

Vol. XXIX. No. 748. Friday. April. 8. 1927 Registered at the GPU as a Newspaper

For the exhilaration of EASTER on the road





Come out of your shell this Easter with an

11.4 h.p.

CITROËN

Delivery NOW

Delivery Now

Works at Slough

Supreme Closed Car Value!

FOUR DOORS
FULL EQUIPMENT

£190

AS ILLUSTRATEI

11'4 h.p. Saloon, 4 doors, F.W.B .. £210

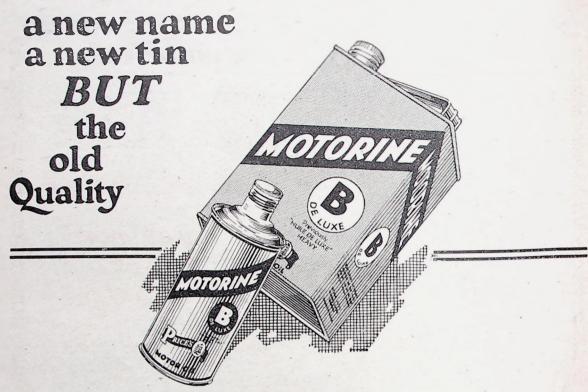
Send for the Citroen Book 18.

CITROEN CARS, LTD., CITROEN BUILDING, HAMMERSMITH, LONDON, W.6.

Showrooms: Devoushire House, Piccadilly, W.1.

DA.361

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



From now onwards, all grades of Price's Very Special Motor Oils (including the be known and graded under the name of MOTORINE. you, these oils are being put up

in round quart tins as well as gallons and drums.

Therefore, if you want Huile de Luxe Heavy, ask for Motorine B de Luxe. If it's Huile de Luxe range) will Huile de Luxe Medium, say Motorine C de Luxe : if Huile de Luxe Zero, then Motorine Also, to make it handier for D de Luxe. That's easy-and worth doing.

> Also, the books offered below are worth having. They are free and post

MOTORINE very special oil

C	OUPON To PRICE'S, The Oil People (Dept. M.E.E.) London, S	.W.1
Pleas	send the books I've ticked. "The Car" (), "The Motor Cycle" (), Both! () I'm inte	reste
	Address	
	Price's Patent Candle Company Limited, Battersea, S.W.11.	

ROTAX 1927 TYPE WINDSCREEN

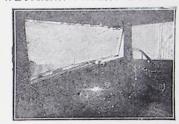
INCORPORATING WEYMANN PATENT DOUBLE EXTENDED LOCK.

THE Rotax Potent Single Panel Screen in the new invention in motoring

Rain, Draught, Rattle, the hitherto unconquerable bugbears of motoring with even the most expensive cars, become things of the past.

Driving vision is wider and un interrupted, and cleaning is quicker and easier.

When required the Screen is opened or closed instantly by a patent double extending locking



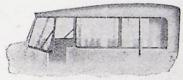
device which, placed conveniently at the bottom of the screen, can be adjusted without interfering with one a driving in the slightest. This is the Screen motorists of experience have been asking for.

It completely eliminates all the shortcomings of the double acreen and looks infinitely smarter! We shall be happy to give your Coach-builders the fullest particulars! Cat. No. 7759. Price £9:0:0. Cat. No. 7760 (Lock only). Price £1:0:0.

Opens at bottom sufficient for all ventilation. Supplied with special release attached and side quadrant, so that it can be fully opened if necessary during fog, etc.

ROTAX ALL-WEATHER EQUIPMENT

FOR the many thousands of motorists to whom Saloon Cars are an unationable luxury, the Rotax All-Weather Equipment provides an efficient and welcome substitute at the cost of a few pounds. They are perfectly rigid with the hood up or down, open with the doors, and are the essence of smartness. Each panel made in 30/1000 gauge celluloid, and trimmed in either Leather Cloth or Twill to match hood (give colour, etc., when ordering). The sizes given on right are merely examples.



WE can curtain any make or size of car.

Don't be without this splendid equipment.

Although your car is not mentioned herein WE CAN FIT IT AT NO EXTRA COST.

TWO EXAMPLE SIZES.

CITROEN (EB), 4-seater, 6 panels, 2-31 in. x 15 in. 2-21 in. x 15 in. 2-25 in. x 15 in. Price £7 13 0

JOWETT. 4 - seater 6 panels, 2-173 in. x 154 in., 2-184 in. x 154 in., 2-174 in. x 154 in. Price £6 10 0

(Trimmed rear door only).

ROTAX FOG LAMP



HE Rotax Foglight is designed for fitting on the near side dumb iron and projects a powerful light to the edge of the road. A most useful scature of the lamp is that by switching on, and your head-lights off, the dazzle problem is solved with safety. Supplied in either highly polished nickel or brilliant black and nickel finish.

State when ordering finish required—A for nickel; B for black and nickel.

Cat. No. 559. Diam. glass, 31 in. Price each 30/-

ROTAX SPOT LAMP

FOR finding turnings, reading sign posts, names and numbers of houses, etc., it will be found invaluable. It is equally as useful for repair work, either on the road or in the garage. Fitted with bracket having universal move-ment, and does not work loose. Supplied as illustrated with fine quality observation mirror.

Dia. of aperture, 31 in.

Windscreen Mounting. Cat. No. 550 . . Price each 35;— Saloon Mounting. Cat. No. 551 . . Price each 35;— Saloon Mounting.

ROTAX DIMMING SWITCH



HE convenient fitting position of THE convenient many pour to adjust power of your the headlights from full on

the driving wheel. Cat. No. 3332. Price 15/- each, with flex. Also supplied for fitting to the dash. Cat. No. 3333. Price 15/- cach, with flex.



ROTAX INSPECTION LAMP

NDISPENSABLE for I locating faults and repair work, on the road, or in the garage. Supplied with 6 ft. Flex, Bulb and connection, either SBC or Two-Pin Plug. Polished Brass finish.

Cat. No. 2728. Price each 15/-

Great King Street.

Lander Street.
25, Temple Street.
3/5, Colvin Street.
Priory Street.

ROTAX (MOTOR ACCESSORIES) LIMITED, WILLESDEN JUNCTION, LONDON, N.W.10.
Telephone:
Telephone:
Rodynalite, Phone, London." Willesden 2480.

LEEDS - 64. Ros MANCHESTER - -291-3, NEW CASTLE-ON-TYNE - 68, St. M

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.

New World's Records.

Major Segrave, who attained a speed of 207 miles per hour at Daytona on March 29th, cables:—

"Sunbeam Car to-day broke all world's records for mile, kilometre, five kilometre, using your standard petrol as supplied to the public. Sincere thanks for your kind assistance.

Segrave."

Official record (subject to confirmation) for average of two runs over the mile in opposite directions was 203'841 m.p.h.

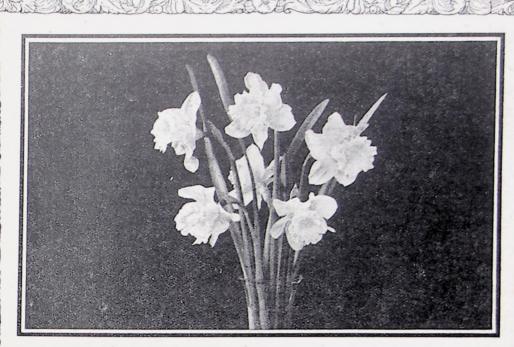
The British Petrol

British Petroleum C. Itd Britannic House, Moorgate, E.C.2

Distributing Organisation of the

ANGLO-PERSIAN OIL CO. LTD.

APRIL S, 1927.



"And then my heart with rapture thrills And dances with the daffodils.

Wordsworth wrote of a scene in the Lake District, and the call of Nature becomes insistent. No matter where the "daffies" are a-blowing the Jowett will take you there easily, comfortably, cheaply. Start on a fresh spring morning, a happy, care-free day in the woods or by the sea, homing in the twilight, everything seems in tune. But—your car must be in tune also, and the car that most nearly reaches perfection is the Jowett. It will serve you faithfully for a longer time than any other light car. When, regretfully, you decide to change it for a new Jowett, it will command a higher second-hand value than any other car.

Will you write for our literature?

Short two, £139. Long two, £150. Chummy, £145. Full four, £150. Saloon £185.

Dunlop Balloons and Stewart Speedometers standard.

JOWETT CARS LTD., IDLE, BRADFORD

The Annual





Tuesday, 5th April.

Now On Sale Price 4^D.

as usual

EVERY motorist should make sure of his copy.

This issue is considerably increased in size. It breathes the spirit of the open road and is a veritable inspiration to holiday by motor.

Those who are looking forward to spending a pleasant four days with their car at Easter will find in this special number just that information which will help them to realise their aim.

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

Where to go and what to see at EASTER.

Special features:

View Points-The Most Commanding Prospects in Great Britain.

How To Avoid Troubles at Easter—The Prevention of Mechanical Breakdowns.

Picnicking — Where To Go. Many Suggestions.

Segrave's Record — Special Wireless Report and Wireless Pictures.

Panoramic View of Brooklands

—Aerial Photograph Explaining How to Find the Best
Places to See the Racing.

Why New Roads Are Dangerous

—Good Visibility which is
Calculated to Deceive.

The Woman Motorist Abroad

-By The Hon. Mrs. Victor
Bruce.

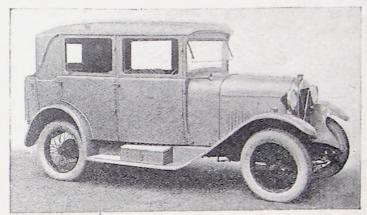
The Economy of Motor Boating

—The Cost of Buying and
Running. By The Editor of
"The Motor Boat."

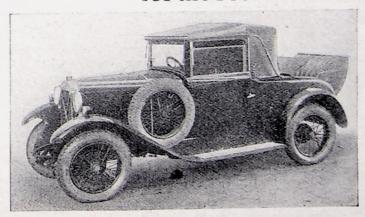
The Camera and the Car-By Clive Holland.

Unquestionably-

A Weymann at £275 for the Family Car



Undoubtedly— A Coupé at £225 for the Professional Man

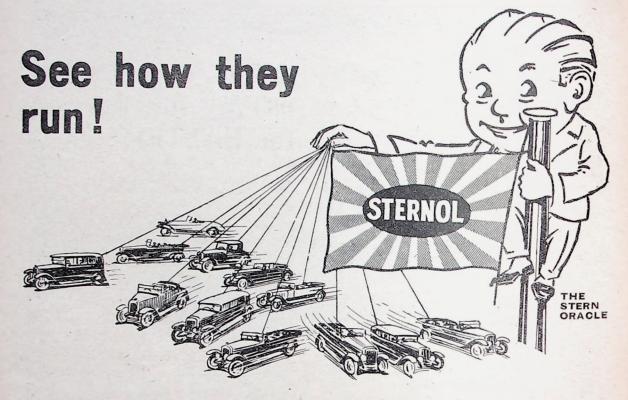


Unhesitatingly—a



SOLE CONCESSIONNAIRES FOR UNITED KINGDOM AND BRITISH DOMINIONS:

S.M.S. Ltd., Church Wharf, Chiswick Mall, W.4



ERE you see a majestic car, 'clad in an atmosphere of authority; beside it a nippy little "bus,' carefree and blithe; following are a graceful tourer, ready for any weather, and a racing type, proud of its name and reputation.

A cosmopolitan crowd, all with delighted owners. But—the PERFORMANCE of each depends on whether or not a film of oil, thinner than this paper, will foil the malicious onslaughts of two relentless giants—TERRIFIC HEAT and PERSISTENT FRICTION.

ABRIDGED RECOMMENDATION CHART

WWI means Stornol
WW LIGHT.
WW HEAVY.
WWM means Stornol
WW MEDIUM.
WWEXTRA HEAVY.

MAKE.	SUM.
A.C. 4-cyl	WWh
A.C. 6-cyl	WWm
Alvis	WWh
Austin (all models)	WWh
Bean	WWm
Citroen 7.5 h.p.	WWm
Citroen (other models)	WWh
Clyno	WWh
Ford	WWI
Humber 8 h.p.	WWm
	WWm
Renault 8 h.p.	WWm
Royer 8 h.p.	WWet
Rover 9/20 h.p	WWm
Singer	WWm
Standard 11 h.p.	WWm
Standard 14 h.p.	WWh
Swift.	WWh
Wolseley	WWh

Send for "FIRST AID FOR THE CAR," which contains a complete chart for all makes of cars, and a fund of useful information and hints to motorists. STERNOL Oil is the most perfect motor lubricant in the world. It remains bland and unruffled under intense heat—which means safety to the engine; fluid under penetrating cold—which makes for easy starting.

Lastly, every drop of Sternol is subjected to our VOLT-OLISING PROCESS which imparts to the engine a liveliness unprocurable from any other oil.

Sternot WWW

IN FOUR GRADES: LIGHT-MEDIUM-HEAVY-EXTRA HEAVY

Makes Engines Purr Like Pussies

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

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

Order your Car NOW — in time for EASTER!

CARS for QUALITY

VERY provision for driving security becomes more urgently desirable with the constant increase of traffic. Your own and others' safety depend upon control, and the greater the mechanical efficiency of your car the greater will be your confidence at the wheel. The Humber 9/20 h.p. models, besides comfort and running economy, will give you a wider margin of safety on the road.

MODELS ARE AVAILABLE FOR IMMEDIATE DELIVERY.

end for fully illustrated Catalogue and name of nearest Humber agent.

HUMBER LIMITED, COVENTRY.

LONDON:

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

dprices of models fitte
front Wheel Brakes

9 20 H.P. 2 3-Seater with
Dickey Seat

9 20 H.P. 4 Seater

120 H.P. 4 Seater

Saloon

Dunlop Tyres

Standard.

Dunlop Tyres Standard.

The front wheel brakes are by means
internal enclosed type operated above the
with the axie bed with the

9/20 h.p. 4-seater Tourer, with Front Wheel Brakes

Phodes

The most dramatic improvement in Specialised Car construction since the advent of Four-wheel Brakes and Balloon Tyres.

£198
Two-s ater with large double dickey and Four - Five - seater models.
Cellulose finish in blue or marcon.

Fully compensating four-wheel-brakes, which can be automatically adjusted from the Driver's seat—while travelling if necessary—are only one of the many new and exclusive features to be found on this famous model.

4-cylinder all-gear engine; Treasury rating 10.8 h.p.; B.H.P. 30; 5 to 55 m.p.h. on top gear; 40 m.p.g.; Tax £11

Safety for sixteen shillings

Postage ninepence extra.

The illustration is Model 8c, one of the famous Remy line. Simple, efficient and of classic appearance. Tone pleasant, vibrant, compelling. Of all dealers or direct from makers. State 6 or 12 volt.

Delco-Remy & Hyatt, Ltd., 111, Grosvenor Road, London, S.W.I. Telephone: Franklin 6446 (4 lines).

FOR ALL AUSTIN 7 CARS

OTHER D.R.H. ACCESSORIES

Delco-Remy Magneto Replacement Unit for all Light Cars. Sylphon Thermostat. Gives warm engine in 60 seconds.

Two accessories which are worth their weight in gold and can be fitted by any Austin 7 owner.

THE BODELO BRAKE ATTACHMENT for Austin 7 Cars enables all four brakes to be operated by the foot pedal without

interfering in any way with the existing hand Thousands are in use all over the country, brake mechanism. therefore fit one to-day

PRICE 30/-

Turn the petrol off from the dashboard, it en-sures clean hands, it atops the drip from your carburetter, thus reducing the risk of fire to a minimum. THE BODELO PETROL SAVER works auto-matically; you pull the control knob out to turn it on, you push it in to turn the petrol off.

PRICE 12/6

Send for our illustrated literature, which will give you full particulars and fitting instructions.

LLOYD & DEELEY

177, Broad Street BIRMINGHAM.

Wholesale stockists: Brown Brothers, London and Branches.

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



The OWNER-DRIVERS' Garage Built of Thornber's Locioint Weatherboards—the only suitable boards for outdoors. All sections complete, ready for easy erection. No loose timber. All fittings sent. Gliding out-of-way Doors. 2 windows. Insured. Built to last. 2 sizes. 16° x 9° x 7° x 9½ \$15 Carr. Floor £4 extra. Carr. Fwd. Size: 19° x 9° x 7° x 9½ . £18 Carr. fwd.

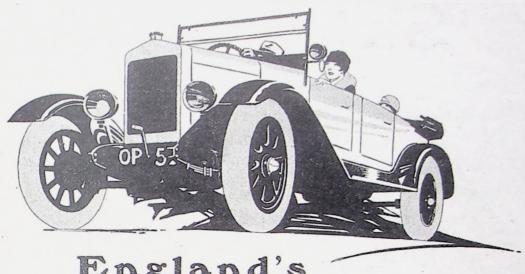
A Thornber Garage will last a lifetime, because everything is solid in its construction. It is sent from works in sections plete, ready for erection, plete, ready for erection, which requires no skilled labour. No loose timber whatever is sent. All Garages have Gliding-out-of-way Doors, which move at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

The SAFETY FIRST Asbestos Fireproof Garage. All frame sections complete ready for Asbestos Sheets, which are supplied. Giding out-ot-way Doors. Two windows. All fittings sup-plied. Insured. Built in 3 sizes. (32) 3 sizes. 14' 5"x8' 1" x7 12 gns. 24' 5"x 8' 1" x7 12 gns. 24' Carr.fwd, 12 gns. 24' Carr.fwd, 12' gns. 24' 10 extra Carr.fwd 16' 5" x 9' 1" x 7 £15 x 91 Carr. fwd. £15 Floor £4 extra Carr. fwd. meas 20' 5" x 9' 1" x 7' £19 x 9½' Carr. fwd. Floor £5 10 extra Carr. fwd

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

Send for Folder and state requirements.

