneto Replacement Unit. Spark independent of engine speed. Instant Start. Instant Acceleration. Save petrol and oil. Easily fitted. Better slow-speed in top-gear performance. Special Prices Irish Free State.

**free
Advice and
Literature
on request**

*"Wherever they're
fitted they'll
Save!"*

Fill in, cut out
POST YOUR ORDER

attach P.O. or Cheque
OR ENQUIRY TO-DAY

To Delco-Remy & Hyatt Ltd., Dept. L.C.7, 111, Grosvenor Road, S.W.1.
Attached please find P.O. or cheque for (or enquiry regarding.....)
(Cross out words not required.)

- ☐ Delco-Remy Coil Ignition Magneto Replacement Unit suitable for many light cars.—"Better Spark—Instant Start." From £3-15-0 to £5-10-0. Postage 1/6. Wiring and Switch, 12/6. Full particulars on request.
- ☐ Cardine Spring Suspension Moderator. Whatever the road, whatever the load, whatever the speed, **SMOOTH RIDING.** For Light Cars, £4. Medium, £5.
- ☐ Syphon Thermostat gives warm engine in 60 seconds, suitable any pump-cooled engine, 22/6. Postage 9d. Send pipe diameter.
- ☐ Remy Horns. Electric: Model 25, 75/-, postage 1/-; Model 18, 55/-, postage 1/-; Model 15, 30/-; Model 8C, 16/-, postage 9d. Model 3V (hand-operated) 19/6, postage 9d. Special Prices Irish Free State.

DEALERS.
Delco - Remy & Hyatt Accessories and Delco-Remy Coil Ignition meeting with world approval.

All Sales Credited
to dealers mentioned in Direct Sales Correspondence. Write for Stock Lists and Terms.

NAME.....

ADDRESS.....

DEALER'S NAME.....

ADDRESS.....

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.



*Which Car
Shall I
Choose?*

THE Special Buyers' Number of "The Light Car and Cyclecar," to be published next Friday, 4th March, will be of considerable interest to the intending buyer. Clear details of all the light cars on the British market will be given, with helpful advice on choice. The subject of buying a second-hand car and of making part exchange deals will be considered, as well as the important question of easy payment arrangements. The latest and most popular accessories will be described. Many special articles will complete an issue which no small-car purchaser should miss.

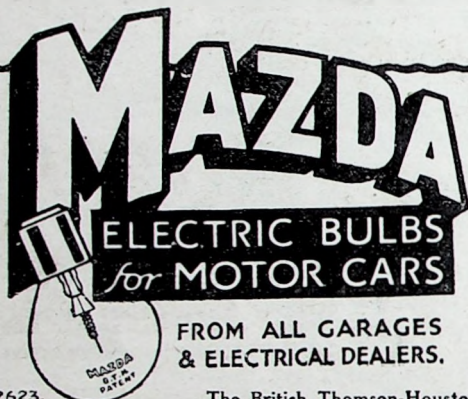
If you are contemplating the purchase of a small car this season, don't miss the Buyers' Number of "The Light Car and Cyclecar." It may save you money, and it certainly will provide you with all manner of advice and information on light-car buying.

A Special BUYERS' NUMBER *The* Light Car & Cyclecar

Next Week!

Offices: 7-15, Rosebery Avenue, E.C.1.

Whether you take the
high road or the low
road, they'll both be
well-lighted if you
use Mazda Lamps



FROM ALL GARAGES
& ELECTRICAL DEALERS.



2623.

The British Thomson-Houston Co., Ltd., Crown House, Aldwych, London, W.C.2

::

Emergencies!

::



WRITTEN by the Editor of "The Motor," "How to Drive a Car" explains how to deal with the numerous road problems that demand accurate judgment and instant decision.

In addition, it gives in a non-technical form the principles and practice of driving, based on experience of all types of cars. The instructions are carefully graded, so that the learner progresses step by step in the art of efficient car control.

A reader writes: "Your publication 'How to Drive a Car' is the best I have read upon the subject yet."

PRICE **2/6** NET.

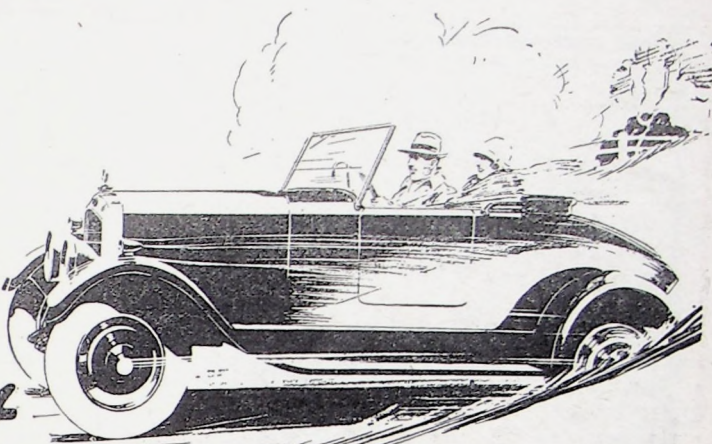
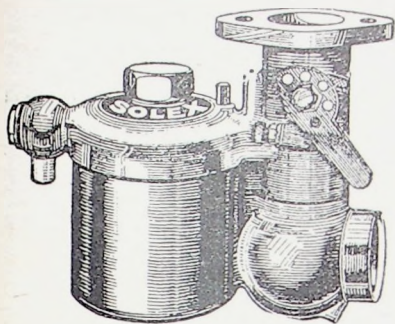
TEMPLE PRESS LTD.,
7-15, Rosebery Avenue,
London, E.C.1.

Obtainable from all principal bookstalls and book-sellers, or direct from the publishers 2/9 post free.



Wholesale Agents: E. J. Larby,
Ltd., 30, Paternoster Row, E.C.4.

TO THE READER.—By mentioning "The Light Car and Cyclecar" when replying to advertisements, the progress of the small car movement will be assisted.



Start the Season Well! -fit a SOLEX

THE NO-TROUBLE CARBURETTOR

WHEN you overhaul your car for the coming season, take advantage of the opportunity to fit a "Solex" Carburettor. It will save you pounds in reduced petrol consumption, and ensure immunity from all carburation troubles. Send for details of our 30 days' FREE Trial Offer now and test the improvement a "Solex" will effect on your car. Better results are guaranteed on any make.

WHAT OTHER "SOLEX" USERS SAY:—

MORRIS OWNER:—"An increase of 16 m.p.g. and 7 m.p.h." A-C:—"A gain of 10 m.p.g." AUSTIN 7:—"Average 51 m.p.g." BEAN:—"Power, pick-up and economy vastly superior." CHALMERS:—"50% better running." CROSSLEY:—"50% more power." CALTHORPE:—"693 miles tour at 38½ m.p.g." CLYNO:—"Difference to car unbelievable." ESSEX:—"50% more m.p.g." FIAT 15/20 h.p.:—"30% better consumption." GALLOWAY:—"12 m.p.g. more." RENAULT:—"10 m.p.g. more." ROVER 8 h.p.:—"17 more miles per gallon." SINGER 10 h.p.:—"52 m.p.g. with 4 up." WOLSELEY:—"Results like a new engine."

FREE TRIAL OFFER

Ask at your local Garage or write Dept. "L.C." to-day, sending particulars of your engine no matter what type it is and we will send you details of our 30 days' FREE Trial Scheme. There is no obligation to purchase and no charge for renovation.

SOLEX

THE NO-TROUBLE CARBURETTOR

SOLEX LTD.

Director GORDON RICHARDS

SOLEX WORKS,

223 - 231, MARYLEBONE ROAD, LONDON, N.W.1.

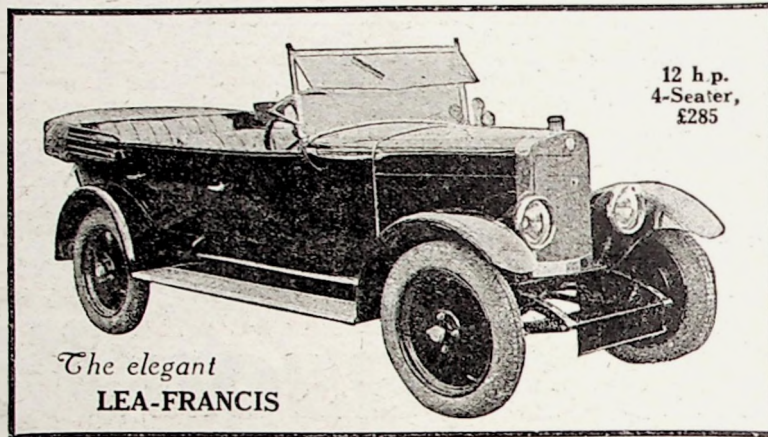
Telephone: Paddington 8621, 8622, 8623, 8624, 8625, 8626. Telegrams: "Solexcarb, London"

'fit Solex—and note the difference'

MENTION of "The Light Car and Cyclecar" when corresponding with advertisers assists the cause of economical motoring.

Gordall Ad.

You simply must—



Write, 'phone or call, for a free copy of the revised and enlarged edition of our brochure "Cars of Beauty," which is far and away the most artistic and comprehensive motor catalogue ever produced, containing over 40 photographic illustrations of the latest models and full information concerning our unequalled "Part Exchange" and "Deferred Payment" facilities. If you are considering the purchase of a new or second-hand car you owe it to yourself to read this book before making a definite decision. It costs you nothing and you cannot help deriving useful information by a glance through its contents. Should you already own a car which you require taken in part payment, no matter in what part of Great Britain you may reside, simply send particulars of your requirements by letter and we will make you a definite proposition by return of post to include free delivery and collection to your address. We are main agents for the principal manufacturers and can offer delivery from stock of most models. Our credit payments are arranged and controlled by ourselves and are the most reasonable in existence (charges from 2½% on balance). All our cars, new and second-hand, are fully guaranteed. Mention that you would like our Used Car list at the same time, we feel sure that it will interest you.

*All USED CARS sold
with a SIGNED
GUARANTEE*

*Special repurchase fac-
ilities for OVERSEAS
VISITORS*



*Our brochure, "Cars
of Beauty," gladly
sent post free on
request.*

150 CARS ALWAYS IN STOCK

NEWNHAM
MOTOR COMPANY
243-245, HAMMERSMITH ROAD,
LONDON, W.6

USED CAR DEPOT: 237, HAMMERSMITH RD., W.6

Telephone: RIVERSIDE 4646 (Private Exchange).

Established over 30 years, you know.



MENTION of "The Light Car and Cyclecar" when corresponding with advertisers assists the cause of economical motoring.



The Light Car and Cyclecar

THE COLMORE CUP TRIAL — The route of the Colmore Cup Trial organized by the Sutton Coldfield and North Birmingham A.C. was of a distinctly colonial nature. The photograph shows H. Taylor (Lea-Francis) climbing Langley Hill before a crowd of interested spectators.

NOTES, NEWS & GOSSIP of the WEEK

B.A.R.C. Meeting Cancelled.

Colonel Lloyd, clerk of the course, points out that, owing to frost and snow having interfered with the extensive repairs to Brooklands track, the work will not be completed in time to hold the open meeting projected for March 19th. The first open B.A.R.C. meeting will therefore be held on Easter Monday. In the past this has always been the first important car meeting of the Brooklands season, but the March 19th meeting was proposed as Easter falls late this year.

This Week.

The construction and working of a modern light car is dealt with in the fourth article of the series "Motoring for the Beginner." Clearly illustrated and written in simple language it should give novices a useful insight into the make-up of a modern car. An article of general interest to motorists deals with photography and reveals many of the pitfalls into which the unwary often fall. "How Not to Park a Car" is the title of an article which should be read by new and old hands alike.

No. 742. VOL. XXIX.

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LIGHTING-UP TIMES (Rear Lamps) for Saturday, February 26th.

London	6.01	Edinburgh	5.56
Newcastle	6.02	Liverpool	6.06
Birmingham	6.07	Bristol	6.11

Moon—New, March 3rd.

Race-track Development.

At the International Automobile Exhibition, to be held at Cologne, Germany, in May, attention will be given to questions relating to the making and development of motor tracks—a subject of interest to most motorists.

Club Members by Order.

Signor Mussolini has issued orders that all Italian motor owners must become members of the Automobile Club of Italy, the headquarters of which, also by his orders, have been transferred from Milan to Rome. In consequence of these and other decrees the club's responsibilities are enormous. It has to maintain a register of all sales and financial transactions relative to motorcars throughout Italy, and all hire-purchase agreements are illegal unless registered with the club.

Next Week.

Enlarged and copiously illustrated, next week's issue will be a Special Buyers' Number. At this time of the year many motorists are considering the purchase of a new or second-hand car, and the needs of both classes of buyer have been carefully studied in the articles which the issue will contain. Readers are advised to place a definite order so as to avoid disappointment. The price and the publishing day will be the same as usual: threepence, on Friday.

The New Zealand Market.

In the course of an address to the New Zealand Association of British Manufacturers and Agents, Mr. Coates, the Premier, remarked, "If the British motorcar manufacturer wants business it is here, but he must give us the equipment that is suitable for this country and can be used."

Our Front Cover.

A 7-12 h.p. Peugeot figures in our front-cover picture this week. Two models of the same horse-power appeared in last week's cover picture. They were described as 9-20 h.p. models—a pardonable error, we hope, for the 7-12 h.p. and the 9-20 h.p. Peugeots present an almost exactly similar appearance.



The old mill at Cobham, Surrey, which may be demolished shortly as it creates a dangerous bottle-neck which has caused several accidents.

High-speed Engine Carburation.

The two articles entitled "High-speed Engine Carburation" which we published recently have proved so popular that we have arranged for a further article of a similar nature by the same writer, which will deal with constant-vacuum carburettors and with two well-known instruments of the fixed-choke type. The article will be published at an early date.

When Going North.

A Darlington reader tells us that motorists going north from Boroughbridge would do better to go via Northallerton than Catterick, as the road from Scotch Corner to Darlington is in very poor condition.

Fog Flares for Motorists.

The Automobile Association has made permanent arrangements for the provision of fog flares at 50 points on roads where difficulty is encountered. The flares will be lighted by the patrols whenever necessary and kept in operation as required.

The SPECIAL BUYERS' of NUMBER

THE Light Car
AND Cyclecar
to be published
Next Friday, March 4th,

Will contain articles of
great interest to all
who are about to buy
a car, whether new or
second-hand

I.A.E. Meeting.

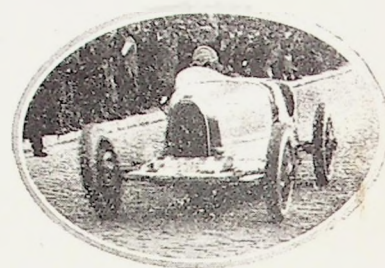
The next London meeting of the Institution of Automobile Engineers will be held on March 1st, at 7.45 p.m., at the Royal Society of Arts, John Street, Adelphi, London, W.C.2, when Mr. H. R. Ricardo will read a paper entitled "Some Notes on Petrol-engine Development."

Meeting of I.P.E.

Mr. H. Mantell will read a paper, entitled "The Production of Cylinder Blocks in Quantities of 25, 250 and 2,500 per Week," at a general meeting of the Institution of Production Engineers to be held in the Council Room of the S.M.M. and T., 83, Pall Mall, London, S.W.1, this evening, February 25th.

New All-British Car.

In this issue we give the first details of a new all-British 11-litre sporting chassis—the Bond.



The winning Bugatti crossing the line in the recent hill-climb at Las Perdigas, Madrid

No Excuse.

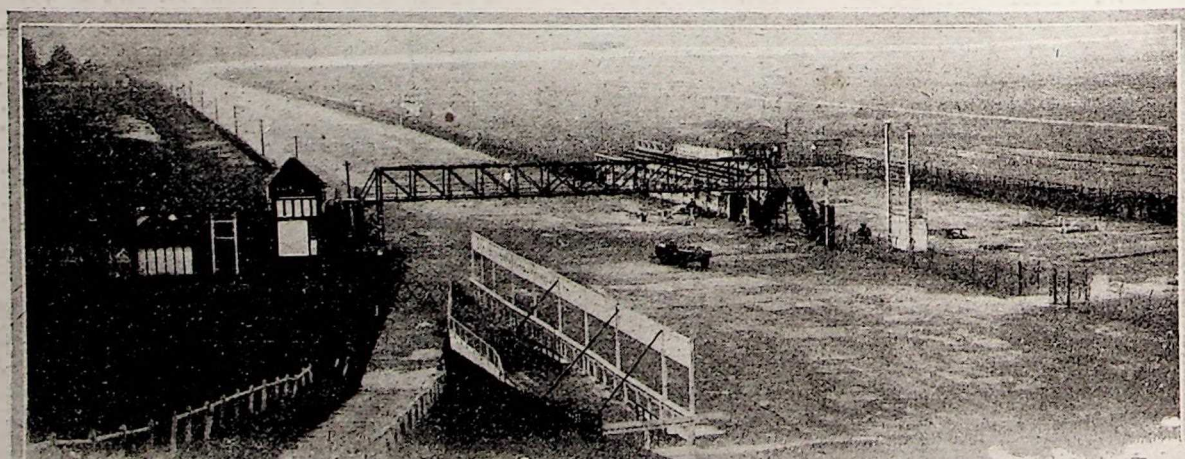
A motorist, living in Worthing, was fined £6 at the Romsey police court for exceeding the speed limit, although he explained that at the time he was driving home to his child, who was dying.

German Citroens.

The first Citroën car to be made in Germany has just left the new factory at Cologne. Mass-production methods are employed, says Reuter, but the factory will not be running at full capacity for several months. Only German labour is employed.

A Brooklands Improvement.

A permanent single-span bridge connecting the paddock with the public enclosure has been erected at Brooklands; it replaces the temporary three-span structure which was erected last year for the first British Grand Prix. The new bridge has double stairways at each end and, at the moment, it does not obstruct the view of spectators appreciably. Last year the hoardings erected on the temporary bridge practically cut off the view of the final bends in the straight for those who had taken up their positions in certain parts of the public and members' enclosure.



BRIDGING THE TRACK.

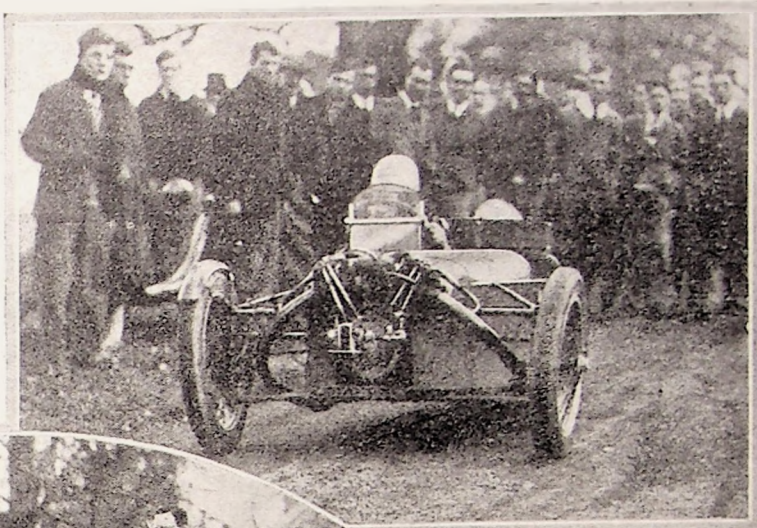
The paddock and the public enclosure at Brooklands have now been connected by a permanent single-span bridge with stairways at each end. The span measures over 100 ft., and the absence of intermediate supports leaves the track clear for racing.

French Level-crossings.

The French Government and certain French railway companies are said to be concerning themselves with the dangers of level-crossings, of which there are no fewer than 32,000 in the country.

For Motorcyclists.

Those who have become car owners after previous experience of motorcycles and whose knowledge of two-wheelers has become "rusty" should not miss the New Owners' Number of *Motor Cycling*, which was published last Wednesday, February 23rd. The prices of all the machines on the British market—more than 300 in number—are given, whilst the issue contains a selection of most interesting articles.



(Above) A spectacular run was made by R. R. Jackson (Morgan Special) at the Cambridge University A.C. speed trials at Hatley Park. (Left) S. M. Maconachie (Bugatti) who made fastest time in the car class and overturned at the finish.



New Omnibus Route.

The L.G.O.C. is said to be starting an omnibus service at Easter to Downe village, in Kent. As the roads leading to the village are narrow and hilly, with many sharp corners, the presence of buses will call for considerable care in driving on the part of motorists using these roads.

