

# SPECIAL SCOTTISH SHOW FEATURES

## *The* **Light Car** *and* **Cyclecar**

*Founded 1912*  
**The only Small Car Journal**

3<sup>D</sup>



Vol. XXX. No. 778  
Friday Nov. 4, 1927  
*Registered at the G.P.O.  
as a Newspaper*



On the Slopes  
of  
"Rest and be  
Thankful."

KELVIN HALL





# LODGE

PLUGS

AT

## KELVIN HALL

on the stands of the leading accessory dealers.

LAND

**C** While the best plugs have always been desirable they are more so to-day owing to the increase in engine speeds which impose much greater strains on the sparking plugs.

Now more than ever, therefore, is it desirable to rely upon Lodge plugs.

LODGE PLUGS LTD. - RUGBY.

Lodge C3  
5/-  
sold everywhere  
in sealed red  
metal box.

# AMILCAR

## The New Drop-Head 3-Seater Coupé

The new  
models arrive this  
week. Come and  
try them or write  
for catalogue.

**A**mple luggage space

**M**arvellous brakes

**I**nexpensive motoring

**L**ight steering

**C**osy in winter

**A**iry in summer

**R**ead speed

**S**ole Concessionnaire:

# VERNON BALLS

95, High Holborn, W.C.1.

'Phone: Chancery 8623 and 8624.

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

OUTFIT

The Autobrite **MARKPROOF** Dry Cleaning and Polishing Outfit at 5/6, complete with Autobrite Dry Cleaner, Autobrite **MARKPROOF** Car Polish, Nickleen Nickel and Aluminium Polish, Judge Hand Cleaner and Four good Polishing Cloths.  
**A "PERFECT GIFT" FOR EVERY MOTOR OWNER.**

*Order from your Dealer to-day.*

Autobrite **MARKPROOF** Car Polish, 1/- per tin. Autobrite Dry Cleaner and Tar Remover, 1/- per tin.  
Nickleen Nickel and Aluminium Polish, 9d. per tin. Judge Hand Cleaner, 9d. per tin.

**AT OLYMPIA**  
**63%**

of Car Exhibits, including highest class, were polished and **MARKPROOFED** with **AUTOBRITE**.

"**MARKPROOFED**—Over 50% of the cars at Olympia have been treated with Autobrite **MARKPROOF** Polish including all the well known makes.  
*Extract from Exhibition Bulletin No. 5*

**JUDGE BRAND CO., LTD.**  
**GATESHEAD & LONDON**

**AUTOBRITE**

the choice of the Experts for  
**Varnish, Cellulose,**  
**French Polish** and  
the new **Fabric**  
**Bodies.**



is not indulged in by Jowett owners. Alone (we believe) amongst manufacturers we publish a folder which gives the intending purchaser full details of his expenses in running one of our cars. This should be studied by all who are dubious as to their financial ability to run a car. It is a very pleasant thing to us to receive, very frequently, letters from Jowett owners stating they are running their cars at a cheaper rate than is shown by our folder.

We say, very definitely, that it is impossible to motor more cheaply than on a Jowett.

There is no light car more reliable. Or so efficient.

For twenty-one years we have fought for economical motoring, and in buying a Jowett you buy this experience.

Decide on a Jowett now. You will never repent.

Short two, £134.

Long two, £142.

Chummy, £142.

Full four, £145.

Sports, £145. Coupé, £168.

Saloon, £170.

Dunlop Balloons and Stewart Speedometers standard.

*May we send our interesting literature ?*

**JOWETT CARS LTD., IDLE, BRADFORD**



# ANNOUNCING

THE NEW  
GRAND  
PRIX

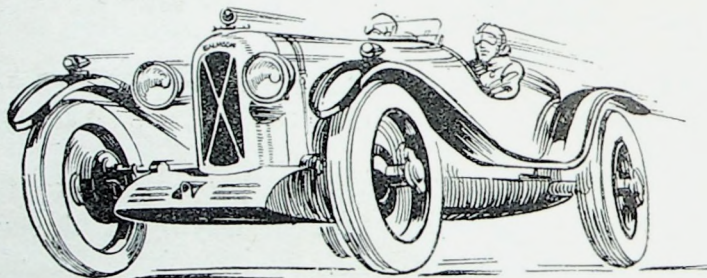
## SALMSON

TWO-  
SEATER

75 m.p.h.

£265

Streamlined Fabric Body—Vee Screen—  
Sporting Wings—Detachable Hood—full  
Road Equipment.



AT THE  
**SCOTTISH MOTOR SHOW**  
KELVIN HALL, GLASGOW,

NOV. 4th—12th, on

**Stands 25 and 63**

—and at the Showrooms of our distributors for Scotland  
can be seen and tried a complete range of models.

G. M. GLADSTONE (MOTORS) Ltd., 320, Pollokshaws Rd., GLASGOW.

JAMES M. INGLIS, 39a, Queensferry Rd., EDINBURGH.

*Sole Concessionnaires for U.K. and British Dominions:*

**S.M.S. Ltd., CHURCH WHARF, CHISWICK MALL, W.4**

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



# SPECIAL MESSAGE TO AUSTIN OWNERS.



*The **ONLY** OIL*

**RECOMMENDED BY THE AUSTIN MOTOR CO.**

**and the one which they themselves have used exclusively for the past nine years.**

Nine years consistent experience of Sternal WW has convinced the Austin Motor Co. of the incomparable efficiency of Sternal WW Heavy.

*That is why they themselves use it exclusively and why they recommend it to their customers.*

*Every Austin Car is run in on Sternal WW—everyone is sent out filled up with this oil. In the most delicate stages of its life an Austin engine thrives on Sternal WW Heavy—and the longer you use the oil the more contented you will become.*

Never change to another brand. Follow the advice of the makers and get the most out of your car.

**Sternal WW**  
HEAVY  
**MOTOR OIL**  
*Makes Engines Purr Like Pussies*

The Stern Oracle.



For other makes of car, see chart.

**STERNS, LTD., 46, ROYAL LONDON HOUSE, FINSBURY SQUARE, E.C.2**

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.



# Fabram

REGD

## RADIATOR MUFF



Fabram "Standard" Model.

**THE CAR  
EIDERDOWN**

A FABRAM Muff is your Guarantee against reduced engine efficiency in wintry weather. Made with double-flap front, special roll-up fasteners which make adjustment the work of a moment only, it provides a remarkably wide range of temperature control. Further, it is neat, good looking, soundly constructed of triple material and there is no need to remove filler cap, motormeter, or the largest mascot, when fitting on or taking off.

### PRICES:

For Cars  
Under 10 h.p. 18 0  
10 to 11 9  
12 to 16 9  
Special Austin 7 16 6

"Standard" "Junior"  
s. d. s. d.  
18 0 11 6  
29 0 12 6  
22 6 14 6  
16 6 10 0

The "Junior" is a good muff at a low figure with a one-piece front.

Write for FREE Illustrated Lists.

REGISTERED

TRADE MARK

**OTHER GOOD LINES  
BY THE SAME MAKERS**

# Fabram

REGD

DUST SHEETS, CUSHIONS,  
LOOSE COVERS, RUGS,  
TOOL BAGS AND ROLLS,  
TYRE AND WHEEL WRAPS

# Ramso

REGD

MOTOR CLOTHING.

**SEE THEM AT THE  
SCOTTISH SHOW**

STAND No. 169	HENRY MCGILL
" " 183	F. W. MURRAY
" " 151	JAMES ROBERTSON
" " 147	THOMSON & BROWN
	BROTHERS, LTD.

Sole Manufacturers:

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



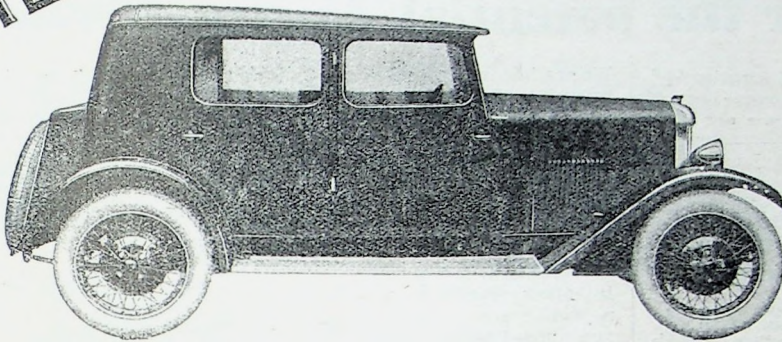
*The  
Gaiter with  
the WICK TUBE and  
the ONE-HAND OIL GUN*

PERFECT Lubrication of every part of the spring leaves, preserving their resiliency and life and keeping them free from mud, dust and rust—that's what makes JEAVONS an absolute necessity to easy riding and economical running. They work automatically and fit like a glove. Sets complete with One-hand Oil Gun .. .. . 35/-

Write for FREE Illustrated Lists.



# THE WONDER CAR



Glorious Beauty. Unparalleled Performance. Distinctiveness never before achieved in any Automobile Design. And in the hands of every driver, responsive control that one minute commands the speed of the rushing gale, carrying all before it; the next, the slow peaceful pace of the meandering brook. For the first time are such high ideals of Beauty, Flexibility, Safety and Luxury, fully expressed in one motor car — low in price, economical to run, moderate in size — the RILEY NINE.



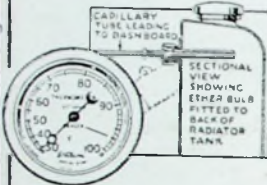
1928 Prices from £235

**RILEY (COVENTRY) LIMITED, COVENTRY**  
 & 42, NORTH AUDLEY STREET ——— LONDON, W. 1



# Every model of Austin Car—and every make of Austin Accessory. In short, a complete "Rig-Out" for the potential Austin Owner.

## Special Austin "7" Accessories taken from our list.



### DASHBOARD RADIATOR THERMOMETER.

Gives you accurate and reliable reading and is always under constant observation. Nickel Plated. Post paid **25/-**

### BULB HORN

with flex extension fitted through the dash with bulb fitted to dash or steering column. Nickel Plated. Post 9d.

### SAFETY GEAR LOCK

fitted to the lower part of the gear lever just above the gate. The lower part of this lock casing is shaped to fit down into the opening of the gate and is locked in this position by a special key. **15/-** Nickel Plated. Post 9d.



**PRIMA DIP STICK PETROL GAUGE** enables you to tell at a glance the amount of petrol in **1/6** your tank. Post 2d.



**STEP MATS** with aluminium frame, kick guard and scraper. Well made and finished. **12/6** Post 9d. Pair

We are honestly proud of our facilities in regard to Austin Cars. We can supply any model and any special Austin Accessory on exceptional terms. For instance, should you require a "7," and a complete set of accessories for it, you could obtain immediate delivery for the payment of a fifth of the total cost, in which could also be included tax and insurance.

In other words it would be a "one account" transaction that **MUST** save you much time and bother.

You can also, of course, buy for Cash, Exchange, or on our "No Deposit" terms.



### AUSTIN "7."

Touring Model .. .. .	£135
Saloon .. .. .	£150
Mulliner Fabric Saloon .. .. .	£150
Gordon England Cup Model .. .. .	£150
Fabric Saloon .. .. .	£170

Deferred Payment Terms. A fifth down and balance in 12, 18 or 24 months. Accessories, Tax, Insurance may be included.

## OTHER AGENCIES INCLUDE:

<b>Citroen</b>	<b>Clyno</b>
<b>Jowett</b>	<b>Peugeot</b>
<b>Rover</b>	<b>Singer</b>
<b>Standard</b>	<b>Swift</b>

We can give delivery immediately (or within a few days) of these makes at latest prices. Call—or write to-day for a copy of our novel booklet-catalogue, "The Diary of a Car Tester."—**POST FREE!**

## Special Austin "7" Accessories taken from our list.

### STADIUM OIL FILLER.

Easily fitted, this accessory makes the replenishment of oil a clean and easy job. Black with polished lid. Post 4d. **5/-**



### PARKING LAMPS

for fitting to wings. Five switch fitted to each lamp. Plated finish. Post 1d. each **5/-**



### THE STADIUM HYDRAULIC JACK.

Strong construction. Weight 34 lbs. Will lift a 2 ton car. Overall height, closed 8". Fully extended 16". Complete with long two-piece handle. **37/6** Post paid.



### SERVICE AUSTIN 7 MIRROR.

Well made; finished black and nickel. Convex glass giving wide range. Post 6d. **6/6**

### STADIUM GEAR LEVER EXTENSION.

Instantly fitted to gear change lever. Well made useful accessory. Post 6d. **7/6**



**SPORTS BULB HORN** Fits through the scuttle. Black and Nickel. **10/6** Post 6d.

Established as long as the Industry.



WEAR A FLANDERS POPPY

# The Service Company Ltd. (LONDON)

273-274, HIGH HOLBORN, LONDON, W.C.1.

Telephone: Holborn 0666 (3 lines).

Telegrams: "Admittedly, London."

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



# First at Olympia —now at KELVIN HALL

STAND 89

KELVIN HALL

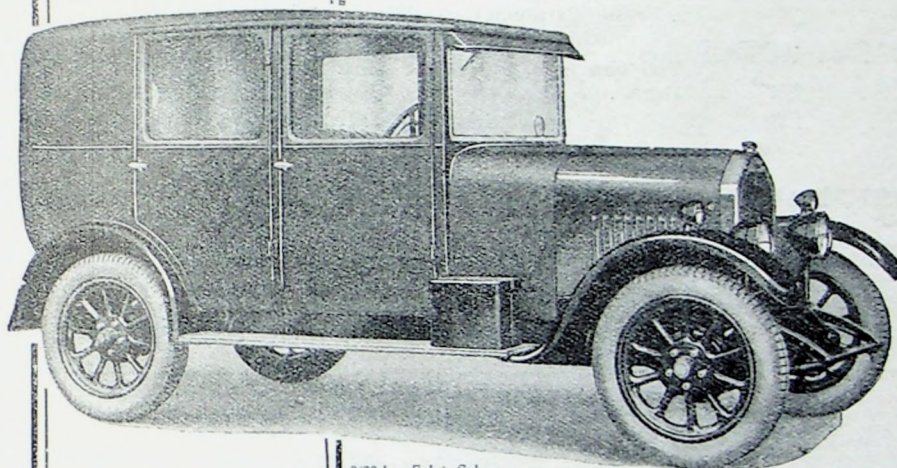
GLASGOW

NOV. 4—12

THE 1928 Models now staged at Kelvin Hall, Glasgow, fully maintain the high standard associated for so many years with the name of Humber.

For beauty of design and perfection of bodywork, the Humber stands pre-eminent, while the chassis is a triumph of British Engineering Skill.

If you are unable to visit Kelvin Hall send for fully Illustrated Art Catalogue free on request.



The 9/20 h.p. 4-cyl.  
4-seater Fabric Saloon  
at £285 as illustrated,  
will be on view at  
Stand 89.

9/20 h.p. Fabric Saloon.

OTHER HUMBER EXHIBITS AS FOLLOWS:—  
THE SCOTTISH AUTOMOBILE CO. LTD., GLASGOW,  
STAND 72.

9/20 H.P. 4-seater Fabric Saloon .. .. . £285

MR. ROBERT ANDERSON, NEWTON-MEARNS, STAND 40.

9/20 H.P. 4 Seater Fabric Saloon .. .. . £285

JOHN T. YOUNG LTD., NEWPORT, STAND 38.

9/20 H.P. 4-Seater Saloon .. .. . £300

# Humber

HUMBER LIMITED, COVENTRY.

LONDON:

West End Showrooms - - - 94, New Bond Street, W.1.  
Export Branch Office - - - 32, Holborn Viaduct, E.C.1.  
Repair and Service Depot - - - Canterbury Road, Kilburn, N.W.6.

AND ALL SCOTTISH DEALERS.

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



# Hampton Cars

## SCOTTISH SHOW WEEK.

A range of Models will be exhibited at our  
Glasgow and West of Scotland Distributors:

**Messrs. MacIntyre Ltd.,**  
**130, Renfrew Street, GLASGOW**

12-40 Standard 2-seater ..	£275	
12-40 3-seater De Luxe ..	£315	12-40 Fabric Saloon .. £425
12-40 6-seater De Luxe ..	£325	12-40 Coachbuilt Saloon.. £425
12-40 De Luxe 3-seater Coupe	£340	

**Hampton Cars (London) Ltd., Stroud, Gloucestershire.**

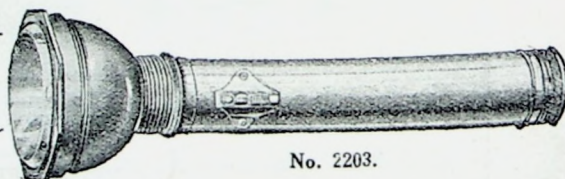
### SAFETY FIRST

AN

## "EVER READY" Portable Electric Searchlight

is your friend on every dark occasion.

It ensures a brilliant light, always  
available for every emergency—a spot  
beam for distant objects or a diffused  
light for general illumination.



No. 2203.

Efficiency is the keynote of this series and the  
features embodied make them the finest electric  
Torches obtainable.

These models are substantially constructed through-  
out of brass and finished best nickel plate.

		Price.
No. 2202	To take 2 Unit Cells. Length overall, 8½"	11/- complete.
No. 2203	To take 3 Unit Cells. Length overall, 10¾"	12/6 complete.
No. 2204	To take 5 Unit Cells. Length overall, 15½"	15/- complete.

The prices are complete with Unit Cells or Battery and 2 Bulbs.

Obtainable at all garages, electricians, etc.

List of other models sent free on request.

Dept. E.K.

**The EVER READY Co. (Gt. Brit.)**  
**Ltd., Hercules Place, London, N.7**

**EVERY MOTORIST SHOULD CARRY ONE.**



*Seats comfortably  
four Six Footers!*



# Immediate

OUR agents asked us to increase production on the new Standard Nine; they were convinced it would be a success. It is. At the Show and wherever it has been on display the public interest in it has been continuous and flattering.

## *Big Car Roominess.*

The Standard Nine seats, comfortably, four six-footers, and will carry them at a good average speed along all main roads and up all main road hills. Maximum speed is 45-48 m.p.h. Petrol consumption 40 m.p.g.

The Nine is complete, and *looks* complete. It has no bare, made-to-a-price appearance. The "Falmouth" Fabric Saloon especially is most attractive. It has the "Stanlite" opening head. In bad weather it is a snug and draught-proof closed car. In good weather you can fold the roof back and enjoy the scenery, sun and fresh air. The "Selby" Touring Car and "Coleshill" two-seater have lustrous cellulose finish and good quality fittings.

# *The All British* Standard

## **The 9 h.p. "SELBY" Touring Car.**

Panelled in steel, painted cellulose, upholstered in best leather cloth. Adjustable front seat. Hood and sloping screen. Side curtains, celluloid peg-in type. Complete with five wheels and Dunlop Tyres .. .. **£190**

There is also the "Coleshill" 2-seater, £190.

## **The 9h.p. "FALMOUTH" Fabric Saloon.**

Covered in fabric, choice of three colours, upholstered in cloth. Adjustable front seat, single sloping screen. Complete with five wheels and Dunlop Tyres .. .. **£215**

cellulose finished in red, blue, or fawn.

*Write for particulars.*  
The Standard Motor Co., Ltd. Coventry.

London Showrooms:  
49, Pall Mall, S.W.1.  
Agents everywhere.

## **SCOTTISH MOTOR SHOW STAND 20 No.**

The following Agents are also showing Standard Cars on their own Stands:

Geo. Gilmour Ltd., Glasgow.  
Rossleigh Ltd., Edinburgh.  
Thos. Laurie & Co., Falkirk.  
Burns & Fulton, Glasgow.  
Scott Brown & Co., Paisley.  
Dunlop Motor Co., Kilmarnock.  
Wm. Kinross & Sons, Stirling.  
J. McLay, Kirkintilloch.

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



## PATENT SPRING COVER

**PERFECT** protection.  
Instantly lubricated.

The Tecalemit-Zerk Gun positively forces the oil from end to end of the cover. Its oil-proof qualities are due to the special insulating material with which each cover is lined. Specially built for every make of light car from .. per set **30/-**



## RADIATOR MUFFS

Prices from 17/- in No. 1 quality and 12/6 in No. 2 quality. No. 1 quality to roll up, as illustration, or top portion to roll up and bottom portion to roll down. No. 2 quality to roll up only. Made in the following colours:—Black, blue, grey, maroon, and brown.

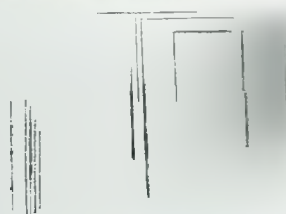
No. 1 from 17/6 No. 2 from 12/6

## DETACHABLE SEAT COVERS

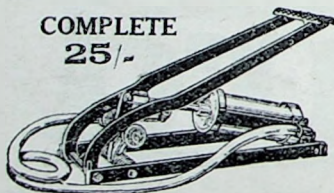
Being made of hard-wearing stripe fabrics which are woven expressly for the purpose, they will not easily collect the dust nor soil.

Ask for sample of material.

Prices from .. £2-15-0



## COMPLETE 25/-



## "BRISTOL" JUNIOR FOOT PUMP.

Operates at the low and correct foot lift of 10" from the ground. Will inflate a balloon tyre as quickly and as easily as any pump at twice the price.

## OTHER ACCESSORIES

Write for particulars of the Christen Safety Windscreen Wiper Blade, Repair Outfits, Dill "Instanton" Combination Dust and Valve Cap, Burgan Cotter Pin Extractor and many other useful and reliable lines.

## WILCOT (Parent) CO., LTD. FISHPONDS, BRISTOL

London Office: Morley House, Regent Street, W.1  
TELEPHONE: MAYFAIR 1575 & 156

## Aero" valve springs

- have just completed a 5,000 miles non-stop run.
- the "Ariel" engine ran for 251½ hours, and made 40,000,000 revs. without rest.
- another proof of "Aero" valve spring unfailing, continuous, accuracy of action.
- demand "AERO" valve springs be fitted to your engine. In case of difficulty please write us.

List free.



HERBERT TERRY & SONS LTD.,  
REDDITCH - England - Est. 1855.

## PRATTEN'S "Big Three" Garages

Each of the Garages illustrated is manufactured in our own workshops of the best quality materials and supplied in sections which can be easily erected without skilled labour. Carriage paid. You are invited to inspect them at our works. Prices are lowest consistent with first-class workmanship. All Garages supplied by us are insured against fire—free



The "STERLING" Asbestos Garage  
15' 0" x 8' 4" x 7' 3" .. £14 0 0  
17' 0" x 10' 6" x 7' 3" .. £16 0 0



THE "POPULAR" GARAGE.  
12' 0" x 7' 0" x 6' 0" .. £9 0 0  
14' 0" x 8' 0" x 6' 0" .. £11 0 0



Full specifications contained in Folder No. 37. Other designs described in Catalogue No. 35. Post free.



THE "DUPE" JOINT GARAGE.  
14' 0" x 8' 0" x 6' 0" .. £15 6 0  
16' 0" x 8' 0" x 6' 0" .. £16 10 0



Illustration of Duplex Joint, which shows how boarding is weatherproof.

F. PRATTEN & CO., LTD.,  
12, Midsomer Norton, Nr. Bath.



# THE WONDERFUL MITCHELL PLUG TESTER



I want you to let me send you a "Mitchell" Plug and Ignition Tester, so that you can test it on your own car. This beautifully made device can be carried in the waistcoat pocket like a fountain pen, and is a veritable wizard for detecting plug and ignition troubles. Every time the little electric spark jumps the points of the plug, a bright orange flash appears in the window. If the spark is weak at the plug, the flashes are

correspondingly weak. If the plug "misses" occasionally, so do the flashes. If the plug is oiled up and out of action, there will not be a suspicion of a flash in the tell-tale inspection window. Run the "Mitchell" lightly over the wiring, and it will at once detect any faulty installation. In fact, the "Mitchell" Plug Tester is the X-Ray of the Ignition System, and will diagnose any of the following troubles in a matter of seconds:—

**Plug missing. Plug not sparking. Plug points too close. Plug points dirty or foul. Spark gap too wide. Broken porcelain. Plug sparking internally instead of at points. High tension wires shorting. Weak magneto. Magneto Cams worn. Dirty distributor. Faulty insulation.**

**Price 8/6** Post paid to any part of the World. Special attention given to Colonial orders.

Special demonstrations at Gamages, Benetfinks, Selfridges, Dunhills, Army and Navy Stores, and elsewhere.

**BRITISH  
MADE.**

**Don't buy  
foreign  
imitations.**

**7 Days'  
Free Trial**

In order that every motorist can fully test this fascinating invention before actually purchasing it, I will execute every order on the distinct understanding that if the Tester is returned to me within seven days, the purchase price will be refunded in full without question. Don't fiddle about and waste time with the obsolete screw-driver method any longer, but get a "Mitchell" Plug Tester to-day, and use a scientific instrument the efficiency of which is fully guaranteed.

**FIT MITCHELL  
'HOTSPARKS'**  
and obtain greater Power and Speed.

The remedy for oily plugs.

Set of Four

**5/-**

(Two for 3)



Motorists everywhere are fitting Mitchell "Hot-sparks" to their plugs. This ingenious device intensifies the ignition and creates a real hot

explosive spark at the plug points. By fitting a set to your plugs you will obtain the following advantages:—

Earlier and more perfect combustion; greater power and speed; more rapid acceleration; definite saving in petrol; less liability of plugs to soot and oil up; less liability of misfiring; more perfect running at all speeds; visible and easy method of diagnosing ignition troubles; easier starting, etc., etc.