9, MYTHOLMROYD, YORKS.
London Office: 47, Victoria Street, S.W.



England's first—truly fine small Car



The most dramatic improvement in Specialised Car construction since the advent of Four-wheel Brakes and Balloon Tyres.

£198 Two-s ater with large double dickey and Four - Five - seater models. Cellulose finish in blue or marcon.

Fully compensating four-wheel-brakes, which can be automatically adjusted from the Driver's seat—while travelling if necessary—are only one of the many new and exclusive features to be found on this famous model. 4-cylinder all-gear engine; Treasury rating 10.8 h.p.; B.H.P. 30; 5 to 55 m.p.h. on top gear; 40 m.p.g.; Tax 111

Ca'alogue and all literature on application.

The RHODE MOTOR CO., Tyseley, BIRMINGHAM.

London and Home Counties—Normand Garage Ltd., 489, Oxford Street, London, W.1. Manchester and Liverpool J. Blake & Co., Ltd.

THE FIRST Scientifically Correct PNEUMATIC TYRE

IT COST MILLER £500,000 TO MAKE THESE REVOLUTIONARY IMPROVEMENTS:—

- 1 Tread and Sidewall in one piece without joints or hinges.

 Eliminates all chance whatever of separation or cracking.
- 2 Roadshaped, Geared-to-the-Road Tread running evenly with the road under every load, taking wear slowly. Eliminates uneven, spotty and rapid tread-wear.
- 3 Uniflex Cord Construction, every part flexing as a unit, resisting jolts and blows, and leaving the tyre intact. Eliminates inside friction and abrasion, adding miles to tyre life.

To-day, this Tyre of longer service on any car is a silent tribute to the manufacturer's tyrebuilding genius and to the owner's shrewd tyrebuying judgment.



"THE TROUBLE ELIMINATOR

Adut. of Industrial Rubber Products Ltd., 191-2, Tottenham Court Road, London, W.C. Scotlish Depot: 166, Howard Street, Glasgow.

A12

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

A PAGE OF DRIVING COMFORTS FROM

Special EASTER TOURING OFFERS

Unlined TAN CAPE GAUNTLETS.

Tan Cape Gauntlets, unlined, of good strong skin. 5 Inch Jee-Cousset and Bolton thumb. A gued, serviceable, undured motoring gloro. The large gueset allowing for extra, thick catalletes. Fost 4d., rfco

Just time to get those "Last Minute" Necessary Wants for your Tour.

If it is impossible to call, order with complete confidence by post, or phone Holb. 2700.

The "HENDON

A very warm and cosy Helmet suitable for ladies or gentlemen. Made from soft, Diable Tan Leathers, with Fur Peak and Neck.
Post Free. Each

TAN LEATHER WAISTCOATS

and comfortable. Absolutely windproof, made from soft and pliable skins. These are guarantee-lall-leather, including based sites.

Price, Post Fre When ordering by post, kindly

CHOKER CARDIGAN

Superior **ALL-WOOL**

IRISH MOTORING RUGS
All-Wool Irish Rugs, with fringed ends, in bold checks of medium and dark colours. Exceptionally warm and soft, weight 33 lbs. (approx.), these are the correct rugs for Price motor touring, travelling, etc.

The neck heavy stockinette to tone, and the body of soft Suede. Ideal for Motoring or Sports wear. Colours include Blue. Tan, Nigger, Almond, Red. Cinnamon. Price, unlined Post Free.

TWO-IN-ONE

TOTAL CHARGE THE STATE OF THE S TAN LEATHER MOTOR COATS

Full length TAN LEATHER COATS, lined with a SOFT

FLEECE LINING and fitted all-round belt and WINDCUFFS in sleeves. Full cut skirt and WINDCUFFS in sleeves. Full cut skirt to give ample protection over knees when driving, light in weight, yet WARM, COMFORTABLE and ROOMY. 44 in. long. Stocked in sizes 36" to 46" chest. A leather coat is the amartest and most practical for motoring wear, possessing those qualities that are proof against all weathers.

Foundation of 3-ply Birch Veneer Wood, covered Dock. One Clip at front and ends. Fall front fitting with metal binding. Two straps each end for fixing to Car. Leather handles. Hardwood ledges on top and bottom. Complete with two vulcanised Fibre Suit Cases with capped corners, two locks, and leather handles Size overall, 30x17½x in. dee

LADIES' LEATHER MOTOR

Purchased of the maker as sketch. Smartly
made and finished in
a good quality leather,
in LIGHT AND MID TAN, WARMLY LINED
FAWN FLEECE. Cosy fur collar of full shape, it is WINDPROOF and is practical to the last

detail. SIZES Small Women's and average Women's. Post Free.

A. W. GAMAGE LTD., HOLBORN, LONDON, E.C.1 and 107 CHEAPSIDE, E.C.2.

Salmson Performances

10/20 SKIFF, 70 m.p.h.,

£175

10/20

GRAND PRIX SPECIAL

85 m.p.h., £315 100 miles per hour average in the rain

Smashing victories were won at the reopening of the Montihery track on March 18th, when Salmsons were 1st, 2nd, and 3rd in all three

16 other new models from £165 to £410 in stock, as well as some shopsoiled cars at reduced prices.

Sole Concessionaires :

HAYWARD Automobiles

Kingsbury House, King Street, St. James's Street, S.W.1. 10/20 3-SEATER SPORTS 65 m.p.h.,

£215

10/20 WEYMANN SALOON, 60 m.p.h.,

£275

Speak louder than words!

-ALL PRICES REDUCED -

STANDARD Model - £89
DE LUXE, air-cooled - £110
FAMILY, air-cooled - £111
DE LUXE, water-cooled £120
FAMILY, water-cooled £121
AERO, water-cooled - £127
AERO, 10/40 h.p., Racing£140
SELF-STARTER £10 extra.

YOUR EASTER MORGAN!

Let Homae's — who possess the most intimate knowledge of the Morgan and its many fine points, arrange immediate delivery of the Morgan you choose. Homae's impartial advice is yours freely, whether you purchase or not; so don't delay, come and see Homae's now, or write us

HOMAC'S

243/7, LOWER CLAPTON ROAD, Works: 46, London Rd., Clapton, E.5 IMMEDIATE DELIVERY ALSO CITROËN AND ROVER.

DEFERRED TERMS ARRANGED WRITE FOR CATALOGUE.

EXPERT MORGAN SERVICE REPAIRS AND OVERHAULS. FULL STOCK OF GENUINE MORGAN SPARES

TRADE SUPPLIED.



A14

EASTER! The REAL Joy of the Open Road

REBLE STRENGTH

Find a nice spot, pitch your Tent (with Extension as fig. 2) and have your Lunch in comfort whilst gazing on the surrounding Country. You will find "KAR-KAMPS" everywhere.

ROTPROOF

SCAHS

PAYENT TREBLE STRENGTH SPASSE ASTEMBRS TENTS TENTS

Made of strong green waterproof Fabric in five sizes, weighing from 10 to 16 lbs. Complete with jointed poles, pegs and ropes. Carriage paid. Cash with order

Send for Illustrated Folder and sample of Fabric to:

MANGE 1772

Send for Illustrated Folder and sample of Fabric to:

KAR-KAMPS LTD. (Dept. B.). 29, Cannon Street, MANCHESTER

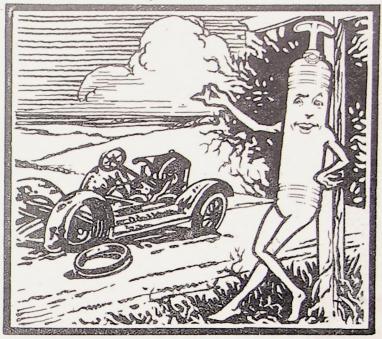
Manufacturers of Tents, Dustproof and Waterproof Motor Octors.

ERECTED IN TWO MINUTES RUSTLESS PECS
MAY BE FASTENED FROM INSIDE OR OUTSIDE DELIGHTFUL FOR THE GARDEN.

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.

with Patenter.
tension at oxtra cost, 7,6 to
10;-, according
to size, as per
figure No.

Little Peter Pyrene's Car Fire Talks.



"This Fire happened miles from anywhere and left the motorists stranded. Do not let this happen to you. Fit me."

Write for Illustrated Folder, "Car Fires."



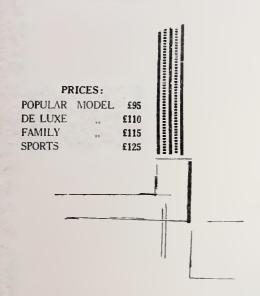
Get "Pyrene" from your Dealer To-day

THE PYRENE COMPANY, LTD. 9, Grosvenor Gardens, London, S.W.1.

Telephone: Victoria 8592. Telegrams: Pyrenextin, Sowest, London. Branches: Sheffield, Glasgow, Belfast.

Made in our own London Works.

this
Guarantee
Label only.



IF IT'S A NEAT LITTLE CAR

you are looking for, one that will take you comfortably and economically where you will, then your choice will surely be an

Designed and equipped on big car lines throughout, and as steady and satisfactory as any four-wheeler, and yet showing a very considerable saving in upkeep and first cost. Fitted with 8 h.p. Engine, 27 x 4 Dunlop tyres, smart dummy radiator, well sprung and upholstered, electric dynamo lighting by 5 lamps, completely weatherproof.

Get full particulars to-day of

The Three-wheeler runs like a four."

The Omega De Luxe Model.

rrue to-day for our catalogue of all models. W. I. GREEN, Ltd., OMEGA WORKS, COVENTRY.

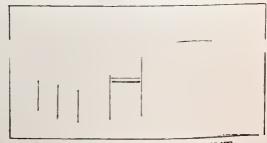
Vay **OUR USED** CARS ARE GUARANTEED

100 OTHER BARGAINS from £25 to £250.

EUSTON 410-414, LONDON, N.W.1.

Museum 3081, 3143 and 0140.

BLACK'S TENTS



ROMANY FOLDING TENT.

Walls, 21 ft. Size, 7 f .. x 7 ft. Height, 61 ft. Price £6:10:0 Carriage paid by return passenger train.

Tour with a tent and save the hotel bills.

Carry your tent in your car and seek out the beauty spots. With the Romany Tent you could plan an extensive tour on the continent at a very low figure.

It is a matter of minutes to pitch a Romany Tent, and there's a covering for your car each night; an awning draws over your car and ties down the other side.

Provided with curtain between car and tent. Made of strong brown rotproof Tent Duck, absolutely water-resistent and shadowproof, and can be rolled up damp without harm.
Weighs only 29 lb. and measures only 2 ld" by 9" dia. packed.

Write for fuller particulars and our catal-sue of other tents and camp requisites for every purpose.

THOS. BLACK & SONS (Greenock) LTD. (TENT MAKERS),

GREENOCK, Telegraphic Address: "Satisfaction."

SCOTLAND.

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



Avoid Accidents

by fitting

STEPNEY



TWO BRITISH GUM - DIPPED **CORD**

TYRES

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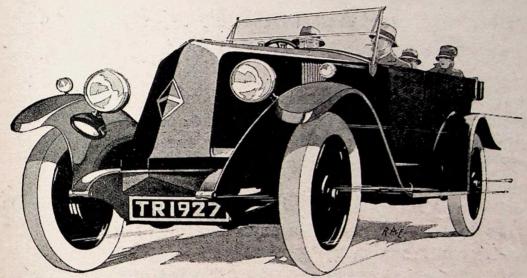
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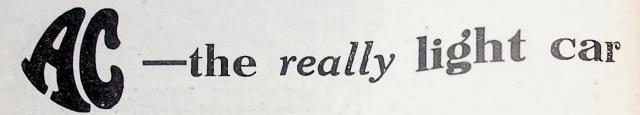
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Few people are keen enough on washing cars to stop for the purpose during a run, but country car owners will often find that a wayside pond or stream, if near their homes, forms a useful "wash" A WAYSIDE when the weather is fine.

NOTES, NEWS & GOSSID The WEI

Summer Time.

Remember to put forward your clocks and watches one hour to-morrow night, Saturday, April 9th. Summer Time starts, actually, at midnight.

Still Cheaper Petrol.

On April 4th last the price of combine motor spirit was reduced to 1s. 2½d, per gallon—a reduction of 1d. National Benzole mixture is also 1d, per gallon cheaper than last week. Reductions have also been made by the independent companies. companies.

This Week.

One of the most striking features of the development of light cars has been the gradual attainment of a degree of the gradual attainment of a degree of perfection in saloon conchwork undernmed of a few years ago. A representative selection of photographs showing up-to-date models figures in our centre pages. What exactly is a pattern maker? Many readers must have asked themselves this question, which is answered in the first article have assed themselves this question, which is answered in the first article of our new series, entitled "Light Cars in the Making," and deals with the art of pattern making.

No. 748. VOL. XXIX.

ON OTHER PAGES

The Art of Pattern Maki The Romance of the Ro		534 536	
High-speed Engine Carb	n	538	
Road Tests of 1927 M	lodels	:-	
The 12-28 h.p. Clyne S	alcon		540
Rich Mixture			542
Topics			545
Cyclecar Comments			546
The Cult of the Saloon			550
Gems of Rural Cheshire			553
Our Readers' Opinions			554
			ips)

- T	ondon	7.14			7,31
Ñ	owcastle	7.25	Liver	pool	7.30
B	irmingham	7.23	Briste	ol .	7.24
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	Moon-Fi	rst Qu	arter, A	pril	9th.

Shelsley Walsh.

Owing to the clashing of dates, the Midland Automobile Club has altered Midland Automobile Club has aftered the days fixed for the two Shelsley Walsh hill-climbs, which are now as follow:—Amateur Hill-climb, July 2nd; Open Hill-climb, September 24th. Beth fall on a Saturday.

A Useful Haul.

Fines amounting to no less than £28,715 were imposed at the Petty Sesf25, 13 were imposed at the Petry Sessional Courts in the County of Surrey during the year ended December 31st, 1926. The majority of these fines were collected from motorists.

Crawley Police Trap.

A ten miles-per-hour trap is operated very frequently by the Sussex police over a short stretch of the main street of Crawley ou the London-Brighton road. Plain clothes men work the trap, and any motorist averaging more than 10 m.p.h. through the section is stopped near the level crossing.

Next Week.

The Light Car and Cyclecar will be published on Thursday instead of Friday next week and, appearing on the eve next week and, appearing on the ever of the hediday, will contain the very latest information concerning the London-Land's End Trial and other Easter events. The guide to the "Land's End" will include a full list of the car entries, a clear and information. tive map of the route and a useful time-

Chislehurst Road Widening.

We are informed that the Ministry of Transport has made an offer to defray half the cost of widening Perry Street, the main road from Chislehurst to Sidcup. At present, owing to dangerous bends, one of which is bounded by a high brick wall, there is a speed limit of S m.p.h. over certain sections of the road.

A.A. Patrols' Salute.

In future, patrols of the Automobile Association will not salute when riding cycles or road service outfits, upon being overtaken by members driving, but only when meeting them. If in the former case it is necessary to attract the attention of overtaking members, the patrols will dismount and stand in clear view at the side of the road.

Running Time-Not Distance.

A rather interesting comparison is afforded by the fact that the Napier-Lion engines used by Imperial Airways invariably run for 300 hours before it is considered necessary to dismantle them to see if any repair work or overhauling is necessary. This compares very favourably, on a time basis, with motorear engines, but there is a surprising difference in the mileage covered, which, in the case of aeroplanes is about 30,000 miles. Three hundred hours' running at an average of, say, 20 m.p.h. with a car amounts to only 6,000 miles.

Salmsons and the Boat Race.

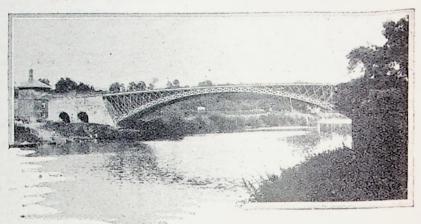
Well over 100 Salmson car owners availed themselves of the opportunity to watch the University Boat Race from the premises of S.M.S., Ltd., Church Wharf, Chiswick Mall, London, W.4, at the generous invitation of the directors. An excellent view of the river for about a quarter of a mile towards Hammersmith Bridge was obtained, and the two boats came by almost level, Cambridge just recovering a lost lead opposite the works. When the excitement had died down a much-appreciated buffet luncheon was served, and everyone took advantage of the opportunity to inspect an imposing array of Salmson cars.

Varied Interests.

Mr. R. C. Morgan, who has been identified closely with motor racing for several years, both in this country and abroad, is one of the moving spirits and a joint-director of the Forum Theatre Guild, which has for its object the establishment in the West End of London a permanent home for interesting British and foreign plays of conspicuous merit.

Shell-Mex Aeroplane.