Complete Car Review.

The annual New Car Number of *The Motor*, which makes its appearance on Tuesday next, March 1st, will give light car users a comprehensive review of all the cars, large and small, on the British market; in addition there will be some novel articles and striking illustrations. The price will be 4d., as usual, and, to make sure of obtaining a copy, it is advisable to order in advance.

Road Surface Experiments.

The Ministry of Transport is still carrying out experiments with various classes of road surface, but it is explained that no particular type can as yet be recommended to county councils as the variations in local conditions, volume of traffic and so forth are too great.

Preserving the Countryside.

To combat the tendency to erect ugly signs and hoardings, or to build unsightly wayside garages or filling stations, the Royal Society of Arts started a Fund for the Preservation of Ancient Cottages at a recent conference held under the chairmanship of the Prime Minister.

MOTERING MATTERS IN PARLIAMENT.

LIEUT.-COMMANDER K E N WORTHY and several other members have pressed the Front Bench to reveal how much money will be available from the Road Fund to repair the roads during this year, but their efforts have been in vain. It is not likely, indeed, that this information will be forthcoming before the Budget is submitted.

An indication was given, however, by the Minister of Transport as to one source of expenditure. He stated that, since his Department issued a circular to all highway authorities recommending the standardization of direction and warning posts, financial assistance had been given from the Road Fund towards the signposting of roads. Thanks very largely to this aid much progress had been made towards the desired end, and the Ministry of Transport had

decided to continue to encourage local authorities in this work. Colonel Ashley declined to put into operation the suggestion that the signposts on the principal arterial roads should be painted a luminous white so that they could easily be read by day or night without the need for stopping.

Sir Gerald Strickland revived the question of withholding driving licences from certain people, and he recalled that chief constables of many important towns had expressed the view that, at the least, certificates of physical capacity should be required from people applying for the issue or re-issue of driving licences. The Minister of Transport indicated that this subject will be dealt with in the Road Vehicles Bill; but he did not give any indication as to whether that measure is likely to be introduced early or late this year.

Colonel Day drew attention to the inconvenience which motorists have to suffer on long journeys, owing to the material differences which exist in traffic regulations in different parts of the country. He asked whether the Government would take action to regularize traffic laws, so as to bring them into line with those in the Metropolis. The Minister of Transport gave a sympathetic answer, expressing his appreciation of the need for uniformity in traffic laws throughout the country; he mentioned that the matter was engaging his attention and indicated that action would be taken subsequently to achieve the desired object. So far as London is concerned, he stated that the question of crawling taxicabs is still being considered by the London Traffic Advisory Committee in conjunction with the cab interests.

Motoring for the Beginner.

THE LIGHT CAR AND HOW IT WORKS.

MODERN DESIGNS ANALYSED AND THE WORKING OF
ENGINE, GEARBOX AND SO ON EXPLAINED.

Our aim in these articles is to provide novice and prospective motorists with necessary information—not to burden them with "superfluous technicalities." If such knowledge is required—and it is certainly desirable—it will be acquired almost automatically as the driver's experience grows. This is the fourth article of the series, the previous three dealt with cyclecars, how to look after them, and how to drive them. Back numbers containing these articles can still be obtained from our offices.



AN UP-TO-DATE
HIGH-EFFICIENCY
CHASSIS WITH
FOUR-CYLINDER
O.H.V. ENGINE.

AS the seasons go by and one Olympia Motor Show succeeds another, it becomes increasingly obvious that designers are working more and more along lines which have come to be regarded as conventional. Whether or not this is in the best interests of the future of motorcars does not concern us at the moment; the point is mentioned to emphasize the fact that four-cylinder, water-cooled engines, three or four-speed gearboxes and shaft drive are basically the make-up of a modern light car power and transmission layout.

The accompanying drawing is of a purely imaginary chassis, but it incorporates features commonly found on light cars of to-day, and forms an admirable example of up-to-date practice.

The cycle of operations which takes place in the cylinders when an engine is running was described in the first article of the series "Motoring for the Beginner," and it will be sufficient, therefore, if we now explain the differences in the general arrangements of the respective types of four-cylinder engine.

The cylinders are usually cast en bloc, whether the engine be of the side or overhead-valve type. Where the former arrangement is employed greater simplicity and fewer working parts result, but the latter has the advantage in that combustion heads of a more efficient design can be used. With the exception of valve-operating mechanism, however, both types are, gener-

ally speaking, similar in principle and construction. Sometimes the cylinders and the upper half of the crankcase are cast in one piece—an economical way of going to work but not so convenient for overhauling and assembling as a cylinder block separate from the crankcase. To enable access to be gained to the oil pump and so on, the sump—that is, the container in which the lubricating oil feeding the engine is stored—is generally detachable.

Valve Operation.

With engines of the side-valve or push-rod-operated overhead-valve type, the camshaft, by means of which the necessary thrust is given to each valve tappet in turn, is housed within the crankcase. The drawing on this page shows a push-rod-operated o.h.v. engine, but in some designs single or twin overhead camshafts, driven by suitable gearing, are employed.

Obviously, the particular type of valve operation which is used affects the design of the cylinder head. With side valves the head is nearly always detachable and takes the form, really, of a cover or top to the cylinders. It is, of course, recessed slightly over each

cylinder to form combustion spaces, and it is cored out to form water passages, a manifold being cast integral with it,

to which the upper radiator pipe is connected.

On some of the older types of engine having side valves the head was of the fixed order; that is to say, it formed part of the cylinder-block casting. This arrangement possessed certain advantages, such as the elimination of machining operations and of an important joint, but it made decarbonizing more involved, because the whole of the cylinder block had to be lifted clear of the pistons before access could be gained to the combustion heads.

It was necessary also to fit screw-in valve caps, so that when necessary a valve could be withdrawn. On the whole, therefore, its advantages could not be set off against those of the detachable head, which, it may safely be anticipated, has come to stay.

With overhead valves the layout is different to the extent that the valves, their operating mechanism and sparking plugs usually form part and parcel of the detachable head, whether push-rods or overhead camshafts are used. For overhauling purposes this form of detachable head possesses undeniable advantages, for it can be removed en bloc, deposited on a work-bench and dealt with under the most suitable conditions. It should be pointed out, however, that no matter what type of head is used, the water jacket must have ports coinciding with ports in the top of the cylinder casting so that free circulation for the cooling water through the cylinder jackets and head, thence to the radiator, is assured.

Access to the tappets of a side-valve engine is often impeded by fittings such as the magneto, control rods and so forth, but in all cases a detachable cover has merely to be removed in order to disclose them.

Overhead-valve gear is, as a rule, far easier to get at. In the case of the push-rod-operated type, rocking levers, which convert the upward thrust of the push-rod to a downward thrust on the valve stem, have to be employed.

Overhead camshafts more often find a place on cars of the sporting and racing type than on touring models, and the valves may either be operated direct by the cams or through the intervention of short rocker arms.

Lubrication is, of course, one of the most important considerations, no matter what the type of engine, and it is becoming increasingly common to supply oil under pressure to the crankshaft journals and the big-end

bearings, relying on the distribution of the oil which exudes from the big-end bearings to lubricate the cylinder walls and little-ends.

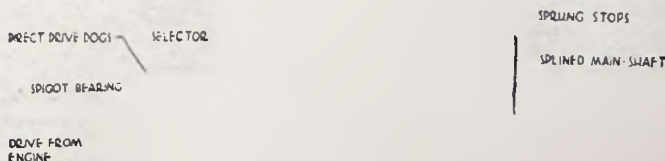
There are still many light cars in which the splash system is employed, a trough being arranged under each big-end and kept filled with oil so that as the big end revolves a scoop attached to it will just scrape the surface of the oil, forcing it up into the big-end bearing and also splashing it on to the cylinder walls and little ends. A pump is employed in both cases, and in the latter system the pump not only supplies the troughs under the big-ends but the crankshaft journals as well.

Cooling, as we have indicated, is carried out by means of water circulation. In the most simple system thermo-siphonic action alone is relied upon to keep the water in circulation. The principle, of course, is that heated water rises; thus, as the water in the cylinder jackets and head becomes warm, it flows up to the head tank of the radiator, its place being taken by cool water which has entered the cylinder jackets from the base of the radiator. Cool air blowing through the radiator effectively lowers the temperature of the water, which gravitates from the top to the bottom, and by the time that the engine has been running a few minutes the water is constantly on the move. To assist cooling a pump or fan may be employed.

The Auxiliaries.

Car carburettors are of the single-lever type, the throttle arm being connected to the accelerator pedal. Ignition is either by high-tension magneto or coil. Carburettors, magnetos and coil ignition units will be dealt with in next week's article on "Maintenance."

Unit construction of engine, clutch and gearbox is common, and, for obvious reasons, it has advantages over the system in which the engine and clutch are built up together, but the gearbox is separate. Cone



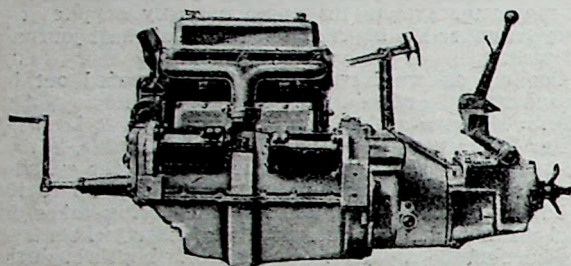
A GEARBOX
IN DETAIL.

A three-speed box with first gear engaged. A and B are the second-speed pinions, D and C the first-speed pinions. Dogs on B engage with dogs on the clutch-shaft (or jack-shaft) pinion, thus giving direct drive on top gear.

clutches, once so popular, are giving place to those of the plate type. In the case of the former the engine flywheel is dished out, as it were, whilst the member which transmits the drive to the gearbox is lined with a friction material and fits snugly into the dishing when the clutch is engaged.

With disc clutches there is a central disc connected

to the gearbox drive sandwiched between two other discs driven by the engine. The single floating member is lined with friction material on each side and engagement of the clutch is effected by means of helical springs arranged around the circumference of the clutch assembly, which have the effect of squeezing the floating plate between the two outer ones. A third type of plate clutch is that which runs in oil and which naturally has the advantage of an extremely smooth pick-up, together with a long life and the need for



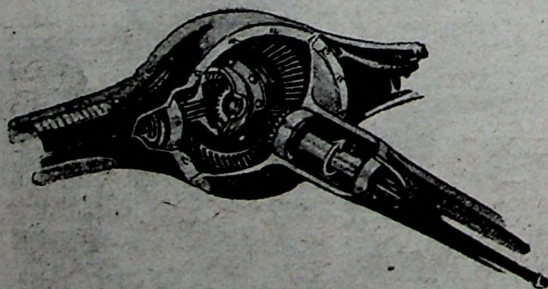
A typical engine-gearbox unit of British manufacture—a Meadows. The engine and gearbox are actually connected by a distance piece, in which the clutch is housed. It will be seen that, by means of an extension bracket, right-hand gear-change is provided.

very infrequent adjustment. As a rule, a clutch of this sort has a number of driven and driving plates.

There are two main assemblies in a gearbox, these being the clutch and mainshaft assembly and the layshaft. In top gear the clutch or "jack" shaft is connected direct by means of dogs to the mainshaft, providing a straight-through drive, but for the lower speeds the drive is transmitted through constant-mesh wheels to the layshaft, thence, according to the ratio employed, by gearwheels of different diameters connecting the layshaft with the mainshaft. Ball bearings are generally used and oil is nearly always the lubricating medium.

From the gearbox power is transmitted by a shaft which may be either open or enclosed. In the former type universal joints at each end of the shaft are desirable, and some sort of torque stay to prevent torque reaction from rotating the back-axle casing bodily when the drive is taken up, is needed. On earlier types of light car the road springs often had to fulfil this duty, but a separate torque stay is now generally employed.

Torque tube construction has the advantage that one



The make-up of a differential assembly. This enables the drive from the engine to be transmitted equally to each rear wheel, whilst allowing the wheels to run, when required, at different speeds.

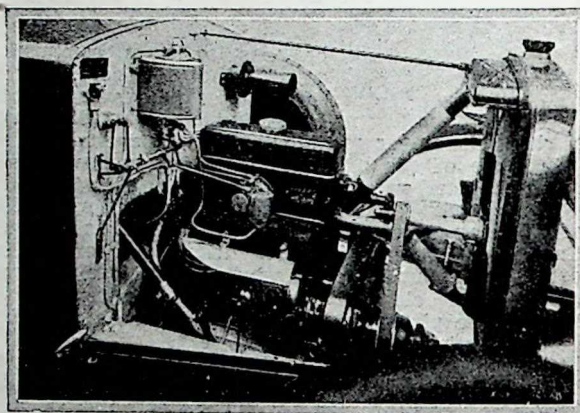
universal joint only at the forward end of the shaft is necessary, whilst torque reaction is taken by the tube itself, which is bolted securely to the back-axle casing. Some form of universally jointed anchorage for the forward end of the torque tube must, of course, be used.

Differentialless axles score on the grounds of cheaper production, lower weight and, on slippery surfaces, a far steadier drive, but the advantages of the differential have secured for it a very definite place in the

design of modern light cars. The principle is very ingenious, for whereas under ordinary conditions both rear wheels transmit an equal amount of drive, each wheel is capable of rotating at a different speed from its neighbour—when cornering, for instance.

The only disadvantage of the differential is that should one wheel lack sufficient road adhesion to transmit its fair share of the drive, the forces will take the path of least resistance and drive through the slipping wheel rather than the one which is obtaining a firm grip. The final step in the transmission is by means of short shafts coupling the differential drive to the hub of each rear road wheel.

Braking, one of the most important features of car construction, is now in nearly all cases on the four-wheel principle. As a rule the pedal applies shoes in the front and rear-wheel drums, the lever operating shoes in the rear drums only. Owing to the strains set up by front-wheel braking, it is now usual to employ semi-elliptic springs and dropped axles in place of



Continental light car engine design as exemplified by the 10-20 h.p. Berliet. Note the belt-driven fan and the provision of a vacuum tank for drawing petrol from the main supply tank.

straight axles and quarter-elliptic springs, as was formerly the case. For the rear springing, however, long quarter-elliptics are as popular as semi-elliptics, whilst cantilever springs are also found on some makes.

The steering mechanism is obviously one of the most important assemblies of a car, and the aim of the designer is to provide light but sufficiently strong parts coupled with some form of reduction gear which shall not wear unevenly and which shall give a driver perfect control over the course the car takes. The Ackermann principle, by means of which the front wheels are made to travel in true arcs struck from a common centre when rounding a bend, is almost universal, whilst centre-point steering, in which an imaginary line projected through the axis of the steering head would meet the road surface in the centre of the theoretical line of tyre contact, is also almost universally employed. The actual reduction mechanism may be of the bevel and sector, worm and worm wheel or nut and worm type.

Car controls have not yet become standardized as to position; thus, although the clutch pedal is always on the left, the accelerator pedal may be either between clutch and brake or on the right-hand side of the brake pedal. Similarly, central and right-hand control are used in about equal proportions. The former makes assembly easier, whilst the latter is, perhaps, handier for the driver to use, and allows more room in the front seat.

Next week's article will deal with the more obvious aspects of light car maintenance, and will include hints on lubrication, keeping an engine in tune, looking after the magneto, and so on.



GRAND PRIX PROSPECTS.

EXCELLENT ENTRY ANTICIPATED FOR THE LAST OF THE
1927 SERIES OF INTERNATIONAL RACES.

The photos show two of last year's British drivers who were fancied. (Left) Capt. M. Campbell, who ran second, and right, Major H. B. Halford.



TO those who witnessed last year's British Grand Prix at Brooklands, the significance of the fact that this year the length of the course has been increased by 38 miles will be appreciated. More than half the starters were eradicated, and several of those still running towards the end belonged to the halt and the lame. It was obvious that every mile counted, and had there been an extra 38 miles to be covered last year it is not at all improbable that Captain Malcolm Campbell would have added yet another victory to the name of Bugatti.

This year's race will be held at Brooklands on October 1st over a course the nature of which will probably be very similar to that employed last year, but it is quite likely that at least one high-speed bend, placed in full view of the spectators, will be included.

Last year the bends were, from the public point of view, far too slow, although it might be as well to point out that it is much easier and more amusing for a driver to take a high than a low-speed bend. The former may necessitate only one change of gear and very little use of the brakes, the latter may require a change right down to bottom gear with a far more extended use of the brakes and the necessity for expending quite a large amount of energy in steering.

If the race is to be a test, therefore, as well as a spectacle, the public will certainly expect at least one sharp "S" or hair-pin bend.

The maximum cylinder capacity will be 1,500 c.c. This applies to all the International Grand Prix races, and, we need hardly point out, is the accepted light car limit. Small car enthusiasts can, therefore, look forward to a year of sport which, to them, will be quite as engrossing as that of last year.

Prizes amounting to £1,500, the winner to receive £1,000, will be offered, but this is not considered of nearly so much importance by a racing establishment as the prestige which a victory will give, not only in this country but in all parts of the world.

The honour cannot be obtained lightly, however. On top of the expense of preparing special cars for an event of this description, an entry fee amounting to £50 for one car, with a reduction for numbers up to five, has to be paid. No wonder that when a racing

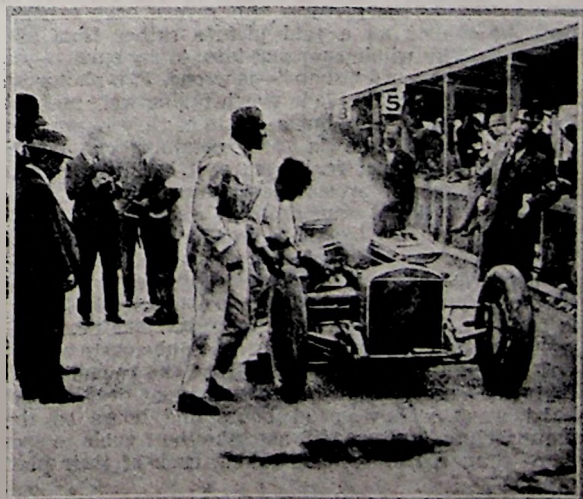
car stalls on the starting line there are heavy hearts amongst those who have been responsible for the entry.

The following nations are invited to compete, in addition, of course, to the British drivers. France, the United States of America, Italy, Switzerland, Spain, Germany and Austria. The last two countries may take part this year in International racing events for the first time since the war.

Every driver must wear "on his head" throughout the race a helmet of the design approved by the R.A.C. The words within the quotation marks are actually taken from the regulations, and on this somewhat quaint phraseology there hangs a tale. It was rumoured last year, when the regulations merely demanded that every driver must wear a helmet, that one of the competitors, who is strongly opposed to the idea, proclaimed that he *would* wear it—on his arm!

The spectacle of a competing car being pushed off from its pit by a perspiring mechanic is familiar to those who take an interest in pit work, and perhaps the regulation which forbids an assistant to push a car farther than a line painted on the track 100 yards beyond the last replenishment station will cause them a little quiet amusement; for pushing off a racing car single-handed is the sort of job which has to be given up owing to sheer exhaustion long before the allotted distance has been passed. Besides, a car which proved to be obstinate in half the given distance would almost certainly be pushed back to its pit for further investigation.

It is early days yet to discuss the probable starters, but, pulling a bow at a venture, we would hazard that the star turns will be three new Talbot racers, three very greatly improved Delages, at least one Bugatti, two Thomas Specials, a Halford Special, the long-anticipated O.M.s and, perhaps, three Alfa-Romeos. If the field were no larger than this, it would provide a spectacle worthy of one of the classical international Grand Prix races.



(Left) How the old bridge at Brooklands obstructed the view from the public enclosure. A photograph of the new bridge appears in a news page. (Above) Fire! An incident in last year's race. The Delage cars will be vastly improved for this year's event.

MAKING PICTURES WITH A CAMERA.

"FOCUS" EXPLAINS AN ART WHICH IS LITTLE UNDERSTOOD. HE MAKES IT PLAIN THAT EXPENSIVE EQUIPMENT IS QUITE UNNECESSARY.

These two photographs which are criticised in the text are most instructive when carefully analysed.

WHEN I returned from a tour in France about four years ago with what I thought was a really first-rate collection of photographs, I showed them with triumph to the chief photographer of *The Light Car and Cyclecar*, and was very much abashed when he said: "I cannot see anything clever in that; any idiot can obtain good photographs provided he takes sufficient pains."

This man had then been an expert photographer for a considerable number of years, and I believe, although my dignity suffered rather a blow, that he spoke nothing but the truth.