Don't delay, but write for a set now and get the best out of your engine.

Also obtainable at Gamages, Benetfinks, Selfridges and elsewhere.

## FIND THAT KNOCK!



**The Mitchell "NOCFINDER"**

locates Knocks, Pounds, Rasps, Drumming, Squeaks, etc., and thus enables engine troubles to be rapidly diagnosed by SOUND, as clearly as though all the moving parts were visible and could be seen carrying out their various functions. Every click made by the opening and closing of a valve can be clearly heard and the sound of the push-rod striking the valve-stem can be easily distinguished. Money will be refunded if not completely satisfied.



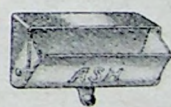
Price **12/6** POST FREE  
Descriptive Leaflet sent on request.  
Stocked by Gamages, Dunhills, etc.

Address all  
orders to:  
(Phone: 1558.)

**THE LONDON MOTOR SUPPLIES CO.,  
TWICKENHAM - - - MIDDLESEX.**



**SHUT**



**OPEN**



**EMPTYING**

## THE MITCHELL SAFETY ASHTRAY.

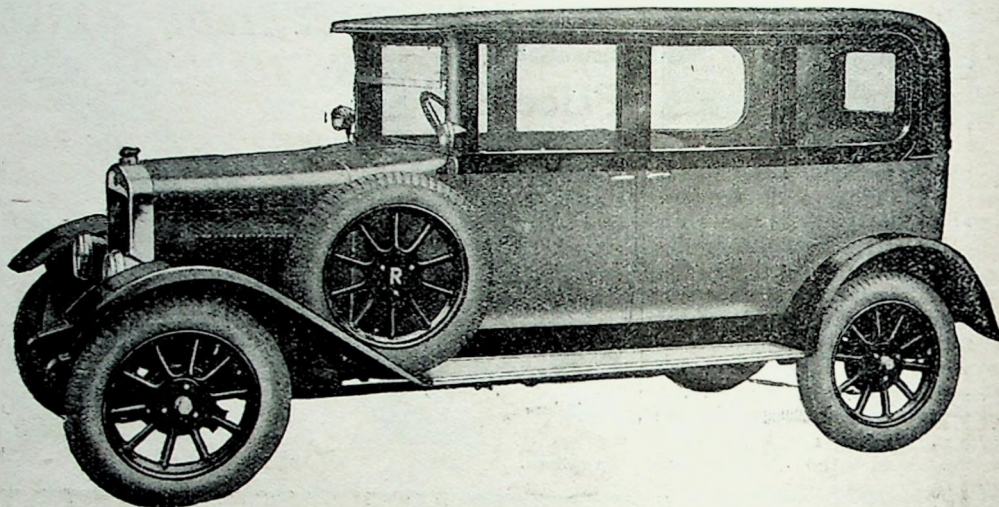
**EVERY** motorist should fit a Mitchell Safety Ashtray to his car. This invention, which can be opened and closed with a touch of the finger, prevents the ash and spark from blowing about and will extinguish a lighted cigarette. The method of fixing is by two small screws which are concealed when the Ashtray is closed. It is heavily plated and makes a handsome addition to any car.

Price **8/6** Post Free.

DO NOT HESITATE to send your enquiries to "The Light Car and Cyclecar."



# An entirely new development in Saloon Car Construction



To those who have long aspired to the luxury of Saloon ownership, will find in this model Rhode a new degree of quality truly characteristic of Rhode, and at a price amazingly low. The new de-luxe Saloon is constructed on an entirely new principle—which is PATENT to the Rhode only—giving the riding ease of the fabric type Saloon coupled with all the advantages of the Coachbuilt Saloon, yet eliminating the disadvantages of both. The new type of construction completely eliminates the "drumming" which is inseparable from the majority of Coachbuilt Saloons. Four wide doors are fitted, with double slam locks and protection buffers. Windows of all doors adjustable by specially designed and easily operated winders. The equipment is exceptionally complete, including roof net for hats and small parcels. Interior lighting with switch. Dashboard equipped with clock, speedometer, switchboard, starting switch, dash lamp, Cubby hole and ash tray. Patented luggage grid, and body upholstered in Bedford cord or real leather hide. Cellulose finish and hand polished throughout in standard colours, Royal Blue, Maroon, Brown or Amethyst

Other models, Two/Six-seater de-luxe .. £198  
Full Five-seater Tourer de-luxe .. £205

## £250

Write to-day for full Catalogue and interesting literature.

## **The new 10-30 Five-Seater Coachbuilt Saloon de luxe**

**The Rhode Motor Co., Tyseley, Birmingham**

**London: BRAID BROS, 143-145, Gt. Portland St., W.1**

**Manchester: PARKER'S, Ltd., 246 - 252, Deansgate**

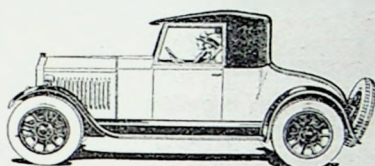
*The small advertisement columns of "The Light Car and Cyclecar" form a unique mart for the disposal of all goods of interest to small car users.*



# On Six Stands at the Scottish Motor Show!



## *The enthusiastic reception of the 1928 10 h.p. Cars*



**TWO/THREE-SEATER, Dickey Seat, two doors, adjustable front seats, etc. £220**



**SPORTS MODEL, two-seater and Dickey, wire wheels, fabric-covered body, etc. £255**



**FOUR-SEATER, four doors, pneumatic upholstery, four-wheel brakes and Dunlop Tyres £220**



**FABRIC SALOON, separate and fully adjustable front seats, dropping windows etc. £260**

at Olympia will be repeated at the Scottish Motor Show, for the popularity of Swift Cars in Scotland is manifested in the fact that they are being exhibited on as many as six Stands at the New Kelvin Hall.

If you are going to the Show make a point of seeing the 10 h.p. Open Tourers, Sports Model, and Fabric Saloon on the following Stands:

### STAND

- 2—Martin Motors, Ltd., 89, Bothwell St., GLASGOW
- 30—Valentine Motors, Ltd., City Hall Sq., PERTH
- 34—J. Goodall & Co., Queen Anne St., DUNFERMLINE
- 59—Jones Motor House, Morningside Rd., EDINBRO'
- 60—Claud Hamilton, Ltd., 254, Union St., ABERDEEN
- 196—C. S. Grant, Ltd., 39, West Campbell St., GLASGOW

## 1928 PRICES.

### 10 h.p. MODELS:

- 10 h.p. 2/3 or 4 Seaters - £220
- 10 h.p. Sports Model - £255
- 10 h.p. Fabric Saloon - £260

### MANUFACTURERS:

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

### JOINT LONDON DISTRIBUTORS:

HENLYS Ltd., Devonshire House, Piccadilly, W., and 91 & 155, Great Portland Street, W.1  
NEWNHAM MOTOR Co., 237, 243-5, Hammersmith Road, W.6.

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



10 h.p. **SWIFT** 2-seater in  
standard dual-colour finish,  
**£220**

(Wire wheels £8.8 extra.)

h.p. **SWIFT** 2-seater  
standard dual-colour finish,  
**£220**

(Wire wheels £8.8 extra.)

FULL PARTICULARS FROM THE  
DISTRIBUTORS FOR "SWIFT" CARS  
IN LONDON, SURREY, SUSSEX and  
BUCKS.

*Exchanges and Deferred Payments arranged.*

1928 coachwork is the smartest and prettiest on  
the road, irrespective of price. Remember also  
that the quality of the equipment and finish will  
bear the closest scrutiny, and the 3-bearing engine  
gives out a smooth even power that will surprise  
you.

The other models are equally attractive and we  
should welcome an opportunity of showing you  
the full range and giving a trial run in the one  
best suited to your requirements.

Let your decision be the "PROVED TEN" and  
not a "NEW NINE," and your 1928 motoring will  
be full of happiness.

#### 1928 MODELS and PRICES.

10 h.p. Two-seater and dickey	.. ..	£220
10 h.p. Four-seater	.. ..	£220
10 h.p. Sports Two-seater	.. ..	£255
10 h.p. Fabric Saloon	.. ..	£260

Telephone—RIVERSIDE 4646 (Private Exchange).

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





### NEARLY GONE, BUT NOT FORGOTTEN.

Horse troughs are still being installed all over the country, witness this one on the North Circular Road (London). It has, very wisely, been set back from the road in a special bay, so that the horses can enjoy their refreshment without inconvenience to themselves or becoming a source of delay to other road users. The car is a 10-25 h.p. Rover "Paris" saloon, a test run report of which will appear in the near future.

## NOTES, NEWS & GOSSIP *of the* WEEK

### Subsidized Motor Racing.

The suggestion made in *The Light Car and Cyclecar* (issue dated October 14th), that British motor racing should be subsidized has caught on, and is now a very live topic of discussion in the technical Press generally.

### New Bridges Over Thames.

Over £300,000 is to be spent in building two new bridges across the Thames at Richmond and Chiswick along the line of the Chertsey arterial road. The Middlesex and Surrey County Councils have approved of the scheme.

### This Week.

The Scottish Motor Show opens to-day in the new Kelvin Hall of Industries, and a very fine display of light cars is on view. A comprehensive description of these exhibits and an interesting historical review of the long chain of Scottish Shows are features in this issue. Amongst other articles is a detailed review of the three-wheelers at the Cycle and Motor Cycle Show and a technical contribution entitled "Maintaining Good Compression."

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### LIGHTING-UP\* TIMES (Rear Lamps) for Saturday, November 5th.

London .. 4.55	Edinburgh .. 4.52
Newcastle .. 5.1	Liverpool ..
Birmingham 5.0	Bristol ..
Moon—Full, November 5th.	

### Scottish Show Carnival.

On Tuesday, November 5th, during the Scottish Show Week, a carnival gala and cabaret will be held at the Glasgow Hotel.

### Prince to Open Trent Bridge.

H.R.H. the Prince of Wales has consented to open the new bridge over the River Trent at Gunthorpe, a few miles above Nottingham.

### Midland Racing Track.

Active steps are being taken with regard to the proposed new racing track in the neighbourhood of Birmingham and a committee has been appointed to see if the trade will give the necessary support.

### Next Week—

—We hope to publish a very skilled analysis of the claims of six-cylinders for light car work. The article will be in two parts and will throw a considerable amount of light on the difficulties—seldom appreciated by many motorists—of turning four-cylinders into six. Six-cylinder light cars are at present confined to a few makes.



### The Ascot Car.

At a luncheon given by the Fejes Patent Syndicate, Ltd., of 25, Victoria Street, London, S.W.1, at the Savoy Hotel, London, on November 1st, the Ascot welded-steel car was introduced to a large gathering of Pressmen. Mr. J. S. Wardlaw-Milne, M.P., being in the chair.

In his speech the chairman pointed out that the principles contained in the invention are not new or untried and that the Government of Hungary have in their army and postal services used cars made under the Fejes process for several years with entire satisfaction: but he stressed very strongly the influence which the successful launching of the Ascot car would have in this country and expressed the hope that the large and up-to-date factory in the London area, which it is anticipated will materialize in the near future, will give us another opportunity of showing that British enterprise does not lag behind that of other countries.

Technical points in connection with the construction of the car were dealt with by Mr. G. W. Watson, the designer of the 10 h.p. Ascot, who stressed the fact that although certain parts of the experimental cars, like the levers and so forth, had not been made by means of lip-welded pressings, as would be the case in production cars, a large saving of weight was evident, and that this would be exceeded were the principle employed throughout. It will be recalled that the Ascot car, which has already been dealt with in full in this journal (issue dated September 30th), employs lip-welded sheet-metal construction throughout in place of castings, only such parts as crankshaft, camshaft, axles, and so on, following conventional forms of construction.

It was announced that, with an eye to future requirements, plans were already on foot to produce a six-cylinder car built, of course, like the present "four," from sheet metal.



### WEEKLY WISDOM.

Seek always to remain friendly with the keeper of the garage that he may succour thee with a willing heart and gracious countenance.

### Belgian Exhibitions.

An exhibition of wireless apparatus will be held at the Parc du Cinquantenaire, Brussels, concurrently with the 21st Automobile and Cycle Show from December 3rd to 14th.

### Inter-Varsity Reliability Trial.

The annual Inter-Varsity Reliability Trial for the Motor Cycling Cup will take place this year on Saturday, November 19th. Mixed teams, consisting of motorcycles, three-wheelers and cars will be entered by both universities, the number of entrants composing the teams being unlimited. The start will be made from the Sugar Loaf Hotel at Dunstable at 10.30 a.m., and the course will be a single-circuit one of approximately 80 miles, finishing at the starting point. Only three-wheelers will be allowed to use non-skid chains, and the course will be essentially of a sporting nature.

### B.A.R.C. Meeting To-morrow.

ACTING on a suggestion put forward by Mr. J. R. Cobb, who pointed out that owing to weather conditions Brooklands had been disappointing this year, the B.A.R.C. has agreed to organize a "Drivers' Meeting" to-morrow, Saturday.

The proceeds are to be given to charity, the distribution being as follows:—Reduced entry fees to the Weybridge Cottage Hospital, the "gate" and programme money to Earl Haig's British Legion Appeal Fund. Already 52 entries have been received and, as a result, the Cottage Hospital is assured of the very useful sum of just over £100.

There will be five races in all, three long and two short handicaps, the meeting being timed to start at 2 p.m. and to conclude about 4 p.m. The awards consist of a number of cups, for which many of the better known Brooklands drivers will compete.

It is to be a "Fork" meeting, the arrangements being similar to those which obtain when motorcycle events or fixtures like the Essex Club's "mixed" meetings take place, and the popular price of 3s. per person will be charged for admission.

Given a fine afternoon—and it is to be hoped that the Clerk of the Weather will be caught napping for once—this Drivers' Meeting should be as successful as it deserves to be in view of its charitable object.

### Eastbourne One-way Traffic.

The Eastbourne Traffic authorities are considering adopting the one-way scheme for several of the more crowded thoroughfares in the town.

### Legacy for Car Upkeep.

A Hull man has left a legacy for the upkeep of his son's car. Provision of £58 a year has been allowed, with £300 for the purchase of a new car when necessary.

### Famous Cliffs Saved.

The sum of £17,000 which was necessary to save the famous Seven Sisters Cliffs near Eastbourne from the hands of the builders has been raised by public subscription.

### Speed Limit at Stoke?

The question of a speed limit for vehicular traffic throughout Stoke-on-Trent having been raised, a committee has been appointed to report to the Watch Committee on the advisability or otherwise of such a limit.

### A Fine British Effort.

Our article in last week's issue, entitled "A Fine British Effort"—which revealed in detail the big endeavours which have been made by the Alvis Car and Engineering Co., Ltd., to uphold British prestige—has created widespread interest, and to avoid confusion we are asked to point out that Major C. M. Harvey is the manager of the service department in addition to his responsibilities as a racing driver, the post of sales manager being held by Mr. L. W. Adams.



### DOWN TO THE DEPTHS!

A "full size" river, the Colne at Lexden, Colchester, formed an effective watersplash which had to be faced by competitors in a recent trial run by the Colchester M.C.C. An A.C. is seen making the crossing.



### Level-crossing Delays.

The town clerk at Llanelly has reported that the loss to tradesmen by having their vehicles held up at the railway level-crossing in the town is over £9,000 a year. The Great Western Railway Co., however, have stated that it would cost about £100,000 to build a bridge to avoid the crossing.

### Oldham Alterations.

The Oldham Corporation is anxious to acquire property in the neighbourhood of Lord Street for widening purposes, and steps have been taken to obtain the necessary Parliamentary powers.

### Proposed Victoria Docks Road.

There is a possibility of a revival of the scheme for the construction of a new road through East London to the Victoria Docks, and already the Ministry of Transport has entered into negotiation with the various authorities concerned.

### Standardizing Equipment.

The British Engineering Standards Association has recently published a report (No. 5,012) for nomenclature for electrical equipment, both for cars and motorcycles. The report will be of great assistance in removing ambiguities which may arise when ordering spare fittings for the starting and lighting equipment.

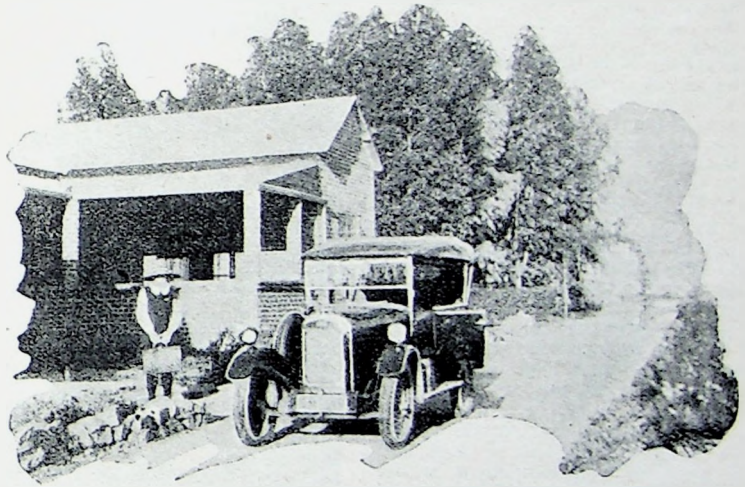
### A.A. Hotel Signs.

A North Wales Hotel proprietor was recently sued by the Automobile Association for the return of an A.A. hotel sign. The evidence showed that the permit of the hotel had been cancelled by the Association, but that, nevertheless, the proprietor refused to deliver up the sign. Judgment was given for the A.A.

**JOWETTS** — A busy scene at the start of the annual reliability trial for ALL. Jowetts, held by the Midland Jowett Club, Sunday, October 30th.

### New Theatre Garage.

Provision for a garage on the premises to hold about 400 cars is made in connection with the latest West End theatre, to be called "The Piccadilly," which is now in course of construction. Lack of garage accommodation is a serious problem for London theatregoers, and it will be interesting to see the result of this innovation. Cars will be housed in the basement and on the ground floor of the garage, with lifts and turntables provided to facilitate their handling. The garage will be available to all motorists.



**A SINGER  
IN AFRICA.**

Daily journeys—taking his daughter seven miles to school—are made by the owner of this Singer in Salisbury, South Rhodesia. Bad roads have no effect upon the reliability of the "Junior."



**Point duty in Paris.** Bell traffic signals and lights operated electrically are used by gendarmes at the Place de l'Opera.

### A Trio of Summonses.

A member of the Automobile Association recently received three summonses for driving to the danger of the public, failing to give warning of approach and for not being properly licensed. The member was defouled by an A.A. solicitor, with the result that the summonses were dismissed.

### Road Repair Danger.

A motorcyclist recently brought a successful action against the Rutland County Council and a firm of road contractors, and recovered substantial damages, on account of the failure to show red lights giving warning that repairs were in progress on the Great North Road. One-half of the road was left considerably higher than the other during the course of repairs, with the result that the motorcyclist was involved in a serious accident.

### Skegness Parking Problem.

Free parking on the promenades at Skegness having proved a failure this year, it has been suggested that an official park be provided.

### Insurance Premiums.

Although the R.A.C. is not connected with any insurance concerns, it has a special policy of its own available to members and associate members, and this is issued by most of the leading companies. The terms have recently been revised in respect of the horse-power ratings upon which the premiums are based. The alterations also bring about a deduction of 7s. 6d. for members not wishing to be covered for personal accident and ordinary benefits, and also a new value rating of £100 as compared with the previous minimum of £200.





## THE SCOTTISH SHOW PAST AND PRESENT.

CLAIMED TO BE THE OLDEST OF ITS KIND IN THE INDUSTRY—  
THE WONDERS OF THE NEW KELVIN HALL—FRIENDLY RIVALRY  
BETWEEN GLASGOW AND EDINBURGH.



**T**HE 1927 Scottish Motor Show marks the beginning of a new era in exhibitions of this kind held north of the Tweed, for this year's very fine display is housed in the newly opened Kelvin Hall of Industries, Glasgow. This magnificent structure, built on modern lines, has an actual floor space of no fewer than 171,000 sq. ft., which is equal to the main hall and new hall at Olympia; thus the Scottish Motor Show will be staged in one of the finest exhibition halls in the country, and the Show will, as a result, attain a far greater degree of importance than ever before.

The old building was destroyed by fire in the summer of 1925, and after some consideration it was decided to make use of the site for a building worthy of being so close a neighbour to the University and the Art Galleries. It will be recalled that the old Kelvin Hall was hardly a picturesque structure and it will be agreed that the cost of the new building, which was in the neighbourhood of a quarter of a million, was well warranted.

Science has been brought to bear very largely on the construction of the new Kelvin Hall, and problems of lighting and ventilation have been regarded as worthy of solution by eminent engineers. Built almost throughout of reinforced concrete, the hall is roofed by three spans of 110 ft. and one of 60 ft., the length of the large spans being 458 ft., and that of the smaller span being 331 ft. We believe we are right in saying that the big spans represent the largest ever built in reinforced concrete. A particular advantage of this form of construction is exemplified by the fact that owing to its strength only 22 supporting columns are necessary.

The frontage to Argyle Street forms the administrative block and is built of red sandstone, whilst apart from the general scheme of decoration, which is on advanced and very striking lines, there is a long pillared portico to the main entrance. Giant lanterns mounted in the two square towers which flank the portico can be illuminated at night.

Visitors will be interested to know that there is a large restaurant block at the rear of the hall with a balcony actually overlooking the hall, and a roof tea garden. The floor space of the restaurant is 6,000 sq. ft. and accommodation can be provided for 500 persons at one time.

As an example of the science which has been brought to bear on the construction of the Kelvin Hall, it may be mentioned that each exhibitor is provided with individual facilities for water, electric light, drainage and, of course, telephone, whilst ventilation is looked after by motor-driven fans situated at 12 points on the outer walls which force steam-heated air into the building.

Patriotic Scotsmen are very proud of the series of Scottish Motor Shows, for, as they point out, it is the oldest exhibition of its kind in this country, dating back to 1786, when there was exhibited in Edinburgh a model

steam carriage. The present series of shows was inaugurated in 1897, but there were cycle shows in Edinburgh in 1879 and 1884.

In 1897, Scottish Motor Shows were placed on a firmer footing by the Edinburgh Cycle and Motor Trade Association, which arranged for the holding of a trade exhibition, and it was at this exhibition that some of the pioneers of Scottish motoring exhibited motorcars. Waverley Market was chosen as the venue and so thorough were the arrangements that in one corner of the market demonstration runs took place during the course of the Show.

It must be understood, however, that motorcars were a thing apart in these Cycle Exhibitions, and it was not until 1899 that the inevitability of the motor impressed itself upon the promoters and resulted in their giving them far more courteous treatment.

In 1900 the friendly rivalry between Edinburgh and Glasgow grew, shows being held in both cities, whilst in 1901 motorcars entered into their own, the space given over to cycles in the Waverley Market being seriously curtailed.

The Edinburgh shows were held under the auspices of the Edinburgh Cycle and Motor Trade Association until 1907, that body having taken over, as we stated, in 1897, and in the first-named year the Scottish Motor Trade Association, with Mr. David A. Fairley as secretary, was formed.

The year 1908 was a memorable one and every endeavour was made to ensure a successful Show, even to decorating the hall and engaging a military band. The Shows pursued an uneventful career until 1912, when Glaswegians demanded a "look in," but Glasgow did not come into the picture at all prominently until the first post-war Show, held in 1920 in Kelvin Hall, which had been erected primarily by the Corporation of Glasgow to house the British Industries Fair, and there the Shows were held until the fire which destroyed the hall, when the exhibition was moved to the Industrial Hall, Edinburgh, pending the completion of the new Kelvin Hall.

We may conclude with a personal note concerning this year's President of the Scottish Motor Trade Association, Baillie William J. Thomson, of Edinburgh. Trained as an engineer he is a pioneer of the motor industry in Scotland; in fact his connection with cars goes back to the time when he was with the old Arrol-Johnston Motor Traction Co. in Paisley; this was from 1900—when the public were only just beginning to think seriously of cars—to 1905, when the Scottish Motor Traction Co. was registered. He has been associated with the latter company since its inception, and now fulfils the position of general manager as well as being a director.

In 1921 he became a member of the Edinburgh Town Council and soon after he was appointed a Justice of the Peace.

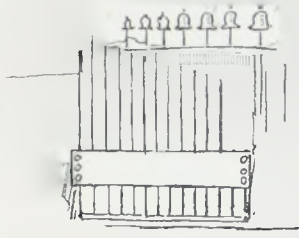


Baillie William J. Thomson, of Edinburgh, the President this year of the Scottish Motor Trade Association and a pioneer of the Scottish motor trade. He will preside over the functions connected with the Show which opens to-day, Friday.



# SIDELIGHTS ON THE SCOTTISH SHOW.

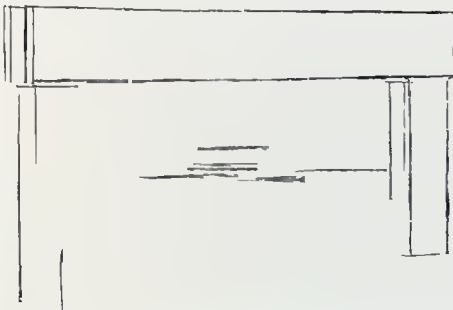
THERE ARE SEVERAL  
INTERESTING EXHIBITS  
AT THE "SCOTTISH" SHOW  
WHICH I AM AFRAID THE  
PUBLIC MISS. SO  
ILLUSTRATED  
HERE



THE 10 H.P. "HAGGIS" COUPE, WITH  
EXHAUST COOKER IS DISTINCTLY A  
NOVELTY.