Shell-Mex, Ltd., have taken delivery of a De Havilland "Moth" aeroplane for the use of Captain Shaw, their aviation representative. The machine was delivered at Stag Lane Aerodrome, and was named "Arom" by Mrs. Wilson, wife of the assistant general manager of Shell-Mex, Ltd., who afterwards accompanied the pilot on a flight.



WELDING A BRIDGE. The iron bridge over the Severn at Holt Fleet is to be repaired by electric welding. The repairs will take about a year to complete and will cost about £9,000.

"Beware!

Lord Montagu of Beaulieu's recently published book "Beware! or How to Use the Road" (George Gill & Sons, Ltd., 2s.), deals with modern traffic problems and the duty of drivers and pedestrians in a very practical manner. It is clear that the author has studied the subject closely, and that his views are the result of careful thought. The book is divided into four chapters, the first dealing with highway law, whilst in the two following the duties of pedestrians and drivers are discussed in an impartial but helpful vein. The last chapter is devoted to modern transport generally, and includes many interesting suggestions regarding traffic management.

New Clyno Works.

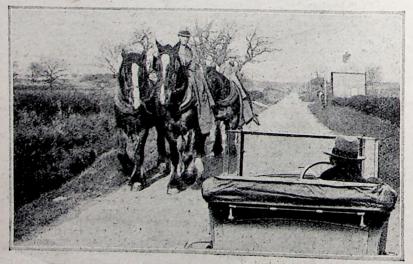
So rapid has been the growth of the Clyno Engineering Co., Ltd., that almost continuous factory extensions have been necessary, and now a new extension measuring about 600 ft. by 400 ft. has been erected. It will be equipped with the latest machinery and with electrically-operated moving tracks and overhead runways.

J.C.C. Spring Race Meeting.

We understand that entries are already being received in encouraging numbers for the various events down in the programme for the Junior Car Club's meeting at Brooklands on April 30th. Several cars which have figured in 200-Mile races will appear in the Junior Grand Prix, the star event of the meeting, and it is probable that there will be a number of women drivers in this race. Entries for any of the events, at single fees, must be received by first post on Wednesday, April 20th.

Simplified Summonses.

Much satisfaction has been expressed by local motorists regarding a suggestion made by the Chief Constable of Liverpool in his annual report. His opinion is that attendance at court by motorists summoned for minor offences. and by constables supporting the charge. causes a great deal of unnecessary waste of time which would be saved if a pro-cedure in the nature of "a compromise fine," such as the Commissioners of Inland Revenue are empowered to adopt, could be extended to cover minor motor ing offences. The idea is that offenders should be communicated with by the chief of the police asking if the offence is disputed, and if it is not, a small fine fixed by statute would be sent to the clerk of the justices and the matter thus ended. If, however, the offender pre-ferred to plead "Not Guilty," the ease would take the ordinary course.



A DANGEROUS PRACTICE.

In most country districts it is the custom to ride and lead horses on the wrong side of the road. This practice is liable to be very inconvenient, or even dangerous, to other road users.

New Rapson Tyre.

Designed to overcome puckering—which causes uneven tread wear—on the front tyres of a car, a new Rapson double-tread tyre has recently been introduced by the North British Rubber Co., Ltd. The tyre, which has, of course, been designed by Mr. Rapson, not only is claimed to eliminate puckering but is further guaranteed for a minimum mileage of 10,000.

Light-car Taxis.

It is probable that the much discussed two-seater taxi-cabs will be seen in London before very long, as a modified 10 h.p. Berliet has been submitted to, and approved by, the Scotland Yard authorities. The manufacturers are prepared to supply similar cabs at the rate of about 200 per month. The bodies will be finished in dark and light blue celluloso with black mudguards, and the price has been fixed provisionally at £450 per cab.



H. Clegg (Austin Sports) after a baulk on Uplands in the Kickham Memorial Trial.

Segrave's Record by Wireless.

In its current issue The Motor publishes a graphic report of Major Segrave's great achievement at Daytona, together with illustrations specially transmitted by wireless. This description of the first time a speed of 200 miles per hour has been exceeded on land appears in a double Easter Number containing a variety of interesting articles such as "The High Spots of Picnicking," "Notable View Points" (the most commanding prospects in Great Britain), and a panoramic view of Brooklands showing the best places from which to see the races.

Important Trade Amalgamation.

Gordon Watney and Co., Ltd., inform us that they have amalgamated with the Car Mart, Ltd. Gordon Watney and Co., Ltd., will be carried on as heretofore and Mr. C. T. Chamberlain will continue with his same staff as manager of the branch at 31, Brook Street, London, W., and the service station at 12, Orsett Mews. Gordon Watney and Co., Ltd., have been in existence since 1907 and were pioneers in reconstructing and tuning up racing cars for track work. Our readers know them principally in connection with Salmson cars and their upto-date methods of carrying out partexchange deals.

This Year's "Scottish."

531

The Scottish Six Days' Reliability Trial, organized by the Edinburgh and District Motor Club, will be held from July 25th to 30th. Considerable care has been taken in selecting the route, and this year it will include sections which have never been covered in previous "six days." There will be a number of valuable awards, and, in addition, a challenge trophy will be offered for the club team which, in the opinion of the Decisions Committee, makes the most outstanding performance. Entries can now be forwarded to Mr. H. Nelson, Trials Secretary, G, Castle Terrace, Edinburgh, from whom, also, full information can be obtained.

The B.A.R.C. Easter Meeting.

There is every indication that the Easter Monday race meeting at Brooklands will prove as popular as usual, for a large number of entries have been received for the nine races down in the programme. There will be four long and four short handicaps and a private competitors' handicap. Of the six cars entered for the last-named race four come within the 1,500 c.c. limit, whilst there will be 15 or more light cars in the other races, in addition, of course, to large cars. As a further attraction, the B.A.R.C. has asked Major H. O. D. Segrave to give three exhibition laps in the 1,000 h.p. Sunbeam during the afternoon, but up to the moment of going to press we have not heard whether this has been arranged.

"The Petrol Engine."

The second edition of "The Petrol Engine," published by Temple Press Ltd., 7-15, Rosebery Avenue, London, E.C.1, price 3s. 6d., is now on sale, and should prove invaluable to those who are interested in the subject of internal-combustion engines of all types. The work has been enlarged and brought up to date, whilst a number of new drawings have been introduced. The ground covered by this little work is indicated by the following section headings: automobile engines, commercial vehicle engines, motor-cycle engines, motor-boat engines, petrol engines for aircraft, and electric lighting and stationary power

Heavy Fines.

At Stratford, Essex, police court it is becoming usual for a fine of £5 to be inflicted on any motorist convicted of exceeding the speed limit.

Henlys' Developments.

This week has witnessed the opening by Henlys, Ltd., of further new showrooms at the corner of Devonshire House where Stratton Street joins Piccadilly, London. In addition to



Mr. Frank Hough, chairman and managing director of Henlys, Ltd.

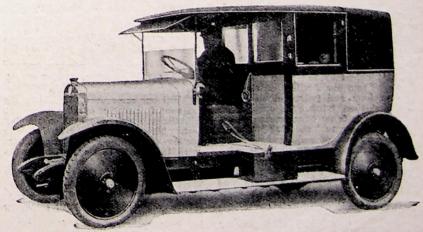
this important development, Henlys, Ltd., who have shown outstanding enterprise of recent years, have bought outright the frechold site and buildings recently occupied by a brewery which had a floor area of approximately an acre. The building is being entirely reconstructed as a car service station, and Mr. Frank Hough, the chairman and managing director of Henlys, Ltd., says "it will surely be the finest thing of its type in the country."

or its type in the country."

Spacious showrooms, with service accommodation, have recently been opened by Henlys, Ltd., in Manchester, at the corner of Deansgate and Peter Street

Swift Car Prices.

We are asked to point out that the price of the 10 h.p. Swift in two-colour finish, advertised by Messrs. Newnham Motor Co. in our issue of April 1st, is £215 and not £315.



A BERLIET

"JIXI."

A modified 10 h.p. Berliet chassis fitted with a special two-seater taxi body has been passed by Scotland Yard for use in London. The cars will be finished in cellulose.

LATEST NEWS OF THE "LAND'S END."

TO "THE END" VIA SHEFFIELD

BUT NOT SO FAR AS IT

APPEARS AT FIRST SIGHT.

INTENDING competitors who have studied the regulations of the M.C.C.'s London-Land's End Trial, which is due to take place on Friday, April 15th, and Saturday, April 16th, may have decided from a cursory examination of the names mentioned in connection with the route that there is no alteration from last year; actually, however, the substitution of the name Trewen for Catchall on the Penzance-Land's End section will make all the difference to the last few miles of the run.

Certainly the Catchall route is difficult for men who are weary after about 17 hours' driving, owing to its winding nature, but the route from Trereen is even harder. The deviation from last year's route commences in Penzance itself, for instead of turning sharp right at the western end of the Promenade, competitors will proceed straight shead to Newlyn, to be faced almost immediately with a tiresome climb about a mile long, known as Paul Hill, from the top of which the road leads through the little village of Sheffield; then by continually twisting and turning one comes to Penberth Hill.

The descent of this declivity should he undertaken with a tire some part of the process of the proc

The descent of this declivity should be undertaken with care, as there is a sharp hair-pin bend half-way down, which, incidentally, is banked the wrong way. From the bottom of this hill another long and twisty climb begins, the road then lying over open moorlands; but it is no exaggeration to say that from here to "the End" there is scarcely 50 yds. of continuous straight road, and time-keeping will be difficult,

With regard to the other main test hills of the trial, Porlock is in fairly good condition, whilst Lynmouth and Beggars' Roost are very much the same as last year. Bluehills Mine, however, is in better condition, as the cross gulleys beyond the hair-pin bend, which meted out such punishment to the suspension systems of cars last year, have been smoothed over.

At the time of writing, however, B10

there was, near the top of the hill, a stretch of about 15 yds. where clay had been thrown on to the road and which naturally will give rise to a certain amount of wheelspin unless it has been removed or covered over by Easter Saturday. The approach to the hairpin bend is very loose, but the corner itself is in quite good condition.

The regulations governing this year's Land's End are much the same as last year, but although the trade ban applies, the entry, compared with last Easter, when the event was open, is surprisingly good. The various car classes are divided as follow:—Cyclecars, cars not exceeding 1,500 c.c., cars not exceeding 2,000 c.c., and cars not exceeding 3,000 c.c., and cars not exceeding 3,000 c.c.

The actual entries are not available at the time of going to press, but they are made up as follow:—Solo motorcycles, 234; sidecars, 114; cyclecars, 26; cars, 153; total, 527. Last year the figures were:—Solo motorcycles, 217; sidecars, 108; cyclecars, 20; cars, 185, making a total of 530. This year there are, therefore, only three entries less than last.

The start will be from the premises of the Slough Trading Estate on the

(Left) A photograph taken within the last few days of the formidable Bluehills hair-pin, the surface of which is good. (Above) The acute turn—banked the wrong way—on Penberth Hill.

main Bath Road, two miles west of Slough, and in order to enable competitors to reach Land's End by daylight, the standard starting time has been advanced one hour, the official cars being timed to start at 9 p.m.; motorcycles and cyclecars will start at half-minute intervals and cars at one-minute intervals.

One hour will be allowed for breakfast at Taunton—for some of the motorcycle competitors this will be more in the nature of a very late supper as the first man is due to arrive about 3.30 a.m. The second meal stop will be at Launceston—the gateway to Bodmin Moor—where the first man will arrive just after 10 a.m., that is, after 13 hours' riding. The finish will be reached by the official cars, who precede the motorcycles, at about 4 p.m.

For the benefit of those who will be

For the benefit of those who will be traversing strange ground and who wish to take the quickest route back to London, the following is recommended:—Penzance, Bodmin, Tavistock, Okehampton, Exeter, Honiton, Ilminster, Ilchester, Wincanton, Amesbury, Andover, Whitchurch, and thence by the outward "Land's End" route to London.

In next week's issue we shall give a more comprehensive programme, including a table showing the times at which the competitors will pass the principal points en route, and giving other useful detailed information.

SECOND MONTLHERY MEETING.

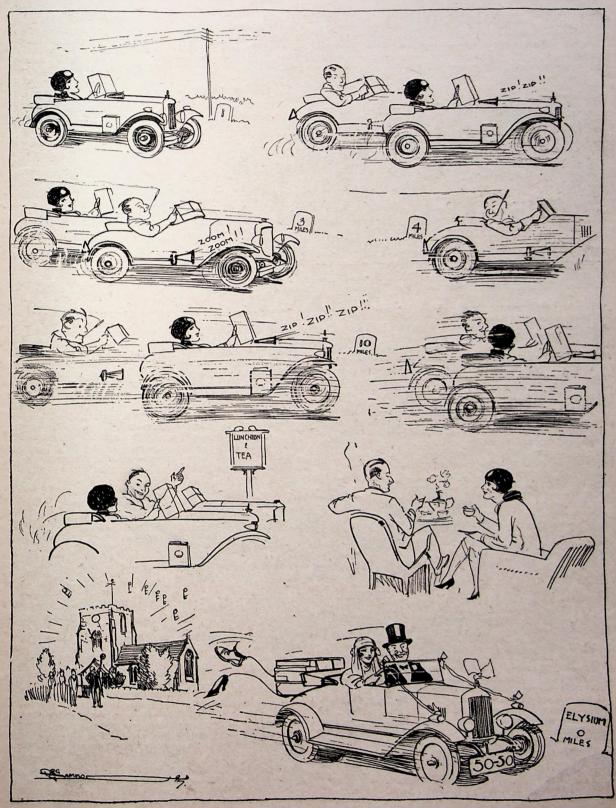
TWO car races were included in the second meeting of the season at Monthéry which was held on Sunday last. The first was a race in three sections for cars up to 1,100 c.c. There were 18 starters in the first section, a number which was reduced to 12 in the final. In each of the three sections there was a fierce ding-dong struggle between the Amilcar and Salmson teams. Amilcars emerged victorious in the final classification on points gained in the three races. Morel (Amilcar) being first, Goutte (Salmson) second. Perrot (Salmson) third, Sandford (Sandford three-wheeler) fourth and Martin (Amilcar) fifth.

The speed of this race was very high indeed for an 1,100 c.c. event. Morel's average was 172.957 k.p.h. (108 m.p.h.).

A newcomer to Montlhery appeared amongst the usual contingent of three-wheelers in this race. This was the Menet Special, a curious amateur-built tri-car with a big twin water-cooled Blackburne engine behind the seats, and no rear suspension at all. It has been built for cement tracks only and should give a good account of itself later when the owner has had more time for tuning.

The only other car race of the day was one of 50 kilometres. This race also was won by Morel (Amilcar).

MILESTONES-A "DING-DONG" BATTLE.



Quite a lot can happen in ten miles-in the Spring!

Light Cars in the Making.



In this, the first article of a new series in which the various phases of car construction will be dealt with in detail, we describe the work of the pattern maker. Next week foundry processes will be explained, and in succeeding articles attention will be given to machining, stamping, erecting, body building and so forth.

To the uninitiated, pattern making may seem far removed from anything connected with expert carpentry, yet, as a definition, it could hardly be clearer, for craftsmen who follow this highly skilled branch of engineering work make the patterns in wood from which impressions in sand are formed, molten metal being poured into the latter in much the same way as jelly in a china mould.

So far as the motor industry is concerned, pattern makers do not enjoy so much limelight as in other spheres of engineering—steam and oil-engine construction, for instance, in which very massive castings figure. For motorcar work, castings are used only for the engine, gearbox and subsidiary parts such as brackets

and so forth; but although pattern makers do not contribute largely in the making of a light car, the work for which they are responsible is of such primary importance that it warrants very special considera tion in this series of articles.

A pattern maker differs

from other artisans of the wood-working class, because he must have a quite good knowledge of the particular form of engineering practice with which his art is concerned. He must also be au fait with foundry practice, because the drawings from which he works do not show him exactly what he has to make, but merely the dimensions and shape of the finished casting, and as the intricacies of foundry work are bound up in the proper construction of patterns, he must be able to tackle the job of making any particular pattern so that it will lend itself readily to the needs of the foundry-men.

SIMPLE

EXAMPLE.

Practically every casting which is hollow calls for two separate and distinct patterns, one having the outward shape—with certain modifications—of the article to be made. The other is known as the core box, and when the sand which is packed into it is removed, the resulting core will correspond in shape with the terior of the casting. An accompanying drawing shows the very simple patterns and core boxes which would be used for casting a short length of tube and will serve to illustrate the principle which we are describing.

Sketch A shows the completed pattern, the diameter (x) being the outside diameter of the finished tube. Attached at each end are what are known as prints. These are of the same diameter as the core—or bore of the tube—and the impression which they leave in the sand will be used subsequently as a support at each

end for the sand To facilicore. tate moulding operations, patterns are usually made in halves, the halves fitting toaccugother rately by means of dowel pins and sockets. The reason for this will be explained in greater detail in the next article, which will deal with foun-

(A) The completed pattern. (B) The lower half of the pattern, showing how the two parts are made to fit together. (C) The lower half of the core box. (D) The sand core as it appears when removed from the box.

dry work. One half of the pattern, with its dowel pins, is shown at B. In parentheses, however, it may be noted that with such a simple form of pattern it is doubtful whether it would be divided.