The camera itself is of little account; even the weather does not matter much, provided that the person who is taking the pictures will regard each exposure that he makes as a real picture rather than as a "snap." The whole snapshot idea, in my opinion—and even the very word "snap"—is wrong. If a photograph is worth while taking it is worth taking well, and it is, in my view, anything but a waste of time if even half an hour or an hour is spent obtaining one picture. After all, if it is a real picture, it is, like a thing of beauty, a joy for ever to the person who took it.

I am privileged sometimes to see touring articles which are submitted to the Editor for consideration, and they amply bear out what he tells me, namely, that 99 per cent. of them have to be rejected because the accompanying photographs are so hopelessly bad. It is rather difficult to account for this. The people who write the articles are, in most cases, obviously amateur writers, and I have no doubt that the compilation of their long screeds must involve a great deal of really hard work. They spend hours and hours on their manuscripts, and yet will not take the trouble to spend more than a few seconds taking each of their photographs.

I have said that the camera plays one of the least important parts in making pictures, but that statement needs a little qualification, in that, generally speaking, the cheaper the camera the more the pains which have to be taken to get a really first-class result.

I do not recommend the use of box cameras which cannot be focused, nor do I advise the exclusive use

of roll films, as amateurs cannot get consistently good pictures unless they are prepared to go to the trouble of setting the camera up on a tripod and focusing their picture with the aid of a frosted-glass screen.

If cheapness is the first consideration, therefore, buy a second-hand folding quarter-plate camera, preferably with single, as distinct from double, dark slides, as these are more compact and convenient to handle. A tripod will be necessary, also a cloth to throw over your head and a good stout leather case for carrying all the gear. The whole equipment can be picked up for about £3, and with such a camera I have personally taken quite a number of front-cover pictures for *The Light Car and Cyclecar*, whilst I have several albums at home full of really beautiful touring pictures which this inexpensive instrument has taken.

Another camera which I have and which I am very fond of is an Ensignette fitted with an F6.5 Zeiss lens and using roll films. I have scored one front-cover picture with this, but that was pure luck. These little hand cameras, in my opinion, are far more useful for close-up work, such as a picnic party or a little group of, say, three on a seaside beach, and even then they require a good deal of practice if each roll of six films is to have even three really presentable pictures on it.

For photographing moving objects I use a very expensive German Press camera fitted with an F4.5 Goerz lens and, of course, with a focal plane shutter which will give exposures so short as 1,000th sec.



Showing the striking effect which can be obtained by a painstaking photographer who uses a stand and takes his picture in shadow.

After years of practice and at the cost of scores and scores of wasted plates one can obtain first-rate pictures with a camera of this kind under practically any conditions. Even racing cars at Brooklands can be photographed when doing 100 miles an hour with big, black, heavy thunder-clouds obscuring every scrap of sun, whilst in practised hands every quarter-plate negative will enlarge up to whole-plate or even bigger. Such a camera, with its equipment, costs about £40, and this fact alone is sufficient to make it attractive only to Press men and professional photographers.

One of the drawbacks of all Press cameras, except, perhaps, the reflex type, is that the quality of the picture depends not upon the pains taken but upon the sheer skill of the operator. An expensive Pressman's reflex needs less skill to work it successfully, but, even so, it is not, in my opinion, a camera for the every-day tourist who wants to obtain consistently good results. It possesses, too, the disadvantage that, being operated from hip level, it obtains a child's-eye view of the object photographed.

My advice, then, to those who would like to accumulate really fine albums of first-rate prints and who may have, in addition, aspirations for getting their photographs reproduced in the Press, is to use a sound, inexpensive stand camera and not to grudge the time taken in preparations for making the exposure. With a camera of this kind the amateur photographer's activities are, of course, confined to stationary subjects, but this, in my opinion, is a matter of little consequence, for, if the scene is properly set, the liveliest pictures can be taken with all the subjects at rest.

A few words concerning the technique of taking good pictures will not be out of place, although I am not sure that I am ready to admit that those who are not gifted in this direction can improve the style of their pictures in any other way than by studying

if there is a patch of empty ground with nothing to arrest the eye. The branch of a tree, the back view of a human figure, or even a lamp-post close up to the camera—but not so close, of course, as to make focusing a compromise—will make an extraordinary difference, whilst if the picture is taken through an archway a striking effect may be obtained which, without the stone pillars, would be absolutely lost.

A car can look very ugly in a picture unless there is someone in it, on the running-board, or, perhaps, standing nearby. In this connection be careful if you seat someone in the car that they do not take up a position suggesting that they are driving along at 40 m.p.h. when the car is, perhaps, at a slight angle with the road and the whole scene is one of repose.

The photograph of the old cottages which is at the heading of the preceding page and which is the work



Showing how an interesting foreground lends value to scenic pictures. The photograph above depicts Lake Vyrnwy in Wales.



photographs which appeal to them with a view to discovering what tricks the photographer has employed to obtain the necessary "punch."

A good rule to remember is that you must not forget the great importance of the composition of a picture. Perhaps by moving the camera a bit to the right or the left a branch of a tree will fill an empty lump of sky which would otherwise look very blank and vacant, or by raising or lowering it a trifle the horizon can be shifted to a more desirable point.

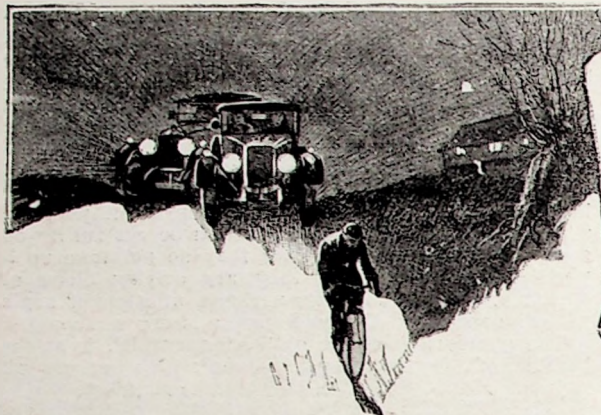
It is always important to see that the foreground is not drab and uninteresting. A most beautiful landscape looks most dreadfully flat and ugly if in front of

of a very enthusiastic photographer, whose work often figures in the pages of *The Light Car and Cyclecar*, provides an excellent illustration of how a car can figure quite prominently in a picture without in any way jarring on the general sense of peace and quietness which the rest of the picture conveys. The photographer in this case has left his car in a position where it looks at peace with the world, just as though its owner was, perhaps, a doctor seeing a patient in the adjoining cottage.

What an utterly different note is struck by the adjoining photograph. Here a most tremendous effort has been made to squeeze the car into the picture. The hen in front makes one think of a farmyard, the background of a sylvan glade, and the two ladies on the wall of a couple of love-birds on the branch of a tropical tree.

The two photographs which appear on this page are very useful, in that they show how pictures which are primarily of a panoramic character can still be made to be quite interesting, whilst they emphasize, incidentally, a point which I mentioned above in connection with the need for avoiding a blank uninteresting foreground.

In the case of the upper photograph the car and the suggestion of a building play an important part in making the picture, although its primary object is to depict the lake in the background. In the other picture the two vehicles fill in a foreground which otherwise would be very ugly.



RICH MIXTURE

LIGHT CAR COMMENT
AND ADVICE

By *Focus*

One of the Grumblers Now.

VERILY, the mentality of some people passeth all understanding. The other day a motorist in my district was summoned for leaving his car in a narrow street while he went to a matinee. The street opens into a square where there is a free parking-place, accommodating scores of cars with a man officially authorized to look after them. Near the square is a large garage and another is in close proximity, yet this man preferred to risk a stiff fine—which he duly paid!—rather than avail himself of these advantages—and I have no doubt he is now complaining of persecution by the police!

Amusement at Lunch.

AT a restaurant where I often lunch I sometimes sit at the same table as two other regular patrons of a distinctly ex-public-school type. They are total strangers to me—we are not even on nodding terms—but their conversation, which is conducted in rather loud tones, amuses me vastly.

My interest was aroused, in the first place, because their topic is always cars—and light cars at that. But what cars! And what speeds! So far as I can gather, they both own hyper-sports models and never drive at less than 60 m.p.h.; anyway, I have only once heard either of them mention a lower speed, and that was a mere 50 m.p.h.

Crashes ad lib.

THESE speeds are not accomplished without incident, however, because I hear thrilling tales of hairbreadth escapes where a well-judged skid just avoided a collision with another car. Sometimes the hair's breadth is lacking and the road is strewn with lamps and bits of crumpled wing, but always, in some miraculous fashion, my super-drivers and their super-cars are unhurt—and always it is the other man's fault.

I am convinced that they are perfectly sincere and that their talk is not "swank," designed for the benefit of eavesdroppers such as myself. Because of this, I am at a loss to understand their mentality, although I believe that theirs is a by no means isolated case.

A Word About Dazzle.

JUST recently there have appeared in the Press accounts of two methods of solving the dazzle "problem." The first was described as a system of mirrors and reflectors by means of which dazzle was made into a boomerang and cast back

into the face of the driver causing it. The danger and absurdity of this arrangement need no emphasizing, yet some of the daily papers wrote of it with approving gusto, the temptation to use the phrase, "Hoist with his own petard," proving irresistible.

In the second scheme use is made of solenoids, to cause lights from one car to dip those of another. I confess I do not regard the idea with much favour. To start with, no driver would willingly submit to someone else controlling his headlights, and unless the fitment were made compulsory a man without it would be in the position of removing an inconvenience to himself while continuing to present one to others.

Pneumonia . . . or Suffocation.

THE controversy concerning whether open or closed cars are better for the health in winter is being revived again, and each side has plenty of argument to support its claims. The discussion reminds me of a witty remark of a famous peer when medicos first began to advocate sleeping with open windows.

"It seems to me," he said, "a case of choosing whether to risk dying of pneumonia in a few days or perishing slowly from breathing poisoned air. My choice is the latter."

A colleague of mine expresses the opinion that the matter will never be satisfactorily solved until cars are made cylindrical, so that the top can slide round the bottom like the mechanism of a bull's-eye lantern.

"The Force" Finds Wheels.

IN that future day when every policeman is a motorist in his spare time we may look confidently for a more liberal interpretation of the law. To-day quite a number of constables are motorcyclists (the sergeant in the district where I live runs a big twin and sidecar), but few run light cars. Last week, however, I visited a country garage where I am well known, and the proprietor pointed out a very spick-and-span 1914 Singer Ten.

"That's —'s bus," he said, and I recognized the name of the local limb of the law. "He's just overhauled it—done all the work himself—made a good job of it, too." So saying, the garage man twirled the starting handle and the engine awoke and ran with surprisingly little mechanical noise for one so old. From the exhaust pipe came a gentle booming, which betrayed an absence of baffle plates!

Over or Under?

TALKING to a novice in the car world the other day, I found him sorely perplexed over an advertisement describing how a tyre valve cap can be tested. The advertisement states that a tumblerful of water should be held over the valve cap, and my friend stated that for the life of him he could not see how this could be done without spilling all the water.

I admit that, taken literally, the operation would require some performing, but what is really meant is that the wheel should be turned until the valve is at the top and then a tumblerful of water brought under it. I can quite see, however, that if the advertisement stated that a tumbler should be placed under the valve some novices would be in despair!

Those White Kerbs.

A MAN whom I have often heard reviling the system of placing kerbs along reconstructed sections of road tells me he has had ample cause for revising his opinion about their use. A night or two ago, when 60 miles from home, he was caught in a fog so dense that his passenger had to stand on the footboard to shout directions. The greater portion of the journey lay along a main road which is lined with white kerbs. Where the road crosses a valley it is banked up, and in places the grass at the side runs down steeply to a hedge, beyond which there is a drop of 40 ft. or 50 ft. Anyone leaving the road in a fog would be in the utmost jeopardy, but, thanks to the kerb, my informant had no difficulty in keeping on the crown of it.

Renault Cooling.

THE Renault car has many features peculiar to itself, but the most paradoxical is that one warms up the engine on a cold day by raising the bonnet! This is due to the fact that the radiator

is behind the engine and the bonnet, when down, creates a "wind-tunnel," air being drawn through the louvres and past the radiator tubes by means of the flywheel fan. If the bonnet is lifted the air current is broken and the temperature of the water in the radiator rises very much more quickly.

By the way, what ideal "shutters" for cold weather the Renault louvres would become if made to swivel! This car is so well cooled that I have found it requires to run some distance in really cold weather before it reaches a good working temperature. By making its louvres into shutters this defect would be remedied.

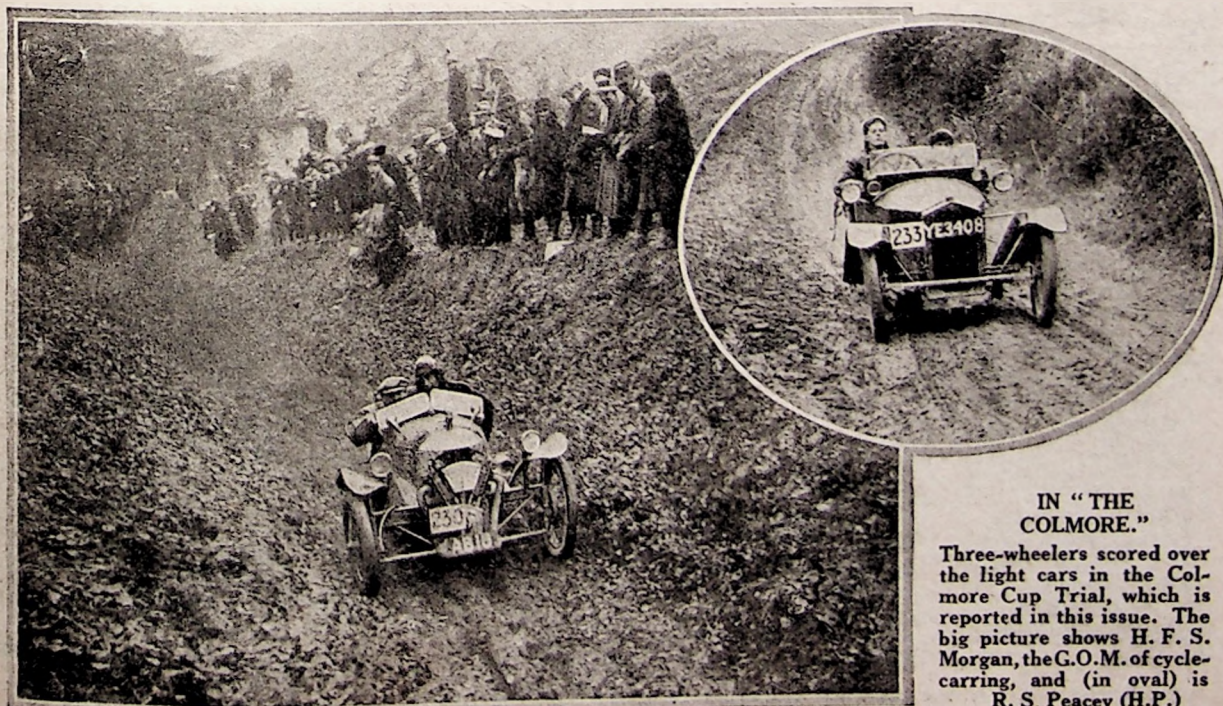
Long-drawn-out Gear Changes.

I AM all in favour of a clutch stop when the necessity for its presence makes itself felt. The car of one of my colleagues provides a case in point. To get from first to second gear silently, when the oil in the gearbox has become warmed up and thin, is such a painfully long-drawn-out business that, on a stiffish hill, the driver has no option but to "crash it." The difficulty lies in providing means for slowing down the clutch shaft, because the clutch is of the single-plate type and there is no exposed portion of the shaft against which a brake could be brought to bear. Special mechanism in the gearbox itself would solve the difficulty, but would call for a redesigned box.

Down the Ladder.

A MODIFICATION of an old proverb, "The inexperienced step in where angels fear to tread," would appear to apply very forcibly to the hero of the following incident. With two companions he was touring in the West Country.

All three were novices whose driving experience amounted to little more than that gained during the trip from London. Their car was an Austin

**IN "THE COLMORE."**

Three-wheelers scored over the light cars in the Colmore Cup Trial, which is reported in this issue. The big picture shows H. F. S. Morgan, the G.O.M. of cycle-carring, and (in oval) is R. S. Peacey (H.P.)

Seven and they got on famously until they reached the little village of Nailsworth, Gloucestershire, which they passed through en route to Minchinhampton Common. This, of course, necessitated taking the famous Nailsworth "W" and the ascent so alarmed them that they were convinced they had taken the wrong road. Seeing a turning to the left, which gave them the impression that they could retrace their steps, they swung round, but not before two of the passengers had alighted, as the descent appeared to be rather steep.

A Hair-raising Experience.

IT is almost incredible, but these three novices then unknowingly began to slither down the notorious Nailsworth Ladder with its maximum gradient of 1 in 2½. It was a rather hair-raising experience, and called for considerable effort on the part of the dismounted passengers, who had to assist in holding the car back practically the whole way; but they arrived safely once more on the lower level, and after making inquiries tackled the "W" once again and went joyfully on their way.

A Tale of a Cat.

CATS have always struck me as being very intelligent creatures and well able to look after themselves. This opinion was strengthened recently when, having left my car outside a shop, I came back to find a small crowd standing round it.

As I could see nothing wrong, I supposed that the people had stopped to admire my Robbialized

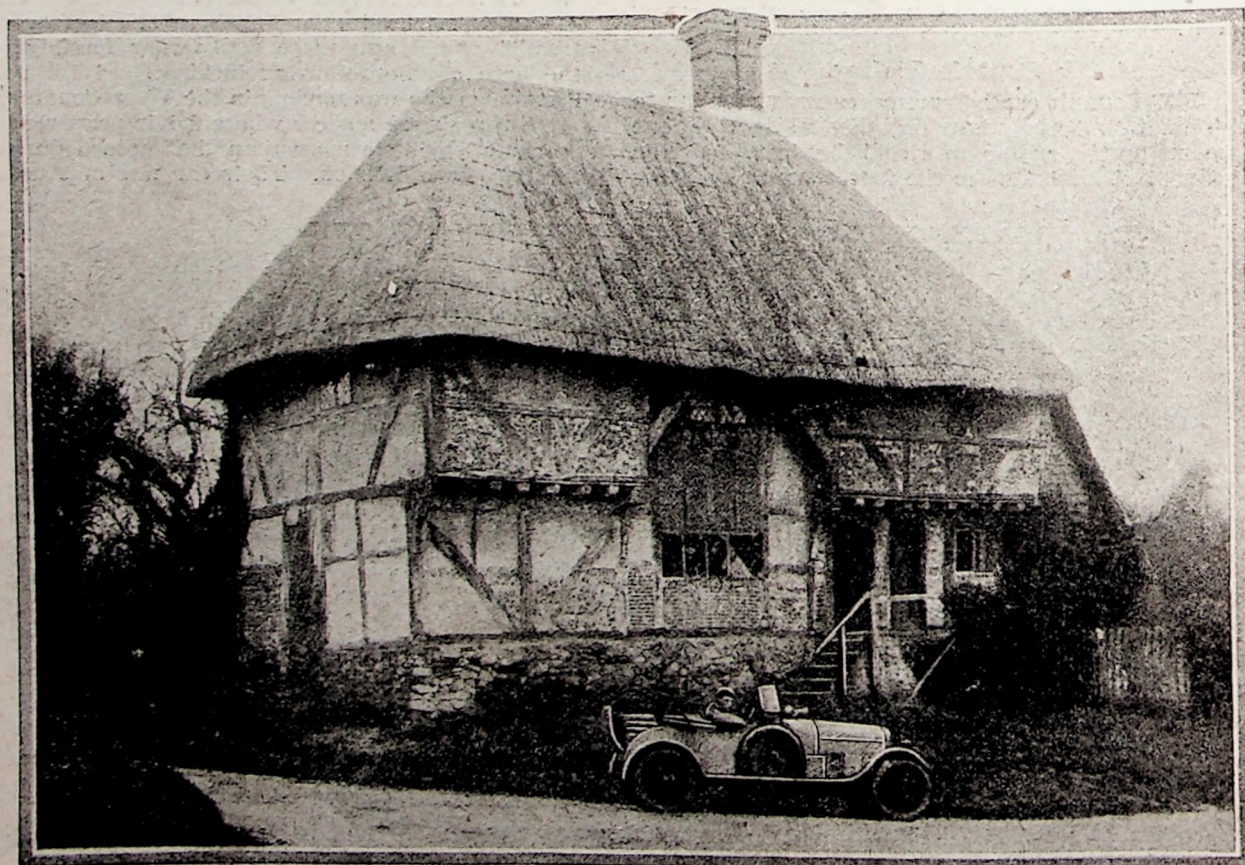
coachwork; but, upon starting the engine, someone called out, "Mind the cat!"