ANOTHER INTERESTING  
INNOVATION IS THE "ANNIE  
LAURIE" EXHAUST FITTING,  
WHICH PLAYS "THE BLUE-  
BELLS OF SCOTLAND" BY  
REQUEST. THIS SHOULD  
INSPIRE MANY A LONELY  
HIGHLAND SHEPHERD TO  
SHAKE A WICKED SPORRAN.

TALKING OF SPORRANS, I AM  
REMIND OF A  
RADIATOR



WAS GIVEN TO  
AND IS INTERE  
PRODUCTION OF THE £100 CAR. I FAIL TO  
UNDERSTAND, THEREFORE, THE MEANING OF  
THE ABOVE PROBLEM

USE-UP OF A  
MODEL ARRIVING



DOOR-  
KEEPER WHO RECEIVED A  
3d BIT GRATUITY ON THE  
OPENING DAY.  
THIS CONSTITUTES A  
RECORD, AS IT IS THE  
SECOND TIME IT HAS  
HAPPENED WITHIN TWENTY  
YEARS.  
A WELL LUBRICATED  
HIGHLANDER GAVE HIM  
9d IN 1907.

GILBERT  
RUMFOLD

In which the artist indulges in some good-humoured banter at the expense of "Hieland"—and other laddies.





Always a dangerous practice—pulling out to pass in a narrow road.

CONTINUING OUR VIGOROUS CAMPAIGN FOR "SAFER MOTORING" WE DRAW ATTENTION BELOW TO A NUMBER OF ASPECTS WHICH SHOULD BE FULLY UNDERSTOOD BY DRIVERS—NO MATTER WHAT TYPE OF VEHICLE THEY ARE HANDLING.

PERHAPS the soundest advice that can be given to those who wish to know exactly what is required of them so that they should qualify as "safe" drivers is, first, master your car, secondly, master the rules of the road, and, thirdly, master your feelings.

Concerning the first condition there are important aspects to be taken into consideration. It is impossible to master a car in the true sense of the word unless the vehicle in itself is absolutely efficient and can be depended upon to respond instantly to the various controls. As an example, badly worn brakes may be cited: in an emergency it would be impossible for a driver to pull up in a really short distance, and obviously he would not, therefore, have that entire control which is essential for really safe driving under all conditions.

Another aspect is that a driver must feel that he is master of his car, and until he operates the various controls instinctively and without having to think ahead, as it were, he cannot be said to have succeeded.

Experienced hands will tell you that at first they were a little afraid of their cars. There was a temptation to hang on to first gear, because it was an adventure to get into second and then top—an adventure which might lead to complications if they were called upon to decelerate suddenly and engage a lower gear; but with extended practice they acquired that eminently satisfactory feeling of being "boss."

### A Critical Test.

It is a case where "swank" is almost impossible. A man might be able to saunter without moving a hair along a promenade under the critical gaze of a host of holiday-makers, jauntily swinging a cane and rolling a cigarette from one side of his mouth to the other, but sit him in a car and send him off on his maiden trip as a driver along the same promenade and his attitude at the wheel would give him away no matter how hard he tried to look nonchalant. So be wary of the driver with a scared look—give him best.

The essential rules of the road are comparatively few. Unfortunately, familiarity often breeds contempt, with the result that angels sometimes step in where inexperienced folk fear to tread. First of all, remember that it is customary in this country for

vehicles to keep to the left. It is a custom not a law, but a man who attempted to establish the right which the absence of a law on the subject gives him might find himself up against a far stiffer proposition in the form of a charge of "driving to the common danger."



Imagine that this scene is presented to you as you sit at the wheel of your car travelling, say, at 25 m.p.h., and you will recognize the gravity of the offence of the driver directly ahead who has cut out to pass the van on the right. Other cars in the wake of the offender, it will be observed, are also pulling out to "follow him through."

Slow-moving vehicles should keep very rigidly to the left so as to allow overtaking cars to pass. Many drivers do not realize how important this is to the safety of road travel in general—quite apart from the obvious selfishness of jogging along the crown of the road—for an overtaking driver must, perforce, pull out far too much to his off side in order to pass. a



manœuvre which may land him into difficulties with oncoming traffic.

Incidentally, never attempt to pass a vehicle ahead unless it is quite obvious that passing can be undertaken in absolute safety. Here are conditions where this rule applies very pointedly: when approaching a hump-backed bridge; when approaching the summit of a fairly steep hill with the prospect of approach-traffic hidden until it also reaches the summit; when approaching traffic will make it compulsory for the driver who wishes to pass to "stamp on everything" in order to get through.

What drivers frequently do not appreciate is the possibility of mechanical failure at a critical moment. Approaching the summit of a hill along a narrow road, for instance, a foolhardy driver pulls out to pass a string of farm carts, and when he is about halfway towards safety his engine suddenly peters out and at the same moment a car well on its own side of the road suddenly appears at the top of the hill coming towards him at speed. A bad smash is inevitable unless both drivers are sufficiently quick-witted to apply their brakes instantly—a factor for success which depends on the efficiency of their brakes and the surface of the road.

### When Turning Left or Right.

When turning left, hug the near side of the road; when turning right, thrust out the right arm horizontally, draw out towards the crown, and, having looked behind to make sure that an overtaking driver does not wilfully intend to disregard your warning, and looked ahead to make sure that you will not be cutting across the path of an approaching vehicle which has preference, swing into the side road.

In asking drivers to master their feelings, one may perhaps be demanding a good deal, but only too frequently it is a temptation to show "the other fellow" what one can do or to give the same objectionable fellow "a little bit of his own back" that leads to disaster.

If some boor of the road cuts in and causes you to apply your brakes sharply, and at the same time to lock over to the left so as to avoid having your front off-side wing scraped, endeavour to adopt the imperturbable air of the cynic, who, shrugging his shoulders, says: "Well, let him get on with it; he is simply asking for it and will be suitably rewarded in due course."

If you are driving a pukka sports car, remember that there is nothing disgraceful in allowing a touring car to pass you if its normal speed at the time is higher

than your own. Do *not* wave on the driver and then, with a fiendish chuckle, put your foot hard down on the "gas" and leave him, possibly, in a position of some difficulty in which you have deliberately placed him. This is not only unsporting, but may lead to an accident, as it places the innocent party in the position of a man who has pulled out to pass when he had absolutely no right to do so. If he can slow down and swing in behind you, all will be well—but he may not have time.

The cultivation of road sense is most important; it combines the good qualities of self-restraint, accurate judgment, expert driving and a kind of intuition—gained only by extended experience—of what is going to happen next in any particular road situation. Good chess players, it is said, often make good drivers, the reason being that they have acquired the knack of "looking forward" instinctively and summing up very rapidly every possible development—whether it be at chess or when driving in traffic. Instant decisions must be made and, obviously, the quicker a situation can be summed up the speedier will be the essential message to the brain which governs one's actions.

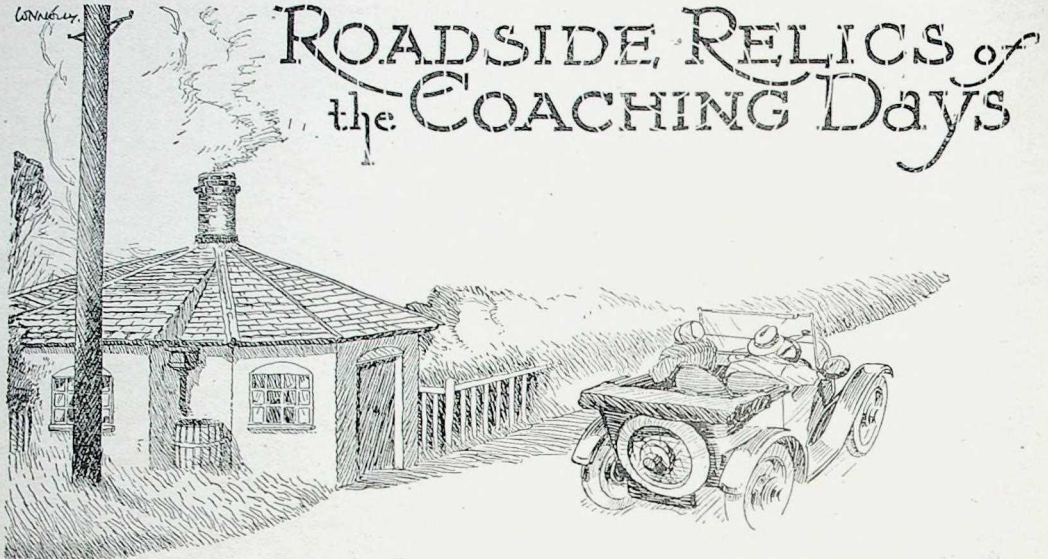
Space forbids of a more detailed investigation of all that goes to make driving safe, but sufficient has been said, it is hoped, to indicate the course which should be taken by drivers who are anxious to make our crowded roads safer for all who use them.



### AWKWARD ROAD SITUATIONS.

The scene in the circle photograph shows the altogether wrong way to draw out and pass, the car being at far too great an angle and the manœuvre having been started too close to the cart ahead. "Who should give way?" would be an apt title for the problem presented by the lower photograph.





"... The march of progress has not succeeded, by any means, in trampling under foot every remnant of the days when clattering hoofs were heard instead of swishing tyres and the coach-guard's musical horn in place of the harsh motor hooter, and here and there, in odd corners, one is constantly meeting quaint relics to which the romance of the past still clings."

MANY of us find a subtle charm in the romance of the past, and while we glide along a modernized highway in an up-to-date car our thoughts turn very naturally to bygone times when life on the road was totally different from what it is to-day.

It has been remarked that the last surviving traces of the old-time romance of the road were finally stamped out when the Great North Road became "Road A1," but the march of progress has not succeeded, by any means, in trampling under foot every remnant of the days when clattering hoofs were heard instead of swishing tyres and the coach-guard's musical horn in place of the harsh motor hooter, and here and there, in odd corners, one is constantly meeting quaint old relics to which the romance of the past still clings. At such an encounter one is conveyed for a moment, as if by magic, into the world of long ago.

### Unspoilt Coaching Inns.

Some of the old coaching inns are still largely unspoilt, but these would require a volume in themselves for adequate description. It may, however, be mentioned here that even in cases where vandalism has obviously done its best—or its worst—in the way of modern improvements, some ancient relic at an old inn may often be discovered which, by some odd chance, has escaped the onslaught. Some time ago, for instance, the writer came across an almost illegible notice-board in the yard of a much-modernized inn and its wording, still faintly visible, read:

#### OSTLER'S BELL.

An iron bell-pull, long since rusted up, still hung above it and, even if it did not actually date so far back as the coaching days, it certainly belonged to an age when "chauffeur" or "garage" would have sounded quite as strange as "ostler" does to the modern roadfarer.

Apart from the inns themselves, however, and such obvious "exhibition" relics as the coach time-tables displayed in coffee-rooms and entrance halls (there is a good specimen, by the way, in the "George" at Battle), there are many other survivals of the "good old days" which are often passed by unnoticed.

First and foremost there are the turnpike toll-houses, hundreds of which are still in existence. The tolls, incidentally, were an expensive item in the days of the four-in-hand stage coach, these vehicles usually paying something like threepence per mile for the use of the roads. The old toll-houses are generally one-storied buildings standing on the very edge of the highway and are often of peculiar shape, a favourite style of planning consisting of an irregular octagon used in conjunction with a central chimney-stack. A typical example of this type stands a mile or so beyond Amer-sham, on the Wycombe road. A sketch of it appears above.

These old relics of the turnpike system are dotted here and there along most of the main roads of the country—there is even one at the loneliest point of that lonely road on the fringe of Radnor Forest which leads from Penybont to Knighton, standing in a bleak spot a thousand feet or more above sea-level.

### Ancient Milestones.

Then, again, there are the old milestones scattered along the roadsides and, in this connection, it is interesting to note that Telford, the great builder of highways and bridges, in an old treatise on road construction particularly recommended that milestones should be inscribed with bold figures so that coach-drivers and passengers could read them easily when passing "at speed."

Most of these old stones are ordinary and insignificant enough and are sometimes much the worse for wear and almost completely hidden in the roadside grass, but now and again one comes across outstanding examples which call for special notice.

The London-Wycombe-Oxford road, for instance, has a very complete set of elderly milestones (there is one just over the Buckinghamshire border, beyond Uxbridge, which merely announces that it is half a mile to the River Colne), but these are all very commonplace by comparison with the tall column and ball at the London end of West Wycombe village, where the branch road diverges to Princes Risborough. This was erected in 1752, partly to act as a milestone and partly to com-

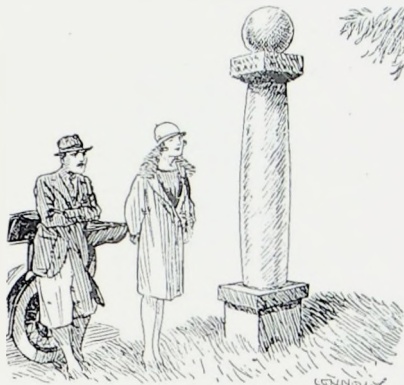


memorate the completion of certain road improvements and, according to old records, cost £27. On three of the square faces at the top of the pillar distances are given thus:

FROM THE UNIVERSITY  
MILES XXII.  
FROM THE CITY  
MILES XXX.  
FROM THE COUNTY TOWN.  
MILES XV.

while on the fourth face the date of erection is inscribed. There is a very modern and unromantic signpost immediately opposite—so extremely up-to-date, in fact, that it has patent reflecting studs on its lettering!

The road connecting London with the sister university of Cambridge is also remarkable for some fine old



An ancient milestone of an uncommon type, which is to be found at West Wycombe village.

milestones. The well-known route via Ware and Barkway originally formed part of the main coach road from London to Edinburgh and was one of the first on which toll-gates were established by Act of Parliament in 1663. The gate-keeper's house still stands in the main street of the quaint old village of Barkway and has a clock over the front door bearing the words:

#### BARKWAY TURNPIKE HOUSE.

while a short distance away is a massive old milestone on which a carved representation of two shields can just be discerned. One shield is inscribed with the symbol of the crescent associated with Trinity Hall, and gives an indication of the fact that this milestone was erected by the authorities of that establishment—as, indeed, were several others on this particular road, including a very similar specimen, three miles nearer Cambridge, which is marked with the date "MDCXXXI." Both this stone and that in Barkway village have been badly disfigured by the addition of cast-iron plates which, although doubtless informative and useful, are ugly and out of keeping.

Quaint examples of spelling and abbreviation will be found on many old milestones: "Lemster," for instance, appears on several on the Worcester-Kington road (A.44) and this, as it happens, is the true phonetic spelling for Leominster, while "Sarum" and "Winton" are old forms which are conveniently shorter than "Salisbury" and "Winchester."

Closely akin to the aged milestones are the old fingerposts. These, too, have silently watched the changing conditions on the road—they have seen the stage coaches, the post chaises and the highwaymen and must have wondered at the strange, uncanny quiet which descended when the railways brought ruin and desolation to the turnpikes. Still faithfully standing at their appointed posts, they were ready for duty once again when wheel-traffic returned in the form of "penny-farthings," or "ordinaries," and then as "safeties," as

the more orthodox bicycles were called, followed by the advent of mechanical traction in the 'nineties.

The really ancient signposts, however, are few and far between, but there is a hardy old veteran on the road from Moreton-in-the-Marsh to Evesham, about a mile from the top of Broadway Hill, which has a tall wooden post and iron arms quaintly formed at the ends into the shape of hands. The four arms are lettered respectively:

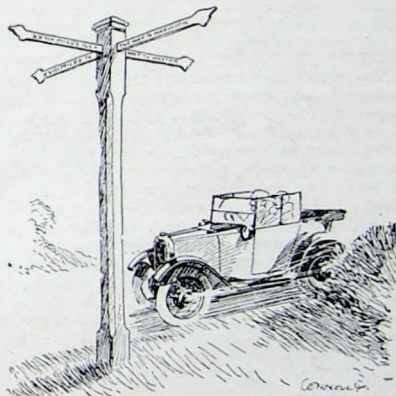
THE WAY TO WARWICK.  
THE WAY TO OXFORD.  
THE WAY TO GLOSTER.  
THE WAY TO WOSTER.

while the corresponding mileages are given on the other sides of the arms, two of which carry, in addition, the date "1669," and the remaining two the initials "N.I." In each case it is noteworthy that the distance given amounts to almost exactly seven-tenths of the actual mileage according to modern standards.

There is also another fine old signpost some miles away, at the junction of the Tewkesbury-Stow and Cheltenham-Evesham roads. This is the famous "Teddington Cross Hands," and is a stone pillar with wooden arms, the former bearing the inscription:—

*Edmund Attwood of the Vine Tree  
At the first time erected me  
And freely he did this bestow  
Strange travellers the way to show  
Ten generations past and gone.  
Repaired by Alice Attwood of Teddington.  
August 10th, 1876.*

This reminds us of the fact that in years gone by, when the perils of road travel were of a different nature



A quaint signpost on the road from Moreton-in-the-Marsh to Evesham.

from those of to-day, it was a common occurrence for benevolent individuals to erect signposts and tall columns for the guidance of wayfarers.

There is still a wealth of roadside romance to be found by those who care to seek it. A quaint old toll-keeper's cottage may well have been the scene of many an exciting incident in which roadfarers of the past, wearing wigs and three-cornered hats instead of berets or flying helmets, enacted dramas of real life which even the present high-tension days could not beat as "thrillers." A madly driven post-chaise, for instance, may have dashed up to the gates, the passengers, needless to say, being a pair of eloping lovers; there would follow a hasty exchange of guineas and a spectacular "get-away" a second or so ahead of the angry father, who would be duly held up and artfully delayed by the sporting gate-keeper.

And how many travellers of bygone days must have anxiously scanned those old milestones and fingerposts which are still giving the same old message to the swiftly moving road folk of to-day?

B. G. GRENVILLE MANTON.



*The Olympia Cycle and Motorcycle Show.*



## GREATLY IMPROVED THREE-WHEELERS.

AN INTERESTING AND COM-  
PREHENSIVE RANGE—BY THREE  
MAKERS—AVAILABLE FOR 1928.

**T**HERE are many interesting points in the design of the three makes of three-wheeler which are being shown at the Cycle and Motorcycle Show at Olympia. It is already well known that this year we have a newcomer to the ranks in the shape of the Royal Ruby, and I have briefly described this make in previous issues, but until my visit to the Show I had not had the opportunity to make a personal examination.

The general layout impressed me as being practical and workmanlike; possibly there will be those who will object to the use of three chains in the transmission, but personally I can see nothing wrong with this idea on a simple cyclecar, because each chain can easily be adjusted, and as they are of heavy type they should last for a long time without any special attention. There is a lot to be said for the provision of a three-speed gearbox, and I should imagine that the multi-plate clutch will prove very smooth in action. Another factor which should contribute to smooth running is the use of a spring-loaded shock absorber on the engine shaft chain sprocket.

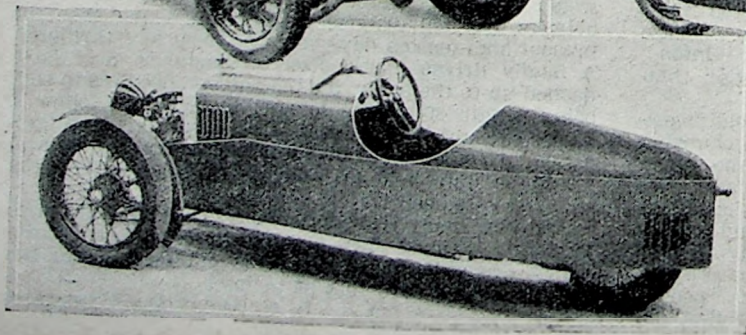
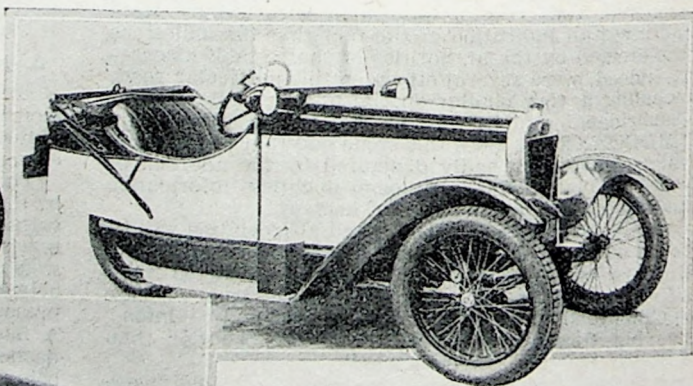
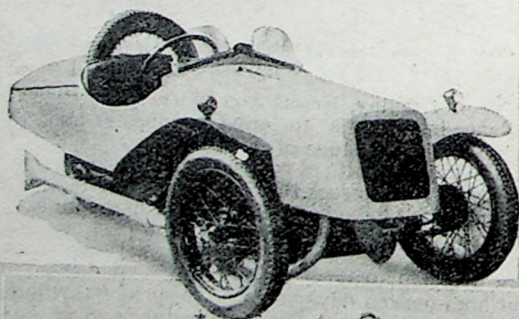
I refer in the foregoing, of course, to the single-cylinder Royal Ruby touring models, the smaller of

which is fitted with a Villiers two-stroke engine, whilst the other model has a 500 c.c. single-cylinder four-stroke J.A.P. engine, both types being air-cooled.

Pressed steel members no less than 4 ins. deep are used for the main framework, and these are braced in front by a cross-member to which are secured the forward cradle plates of the engine, the rear plates being secured to the longitudinal stiffening tube and to tubular cross members attached to the main side members. At the rear there is a deep-section cross-member made, presumably, of malleable iron, and to this are attached lugs to which the looped rear fork is hinged. The long quarter-elliptic rear springs have five leaves each, and are shackled to the rear fork at a point immediately above the wheel spindle. The wheel is fitted with an internal expanding brake, the reaction of which is taken through a forked arm secured to the rear fork.

The transverse superimposed front springs are bolted above and below the front cross-member, and each consists of two leaves, although additional leaves can be fitted if necessary. The front-wheel brake-plates, with which are combined the trailing swivel axles, are carried on king pins which pass through the spring ends, the f.w.b. being operated by a continuous stranded steel cable. Being continuous the cable automatically provides compensation for the control, and obviously when the front wheels are moved either to the right or left the cable will slide through its fair leads and each brake will still receive the same amount of pull from the lever.

The sports model Royal Ruby is in a class by



This trio of attractive-looking three-wheelers is on view at the Show. The Blackburne-engined Royal Ruby is shown top, left. (Above) An o.h.v. engine is fitted in the Coventry-Victor. (Bottom, left) The new Super-Acro Morgan which is very low built.



itself so far as English three-wheelers are concerned. The twin-cylinder water-cooled Blackburne engine is mounted across the front of the machine, the chassis of which is similar to the smaller models; it is, however, stiffened by means of two parallel tubes which run fore and aft and to which certain of the components are attached. A three-speed and reverse gearbox is mounted behind the engine and driven by means of a cone clutch in the engine flywheel.

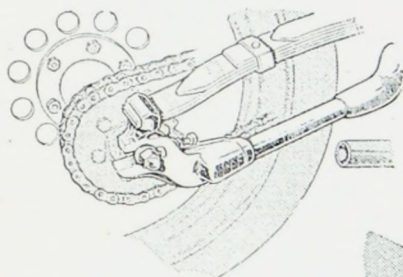
As the gearbox is well forward of the normal position the control lever, which is centrally disposed, is bent backwards, so that it projects through a hole in the dashboard. The shaft from the gearbox terminates at its rear end with a bevel pinion enclosed in a housing with the crown wheel. The torque stay is secured to the housing at one end and at the other end to the hinge pin of the rear forks which, of

course, are of U-shape as on the smaller models. Suspension also is similar on this model, but three leaves are used in the front transverse springs.

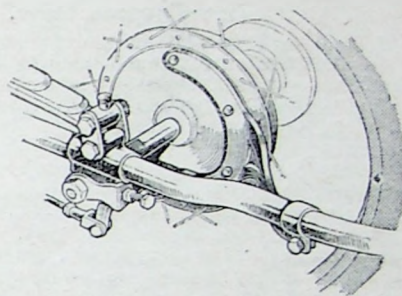
All models have geared-down steering of the bevel and sector type, and it is encouraging to note that the drag link works at each end on spring-loaded ball joints, whilst the track rod is adjustable.

Reverting to the sports model, the radiator is mounted behind the engine and, of course, thermosiphon cooling is adopted. In front of the engine dashboard is the combined oil and petrol tank, and at the side of the tank is the coil of the Delco Remy ignition system. The provision of coil ignition is a distinct breakaway from accepted practice amongst three-wheeler designers, and I am not quite clear why it has been adopted on this Royal Ruby model. There are, of course, no possible objections to the system,

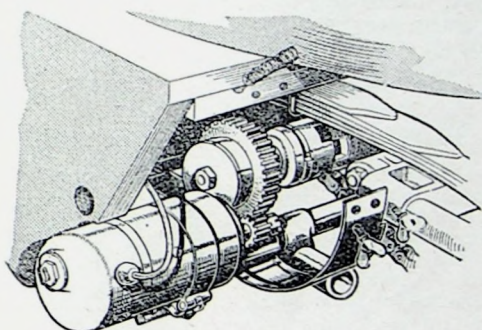
### FEATURES OF THE 1928 THREE-WHEELERS.



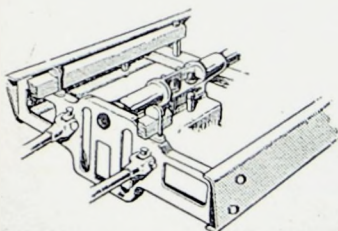
The rear fork-end and spring mounting of the Coventry-Victor is of very solid construction.