The lower half of the core box is shown at C, the upper half being a replica, except that it is fitted with sockets into which the dowel pins fit. The length of the box, it should be noted, is the same as that of the overall length of the pattern. The sand core, which is obtained by packing the core box and withdrawing the moulded sand, is shown at D. Sometimes it is necessary to build up a combination core box, so that after it has been packed with sand the sections of the box may be removed one at a time, giving a core which

it would be quite impossible to obtain with one solid box. Again, one pattern may require several separate

It is, of course, common knowledge that metal contracts as it cools, and, apart from the fact that this has an important bearing on the detailed design of the castings, provision must be made for it when the patterns are being constructed, for if they were made dead to size as shown on the plan the resulting casting would come out small all round, owing to shrinkage of the metal in the mould.

To enable pattern makers to work without difficulty, they are provided with special rules—marked off to

16ths or even 32nds of an inch—which are oversize, as it were, so that without making any calculations the pattern maker can get on with his job and know that if the finished pattern has been built up to dimensions given by his rule the necessary allowances for contraction have been included.

The composition of the metal used in a casting affects the actual amount of contraction, and for this reason several rules are necessary. For cast-iron the contraction is about one-tenth of an inch to a foot; for brass, bronze and gunmetal used in motorcar work about three-sixteenths of an inch to a foot; steel varies from three-sixteenths

to one-quarter of an inch to a foot; the contraction of malleable iron is about double that of cast-iron; whilst for aluminium five thirty seconds of an inch to a foot is an average figure. Many concerns, by the way, are now working on the metric system.

The chief wood used for pattern making is first-quality Canadian pine, but for very high-class work walnut or mahogany is employed. Fragile parts such as small projections off a main pattern are frequently made in aluminium or gunmetal, espécially for repetition work. When castings are to be made in large

Every effort, however, is made to cut down labour, automatic planing machines, band saws and so on being installed so as to rough up timber in preparation for the work which must be done to it later on by hand.

It is usual for a pattern maker to "plot out" his job on a piece of timber which he has planed up so that it forms a rough-and-ready drawing board. This enables him to work without making frequent references to a somewhat complicated blue print, and it also enables him to allow the necessary margin for surfaces which are to be machined. On the plan these are marked with a red line, and one-eighth of an inch or so on top of the contraction limit has to be allowed.

so that when the finished easting is handed into the machine shop there will be sufficient metal to enable a clean cut to be made.

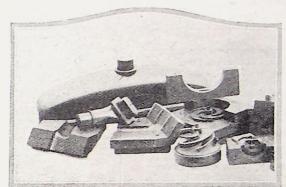
In many pattern-making shops wood-turning plays a very important part. Apprentices, for instance, usually fill in their time during their novitiate by turning prints of various diameters, whilst later on, when they become more expert, they learn to build up rough wooden outlines, constructed, perhaps, of many individual sections of wood glued together, so that this rough job can be turned as a whole in a lathe.

Considerable care must be exercised in building up, for if the joints are not glued

if the joints are not glued firmly there is the possibility of the pattern breaking up during the process of turning and of injuring the operator.

It will be evident from this that, at the outset, the cost of making, say, an engine is higher than the layman might expect and that a clever designer must, so far as possible, couple his desire to obtain a casting of really efficient design with the question of producing it at the lowest possible cost.

Before patterns are passed on to the foundry the surfaces which will come in contact with the sand are

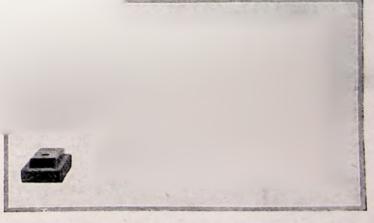


A group of patterns amongst which will be seen the head tank pattern for a radiator. Note the "print" which represents the hole for the filler orifice.

(Above, left) Exemplifying the art of pattern making. (Above, right) The halves of the core box and the pattern for a piston. (Right) Pattern and core boxes for a water pump. The complete casting—made in halves—is seen at the top.

numbers a master pattern of metal is frequently used, and it will be obvious that in making the wooden pattern from which the metal pattern is to be cast allowance must be made for double the normal amount of shrinkage.

The very intricate castings used in modern engine construction call for a high degree of skill and for a wide range of tools, and the outfit used by an expert pattern maker is usually of an expensive nature.



thoroughly sandpapered and painted, one colour, usually red, being used for faces which will come in contact with the sand, and another, usually black, for prints and the rest of the pattern.

The photographs show varied examples of patternmaking, the water pump being that of an A.C. and the remainder examples of the work turned out by the Patternmakers (Engineering) Co., Ltd., Willesden, London.



THE ROAD. THE ROMANCE OF

By GEORGE ALDERSON.

UNDER A SOMEWHAT HACKNEYED TITLE WE GIVE WHAT WE BELIEVE TO BE ONE OF THE BEST ARTICLES EVER PUBLISHED ON THIS SUBJECT.

VARLYLE said that the only romance for grown persons was reality. There could be no better guidance for seeking it on the road. It was in the reality of things that Borrow and Stevenson saw romantic significance which, invested with their own personality, appeared as something new. Borrow could make prosaic railway stations something to wonder at; Stevenson touched London streets with a magic alchemy. Yet neither of these writers ever ventured far beyond the borders of fact. Nor need anyone who, to-day, makes romance his quest. For it exists in a greater measure, perhaps, than ever before and motoring offers unrivalled means for discovering it.

One of the first essentials to falling into the spirit of romance is to discard the idea that the present is sharply divorced from the past. This is a common delusion held equally by every-generation. Actually there is no dividing line between the past and the present: all is continuity.

That group of elms rising high over the village street with the rooks cawing round at sunset—does it belong to your age, or the Victorian age, or the age before



"One of the first essentials . . is to discard the idea that the present is sharply divorced from the past.

"The thrill of discovering what lies 'over the hills and far away' never loses its fascination."

Waterloo? Or take the village church which the archæologist describes as XV Century. It was the village church 400 years ago; it has been the village church, a very present reality, to all "the rude fore-fathers" of the existing community; and to the vil-lagers to-day it is so much a part of their parochial life that its past excites no interest whatsoever.

To them it is the church, as it was to their ancestors, and as it will be, probably, for untold years to come. Fourteenth Century looks down at the twentieth passing by. So it may look down on the twenty-fifth!

Often in touring the country one sees an Elizabethan mansion, its architecture a veritable song in stone. Can one say that that song is silent because the singer and his age have passed? It is not a manuscript. The present is suffused with its harmonies, and it is as much part of to-day as the gardens from amid which it rises.

When we see a jewel adorning a fair wearer we put no age to it. It is something of to-day. Similarly such places as Compton Wynyates in its incomparable setting are jewels upon the fair bosom of twentieth-century England. In the same way we can regard the half-timbered_cottage. To us who pass it is medieval, but to the occupant it is his home, something for which he pays rent and rates, and just as much a bit of present-day England as the council houses just erected.

It is this sense of the past existing in and being part of daily life that brings us into touch with romance, and once acquired it makes the Elizabethan and intervening ages seem very close.

Although motoring may have familiarized us with the roads and countryside of Great Britain the thrill of discovering what lies "over the hills and far away" never loses its fascination. Throughout the ages the lure has beckoned, and it is as strong to-day as ever.
"So at evening," writes an old chronicler, "when the

sun was setting, we came to the top of a long hill and looked down at the river winding to where the ships were lying calmly at anchor. There was a light at the harbour mouth and the church bells were ringing."

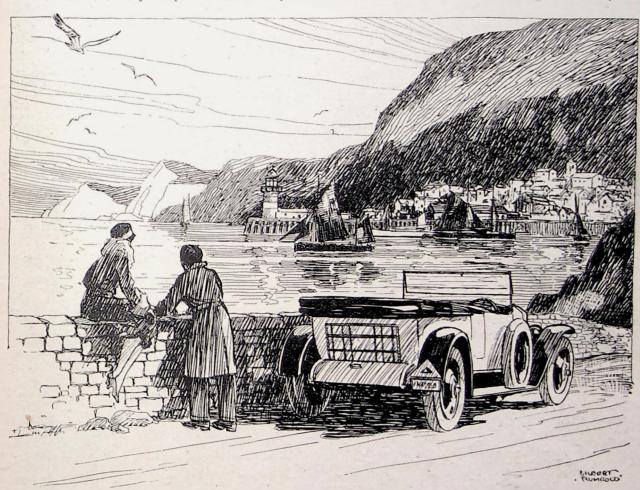
Who has not experienced this sense of serenity at the end of some long journey to the coast? Or looked down, as thousands of others have looked down, as day fell at some hamlet with its lights beginning to show through the dusk? Stevenson in his canoe murmured a benediction on the unknown ringer who one summer day sweetly chimed the bells of a French village church. Such an experience can be ours, too, in England on any Sunday evening in the summer when from some quiet spot in the countryside we hear the "mellow lin-lanlone" of bells over hill and valley.

Sometimes in one's journeys one comes to places

Night turns romance into magic. To come over Alconbury Hill on a moonlit night and see the Great North Road stretching away miles ahead towards Norman Cross is to appreciate this; while if a gibbous moon is shining and the scud flying overhead, every and legend connected with this famous highway becomes very real. One understands why the villages along the route have developed away from it.

When the sky is bright with stars over the Wye Valley with Tintern Abbey silhouetted against them one can only sit and view it in wonderment. Its beauty becomes unearthly; its sublimity overpowering. And what a sense of an insular inheritance comes over one when, standing on some headland near St. Ives, one sees the lighthouses up the coasts of Cornwall and Devon.

But there is no need to look to grandeur only for



"Sometimes in one's journeys one comes to places where the present seems to link hands with an age that stretches into remote antiquity."

where the present seems to link hands with an age that stretches into remote antiquity. Pass over Bodmin Moor on a dull June evening when clouds are wreathing Brown Willy and a gleam of sunset is reddening the horizon.

One need seek no farther to discover the origin of West Country legends and myths. Here, one might fancy, are places "where no one comes or hath come since the making of the world," and witches and gnomes by no means seem impossible!

Happier are the impressions aroused by coming suddenly upon such places as Babbacombe and Oddicombe beach. As Moore wrote of another spot:—

"To those that know thee not no words can paint,
And those that know thee know all words are
faint."

romance. One can find it in every village on the road. There is not a pillar-box that is not surrounded with a wealth of memories connected with the Great War. The village general store enshrines many an association for sons and daughters of the place who have sought fortune in pastures new, whilst the signs of the inns may speak of proud—and infamous—families now otherwise forgotten.

To the writer the most romantic spot in the country is no farther away from London than Barnet. Here one can stand and look down two roads. That on the right is the Great North Road leading over 390 miles to Edinburgh, that on the left, Watling Street, leading over 260 miles to Holyhead. The man who can see nothing impressive as he stands there at the fork has read this article in vain.





HIGH-SPEED ENGINE CARBURATION.

By L. Mantell.

THE WORKING OF CONSTANT-VACUUM CARBURETTERS—HOW THE TWO LEADING MAKES DIFFER IN GENERAL DESIGN THEIR BASIC PRINCIPLES ALTHOUGH ARE SIMILAR.

THE previous articles in this series have dealt with fixed choke carburetters and the methods adopted by the makers in overcoming the various problems connected with their working have been explained. The constant-vacuum types now come up for consideration, and the first thing is to make clear their different systems of functioning.

It has already been explained that in the case of open carburetters the choke area is fixed, and the velocity of air through this constriction and the consequent vacuum in the induction system vary with the engine speed. Assuming a fully opened throttle, the jet, which delivers fuel in an approximate ratio with the rise or fall in suction, has a fixed orifice, which is modified in most cases to correct the discrepancy between the air and fuel delivery, owing to the difference in their weights and inertia values.

Certain difficulties that have already been analysed arise, however, in proportioning and maintaining a correct air-petrol ratio under various conditions of throttle and load variation, which make it difficult to ensure in all circumstances a constancy of mixture and volumetric exactness, and at the same time a correct state of air-fuel admixture.

This has always been the weak point of the fixed choke method of carburation, and to correct it the constant-vacuum system came to be employed in certain carburetters.

The Vacuum Valve.

As one is obliged to depend to a great extent upon an effective minimum air speed past the delivery orifice of the jet or jets for fuel disintegration, the basic principle of the C.V. carburetter is the provision of a means of maintaining a reasonably constant induction vacuum, and therefore spraying velocity, at this point, while at the same time providing automatically the volume required by the engine within all ordinary ranges of speed. This is done by controlling the airway on the atmospheric side of the throttle by a gravity valve or piston automatically operated by the vacuum on the engine side of the valve, and suitably weighted to provide a calculated and constant depression at varying engine speeds.

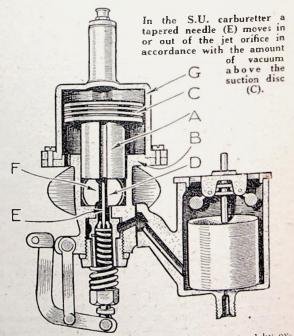
As the degree of suction in the induction manifold obviously would rise and fall with the engine speed if uncontrolled, it will be self-evident that if this suction area is communicated to and made to act upon such a valve, it will cause it to move in unison with these variations and remain always in a position where its weight is balanced by the suctional lifting effort.

The volume of air which passes through the opening governed by the valve is in direct ratio with the height of its lift, and bears a similar relationship to the engine speed. It follows, therefore, that while the lift and air volume vary with the revs., the vacuum and spraying velocity are constant.

Instead, therefore, of having a fixed jet orifice, as in the case of open carburetters, which would deliver more and more fuel as the suction thereon increased, it becomes necessary when a constant vacuum is used to provide a means of varying the area of the fuel outlet in proportion to the rise and fall of the valve and in a more or less precise relationship to the volume of air that passed.

There are two methods of carrying this principle into effect mechanically, as represented respectively in this country by the S.U. and the Smith five-jet carburetters. In both cases a gravity constant-vacuum valve is embodied, the movements of which vary the fuel output proportionately with the volume of air which passes.

The S.U. carburetter, standardized by various well-

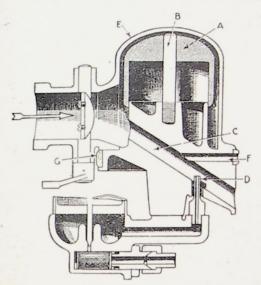


known makers in this country, is characterized by extreme simplicity. An accompanying sectional drawing shows a horizont. An accompanying sectional drawing shows a horizontal type of this instrument, from which its method of coverits method of operation can be understood at a glance.

The composite composed

The composite constant-vacuum member is composed a piston (A) and surof a piston (A) working in a guide (B) and surmounted by a suction disc (C), while at the lower end of the piston is analyzed. of the piston is anchored a tapered metering needle (E), which moves in and a tapered iet or petrol de-(E), which moves in and out of the jet or petrol de-livery orifice, according to the suction existing on the upper side of the disc in the cylinder (G). This space is connected by a duct, not shown in the sketch, to the area between the needle and the throttle, which in the illustration is behind the needle and in a fully open position.

As the throttle is opened the suction communicated to the chamber (G) causes the valve to lift, exposing an airway, which is the equivalent of the choke in an epen carburetter, and at the same time drawing the



Four main jets, each in a separate choke tube, are used in the Smith carburetter. In this sketch one of the jets is shown at D.

tapered needle from the jet situated at the bottom of this varying aperture.

It will be obvious that by means of needles having various degrees of taper the petrol output can be regulated exactly to the air volume under all conditions of operation; not only so, but in expert hands various peculiar engine characteristics which may demand slight local enrichments can be dealt with by making corresponding local reductions in the diameter of the needle, thus ensuring a remarkable degree of exactness in the mixture strength with proportionate smoothness in engine running.

The spring-loaded device shown in the sketch is an arrangement for varying the mixture strength from the driving seat, and its operation consists simply in raising or lowering the jet; thus, by altering its relation to the metering needle, the mean air-petrol ratio is varied throughout the whole range of movement.

The Fixed Jet Type.

The Smith five-jet is also a very popular carburetter amongst makers who desire the special characteristics which are the property of constant-vacuum instruments. It is provided with a suction-operated vacuum valve member, which rises and falls in exact proportion to the required volume at a fixed vacuum, but its fuel delivery arrangements are quite different from those of the S.U.

The designers of the Smith carburetter, instead of employing a moving needle delivering fuel through a varying annulus, prefer to use fixed jets, and they arrange the valve so that, in the process of opening, it uncovers successively four fixed choke tubes, in each of which is mounted a plain jet. The ports leading from these chokes are placed so that they overlap, and as, therefore, the rising valve uncovers them progressively, the products of each are gradually merged together and intervening gaps are avoided. One of the accompanying sketches represents a sectional diagram of the carburetter showing the valve (A) fully lifted

on its guide (B). Unfortunately, this section permits one only of the chokes (C) to be shown in section with its jet (D). This is the lowest one, and therefore the first to be uncovered; the other three, which are behind, are similar in appearance, and are arranged at various heights, so that when the valve is at the top, as shown, all of them are exposed.

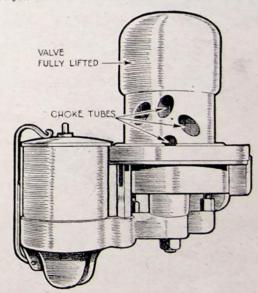
The position of the choke outlets in relation to the valve is seen more clearly in the other sketch, which is viewed in the direction of the large arrow shown in the sectional drawing, the throttle chamber and body having been removed. The degree of overlap can clearly be seen.