Then I found that a small tabby kitten was crouching under my gearbox to escape the attentions of a very large dog, which, try as it would, could not get under the running boards or axles. The dog's owner did not appear to be present, and I was in a hurry, but could hardly leave the cat to its fate.

The solution came when the dog glanced down the end of my exhaust pipe and acquired a complete eyeful of rich mixture. The cat, being evidently an opportunist, instantly made tracks for the nearest tree, up which it was comfortably sitting, ridding itself of sundry patches of gear oil when I let in the clutch and moved off.

Gale Force.

DURING a recent gale a car crashed at a sharp bend through the driver misjudging his speed due to a following wind. This is a danger which may easily catch an unwary driver napping. A 50-mile-an-hour gale exerts a very considerable effect when blowing on the rear of a car, especially if the hood is up, and a driver taking a corner may easily find that his momentum is much greater than he had anticipated. Great care is needed if, in such circumstances, the surface is greasy, for a turn in the road may bring the wind suddenly on to one's quarter, and then all the conditions are right for a skid. Until a driver has felt his way at driving in a really strong wind it is better to resist the temptation to let Boreas boost up the knots



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THAT CAPACITY BEING GENERALLY
RECOGNIZED AND ACCEPTED AS THE
LIMIT FOR A LIGHT CAR ENGINE.

What is "Drunk"?

YOU cannot say of a man that he is drunk or sober in the sense that you can describe him as being alive or dead. That is one of the findings of a special committee set up by the British Medical Association to investigate the accuracy of the tests commonly employed to decide whether a person is under the influence of alcohol. Perhaps the most important result of the deliberations of the committee, which was made up of general medical practitioners, magistrates, scientists and surgeons, is set forth in the report as follows:—"There is no single symptom due to the consumption of alcoholic liquor which may not also be a sign of some other pathological condition."

The committee's report recommends that a state of drunkenness should be regarded as one in which a person is in such a condition that he is "unable to execute safely the occupation on which he was engaged at the material time," and it emphasizes that whether this condition exists can be determined only by employing a number of tests the cumulative, as distinct from the individual, results of which must be regarded. Even these tests are not conclusive unless there is also "a smell of alcohol."

We mention the matter on this page not because we have the slightest sympathy with drivers who expose themselves to a charge of being drunk at the wheel, but because the penalties for this offence are very severe indeed and because, so far, magistrates have not always probed the evidence to make absolutely certain that alleged drunkenness is not really "some other pathological condition."

"Road-up" Dangers.

THERE is an almost unparalleled amount of road-repair and reconstruction work going on up and down the country, and it appears to us that there is a very real need for a more elaborate traffic-control system where work of this sort is in hand. We refer particularly to places where, owing to widening operations, more than half the available width of an old road is closed and single-file is not merely advisable, but absolutely imperative—unless drivers are to be encouraged to take to the footway. The trouble is that flagmen are appointed at some points, but not at others, with the result that drivers naturally think they may quite safely turn into an unguarded narrowed section. Drivers

travelling in the opposite direction act on the same impulse, and there ensues a series of "scrapes and squeezes" which require very dexterous steering to avoid collisions. The conditions are, of course, worst at week-ends, when the volume of traffic is, on many main roads, quadrupled compared with a week-day.

There is also a regrettable tendency for flagmen to be slipshod in their methods. Easily seen and unmistakable signals are essential:

the casual stop or waving-on signal given by a man seated on a barrel and idly swinging his legs is overlooked or disregarded. Each man should be provided with a red and a green flag and he should use them so that their significance is clear; further, such men should be stationed at the beginning and end of every "blind" section which is not wide enough to allow two cars to pass safely and with reasonable room to spare.

London Street Accidents.

PRIVATE motorcars were involved in no fewer than 8,606 accidents in the London streets during the last three months of 1926, the total number of deaths involved amounting to 70; 120 people were killed by trade and commercial vehicles, 43 by omnibuses and 26 by motorcycles. In all, there were 25,279 accidents and 293 persons lost their lives. The figures rather suggest that there is very considerable room for improvement in the mechanical condition of trade and commercial vehicles and in the manner in which they are driven. It would be fair to assume that the drivers of commercials have a great deal more experience than have drivers of private cars, yet they caused 50 more fatal accidents. The only possible inferences, if numerical equality may be assumed, are that these vehicles are driven in a more reckless manner than are private cars or that too many of them lack good brakes.

The total number of fatal accidents which occurred in the streets of London during the whole of 1926 amounted to no fewer than 1,003 men, women and children. This is rather an appalling total, but the fact that it shows an increase of only 163 on the figures for 1925 indicates that street accidents are certainly not increasing at the very extravagant rate which so many of the London newspapers appeared to believe to be the case last summer.

**SIMPLE THREE-WHEELER REVERSE GEAR
—IMPROVING THE APPEARANCE OF A
T.B.—THE YOUNG IDEA—NEWS OF THE
AVONJAP.**

IT seems that my suggestion for a hand-operated reverse for a Morgan, which I expounded recently, has occurred to other Morgan owners. I have received a letter from a Yorkshire reader, who puts forward an idea, illustrated on this page, which is very similar.

The device consists of a cycle hub, complete with a free-wheel chain sprocket, mounted between the flattened ends of two steel tubes. The other ends of the tubes are also flattened and secured to clips which are free to rotate on the tubular cross-member which carries the hand-brake lever and shaft.

Secured to the hub is a wooden roller, about 4 ins. in diameter, which may be serrated around its circumference. A length of roller chain passes round the sprocket and has its lower end attached to a "pull-off" spring anchored to the tube clip. To the other end of the chain is attached a length of steel wire cable, which leads to the operating lever.

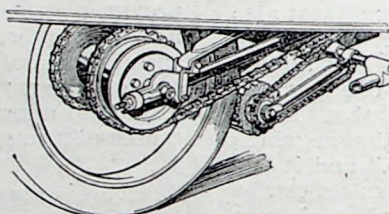
The action of the device is simple: during ordinary forward running the roller hangs just clear of the rear wheel tyre, but when reverse motion is required a pull on the lever brings the roller into contact with the tyre, further backwards and forwards movement of the lever "racking" the machine backwards. Every pull on the lever lifts the roller into contact with the wheel and rotates the roller, whilst moving the lever forwards allows the chain to be returned by the spring, through the medium of the free-wheel, ready for another pull.

My correspondent says that he has not tried this idea, but I think it will be agreed that it seems quite practicable. No doubt a little experiment would be necessary before the correct dimensions and positions for all the parts were found, but this should not be difficult.

I have received a letter from a reader who wishes to improve the

appearance of his 1921 T.B. three-wheeler by fitting a new dummy radiator and a new bonnet. His proposal is to use a radiator of a shape similar to that of the Eric-Campbell light car, but before starting the work he would like to hear from anybody who has carried out a modification of this kind.

It will not be easy to find a suitable ready-made dummy radiator, but as there are no curves in the Eric-Campbell type it should not be



How the hand-operated reverse gear, described on this page, would appear when fitted to a Morgan.

an expensive matter to have one made, as only the shell will be needed; the tube space can be filled in with "expanded metal."

If any readers who have practical suggestions to make which might help this T.B. owner would care to write to me, I shall be pleased to deal with their letters on this page or forward them to the proper quarter.

The layout of the T.B. three-wheelers was very attractive in many respects, and it is a pity that they are no longer being made. Amongst other rather pleasant features, the design included detachable and interchangeable wheels, a three-speed-and-reverse gearbox and shaft drive. It may be argued that this elaborate specification puts the T.B. outside the true cyclecar class, but as the standard power unit was an 8 h.p. twin-cylinder air-cooled J.A.P. I think that it must be given a place in the ranks.

A machine of this type would, of course, be a good deal more expen-

sive than any of the simpler three-wheelers available to-day, but I think that a ready, if limited, market could be found for it.

My 14-year-old Morgan-enthusiast friend continues to provide me with amusement and education. Following the loss of the starting-handle pin and foreseeing the possibility of something of the sort happening again, he proceeded to collect anything that appeared to be suitable, and he now carries a dozen or so pins which may or may not be suitable when occasion arises. I am wondering what will happen if, by some mischance, he breaks a chain!

I was speaking to Mr. Vivian Prestwich for a few minutes recently and was very interested to learn that the Avonjap racing cyclecar, which Mr. Kaye Don drove once or twice at Brooklands last season, is being redesigned in many details, with a view to using it for record-breaking this year. A special single-seater body is being made and it is expected that this will shortly be ready for fitting.

I am going to see the machine soon and shall then be in a position to publish full details concerning it, together with photographs which I am sure will be of great interest.

Last week I described my experiences with one of the J.A.P. water-cooled overhead-valve engines. The speed in bottom gear was given as over 40 m.p.h., but I should have explained that this is accomplished on a low-gear ratio of 10 to 1. It may not be generally known that a choice of three low-gear ratios is available to order on Morgans; these are 8 to 1 (which is standard), 10 to 1 and 12 to 1. Top-gear ratios are arranged to suit, but, of course, any combination can be arrived at by fitting suitable sprockets. Other things being equal, the low-gear speed of my Aero with an 8-to-1 ratio would be about 50 m.p.h.

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The Trojan

"One very foggy night, a week or two ago, I watched a procession of cars creeping towards a Midland town, at speeds varying between four and eight miles an hour, the leading car being a Trojan. The driver of this car sometimes sat in the driving seat, sometimes stood on the running board, and sometimes walked alongside the car, steering with his left hand.

"Those who were driving more conventional cars could not understand how he managed to keep control of the car, especially when walking beside it. To anyone who knows the Trojan, however, the matter is quite clear The car can be started by pushing the gear lever into first, the driver being outside the car, and when visibility permits it is simple to hop on to the running board and move the gear lever into top and travel along at about six miles an hour on the level For stopping it is necessary merely to move the gear lever from top back into reverse, which acts as a brake and then forward into control"

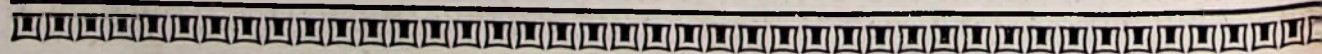
The above is extracted from an article which appeared in the recent issue of "Light Car and Cyclecar" and is yet another tribute to the extreme adaptability of the Trojan to all conditions in this and any other country.

Have YOU tried it?

If not, may we extend to you the advice we offer to all :—

COMPLETE

Try a Trojan—The

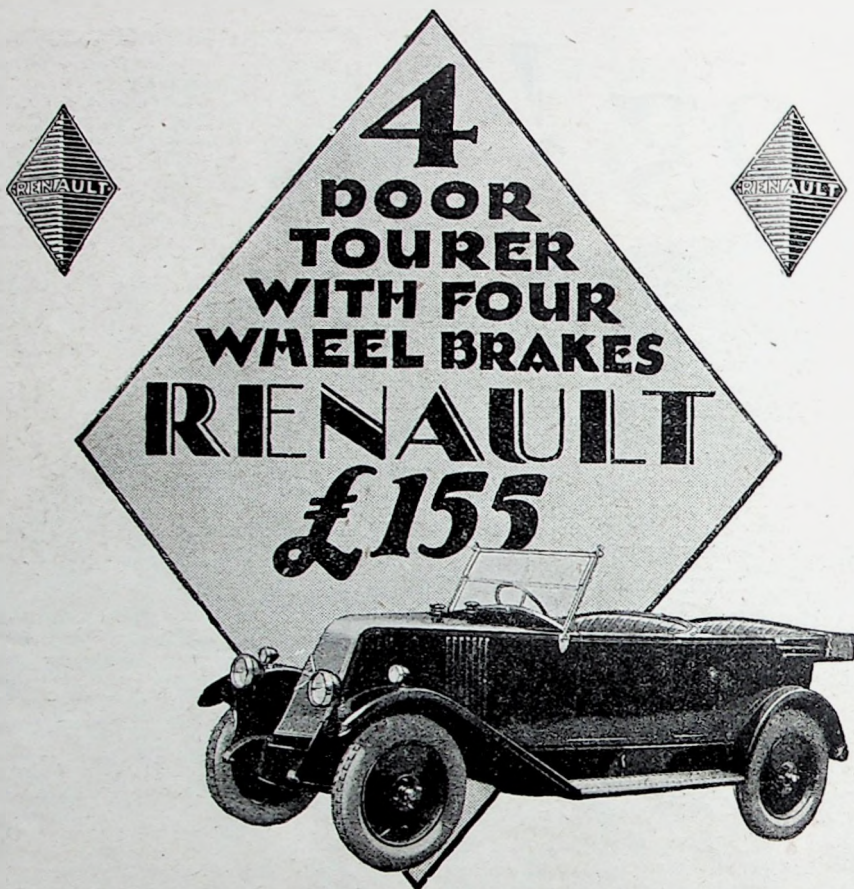


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THE "COLMORE CUP."

FIRST IMPORTANT "CLASSIC" OF THE
YEAR PROVES TO BE A SEVERE TEST.



ON GYPSY
LANE.

Miss Roper (A.C.) and R. S. Peacey (H.P.) in "the rough" on Gypsy Lane. The latter evidently wanted one more horse-power. Although not in such a sticky condition as usual, it taxed the competitors a good deal.

THE Colmore is not only one of the principal events of the year, but is usually considered to mark the opening of the competition season. This year's event, held on Saturday last, was somewhat disappointing, owing to the paucity of car entries and the few competitors who finished the course.

The organizers were the Sutton Coldfield and North Birmingham Automobile Club and the organization was well carried out.

The start of the motorcycle section was at Stratford-on-Avon at 8.30 a.m., but as there were over 240 entries the cars did not commence their journey until approximately 10.30 a.m. By this time fog, which had enveloped the whole of the countryside, had lifted somewhat, but it was not until competitors were nearing Aston Hill—where the acceleration test was held—that visibility was at all good.

The gradient was not severe and the surface was quite good, so that drivers had every chance of making a smart getaway. A rolling start of 6 ft. was allowed before the time was taken and the performances on the whole were very even. The Morgans varied in their speeds, but the Omegas were well matched, in that there was little difference in the apparent speed of any of them. The H.P. got away well, but was rather noisy; B. W. Harcourt (Austin Seven) covered the distance on bottom gear, but J. G. Orford, in a similar car, changed up into second after a few yards. G. Eadington (Gordon England two-seater Austin) was exceptionally quiet.

Stop-and-restart Test.

From the top of the hill the course led via Chipping Campden, Shipston-on-Stour, Long Compton, Moreton-in-the-Marsh, to a check just outside Blockley village, where practically everyone was well up to time. About 250 yds. farther

on a fairly sharp hill, with a gradient of about 1 in 6—actually in the village—was used for a stop-and-restart test. Competitors had to pull up between two lines about 12 ft. apart, get away again and pass a third line some 35 ft. to 40 ft. away within 15 secs.—an easy task.

Probably one of the best performances in the three-wheeler class was that of R. T. Horton (Morgan), who got away very quietly and without undue wheel-spin; his time showed up remarkably well compared with some of the others. By contrast, A. T. Prior (Omega) picked up very quickly, but had rather a lot of wheelspin at first. The Austin Sevens all behaved excellently, as, in fact, did all the four-wheelers.

Stanton Hill.

The route joined the main road at Fish Hill, then followed Stanton Hill—another observed section. On each side of this narrow lane were deep, greasy ruts, which handicapped the four-wheelers, but the three-wheelers were able to get a firm grip—so far as driving wheels were concerned—on the hard centre part and they made a better showing than the sidecars on this account. Horton's Morgan went up at speed, whilst others of the same make were but little slower. The Omegas all took things steadily and the H.P. went up comfortably. B. W. Harcourt (Austin) found things so easy that he was able to take off his hat to a friend in the crowd!

One large car suffered badly from wheelspin and stuck near the top, but the Austin Sevens and the two Jowetts, by reason of their light weight and comparatively small dimensions, got up without trouble. Miss Roper (A.C.), with her passenger in the dickey seat, made one of the fastest climbs among the four-wheelers.

From Stanton Hill secondary roads

led to Gypsy Lane, the hill that caused the downfall of so many cars last year. Last Saturday, however, it was not in such a sticky condition. Amongst the three-wheelers perhaps the fastest and most spectacular climb was made by R. T. Horton (Morgan), whilst Miss L. M. Roper (A.C.) and J. G. Orford (Austin) shared the honours in the light car section.

The brake test was conducted on the upper section of Gambles Lane, but the good surface made stopping between the tapes an easy procedure. A little farther on came a new hill for this trial, namely, New Colmore Hill, which rises a little over 700 ft. in a distance of roughly three-quarters of a mile. Much baulking occurred, many of the cars being delayed at the foot for a considerable time, and having some little difficulty in restarting.

Bushcombe has long lost its terrors to competitors in the Colmore, and it is doubtful if it is worthy of inclusion unless, perhaps, as a venue for a stop-and-restart test.

Easy Ascents of Old Stanway.

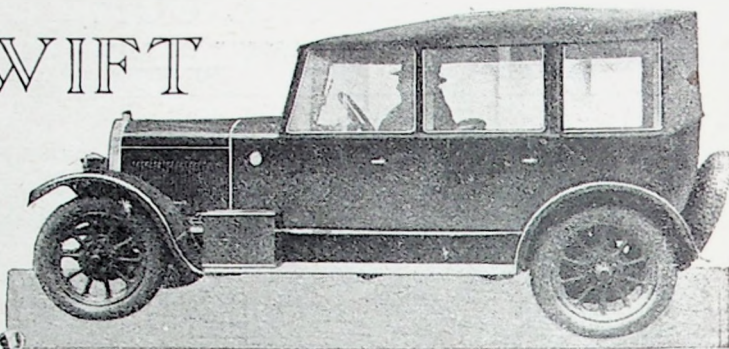
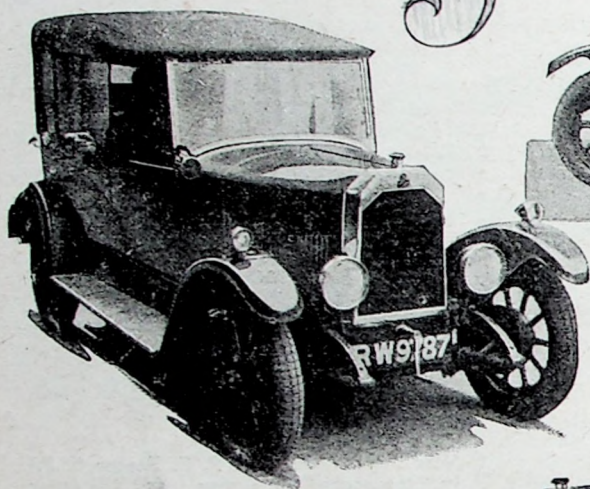
Old Stanway proved to be the last observed hill of the trial; it caused no trouble to any of the three-wheelers or the two or three remaining cars.

After the next check at Stanton Village the revised route—Dor Knap Hill having been cut out—led over fairly good roads to the finish at Stratford-on-Avon.

The following signed the checker's sheets:—R. T. Horton (Morgan), E. J. Neal (Omega), R. J. Martin (Omega), H. F. S. Morgan (Morgan), G. H. Goodall (Morgan), J. C. Chippendale (Morgan), B. W. Harcourt (Austin Seven) and J. G. Orford (Austin Seven). We understand that several other competitors claim to have checked in on time although the official check was closed.

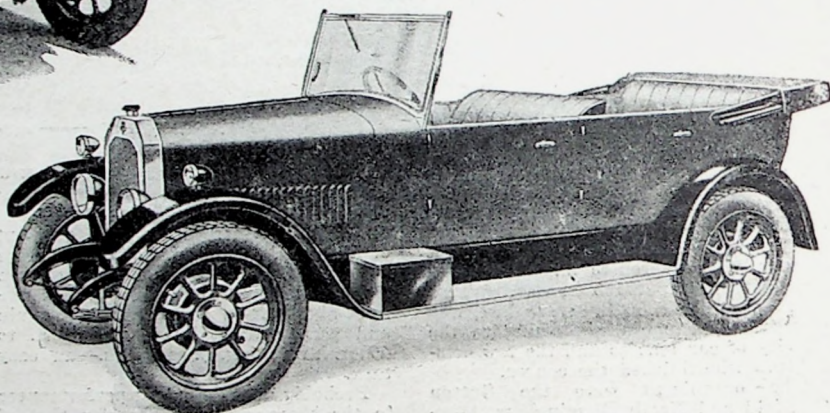
Road Tests of 1927 Models.