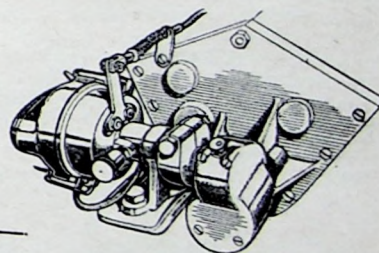
The rear spring shackle and brake anchorage on the 500 c.c. Royal Ruby. The wheel is easily removable.



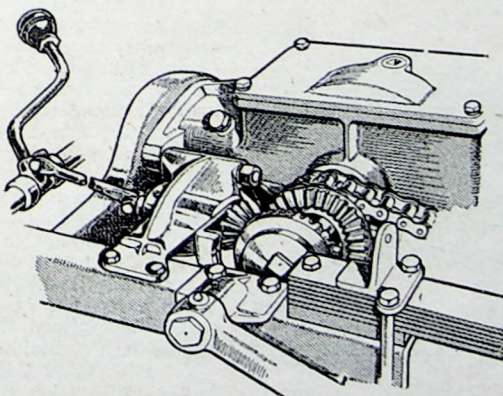
A fibre driving pinion is used on the new gear drive for the dynamo of the Morgans. The mud-shield is removable.



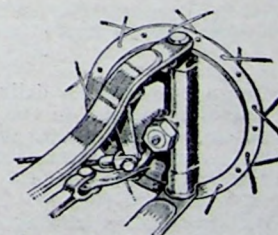
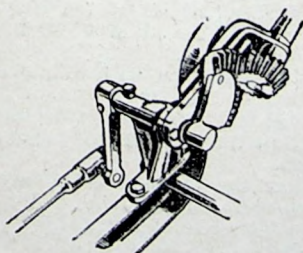
The gearbox mounting and the rigid cross-member carrying the rear fork links on the Royal Ruby. The frame members are 4 ins. deep.



On the sports model Royal Ruby the Delco distributor is fitted neatly in front of the engine and controlled by a Bowden wire.



(Above) The ingenious reverse gear of the Coventry-Victor. It is operated by a separate lever. (Left) The bevel and sector steering gear and (right) the swivel axle assembly of the Royal Ruby.





and I mention it merely because it is somewhat unusual. The Remy distributor is secured to the normal magneto platform of the Blackburne engine and driven by means of skew gears in the ordinary way, Bowden control for advance and retard being provided.

On the whole, I found all the three models of the Royal Ruby to be perfectly sound in conception and they showed evidence of careful workmanship in their construction. I shall look forward to following their performance in competitions and in ordinary use in the future.

Naturally, I examined the Morgan exhibits with considerable interest, and it was at once evident that no great changes have taken place in the general layout and, indeed, it seems quite unnecessary that any changes should take place, because the Morgan has proved itself beyond all question to be an ideal combination of simplicity and reliability.

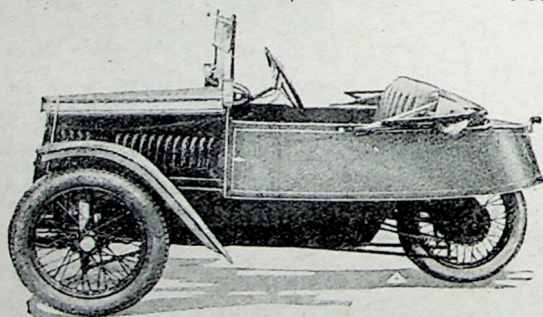
### New Dynamo Drive.

Morgan owners who have experienced trouble at times with broken dynamo belts will be interested to learn that on the 1928 models belts are conspicuous by their absence, the dynamo being driven by spur gears from the bevel box countershaft. The gears are protected, of course, from mud and water by means of a suitable shield, and the bracket which holds the dynamo seems to be of ample strength for the job. I should imagine, therefore, that the drive will prove entirely satisfactory in every respect. Incidentally, the new position for the dynamo brings the commutator and brush gear into a position much more easy of access than hitherto.

I have mentioned in a previous article that a steering reduction gear for Morgans is in course of preparation, but, so far as I could see, this is not fitted to any models at the Show.

The Popular model Morgan, the appearance of which did not, in my opinion, conform to the high standard of the other models, has now been immensely improved. The bonnet is longer, the windscreen closer to the driver, and the lines of the tail have been modified so that now the whole vehicle looks a really nice job, and is much more comfortable from the driving point of view.

The De Luxe and Aero models are similar in appearance to last year's types, and, so far as the Aeros are concerned, a choice is given of either J.A.P. or Anzani engines. An addition to the touring range of models for 1928, is a Family model, which is convertible for



The Popular model Morgan has been greatly improved in appearance for 1928. Dark red is the standard body colour.

use as a tradesman's delivery vehicle, by fitting a box-like structure on to the rear seats, the alteration taking only a few minutes to make.

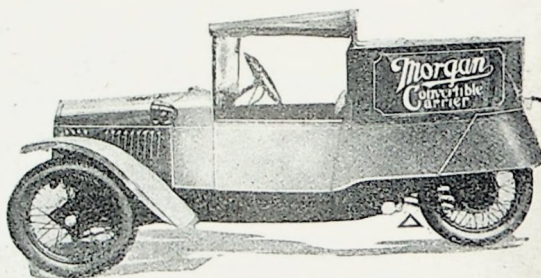
The centres of attraction amongst the Morgan exhibits at Olympia unquestionably are the new Super-Aeros, which are very low built and fitted with fully streamlined bodies, the stripped racing type being streamlined also underneath. The normal sports model is fitted with small front mudguards, which have the appearance of being of the close-up type, which move

with the wheels; actually, however, they are fixed in the ordinary manner. The general appearance of this machine is enhanced by the very large headlamps which are fitted. I should imagine that the demand for Super-Aeros will be large and persistent.

A considerable amount of time can profitably be spent in examining the chassis of the Coventry-Victor, which is really car-like in its layout. A horizontally opposed twin-cylinder water-cooled engine is mounted in the conventional manner immediately behind the radiator, through which projects the starting handle shaft. A plate clutch is used, and an open propeller shaft, provided with fabric-type universal joints at each end, conveys the drive to a bevel box.

This box is bolted at its rear end to a channel-section cross-member, whilst at the front it is secured to a pressed-steel member, through which the shaft passes. The channel-section side-members are braced by transverse zigzag channel girders, projections of which form running board supports on each side; in addition two long tubes pass diagonally from the front to the rear of the frame.

A point which appealed to me with considerable force in connection with Coventry-Victor design was the immense strength of the rear fork and the manner in which it was hinged to the frame exactly on the bevel shaft centres by means of  $\frac{3}{4}$ -in. pins, working in bronze bushes. This arrangement should not only ensure absolute alignment of the rear wheel, but, because the fork is pivoted at the shaft centres, chain



A new Morgan family model convertible to a tradesman's carrier. Good weather protection is provided.

tension will always be constant, no matter what may be the up and down movement of the rear wheel on bumpy roads.

Quarter-elliptic rear springs slide in blocks above the rear wheel spindle, and, incidentally, the wheel can be removed without altering the position of the chain adjusters. There is a large expanding brake in the rear wheel hub, whilst a contracting hand brake is fitted to the countershaft. The front suspension is by means of splayed quarter-elliptic springs, secured to a tubular axle, whilst the steering reduction gear is of the rack and pinion type.

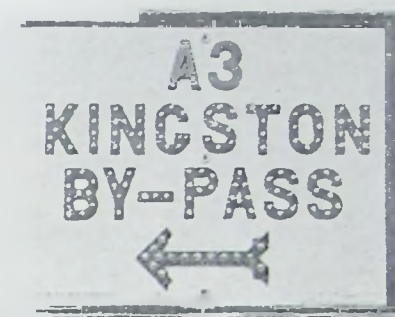
The sports model, although not built on ultra-sporting lines so far as streamlining and so forth are concerned, should still have a very good turn of speed, as it is fitted with one of the new o.h.v. engines, which, I understand, will rev. at double the speed of the side-valve unit, that is, to a speed of about 7,000 r.p.m., and it is claimed that a road speed of 75-80 m.p.h. should be obtainable from the car.

An interesting point in connection with this engine is that a branch pipe from the main pump feeds lubricating system is led to the overhead rocker spindles, thus ensuring that these important parts are always amply lubricated.

On my way home from the Show I asked myself which make of three-wheeler I would choose for my personal use, and I was forced to the conclusion that I could come to no definite decision, because each of them has so many points in its favour. The only solution, therefore, would be to have one of each!

SHACKLEPIN.





MR. STANLEY BALDWIN PERFORMS  
THE CEREMONY AT MERTON.

AFTER four years of anticipation motorists were able on Friday last to traverse the new Kingston by-pass from end to end, the opening ceremony having been performed on that day by Mr. Stanley Baldwin, the Prime Minister, in the presence of Sir Wilfrid Ashley, the Minister of Transport, and other distinguished visitors. Large crowds naturally were attracted to the scene of the opening, the actual ceremony being carried out in the usual manner by the cutting of a ribbon stretched across the road.

The new by-pass extends from opposite Robin Hood Gate, Richmond Park, to a point north-east of Esher; in fact, it makes a quite wide detour round Kingston.

On Sunday motorists were keen on sampling the new highway, and hundreds of cars started to converge upon Putney Vale. So great was the volume of traffic that very soon complications began to arise, which developed almost to a state of chaos, until a high official from New Scotland Yard took the somewhat difficult situation in hand.

The difficulty was, of course, that of enabling traffic from Robin Hood Gate to cross the main Portsmouth road and join the procession entering the new by-pass from Putney Vale. The situation on Sunday was relieved somewhat by closing Robin Hood Gate, but we

Considerable local interest was roused when the Prime Minister, Mr. Stanley Baldwin, declared the Kingston by-pass open, the ceremony being performed by cutting a ribbon stretched across the road. After the ceremony Mr. Baldwin addressed a distinguished gathering. (Inset) One of the reflex signs at the beginning of the new road.

understand that this was only a temporary measure and that the authorities are now engaged in working out a scheme which will overcome the difficulty once and for all.

This will probably take the form of an extensive widening in the vicinity of the beginning of the new road, so that any suggestion of a bottle-neck is avoided, whilst in the event of a big rush of traffic, no difficulty will be experienced in coping with it.

Apart from this unlooked-for congestion the road certainly fulfils all that was expected of it, and when traffic difficulties have been overcome it will form one of the most useful by-passes in the country, equal in usefulness to the first few miles of the Great West Road, which so successfully by-passed the Brentford bottle-neck.

It is interesting to note that the surface of the road is of reinforced concrete, which was laid down in sections, according to the latest approved ideas of engineers who are concerned principally with the effects of contraction and expansion, and the avoidance of surface cracks into which water could find its way and, during frosty weather, set up internal fracture. The surface of the road is slightly roughened, and should provide as nearly a skid-proof surface as possible.

The opening took place at Merton, an important town through which the road runs, and close to the actual "tape," a grandstand had been erected. Here, subsequently, the Prime Minister made a speech.



## MAINTAINING GOOD COMPRESSION.

HOW TO FIT NEW PISTON RINGS—  
THE IMPORTANCE OF ACCURACY—  
AVOIDING OILY PLUGS.

THE efficient running of an engine depends very largely upon the gas-tightness of the pistons. Those motorists, therefore, who carry out their own repairs will do well to adopt the methods described in this article when seeking to restore the compression in their engines. Those parts of a piston to which consideration must be given from the fitting point of view are the ring lands, that is, the portions of the piston which are between the ring grooves, the rings themselves, and the piston skirt, which is the part below the gudgeon pin.

When fitting new pistons care should be taken to check the clearance, that is the difference in size between the piston diameter and cylinder diameter. The piston must be smaller at the ring lands than at the skirt because there is greater heat at the top, therefore greater expansion.

A good rule for cast-iron piston clearance is to allow two-thousandths (.002) in. at the ring lands for each inch of piston diameter, and one-thousandth (.001) in. at the skirt. The piston should be measured with a micrometer to see if it is perfectly round before fitting it to the cylinder. There are two ways of testing the clearance of a piston: one by the use of outside and inside micrometers; the other by the use of a thickness gauge, or feeler. To use the micrometer method it is necessary to measure the diameter of the piston and then the bore of the cylinder, then by subtracting the size of the piston from that of the cylinder the amount of clearance is obtained.

### Correct Clearances.

When checking the clearance with a feeler gauge the piston is slipped into the cylinder and a leaf of the gauge is inserted between the piston and the cylinder walls. When the piston slides into the cylinder bore snugly with a certain gauge leaf in position the clearance will be the thickness of the leaf, but it should be tried at several different points around the circumference. If the correct amount of clearance is not allowed there is a great risk of scored cylinders; if too much is allowed it will cause piston slap. The speed of the engine has something to do with the amount of clearance allowed. If the engine is to operate part of the time at medium speeds the clearance should be less than that allowed in an engine that is run at full speed at all times.

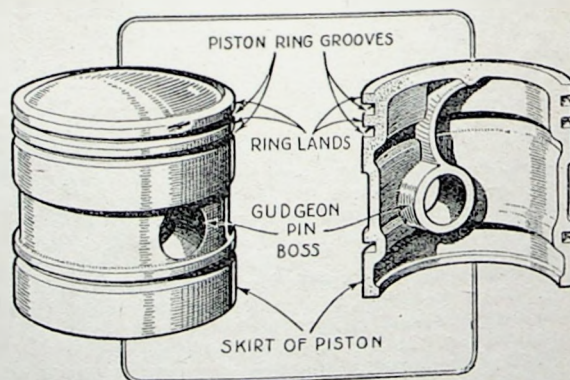
The basis of perfect operation and economy in an engine is good compression, and this depends upon the wearing qualities of the piston rings and to their fit in the piston grooves and the cylinder. If the piston rings are soft and wear quickly or if they are fitted incorrectly, there will not only be a loss of compression and power, but there will be a leakage of fuel past the rings into the crankcase. This causes rapid thinning of the oil and quicker and greater wear on the bearings and all other moving parts.

There are several things to be looked for to determine

whether the piston rings are functioning as they should. If the explosive mixture has been working its way past the rings or if they have not been fitted properly to the cylinder bore, points where the mixture has been passing will be evidenced by burned, browned or roughened portions of the polished surface of the piston and rings. This discoloration will be noticed most often at the thin ends of an eccentric ring, the discoloration being apparent about  $\frac{1}{4}$  in. to  $\frac{1}{2}$  in. each side of the slot.

It is well to bear in mind that before replacing the pistons in the cylinders care must be taken to see that the slots in the piston rings are spaced equal distances apart on the piston. If pins are used to keep the rings from turning, it is necessary to make sure that the pins fit into their holes in the rings and that they are not under the rings at any point.

The fitting of new rings is unlikely to prove advantageous unless the cylinders are in good condition, so that before fitting it is advisable to make sure that the cylinders are not out of round, warped or scored. If found to be so they should be reground and over-size pistons and piston rings fitted. The rings must have a uniform circumferential pressure, of sufficient strength to maintain a bearing against the cylinder walls during every revolution of the engine. Piston rings of normal type that will assume the shape of the



The names of the various parts of a piston are as shown above; they are referred to in the text.

worn or warped cylinder may not have the necessary wall pressure and may be liable to collapse under the force of the explosion.

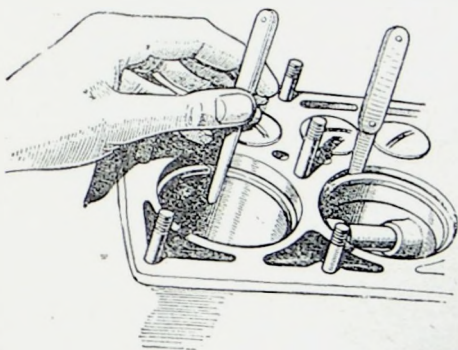
Where oversize rings are to be fitted to an engine, care should be taken in their selection. If the ring is too large it will necessitate more work in fitting. A greater amount of metal will have to be filed off the ends in this case also, which will destroy the roundness or concentricity of the ring and it will not fit the cylinder bore correctly.



There is a correct and an incorrect way of placing a ring in the ring groove. If a piston ring is examined closely, it will be noticed that one side of it has a better finish than the other. This side has been ground to a smooth surface for a special reason, but both sides are finished in good quality rings. Where only one side is ground, this should always be placed towards the bottom side of the ring groove, because a perfect seal is needed at this point on the compression stroke of the piston, as the ring is pressed against this side on the up-stroke.

If it is necessary to reduce the thickness of the ring to make it fit the groove, it should always be done on the unground side. If both sides are ground, only one side should be reduced and the ground side that is untouched should be placed downward in the groove.

In fitting rings, the piston should be immersed in petrol and every particle of dirt removed from the grooves. Much time may be saved by trying the rings in the various grooves first to see which ring most nearly fits a given groove. The entire circumference of the ring should be rolled around the groove. Of course, if the ring will not fit into one groove, try another groove. The reason why the back edge of the ring is fitted first instead of the inner is because the latter method would require that the ring be put in



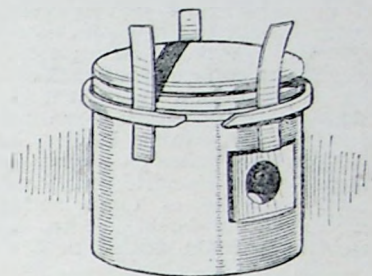
Feeler gauges should be used to check the ring gaps and the piston clearances in the cylinders.

its usual position around the piston. Slipping the rings over the piston head is not easy in itself and would be difficult were the rings not of the proper size.

The ring should next be inserted into the cylinder to determine whether the ends are the proper distance apart, and this distance varies with the different designs. If the ends of the ring touch one another they should be filed slightly, and to do this the ring should be placed in a vice with one end protruding about an inch. The file should be a very fine one and must be used lightly. The filing operation should continue for a short time only, about twelve strokes of the file being sufficient. The ring should then be put back into the cylinder and the distance between the ends measured with a thickness gauge or feeler. A good average distance to allow between the ends is fifteen-thousandths of an inch.

The next step is to make the ring fit its groove properly. Grinding-in is the term applied to this operation of working the ring down so that it fits. A level steel surface is used, and upon this is sprinkled enough fine emery dust to cover it. Enough thin oil is added to make a paste. The ring is then placed on the steel surface and a block of wood about 6 ins. by 6 ins. placed on top of the ring; by exerting a slight pressure on the block and applying a rotary motion, the ring is moved about over the emery. If the ring will not stay under the block, cut a notch in the wood to hold the ring. After grinding for a few minutes on one side, the ring should be tried in the groove and the process repeated on the same side of the ring until the proper thickness is obtained.

The entire operation should not last longer than one or two minutes. After grinding, the ring should be immersed in clean petrol and fitted to the groove which it most nearly fitted before. If every part of the circumference of the ring fits every part of the groove, then the grinding is complete and the ring may be tagged to designate its location.



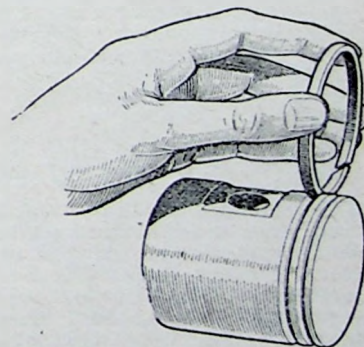
Narrow strips of tin are very useful for fitting or removing piston rings.

In tagging the rings, the figures 1—1 on a tag usually denote the first cylinder, ring No. 1; this ring being the one nearest the top of the piston. If one part of the ring fits and another does not, the place that is too tight will show up when the ring is dipped in petrol and then rubbed with a cloth. The high spot will be more shiny than the rest. Lay the ring perfectly flat and with a fine file take a little off from the high spot. Only a little should be taken off at a time and the ring should be tried after each filing.

When all the rings have been attended to in this way, the next step is to place them in their respective grooves, making them occupy their proper positions as when in use. To do this, first place the bottom ring in position. For this operation three strips of tin, or pieces of hack-saw blade with the teeth ground off, are used. Hold one piece of blade against the piston with the left hand and with the right hand bring one end of the ring in contact with it.

Get the blade about half an inch from the end of the ring so that the blade can be held in place by pressure against the ring. Then slip the ring over the piston crown. There will then be a space on each side of the blade through which the other blades may be inserted. Push the blades around the piston until they are equal distances apart, then, by sliding the ring on the three blades it may be placed easily in its groove, which it must fit so that it may be turned easily, but no up-and-down play should exist.

It is most important that the piston rings fit the



When a new ring is being fitted it should be rolled round the groove as a check for high places.

grooves, for if there is side play between the groove and the ring the explosive mixture will leak around behind the ring and the engine will lose power. If this condition exists the ring will move from the top to the bottom side of the groove, or vice versa, every time the piston moves in the cylinder. This not only causes wear on both the ring and the groove, but it also causes a knock in the engine.

Piston-ring grooves do not wear evenly; they wear to a taper, being smaller at the rear than at the front.

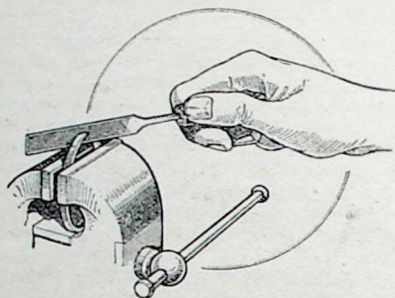


A good job of fitting rings to a piston in this condition cannot be made until the grooves are machined square and true in every way. Put the piston in a lathe and, using a square-nosed tool, machine the groove until the sides are parallel. It will then be necessary to fit over-size rings to the groove.

There are several things that should be learned about the removal and replacement of pistons. The piston should be drawn out as nearly parallel to the axis of the cylinder as is possible, accompanied by a twisting motion not unlike taking out a screw, in case the piston sticks a little. If it sticks badly, pour in a little paraffin and work the piston in and out so as to distribute the paraffin between the two surfaces.

When the piston and rings seize in the cylinder through lack of lubrication, there is nothing quite as good, or quite as quick acting, as paraffin. The cylinder head should be lifted as quickly as possible and the paraffin poured in liberally on top of the pistons. This should be done in each cylinder. Paraffin is thin and will work down between the cylinder wall and piston rings. If paraffin is not available, use the thinnest lubricating oil to hand; heat it so that it will be still thinner and more penetrating, then pour it into the cylinders.

One of the greatest troubles which can be experienced in an engine is what is termed "oil pumping." The

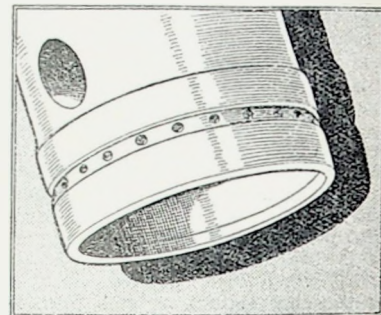


When filing out ring gaps the file must be held at the correct angle and used lightly.

indication of this trouble is the continual fouling of the sparking plugs, a great amount of blue smoke coming from the exhaust, and a quick formation of carbon of a wet and sticky nature. Some of the causes of this trouble are relative to piston condition. There is only one permanent cure and that is to fit new pistons and rings.

The following are the chief causes and remedies for oil pumping:—(1) A piston running out of truth in the cylinder so that it pushes the oil up into the combustion chamber by its top edge. The cure for this is to check the alignment of the connecting rod and straighten it

so that the piston is truly vertical with the bore. (2) Rings that do not fit the piston-ring grooves or cylinder walls. Check the cylinder condition and fit new rings if the cylinder is satisfactory. (3) Loose pistons. Fit new pistons throughout if cylinder conditions are right. If not, the cylinders must be reground. (4) Loose main bearings with force-feed lubrication. This allows the



A chamfered groove and a series of holes in the piston skirt will often cure overoiling.

oil to escape at the ends of the bearings and down the webs of the shaft to be thrown up into the cylinders, consequently supplying more oil than is needed, some of which will find its way into the cylinder heads. The play in the bearings must be taken up.

In many cases excessive oiling up may be cured by adopting one of the following methods:—

Drilling holes in the pistons to provide an outlet for the excess oil, small holes, about  $\frac{1}{8}$  in., for example, being sufficient. The holes may be drilled on any spiral plan by simply beginning near the bottom of the piston and working up close to the gudgeon-pin bosses along a spiral track. The advantage of the spiral arrangement is that no hole is above another; the dripping from each hole is therefore distinct and the quantity which runs down is greater.

Another method is to turn a deep groove in the bottom of the piston, something similar to a piston-ring groove but with the lower edge bevelled off. When this is done, a series of small holes are drilled at the angle of the bevel; six or eight holes equally distributed around the circumference are probably enough. The sharp upper edge acts as a wiper on the down stroke and removes the excess oil from the cylinder walls into the groove, whence it passes through the holes to the interior of the piston and there drops back into the crankcase. No ring is placed in the slot, as it would prevent the free passage of the oil. This method can be used only on pistons which are thick enough to allow the groove to be made.

## ON BEING PRESENTED.

IT was only a month ago that I received the invitation, and the intervening time has, for me, been filled more with worry than anything else. What should I wear? Would I look my best after all the excitement? What should I say? Should I make a pretty speech, or should I leave it on the knees of the gods? What would happen after my appearance?

These and many more questions thronged my brain, have kept me lying sleepless until my tortured mind has grown blank from sheer exhaustion.

I have eagerly counted the days in frenzied expectation, telling all my friends and bringing the One Topic into my conversation. I have rehearsed the scene times out of number, and prepared for the great event long before the day.

At last the day has arrived. I am ready long before the appointed time; but it is well, for there are many who, like myself, are anxiously awaiting the time when they, too, shall be ushered into the presence.