The four jets need not necessarily be of the same size; in fact, they are arranged, usually, so that the first to come into operation delivers a smaller quantity of fuel than the second, which is large enough to provide a fairly rich mixture for rapid acceleration. The third jet delivers a weaker mixture, whilst the fourth, which comes into action at high speeds, has a quite small delivery orifice, which ensures fuel economy. As the engine speed falls when hill-climbing, the vacuum valve, in closing, shuts off the third and fourth ports, so that a rich mixture is then supplied to the cylinders.

Submerged Pilot Jet.

Starting and slow running are effected by the provision of a simple type of well jet with the orthodox method of submerged calibration, and arranged to deliver a rich mixture to a by-pass hole at the edge of the throttle. A small volume of air is, at the same time, drawn through No. 1 choke, so that as the valve commences to rise a complete overlap with the pilot is assured.

By this ingenious combination of parts the Smith carburetter provides an infinite variation of mixture at all parts of the load curve by the use of fixed and definitely calibrated fuel orifices and an independent pilot jet.



This sketch of the Smith C.V. carburetter with part of the body removed shows the vacuum valve fully lifted exposing the four choke tubes. A separate jet and choke are used for slow-running.

Provision for varying the mixture within limits from the driving seat is made by supplying extra-air ducts (F) to chokes 2, 3 and 4, the entrances to which are controlled by a rotatable sleeve (G), in which corresponding holes are drilled to register in the open position with the ducts (F). By "closing" the holes a temporarily rich mixture can be used in cold weather until the engine attains its normal working heat.

Road Tests of 1927 Models.

THE 12-28 H.P. CLYNO SALOON,

A CAR IN WHICH PERFORMANCE AS WELL AS COMFORT HAS BEEN STUDIED CLOSELY AND WHICH SELLS COMPLETE FOR THE LOW PRICE OF £250.

In our issue dated March 18th we gave our impressions of the 11 h.p. Clyno Royal saloon, the price of which is £230. The accompanying test-run report is, therefore, an interesting follow up and will enable the respective performances of the two types to be gauged.



ELEGANT SALOON COACH. WORK.

The general characteristics of the coachwork of the 12-28 h.p. Clyno saloon can be seen from these photographs which show the car from three interesting viewpoints. Noteworthy features are the three wide and deep side windows and the very useful rear light through which a comprehensive view can be obtained. The interior comfort leaves little to be desired.

respectively (R.A.C. rating 11.9 h.p., tax £12). Side-by-side valves enclosed in an oil-tight cover, a three-bearing crankshaft, a Cox Atmos carburetter and a neatly arranged 12-volt Lucas lighting and starting set (separate instruments) are features of interest.

rate instruments) are features of interest.

The pistons are of cast-iron and lubrication is by a submerged plunger-type pump operated direct from the camshaft, which forces oil to the timing gear, main bearings and troughs under the big-ends. The clutch is of the cone type, and the gearbox, mounted on the forward end of the torque tube, provides three speeds, the ratios being 16, 8.75 and 5 to 1. The final drive is by spiral bevel.

A Four-door Body.

The body has four wide doors, through which entry to or exit from either the front or rear compartments can be made quite easily, even by a big passenger, while the right-hand controls to both the gear and hand brake are placed in such a position that they offer the minimum obstruction to the driver's door.

Without making the waist line appear at all low, the windows (six in number) give ample vision for all passengers, while a large light in the rear of the head enables one to manœuvre comfortably and safely in reverse.

The clutch is smooth and certain in action and the gear change is simplicity itself; although there are fairly big "gaps" between the first and second and second and third ratios, the waiting period when changing up is not unduly long. Owing to the lightness of the free member of the clutch, "straight-through" changes of gear can be made, but for downward changes double-declutching is, of course, advisable to ensure silent engagement.

From a standstill on a slight uphill gradient a certain get-away can be made on the top gear of 5 to 1 without

O a motorist of moderate means who is contemplating the purchase of a new car, the 12-28 h.p. Clyno four-door saloon represents a proposition well worthy of consideration. With a roomy and comfortable body lavishly equipped—even to a cigar lighter—finger-light steering and a willing four-cylinder 1,496 c.c. side-valve engine, the car is excellent value for money.

Generally speaking, the specification follows accepted practice. The bore and stroke are 60 mm. and 100 mm.

undue slipping of the clutch, so the veriest novice should be able to make quite sure of getting the car under way when using the lowest ratio on even a steep hill.

For traffic work top gear can be employed practically all the time. The engine will throttle down and fire regularly at 5 m.p.h. and will accelerate smoothly from this speed, providing the ignition is retarded somewhat. If, however, one wishes to accelerate rapidly, it is advisable to drop into second gear, when the car performs in a very lively manner.

The steering is exceptionally light, not only when running at high speeds on the open road but when manœuvring in, say, a garage. These are features that are very difficult to combine and which make a distinct appeal to women drivers.

In this connection it may be pointed out that balloon tyres are fitted, and this would appear to indicate that low-pressure tyres receive unmerited blame when steering systems are heavy.

The springing, too, is very comfortable, and at a fair average touring speed of, say, 35 m.p.h. to 40 m.p.h., the car does not roll excessively on bends. When approaching the maximum speed of 53 m.p.h., we observed a slight tendency to roll on sharp bends, but this was,

FEATURES OF THE ENGINE.

The power unit of the 12-28 h.p. Clyno is very sturdy and of convincing appearance. The layout of the thermo-siphon cooling system is on efficient lines, the radiator being equipped, in addition, with a large head tank. Other features of interest are the accessible and wide-mouthed oil filler, the ribbed exhaust manifold and the neat mounting of magneto, dynamo and starter.

possibly, accounted for by the fact that, the steering

being so light, one was apt to corner too fast.

For a comparatively small enclosed car with no pretensions to being a sports model, the top-gear performance is exceptionally good. On an ordinary give-andtake road 50 m.p.h. can be touched many times, while
on a straight, level stretch we were able, during the
course of our trial run, to maintain 53 m.p.h. for
approximately a mile, no mean performance for a
1,500 c.c. four-seater saloon costing but £250. On
second gear 36 m.p.h. could be obtained without undue
fuss and on bottom gear the car will run at 19 m.p.h.,
also without excessive fuss or noise. The engine is
reasonably silent throughout its whole range, and
except for a very slight period between 40 m.p.h. and

42 m.p.h. on top gear is practically devoid of vibration. As stated previously, the acceleration on top gear is very good indeed; thus, from 10 m.p.h., 20 m.p.h. can be attained in 7 secs., 30 m.p.h. in 14 secs., 40 m.p.h. in 22 secs. and 50 m.p.h. in 38 secs.—really excellent going.

Powerful Braking System.

One of the most noteworthy features of the car is the four-wheel braking system. The pedal applies internal-expanding shoes within drums attached to each of the four wheels, the lever acting on the rear wheels only. The application of the pedal brings the car to a standstill not only in a very short distance but with velvety smoothness. Actually we were able to pull up to a standstill from 50 m.p.h. in 142 ft., from 40 m.p.h. in 93 ft., and from 20 m.p.h. in 18 ft. The hand brake is also surprisingly powerful and will hold the car either forwards or backwards on quite severe gradients.

There are several little points in the Clyno which will appeal to the owner-drivers. The oil-filler spout on the engine is located high up, so that the lubricant in the sump can be replenished direct from an ordinary oilcan; the 12-volt Lucas starting set is sufficiently powerful to swing the engine round amply fast enough to obtain a sure start, whether the engine is hot or cold; there is a petrol gauge visible from the driving seat, which indicates instantly the amount of fuel in the tank, while the grease nipples are located as conveniently as possible.

We were very favourably impressed with this latest model Clyno. As we have indicated, it is comfortable, speedy and very easily controlled, and, bearing in mind the low price of £250, the all-round finish leaves little to be desired.

EASTER EVENTS.

On sale one day earlier next week, that is on Thursday instead of Friday, The Light Car and Cyclecar will be published on the eve of the Easter holiday, and will contain all the last-minute information and so on concerning Easter events. A detailed programme of the London-Land's End Trial will be a feature. Order your copy now

A Chinese Puzzle.

OF course I should know how to do it, and it is not as though I have not tried; I have—first this way, then that way, single-handed, with the aid of an assistant, standing in my car and standing outside it. I have worked it all out theoretically, and experts have told me just how it should be done; but, to my shame, I confess that I am still as far from perfection as ever. What is it? Oh! just neatly folding the hood of a four-seater.

When it Blows.

In these days of very roomy four-seater bodies. the question of wind resistance deserves special consideration. A slight headwind, almost indefinite, perhaps, to a pedestrian, is multiplied exceedingly in its effect when a car is being driven into it at, say, a modest 35 m.p.h., and the result is reflected not only in reduced pulling power, but greater consumption. Close-up wings commend themselves as a practical way of reducing windage area, for on several small cars ordinary wings and valances present quite a large surface to the breezes. A drawback is that the body of a car so fitted soon becomes dirty, because the close-up wings serve merely to prevent mud and water being flung straight out; but "baby" valances overcome this to a large extent.

Laziness or Ignorance?

WHEN one has acquired the knack, it should be possible to remove a low-pressure cover from a rim of the well-base type without using levers. Now, the other day one of my colleagues wanted a little "swapping" done—front tyres changed over, a new cover fitted to a rear wheel and a repair to the spare. In the ordinary way he would tackle such jobs himself, but as his car was in for a wash and polish he thought it would be a good opportunity to have the other jobs done as well. What puzzles him now is that round the rims are the plain and unmistakable marks of a tyre lever or levers. Are some garage folk too lazy to remove low-pressure covers in the recommended fashion—one, by the way, which precludes the possibility of any of the paint being chipped off the rims?

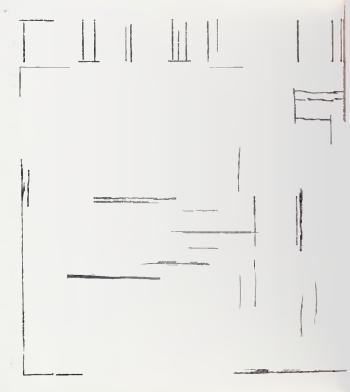
A Really Useful Gadget.

THERE is in existence, and has been for two or three years, a gadget which makes tyre inflation and pressure maintenance a very much less



Testing tyre pressure without disconnecting the pump from the valve.

troublesome task than it is for most of us. I refer to the Schrader tyre pump connection, which only costs 2s. 3d. and can be screwed on to the end of any tyre connection. With it in place the pressure in the tube can be tested without removing the connection from the valve, and I



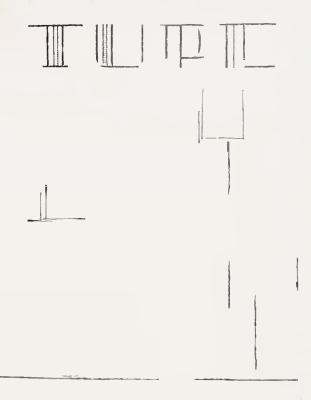
find that it saves me between five and ten minutes when testing and readjusting the pressures in my tyres. I am told by the manufacturers that not every garage stocks these little fitments, but that any garage will supply one to order. It is called the Schrader No. 2815 connection.

Uncanny Noises.

I WAS flattered when one of my friends approached me recently with the remark, "Focus, I wish you would have a run in my car and endeavour to trace the source of a noise which is worrying me considerably." Could I do aught else but oblige at the earliest possible moment? At first sight it appeared quite easy; it sounded exactly like the rattle of a chain, and it was most noticeable at about 23 m.p.h. in top. It was on the tip of my tongue to say, "Why, my friend, you have only to tighten up your timing chain and the noise will vanish," but when I discovered that the noise increased directly the engine commenced to pull hard, say, on an up gradient or when accelerating, I thought twice about the matter, for, obviously, a slack timing chain is not, or should not, be affected by engine load.

A Simple Cure.

I HAD in my pocket an elastic band, and I bethought me of an uncanny rattle and its cure of which I had read or heard some time ago. So I stopped the car, alighted, lifted the bonnet and asked my friend to depress the accelerator pedal about a quarter of the way through its travel. I found that, owing to the arrangement of the control rods, there was at this position of the pedal quite a lot of play between the throttle arm and its connecting-rod, and it was but the work of a moment to slip the elastic band round the rod and loop it over the end of the throttle arm, so that any pos-



sible tendency to rattle was eradicated. You can imagine the delight of my friend when, on getting going again, the noise had entirely vanished. This little story emphasizes the futility of worrying over rattles, squeaks and so forth unless they assume a degree of prominence which really necessitates investigation.

Switchboard Improvement.

NATURALLY, I have been deeply interested in the correspondence which has arisen out of my idea for putting the switchboard under the bonnet, and the wave of opinion would appear to be so unreservedly in favour of the system I suggested that I feel sure we shall soon see a move in the direction I indicated.

Closely associated with this question is that of the petrol tap, to which allusion was made by Mr. F. O. Hunt, who pleaded for greater accessibility. For my part I should like to see a facia-board control for the petrol tap, so that, should an outbreak of fire occur at the carburetter, the driver could instantly cut off the fuel supply and rev. up his engine—than which there is no quicker way of putting out such a conflagration.

An Old Grumble.

FROM time to time, for many years, I have bleated mildly concerning back draught. Since I last discussed the subject about a year has elapsed, and during that time, so far as I know, there have been no new inventions aimed directly at preventing it, and I was unable to find at Olympia the slightest signs of manufacturers having taken even the mildest interest in it.

It is the horrible back draught in open cars that has driven so many of us to buying saloons, which, I have no doubt, we shall find far from ideal during the summer months. We have bought them because we had no alternative, except using touring cars with the hood up, which means keeping the side curtains up, if draughts are to be avoided, and everybody knows that a saloon is a far more pleasant car than a touring car with its all-weather equipment in place.

Signs of Relief.

On many previous occasions I have pointed out that there must be many ways of making an open car practically draughtproof for the front-seat passengers, and an obvious way to start experimenting would be to try windscreens of various types set at various heights and angles. Another helpful direction for experiment would be the heightening of scuttles and the lowering of seat cushions. I am glad to see that there is already a tendency for seats to be lower; if this tendency does not cure stiff necks and frozen spinal columns, at least it will add to stability, which in these days of very large section tyres is not always so good as it should be.

Looking Ahead.

THE difficulties of lowering the seats of a light car very much are that, if the job is to be done thoroughly, the propeller shaft must be housed in some sort of tube between the driver's and passenger's seat, whilst the frame needs either to be lowered, outswept where the seats come or inswept to allow sufficient steering lock. I should not be surprised if the more popular light cars of 1930 have their frames slung beneath the axle, which would bring us back to where we were some 16 years ago, when the Seabrook R.M.C. was at the height of its popularity. This car had the dumb-irons beneath the front axle, and half-elliptic springs were slung above it.

Testing Jet Sizes.

ONE is often told that slight differences in jet sizes are not discernible to the eye, and that to compare the orifices by holding the jets up and gazing through them does not provide reliable data. This is true; but as it is not everyone who has access to a flow-meter, and as there are occasions when one is justified in suspecting the number stamped on the jet, I give below a method by means of which the eye can be very usefully employed. Put a matchbox on the edge of a table or bench and on it place the jets to be compared with the small orifices pointing down the table. Opposite, at a distance of several feet, stand a ninepin or





Showing how jet sizes can be compared, as explained in the accompanying paragraph.

similar article with a sheet of paper containing large print immediately behind it. If, now, one



looks through the large end of the jet as a rifleman looks through his back-sight and brings the other end to bear on the ninepin, the tiny hole straightway becomes of extraordinary size, showing not

AN OF STREET

only part of the ninepin, but also of the sheet of paper behind. It is then easy to see which of the holes encloses the greater amount of print, the letters of which can be read quite clearly.

By this method, too, the outline of the jet hole appears as if magnified, and any deviations from the circular caused by inaccurate machining or damage are at once apparent.

A Landmark by Night.

OING north through Aylesbury the other night, I was greatly impressed with the extremely beautiful manner in which the War Memorial at the top of the square is illuminated. As one comes into the square from the south one sees the memorial with its cenotaphs revealed in an intense white light, which seems to radiate from the memorial itself. On top are flambeaux glowing red. The effect is created by searchlights sunk in the well of the memorial and shining upwards on to it. The isolation of the memorial against the dark background of the square is very striking and gives it an unearthly quality in keeping with its symbolism.

In this connection readers may remember a front-cover picture of *The Light Car and Cyclecar* which depicted about three years ago the war memorial at Hertford. This was one of the first to be illuminated by "flood lighting" and still remains perhaps the most striking in the country. Another illuminated memorial stands at Potters Bar, where the North Road forks right for Cheshunt.

Two Cars Essential.

DURING a recent week-end at the coast I fell into conversation at my hotel with another visitor who also had arrived by car. Talk naturally turned to motors, and after examining my car he said that he wished he could substitute his big tourer for a smaller one. I explained that there were plenty of cars of more modest c.c. that should give him satisfaction; but he laughed.

"I am afraid you do not understand my requirements," he said. "There is no one car on the market that would suit them. I must have two."