The 10 H.P. SWIFT



Either open or closed the Swift has a neat and workmanlike appearance. The very smart type of side curtain will be noticed, also the battery and tool box on the running board.

THE LATEST VERSION OF A PIONEER MAKE PROVES ITSELF TO HAVE AN EXCEPTIONALLY GOOD PERFORMANCE. IT IS COMFORTABLE AND WELL EQUIPPED AND, ALTHOUGH UNDER 1,200 C.C., CAN ATTAIN A SPEED OF 60 M.P.H. WITH A FOUR-SEATER BODY.



SINCE we last tested a 10 h.p. Swift, in 1925, many improvements have been made in what was even then a very pleasant little car. That year the full four-seater body was first introduced, and the car which we tried was capable of 46 m.p.h. The only serious adverse criticism which we made concerning the car as a whole was with regard to the steering, which at that time had not been modified to accommodate itself to the new problems introduced by balloon tyres.

In the case of one of the very latest models, which we have just been able to try, this has, of course, been altered, and a number of other very important improvements have been incorporated.

The chassis frame has been modified to provide for the use of half-elliptic springs at the front, a very efficient four-wheel braking system has been incorporated, the engine capacity has been increased from 1,097 c.c. to 1,190 c.c., and the bodywork has been improved in a number of respects.

Last year several changes were made in the engine, apart from the stroke being lengthened to increase the capacity, and these have made the unit more accessible, whilst making it sweeter running and capable of pulling a bigger load at a higher speed.

Speeds on the Gears.

We were able to satisfy ourselves that the 1927 four-seater, with two up, will do 60 m.p.h. in top gear and 40 m.p.h. in second gear, whilst with the hood up and three passengers aboard it will do 54 m.p.h. on top and 37 m.p.h. on second. This is really very fine going indeed for a car which weighs 17½ cwt. and which costs only £210 with complete equipment. It is exceptionally meritorious in view of the fact that top gear is 5.4 to 1

and second 9.3 to 1. The bottom-gear ratio is 19.5, and on this ratio 15 m.p.h. is attainable without revving the engine unduly.

A point we should mention is that the maximum speeds referred to are obtained without any signs of distress from the engine or transmission and with singularly little vibration, whilst the driver need have no anxiety concerning the lubrication system, as the crankshaft is supported in three main bearings, and oil is force-fed by way of them to the big-ends.

Although it is of the side-valve type, the engine is extremely efficient and is, in fact, one of the best of its type that we have met. The designing staff of Swift of Coventry, Ltd., are to be congratulated upon the clever manner in which they have eliminated the small faults which existed in earlier editions and upon the very excellent showing of this latest production.

The Controls.

The 10 h.p. Swift clutch and gearbox have always been good, and the latest example is well up to standard, the clutch being light to operate and light in weight, whilst the gears are easily changed and as quiet as one is entitled to expect in the case of a car which is sold at a popular price.

The new braking system is really very good indeed, pulling the car up in a most convincing manner and having the particular merit of being very light and easy to apply. So many four-wheel braking systems to-day call for rather more effort on the part of the driver than most people would consider desirable. The hand brake, too, which operates on the rear wheels only, is very powerful, and quite convenient to use.

The steering gear, in our view, could be improved by being invested with a more "solid" feel. At present it

is so light and free that a critical driver might describe it as being flabby. This trait, of course, is not noticeable at normal touring speeds and is not really objectionable, because the worm-and-nut mechanism makes it truly irreversible, whilst the front axle is so designed that the car straightens up nicely after rounding a corner and is not deflected from its course, however harshly the front brakes are applied. Before passing on to discuss other aspects of the car it should be pointed out that the steering lock is not quite so generous as one expects to-day.

Turning to the suspension, this was found to have been considerably improved by the use of the new semi-elliptic springs. The car holds the road well, is particularly steady on corners, but is inclined to pitch somewhat on rough roads. This could be prevented if shock absorbers were fitted.

An examination of the general design of the car shows that no pains have been spared to bring it into line with the best accepted modern practice. The front wheels, for example, are mounted on taper roller bearings, the gearbox main shaft is on ball bearings, the gear lever cross-shaft is supported on the gearbox housing, the accommodation of the electrical units is provided for in the engine design and the frame is cross-stayed at no fewer than five points, which do not include the four-point engine bearers, which provide, to all intents and purposes, two additional cross-members.

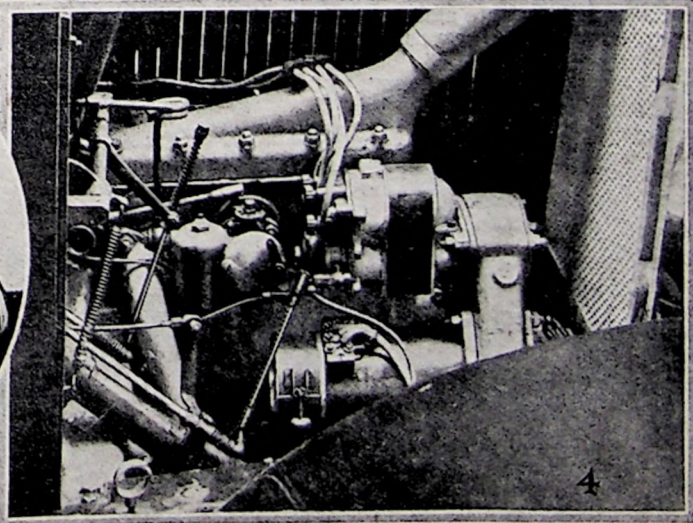
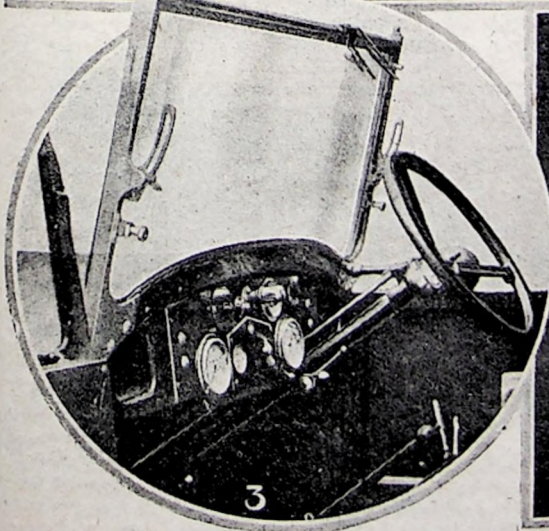
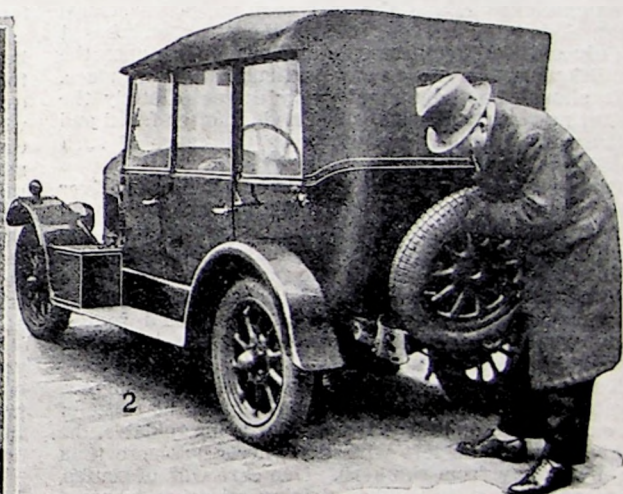
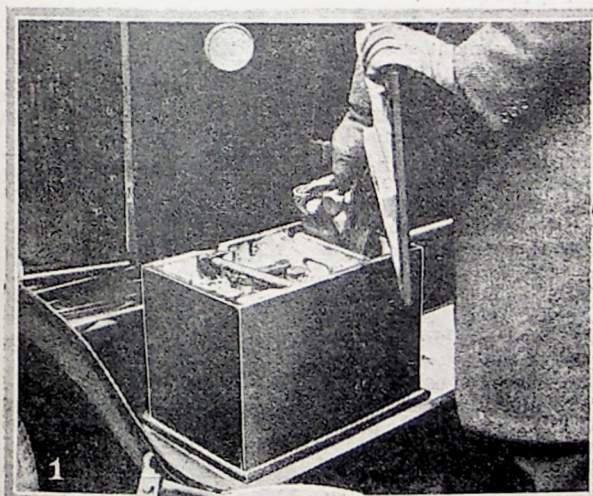
The detail work revealed by a careful inspection of the body shows also that no pains have been spared to

make it as free from criticism as possible. The hood is easily raised and lowered, the side curtains are of a very attractive—and dead silent—type, the front seat is adjustable and there is ample leg-room both in the front and the back of the car. Locker space has not been grudged, there being a large compartment behind the rear squab for storing the side curtains, a well beneath each seat for tools or odd items of equipment, and a cubby-hole on each side of the fascia-board.

The tools are normally stored in a compartment of the battery box, which is mounted on the running board, whilst wheel-changing tools are carried under the bonnet.

Two sensible features are the provision of a blind which can be used to cover the window at the back of the hood and a single-pane windscreen, which is hinged at the top and can be opened up in a forward direction and secured at any angle with the aid of serviceable brackets and wing-nuts.

During the two days that the car was in our care it covered some 250 miles, averaging 33 m.p.g. of petrol and giving no trouble of any kind. The lighting set proved to be efficient, the starter turned the engine just as briskly when cold as when hot and the whole car behaved in a very pleasant and attractive manner. It impressed us as being very good value at £210, and certainly merits the careful consideration of everyone who is attracted by a car of this type and who is capable of discriminating between intrinsic merit and superficial attractiveness.



FEATURES OF NOTE.

- (1) There is a compartment for tools in the large convenient battery box on the running board. (2) The spare wheel is carried in brackets at the rear and is held in position by a leather strap. (3) The instrument board is tastefully laid out, and an unusual design of windscreen is used. (4) The carburettor, magneto and dynamo are particularly well placed.

HOW NOT TO

THE LONG ARM OF THE LAW M.
AND CONVENIENCE OF OTHER ROAD
SENSE AND

PICTORIAL

- (1) This driver surely has little regard for danger of leaving a car on a bend like this. It has been drawn in much closer to the hedge in busy side streets are frequently caused by cars on the extreme left and the 7-12 h.p. Peugeot opposite each other, thus reducing the clearance.
- (5) Taking things too far. All four wheels (or selfish?) parking which

TO a keen observer it is obvious that quite a lot of inconvenience and delay to all forms of road traffic is caused by stationary cars, owned by thoughtless drivers, who, frequently, are quite unaware of their guilt. Their offences are more of a practical than a technical nature, and the fact that the police seldom warn them indicates that the law of obstruction is based mainly on legal requirements and not always upon the conditions which rule at any particular time and place.

It should be the aim of every driver to study the irritating situations with which he is so often faced and endeavour to guard against being the cause of such conditions himself.

One of the most obvious instances is that of a driver who, wishing to make a call, pulls up in a hurry and leaves the car at any angle, the nearest point to the kerb being, perhaps, 12 ins. away and the door, perhaps, wide open. Were it not for the fact that cases of this sort actually do occur it would be hard to credit any driver with such carelessness, and he would receive little sympathy from fellow-motorists if he were summoned for obstruction.

To park a car, even for a short time, in a narrow, but busy, thoroughfare must inevitably be the cause of inconvenience to other drivers. If it is unavoidable, the vehicle should be left with the wheels not more than an inch away from the kerb. Due care will, of course, have to be exercised when driving off so as to avoid scrubbing a front tyre against the kerb when the steering wheel is locked over; but there is no reason why

the get-away should not be made by means of a gentle sweep, and if the clearance mentioned is allowed there will be ample lock available for the purpose.

The police, nowadays, are keeping a vigilant eye open for drivers who leave their cars in main thoroughfares whilst they make extended calls. No reasonable-minded motorist should raise any objection to this, for it is to the common good that the full width of every main thoroughfare should be available for moving traffic. There is nearly always some convenient side road within a few yards of the house, shop or office where the call is to be made, and it causes but a few moments' delay to drive down this turning.

When the conditions ruling in any thoroughfare are aggravated by repairs, which may reduce the

PARK A CAR.

BE AVOIDED AND THE COMFORT
TERMS STUDIED BY USING COMMON
PERCEPTION.

"POINTS."

discomfort of other road users, whilst (2) the
to be obvious. The car could have
easily. (3) Traffic jams in narrow but
condition shown. (4) The Mathis saloon
on the extreme right have been parked
width of the road by several feet.
could be in the roadway. (6) Thoughtless
to obvious difficulties.

width of the road by at least one-third, it is sheer selfishness to leave a car even for a short time on the opposite side of the road, for it makes single-line traffic between the car and the road-up section almost compulsory. It is also a potential source of danger—a fact which should be patent to any thoughtful driver.

A somewhat similar situation arises when a driver parks his car opposite another, thus reducing the effective width of the road by some 12 ft. or 18 ft., and not leaving enough room for two cars to pass abreast between the stationary vehicles. As each of two drivers approaching from opposite directions appears to have an equal right of way, it is clear that the possibility of an accident cannot be disregarded. The correct procedure is for the

second driver to park his car beyond the position already occupied by the stationary car; in daytime, in fact, it is even preferable for him to pull up on the same side of the road as the stationary car, for then he will cause the least possible amount of obstruction.

Equally culpable is a driver who thoughtlessly leaves his car halfway round a bend. If he paused to consider he would surely see how inconsiderate such conduct is.

Whilst we urge readers to take the question of obstruction seriously, it is necessary to warn them against going to such extremes as were common during the recent strike period, when the streets of our large cities were literally crowded with private cars for which no legitimate parking-place could be found. It was then not unusual to see vehicles with two near-side wheels on the pavement. In normal times, of course, the police will not countenance this sort of thing, although in France the practice is quite common.

By far the best plan to adopt when it is necessary to leave a car for anything over 15 minutes is to find a recognized parking-place, either in the centre of a road or in an approved car-park. If the driver is a stranger to the locality he should make a point of asking the advice of the nearest policeman, parking his car, for the time being, in a side road.

We need hardly remind readers that, apart from being considerate towards other drivers, the necessity for studying what does and what does not constitute obstruction is governed largely by police requirements. Verb. sap.!

A NEW BRITISH LIGHT CAR.

DETAILS OF THE 75 M.P.H. BOND—
A SPEED MODEL THROUGHOUT
WHICH EMPLOYS SEVERAL WELL-
TESTED PROPRIETARY COMPONENTS
—FIRST CHASSIS TO BE THOROUGHLY
TESTED BY WELL-KNOWN SPORTING
DRIVER.

FOR several years Messrs. F. W. Bond and Co., Crowtrees Works, Rastrick, Brighouse, Yorks., have been building a limited number of high-grade cars for private customers, and we are now able to announce that this concern is producing a 1½-litre model of a purely sporting type.

We recently examined a chassis at the London show-rooms of Malcolm Campbell (London), Ltd., 42-43, Sussex Place, South Kensington, S.W.7, who have obtained the sole selling rights, and we were favourably impressed with the sound lines upon which the specification has been prepared.

The chassis which we inspected had just been driven down from Brighouse and was fitted only with box seats for driver and passenger. We understand that the car will remain in chassis form until Capt. Campbell has tested it out thoroughly, so that any minor alterations which may be necessary can be incorporated before a suitable body is fitted.

In the main, the Bond is made up of well-tested components, the engine being a four-cylinder side-valve Vulpine-Anzani (high-efficiency model) of 69 mm. bore and 100 mm. stroke, giving a capacity of 1,496 c.c. The power output at 4,000 r.p.m. is stated to be 50 b.h.p. and the maximum r.p.m. about 5,000. On its top gear of 4.3 the car is said to be capable of 75 m.p.h.

Mounted independently of the engine and clutch assembly is a four-speed Moss gearbox, the final drive being by enclosed propeller shaft to a Moss back axle, which, of course, incorporates a differential.

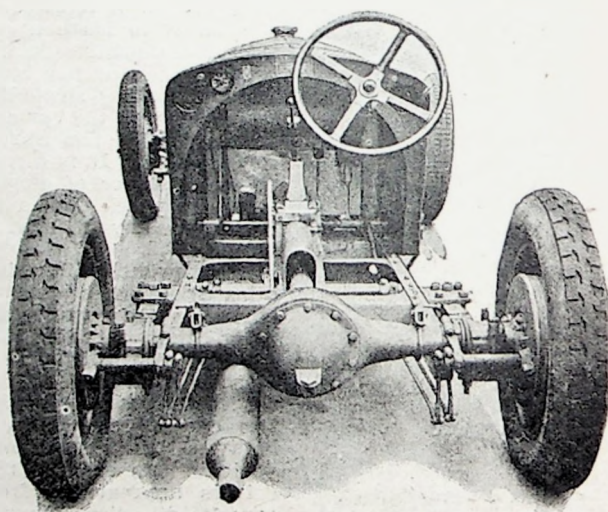
Built Very Low.

One of the most striking features of the chassis is its extremely low build. The long quarter-elliptic springs at the rear are underslung, whilst those at the front are carried on special brackets attached to the chassis so that the height of the latter can be kept low. The springs both fore and aft are wide and long and are of practically flat formation. Special care has been taken in designing the front springs and axle assembly so as to withstand the stresses of front-wheel brakes. Proper provision, entirely apart from the springs, is made for taking torque and driving thrust. Rigidity is the keynote of the channel-section steel frame which is liberally cross-braced.

Disc wheels with well-base rims shod with 27-in. by 4.4-in. tyres give the car a convincing appearance which is enhanced by the robust, flat-fronted radiator with its large-diameter filler cap. Fuel is carried in a five-gallon cylindrical tank fitted into the cast-aluminium dashboard.

The equipment of finished cars will include a five-lamp lighting set, electric starting, fully equipped facia

These photos give a clear impression of the general layout of the Bond. A high-efficiency 1,496 c.c. engine is used.



board with revolution counter and speedometer reading up to 100 m.p.h., and, of course, a full kit of tools.

A speed guarantee of 75 m.p.h. minimum reveals the character of the car, which in chassis form is to sell for £325. Without four-wheel brakes and with a three-speed gearbox the price will be £300, whilst with a roller-bearing, supercharged Vulpine-Anzani engine, four-wheel brakes and four speeds, the figure will be £450. We understand that it may be possible to obtain the chassis with an o.h.v. Vulpine-Anzani in the future, but no definite promises can be given at the moment.

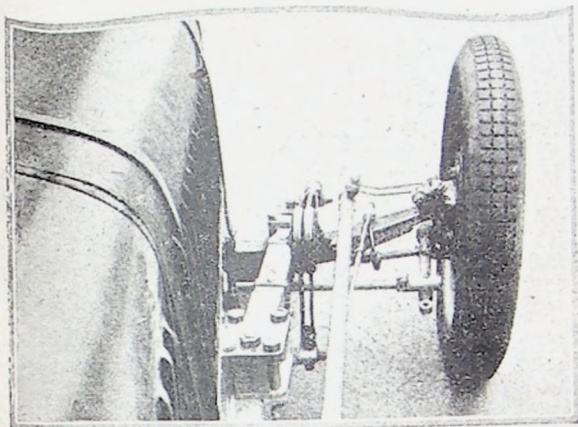
During a brief test run we noticed first of all that starting up was commendably easy. The first-gear ratio is low, but the acceleration is, naturally, very marked. An easy getaway can be made in second gear and without any appreciable loss of acceleration.

The steering was delightfully easy, rather more reduction being arranged for, however, than one is accustomed to on small cars. It was difficult to test the springing satisfactorily for, naturally, without a body the suspension appeared to be slightly stiff; yet the car rode very comfortably. We should imagine that with body and full equipment the suspension would be beyond adverse criticism.

Excellent road adhesion, despite the low weight of the vehicle, and brakes which were as smooth as they were powerful, added to the favourable impression which the car made upon us.

The 1½-litre Bond has been designed to appeal

primarily to sporting owners; at the same time, it is suitable for high-speed touring, and, as we proved to our satisfaction, it is perfectly tractable in dense London



Showing the front-wheel brake assembly on the off side of the Bond. Note the quarter-elliptic spring.

traffic. It is a true speed car from stem to stern and every detail in its make-up has been schemed to enable

it to withstand the wear and tear of fast running.