It is a long wait, and in my present state of mind it seems doubly long.

Ah! Now the presentation has actually begun. One, two, three before me have been called in to make their bow.

Now I am announced, and as I enter into this great assembly I looked around me. I am surrounded by ladies, gentlemen, and guards of honour in their court splendour, while at the far end sits the one I have been waiting, longing to see, surrounded by his counsellors. A man in the awe-inspiring uniform of one of his Majesty's forces introduces me—but hush! The Great One is speaking.

"Do you admit this?"

"Yes, sir."

"Ten shillings."

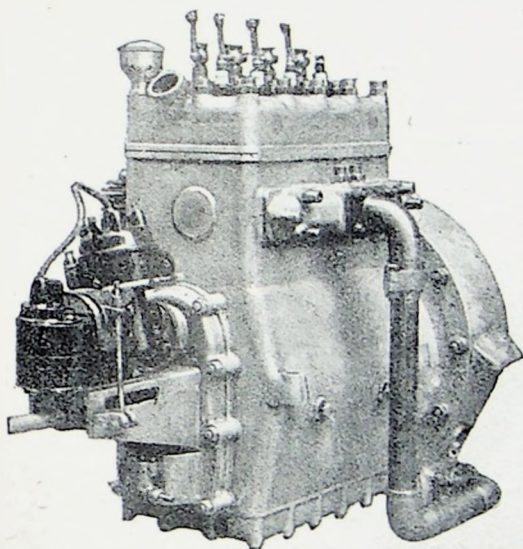
(Thank you, Mr. Editor, that just about covers the fine!)



## NEW 8-CYL. SUPERCHARGED TWO-STROKE.

AN INTERESTING 750 c.c. ZOLLER ENGINE MADE BY CHAPUIS DORNIER. COMMON COMBUSTION SPACE TO EACH PAIR OF CYLINDERS.

MANY interesting and unusual features are incorporated in a new French engine, called the Zoller, which is being made by the Chapuis-Dornier concern to the designs of M. A. Zoller, whose name is well known in connection with the Zoller supercharger. We are able to give first details of the new engine, which is an eight-cylinder two-stroke, having a capacity of 750 c.c. It has four pairs of cylinders, each pair sharing a common combustion chamber, so that the engine works actually as a four-cylinder unit, each pair of connecting rods being pivoted on one crankpin. A glance at the accompanying drawing will show that the left-hand, or exhaust side, piston is mounted on the main connecting rod, the smaller, or secondary, connecting rod carrying the induction side piston. At top dead centre both the pistons are at the same height in the cylinders, but on the down



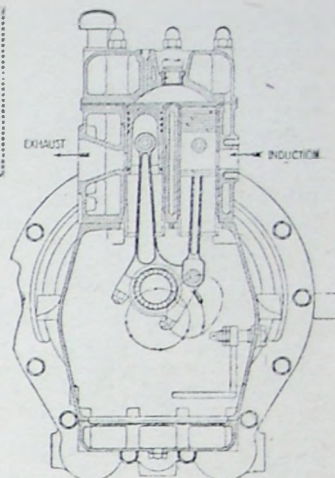
The forward end of the engine, showing the clean and compact exterior. Although on an eight-cylinder job the block is no longer than a "four" as the cylinders are grouped in two rows.

stroke the exhaust side piston gains a lead on the inlet side. Good scavenging is assured by this early opening, while the cylinder wall between the two pistons acts as a baffle to deflect the incoming gas up into the cylinder head.

On the up stroke the inlet piston lags a little at first—leaving the inlet port open longer than is possible on a normal single-cylinder two-stroke engine. The latter part of the travel of the inlet piston is completed very rapidly, so that both inlet and exhaust pistons reach top dead centre together for the next firing stroke. In single-cylinder two-stroke engines the intake ports are usually closed by the piston slightly before the exhaust, with the result that a certain quantity of unexploded gas is lost. This disadvantage is overcome in the Zoller engine.

One of the most interesting features of the Zoller is the fact that it is a two-stroke employing an external precompressor, instead of the usual crankcase compression. The compressor is a modified pattern of the Zoller supercharger. It is of the blade type, in which two pairs of blades are used; they are driven by an eccentric drum through which they pass.

A sectional drawing showing how the connecting rods are coupled to common crankpins. Note the elliptical path pursued by the right-hand big-end.

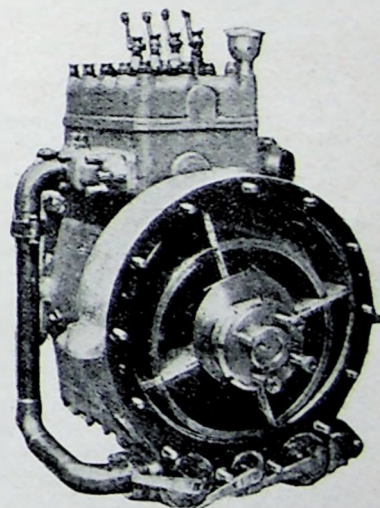


The effects of centrifugal force are reduced almost to zero and friction is greatly reduced.

The compressor or pump is built up in one unit with the engine, but the carburetter may be placed in either of two positions; one, so that the pump may act as a "blower," forcing air through the carburetter or, two, as a suction instrument, drawing mixture from the carburetter and forcing it into the engine. As the capacity of the pump is too large for the engine any air not required is circulated through passages in the casing to the intake side of the blades, thereby to some extent reducing the driving effort needed to rotate the drum. A valve incorporated in the casing permits the compressor to be used as a powerful engine brake.

The present Zoller engines, which we were permitted to view both in detail and actually running on the test benches, are good examples of the robust construction and sound workmanship which have always been associated with Chapuis-Dornier productions. Their

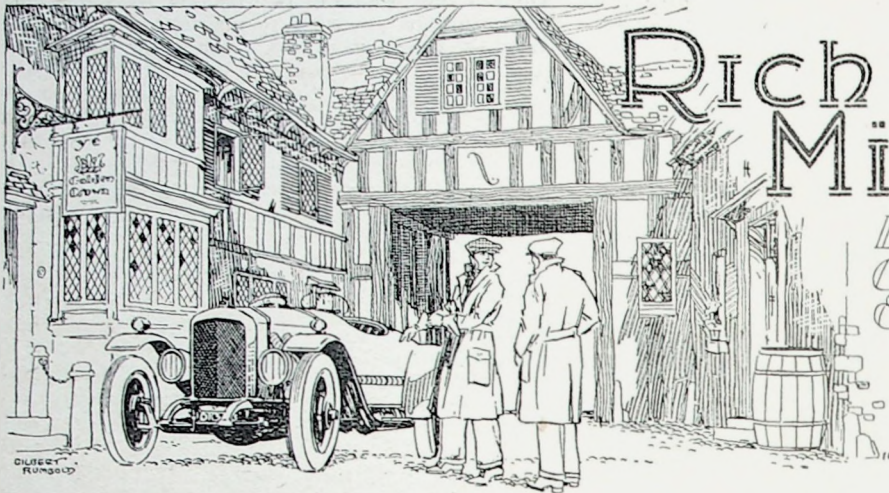
The Zoller engine viewed from the compressor end. The cover has been removed from the "blower" casing to show the arrangement of the blades and driving drum.



substantial one-piece crankshafts are machined from the solid and run in three large ball bearings. The big-ends of the main connecting rods are fitted with roller bearings, and pressure lubrication on modern dry sump lines is used. The compressor casing is bolted up to the crank chamber, and the rotor of the compressor is coupled direct to the crankshaft.

The examples inspected had four pairs of cylinders, but, should they prove satisfactory in every respect, it is probable that the Zoller engine will be put into production in a series of three models—the eight-cylinder described, a twelve-cylinder of 1,100 c.c., and a sixteen-cylinder of 1,500 c.c.





# Rich Mixture

LIGHT CAR  
COMMENT  
& ADVICE

By  
*Focus*

## Why Not Coloured Discs ?

MY recent paragraph on the vague signals often given with a red flag at road obstructions has brought a very interesting letter from a Midlands reader. He writes as follows:—

Dear "Focus."—I am glad that you have called attention to the difficulty of understanding signals given by men and youths when part of the road is under repair, but whilst I quite agree with you that it is much better for a red and green flag to be used than only a red flag, I think a much better scheme would be for the man in charge to use a large disc at the end of a stick; one side of this disc could be coloured red and the other green. The man in charge of the obstruction would simply hold this disc above his head, where it would easily be seen, at the same time waving on the traffic facing the green side of the disc. With this there could be absolutely no mistake as to the meaning of the signal, and the confusion which often arises would be entirely avoided.

The trouble with using two flags is that it is very difficult to know which one to obey, and I have seen many mistakes through this cause. With a coloured disc I not do see how a driver could possibly misunderstand the signal.

My correspondent's suggestion strikes me as being a very sound one and I hope the idea will be taken up. Few things are more annoying than to find oneself confronted with a motor coach on a strip of road wide enough for only one vehicle, and then to have to reverse several yards to the jeers of its occupants. Yet this is what frequently happens when flags are used.

## On the Wrong Side.

THE Midlands, of course, have a little scheme of their own in connection with stretches of city roadway which are under repair. These, when tramlines are laid along them, are negotiated by all drivers on the wrong side of the road. Thus, if you are driving along and the road ahead is "up" on your right, you keep to the right, and advancing traffic passes you on your left.

The idea is, of course, to prevent trams interfering with the flow of traffic, and it seems to be sound in every way except one—drivers often hesitate when they have passed the obstruction and before pulling back to the near-side of the road. With other vehicles coming towards you and apparently preparing to draw across your bows this hesitation—which often causes confusion—is not, perhaps, unnatural.

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The whole scheme, in my view, should be made the subject of an inquiry so that a definite rule could be made applying to all parts of the country. At present strangers to Birmingham and its environs find the whole business very confusing.

## At Buckingham.

PASSING through Buckingham the other day, I noticed at the southern exit, where there is a road junction, that the authorities have caused "Aylesbury" to be painted boldly right across the main road. The device is equally useful by day or by night, and saves much confusion. It is not new, but it is pleasing to see the idea spreading.

By the way, when running through the Midlands I noticed on the road a series of impressions in whitewash of an enormous foot with the words, "This way to the Fête." Obviously, here is a notion for advertising which might have disturbing possibilities if taken up nationally. I believe, however, that there is some regulation to prevent it.

## Getting Their Own Back.

IS there any justification for the high charges made by many hotels for filling a thermos flask with tea or coffee? A friend of mine who always makes a point of having a picnic mid-day meal tells me that, when on tour, he has often been charged 9d. for filling a half-pint flask with tea, whilst the fact that he sometimes has more than one flask filled makes no difference to the charge of 9d. for each one. I must say that this seems to me very excessive, for the cost of filling, say, four flasks with tea cannot, at the most, be more than about 3d. all told, and, allowing for a margin of profit, it seems to me that 3d. per flask would be ample, with perhaps a charge of 6d. if only one flask were filled. Is it that hotel-keepers realize that they have lost much trade through motorists taking picnic meals and wish to get their own back when opportunity arises?

## In Defence of the Clover-leaf.

THE disappearance of the clover-leaf body with lockers at the side is to be regretted and is rather difficult to account for, as it was ideal for the man with one or two children. A feature of this type of car which hardly any others possess



was that it was possible to have lunch without leaving the car, the locker lids acting as ideal tables, and in cold weather, with the hood and side curtains up, one could "picnic" in absolute comfort.

Even owners of large saloon cars are denied the facilities which clover-leaf bodies offered in this respect. Somehow the design did not make the appeal that one would have expected, and it has almost gone out of production. All the same, I think that people have surrendered much for the extra seat.

#### *Average Speed Differences.*

TWO towns that I often visit are exactly 28 miles from my door but on different roads. Now, rain or fine, I can always guarantee to reach the first in well under the hour, and despite the fact that I pass through three smallish towns which necessitate going carefully I never seem to be pushing the engine in order to reach my destination in the time stated. The route to the other town differs very little, yet I rarely cover the distance in the hour, and if I do so it is only by sitting down to it and driving really hard in places. Some people are inclined to ascribe such variations in driving time to differences in gradients, which in the one case may on the average be in one's favour and in the other somewhat against, but, personally, I think the principal factor is the distance one can see ahead. In the first instance I mentioned, the road, while by no means straight, affords a series of views of about one-third of a mile, some longer, while in the other the distances are much less.

#### *How Undulations Help.*

IN this connection I heard an interesting argument recently as to whether it was easier from the point of view of maintaining a good average speed to drive over dead flat country such as the Fens or over ordinary undulating roads. The same question used to be debated in the old cycling days and preference was then almost unanimous for the undulating road. On the flat road,

whether one pedals or is propelled, the effort must be continuous in order to maintain one's rate of speed, whereas on ordinary roads one is considerably helped by downward gradients.

It would appear that what one gains on the swings one loses on the roundabouts, but in actual practice it does not seem to work out like that. The probable cause is that declivities allow the cyclist or motorist to rest a little while gravity does the work, or, if they prefer, to get up a higher speed than usual with far less effort.

#### *Blase Bedford.*

DURING my jaunts about the country I have noticed that the behaviour of pedestrians when about to cross the street varies greatly in different towns. For instance, in Northampton people seeing a car approaching invariably wait for it to pass, whereas in Peterborough they walk across and expect the car to pull up. In Bedford, too, pedestrians adopt a very casual attitude to road traffic, and one needs to be exceptionally vigilant.

Anyone accustomed to London traffic finds it extremely disconcerting in a provincial town to see people look at a car when the horn is sounded and then deliberately continue to cross the road. Why there should be such a variation from town to town it is difficult to say, but the fact that there is should put drivers on their guard.

#### *Kind Northampton.*

PROPOS Northampton, whilst there recently I discovered that in the whole of "the shire of squires and spires" there has never been a speed trap or a special speed limit. In this respect Northamptonshire must be almost unique. Yet in no other county is the standard of driving higher or road behaviour more considerate. While Northamptonshire motorists appreciate their

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#### **SENSIBLE LUGGAGE ACCOMMODATION.**

Sturdy rear luggage grids are a feature of many 1928 models. The neat type fitted to the 10-25 h.p. semi-sports four-seater Rover is shown here.



immunity from police persecution it is an unfortunate fact that their reciprocation finds no counterpart among drivers passing through the county along Watling Street, in consequence there has been an outcry at Weedon for a special speed limit. So far this has been refused and Northants still retains its reputation as being one of very few areas in the country where it is possible to drive without the fear of a stop-watch being operated to one's detriment.

### *The Great Gale.*

I HAVE had many adventurous journeys, but I can recollect few to equal an all-night run I made during the great gale last week-end. An appointment had to be kept in Leeds on Saturday morning, and, as it was not convenient to leave London before Friday evening, I decided to travel all night.

Our car was a four-seater tourer, with the hood erected and the side screens in position, and although the all-weather equipment was good, it was not quite equal to keeping out the wind, which often threatened to tear it completely away from the car. Great gusts of wind rattled the side curtains in their sockets and tore at the hood fabric in an almost incredibly vicious manner.

After 70 miles or so the wind became so strong that I had to be continually wrenching at the steering wheel to keep the car from wandering off the road.

### *Danger From Fallen Wood.*

ANOTHER difficulty which soon presented itself was that of broken branches of trees lying in the road; whenever passing trees it was necessary to progress in a series of swerves to avoid running over fallen wood, which was strewn liberally over the road. On one occasion I was unable to avoid one of these obstructions entirely, and steered so that it would pass under the centre of the car; it proved bigger than I had anticipated, however, and caught both front and rear axles.

Fortunately no greater damage was done than a bent front number plate.

Some four miles north of Grantham on the Great North Road a striking illustration of the seriousness of the gale was provided when I found three or four lorries drawn up at one side of the road and, thinking the drivers had stopped for refreshment, only slowed slightly as I passed them. I had no sooner got clear of the last lorry than I "stood on everything," for there, right across the road, was a giant tree completely blocking my path. On getting out we found that not only should we have to turn back and make a detour but, what was more serious, we were in the middle of a tangled mass of broken telegraph wires brought down by the tree.

### *A Detour Necessary.*

UNFORTUNATELY, I had no map with me and my knowledge of the by-roads in the district was nil, so I had perforce to retrace my route back to Grantham where, after a considerable search—it was about 3 o'clock in the morning—I found a policeman who told me how I could avoid the obstruction.

In making a detour I was afraid that I should have to turn back once more, for another fallen tree blocked the road. Eventually, however, we got back on to the Great North Road again at Long Bennington and pushed forward without any more exciting incidents.

### *Mechanical Noises Drowned.*

IT was certainly a journey which will remain long impressed on my memory, for apart entirely from the question of fallen trees and wires the noise of the wind was almost terrifying. The telegraph wires were responsible for a continual high-pitched shriek, whilst the loud flapping of the hood and side screens was incessant. Although the car I was driving had a rather noisy exhaust, the engine might have been switched off for all we could hear of it during the greater part of the run.

I can honestly say that I have never driven in so high a wind before, and I shall not be sorry if I never drive under similar conditions again. I must confess, however, and the passengers agree with me, that it was a most interesting experience.

### *AN EXPERT'S IDEAL.*

Mr. H. E. Tatlow, general manager of Lea and Francis, Ltd., and his latest acquisition. The body, which was specially built to his own design, is mounted on the new low chassis with a supercharged engine. The car is very handsomely finished, and similar models could be supplied to order at £595.



MIDLAND OFFICES:  
BIRMINGHAM: 16, Bennett's Hill.  
Phone: Central 2572-3.  
COVENTRY: 6, Warwick Row.  
Phone: Coventry 4775.  
NORTHERN OFFICES:  
MANCHESTER: 274, Deansgate.  
Phone: Central 5133-4.

## The Light Car and Cyclecar

Conducted by  
EDMUND DANGERFIELD.

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"THE LIGHT CAR AND CYCLECAR" WAS  
FOUNDED IN 1912 TO CATER FOR THE  
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PURCHASERS OF LIGHT CARS AND  
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ENTLY ENCOURAGED THE  
DEVELOPMENT OF THE ECONOMICAL  
MOTORING MOVEMENT FOR  
FIFTEEN YEARS.

NO CAR WITH AN ENGINE CAPACITY  
EXCEEDING 1,500 C.C. (1½ LITRES) COMES  
WITHIN THE SCOPE OF THIS JOURNAL,  
THAT CAPACITY BEING GENERALLY  
RECOGNISED AND ACCEPTED AS THE  
LIMIT FOR A LIGHT CAR ENGINE.

### The Scottish Show.

YEAR by year Scottish motorists display a keener interest in light cars, and at this year's Exhibition, which opens to-day in the magnificent Kelvin Hall of Industries, practically all the better known makes of light car are on view. The manner in which our Scottish neighbours have taken to cars having a maximum engine capacity of 1,500 c.c. is one of the greatest tributes that could be paid to a type of vehicle which, it might be expected, would have an uphill fight when competing under Scottish conditions with cars of much greater horse-power, often designed to undertake the most strenuous "going" as a matter of course. It is now generally admitted that light car manufacturers have nothing to learn when it comes to a question of producing a car that shall be sturdy, reliable and economical, yet withal capable of going anywhere—even in Scotland.

During the past year a number of notable developments have taken place in the light car world, well-known models having been improved, whilst new small models have made their appearance. Scottish motorists, therefore, will find the Show of more than usual interest, and we predict that there will be a big move North of the Tweed in favour of small cars. If the Scottish Six Days' of 1928 could embrace small car entries as they used to in the past, the good work which will be done at Glasgow would be followed up in a practical and convincing manner.

### Three-wheeler Design.

THERE are three makes of three-wheeler on view at the Cycle and Motor Cycle Show now being held at Olympia, and the considerable differences which are apparent in their layout show that there are many different ways of arriving at a similar result. The designers of one pioneer make pin their faith to sheer simplicity and being, it would seem, good judges of the public needs, have for years turned a deaf ear to all demands for anything in the nature of elaboration. That their policy has been right is shown by the continued and increasing popularity of that make.

Another concern already well known to three-wheeler enthusiasts offers a machine of quite car-like design, but which, at the same time, does not in any way run the risk of being unduly elaborate

—a fault which killed many a promising three-wheeler in the past. Modern designers, however, have learned just how far they can go in giving the public what it thinks it wants; the mistakes of their fore-runners, therefore, are not likely to be repeated. Reverse gears are available on two makes this year, and geared-down steering will soon be the universal type. These are two improvements which were badly needed and which have been rather

a long time in coming; in our opinion they will give a considerable fillip to the popularity of three-wheelers. Chain transmission, either throughout or for the final drive only, is still in general use, and there is nothing whatever against it, but one model of a new make at the Show has shaft and bevel drive—an indication that design is by no means stagnant.

### Misplaced Enthusiasm.

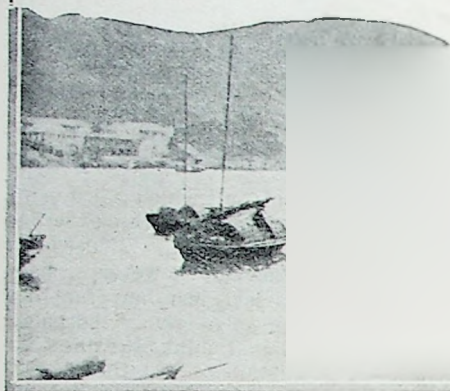
TO those who really understand it, there is nothing very complicated in a petrol engine, but many owner-drivers are familiar only with the external appearance, the interior mechanism being, to them, "wropt in myst'ry." In spite of this, however, we are constantly receiving letters from readers requesting us to give "full instructions for dismantling my engine, as I wish to take up the main bearings."

Whilst we are anxious always to help our readers in every possible way, we are compelled, in such cases as this, to discourage the inquirer from embarking upon a task which, obviously, is beyond his power to accomplish. Minor overhauls can fairly safely be undertaken by an amateur mechanic, but, as a rule, nothing less than an apprenticeship in a works will suffice a man who wishes to do all the jobs usually entrusted to a professional. Personal experience is the thing that counts. We could not possibly hope, no matter how long and concise a reply we wrote, to give an owner instructions that would enable him to carry out successfully in his own garage jobs which even trained mechanics sometimes find difficult. It is the same with electrical matters; magnetos, dynamos, cut-outs and so forth are delicate and specialized pieces of apparatus which, except for cleaning and minor adjustments, should be attended to only by experts.



## BOBJON BECOMES BOBJONAH.

A 1922 BLERIOT-WHIPPET ESTABLISHES  
A RECORD BY BEING TAKEN TO CHINA  
IN A SUBMARINE.



ITS real name is Bobjon, although it is perhaps more widely known by the uncomplimentary nickname of the Flying Banana, bestowed on account of the colour and shape of its body, and it probably holds the proud record of being the only car to take passage in a submarine—it is certainly the only car to journey to China, in one. As may be imagined, it went in small pieces—the dashboard under a bunk, the windscreen in a cupboard, and the rest a heap of wreckage in the fore end of the boat.

Bobjon is a 1922 chain-driven Bleriot-Whippet with a three-seater body and achieved its record after four years of strenuous service in Europe, ranging from the south of France to Cricanlarich. The largest hatchway in the submarine measured 3 ft. 2 ins. by 2 ft., and this would just allow the chassis frame and springs to be taken aboard intact; everything else had to be stripped.

The three-ply wood, with which the body was panelled, was already breaking away round the edges, so it was no tragedy to strip this off completely and scrap it. The framework of the body was taken to pieces and preserved so far as possible, but, as most of the screws were immovably rusted in, it was somewhat damaged in the process. The wings, dummy radiator and steering column were removed and the floorboards torn up as the screws holding them were long past screwing. The chains were removed and the engine and gearbox taken out, then both axles were taken off and finally the wheels removed; the whole collection of dismantled parts occupied surprisingly small space and the demolition occupied two days.

### Erection Difficulties.

On arrival at Hong Kong the components were taken ashore in a boat and transported to a shed in relays on a porter's barrow.

The re-erection of the chassis was simple enough, although there was some delay, as a number of nuts, bolts and so forth had been lost in transit, but while these were being obtained the engine was decarbonized and the valves ground in. The engine was given its first run about three weeks after landing (the work having been carried out in spare time) and just over three months after its last run in England; it started with the second pull!

The real work—rebuilding the body—then began; first a complete new floor and new running-boards had to be fitted, after which the framework of the body was patched up where it was broken—not nearly so simple a job as it sounds—and put together. The curved top frame for the back of the dickey seat gave a lot of trouble as it had straightened out considerably during the three months that it had been doing nothing.

When the framework was completed the problem

arose of finding a suitable covering material. Three-ply wood appeared to be difficult to obtain, and in the excessively damp atmosphere of Hong Kong would probably have disintegrated very soon.

Finally, what, it is ventured to claim, is an absolutely original substance for bodywork was hit upon and a 22-ft. roll of three-ply Ruberoid roofing material was obtained for five dollars and fitted to the framework by means of tacks. A bargain lot of

green American cloth (there being none yellow!) cost another five dollars, and this was cut to shape and stuck on outside the Ruberoid with carpenter's glue and tacked round the edges; this provided an excellent fabric covering for the body which, although perhaps lacking that perfect smoothness of finish of the professional article, at any rate seems to be standing the heat and damp very satisfactorily.

The principal tools employed in the construction were a five-shilling drill, a Woolworth's sixpenny saw, another saw and a chisel which cost about a dollar each from a local Chinese emporium, a pair of scissors, a screwdriver and a pocket-knife.