"Two!" I ejaculated, somewhat mystified.
"Why two?"

"Well, you see, I have ten children," was the surprising reply. "They are all motor mad, and when we go out on Sundays there are six of us in one car and six in the other. Now, I ask you, what car manufacturer caters for me?"

Catering on a Large Scale.

HAD my informant been a greybeard his revelation would not have been so astonishing; but neither he nor his wife looked a day over forty! He went on to tell me-with obvious relish-of the preparations they had to make when including an alfresco lunch in their programme. A minimum of twelve eggs had to be boiled, a small ham cut up for sandwiches, and at least three loaves were required. Six quart thermos flasks were carried, two quarts of milk, two to three pounds of cake. the same quantity of fruit, and a pound or two of Even then the family arrived home biscuits. hungry and ready to start on the mountain of provisions in the larder. I can quite understand that occasionally father and mother found it necessary to escape by themselves for a week-end rest!



This remarkable old bridge, which spans the River Fowey at Resprin, although narrow and dangerous, is admired by countless tourists.

B22



The Police and Trapping.

WHILST reasonableminded motorists take no exception to the administration of the law as the law stands, they are naturally somewhat discouraged to discover that trapping still continues unabated, though the probability of the speed limit being removed, or perhaps raised to a much higher figure, is being freely discussed in public and official circles. Judging from reports which we have received, trapping on "safe"

roads appears to be actually on the increase. As we have intimated, there is no reason why trapping should discontinue until the law is altered, but we do think that motorists travelling along perfectly safe stretches of highway at 30 m.p.h. or 35 m.p.h. should be unmolested, the police confining their attentions to stretches where high speeds might prove dangerous to other road users.

Sir William Joynson-Hicks turns a somewhat unsympathetic ear when approached on matters of this kind. When, for example, he was asked in the House whether he would "consider the desirability of abolishing these unnecessary and un-English methods," he retorted, "It might strengthen my hands if the hon, and gallant gentleman could suggest some method of abolishing the unnecessary and unreasonable practice of disobeying the law of the land." No one will regard Sir William's reply too seriously, and it would apply with peculiar force in connection with anything but the speed limit, which is ignored by every motorist in the land until he is sufficiently unlucky to be caught in a trap. By all means let us stamp out dangerous driving, but, in view of the general feeling with regard to the speed limit, we appeal for more generous treatment on the open road.

More Instructive Tests.

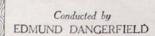
IT is becoming increasingly evident that the one-time familiar handicap race meeting at Brooklands is gradually being superseded by events of a far more varied and instructive nature. Credit must be given to the Junior Car Club for making the first bold step in this direction in 1921 with its 200-Mile Race, which was the first long-distance event to be organized in this country. It was an instantaneous success and proved the forerunner of succeeding races which have gained in popularity year by year. The latest development is the Essex Motor Club's Six Hours' Endurance Race for



"THE LIGHT CAR AND CYCLECAR" WAS FOUNDED IN 1912 TO CATER FOR THE NEEDS OF USERS AND POTENTIAL NEEDS OF USERS AND POTENTIAL PURCHASERS OF LIGHT CARS AND CYCLECARS, AND IT HAS CONSISTENTLY ENCOURAGED THE DEVELOPMENT OF THE ECONOMICAL MOTORING MOVEMENT FOR OVER FOURTEEN YEARS.

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

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practically standard sporting cars, and, although it promises to be not so sensational as a 200-Mile Race or a Grand Prix, the value of the lessons which it should teach will be equally important. Calculated to attract owners of very fast touring cars, it should also prove an attraction to that section of the public which takes a keen interest in carefully organized tests.

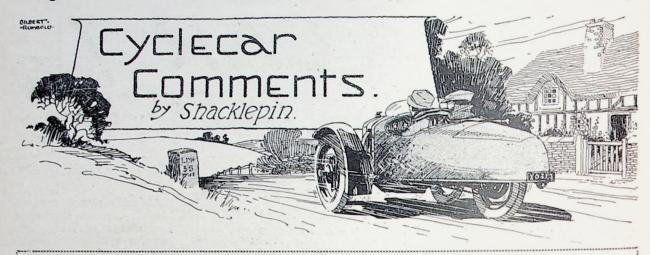
At first Brooklands appealed primarily as a stage for very spectacular per-

formances. Little significance was attached to the lessons which were being learned by pioneer designers from racing practice. Nowadays, however, practically every member of the public is a motorist in some form or other, and increasing numbers are beginning to take a serious interest in racing and the tests imposed on cars of all types at Brooklands. The Six Hours' Endurance Race will provide entirely new data, and it is hoped that the event will receive hearty support.

Value for Money.

No better value for money is obtainable than a modern light car. Boots, clothes, food and all the other necessities and luxuries of life are dearer than they were before the war-and their quality is not so good. Light cars, however, are cheaper, their performance is better, their equipment vastly superior and the comfort they afford is on an entirely different plane. Twenty of them can be bought for the price of a single luxurious limousine of the most costly type, and half a dozen or more can be had for the same figure that most middleclass men pay for their semi-detached houses. This is amazing. Only 12 years ago light car values were not half so attractive.

How have the price reductions been made? Certainly not under pressure of foreign competition, nor on account of any kind of price war. They have been achieved by concentration upon scientific production methods and by the employment of machines that do the work of many men. How they do it is to be revealed in a series of articles. entitled "Light Cars in the Making." The first of these articles appears in this issue, and others will follow at regular intervals. They will disclose not only the wonders of the machines now in use in our big factories, but they will make clear the vital part that is still being played by sheer manpower in the production of a modern light car.



FIRST IMPRESSIONS OF A NEW OMEGA-WHY A DE LUXE MODEL WAS CHOSEN-MODIFIED BRAKING ARRANGEMENTS-PARTS FOR HOME-BUILT CYCLECARS-A SIMPLE FOUR-WHEELER LAYOUT.

OMEGA owners will be interested to hear that I have just taken delivery of one of the latest de luxe models of this make. Sporting cyclecar enthusiasts will doubtless raise their eyebrows at the mention of the words "de luxe" and ask themselves why I did not choose one of the sports models. I must confess that this question worried me considerably before I finally placed my order, and the sight of an attractive sports Omega in a showroom which I often pass nearly resulted in my selecting a similar model.

Weather protection was the deciding factor, for, as I use my car practically every day of the year and not merely for week-end and holiday trips, I like to feel that the Clerk of the Weather can do his worst without causing me any discomfort. With the two aero-type screens fitted to sports models it is, of course, impossible to obtain an absolutely weatherproof joint between the screen and the front of the hood.

The de luxe model, on the other hand, has really good all-weather equipment. The front screen is of the two panel type, the hood being secured to the top rail by the usual peg and socket arrangement, whilst the forward side screens can be left in position when the hood is furled.

Ample headroom is provided and the cyclecar is quite pleasant to drive with the hood erected, as I proved on the way back from Coventry after I had collected the car from the works. On this journey the weather apparently did its best to vindicate my choice, for it rained hard almost all the way!

The body is of polished aluminium, the wings being finished in an attractive and not too startling, shade of red, whilst the wheels, B24

chassis and upholstery are black. Naturally, I specified front-wheel brakes, which are of the internal-expanding type working in 6-in. drums and very sweet in action. The hand brake takes effect on all wheels, whilst the pedal operates a separate contracting band on the rear wheel. The two rear-wheel brakes were retained to satisfy a fad of mine, for normally only one rear brake is fitted to models supplied with front brakes.

When following close behind other vehicles in deuse traffic, however, I like to make full use of the handbrake lever, so that I can reserve my right foot for the accelerator pedal, and in those circumstances it is an advantage to be able to control brakes on all three wheels with the hand lever.

A feature of the car with which I am particularly pleased is the lighting set, which is of the Miller manufacture. Five lamps are fitted and a very good driving-light is available.

I am still not in a position to say much about the performance of the car, for it is not yet thoroughly runin and "blinding" is, of course, out of the question until I have covered a greater distance. My Omega is fitted with a side-valve 980 c.c. water-cooled J.A.P. engine and from past experience of these engines I am sure that I shall not be disappointed in either its speed or hill-climbing capabilities.

When I have covered 3,000 or 4,000 miles and have had an opportunity to put the Omega through its paces I hope to give my impressions in detail.

I sometimes receive inquiries from readers who are building or reconstructing cyclecars, asking where they can buy aero windscreens, wire strainers and similar components. These inquiries indicate, I regret to remark, that the readers in question have not been studying the miscellaneous advertisement columns of this journal, in which, every week, are to be found announcements relating to parts and accessories of use to amateur cyclecar builders.

Two concerns in particular, namely, Coley, Ltd., and Messrs Pride and Clarke, specialize in ex-Air Force parts, and although a complete list of their stock naturally is not published in their advertisements, enough is said to indicate that they can supply almost anything likely to be required at very reasonable prices.

A Liverpool reader is building a cyclecar in which he is incorporating a Harley-Davidson motorcycle engine and a three-speed gearbox. The chassis frame is of ash, braced by two strips of channel steel and a light two-seater sporting body will be fitted.

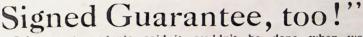
My advice is sought concerning the type of springing, steering and transmission to be used. So far as the springs are concerned, in my opinion quarter-elliptics are in every way satisfactory and very easy to fit; at the rear the solid axle could be arranged to run in ball races carried in housings bolted to the springs, the torque being taken through simple radius rods.

Transmission from the gearbox should be by roller chain to a sprocket secured to the rear axle, chain adjustment being effected by arranging the ball-race housings to slide on the springs. Steering could be direct or geared down by a simple rack and pinion arrangement, but the possibilities of a wire and bobbin layout are worthy of serious consideration.

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CITROEN, 1924, 11 h.p., 4-scater, very good order £65
ROVER, 1926 (late), super model 4-scaler, F.W.B., excellent condition. £165
ROVER, 1923, 990 h.p., 4-str., 4 doors £115
STANDARD, 1926, 114 h.p., 4 door £115
STANDARD, 1926, 114 h.p., 4 scaler, di luxe, painted fawn
STANDARD, 1925, 11 h.p., 4-scaler, di luxe, painted fawn
STANDARD, 1925, 11 h.p., 4-scaler, di luxe, painted fawn
STANDARD, 1924, 11 h.p., 4-scaler, di luxe, painted fawn
STANDARD, 1924, 11 h.p., 4-scaler, luxe, painted fawn
STANDARD, 1924, 11 h.p., 4-scaler, di luxe, painted fawn
STANDARD, 1924, 11 h.p., 4-scaler, luxe, painted fawn
STANDARD, 1925, 11 h.p., 4-scaler, di luxe, painted fawn
STANDARD, 1925, 11 h.p., 4-scaler, luxe, painted fawn
STANDARD, 1925, 11 h. BWIFT, 1926, 10 h.p., 2-scater, F.W.B., halloon tyres, perfect condition ... 133
TALBOT, 1923, 8 h.p., 2-scater and Yellow tyres, perfect condition ... 133
TALBOT, 1923, 8 h.p., 2-scater and Yellow tyres, 11 h.p., 4-scater, 145
WINGER, 1825, 11 h.p., 4-scater, 1460
BINGER, 1926, 10 h.p., saloon, painted markon, with leather upholstery, excellent condition, F.W.B. ... 183
SINGER, 1925, 10 h.p., saloon, in good order, repainted. ... 145
SINGER, 1926, 10 h.p., 4-scater, in exceptional order repainted. ... 145
SINGER, 1926, 10 h.p., 4-scater, in exceptional order ... 145
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WHETHER you are contemplating the immediate purchase of a cer W the immediate purchase of a cer or not, you should obtain a cepy of this brochure. It is full of information a purchaser wants to know and contains particulars and illustrations of a number of 1927 models. Full details are given of the simplest and most generous deferred payment and part exchange facilities ever offered, and it should be remarked that these are operative in any part of the United Kinsdom. A penny stamp on a post card acking for a free copy represents money well spent. a free copy represents money well spent.

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

TRY A TROJAN

Do you remember how, on the first day of last holidays, laden with two heavy suitcases, a rug, overcoats and golf clubs, you struggled to the station? As, with the family, you wearily mounted the infinitely long station slope, you thought of the colleague who had thrown everything—necessities and luxuries—into his TROJAN and was travelling merrily to the sea-coast; enjoying the champagne air of a priceless day. . . . And as he whistled in the sheer joy of untrammelled holiday delights, you were watching the trains come in, waiting for yours, bracing yourself for the inevitable struggles for seats and wondering whether the outside porter had brought your trunks.

Will it be the same this Easter?

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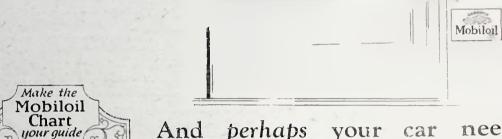
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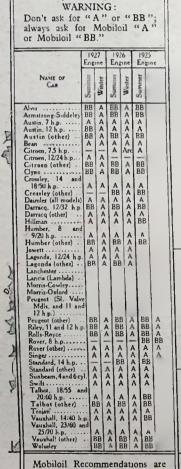
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A STRENUOUS WELSH "TWENTY-FOUR."

COMPETING CAR TURNS A DOUBLE SOMERSAULT, BOTH DRIVER AND PASSENGER ESCAPING WITH NOTHING WORSE THAN A SHAKING.

SIXTY-FIVE of the sixty-seven entrants for the Liverpool Motor Club's 24-Hour Reliability Trial faced the starter at Birkenhead Market on Friday evening last. Of these the light car contingent was: W. A. Empsall

INCIDENTS EN ROUTE.

(Left) Taking the lower slopes of "Bwlchy" at speed—C. M. Needham (Newton-Ceirano). (Above) H. E. Gallie, followed by V. Crosthwaite, both in Morgans, preparing for the restarting test.

(Austin Seven); C. M. Needham (Newton-Ceirano); E. H. Cookson (Donnet-Zedel); G. Wood (Rover Nine); Miss N. Marples (Lea-Francis); V. F. Crosthwaite, H. F. Gallie and G. S. Whiting (Morgans); T. L. Vickers (Riley); K. Wilson (Humber Nine) and J. C. Rushbridger (Wolseley).

One of the outstanding incidents of the event was the almost miraculous escape of Empsall and his passenger, J. J. Green, junr., who, when descending the treacherous hill on the other side of Bwlch-y-Groes with the gear lever in neutral, got into a series of uncontrollable skids on one of the bends, which resulted in the car turning two complete broadside somersaults. Green was flung clear and, marvellous to relate, Empsall was actually seated at the wheel when the car finished its acrobatic performance, the right side up and on its four wheels! Neither driver nor passengers suffered serious injury.

The course led through Queensferry. Ewloe, Northop, Holywell and St. Asaph to Abergele, thence to Colwyn Bay—the supper control.

An Unexpected Splash.

A totally unexpected water-splash across the main road between St. Asaph and Abergele proved rather unpleasant for those who had their feet hard down on the accelerator. The run through the night continued with little incident, and the competitors were blessed with fine weather.

The morning section caused little trouble until "Stay a Little" was reached. This hill has been rather underrated in the past, but after last Saturday's attempts it will probably receive far more respect. Wheelspin was almost universal and accounted for several failures.

Those who knew "Bwlchy" had little difficulty, good ascents being made by Wood (Rover), Gallie (Morgan), Miss Marples (Lea-Francis) and Empsall (Austin). Lunch was taken at Bala and very soon after leaving the luncheon check an acceleration test was staged.

Competitors had to bring their machines up to the first tape, stop, and at the word "go" accelerate up a hill until they crossed a middle tape. The machines then had to be allowed to run backwards until all wheels were below the line, when the drivers had to restart and accelerate to the finish. No distance was given officially, but the following comparative times are interesting:—Rushbridger (Wolseley), 36 secs.; Wood (Rover), 223 secs.; Miss Marples (Lea-Francis), 284 secs.; Gallie (Morgan), 27 secs.; Needham (Newton-Ceirano), 28 secs.; K. Wilson (Hum-

ber), 253 secs.; Cookson (Donnet-Zedel), 313 secs.

Extremely bad weather marked the concluding stages of the trial and a number of competitors went off the course—very hard luck indeed in view of the excellent efforts they had made up to that point. The last man was due at Two Mills Garage (Welsh Cross Roads) at S.27 p.m., and up to S.36 p.m. the following light car drivers checked in:—G. Wood (Rover). Miss Marples (Lea-Francis). F. F. Crosthwaite and H. F. Gallie (Morgans) and K. Wilson (Humber).

Star Turns.

Undoubtedly the star turns of the trial were Wood (Rover), who already holds one of the premier cups for the best performance of any four-wheeled car—and seems likely to retain it—and Miss Marples, who put up a very plucky show indeed.

Cyclists' Rear Lights Discussed in the House.

THE House of Commons did not hesitate to give a second reading to the Road Transport Lighting Bill which Mr. Lougher introduced. It received the blessing of the Minister of Transport, with the qualification that certain points might require to be amended in committee.

The critics of the Bill fastened upon the clause which requires that bicycles must carry one white light in front and a rear light behind.

The real objection, as it emerged in the discussion, was that the Bill, by placing wide powers in the hands of the Ministry of Transport, would be an enlargement of bureaucratic authority. This, however, is a point without substance when it is remembered that the only power which the Bill gives to the Ministry is that of modifying the application of the clauses in certain cases where strict enforcement would be unnecessary.