A decidedly interesting point in the specification is the adoption of quarter-elliptic springs in conjunction with front-wheel brakes, for it has generally been conceded that to withstand the torsional stresses imposed on the axle—with the consequent tendency of the springs to whip—semi-elliptics are advisable. In the case of the Bond it will be observed that special consideration has been given to the necessity for strengthening up the parts involved, the springs being of very substantial proportions securely anchored to the frame and the axle. The last-named is, of course, dropped so that torsional stresses when the front-wheel brakes are applied can, in part, be suitably absorbed, thus lessening the strain on the springs. This arrangement is quite common even when semi-elliptic springs are employed.

It will be observed that despite the high power-weight ratio the designers have thought fit to employ a four-speed gearbox—another indication of the effort which has been made to obtain a performance of maximum efficiency. In effect, of course, bottom gear is purely an emergency ratio, but it enables a useful series of higher ratios to be used.

The photographs which we reproduce give an excellent idea of the general layout; they reveal a car which should be capable of worthily upholding British prestige and of taking its place in the front rank of sporting vehicles.

NEW TWO-SEATER SINGER SENIOR.



they can be erected quite independently of the hood. There are small quarter-lights which fill in the space between the rear part of the door and the back of the hood, and these give an added degree of visibility for the occupants.

The equipment includes driving mirror, windscreen wiper, luggage grid, carpet in the front compartment, hood envelope, two horns—one bulb and one electric—a spare-wheel cover and pneumatic upholstery.

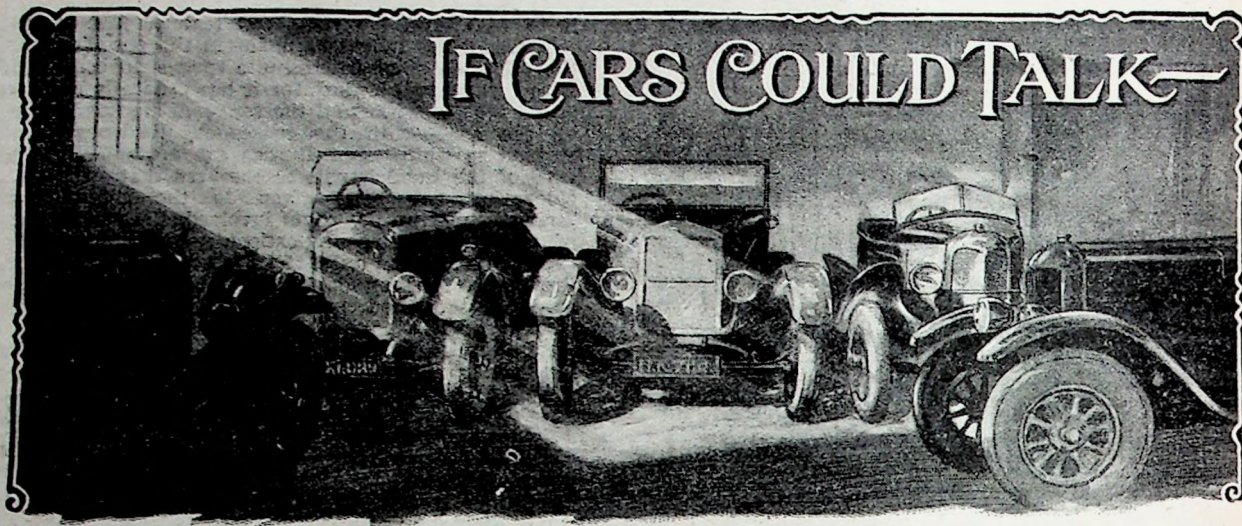
AN entirely new two-seater body has just been introduced by Singer and Co., Ltd., which, mounted on the latest-type Senior chassis, sells for £220, complete with full equipment. Full advantage has been taken of the 8-ft. 7½-in. wheelbase in order to obtain sufficient leg-room in the driving compartment and the dickey, while the seat is wide enough to accommodate three passengers at a pinch.

The body sides are high, which not only adds to the general appearance but provides adequate protection for the passengers; in addition the squab has been made sufficiently high to give the necessary support to the shoulders.

The interior furnishing is of good quality, the upholstery for both the front seat and the dickey being blue-grained leather to match the exterior paintwork. Rigid side screens are part of the standard equipment;



The facia board is of mahogany with the instruments grouped on a central panel. There is a separate panel for the switchboard.



—THEY PROBABLY WOULD DISCUSS THEIR OWNERS IN A MANNER WHICH MIGHT NOT ALWAYS BE COMPLIMENTARY. THIS IMAGINARY CONVERSATION CONTAINS SEVERAL MORALS WHICH SOME DRIVERS MAY CARE TO REMEMBER.

IT was nearly midnight before the last tenant of the garage was driven in by its owner and left, dripping with mud and with two tyres standing in pools of oil. The owner locked up and went home to bed—he had driven for many hours that day and he was very tired.

Left to itself his car shivered slightly and a sigh escaped it. The other cars, already settled for the night and mostly dozing or asleep, stirred restlessly; then one, more wakeful than the rest, spoke.

"What's the matter, old chap; upset about something?"

"Upset? Yes, and fed up. My owner drives me day in and day out and doesn't care what happens to me so long as I am cheap to run. Look at the mess I'm in—not that I mind that so much, but he need not have left me standing in this oil. Serve him right, though, he'll have to buy two tyres sooner than he expected."

"But I suppose you are all right mechanically?" asked a two-seater in the corner.

"Not so well as I ought to be," answered the unhappy one. "You see, I'm driven a good deal harder than my designer intended and the strain is telling on me. If I had some good oil in me it wouldn't be

so bad, but my owner never buys a good brand; in fact, I doubt if he knows the name of one."

"What does he order for you, then?" asked another car.

"Just 'oil.' He pulls up at any dirty little wayside garage and says to the urchin in charge, 'Put some oil in my engine.' The boy goes to a dirty drum and draws off some kind of greasy-looking fluid into an old tin and pours it into me, and away we go again—flat out. One day Mr. Careless will learn the difference in cost between cheap oil and a ruined engine."

"Well, you've had a nice little grumble," said a gleaming tourer, "and I can sympathize with you. But you're not the only one in trouble."

"Perhaps not. You look comfortable enough, anyway," said the first speaker.

"Never judge by appearances, old son. You see me here, outwardly shining like a new pin—and I'm nearly a year old—but if you could see my 'innards'—well, you'd be surprised."

"Getting a bit worn out, what?"

"No, not exactly worn out. I'm fed on the very best oil and petrol, but nearly every part of me is out of adjustment and has been for ever so long."

"That's funny," chimed in another car. "Anyone would think you were in the pink of condition."

Shine or Tune?

"Yes, my looks don't pity me. My owner spends hours on me with patent polishes and dusters, but he wears gloves all the time and wouldn't think of adjusting my tappets—such a dirty job! I'm going to sleep now. Talking's thirsty work and my radiator is nearly dry; got a bad leak in it, but so long as it still shines my owner thinks it must be all right."

"Pity about that chap," rumbled a super-sports model, "my tale is very different. I serve a man who is all that heart could wish. He understands me and I understand him. Nearly every day I get some pleasant little attention; it may be only the turn of a nut, but it makes a difference and one feels that one is cared for."

"Huh!" grunted a travel-stained "family car," "I don't know that you've much to shout about. Probably your owner gives you all these wonderful attentions because he knows very well you wouldn't go without them. You sports cars are so beastly temperamental:



"He just orders 'oil.' . . . One day he will learn the difference in cost between cheap oil and a ruined engine."

half-a-thou. wrong clearance on your valves and you're all over the place. Now I——"

"You! Surely you're not going to compare yourself with me?" The sports model was getting angry. "Why, I don't suppose it would make any difference if your tappets were adjusted according to that fatuous hint which recommends the use of a visiting card as a gauge."

"That's just my point. All my adjustments can be made easily by the type of owner I was built to serve—the family man. I may not be very fast, but I get there and cold or hot I am always easy to start. But I've seen your sort be as obstinate as mules to start even when you're hot—and some of you kick like mules, too."

What might have developed into a first-class row



"... a swerve which brought his wheel against a big stone and buckled it badly, but he went on at speed."

was stopped by the intervention of a solid-looking four-door saloon.

"There, there," he said, "don't get to scrapping. Every man to his own tastes. If there was only one type of car in the world things would be very unpleasant. Both of you have your uses and each of you has been built in the light of experience gained from the other."

"I am still another type," he continued, "and people are beginning to prefer me to either of you. And don't run away with the idea that I'm so very slow, either. My body may look solid, but it's as light as a feather, really—thanks to fabric—and my engine, although not 'super,' is hot stuff enough for most people."

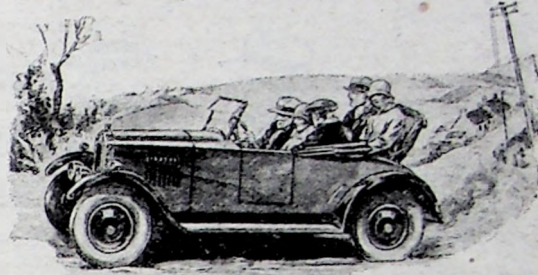
Evils of Overloading.

"Does your owner ever overload you?" asked a tired-looking two-seater which hitherto had been silent. "Because if he does I'm sorry for you. Overloading is the bane of my existence. My owner is one of those gregarious folk who is never happy unless he has a crowd with him. A dickey seat was never intended for continuous occupation, but mine is always full, and three on the front seat as well is quite usual."

"But your chassis is the same whatever type of body is fitted, isn't it?" asked someone, "and if so, I don't see why you call it overloading with five people aboard."

"That may be so; but my dickey is a tight fit for two grown-up people and certainly my front seat was never designed for three. Even if the overloading does no harm the overcrowding cramps my owner's style; it prevents him from making proper gear changes, he can't reach the hand brake easily and his steering is not so certain as it ought to be, simply because he has no room to move. Mark my words, all of you, one of these days we shall crash. Why, with two passengers in front he can't get his arm out to signal, so he leaves that job to the dickey-seat people—and they both give wrong and different signals at the same time!"

"Our owners may be at fault in many respects," remarked a car of famous marque, "but there are others. It's those drivers who make a practice of cutting in that frighten me more than anything. If



"The overcrowding cramps my owner's style; he can't get at the hand brake and his steering is uncertain."

I'd been under only partial control like you were complaining about just now"—looking towards the last speaker—"we should have been 'for it' the other day when some fool overtook a slower car and came at us head on. Good job my servo f.w.b. are the last word—we stopped solid. Mr. Hog did a mighty swerve which brought his off-side rear wheel against a big stone by the roadside and buckled it badly, but he went on at speed, apparently quite unashamed. In my opinion that type of driver should be publicly executed."

"Hear, hear!" cried the sports car. "It is my type which usually gets the blame for that kind of driving, but, as a rule, it is quite undeserved. Take notice, all of you, next time you are out and you will find that most sports car drivers are *good* drivers with proper road manners. Quite often novices cut in through sheer bad judgment, but I suppose it is hardly fair to blame them; we must wait until they gain experience, preferably at their own expense."

"Cutting-in is certainly a very bad practice," remarked the saloon, "but I don't agree that it is adopted very much by novices, because, as a rule, they are too nervous. It has always been my experience that a certain type of motor-van driver is the greatest offender in this respect, and it is useless to expect road courtesy from him."

Polite but sleepy murmurs of agreement with this sentiment came from the assembled cars before, with one accord, they settled down for a few hours' well-earned rest.

"... spends hours with patent polishes ... but my radiator is leaking badly."



OUR READERS' OPINIONS

We welcome at all times letters sent to us by readers for publication in these columns, but take no responsibility for the opinions expressed therein. No anonymous communications will be accepted, but writers may use a nom de plume if desired. To ensure publication in the next issue letters must reach this office not later than Monday morning. They should be addressed to the Editor, "The Light Car and Cyclecar," 7-15, Rosebery Avenue, London, E.C.1. We reserve the right to make any alterations or deletions which we deem necessary. Please write only on one side of the paper and leave a wide margin.

HIGH-SPEED CARBURATION.

Constant-vacuum versus Fixed-choke Carburetters.

Constant-vacuum Carburetters Praised.

I have been interested in the articles by Mr. Mantell in your issues of February 4th and 18th, but do not agree with his remarks regarding the "hanging-on" qualities of the constant vacuum type not being so

Absence of Flat Spots.

good as those of the fixed-choke type, for this is a point where the former really scores, whilst another advantage is that there are no flat spots. He also states that the use of derangeable moving parts is not necessary, but he forgets that the float chamber relies on automatically moving parts which cause no trouble.

The reason why the constant-vacuum type is not more popular is that the price to manufacturers is higher. Motorists are more critical to-day, and they want a car which will go from a crawl to 80 m.p.h. on top gear; economy, easy starting and an absence of flat spots are also expected. For this reason I think that the fixed-choke carburetter will gradually fall out of favour.

LESLIE G. KESTERTON.

The Question of Moving Parts.

Being connected with the manufacture of a constant-vacuum type of carburetter I must take strong exception to some of Mr. Mantell's remarks on this type of carburetter.

Mechanical Exactness.

In your issue of February 4th Mr. Mantell wrote an article on high-speed engine carburation, in which he mentioned its difficulties and also made assertions regarding the constant-vacuum type of carburetter. In his article he also emphasized the disadvantages of moving parts in the phrase "... and what is of paramount importance, involves no moving parts." Apparently, Mr. Mantell does not realize that the majority of cars made in this country standardize a carburetter featuring this great disadvantage, namely, moving parts. If his statement regarding the disadvantage of moving parts is correct, then the obvious conclusion must be that there is such a great advantage in actual carburation over the open-type carburetter that it more than compensates for such disadvantage.

Mr. Mantell states that "the constant-vacuum system involves the use of moving parts at a place where great

mechanical exactness and consistency are necessary." This is correct, but these qualities can be, and are, obtained; moreover, carburetters can be made with such mechanical exactness that the adjustment can be sealed before they are sent from the works, as it is a practical certainty that they will give a standard performance on a standard adjustment, although, unfortunately, manufacturing costs are greater.

As to his statement that, apart from the initial stages of acceleration, the pick-up of the constant-vacuum type is not equal to that of an open type, the term "initial stages" can be widely applied, but I assume there is no question as to the constant-vacuum type being better in this respect. Apart from this, there is nothing to choose between either type as regards pick-up and maximum speed, assuming that the open type has a large enough choke fitted to give maximum efficiency, in which case, generally speaking, flexibility and consumption are considerably impaired. This difficulty, of course, does not arise with a constant-vacuum type, owing to the choke area adjusting itself automatically to the requirements of the engine at all speeds. The "hanging-on" qualities, especially at low speeds, however, are, in my opinion, decidedly better with the constant-vacuum type than with the open type.

T. C. SKINNER.

Mr. Mantell Replies.

I read with interest Mr. H. Kensington Moir's criticism of my article on carburetters and am sorry that he should describe my remarks on constant-vacuum carburetters as "unfair." I am fully alive to the good

High Maximum Speeds.

points of the constant-vacuum carburetter and have given them best in cases where a happy combination of a fairly high maximum speed with a "fool-proof" throttle is desired. Nor have I spared the weak points of fixed-choke carburetters—my remarks were, in fact, rather in the nature of an exposure of their shortcomings. I contend, therefore, that a reference to the functional limitations of the constant-vacuum type is quite fair and called for.

The statement which earned this severe adjective was a perfectly moderate one; it was to the effect that while they surpassed the open carburetters in handling sudden accelerations from low speed on top gear they did not give quite the same maximum speed as the latter, nor were they so good at "hanging-on" in hill-climbing.

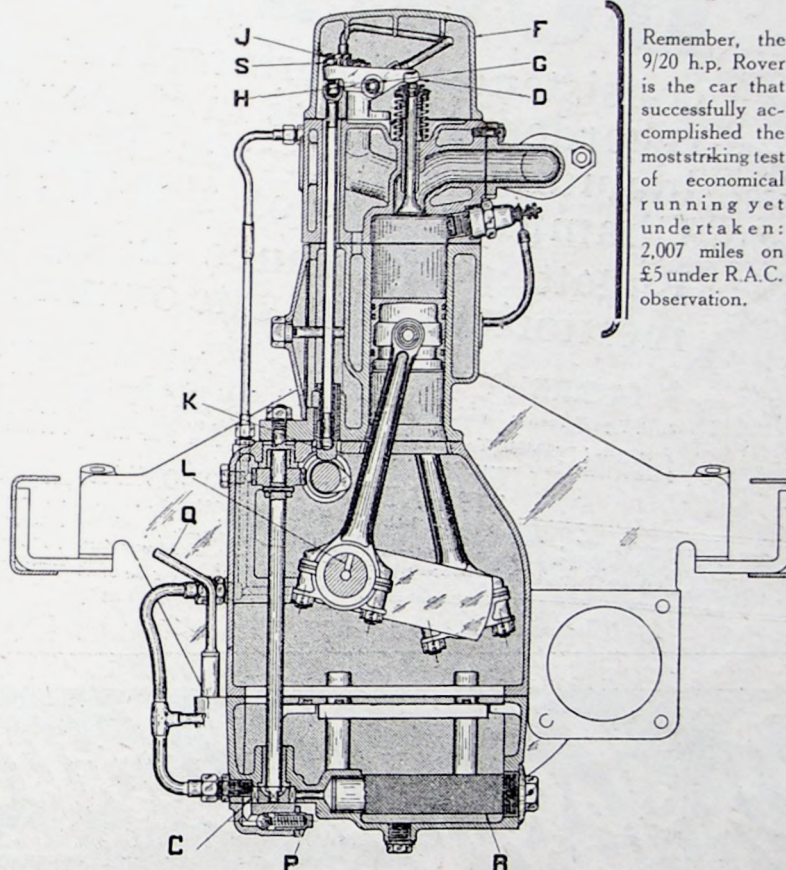
This is the third of a new series of announcements in which we shall indicate each fortnight the many points of technical superiority of "The Nippy Nine."

More good features of "The Nippy Nine."

9/20 h.p. ROVER MODELS, 1927.

2-seater	-	£220
4-seater	-	£225
Coupé (detachable head)	-	£235
Sports 2-seater	-	£240
Semi-Sports 2 or 4-seater	-	£260
Coachbuilt Coupé	-	£285
Saloon (Weymann)	-	£285
Saloon (Coachbuilt)	-	£295

NOTE.—All models have 4-wheel brakes, seating in real leather, automatic screen wiper and lavish equipment. Choice of body colour: a wide range of smart two-colour body finishes is available.



Remember, the 9/20 h.p. Rover is the car that successfully accomplished the most striking test of economical running yet undertaken: 2,007 miles on £5 under R.A.C. observation.

Here is a section through the 4-cylinder engine of the 9/20 h.p. Rover, showing the accessibility of the oil-filter, which can be rapidly withdrawn from the sump for cleaning. At P is the valve regulating pressure of oil circulation system. Note the pipe conveying oil under pressure to the overhead valve gear

enclosed by cover F, each rocker being continually lubricated and the surplus passing through passage H to the cup-headed push-rods—this renders the valve gear extremely quiet: another pleasing feature of "The Nippy Nine" that makes it such a thoroughly satisfying car to handle.

Have you seen the "Book of the Rover Nine"? We are holding a copy against your request—merely write your name and address on this page, tear it out and post to us. You will be very interested. The Rover Company, Ltd., 61, New Bond Street, W.1, and Coventry.



ROVER

TO THE READER.—By mentioning "The Light Car and Cyclecar" when replying to advertisements, the progress of the small car movement will be assisted.

consistency of performance has recorded 418 wins in 8 months, including 45 records and the Championship of the World. Bugatti performance is equally meritorious in private ownership

CURRENT PRICES:

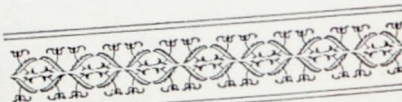
4-cyl. Type 40 Touring Model, Chassis only....£325
 4-cyl. Grand Prix Model, Type 37, with standard
 2-seater racing body£550

A New Feature:

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A set of STOTT ANTI-BOUNCE CLIPS fitted to the spring of any car will reduce the wear and tear, give you greater comfort and eliminate swaying and bouncing when driving on rough roads.

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"The STOTT ANTIBOUNCE CLIPS have already proved very efficient Shock Absorbers. I can drive five to ten miles an hour faster with less discomfort. The steering is also much better, the STOTT ANTIBOUNCE CLIPS do all that is claimed for them."

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FACILITATE BUSINESS, and ensure prompt attention to your enquiries, by mentioning "The Light Car and Cyclecar" when writing to advertisers. They will appreciate it.