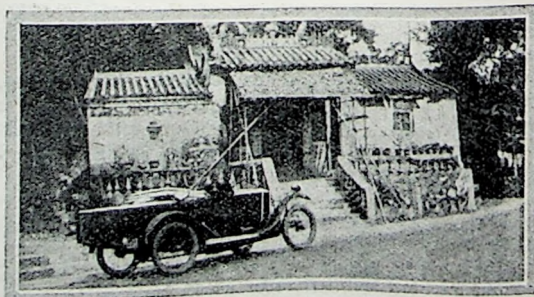
### The First Trial.

Eventually, just three months after landing, the great day arrived when the car was first driven in China under its own power, and the trial trip was in every way satisfactory.

The next trip was up Garden Road, which, as anyone knowing Hong Kong will allow, provides a fair test, and the final trial was a run up the new motor road to the top of the Peak. This is a fine road with no steep gradient, but rises to 1,400 ft., from sea-level, in about four miles' steady climbing. Although there was a following wind for the last part of the climb, there was no sign of overheating or pre-ignition.

The car has been in constant use ever since, both on the island and the mainland, and although the hills are considerable the air-cooling has never shown any sign of being inadequate. The photographs will show that this is no mere idle romance; they were taken at Aberdeen village on the south side of Hong Kong island.

Thus has Bobjon, the Flying Banana, become Bobjonah. B.G.B.B.



Bobjonah—the car which journeyed to China in a submarine—photographed in Aberdeen village on the south side of Hong Kong island.



There is a

# Trojan

for each individual taste

## Trojan Utility Model

Solid Tyres **£125**

Ditto on  
Pneumatic  
Tyres **£130**

## Three-door Touring

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## Three-door Touring

Model **£145**  
Balloon Tyres

10 h.p. Roomy  
Four-seater Saloon  
Pneumatic Tyres **£175**

For the man who wants a sound, serviceable car which is simple to drive, easy to maintain, and essentially economical on all points the Trojan is the most attractive proposition on the market to-day. The choice of models is not limited, as there are half a dozen types from which selection may be made.

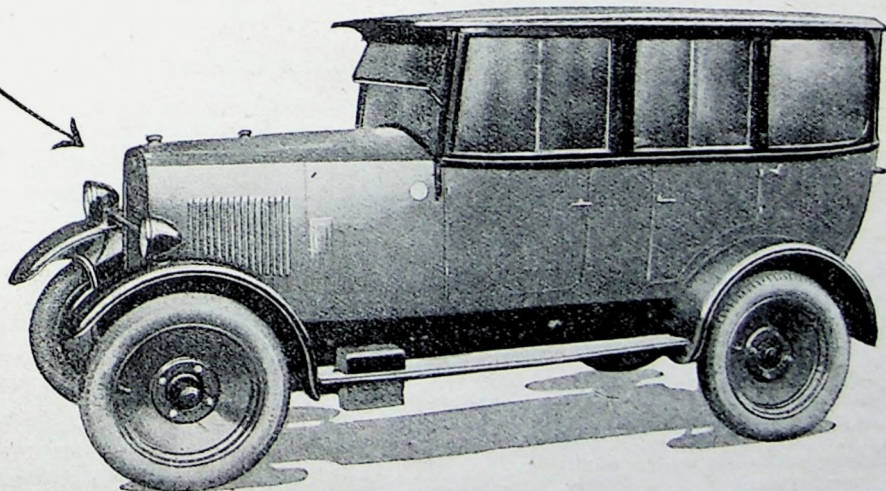
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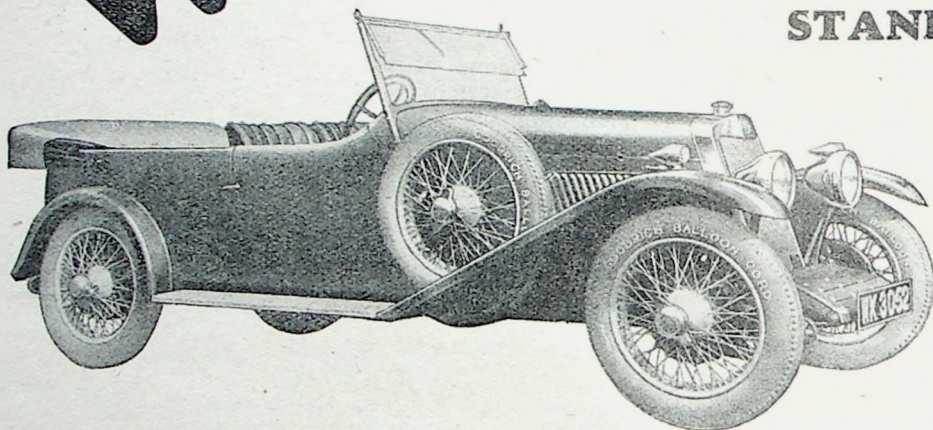
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**SCOTTISH MOTOR  
SHOW, GLASGOW  
STAND 24.**



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12/22 h.p.	-	-	-	-	from	£295
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## 4 WHEEL BRAKES, TAX £9 FULL EQUIPMENT—

Above is shown the 9/15 four-door Tourer, £169.

Other models: 2-seater with double dickey, £179

Four-door Saloon models from £182.

an almost unbelievable extent the Renault 9/15 is free from the ordinary limitations of the low-priced car. Its speed capacity of 45 miles per hour is linked with a high-strung acceleration immeasurably superior to others of its class. Its substantial four-door body provides deep, comfortable seating and ample leg room at front and rear. Write for fully descriptive literature, or allow us to demonstrate these facts by a trial run.

At the Scottish Motor Show, Renault 9/15 Models from £169 and Monasix from £279 are being exhibited on Stand No. 84 by Messrs. R. Y. Dickson; Stand 57 by Messrs. H. & D. Cleland, and Stand 76 by Messrs. John Croall & Sons, Ltd.

*Also  
the new*

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# RENAULT MONASIX





*Very striking display of well-known and well-tested models together with several interesting newcomers in the world of Light Cars.*

AS in the past, the exhibitors at the Scottish Show are made up principally of Scottish agents, which means that one make of light car appears on several stands. This has the advantage that, whereas owing to limitations of space it is often difficult for one exhibitor to show more than, say, a couple of cars bearing the same name, the stands as a whole reveal the complete range of any particular make. In this, of course, the Scottish Show is unique, and for this reason, too, it attracts a great deal of attention in North Country motoring circles.

The unconventional design of the Trojan gives it an individual place in the scheme of things, and the car is assured of a good reception, as always, by Scottish motorists. Its extraordinary top-gear-climbing ability makes it ideal for the country, whilst the ease with which it can be driven will commend it to those who are looking out for their first car. It will be seen on Stand No. 6 in chassis form, as a four-seater tourer and in saloon form; and on Stand No. 35 as a four-seater three-door model.

The Trojan chassis, complete with solid tyres, costs £115; in four-seater form, finished in standard blue with black wings, it is priced at £140, whilst for £175 a saloon, which is really a saloon top dowelled into the three-door body and secured by quickly detachable bolts, can be obtained. All models can be supplied with solid, high-pressure or balloon-tyre equipment.

### The Speedy Riley.

Stand No. 7, amongst others, is showing models of the new 9 h.p. Riley. These include a very chic fabric saloon which has four doors and is finished in carmine lake, the price being £285, and a sports touring model in dark-red fabric for £285 also. When the Riley made its appearance over 12 months ago it was agreed that it contained great promise, for, apart from its general lay-

out, a number of new features were incorporated in its design. These included the constant-mesh third-gear drive in the four-speed gearbox, which makes for an altogether delightful nipeness, coupled with silence in the third gear.

As an example of what this car is capable in saloon form it may be men-

ing car is £135. So firmly convinced are its manufacturers that it fulfils its particular niche in the world of motoring that very few changes have been made for the coming year, only detailed improvements being noticeable.

The engine has a bore and stroke of 56 mm. and 76 mm., giving a capacity of 747.5 c.c., the Treasury rating being 7.8 h.p. and the tax £8. The engine and gearbox are formed as a unit, the latter giving three forward speeds, and the controls are central.

### The New Clyno.

A certain amount of secrecy was maintained concerning the new 9 h.p. Clyno, and the vast majority of Scottish motorists will, for the first time, examine this interesting newcomer at the Show. It differs to a large extent from previous Clyno models, the engine being of 950 c.c., giving a tax of only £9, whilst the general outlay of engine, gearbox and so forth has been altered. On Stand No. 10 it appears as a four-seater, price £145, and as a fabric saloon, price £160.

On Stand No. 58 the 10.8 h.p. model is shown as a four-seater tourer at £170, and as a fabric saloon at £220. This model differs, of course, from the Nine in that the engine is 66 mm. by 100 mm., whilst the gear change is on the right.

Lea and Francis, Ltd. (Stand No. 24), are showing a very comprehensive range of this popular make, amongst which are the following cars:—10 h.p. four-cylinder, £275; 12.22 h.p. four-cylinder tourer, with four-door open touring body in two shades of brown, upholstered in brown leather, and with all the usual equipment, price £295; 12-40 h.p. light fabric saloon, a very attractive job of the four-door order, finished outside in smoke blue and upholstered in blue, price £440; and the most outstanding exhibit, viz., the 12 h.p. supercharged sports model. The last-named has a four-cylinder engine

### THE SCOTTISH SHOW. Names and numbers of Stand- holders Exhibiting Light Cars.

Stand.	Exhibitor.
2	Martin Motors, Ltd.
6	Keyland Motors, Ltd.
7	M. MacIntyre, Ltd.
9	J. B. Fenwick.
10	Scottish Cars, Ltd.
16	Muir and Bryden.
24	Lea and Francis, Ltd.
27	Armour and Melvin, Ltd.
28	George Gilmour, Ltd.
30	Valentine Motors, Ltd.
31	Andrew Downie, Ltd.
34	J. Goodall and Co.
35	A. Mather and Son.
37	Dunlop Motor Co., Ltd.
38	John T. Young, Ltd.
41	Rennie Motors, Ltd.
42	J. Gibbon and Son.
57	H. and D. Cleland.
58	D. Corlaw and Sons, Ltd.
59	Jones Motor House.
60	C. Hamilton (Aber.), Ltd.
61	Muir and Baxter, Ltd.
67	File Motor Co., Ltd.
70	Argyll Motor Co., Ltd.
73	Hessleigh, Ltd.
75	Dumfries Motor Co., Ltd.
76	John Greig and Sons.
77	R. V. Dickson.
78	Glasgow and Paris Motor Co., Ltd.
94	W. J. Whyte.
100	Taggarts (Glasgow), Ltd.
101	Primrose Motor Co., Ltd.
103	Aberdeen Motors, Ltd.
104	Bianchi Motors, Ltd.
196	C. S. Grant, Ltd.

tioned that at Brooklands recently it lapped consistently at an average speed of over 63 m.p.h. for one hour—a tribute not only to its design but to the sterling qualities of the workmanship and materials put into it.

As popular as ever, the Austin Seven is being shown by a number of exhibitors. On Stand No. 10, for instance, it appears in saloon form, selling at £150; by way of contrast the price of the tour-

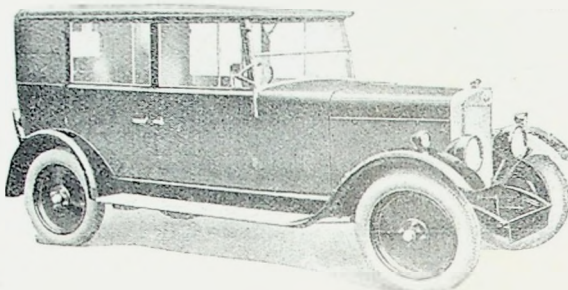


of 69 mm. and 100 mm., tax £12, over head valves, pump circulation, forced feed to all bearings, Cozette supercharger, and four-speed gearbox with right-hand change.

It is interesting to note that Dewandre vacuum servo brakes are used, whilst the Rudge-Whitworth detachable wire wheels give the car a very distinguished appearance. The body is of the fabric-covered type, coloured black and red, and the equipment includes two spare wheels, tonneau cover, and so forth. The price of this model is £495.

Keeping pace with the times, the Singer Co., Ltd., have made a vast number of improvements to the Junior model, representative examples of which are found on Stand No. 27. The car now appears as a very attractive proposition indeed, boasting of all the latest refinements in light car design. As a chassis which presents innumerable possibilities for ingenious coachbuilders it sells for £110; as a two-seater with double dickey, finished in blue cellulose and upholstered in leather cloth to match, at £140; whilst as a very striking saloon, with comfortable room for four adults, finished in blue fabric cover-

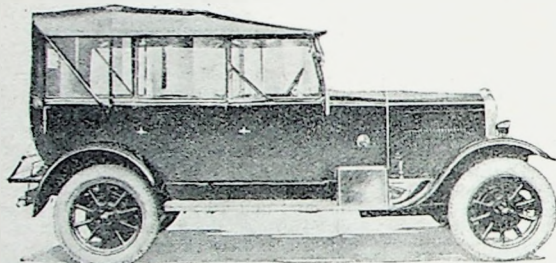
hibited. These include Nos. 37, 42, 73, 75 and 100. The following guide should prove useful to Scottish motorists who wish to examine as many as possible of the models comprising the 10-25 h.p. range. Stand No. 42: Four-seater tourer, £225; four-seater semi-sports, £260; Riviera saloon, £250. Stand No. 106: Paris saloon, £250; two-seater, £220. Stand No. 75: Riviera saloon. Stand No. 37: Four-seater tourer. Stand No. 100: Two-seater tourer. It should be noted that



Austin Seven saloon.

WELL-KNOWN  
MAKES OF  
LIGHT CAR  
ON VIEW AT  
THE SCOTTISH  
SHOW.

12 h.p. Lea-Francis saloon.



The 11 h.p. Clyno as a four-seater.

ing and upholstered in Bedford cord, it is priced at £165.

### For Sportsmen.

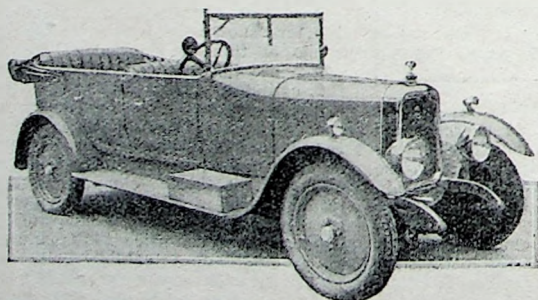
Those who have a leaning towards the sporting side of motoring will be interested in the 9 h.p. four-cylinder Grand Sport Amilcar, which is shown on Stand No. 31. This has an attractive three-seater body, painted saxe blue, the interior being upholstered in red leather. The price complete as shown is £335, which, of course, includes full equipment. One of the most striking features of the very speedy Amilcar is that its 8.9 h.p. engine has side valves, and this is in itself a striking tribute to the merits of this form of valve design.

The popularity of Rover cars is exemplified very plainly by the number of stands upon which models are being ex-

hibited. These include Nos. 37, 42, 73, 75 and 100. The following choice of body colours is available for the open touring models:—Dark crimson, dark blue, kingfisher blue, cinnamon brown. For Dua-tone finish £5 extra is charged, but on the semi-sports models Dua-tone finish is standard. The combinations of colours now obtainable are:—Red and cream, black and cream, black and light blue, buff and brown. The Paris and Riviera saloons are supplied in brown, blue, or dark red.

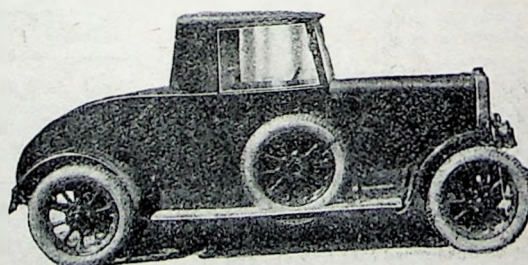
Without question, one of the most pleasing saloon cars at the Show is the 9-20 h.p. Humber, which, painted dark blue and upholstered in Bedford cord, stands out very prominently as a fine example of English coachwork. The price is £300 ex works, and it need hardly be said that the chassis incorporates only the very best materials and

10-25 h.p. Rover two-seater.



12 h.p. Argyll four-seater.

E32



A neat coupe, the Jowett.

The new 9 h.p. Standard.



workmanship, the resulting job being based on many years' experience in the motor business. Humbers, it will be recalled, were in the field years ago with a light car when they produced the popular two-cylinder air or water-cooled Humberettes, and the degree of service which can be obtained from Humber productions is very clearly shown by the fact that there is still a number of Humberettes giving good service on the roads to-day.

Stand No. 57 is given over entirely to Renault productions, whilst Renaults also may be seen on Stands Nos. 76 and 77. On the last-named stands the exhibit is the new Monasix, which has already created a very favourable impression. Light car readers will, of course, be interested in the 9-15 h.p. models, of which, on Stand No. 57, there appear a chassis, a two-seater, at £175, a de luxe four-door open tourer, price £179, and a de luxe four-door fabric saloon, price £199, all prices, of course, being ex London works. In addition, the Monasix chassis is on view, whilst in its complete form it appears as a four-door fabric saloon, upholstered in cloth and having adjustable front seats. The price of this 12.5 h.p. Monasix saloon is £299.

### Of Scottish Origin.

Of Scottish origin and of very good performance, the Argyll is one of the most interesting of modern light cars, in that it has a single-sleeve-valve engine. The car has been on the market for a number of years and has established a reputation for comfort and reliability south as well as north of the Tweed. Examples appear on the stand of the Argyll Motor Co., Ltd., No. 70, the price of the chassis being £295, and of the four-seater tourer £395. The latter is painted grey with green wings and chassis, and is upholstered in green antique leather. This car, by the way, has a four-speed gearbox with right-hand change, which, coupled with the very high power output of the engine, makes it undeniably attractive to Scottish tourists.

Chenard-Walcker productions are being exhibited on Stand No. 78. They take the form of a 10-30 h.p. Chenard-Walcker saloon with standard French four-door fabric body, price complete £295, a chassis with tyres £195, and a 1½-litre Chenard-Sénéchal special super-

light blue and upholstered in red. With a guaranteed speed of 85 m.p.h. the car complete costs £345, whilst the price of the chassis is £295.

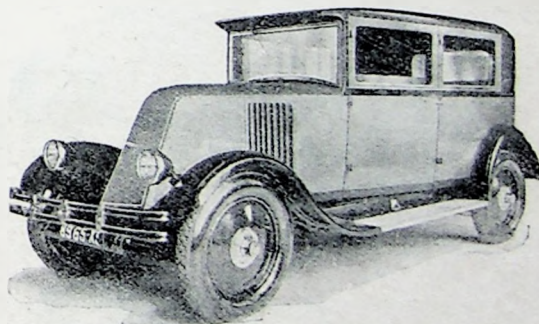
Nine h.p. and 12 h.p. Flats are being shown on Stand No. 3. The 9 h.p. model appears as a two-door two-seater, with dickey seat and leather upholstery, the price complete as shown being £195, whilst the 12 h.p. model is shown as a four-door saloon with leather upholstery, price £360. The smaller model has a Treasury rating of only 8 h.p., whilst features of the specification are overhead-valve engine with forced-feed lubrication, central change, three-speed gearbox, and single-plate clutch. The larger model, which comes just within the light car limit, is rated at 10-48 h.p., and has a side-valve engine, four forward speeds with a right-hand change and a multiple steel-disc clutch.

The new Super Seven Triumph makes its bow to a Scottish audience for the first time, and is seen in chassis form on Stand No. 41 and in fabric saloon form on Stand No. 73. The price of the saloon, which is built low and with the now fashionable high waistline and rounded roof and back, is £187 10s. The interior is very tastefully upholstered, and care has been taken to shape the seats so that comfort is assured. A point worthy of note is that there are two doors measuring nearly 30 ins. in width. Unobstructed vision is another good point, the door pillars being narrow, and the rear light, which can be covered by a blind at night-time, of large area. The specification includes a four-cylinder monobloc engine with a capacity of 832.24 c.c., giving a Treasury rating of 7.9 h.p.; a single-plate clutch, three-speed gearbox and final worm drive.

On Stand No. 9 there is a full range of A.C.s, whilst examples of the same make will be found on several other stands at the Show. Light car readers

The new Singer Junior.

7-12 h.p. all-weather Peugeot.



A fast saloon, the 9 h.p. Riley.

A "light six"—the Renault Monasix.

sports car, which has a four-cylinder engine of 69 mm. by 100 mm. (1,496 c.c.). This is a newcomer and promises to be popular in the sporting world. A feature of the engine (the Treasury rating of which is 12 h.p.) is that a special Ricardo head and a forced-feed oiling system with special oil-cooling radiator are used.

The body is of the cloverleaf type, having two staggered seats at the front and a third seat at the tail. Close-up wings are used, the front wings, of course, pivoting with the wheels. This striking little sports model is painted

are concerned, of course, with the 1,496 c.c. job, which has a side-valve three-bearing crankshaft engine, disc clutch, and gearbox formed as a unit with the back axle. The price of the two-seater is £299, whilst the six-cylinder 1,491 c.c. job is also made, and sells as a two-three-seater at £410, or as a four-five-seater at £450.

The 9 h.p. Standard is another newcomer to the light car class, although the Standard Motor Co., Ltd., is, of course, a pioneer of economical motoring. On Stand No. 28 will be found a very interesting chassis, by means of

With minor improvements, the Trojan.



which experienced motorists will be able to see at a glance how this model differs from previous "light" Standards, whilst, in addition, there is a sun saloon and a four-seater touring model. The price of the chassis is £165, of the four-seater tourer £190, and of the fabric saloon £215. The tax of the new Standard is £9, the engine being of 1,155 c.c., and it is interesting to note that the makers, having given overhead valves a good trial, have gone back to side valves.

On Stand No. 101 an interesting range of Donnet light cars, including both four and six-cylinder models, is to be seen. The engine of the former is a conventional side-valve job of 1,098 c.c., whilst the six-cylinder models have an engine capacity of 1,328 c.c. The latter are known as the 12-40 h.p. models, the tax being £15. For £285 purchasers can obtain the handsome six-cylinder four-door saloon, whilst the six-cylinder four-seater costs £265.

Stand No. 104 is occupied by the representatives in this country of the Bianchi, a 10-30 h.p. model being on view. This car is, of course, of Italian origin and is an extraordinarily interesting little job, with a 1,300 c.c. three-bearing crankshaft engine of the overhead-valve type, a four-speed gearbox, and a guaranteed maximum speed on top of 52 m.p.h.; in third gear 36 m.p.h. can be attained. The price of the chassis is £270.

No fewer than five of the popular Peugeot models are being exhibited on Stand No. 94. They are the 7-12 h.p. cabriolet, standard saloon and Weymann saloon, the 11-25 h.p. Weymann saloon, and "Occasional Four" coupé. The Peugeot still boasts of one of the smallest four-cylinder engines, the capacity of the 7-12 h.p. model being

only 719 c.c. and the tax £7. It is, however, a very sturdy little job and gives a surprisingly good performance.

The 11-25 h.p. Peugeot is a more imposing vehicle, of course, having a 1,394 c.c. engine, the tax of which is £11. Some of the most striking features of all Peugeot productions are the excellent finish of the bodywork, the extremely comfortable suspension, and the very efficient braking system employed.

A very striking sports model painted black and red with red upholstery to match forms one of the principal exhibits on Stand No. 67. It is the latest 1½-litre Alvis sports model and sells for £535.

Alvis sports models need little introduction to Scottish readers, for they have been marketed for a number of years, whilst in addition they have performed with conspicuous success at Brooklands and elsewhere. The model shown, which is known as the 12-50 h.p., has a guaranteed speed of 80 m.p.h. and inside or outside exhaust pipes are optional. It is interesting to note that for those who prefer the polished aluminium type of body, model No. 5A, of similar construction, is available at the same price.

The Rhode Motor Co.'s products are being shown on Stand No. 16, and they include three very attractive examples of this make. They are the saloon, two-seater and 4-5-seater.

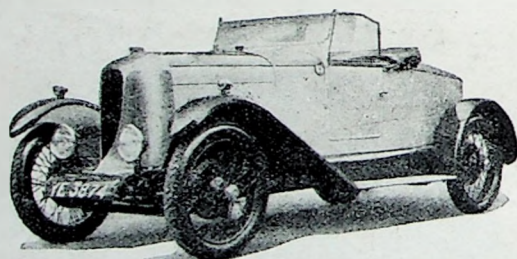
The first-named model is one which will meet with the approval of motorists who are forced to go out in any weather, the tout ensemble not only being very pleasing, but practical as well. The two-seater is, of course, more of a fine-weather car, but boasts of all-weather equipment which makes it a very snug vehicle. The third model

is comparatively new and fulfils the need of the family man.

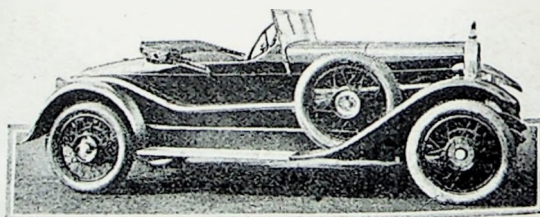
As usual, the Swift will be represented in various parts of the Exhibition Hall, models being shown on no fewer than six stands. Details of the exhibits are as follow:—Stand No. 2: Two open tourers, namely, a four-seater and two-seater with dickey, both listed at £220. Stand No. 30: Four-seater finished in grey and upholstered in brown. Stand No. 34: 10 h.p. sports model—the same car that was introduced at Olympia and exhibited there in October—the price of which is £255. On this stand is also shown the 2-3-seater, which is finished in red and black with red pneumatic upholstery. Stand No. 59: The 10 h.p. four-seater and 10 h.p. 2-3-seater. Stand No. 60: Fabric saloon, finished in black, the wheels being painted in broken white. The body is low built, has pleasing lines and couples an ample amount of headroom with plenty of legroom. This car sells for £260. Stand No. 196: Fabric saloon, finished in brown with pneumatic upholstery to match. The Swift is fitted with a 1,190 c.c. three-bearing crankshaft engine, single dry-plate clutch, three-speed gearbox and very full equipment.