There was general agreement in the

House that the effect of the Bill, which has every prospect of passing into law with the backing of the Government, will be to improve the amenities of the road. Sir Frank Meyer expressed a hope that one result of the placing of red reflectors on bicycles would be that motorists would be encouraged to show more courtesy in dipping and dimming their headlights. Another suggestion, made by Mr. B. Smith, was that bicycles ought to have a splash of white paint on the mudguards, and this led up to some humorous remarks to the effect that flesh-coloured stockings worn by the young ladies on bicycles show up as signals in the darkness.

The great merit of the Bill is that it will make the law plain and definite to motorist and cyclist alike and put an end to the present confusion. It really anticipates the Government's own prospective Bill, but that will not make any difficulty, as the lesser measure can be

incorporated in the greater.

A SPORTS CAR with a PUNCH

INTERESTING EXPERIENCES WITH A SECOND-HAND SENECHAL WHICH HAS BEEN IN CONSTANT SERVICE FOR NEARLY TWO YEARS.

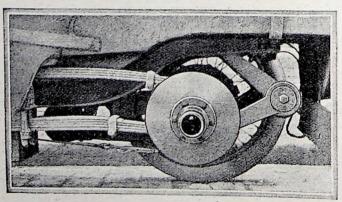
10 many prospective motorists second-hand cars prove to be a strong attraction; it is only the uncertainty attaching to a vehicle which has been owned and driven by someone else that makes a would-be purchaser hesitate. All the more interest, therefore, centres in first-hand

information as to how light cars of this sort behave The car which forms the subject of this article is not one of M. Sénéchal's very latest productions; it dates back to May, 1925, and came into the hands of a member of our staff in November, 1926. The exact price paid is of no special importance—the deal was, as a matter of fact, one of part exchange, and the

owner thinks that he picked up a bargain.

The previous owner is known only in so far as his name and address appear on the licensing documentsthe deal was made through a well-known London trader—but a casual examination revealed that while he appeared to have been a reasonably careful driver, in that there was no evidence of gross abuse of any kind, there was, at the same time, distinct evidence that he believed in spending more time driving the car rather than in maintaining it!

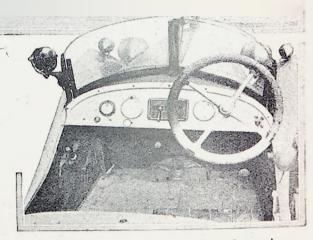
Having acquired this sports Sénéchal after only a cursory examination and a short trial run, on which everything appeared to be satisfactory, the new owner went to some little pains to ascertain exactly what he had purchased. He had, of course, previously compared the chassis number with particulars given by the concessionnaires and satisfied himself on the date of manufacture, but what he did not know until some days after he had paid for the car was that the engine was a Ruby, while the electrical equipment, by Ducel-



The double quarter-elliptic rear springing gives easy riding as well as taking the torque in an effective manner. Shock absorbers are advisable on a car so light as the Senechal which is capable of high speeds.

lier, was rather different from anything now manu-

A striking feature of the electrical system is an enormous dynamotor, coupled direct in tandem at the front of the crankcase. This might appear to be absolutely ideal in theory, but in practice, of course, it **B**30



Mary Control of the C

(Above) A contrast. The small size and general appearance of "nippiness" of the Senechal is emphasised by the tank in the background. (Below) The wheel is large and the steering light: the whipcord binding round the rim of the wheel is for show purposes only.

suffers from the great disadvantage that when anything does go wrong rectification of the fault is no light task, as it means that the engine has to come out of the

frame before the dynamotor can be properly tackled. The first thing to be done with the car, then, was to get a firm of real experts on matters electrical to run over the entire system and fit certain accessories. The Euston Ignition Co., of Euston Road, London, N.W.1, were entrusted with the work and they examined the dynamotor superficially, made necessary adjustments and reported that the existing battery was completely finished. A new Exide was, therefore, fitted.

Surprising Evidence.

Thinking that there must be something radically wrong to cause this premature demise of the battery, instructions to fit a dashboard ammeter were given. Then the reason at once became obvious; the dynamotor was, in fact, charging at something over 25 amps!

After attention to these details, the dynamotor, although directly geared, would start the engine with the greatest ease, even after standing in an unwarmed garage during a

cold night in winter.

The engine and chassis then received attention from the Sénéchal concessionnaires, the Automobile Service Co., Ltd., of Gt. Portland Street, London. Decarbonizing was, of course, made rather more difficult on account of the cylinder head, but the account of the non-detachable cylinder head, but the

cylinder block was removed and nothing at all serious was found to be wrong. When the cylinder block was off the usual attention was, of course, given to the valves, and the best possible job made of decarbonizing. The results were very encouraging.

To tone down the distinctly noticeable bark of the

To tone down the distinctly noticeable bark of the engine, an ordinary fish-tail was fitted to the exhaust, and this proved to be quite effective. It was, unfortunately, found to be impossible to fit an oil-pressure gauge without expense out of all proportion to the advantage gained, so it was decided to do without one.

The cost of the overhaul outlined was well below £20 and the car was then taken out on test. Its liveliness was frankly astonishing, 40 m.p.h. on second gear being easy. At 45 m.p.h. there was certainly a feeling that the engine was turning over fairly fast, but even 48 m.p.h. was attained. The maximum flat all-out speed was in the neighbourhood of 70 m.p.h. At 62 m.p.h. there appeared to be a distinct period, which passed off as higher speeds were reached, but quite a comfortable cruising speed was 55 m.p.h. to 58 m.p.h.

Good Acceleration.

Acceleration, of course, is fierce. The old-pattern clutch of single-plate construction is what our American triends would describe as being of the "regular two-fisted, red-blooded, he-man variety"—that is to say, it is distinctly harsh. Thanks, however, to the double quarter-elliptic springing at the rear, there is no great

the road—surely a remarkable proof of the general sturdiness of construction. The wheel that had been shed was eventually found some 50 yards on the other side of a hedge, and the journey to Salisbury was continued with the passenger hanging over the side ready to shout the moment the wheel, which had, of course, no locking ring to hold it in position, threatened to fall off. There was a delay of about an hour in Salisbury while the wheel was temporarily secured by means of grub screws fitted to the hub, but doing this work while in the check, of course, involved disqualification.

There have been certain troubles, but only minor ones. The dynamotor, for instance, has an unfortunate habit of cutting out at speeds above 50 m.p.h., and if high speeds are maintained it sulks for some zine after.

(Above) The general layout under the bonnet. The rubber tube seen on the extreme right is part of the air pressure device used when climbing steep hills. It is normally disconnected, as shown. (Left) A three-quarter front view showing the transverse front springing, the attractive V-shaped windscreen, flared wings and so on.

disadvantage in this, as the drive is taken up without any judder. Let the clutch in with a bang and the car gets away with a bang, hitting the driver in the small of the back with a bang. The springing is excelent, and, owing to the Hartford shock absorbers, there is practically no rolling or pitching, although, of course, there is a tendency for so light a car to deviate from its course on hitting a bump at speed.

So pleased was the owner with his rather modest purchase that he decided to enter it for last year's London-to-Exeter run. It behaved perfectly throughout, and, despite a distinctly high bottom gear of 12 to 1, there was no difficulty whatsoever in getting away on Salcombe. The car was timed through the non-stop section at 17.6 m.p.h. On occasions such as this the absence of a differential is a distinct advantage. An unfortunate accident, however, robbed the driver of his "gold." A tyre punctured while crossing Salisbury Plain on the homeward journey and the spare was quickly put on. Evidently the job was done in too much of a hurry, the wheel not being properly secured, for some five miles farther on, at about 50 m.p.h., the wheel suddenly detached itself!

By a series of miracles no damage was done either to the chassis or passengers, although the car skidded for some 50 yards on its front axle and churned up The writer has not yet got quite to the root of this peculiar behaviour: he hopes, however, that it will provide an interesting problem for solution later on. In the meantime no great inconvenience is caused.

Another mysterious trouble experienced has been occasional steam locks in the wafer-circulating system, which is of the thermo-siphon type. On one occasion the water, for no apparent reason, simply vanished. This was, fortunately, discovered just in time, but not before two valves had stuck in their guides and had to be freed by the injection of paraffin. Ordinarily the engine is quite cool running.

The car has an attractive appearance with its V windscreen and pointed tail. The latter is useful as well as ornamental, for large suitcases, spare tyres and junk of all kinds can be stowed away in it without difficulty.

Summed up, the car is an excellent example of the modern light sports model so dear to the heart of the man who likes a good turn of speed and cares nought for saloon comfort. It would appeal especially to the ex-motorcyclist who, perhaps for years, has been accustomed to having six or eight "horses" at his disposal and who yet cannot possibly afford a car running into perhaps nearly four figures that is capable of giving an equal performance.

THE CULT

INCREASING POPULARITY OF L SUIT EVERY PL

N America open cars are the exception rather than the rule, and many people forecast a similar state of affairs in this country in a few years' time. Whether their prophecies will come true or not remains to be seen, but it is certain that 1930 will witness a much larger

proportion of saloons on our roads.

It is not so very many seasons back that the idea of a pukka saloon body on a light car chassis was regarded as a bold departure which would meet with a small degree of success, yet to-day very few small car manufacturers do not include a saloon in their programme. Even a 7 h.p. engine is capable of hauling a roomy saloon along and, what is more, it gets on with the job in a very convincing manner.

A WIDE CHOICE OF ENG

(1) The 9-20 h.p. Humber saloon which has a cost chassis—the Rover. (3) The 9-15 h.p. Renault as Mathis. (5) One of the few light cars with a sid (7) The Alvis sports saloon, typifying a style (8) A roomy 11 h.p. Clyno saloon, and (9) the stions—the Salmson and the Amilcar. (12) The

LIGHT SALOON.

O'SED LIGHT CARS-MODELS TO AND TASTE.

> Vast strides have undoubtedly been made by manufacturers and the disadvantages of earlier types have been entirely eliminated.

> This development cannot be traced to any one cause, but the ever-increasing number of cars used for business purposes has been very largely responsible. A man who has to make business calls naturally does not desire to present a travel-stained appearance or to be dressed in clothing more in keeping with an open sports car. A saloon obviously meets his needs better than any

> other type of body.
> On these pages we reproduce representative photographs of light car saloons from a small 7 h.p. model priced at £165 to a luxurious sports model costing £595. Who could not find an enclosed car to suit his tastes when such a wide range is available?

LIND FRENCH PRODUCTIONS.

wordy. (2) Another coach-built body on a 9-20 h.p.

Eymann coachwork, and (4) the Weymann-bodied

the Imperia. (6) An attractive Lea-Francis.

Theory which seems likely to become popular.

Theory which seems likely to become popular.

(10 and 11) Two popular French producted saloon, and (13) the well-known Austin Seven.

A NEW VARIABLE GEAR.

NOVEL PRINCIPLE EMPLOYED IN THE G. AND J. ASSEMBLY.

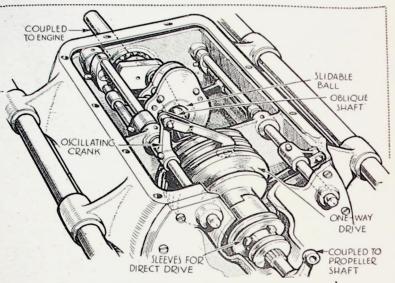
THE basic principle of a new infinitely variable gear patented by Mr. E. E. Guinness and Mr. A. E. Jones calls for the continuous rotating motion of the engine crankshaft to be converted into an oscillating movement capable of variation in amplitude, which can then be converted back to a continuous rotating movement again.

The variable oscillating movement is obtained through the medium of a shaftbolted to the flywheel-the axis of which is inclined to the axis of the crankshaft and "wobbles" as the mechanism rotates. On this shaft a truncated phosphor bronze ball is arranged to slide and carries a housing from which connecting rods protrude-in almost the same manner as the connecting rod assembly on a radial

aero engine. The rods are connected with rocking levers mounted on auxiliary shafts. (See sketch.)

It will be seen that as the ball is moved along the oblique shaft from the point where the axis of this shaft crosses the axis of the crankshaft, i.e., the neutral position, the circular movement given to the phosphor bronze ball by the wobble of the shaft becomes greater. This, in turn, causes the oscillatory move-ment of each of the connecting rods to become greater in direct proportion. It now remains for this oscillatory movement to be re-converted to a continuous rotating movement again.

This is effected by connecting arms attached to the ends of the auxiliary shafts with the ratchet driving



The G. and J. gearbox with the cover-plate removed.

members of a "one-way drive" device. The driven or inner member is coupled by means of a dog clutch to the propeller shaft, so that with the gear in operation the number of impulses given to the rear wheels is dependent upon the gear ratio of the rear axle final drive and the number of connecting rods arranged The one-way drive radially round the oblique shaft. device is of the roller-ratchet type.

A feature concerning this particular gear is the fact that by moving a dog clutch into gear the whole of the variable mechanism can be cut out and a direct drive obtained much in the same manner as in the top gear of a conventional three or four-speed sliding pinion type gearbox.

TYRE INFLATION PRESSURES.

WE have all been told during the past few years how very important it is to keep tyres inflated to the recommended pressures if the best mileage is to be obtained from them, but it is only comparatively recently that motor owners—as distinct from designers and other folk conversant with the more intricate aspects of motoring—have begun to take an interest in inflation pressures on account of the direct bearing which they have upon the behaviour of a car.

It is well known, of course, that the factors which limit the speed of a car are wind resistance, friction and the natural tendency of any body to remain stationary unless acted upon by some outside force or by gravity, as, for example, when a hill is being descended. On a level road, with a following wind of 10 m.p.h. and mechanism which was so perfect that there was no mechanical friction whatever, a car, once started at a speed of 10 m.p.h., would continue indefinitely with the gear in neutral—provided that there were no such thing as tractive resistance. This resistance to movement is caused by the force of gravity, and the little humps and hollows in the road surface. It can be multiplied considerably by drag set up by under-inflated tyres. The practical importance of this drag can be determined by first inflating the tyres until they are board hard and seeing how far the car will coast down a given hill in neutral, then driving it to the top and repeating the experiment with the tyres soft, when it will be found that the car will not run nearly so far. This means that under-inflation spells higher petrol bills.

There are, of course, other and more obscure reasons why unduly soft tyres have a detrimental effect upon performance. In the case of big tyres, say, at B34

the rear, if one is soft and the other hard, the effective diameter of one wheel is less than that of the other, which causes the differential to be constantly at work, whereas normally on a straight road it is idle. Different wheel diameters also naturally affect braking, although theoretically the actual adhesion of a hard and a soft tyre on a given read surface is the same. The point is that with a small wheel the leverage is less and the tendency for it to lock is therefore greater.

Unequal inflation of two tyres on the same axle also has the effect—although opinion is not unanimous on this point—of causing the axle to tend to oscillate about its centre point, causing poor tyre adhesion and rapid wear, apart from the discomfort which is created.

In the case of front when the discomfort which is created.

In the case of front wheels with one tyre softer than the other this tendency to oscillation may—and often does—contribute towards wheel wobble, "patter" and "shimmy." These complete "shimmy." These complaints have been aggravated of recent years by front axles having become so much heavier on account of the having become brakes, and in the case the adoption of front-wheel brakes, and in the case brakes, and in the case of some large cars they have assumed quite serious proposite large cars have assumed quite serious proportions. Light cars have been less troubled, but, even so, many owner-drivers have found that they been so, many owner-drivers have found that they have been able materially to improve the "feel" of the been able materially to heed to equalizing inflation steering by paying careful heed to equalizing inflation pressures.

There are cognoscenti in the motoring world who could point to many other directions in which material advantages can be gained by directions in which the tree advantages can be gained by making sure that the tree pressures of a car are equal to making sure that intervals, pressures of a car are equalized at regular in a short but their theories are equalized at regular in a short article, and enough has been easily explained to make it article, and enough has been said already to make itt clear that five minutes each said already with a pump clear that five minutes been said already to a pump and a gauge are likely to be amply rewarded.

"The Nippy Nine."

Try the Rover on the road: note its speed with any load. Hills surmounted with a smile; engine "lively" all the while. The easy controls give driving a charm; the four-wheel brakes obviate cause for alarm. When the weather turns wet, the car very soon can be made quite as cosy as any saloon. The Rover's the car that costs little to run-40 miles to the gallon is easily done. Shall we send you a catalogue? Just let us know. There are Rover "Nine" models from pounds two-two-0

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THE old county of Cheshire, and especially the lowland central vale, known often as the Vale Royal, is a land of rich soil and verdant pasture, quiet and unobtrusive to the casual eye, but to the observant rich in memories of the industrious past. Abounding in quaint homesteads and canny nooks, winding by-ways and half-timbered halls, it is indicative of rural and architectural labour of which the county may well be proud.

Bounded on the west and north by the great industrial centres of Liverpool, Manchester and Sheffield it is remarkable that this central vale has retained so much of its old-world tranquility. The hand of modern civilization is noticeable only in the structure

and amplitude of its main highways, which to the motorist are as much a disadvantage as a boon; their condition and surface are incentives to speed, whereas the county is essentially one in which to amble, and enjoy those inspiring relies of other days, when, at least so it seems, men strove primarily to attain grace and beauty in the structures on which they worked.

tures on which they worked.