OUR READERS' OPINIONS (contd.).

I am astonished that Mr. Moir, who is a carburation specialist of no mean ability, should attempt to refute what he must know to be a fact, and a fact which, I am sure, the constant-vacuum carburetter makers themselves would not think of contesting. Carburation, as at present practised, is a compromise throughout. The conditions which make for low and medium-speed flexibility, economy and so forth are not entirely suitable to high volumetric efficiency and vice versa.

I do not know why Mr. Moir should quote the Bentley, which has a three-litre engine and does not fall in any sense within the category of small high-speed 1½-litre engines, round which the article was written. I am aware that the car in question has a top-gear range of 8 m.p.h. to 85 m.p.h.; in other words, it has a good low-speed performance combined with a fairly high maximum.

Does Mr. Moir for a moment suggest, however, that the above is the absolute maximum of the Bentley or will he contest my suggestion that if he cares to sacrifice the 8 m.p.h. side of the curve he can improve—perhaps considerably—both upon the “hanging-on” and the 85 m.p.h. maximum by the use of a suitable fixed-choke carburetter?

May I refer him to the various Bentley track records and ask him what type of carburetters were fitted on each of these occasions and why? May I also ask him if he can quote one existing classic record, either at Brooklands, Monthéry, on the sands, or at hill-climbs, obtained with a constant-vacuum carburetter? Would he, in fact, find an instrument of this type either at Brooklands or on a

Continental racetrack, on a first-grade racing car, and can he quote a single make of sports light car of racing repute to which this type of carburetter is fitted as standard?

Please do not read this as a sweeping indictment directed against constant-vacuum carburetters. I merely wish to illustrate the fairness of my original statement that, while possessing those useful qualities for which they are designed and in recognition of which they are used on many types of car demanding such qualities, constant-vacuums are not entirely suitable to small high-efficiency sporting engines, for which purpose they are not designed.

Again, Mr. Moir attributes the paucity of this type of instrument on small cars to price-cutting—an amazing argument. Does he not know that they are, and have been for some time, standard on the productions of Morris Motors, Ltd., who are probably the keenest buyers in the country, if not in Europe?

Finally, I am accused of stating that constant-vacuums give trouble. May I refer Mr. Moir to the original paragraph in question, in which I was particularly careful to make no such statement; what I said was that “the weight of engineering opinion” was against “the use of moving parts at a place where great exactness and consistency are necessary”? This, I suggest, is a perfectly moderate and absolutely true statement, and I challenge Mr. Moir to refute it.

The question of relative “hanging-on” properties are too lengthy to admit of discussion here. L. MANTELL.

* * Mr. Mantell's remarks concerning constant-vacuum carburetters have aroused considerable interest and, at our request, he will contribute an article dealing with the functioning of these instruments in the near future.—ED.

Prices of Three-wheelers—Reliable Ignition Systems.

Disabled Drivers' Trial.

In reply to Mr. Poulter's letter published last Friday, I would say that if he would be so kind as to let me have particulars as to the date of the trial for disabled drivers

I will gladly enter if I am not already booked for the date. From his remark about the “premier pot” being an apparent certainty for me, it would seem that my last letter was open to criticism on the grounds of “swank.” For this I apologize, but must point out that I was especially careful not to mention ever having won any awards in trials. I am afraid I must plead guilty to motor-ing for the fun of it and not necessarily for “pots.”

RIVERS OLDMEADOW.

118, Ebury Street, Victoria, S.W.

English versus French Three-wheelers.

We cannot refrain from replying to the letter from Mr. V. A. Cation in last week's issue of *The Light Car and Cyclecar*. In the first place, his basis of comparison is

wrong; the Aero-Morgan, being essentially a sports model, should clearly be compared with the sports D'Yrsan and not with the tourer. Moreover; the figures on which your correspondent bases his argument are incorrect. From the current price lists of each car we get the following:—

Sports D'Yrsan, fitted with electric lighting, hood, spare wheel, and usual equipment, £165.

Aero-Morgan, fitted with electric lighting, hood and usual equipment (Blackburne engine), £143.

There is thus a credit balance on the side of the Morgan (for the moment) of £22. The speed of the Aero is 70 m.p.h. That of the D'Yrsan is also 70 m.p.h. Both models can be made to do 75 m.p.h. with special cams, the cost in the case of the D'Yrsan being £3; figures for the Morgan are not available to us.

Now let us examine where the extra £22 for the D'Yrsan comes in. In the first case, the D'Yrsan has three speeds and there is no need to enlarge on the gain in flexibility, climbing ability and acceleration which the intermediate ratio gives; again, the D'Yrsan has a reverse gear, a refinement which costs at least £10 to add to a Morgan. Add to these points the fact that the D'Yrsan has interchangeable wheels and that a spare wheel is included in the above price, and we think that the £22 is more than accounted for.

If that is so, then on the credit side the D'Yrsan still has the following points:—A four-cylinder engine, car-type

geared and irreversible steering, powerful and smooth braking such as is found only on the more expensive sports cars, a full-size V-windscreen and a larger radiator and less exposed engine position than has its rival.

As regards tyres, according to the Morgan catalogue 700 mm. by 85 mm. cords are standard; on the D'Yrsan 710 mm. by 90 mm. are fitted. S.S. tyres are £1 10s. per wheel extra on each car.

In conclusion, may we say that we are in full agreement with V. A. Cation's remarks as to the reliability and general excellence of the Morgan, the reputation of which is thoroughly deserved. We are merely anxious to make it clear that in value for money, in performance and, above all, in refinement the D'Yrsan can, and does, hold its own.

METRO MOTORS,

Per HILTON SKINNER, Sales Manager.

Sparkign Plugs.

We were pleased to see the commendation of present-day sparking plugs by “Focus” in your issue of February 11th. We feel sure it is a fact that plugs are lasting longer than they did a few years ago. While noting

this fact, it should not be thought that we are resting satisfied, as we are continually striving to improve upon the design, and we are sure that our competitors are doing the same.

Although on many clean-running engines sparking plugs of good quality will last an extraordinary time without any attention, it is not good policy to forget all about them. After running between, say, 2,000 to 4,000 miles the plugs should be taken out and examined. If the engine is being run on a fairly rich mixture it will be the insulators that will require attention, while if the mixture is weak it will be the spark gaps.

The resistance of the spark gap of a plug gradually increases with use, partly due to the slow burning away of the points and partly due to the peculiar effect of the spark on the surface of the metal. The weaker the petrol mixture the quicker will this action be.

To avoid throwing unnecessary work on the magneto, therefore, the plugs should be dismantled periodically, the insulation wiped clean, and the surface of the sparking points rubbed over with a piece of emery or glass paper, or a smooth file. After reassembling the plugs and setting the spark gaps to .02 in., the plugs will then be restored practically to their original electrical condition.

LODGE PLUGS, LTD.
B41

OUR READERS' OPINIONS (contd.).

Salmson Owners' Experiences.

A Concise Summary.

I bought a 10-20 h.p. two-seater Salmson last August and I have covered just over 7,000 miles on all sorts of roads and in all weathers. I have nothing but praise for the car; its chief point is its power and I am still waiting to meet the car which can beat its acceleration.

The following is a brief summary of its behaviour:— (i) Hill-climbing, good. (ii) Starting from cold, an easy matter. (iii) Speed, on the day of writing I had the car past the mile-a-minute mark for a short stretch. (iv) Suspension, the car holds the average road well but the springing is a bit too light for real pot-holes. (v) Brakes (f.w.b.), excellent. (vi) Steering, very sensitive and firm. (My model has no differential.) (vii) Valve gear, satisfactory, but a bit noisy. J. GIBBS.

Cedar Lawn, Beckenham, Kent.

In the Hands of a Beginner.

I took delivery of my 10 h.p. 1926 Salmson sports early last year, and since then I have covered 5,500 miles. Although I had not driven a car before, a few minutes' instruction gave me sufficient confidence to take the wheel on my own and drive the car home, a distance of 230 miles: I felt perfectly at ease—a compliment to the remarkably easy gear change and good steering.

Petrol consumption worked out at about 25 m.p.g. at first, but after a little experimenting with various jets and choke tubes I obtained 40 m.p.g. easily with plenty of power and speed. The car is a pleasure to drive, and it runs easily on top at 8 m.p.h. and accelerates rapidly to 50 m.p.h. Oil consumption works out at about 2,500 m.p.g.

Suspension is rather lively over rough roads, but this could be greatly improved if shock absorbers were fitted; with a full load, however, the springing is all that could be desired. The tyres are giving every satisfaction and look as if they are good for a further 4,000 miles, whilst the brakes have not given me a moment's anxiety. I have had no trouble at all with the lighting or starting equipment, while the engine responds invariably to the latter.

Summing up, the car is well worth the price at which it is sold, and, except for punctures, I have never had a forced stop during the time it has been in my possession.

JOHN E. JAMES.

Glan Apiary, Pontardulais.

The 10 h.p. Sports Model.

From November, 1925, when I took delivery of my 1926 10-20 h.p. sports Salmson, I have covered just over 7,000 miles. I am very pleased with its general performance, its outstanding feature being absolute reliability. Starting from cold is always certain by half a dozen turns of the handle, and the engine continues to run and pulls well right away.

My particular car has a Zenith carburetter, and although I have not actually made any elaborate test of petrol consumption, I am convinced that it comes up to the makers' claim—40 m.p.g. Incidentally, for the most part I have used a grade of petrol selling at 1s. 3d. The power unit is remarkably free from "pinking" and, in view of its high top-gear ratio (4 to 1 with 700 mm. by 80 mm. tyres), has an outstanding top-gear performance. As an example, I may say that it will climb the "test hill" in Richmond Park in top gear without rushing the gradient: from my observations very few other 10 h.p. cars will do this. In second gear it will reach 40 m.p.h., although I usually change up at 30 m.p.h.

I found the springing harsh at low speeds, but have improved it considerably by dismantling the springs and lubricating the leaves with ordinary engine oil.

I consider £165, for a neat sports car with a genuine sports performance, money well spent, especially when this performance is coupled with real reliability and low running costs.

A few words about tyres: this car is my third Salmson, and from experience I have found that 700 mm. by 80 mm. heavy motorcycle-type tyres give a better mileage than the 710 mm. by 90 mm. car type. The Salmson has a "solid" rear axle and this, I believe, accounts for the longer mileage of the small tyre. SYDNEY C. HALL.

The Bungalow, Verbena Gardens,
Hammersmith, London, W.6.

Praises the Acceleration.

I have covered 7,000 miles in a 1926 sports Salmson without mechanical trouble. The petrol consumption at a cruising speed of 40 m.p.h. is 45 m.p.g., whilst the maximum speed shown by speedometer (known to be correct at 30 m.p.h.) is 56 m.p.h. on the level. Acceleration is very good, and a gradient of 1 in 15 can be climbed at 35 m.p.h. in second gear.

Decarbonization is needed every 2,000 miles to get good pulling at slow speeds. No hand throttle control is fitted and this is somewhat inconvenient when starting up.

The steering and suspension are excellent, and skids are rare and easily controlled. Tyre wear is not excessive, the original set still being in good condition. Front-wheel brakes have been fitted by the makers since I purchased the car and are well worth the extra cost, although the original brakes were very sweet.

VAUGHAN H. STOTT.

9, Elmers Drive, Teddington, Middlesex.

Ideal for Long-distance Work.

My 1926 10 h.p. two-seater sports Salmson has now completed 9,000 miles, and even although it has a differentialless back axle the tyres (710 mm. by 90 mm.) look good for quite another 2,000 miles.

The general wear and tear is almost negligible and 60 m.p.h. can still be reached under good road conditions. I have found its reliability most remarkable, never, in fact, having had an involuntary stop.

Petrol consumption is round about the 40 m.p.g. mark, and oil consumption is about 1,000 m.p.g. The car is ideal for long-distance work, for the engine does not tire or over-heat, although average speeds of 30 m.p.h. are maintained. I find that to keep the engine in good tune the tappets require adjusting every 1,000 miles and decarbonizing should be done every 3,000 miles.

At speed the car holds the road well and the steering is excellent, whilst the brakes are good and have ample power.

VICTOR J. GUIVER.

48, Ferndene Road, Herne Hill, S.E.24.

An Interesting Table of Expenses.

I purchased my present sports Salmson (price £165) last June and, as with previous models, I have nothing but praise for it. I have always kept a strict account of everything spent, and the running costs during eight months (in which I have covered 10,039 miles) are as follow:—

	£	s.	d.
Petrol	...	...	19 6 8
Oil	...	...	2 11 9
Tyres	...	...	9 0 0
Registration	...	...	6 13 4
Insurance	...	...	6 0 0
Repairs, etc.	...	...	2 12 6
	£46	4	3

A calculation will show that, without reckoning depreciation, the cost per mile works out at 1.1d. The original four tyres (710 mm. by 90 mm. Engleberts) are still running and I have only had one puncture. The £9 for tyres which appears in the above table is for the amount of wear I estimate. I might say that I have always kept the pressures at 25 lb. for the back tyres and 20 lb. front. The petrol consumption for the whole period has been 34.6 m.p.g.

With regard to speed, I have lapped Brooklands at just over 65 m.p.h. without unduly "pushing" the car and have frequently done over 70 m.p.h. at other times. I should like to say here, to avoid arguments, that my speedometer has been checked by the makers and is dead accurate at all speeds over 50 m.p.h. Speeds on second and bottom gears are 50 m.p.h. and 27 m.p.h. respectively, whilst acceleration is splendid, it being possible to reach 50 m.p.h. from a standing start in 15 secs.; from 10 m.p.h. to 50 m.p.h. in top gear takes 25 secs.

Finally, since I compete in numerous trials, I have the opportunity of observing the performance of many makes of car at their best, and I must say I have yet to find another make, at anywhere near the price, which would suit me so well as my "Sammy."

IVOR J. HIGGS.

The Highfield, Bickley



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Cabriolet with
Dickey Seat,
including
Electric Starter
& Lighting Set.

Write for
Booklet of
Owner Drivers
Opinions
and Expert
Press
Opinions,
and read
what the
Owners
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London, S.W.7.

14th February, 1927.

Messrs. C. C. Wakefield & Co., Ltd.

Dear Sirs,

I have used Wakefield "Castrol" Motor Oil for many years, both in all my touring and racing cars, and I have found it absolutely irreproachable.

I have the greatest confidence in all your brands, and as you are aware I was using your standard Castrol in my Napier racing car when attaining world's records at Pendine recently, and this oil was used exclusively in the engine, gear-box and rear axle, and afforded the utmost satisfaction.

Yours faithfully,

MALCOLM CAMPBELL (LONDON) LIMITED,

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Managing Director.

WAKEFIELD CASTROL

is the one lubricant
equal to every demand
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READERS, NOTE.—It assists the small car movement and the advertiser, and ensures you prompt attention, to mention "The Light Car and Cyclecar" in your enquiries.

OUR READERS' OPINIONS (contd.).

The Question of Average Speeds.

On looking through last week's issue of your paper I was surprised not to find a reply to Mr. Lionel Rapson from the owner of the astounding little Austin which is "licked" his big car. I think there is

Small v. Large Cars. little doubt that the Austin referred to had been "hotted-up" by Gordon England, Ltd. My own Austin was tuned by this concern after it had covered 9,000 miles, and I have since completed a further 8,500 miles, with no signs of undue wear. The valves have not been touched since the car was "hotted-up," and the fact that it reached 60 m.p.h. a day or two ago speaks well for the way it has maintained its tune. I shall be delighted to put this little car at Mr. Rapson's disposal for examination or test.

Before going any farther let me put in a word for the charming way Gordon England, Ltd., have treated me on every occasion that I have called at their workshops at Hampstead, also for the ridiculously moderate charges which are their rule: they are not cheaper per hour on a job, but as they generally carry out any work on an Austin in a quarter of the time needed by most other people their resulting charges are trifling. I have, alas, no interest in this concern.

I have very often been slowed down, behind very large cars, as they cannot afford to leave the crown of a steeply cambered road at anything like a high speed, so that overtaking on such a road as the Horley-Reigate stretch becomes a matter of moments to them, and precious seconds are lost while the overtaken party draws to the extreme near side. An Austin or any small car can pass without slowing and

often without hooting even. I have proved this time and again, and I am confident that here lies the advantage of the small, but fairly fast, car. The same, of course, applies to cornering on a tricky, twisty piece of road.

HAD BOTH.

Whittington Castle.

As a Morgan owner and, therefore, a reader of your excellent paper I was delighted to see a photograph of Whittington Castle in last week's issue. This old building has been in the possession of my family since about 1500. Dick Whittington was born on the estate, and on acquiring great wealth as a city merchant married into a branch of the family. My father, having succeeded his brother, the late Lieut.-General Sir Francis Lloyd, is the present owner of the estate (residence, Aston Hall, Oswestry).

It might, perhaps, interest you to know that on the Aston Estate, near Whittington Castle, is a wood, by name Babbin's Wood. It is here that the story of the Babes in the Wood originated, during the lawless times when border raids were so frequent.

The Aston Estate has been in the possession of the family since 1073, and is mentioned in Domesday Book.

ANDREW LLOYD.

INFORMATION WANTED.

TAMPLIN.—Readers' experiences of the 1923 two-seater J.A.P. engine model and the opportunity to buy or borrow an instruction book would be very much appreciated.—"Amateur," 45, Palace Road, Crouch End, London, N.8.

CLUB ITEMS AND SPORTING EVENTS.

LEWES SPEED TRIALS.

The Kent and Sussex Light Car Club informs us that the speed trials arranged for April 3rd, to take place at Lewes, have been postponed to April 30th on account of the former date clashing with the Surbiton Club's Brooklands meeting, which some of the members wish to attend.

DOVERTRY TRIANGLE M.C.

The Coventry Triangle Motor Club has super-added three small trials which have previously figured in its fixture lists by one big event, which will be open to cars, combinations and solos. Details of this trial are not yet to hand. A further advance in the club's activities is the acquisition of a field a few miles from Coventry which members may use for camping or any other purpose.

LONDON EAGLE M.C.

A half-day social run to Maidens Grove has been fixed for February 27th, the start being the Great West Road (Gunnersbury Lane) at 3 p.m. A series of fortnightly dances in support of the Club Trophy Fund, which commenced on Thursday, February 17th, has been arranged at the Cricklewood Dance Hall. Tickets (2s. 2d. each) may be obtained from Mr. A. Wilson, 70, Mansfield Road, N.W.3.

NORTH-EAST LONDON M.C.C.

An impromptu event in the form of a slow hill-climb, held on February 13th, was supported by about 24 members, and the passenger class was won by Mr. F. C. Poulter (Austin Seven). The club is still in need of a few more members in the light car section (not exceeding 1,100 c.c.). A one-day reliability trial has been arranged for February 27th, particulars of which may be obtained from the hon. secretary, 63, Well Street, Hackney, N.9.

LEEDS WINTER TRIAL.

The premier award of the Leeds Winter Trial, organized by the Leeds Motor Club, Ltd., which will take place on February 27th, will be the Vice-President's Cup and replica awarded for the best performance of the day by any machine. The club's silver cup will be awarded for the best performance put up by a novice. Three other prizes will be given in each class. The course will be over main and secondary roads, and the time allowance will be 15 secs. early or late. Marks will be deducted at the rate of one per sec.

PUBLIC SCHOOL M.C.

It is not commonly appreciated that car members are welcomed by the club which is preparing an attractive programme for 1927, including a number of the unique hush-hush events which have been a feature of the club's activities in the past. The hon. secretaries are Messrs. J. Pollitzer and G. M. Fuerst, 133-137, Queen Victoria Street, London, E.C.4. Membership is confined to public school boys and ex-public school boys, and in the case of members still at school the subscription is reduced by a half.

FORTHCOMING EVENTS

February 26.

City of London M.A. Dance.
Bristol M.C. and L.C.C. Team Trial.
Ozeldum M.C. Southern Trial.

February 27.

Leeds M.C. Winter Trial.
Wood Green and D. M.C. Sweepstakes Trial.
Woodford and D. M.C.C. Social Run.
London Eagle M.C. Half-day Social Run.

March 5.

Inter-Varsity Hill-climb.

March 6.

Leeds M.C. Competition.
Liverpool M.C. Opening Invitation Run.
Woodford and D. M.C.C. Social Run.
Surbiton M.C. and Brighton and Hove M.C. "Spoon" Trial.
Morgan Club. Social Run.

March 10.

Morgan Club. Dance, Hotel Cecil.

March 12.