Jowetts are being shown by three concerns, the exhibits including the attractive short two-seater (£134) and the saloon, of very pleasing lines and ample accommodation (£170). Jowetts represent excellent value for money, whilst the performance of the various models is surprisingly good.

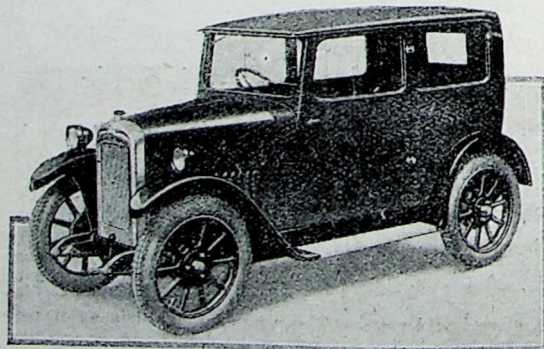
The Jowett has a twin-cylinder horizontally opposed water-cooled engine of 907.2 c.c., the Treasury rating being 7.04 h.p., and the tax £7. It has a three-speed gearbox with right-hand control and conventional final drive.



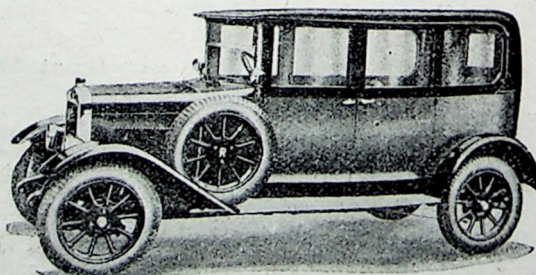
A fast French sports car—the Amilcar.



The 1,500 c.c. Alvis sports two-seater. Known as the 12-50 h.p. model, it has a guaranteed speed of 80 m.p.h. and sells for £535.



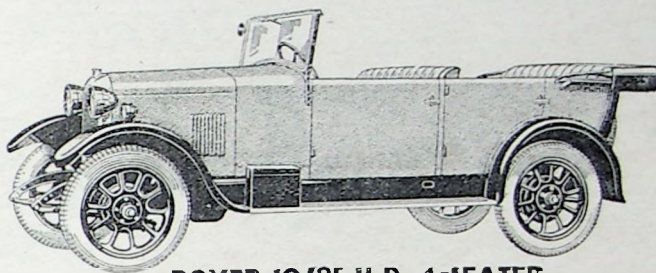
One of the neatest of small saloons, the Triumph.



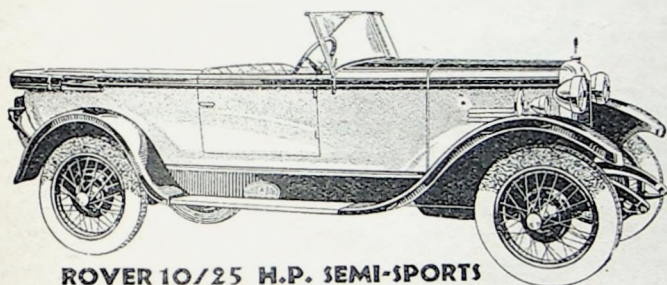
The Rhode saloon, a very attractive light car.



# THE "NIPPY TEN" THE FULL-SIZE CAR THAT COSTS LEAST TO RUN—



ROVER 10/25 H.P. 4-SEATER



ROVER 10/25 H.P. SEMI-SPORTS

Write for full particulars of running costs—they are contained in our new folder. They have been most carefully compiled and show that four passengers can be carried in luxury for very little more than 1½d. per mile—in a "Nippy Ten."

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Four-cylinder overhead valve engine, 9·8 h.p., £10 tax, develops 25 h.p. Runs 36-40 miles per gallon, speed up to 50 m.p.h. with touring models and saloons. Water cooling by pump circulation. Pressure lubrication to every engine bearing. Ignition by magneto. Six gallon petrol tank, with reserve. Three speeds and reverse, enclosed propeller shaft transmission. Four-wheel brakes. Dunlop balloon tyres, 27 x 4·4, steel spoked wheels (wire wheels on semi-sports). Wheel base 8 ft. 8 in., track 4 ft. Overall length 12 ft. 6 in. (semi-sports 13 ft. 5 in.). Equipped with two horns, electric starting and lighting (5 lamps), clock, speedometer, spring gaiters, shock absorbers, automatic screen wiper, dash lamp, folding luggage grid (except semi-sports 2-seater), spare wheel and tyre, etc. Seating upholstered in leather. Choice of body colour.

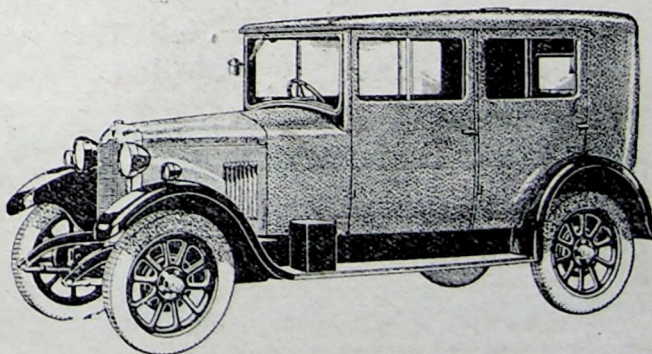
### MODELS:

2-seater Touring ..	£220
4-seater Touring ..	£225
Detachable head Coupe ..	£235
Semi-Sports 2-seater ..	£260
Semi-Sports 4-seater ..	£260
"Paris" model Saloon ..	£250
"Riviera" model Saloon ..	£250

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## THE RELIABLE, NIPPY

# ROVER



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*indicates the need for*  
**Castrol**  
**"C.W."**

## More International Records.

At Brooklands, on Oct. 24th, Mr. G. E. T. Eyston, driving a 1,500 c.c. BUGATTI, and using Wakefield CASTROL, broke the following Records in Class F, subject to confirmation

100 Miles ... 115'367 m.p.h.  
 1 Hour ... 115'558 m.p.h.

If Mr. Eyston's performance in covering this distance in the hour stands unbeaten till Oct. 30th, it entitles him to the award of "The Light Car and Cyclecar" Cup.

**I**f you use the correct grade of CASTROL, winter is robbed of its terrors.

Wakefield CASTROL "CW" is the lubricant par excellence for the majority of car engines in cold weather, and is particularly recommended for most American cars. In addition to its quite unusual freedom from gumming, CASTROL "CW" reduces carbonisation to the vanishing point, and withal is very economical in use.

These qualities were well proved in the famous  
**CROSSLEY R.A.C. OFFICIAL TRIAL**  
 of 25,000 Miles without decarbonisation, when the R.A.C. Certificate recorded an oil consumption of 5,114 miles per gallon, thus setting up an official record of economy and mileage without decarbonisation that has never been beaten!

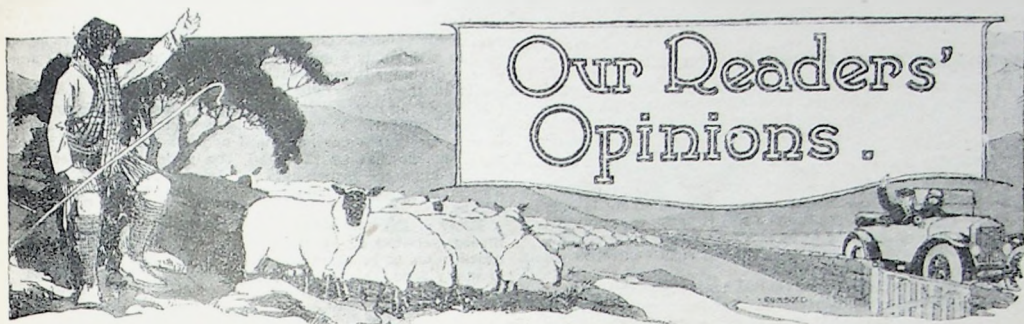
To get the best from your car in cold weather—and in any weather—see the Wakefield Index Chart at any garage, and insist on the correct grade of—

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## Our Readers' Opinions.

We welcome letters for publication in these columns, but take no responsibility for the opinions expressed. No anonymous communications will be accepted, but writers may use a nom de plume. To ensure publication in the next issue letters should be addressed to the Editor, "The Light Car and Cyclecar," 5-15, Rosebery Avenue, London, E.C.1, and should reach us on Monday. 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.

### IS RACING WORTH WHILE? Its Effect on the Design of Ordinary Touring Cars.

#### Where Racing HAS "Improved the Breed."

The views of Mr. Hemmington-Spess are, if I may say so, typical of those expressed by a large number of touring car owners who have no interest in racing and refuse to believe that racing has ever benefited them. To deal individually with every improvement in car design brought about by racing would take up too much space,

but outstanding examples which may be cited are overhead valves and overhead camshafts. When the overhead valve was first introduced, it was considered freakish, unreliable and unsuitable for normal engines, as, indeed, it was, in those days. Racing, however, has perfected it, and to-day 46.5 per cent. of the cars on the British market are fitted with overhead valves as against 41.7 per cent. side valves. Moreover, this is not by any means the only example. Four-wheel brakes, improved suspension and road-holding qualities, light and positive steering, quickly detachable wheels and improved tyres have all resulted from racing, and have materialized in the touring car sooner than they would have done without its influence.

It should be quite obvious that a firm which takes an active interest in racing will learn more about its cars and their weak points in one or two big races than a non-racing firm will in a year or more of ordinary road work.

A. N. SPOTTISWOODE.

#### Superchargers for Sober Touring Cars.

I am afraid Mr. T. R. L. B. Hemmington-Spess writes without much knowledge of his subject when he condemns motor racing as valueless from the point of view of improving design. I am afraid, too, that he spoils his whole argument in the last sentence of his letter where, instead of strengthening

his contention as he intends to do, he gives himself away entirely. The passage in question reads: "They (racing drivers) mumble about superchargers, but, in my opinion, the only cars fitted with this device as standard are out and out 'speedsters.'" If Mr. Hemmington-Spess had cast his mind back a few years he would have realized that many features which are common to sober touring or saloon cars to-day were used only on sports cars a few years ago, and only on racing cars a few years before that.

The supercharger is only in the transition stage at the moment; that is to say, it has got as far as sports cars, but has not yet become common on touring models, although there is little doubt that it will do so in the future.

A good example of a feature which has evolved from racing is the overhead valve. Overhead valves were very unreliable and possessed many drawbacks when first conceived, and for this reason they did not find favour with ordinary car manufacturers. At the same time, however,

racing concerns realized that the overhead valve had many advantages, and set themselves to cure its drawbacks, with the result that to-day there are, I believe, more cars with overhead than with side valves. This, of course, is only one example, but there are many others.

There are also many slight modifications in various components of a car which have been brought about as a result of racing experience, but these, of course, are not obvious to one who does not make a study of car design. In this class one can place the vast improvements in materials which have been effected of recent years and which have done so much to make cars more reliable.

P. R. SMYTHE.

#### Give More Space to—

Everyone, of course, is entitled to his own opinion, but I do not think many of your readers will agree with Mr. Hemmington-Spess when he says that *The Light Car and Cyclecar* devotes too much attention to racing and other speed events. Personally, I maintain that not nearly enough space is given each week to these very interesting topics.

#### —Sporting News.

All other questions apart, racing is a sport always worth following, and it does not matter whether motors, horses or dogs do the racing.

Does Mr. Hemmington-Spess object to the many columns and the glaring headlines which the daily papers devote to horse-racing meetings and so forth? I look forward to the day when motor racing will receive similar or even greater attention.

O. FAZAKERLY.

#### Is it Worth the Risk?

Mr. Hemmington-Spess is mistaken in thinking that racing does not "improve the breed." One has only to remember that the strains set up at high speeds are very much in excess of those produced in the ordinary way to realize that faults can be discovered in an hour on the track which would take several months to make themselves apparent on the road. In other words, racing is a quick way of trying out new ideas.

From Mr. Hemmington-Spess's letter, however, we come to another point—is racing really worth while? No one can deny that it entails great risks for those who take part, and the point which arises is whether the experience and knowledge gained is really worth the danger and its attendant loss of life.

Cars have reached a very high stage of reliability to-day, and I am not sure that it would not be better now to let further progress come slowly rather than continue to use the racing track as an experimenting ground and risk many lives. There is no doubt, too, that the risk gets ever greater as speeds increase. Of course, I am speaking of racing purely from the point of view of its effect on design and not as a sport.

C.C.L.

B37



## OUR READERS' OPINIONS (contd.).

### Right-hand Control Wanted.

In the reports of this year's Show much has been said of the wide choice of cars available. Generally speaking, this may be so, but in my own case I find my choice somewhat restricted. I want a light car—two-seater coupé or sun saloon—not more than 10 h.p., nor exceeding £220 in price and having right-hand control.

Now that the 10 h.p. Singer is discontinued, there is only one car fulfilling my requirements. It may be prejudice, but I am determined not to have a car with central control, and it seems a pity to me that optional right control is not offered by every manufacturer.

In two-seaters and coupés central control practically rules out carrying three passengers in front, as could be done in many cases if right-hand control were used. Can any of your readers make a suggestion to help me? XP 5807.

### Why Not Bank Corners?

The point raised by your correspondent "R.W.H.," who advocates the banking of the road at corners, is, with its associated problem of the camber of roads, a very controversial matter. Where a road has an "elbow" in its course, or a regular curve, with no side road emerging into it, there is much to be said in favour of banking. If, however, this practice became general, it would be necessary to decide on the class of traffic for which provision was to be made, for a degree of banking suitable for a fast touring car would be uncomfortable and perhaps dangerous for a slow-moving lorry. Speed and the radius of the curve enter into the calculation, and although the radius may be constant for a given curve, the speed of the traffic using it certainly is not.

Apart from this, banked corners might tempt the speed merchant to "blind" round them faster than he does now, which, I am sure, some people would consider unnecessary. But there is a further complication of the problem: what is to be done at cross-roads and what we may call "T" joints? It is clear that in such cases the road cannot be banked in any way which would make it suitable for traffic in all directions.

A discussion on this subject might profitably be extended to the allied one relating to the best camber for a road. Thirty-five years ago, when I rode a bicycle with solid tyres less than an inch in section, roads were mostly made of gravel, and as often as not the task of rolling it in was left to the users of the road. In those days, if the m.p.h. of a cyclist rose to double figures he ran the risk of being accused

of "scorching," which was (and, so far as I know, still is) a punishable offence. Under such conditions it was very necessary to give roads a substantial camber to secure some measure of drainage in wet weather.

Yet in these days when roads are relatively smooth and waterproof and traffic is much faster, many roads have the same old camber. We must all know roads where the camber is so great that a car is canted over to a most disagreeable angle on the side of the road, the result being that every vehicle hugs the crown and is driven off it only in dire necessity—a very unsatisfactory and dangerous state of affairs.

Many of the new arterial roads have a very slight camber indeed, yet they are drained as efficiently as any. This appears to me to be conclusive proof that the excessive camber of many roads is altogether unnecessary. Y.F.336.

### Single-pane Screens Favoured.

In his remarks about single-panel windcreens "Saloon" has overlooked the fact that with a large single-panel screen a driver has an unrestricted view of the road ahead without the interference of a join between the two panels. Another point which "Saloon" does not seem to realize is that with a single-pane windscreen it is possible to use a wiper having a very large arm and, consequently, clearing a considerable section of the glass. With a two-panel screen the length of the wiper arm is usually governed by the depth of the upper panel, with the result that, in a number of cases, it is possible to have a wiper clearing only a ridiculously small portion of the glass. This is a difficulty which I found on my last car, which had a rather shallow top panel. P. L. THORPE.

### Improved Visibility.

Although I have had no experience myself of a car fitted with a single-panel windscreen hinged at the top, I entirely agree with "Saloon" in his condemnation of this type of front screen. As an ex-motorcyclist who still retains some of his old love for two-wheeled vehicles, I like, when the weather is favourable, to open the screen and to feel the full effect of the wind on my face: there are few things more invigorating. So far as I can see, this would be impossible with a single-pane screen opening at the bottom, for I imagine the only effect of opening it would be to create a nasty draught. However, I suppose in this, as in many other things, it is largely a question of taste, and so long as I can obtain a car which suits my requirements in other respects and has a two-panel screen, I am quite satisfied! ONCE MOTORCYCLIST.

### A Matter of Taste but—

—Two Panels Preferred.

## Fox-hunting—Replies to Mr. Segar-Owen.

### A 500 to 1 Chance.

We must thank you for publishing Mr. Segar-Owen's letter appealing for care in passing bounds. I am sure all motorists will respond. Please grant space for the other point of view and allow an appeal to motorists to assist the weak against the strong. There are against one fox 50 dogs, all twice his size, and 50 to 100 humans on horses and innumerable followers, earth stoppers, etc. This fine British (save the mark!) sport gives its opponent a chance of about 1 in 500. I appeal to motorists to assist the hunted animal by refusing information and by crossing the scent when possible. Try to witness the death and then form your own opinion. Civilization demands a humane death for animals. EVENS ON THE FIELD.

### Another Appeal.

"Fox-hunting—Ugh!"

I feel I must reply to your correspondent, Mr. G. J. S. Segar-Owen, and inform him that I consider he has no right whatsoever to refer to fox-hunting as one of Britain's finest sports. I feel sure that most people will agree with me that it is just a relic of the barbarian past. May I also point out the fact that the cost of breeding hounds (which, by the way, are about the most useless of dogs except for fox-hunting) is very heavy does not concern motorists, but only prompts objectors to this sport to ask why the money is wasted in this way?

### Mr. Segar-Owen's Letter Resented.

Motorists one and all will agree that they should give every living creature a chance on the road and would regret causing pain or injury to any animal, but for a foxhunter to ask me as a *motorist* to stop my car, not to make a noise, to open gates, not to cross a scent, but to assist in his cruel sport is an insult which I strongly resent.

I can enter into *any* sport with anyone when there is no pain caused to a dumb animal, but for fox-hunting—ugh! A LOVER OF NATURE.

Skill and Pluck Exhibited—

Mr. Segar-Owen's letter on motorists and fox-hunting strikes me in the same spirit as the notice, "Concealed Turning," placed at the roadside before a private carriage drive. No doubt these hunting gentlemen would like to have the offending motorist entirely removed from the roads during the time they honour the highways with their presence in the pursuit of one small animal. If there was any great skill or pluck in the sport I should have some admiration for it, but, as it is, the only participant which appears to exhibit any of these qualities is the fox! In conclusion, I must plead guilty to being unaware that owners of horses and dogs pay any tax for the use of the roads, but am painfully aware that motorists most certainly do.

### Only by the Fox!

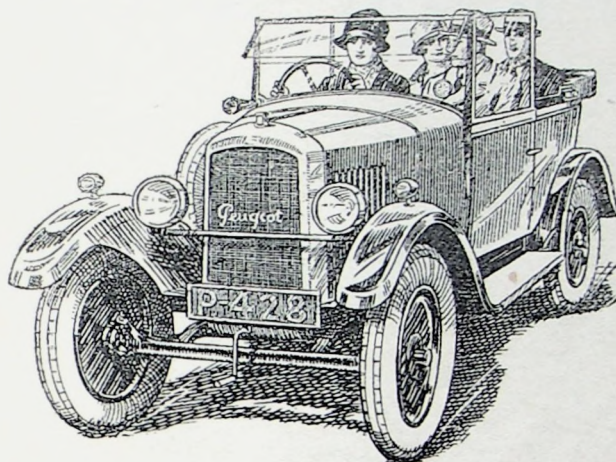
ONE OF THE COMMON MOTORISTS.

Many letters are unavoidably held over.—ED.



# THE 7-12 Peugeot

(PRONOUNCE IT PUR-JO)



*"The ideal light car for all occasions."*

## £139 10s.

Seven Pounds Tax.  
Seven Horse-power.

Fifty Miles per hour.  
Fifty Miles per gall.

Foremost among the many virtues of the Peugeot car is the unusually small demand it makes upon the purse for upkeep. Fifty miles to the gallon, and only £7 tax, are figures that will commend themselves to all who must keep their motoring expenditure within modest limits.

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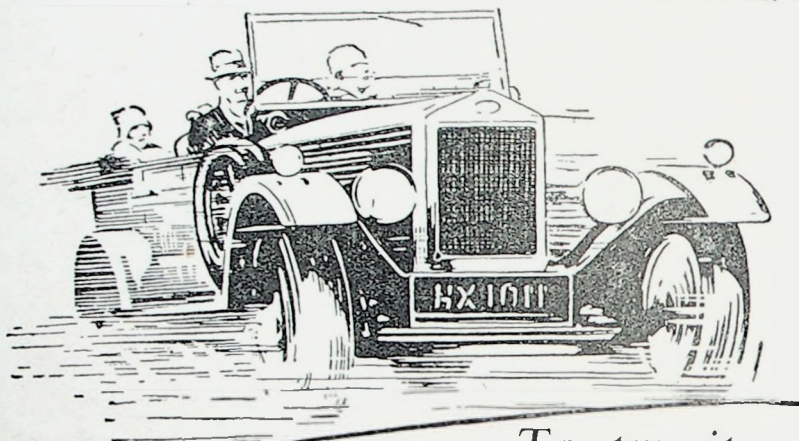
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TO THE READER.—By mentioning "The Light Car and Cyclecar" when replying to advertisements, the progress of the small car movement will be assisted.



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*To try it  
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# WOLSELEY

WOLSELEY MOTORS (1927) LTD., ADDERLEY PARK, BIRMINGHAM.

DA7



## OUR READERS' OPINIONS (contd.).

### CONDENSED CORRESPONDENCE.

In reply to "Marmaduke," Mr. F. Lack (Sealing Common) writes pointing out that the Salmons Grand Prix Special, which costs £350, is capable of over 85 m.p.h. Mr. Lack has run one of these for over 4,000 miles, and speaks very highly of its reliability and economy as well as its speed.

Replying to "Mulum in Parvo," Capt. F. H. B. Samuelson, who drove the Ratier in the 200-Mile race, writes to say that on the only other occasion when the Austin Seven and the Ratier met in an important race, the latter proved the winner. He also points out that the Ratier was running on three cylinders during a large part of the 200-Mile race.

### INFORMATION WANTED.

RENAULT.—Readers' experiences of the 9.15 h.p. model would be very welcome.—BM/ADMS.

SINGER.—The opportunity to borrow or, preferably, to buy an instruction book for the 9.8 h.p. 1923 model would be appreciated.—Thos. H. Evans, 10, Vicarage Hill, Wrexham.

BELSIZE-BRADSHAW.—The chance to buy or borrow an instruction book for the 1923 model will be appreciated.—R. J. Farmer, The Wicketts, Walling Street, Wellington, Salop.

DEEMSTER.—Any reader who has an instruction book dealing with the 1922 10 h.p. model which he is willing to sell is asked to get in touch with—Thos. Wilson, 10, South Street, Rugby.

SINGER.—The opportunity to borrow or, preferably, to buy an instruction book for the 9.8 h.p. 1924 model would be appreciated.—W. C. Evans, 34, Pendle Road, Streatham, S.W.16.

D.F.P.—Anyone who has a handbook for the 1926 9.5 h.p. model which he is willing to lend or sell is requested to communicate with A. MacDonald, Junr., 39, Brougham Street, Greenock, N.B.

AUSTIN SEVEN AND SINGER JUNIOR.—Any reader who has had extensive experience of both these models is asked to write giving his impressions to—W. W. Bancroft, Clumber Road, Poynton, Cheshire.

RENAULT.—The opportunity to buy or borrow an instruction book for the 1912 6.9 h.p. model and information on where spare parts for this car can be obtained would be appreciated.—C. Dawling, Dunford Road, Holmfirth, Huddersfield.

## CLUB ITEMS AND SPORTING EVENTS.

### AUSTIN SEVEN C.C.

Members will meet at the Anchor Hotel, Ripley, on Saturday, November 5th, at 4.30 p.m. for tea. Social events of this kind are being held on the first Saturday of each month during the winter months and prospective members will be heartily welcomed.

### CIVIL SERVICE M.A.

Major H. O. D. Segrave will be the principal guest at the annual dinner of the Civil Service Motoring Association, which takes place at the Holborn Restaurant to-day, November 4th. An invitation has also been issued to Flying Officer Webster, of Schneider Cup fame. Among the other guests will be Noel Curtis Bennett, C.V.O., of the Civil Service Sports Council, and Prof. A. M. Low. The well-known Roosters concert party will provide the bulk of the entertainment. The association is already celebrated for the excellence of its dinners, and the forthcoming event promises to be well up to the standard. Tickets, priced 8s. 6d., may be obtained from Mr. R. F. Daffern, 60, Hawstead Road, Catford, S.E.6.

### M.C.C. HIGH-SPEED TRIAL.

The following are the official results of the M.C.C. High-Speed Trial. The figures in brackets refer to the number of laps covered in one hour. Class K, gold medals: H. R. Taylor (25) and D. S. Macaskie (21). Silver medal: G. C. Harris (19). Bronze medals: R. T. Horton (18) and C. J. Turner (17). Class L, gold medals: I. J. Higgins (22), G. L. White (21), F. J. Calvert (21), J. W. Harbour (20), R. R. Forster (19), R. C. Hamilton (19). Silver medals: H. K. Beaven (18) and C. L. Simon (18). Bronze medals: C. M. Anthony (17), C. D. Conradi (17) and R. R. Berry (17). Class M, gold medals: A. U. Kipling (24), W. Cooper (23), D. Duncan Smith (22), H. Bacon (22), K. H. Daniel (22), G. T. Gamble (22), V. Gillow (21), O. H. C. Cornish (21) and R. G. C. Schwalm (21). Silver medals: G. J. Tait (20), H. Jeffers (20) and V. Smith (20).

### J.C.C. LIVERPOOL AND NORTH WALES CENTRE.

The double 12-hour trial held jointly by the J.C.C. Liverpool and North Wales Centre and the Liverpool Motor Club, on October 14th and 15th, was a very successful event, there being 21 starters at Chester at 9 p.m. After breakfast at Staines the party visited the Lagoda works, whilst others went on to the Motor Show. In the afternoon all the competitors went to Brooklands to view the 200-Mile race. Later those so inclined dined in the evening at the Bridge Hotel, Staines, the temporary headquarters for the run. Professor A. M. Low acted as starter at Staines for the return journey on the 15th. The provisional results are as follows:—J.C.C. challenge bowl for competitor retaining 100 marks and showing the least error at secret checks, F. Thompson (Alvis), 3 minutes 24 seconds; Simpson rose bowl for competitor, not having previously won an award, making the best performance, R. K. Livock (Austin Twelve). Award for retaining 100 marks (J.C.C. silk scarf), Major D. E. M. Douglas (Morris); Liverpool Club ash trays, S. Parker (Lagoda) and G. C. M. Woods (Hover Nine). Altogether it was a most enjoyable week-end and the competitors are looking forward to its repetition. Their thanks are due to Mr. R. B. Summerfield, the clerk of the course, for the excellent arrangements.

### THE NEW CYCLECAR CLUB.

The address of Mr. D. R. Maddox, hon. secretary of the Bournemouth branch of the New Cyclecar Club is 146, Wimborne Road, Bournemouth.

### LONDON EAGLE M.C.

The club's annual dinner will be held on November 24th at the Railway Hotel, West End Lane, West Hampstead. Members and friends may obtain tickets from Mr. E. C. Bonner, 13, Kenilworth Road, Kilburn, N.W.10, single tickets being 7s. 6d. and double tickets 13s. 6d. After the presentation of trophies and medals won during the year, the evening will conclude with a smoking concert. A hearty welcome is extended to members of other clubs who have won awards in the London Eagle Club's sporting events in the past season.

### FORTHCOMING EVENTS.

November 5.  
B.A.R.C. "Drivers" (Charity) Meeting.  
First race 2 p.m.  
November 12.  
Surbiton M.C. "Spikins" Cup Trial.  
November 13.  
Liverpool M.C. Percy Butler and Revenge Trials.  
Brighton and Hove M.C. Russell and Drevitt Cups Trial.  
November 20.  
Woking and D. M.C. and C.C. Trial.  
November 22.  
New Cyclecar Club, First Annual Dinner at Hotel Cecil.  
November 27.  
Carshalton M.C. Trial.

### THE SUTTON COLDFIELD AND NORTH BIRMINGHAM A.C.

The results of the autumn reliability trial have now been published. The Shell Cup and souvenir for the best performance of a four-wheeled car was won by E. W. Harcourt (Austin Seven), whilst J. G. Orford (Austin Seven) gained a gold medal.

The following awards have been made in connection with the Shackerstone Speed Trials.—The Allday (President's) Cup for the fastest time under 1,600 c.c. and the Goodyear Rosebowl for the fastest car time were both won by R. T. Horton (1,096 c.c. Morgan), 24 3-5 secs. Horton also gained a gold-centre medal for the fastest time in the 1,100 c.c. class, and in the same class H. C. Jones (1,096 c.c. Morgan) gained a silver medal. A special award for the fastest touring car was made to J. D. Barnes (1,096 c.c. Salmons), and a supplementary award was also made for the fastest four-wheeled car to G. Taylor (1,086 c.c. Salmons), 32 secs. Cars under 1,500 c.c. (four-wheeled only): Gold-centre medal, T. Short-hose (1,496 c.c. Bugatti), 28 secs.; silver medal, G. Taylor (Salmons), 32 secs. Cars of unlimited capacity (three and four-wheeled cars): Gold-centre medal, R. T. Horton, 24 3-5 secs.; silver medal, T. H. Short-hose (Bugatti), 27 secs. Three-wheelers of unlimited capacity: Silver Medal, R. T. Horton. It is interesting to note that in the class Horton's next fastest man beat all the motorcycles, the next fastest man being the rider of a Norton, who gained a bronze medal.

### DISABLED DRIVERS' M.C.

The closing rally has been arranged to take place at the Cromwell Hotel, Stevenage, on November 19th, and members are asked to arrive as soon after 3 p.m. as possible, as a full programme of amusements has been arranged. Prices of tickets, including tea and dinner, are 6s. each, and members are asked to bring as many friends as they can so as to make the meeting a success.

### M.C.C. LONDON-EXETER RUN.

Regulations for the M.C.C.'s 13th London-Exeter-London Run have now been issued. The start will be on December 27th from the premises of the Slough Trading Estate, on the main Bath Road, the first man starting at 8 p.m. The finish will be at the same place on the following day. The route will be through Reading, Andover, Salisbury, Shaftesbury, Chard, Ilton, Sidmouth and Peak Hill, Exeter, returning via Honiton, Gittisham Hill, Sidbury, Salcombe Hill, Axminster, Sektar, Marshwood, Beaminster, White Sheet Hill, Dorchester and Salisbury, whence the outward route will be followed in the reverse direction. The timed climb on Salcombe Hill will be over a distance of approximately 500 yds., and timing will be from a standing start. Three-wheelers of any capacity must average 18 m.p.h., cars up to 850 c.c. 15 m.p.h., up to 1,100 c.c. 14 m.p.h., up to and over 1,500 c.c. 16 m.p.h. Gittisham Hill and Peak Hill will be taken non-stop en passant, while a restart will be made on White Sheet Hill, the first 10 yds. to be covered in 7 secs. Entries must reach the trials secretary, Mr. F. T. Bidlake, 84, North End Road, Golders Green, N.W.11, on or before Friday, December 9th.

### NORTH-WEST LONDON M.C.

Regulations and entry forms for the London-Gloucester-London trial have now been distributed, and it is noticeable that one or two important alterations have been made this year; not only has the awards list been increased somewhat, but the entrance fee has been modified. The sum is now 20s. for every entrant other than members of the organising club. Another feature is the attention which the promoters are giving to the question of silencing, special prizes being awarded for the quietest machines in each class. Car drivers will be interested to note that the limiting capacity for car entries is now 1,600 c.c. and not 1,500 c.c. as previously announced. Their attention is drawn to the fact that chains and similar non-skid devices will not be permitted. The actual course for this year's event has not yet been definitely settled, but it is understood that it will follow closely the route used last year. The organizers have, however, decided to eliminate Sandy Lane, whilst the Catwood section will be taken in the reverse direction before lunch, so that Stacombe becomes an observed climb immediately before the lunch control is reached.

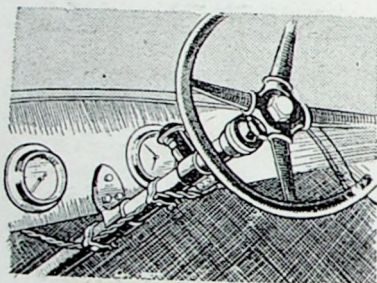
The homeward run will be taken direct without any observed hills, so that no delay should occur between the lunch stop and the final check at Slough. Special provisions have been made in the regulations this year concerning delays in observed sections and the full time for lunch will be enforced. Inquiries concerning this event should be addressed to the organising secretary, Mr. F. W. H. Osborne, St. Anthony's, Vivian Avenue, Hendon, N.W.4, from whom entry forms may also be obtained. Entries will not be accepted after November 24th.



*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.*

### Dash Lamp Position.

On some cars it is not easy to arrange a position for the dash lamp in which it will equally illuminate all instruments on the facia board. In such cases it is quite a good plan to clip the dash lamp to the steering column 6 ins. or so from the surface of the facia board. All the instruments thereon will then be equally illuminated by the lamp and there will be no tendency for upward



A dash lamp clamped to the steering column will equally illuminate all instruments on the facia board.

rays to dazzle the driver. Flex leads from the lamp clamped at convenient points to the steering column should be taken either to a switch on the facia board or direct to the battery tapping if a switch is incorporated in the lamp itself.

It is important to notice that the facia-board lamp fixed to the steering column should be of the cowl type, and the cowl should be of sufficient diameter to prevent upward rays being cast on to the lower part of the windscreen.

### An Ignition Hint.

Misfiring at high engine speeds may sometimes be traced to a fault in the distributor of the magneto, particularly if this is of the carbon-brush type. Ridges tend to form on the edges of the metal distributor segments, and when the engine is turning over fairly fast there is a tendency for the brush to jump on coming in contact with the ridges, thus causing irregular firing. The remedy, of course, is to remove the ridges with fine emery paper, afterwards cleaning out the distributor casing with a soft cloth to make sure that no metal particles remain. With the "jump-spark" type of distributor fitted to many cars the trouble will not, of course, be experienced.

B42

### Battery Electrolyte.

Distilled water and not ordinary tap water should always be used when diluting pure sulphuric acid to the correct specific gravity for car batteries. Clean rainwater is "distilled" enough for the purpose, and will save troubling the local chemist for the small supply usually necessary. Before using rainwater, however, it should be filtered through blotting-paper to make quite sure that it does not contain particles of dirt in suspension.

### Removing Old Puncture Patches.

It is quite a simple matter to remove old puncture patches from inner tubes, as may be necessary when a puncture occurs near an old patch and it is desired to remove the patch and use a larger one for both punctures.

Simply cover the surface of the old patch with solution and ignite it with a match, allowing it to burn for a few seconds. When the flame is blown out it will be found quite easy to peel off

the patch. The surface of the tube may need to be rubbed with sand-paper before applying the new patch to both punctures. A certain amount of care is necessary, of course, to see that the solution does not burn for a sufficiently long time to harm the tube.

### A Garage Hint.

When a garage is badly illuminated it is not easy to see just how far in a car should be driven. The result is frequently that the wings or dumb-irons come into contact with the end wall of the garage, to the detriment of paintwork.

One simple way of overcoming this trouble is to construct a wooden stop a few inches longer than the track of the car, with supports keeping it a foot or so from the wall. This buffer, placed on the floor, will ensure that the car is stopped always in a safe position.

### Austin Radiator Overflow.

On some early Austin Sevens water dripping from the radiator overflow pipe is apt to cause the front number-plate to become rusty, the lower edge of the outlet pipe being immediately above the plate.

The trouble may be quite easily prevented, however, by altering the position of the front number-plate. Long bolts should be substituted for those used to keep the plate in position. The new bolts should be 2 ins. or more longer, two short lengths of tubing being used to space the plate more forward.



*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.*

H.W.W. (Staplethorpe).—Benzole fuel has a tendency to harm coach paint and you should take care, therefore, when filling up, not to allow any of the fuel to splash over the filler orifice.

C.N.P. (Brighton).—We think that the clicking noise of which you complain, apparently emanating from the cooling-fan bearing, is due to several broken balls or to a damaged ball-race. There is no remedy, of course, except to dismantle the fan bearing and replace the worn-out parts.

B.M. (Wanstead).—Your statement that the lights are dim when they are switched on and do not come up to their normal brilliancy until the dynamo is charging indicates that there is something wrong with the battery. Possibly it is not fully charged, or the electrolyte is not of the correct specific gravity.

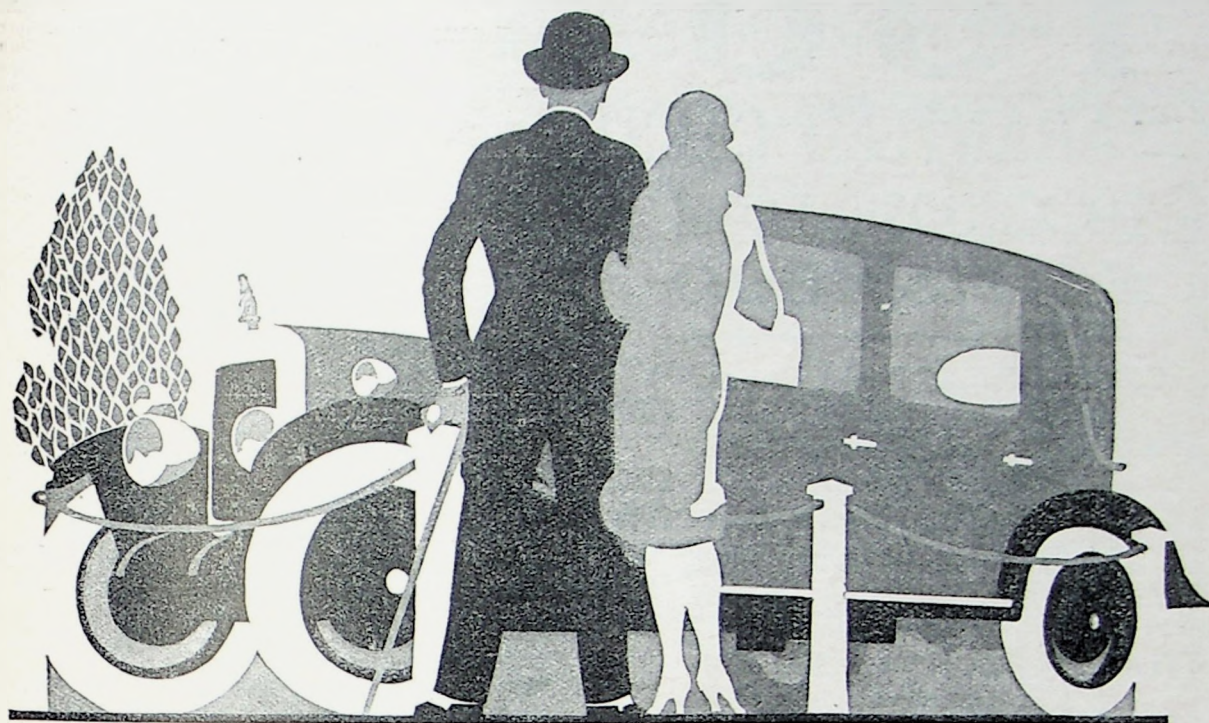
P.E. (Bradford).—Gear oil and not ordinary engine oil should be used in the gearbox of the 7 h.p. Citroën. The correct level for the lubricant is well above the secondary shaft.

H.K. (Bournemouth).—Although no definite maximum speed is guaranteed for the Austin Seven, we have found that speeds of 45 to 50 m.p.h. are well within the capability of the car.

K.S. (Stratford).—The overhead inlet valves of your 12 h.p. Lagonda are in correct adjustment when no appreciable end-play can be felt on the push-rods although they can easily be revolved with finger and thumb. The correct clearance for the side exhaust valves should be .004 in., and the makers recommend that this figure should be obtained when the engine is cold.

F.B. (Bristol).—The tension of the dynamo belt on a 10 h.p. Salmson is quite easily adjusted. Take off the two nuts on the dynamo spindle, withdraw the loose flange of the pulley and add to, or take away from, the washers between the pulley flanges. By taking away a washer, for instance, the two flanges are moved nearer together and the dynamo belt just rises higher in the groove, thus becoming tighter.





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.. 1925, 7 h.p., Chummy Models, from . . .	£75
.. 1924, 7 h.p., Chummy . . .	£60
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CLYNO, 1927, 2 and 4-seaters, from . . .	£100
FIAT, 10/15 h.p., 4-seated Saloon . . .	£125
JOWETT, 1927, full 4-seater . . .	£100
LEA-FRANCIS, 1924, 10 h.p., Chummy Model, excellent condition . . .	£65
ROVER, 1925, 9 h.p., 4-seater, excellent condition . . .	£90
RENAULT, 1924, 9 h.p., 2-seater, excellent condition . . .	£60
STANDARD, 11.4 h.p., 2 and 4-seaters, from . . .	£65
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E-4

**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.

## AROUND THE TRADE.

We have received from the Benjamin Electric, Ltd., Brantwood Works, Tottenham, London, N.17, a catalogue of automobile accessories. It includes particulars of a number of interesting lines such as Benjamin radiator shutters, electric horns, spotlights and garage equipment.

Owners of Austin Sevens, Amilcars, Clynos, Jowetts and other popular makes of light car should be interested in the sets of wheel discs made by Ewart and Sou, Ltd., 346-350, Euston Road, London, N.W.1. Ewart discs are marketed in sets of five pairs and cost, in black-enamelled steel, £6. and in polished aluminium £7 10s.

We learn that the car which won first prize in section three (open bodies) of the coachwork competition, Olympia, 1927, organized by the Institute of British Carriage and Automobile Manufacturers, was finished with Cerric cellulose lacquers, products of Cellon (Richmond), Ltd., Petersham Road, Richmond, Surrey.



For the second year in succession Mobiloil has been the motif of the winning costume in the Original Section at the annual Motor Show Ball.

Readers in search of a set of good spanners should consider those marketed by B.S.A. Tools, Ltd., Sparkbrook, Birmingham. These spanners are made from steel drop-forgings, and are marketed in two sets. The first, costing 12s. 6d., comprises five most useful sizes in a wooden box, and the second, at 5s., two double-ended spanners in a neat leather case.

The Rover Co., Ltd., Coventry, have sent us a copy of an interesting little book entitled "The Diary of a Motor Tramp," by Captain Victor Beveridge. It is the story of a 10,000-mile trip on the Continent in a 9-20 h.p. Rover, which was bought, as Captain Beveridge puts it, "off the floor." There is a very large number of really good photographic illustrations.

A new price list of Barimar repairs to motorcar parts has just been issued by Barimar, Ltd., 14, 16 and 18, Lamb's Conduit Street, London, W.C.1. It sets forth reduced prices of Barimar cylinder grinding, lightweight de luxe pistons, crankshaft grinding, remounting bearings and general overhauls. Copies will be sent post free to readers who apply for them.

An interesting exhibit at the Cycle and Motorcycle Show at Olympia is a working model, in section, of a twin V-type engine displayed on the Shell-Mex stand in the gallery. The model shows what happens inside the engine—how the petrol is consumed, how the working parts are lubricated and how carbon formation results in pre-ignition with consequent pinking and loss of power. The object of this exhibit, of course, is to emphasize the anti-carbon qualities claimed for Shell motor oil.



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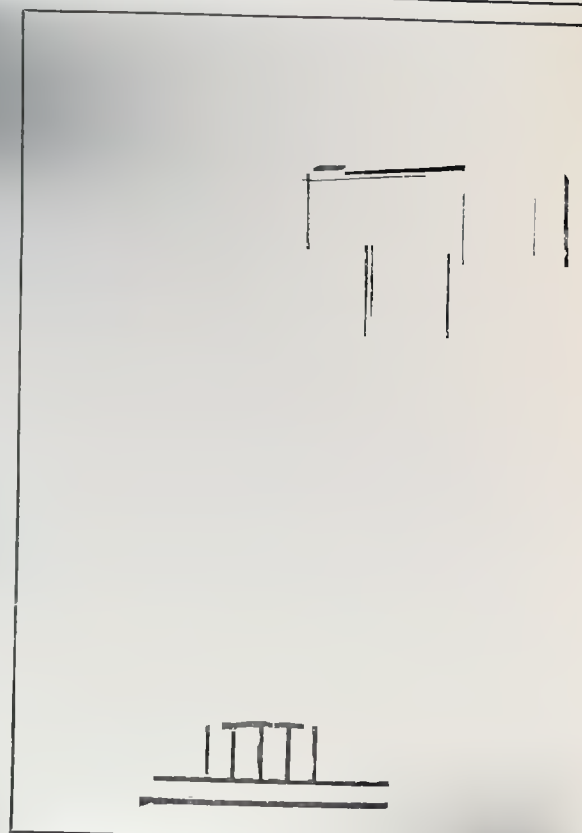
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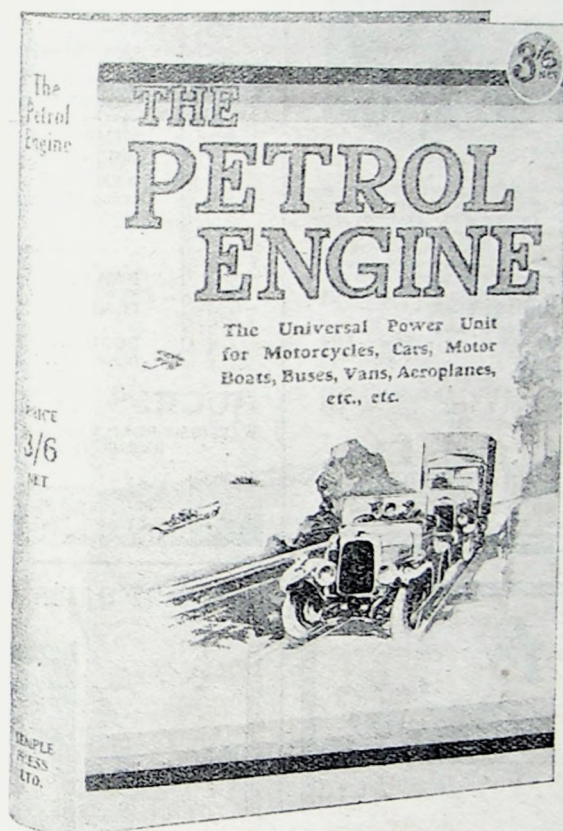
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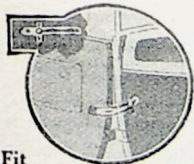
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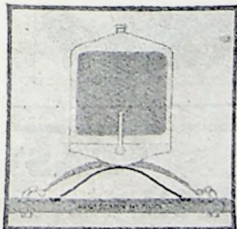
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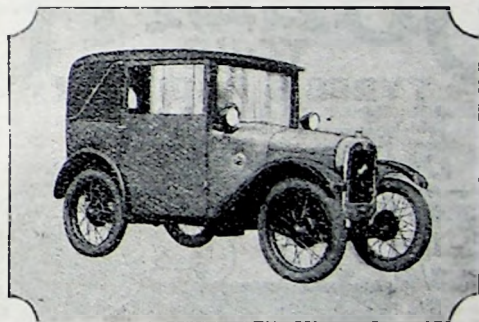
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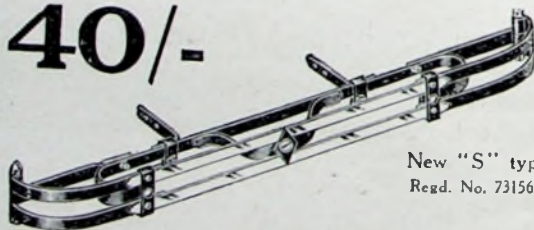
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## Features of this Week's Issue

# The Motor

**TUESDAY, NOVEMBER 1st.**

### IDEAS FOR REDUCING MOTOR ACCIDENTS.

*Final Result, Winning Papers and Awards.*

*A Simple and Clever Side and Main Road Safety Sign.*

### SPRINGING EACH WHEEL INDEPENDENTLY.

*A Revival of Interest in Suspension Systems. Advantages Explained.*

### GREAT BRITAIN AND MOTOR RACING.

*More Interesting Views by Sir Herbert Austin, Mr. K. Lee-Guinness, Mr. S. F. Edge, Col. J. T. C. Moore-Brabazon, M.C. M.P., and Mr. T. G. John (of Alvis).*

### AMATEUR FITTING OUT.

*How to Fit Electrical Accessories.*

### AN AIR-COOLED REAR ENGINE CAR.

*Independent Wheel Springing and Chassis and Frame in One Unit.*

### A REMARKABLE SIX-WHEELER DESIGN.

*British Vehicle Driving Optionally on Four or Six Wheels.*

### DUAL OR STAND-BY IGNITION.

*Some Practical Considerations of its Application.*

### SHOW PROBLEMS.

*Rendered More Acute by the Growing Popularity of the Exhibition.*

### TREACHEROUS ROAD SURFACES.

*Blindley Heath Danger Curve Being Treated as Result of "The Motor" Efforts.*

## NEXT WEEK!

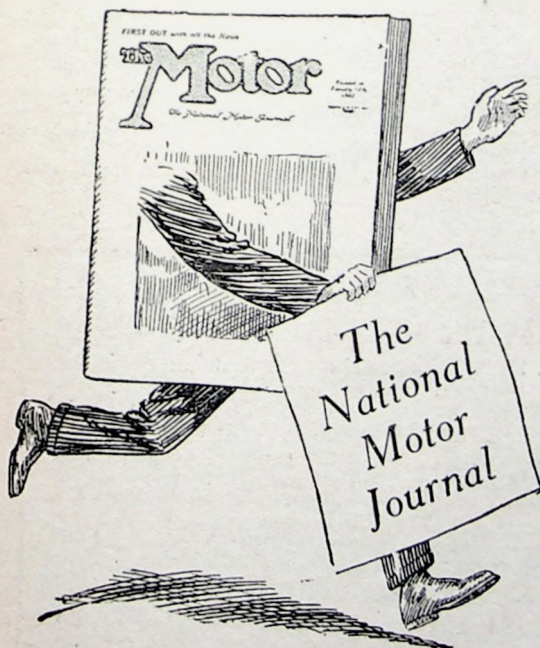
*Some Features of the November 8th issue.*

FIRST ILLUSTRATED REPORT OF THE SCOTTISH SHOW. SKID PREVENTION EFFORTS—Road Fund Report. Experimental Tests of Non-Skid Concrete Road Surfaces. GREAT BRITAIN AND MOTOR RACING—Mr. Louis Coatalen on Pooling Resources. And all the News and News Pictures.



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