Southport M.C. Race Meeting.
J.C.C. Yorks Centre. Closing Dance.
Bristol M.C. and L.C.C. 1922 Secretary's Cup, half-day Trial.
City of London M.A. Petrol Consumption Trial.
North London M.C. Opening Run.

March 13.

Leeds M.C. Viking Cup Event.
Woodford and D. M.C.C. Semi-sporting Run.

March 19.

Essex M.C. Winter Trial.
Kent and Sussex L.C.C. Rally and Treasure Hunt.
Bristol M.C. and L.C.C. First (Wessex) Centre League Trial.

March 20.

Leeds M.C. Despatch Riders' Competition.

THE "SPOON" TRIAL.

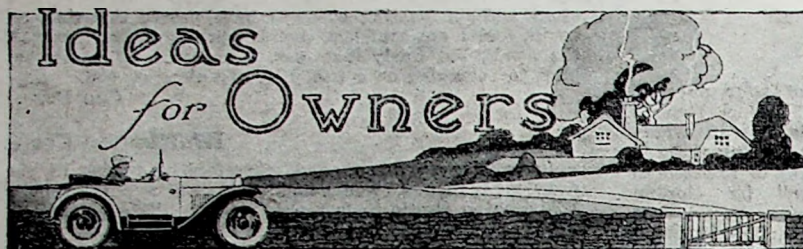
Competitors are again reminded that the entry forms and fees (cars 4s. 6d.) should be in the hands of the respective organizers not later than February 28th. London section: Mr. A. H. Davies, 197, Heath Road, Twickenham. Brighton section: Mr. C. L. Clayton, 10, Prince Albert Street, Brighton.

INTER-VARSITY HILL-CLIMB.

This year's inter-university hill-climb, organized jointly by the Oxford University Motor Club and the Cambridge University Automobile Club, will be held on Saturday, March 5th, on private property near Henley. Six representatives from each University will compete in each class. As the accommodation for spectators is limited, admission to the ground will be by ticket only, and any readers wishing to attend the event should apply at once, stating how many tickets they require, either to the Rev. M. P. Sargent, Pusey House, Oxford, or to Mr. G. Simond, Corpus Christi College, Cambridge. A number of marshals are wanted for the occasion, and anyone willing to act in this capacity is asked to communicate with Mr. Sargent at the address given.

BIG GATHERING OF MOTORISTS AT WINCHESTER.

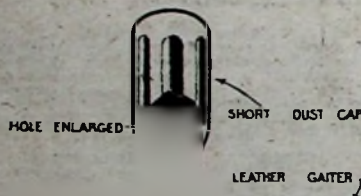
Nearly 300 members and guests of the Junior Car Club (South-Western Centre) attended the sixth annual dinner and dance of the centre on Wednesday, February 16th. This year, for the first time, the function took place in the fine old banquet hall of the Guildhall, Winchester. Mr. T. G. Hayter occupied the chair, and amongst the visitors were Alderman P. V. Bowyer, Mayor of Southampton, Councillor F. Webb Manley, Mayor of Winchester, and Chief Superintendents Deacon and Knox of the local police. A giant amongst mayors, both in physique and popularity, Alderman Bowyer delighted his hearers when replying to the toast of "The Visitors." He called it "bribery and corruption," and added, with a sly nod towards the police representatives, "but get us all here and you're all right." Councillor Webb Manley struck a rather more direct vein. "Be calm, serious and sweet-tempered towards the police," it says, "he said. He defended the attitude of severity sometimes displayed by the police towards motorists, and warned his hearers that if they were brought up before the city bench no mercy would be shown. "If we know you have plenty of money, up goes the fine," he concluded—a statement which many of his listeners hardly knew whether or not to take seriously! That he puts pride in his domain before the demands of modern progress was exemplified by his statement that "I want to maintain the antiquity of Winchester by clinging to its narrow streets." Other speakers were Mr. E. Hancock, of the H.Q. council, and Mr. G. F. Smith, the hon. secretary of the centre. After dinner the floor was cleared for dancing, which continued uninterruptedly until 2 a.m. Altogether it was perhaps the most popular of the social events organized by the local committee.



We invite readers to send us hints gained from their own experience for inclusion in this feature. Five shillings will be paid to the sender of any hint published, but we cannot undertake to return contributions not used.

A Cheap Lubricator.

A tyre valve, the stem of which has been cut in half (the valve mechanism having been previously removed) and the hole drilled out larger, can be turned into a useful lubricator for fitting to a spring gaiter. The accompanying illustration is almost self-explanatory. The oil is injected through the stem by means of a force-feed oilcan, and if the gaiters have a felt lining, which acts as a wick feed for distributing the oil, ample lubrication will be ensured. A short-length dust cap completes the fitting.



A cut-down tyre valve and short dust cap converted to a spring gaiter lubricator.

Cleaning the Hands.

A problem which presents itself after doing a dirty job on the car is how to get the hands clean again. Some motorists use petrol, but this hardens the skin and is injurious; others remove the thick mixture of grease and mud by using a few drops of thin engine oil, finishing with soap and water. Few realize, however, that grease may be entirely removed with ordinary soap and water alone.

The method is to moisten the hands with a little water, taking care not to make them too wet; then rub them thoroughly with soap and continue to do so until the hands are covered with a pasty mass of soap. When this state has been reached rub the hands together for some time and the grease will gradually dissolve, after which a thorough rinse in water will leave them fairly clean. A final wash will complete the operation.

B46

Austin Fan-belt Substitute.

In an emergency a very efficient substitute for an Austin Seven fan belt may be made from a length of ordinary blind cord, about $\frac{3}{8}$ in. diameter and 1 in. longer than the actual belt. The ends should be frayed out a little and a knot tied in each. A short length of copper wire is used to link up the two ends. A reader who fitted such a belt kept it on after the proper one had been obtained just to see how long it would last, and it stayed on for 2,000 miles.

Sparing the Starter.

This is an old hint, but it will stand repeating, especially for the benefit of new owners. When using the electric starter first thing in the morning, depress the clutch pedal. Speedier starting and, therefore, economy, so far as the battery is concerned, will result, for the resistance set up by "churning" in the gearbox will be eliminated, making the work of the starter easier. With a "sticky" engine starting from cold by hand is also easier if an assistant keeps the clutch out, but in case a helper should not always be available, a good plan is to keep in the garage a piece of wood with a notch at one end. This can be used to hold down the pedal, the notch being placed under the rim of the steering wheel. The length to which the wood must be cut can easily be found by experiment.



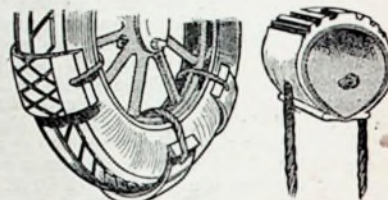
Queries of general interest will be answered under this heading whenever possible, but a stamped addressed envelope must be enclosed for reply by post. Telephonic inquiries cannot be answered.

C.F.J. (Brighton).—The term "desaxe" is applied to those engines in which the vertical axis of the cylinders is offset from the horizontal axis of the crankshaft. This is done in order to reduce the side pressure of the piston during the firing stroke.

S.T.C. (Plymouth).—A very satisfactory way of "stippling" or "frosting" aluminium sheet is to go all over it with an ordinary bottle cork, one end of which has been dipped in a mixture of fine emery powder and oil. The "prepared" end should be pressed into the sheet and given a sharp twist. The job should afterwards be cleaned and lacquered.

Increasing M.P.G.

To obtain greater fuel economy many drivers tackle the job from a purely mechanical point of view, which generally begins and ends with carburettor adjustments. Frequently, however, far more good may be done by keeping the engine clean. Decarbonization, touching up the valves and changing the oil in the sump, say, every 3,000 miles, can be recommended. Care of this sort enables an engine to run, mechanically, to the limit of its economy and, in addition, to give of its very best on the petrol consumed.



Showing the method of fixing sections cut from old covers to the rear wheels to form anti-spin devices.

Anti-spin Device.

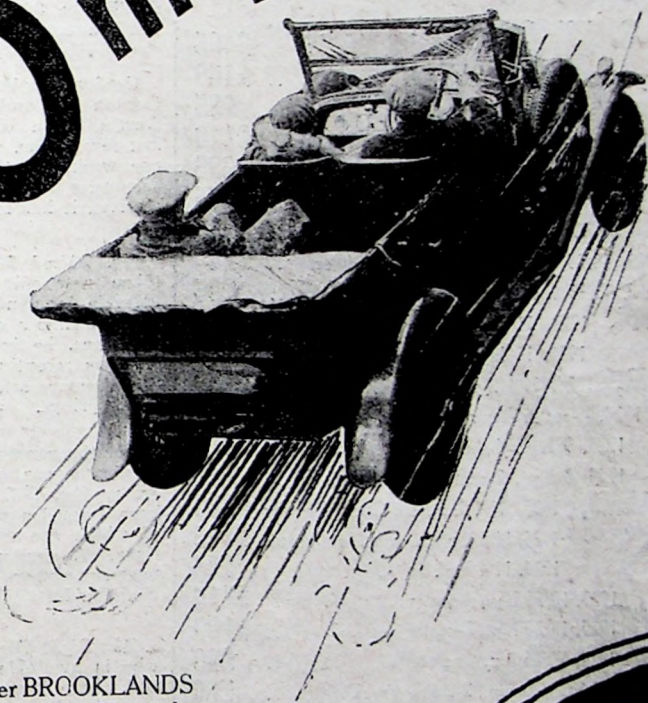
In snowy weather wheelspin makes motoring decidedly unpleasant, but it can be cured quite easily and cheaply as follows:—An old outer cover should be cut across the tread into sections measuring about 2 ins. in width. Two holes should be punched in each section, one on each side, about 1 in. from the bead- ing. The accompanying illustration makes this clear. Two lengths of rope should be passed through the holes and knotted on the insides. Before setting out for a drive in snow it is necessary only to tie these sections on to the rear wheels, putting four or five on each wheel. The idea is, of course, of no use on cars fitted with disc-wheels.

D.B. (Westcliff).—Provided that the water passages are of ample size and that the top or head tank, of the radiator is well above the cylinder head, thermo-siphon cooling is perfectly satisfactory.

M.N. (York).—Self-aligning bearings are so designed that the inner race can swivel through a small angle in any direction. This enables the bearing to adapt itself to any want of alignment or to whip in the shaft to which it is fitted.

M.I. (Manchester).—The working oil pressure in modern cars varies considerably and depends on the design of the lubricating system. When starting from cold, the stiffness of the oil usually causes the indicator to give a temporarily higher reading, but should the pressure at any time suddenly fall to zero, you should stop the engine and ascertain the cause, otherwise severe damage may result.

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CITROEN,	1926, 7 h.p., 2-seater Coupe ..	£95
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"	1925, 7 h.p., 2-seater ..	£65
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"	1921, 11 h.p., 2-seater and Dickey ..	£40
HUMBER,	1924, 11/4 h.p., o.h.v., 4-seater ..	£150
RILEY,	1924, 4-seater Touring ..	£95
ROVER,	1925, 9 h.p., 4-seater ..	£110
"	1924, 8 h.p., 2-seater and Dickey ..	£45
STANDARD,	1925, 11/4 h.p., De Luxe 4-seater ..	£115
"	1925, 11/4 h.p., All-weather 4-seater ..	£105
"	1924, 11/4 h.p., ..	£85
SINGER,	1925, 10/26 h.p., 4-seater ..	£115
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"	1924, 10/26 h.p., 4-seater ..	£90
"	1924, 10/26 h.p., 2-seater and Dickey ..	£80
"	1922, 10 h.p., 2-seater and Dickey ..	£40
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TALBOT,	1924, 10/23 h.p., 4-seater ..	£125
"	1923, 10/23 h.p., 4-seater ..	£105
WOLSELEY,	1926, 11/22 h.p., De Luxe 2-seater and Dickey ..	£140
"	1925, 11/22 h.p., 2-seater and Dickey ..	£110

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AROUND THE TRADE.

Edward Joy and Sons, Ltd., Kidacre Street, Hunslet, Leeds, notify us that the Austin Motor Co., Ltd., approves and recommends extra-heavy Filtrate oil for Austin Seven cars.

We have received from the General Motor and Tyre Co., of 77a, Caledonian Road, King's Cross, London, N.1, their latest list, which shows considerable reductions in the prices of tyres, tubes and such accessories as pumps.

The secretary of Brown Bros., Ltd., informs us that the net profit for the year ended December 16th, 1926, after provision had been made for taxation, depreciation, directors' fees and managing directors' remunerations, was £67,696 1s. 3d., making, with £16,448 16s. 8d. brought forward, a total balance available of £84,144 17s. 11d.

Gordon England, Ltd., advise us that the demand for Gordon England silent saloon and Cup model bodies on Austin Seven chassis has been so great that, during the last few weeks, their output has been quadrupled. During one week recently the output was 25 Cup models and 31 saloons, a total of 56 cars. In order to cope with the orders received it has been found necessary to work a night shift.

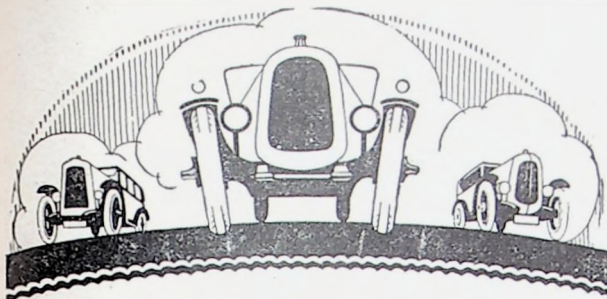
Mr. Alfred Lalli, A.Aer.Inst., informs us that he has taken new offices and showrooms at 57, Edgware Road (Marble Arch end), London, W.2, and is continuing his established business as a supplier of spare parts. In addition to spares, he is now stocking components and accessories and has recently been appointed by Messrs. H. Colacert, of Steenbecque, sole distributor for Great Britain of Colacert road springs.

For the convenience of customers home from abroad who require a car only for a few months, Messrs. Newham Motor Co., 237, 243 and 245, Hammersmith Road, W.6, have framed a special repurchasing scheme, full particulars of which are set forth in an attractive folder which they issue. A similar folder deals with the concern's deferred-payment system. Copies may be obtained upon application to the address given above.

The Light Car and Cyclecar is in touch with a gentleman who is available for a new appointment of responsibility and whose knowledge of tyres and the tyre trade is of an exceptional nature. A fair experience of cars and accessories forms part of his wide acquaintance with the motor industry, and he has been accustomed to control a staff of 30 to 40 employees. We shall be pleased to put any interested party into touch with him upon request.

J. Blakeborough and Sons, Ltd., Brighouse, Yorks, bring to our notice the fact that they have acquired from Nuswift, Bradford, the sole manufacturing and selling rights of the Nuswift patent fire-extinguishers. The services of Mr. J. A. Goodall, the patentee, have been retained, and business will, in future, be dealt with at the works of J. Blakeborough and Sons, Ltd., Brighouse, to which address all communications should be forwarded.

A certain misunderstanding having arisen in regard to the terms of the approval given by the Society of Motor Manufacturers and Traders to Glass's Used-motor Show, which is to take place at the Royal Agricultural Hall, London, next April, and which were set out in the prospectus of the Show recently issued to the trade, the promoter, Mr. William Glass, of 50, Pall Mall, London, S.W.1, has been asked to make it clear that:—(1) No trade-owned vehicle will be accepted from any manufacturer or trader which was not registered prior to March 31st, 1926. (2) The road trial and hill test mentioned in the prospectus in no way constitutes a competition, but is purely an individual engine and brake test for the purpose of record on the certificate of condition given and displayed upon each vehicle offered for sale at the Show. (3) No exhibits will be accepted of accessories, tyres and so forth.



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RENAULT, 1926, 8 h.p., 2-str. Coupe, sunken dickey, dynamo lighting, self-starter, leather hood, balloon tyres, splendidly finished Maroon. Luxurious little car, taxed. £105

CITROËN, 1926, 75 h.p., 3-str. Cloverleaf, dynamo lighting, starter, absolutely as new, mileage under 3,000, really superb car. £88

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STANDARD, 1924 model, 11'6 h.p. de Luxe, 4-seater, dynamo lighting, self-starter, clock, speedometer, automatic wiper, balloon tyres, splendidly finished Royal Blue, rigid all-weather equipment. Tax paid. £82

CITROËN, 1924, English body, 5-seater touring, dynamo lighting and self-starter, clock, speedometer, Auster rear screen, rigid all-weather equipment, splendidly coach finished Royal Blue, taxed, an astounding bargain. £79-10

Choice of another almost as smart. £74

AUSTIN 7, 1924/5, 4-str. Chummy, dynamo lighting, self-starter, smart and extremely carefully used. £79-10

AMILCAR, 1923, 2-seater Sports, beautifully finished Sage Blue, with red undercarriage and wheels, upholstery and hood cover to match, Rapson cord tyres, very fast and attractive Sports car. £78

CITROËN, 1925, 75 h.p., 3-str. Cloverleaf, dynamo lighting, starter, a really superb little car. £72-10

CITROËN, 1925, 3-seater Cloverleaf, dynamo lighting, starter, all-weather equipment, exceptionally smart, balloon tyres. £64

A-C, 1921, 12 h.p., touring, dynamo lighting, starter, clock, speedometer, nicely coach finished, practically new tyres. Bargain. £64

Choice of another at. £59

ROVER, 1924-5 8 h.p., full 4-seater, dynamo lighting, starter, all-weather equipment, original tyres, very smart and carefully used. £59-10

WOLSELEY, 1921/2, 10 h.p., 2-seater de Luxe and sunken dickey, dynamo lighting, starter, excellent mechanical condition, and smart appearance. £49-10

ROVER, 1924/5, 8 h.p., 2-str., double sunken dickey, dynamo lighting, all-weather equipment, finished Nile Blue, good set of tyres, rigid all-weather equipment, tax paid, very carefully kept car. £48

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MATCHLESS, 1925, 10 h.p., 4-seater touring, dynamo lighting, rigid all-weather equipment, beautifully kept car, extremely low mileage. £47-10

ROVER, 1922/3, 8 h.p., 2-seater, and sunken dickey, dynamo lighting, speedometer, 3 brand new tyres, all-weather equipment, splendidly coach finished, very fine mechanical condition. £36

ROVER, 1922, 8 h.p., 2-str., nicely equipped and in splendid condition. £32-10

ROVER, 1921, 8 h.p., 2-seater, dynamo lighting, spare wheel, smart appearance, real bargain. £25

MORGAN, 1925, Aero, o.h.v. Anzani engine, dynamo lighting, f.w.b., hood, flared wings, speedometer and several other extras, extremely attractive super Sports bus. £89-10

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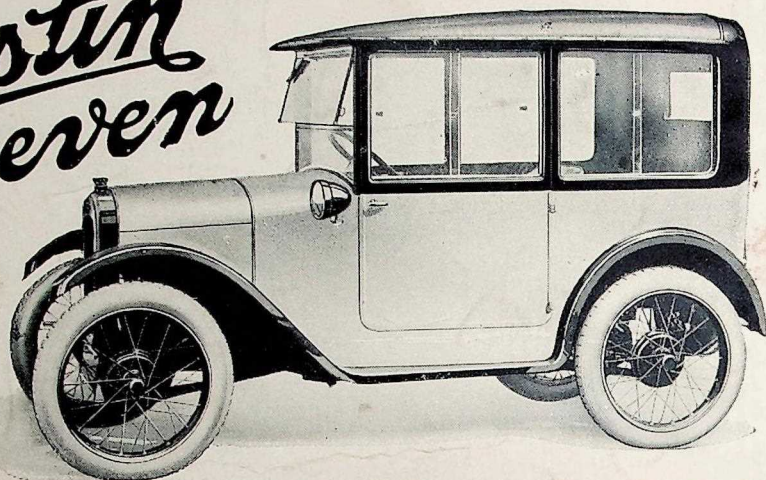
LONDON:

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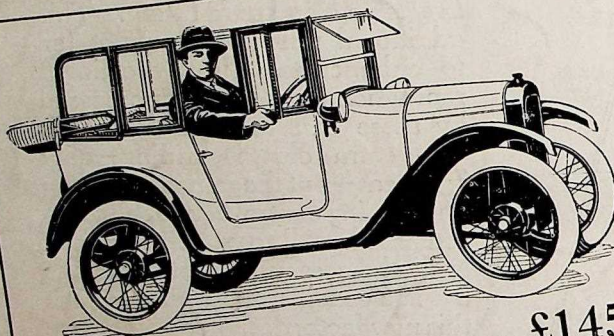
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