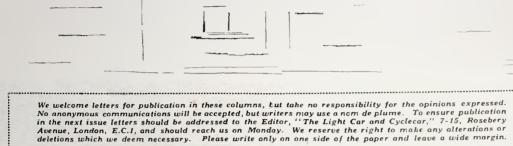
What measure of success they attained is evidenced when one examines the ancient obelisks in the Market Square at Sandbach (supposed to date from the seventh century) or the workmanship displayed in the half-timbered inn at Brereton, or the Priest's House at Prestbury (now the home of the District Bank), to mention only a few of

the many architectural delights that are available for those who care to seek them out.

The old church at Lower Peover, near Knutsford, with its "magpie" nave and picturesque environment, makes a picture that is unforgettable. That it lies off the main road should be no deterrent to motorists for its charm is indeed worth all the trouble of a special visit.

Of other places of similar attraction there are scores, but it would be a pity to deprive any would-be admirer of the delights of roaming this old-world countryside either afoot or awheel and seeking out for himself the many delights that this remarkable county has to offer.

137



THE PROPOSED NEW MOTOR LAWS.

Interesting Criticisms and Suggestions.

The Driving Age.

I am somewhat astonished by the clause in the proposed new motoring regulations which raises the minimum age of the holder of a motorcycle driving licence to 15 (very wise), but does not lower the minimum Why Not Fifteen age for a car licence. 1 consider that

for Cars? the whole arrangement should be reversed, for who, taking a commonsense view of the matter, would deny that a car is far easier—and far safer—to handle than a motorcycle? Actually, if a girl or boy is fit to drive a motorcycle at the age of 15 they are certainly capable of handling a car, and I sincerely hope that when the proposed regulations come up for discussion, the possibility of making 15 years the minimum age limit for any type of mechanically propelled vehicle will be considered. As every applicant will, it is suggested, have to sign a declaration of fitness, the argument 1 put forward is, I think, greatly strengthened.

JUST SIXTEEN.

Punishment for Motor Offences.

Now that a new Road Traffic Bill is under discussion, the moment is opportune for a review of the methods of punishment. I am fully aware that the question is a difficult

The Unfairness
of Fines.

one and that whatever method society
bound to allow a number of offenders
to escape with but little punishment,
while others must be more harshly treated than their offence

warrants.

At present the majority of offences are punished by the payment of a fine, and only in serious cases is the driver sent to prison or his licence suspended. In pre-war days this method of punishment was undoubtedly just, for the possession of a motor vehicle stamped its owner as a man of substantial means; to-day things are different. Cheap cars and still cheaper motorcycles, coupled with easy hire-purchase terms, have put motor vehicles into the hands of

Among my personal acquaintances I number a young mechanic who runs quite a nice motorcycle on an income that cannot exceed £3 per week, a pair of impecunious youths who own a popular make of 7 h.p. car between them, an only son who owns an expensive sports car and whose ambition is to have more summonses than years of age, a young lady who was "too thrilled for words" when she was caught in a police trap and summoned, and an owner of a big £2,500 car.

Let us suppose that some queer chance brought all these people together and that they were all caught in a police

control at the same time, driving at similar speeds. likely as not the local bench would demand an equal fine The motorcyclist artisan would probably have to from all. sell his machine to meet the law's exactment, and the two owners of the 7 h.p. car would also be hard pressed to meet the fine.

The big car owner, on the other hand, would be but little affected. He might be annoyed, but not nearly so much as if he foozled a shot at golf. In the case of the ambitious youth and the "thrilled" lady their respective papas would foot the bills and the law would not really exact any punishment.

Here is my suggested remedy. In all offences bar one there should be no fine. Drunkenness at the wheel and driving to the danger of the public should be met by suspension of licence or imprisonment, as the case warrants. Minor motoring offences should be endorsed upon the licence and, if more than a given number of indictments were recorded in a stipulated time, the licence should be suspended. To make the punishment effective I would suggest that any person driving a car while his licence was suspended should be sent to prison for not less than a mouth or more than two years.

I am not suggesting that the suspension of the licence should be permanent or even lengthy. Some cases might even be met by depriving the offender of the use of his car 3.H. for seven days.

Negligence and Absent-mindedness.

I was much interested in the clear and concise explanation of the draft of the proposed Road Traffic Bill, which appeared in your journal recently. There was, however, one point which I did not understand.

Where is the Distinction? What is "negligent driving"? I am particularly interested in this aspect, for I understand that negligent drivers will be liable to a five of up to \$50. It would, therefore will be liable to a fine of up to £50. It would, therefore,

appear that negligence is a crime.

That I can well understand, but who is to distinguish between recklessness, negligence and sheer absent-mindedness? Some of us are negligent and one fine would probably cure us of that, similarly with recklessness—one fine of £50 would put a stop to some people's motoring for life—but we are all of us subject to absent-mindedness. Who of us have not "hugged the crown" simply because we were "not thinking"? It is uscless to say that such people are not fit to discuss the control of the subject to a subj are not fit to drive because we are all of us affected by these lapses of vigilance. But what worries me is, how are the courts to distinguish between a fit of absent-minded-

ness and negligence, or even recklessness? AN ABSENT-MINDED MAN.

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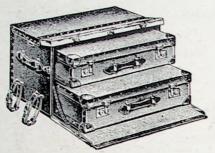
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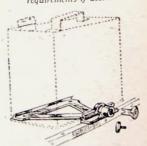


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-the Product of an all-British Firm, is the lubricant used by Major H. O. D. Segrave in his 1,000 h.p. British Sunbeam Car.

At Daytona Beach on March 29th Major Segrave broke World's Records at a mean speed—the average of a run each way of the course of 202-98 m.p.h. for the Flying Kilometre and 203-79 m.p.h. for the Flying Mile, and 202-67 m.p.h. for 5 Kilometres, reaching 207-517 m.p.h. one way.

The highest speed attained previously was the 174.883 m.p.h. reached by Capt. Malcolm Campbell a few weeks ago—also using Wakefield CASTROL. Both Major Segrave and Capt. Campbell used a standard

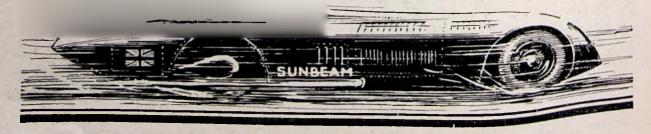
grade, as supplied to you at any garage.

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OUR READERS' OPINIONS (contd.).

"Mushroom Lamps."-Prof Low's Idea Discussed.

An Excellent System.

Prof. Low's idea of mushroom lamps strikes me as being ideal and I cannot see any disadvantages in the scheme. The

roadway itself would be adequately lighted and there would be no dazzle; this cannot, unfortunately, be said at the present. Town Adopted?

driving at night, particularly in the suburbs, consists of being alternately suburbs, consists of being alternately suburbs, consists of being alternately suburbs.

dazzled and plunged into inky blackness, and one does not like to use headlamps for fear of inconveniencing others. hope experiments will soon be made with lamps of this type and, if they prove as successful in practice as they appear on paper, I hope they will be adopted extensively. I am afraid, however, that the authorities are far too conservative for my hopes to be realized.

A. Glass.

Disadvantages of the Scheme.

As the chauffeur of a New Phantom Rolls-Royce and the owner of an Austin Seven I naturally do a lot of night driving in towns, and was therefore very interested in Prof.

A. M. Low's article on street lighting.

Overhead Lights The "mushroom lamps" which he suggests may be all very well, but what is wrong with the street lighting in the City of London? Instead of the lamps being mounted on

standards they are slung across the roadway on cables. As they are both high up and powerful there are no annoying shadows and the lights do not get in drivers' eyes. In many other parts of London the lights are just as high and as powerful, but the standards on which they are mounted cause dangerous shadows.

As I see it, street lamps must be either 20 ft. or more above the roadway or, as Prof. Low suggests, about 2 ft. 6 ins. from the ground and shaded to prevent the light from shining upwards. Both arrangements prevent dazzle, but the first has the advantage that everything is lighted up, whereas the low position means that only the actual road surface and pedestrians' feet can be seen, whilst there is also the difficulty of preventing small boys from tampering with the lamps. I should also think that "mushroom lamps" would be very convenient for pedestrians to lean against and this would blot out a good deal of the light. Personally I cannot imagine anything better than the central overhead lamps in the City of London, whilst "mushroom lamps," although excellent in many ways, certainly possess some drawbacks.

A.K.C.

The Pedestrian's Point of View.

As a humble pedestrian I was very interested in Professor Low's idea of mushroom lamps, which was brought to my notice by a motoring acquaintance. May I ask whether the professor is viewing his

Car Lighting at subject entirely from the point of view of motorists? I would like to emphasize the fact that pedestrians have no fault whatever to find with the existing system of street

lighting, which, after all, is the outcome of years and years of experience. It seems to me that cars and not street lights want altering. PEDESTRIAN.

"A Splendid Idea."

I read Prof. A. M. Low's very interesting article on street lighting with great satisfaction, because it is a matter upon which I hold strong views. The present universal system of placing the lamps on the tops of high poles is all wrong and the professor's suggestion regarding the use of mushroom lamps must meet with the approval of all thinking men. We need the light on the ground and a few feet above it and it must be diffused and

ground and a few feet above it and it must be diffused and as uniform as possible.

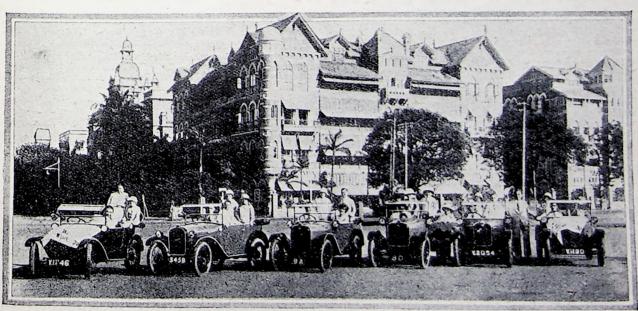
To attempt to obtain this result by having high-power lamps suspended near the housetops is a waste of money—the poles are costly to make and to erect, whilst, in spite of expensive multi-candle-power sources of illumination the result at ground level is no better, and probably not so good, as that which would be obtained by Prof. Low's mushroom lamps, which should be cheap to make, erect and run.

From a motorist's point of view, however, it is the dazzle question which is most important and everybody knows how troublesome present-day street lamps can be in this direction. Again, in foggy weather the down-cast rays of high

lamps do more harm than good.

This can easily be proved by noting how much better is the illumination given by low-placed flares during fog. The light is diffused over a wide area and without undue glare, whereas a street lamp throws down baffling rays and the more powerful the source of light the more troublesome do these rays become.

I hope that the public demand for Prof. Low's mushroom lamps will grow as quickly as the fungus whose shape and name they take. BEN BOLT.



FIVE-SEATER AUSTIN _ SEVENS!

Irving's Imperial Midgets were recently given a parade through Bombay and travelled in line in Austin Sevens. The procession aroused great interest especially as three Midgets were easily accommodated in the rear seat of each car.

556

OUR READERS' OPINIONS (contd.).

The M.C.C. Opening Run.

I welcome the query by "Focus" as to why the M.C.C. continues to hold its annual meet near Dorking, in Surrey, because it gives me the opportunity of inquiring from your

readers if anyone knows of a place 20 miles to 30 miles from London where A Venue Wanted. 150-250 of our members and guests could

wanted.

100-200 of our members and guests could be provided with a good dinner and afterwards have ample space for dancing. Every year when the opening rally is being discussed by the committee the query comes up—why not north, east or west of London? No one has, as yet, been able to suggest a suitable venue.

W. H. Wells,

M.C.C. Club Captain.

The Elusive Valve Cup.

A remarkable incident happened when I was decarboniz-ing my Austin Seven recently, and I am wondering whether any of your readers have had similar and equally curious experiences; if so, they would probably

make interesting reading. A Curious When I was Experience. replacing the valve cups and springs one of the cups flew from under the springs

After a lengthy and unsuccessful search I and vanished! and vanished: After a lengthy and unsuccessful search I had to confess myself beaten and resumed the task of replacing the other valves. This done I again started to search for the missing cup and it suddenly occurred to me to detach the exhaust pipe to see whether it had found its way into this part. Apparently it had not and, although I had not much hope, I finally removed the silencer. On tilting it up out fell the lost cup. How it had found its way there is still a puzzle to me.

Cars Suitable for the Tropics.

The general opinion appears to be that the only cars suitable for the tropics are high-powered ones with, of course, water-cooled engines. No amount of evidence will convince

the public that this is a time-worn fallacy. The Ford and other cars of similar power and size still reign supreme throughout East Africa. Why Air Cooling.

this is so when there are equally stout and withal cheaper English cars waiting to be sold remains a mystery.

I brought out a 1924 9 h.p. Belsize-Bradshaw two-seater last year. So far as I have been able to ascertain it was the only car of its type in this country—certainly it was the only one of its make. During the year I have done 2,500 miles. This may sound a very feeble effort to people at home, but considering the fact that most of the roads are worse than the average Westmorland cart track, and that the thermometer is usually hovering round 100 degrees,

it is a fairly healthy distance. So far, I have had no mechanical trouble whatever.

On one occasion I travelled to a place 70 miles away, with one passenger and 200 lb. of luggage. The last 16 miles was over a road which nobody without experience of France during the war can imagine. To all intents and purposes it was a mere elephant track, a succession of mudhardened holes that necessitated reduction of speed to a walking pace. These 16 miles I did in second gear. There was absolutely no breeze and the temperature must have been between 90 degrees and 100 degrees.

I am aware that the Eelsize has an efficient cooling system by oil circulation, but as this relies on the exposure to the air of a large flat oil sump it may be said to be merely an improved air cooled arrive. merely an improved air-cooled engine.

Why does not some enterprising manufacturer of an aircooled twin organize some effort such as that undertaken by the Jowett and the Citroin. Cross-Africa trips these days seem to present no difficulties and it appears to be the only way of bringing home to the public the capabilities of these wonderful little care wonderful little cars.

Lindi, Tanganyika.

CONDENSED CORRESPONDENCE.

"YR3528" (London S.E.6) writes to express his appreciation of the courteous attention which he has received from Messrs. Ingrave Motors, Clapham Junction, London, from whom he appeared to express the second of the courtes from whom he purchased his Austin Seven.

Mr. Robt. H. R. Milford (New Malden) strongly recommends a Rover Eight to motorists who are contemplating the purchase of a second-hand car. In 1923 he purchased a 1921 model, in which he has since covered 11,000 miles over all kinds of road, and during a recent overhaul it was found that practically all the working parts are in excellent condition.

Captain R. Siran has written to say that he is sorry Mr. Beart could not find time to compete in the French T.T. race, but hopes that a D'Yrsan versus Morgan match of some kind can be arranged in the near future. work Captain Siran insists upon the use of standard machines, but he proposes three track races with supercharged engines.

The excellent service provided for Rover owners by Messrs. John Pollitt and Son. 37-41, Renshaw Street, Liverpool, is praised by "T.H.E." (Wrexham). The big-end bearing of his Rover Eight broke and one of the cylinder heads was damaged as a result. In a few hours this concern fitted a new bearing and supplied him with a second-hand englisher, head in resed coulting for cheet head the hand cylinder head in good condition for about half the price of a new part.

INFORMATION WANTED.

SINGER JUNIOR .- The experiences of owners of these cars would be very much appreciated .- P. B. Pattenden, S6, Norbury Crescent, Norbury, London, S.W.16.

-Readers' experiences of the 7 h.p. cabriolet PEUGEOT.model would be much appreciated.—C. Barclay, 11, Liverpool Street, King's Cross, London, W.C.1.

ROVER EIGHT.—The opportunity to buy or borrow an instruction book for the 1923-4 model would oblige.—Wm. F. Hills, 25, Ecclesbourne Road, Islington, N.1.

Wolseley.—Any reader who is willing to lend or sell an instruction book for the 1922 10 h.p. model is asked to communicate with C. Hall, 67, Beckenham Lane, Shortlands,

Austin Seven.—Readers who have improved the suspension of earlier models by fitting shock absorbers are asked to give their experiences.—S.H.F., Templecombe, East Grinden stead. Sussex.

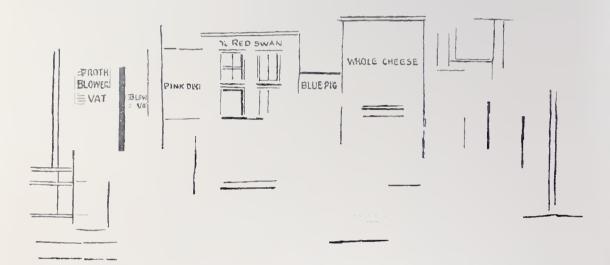
WANTED-EXPERIENCES OF A.C. OWNERS.

Prospective purchasers often write to us concerning the behaviour of certain makes of car in the hands of ordinary private owners, particularly with reference to such matters as reliability. maximum speed, ease of control, petrol consumption, and so on. We are, therefore, publishing in these columns readers' own experiences of popular cars, and we are devoting up to one page exclusively to this feature as regularly as possible. Preference will be given to the latest types, but earlier models will be dealt with if they are similar in essential details to the current models. In every case the year of manufacture must be given, and a mileage of at least 5,000 should have been covered. Letters should not be more than 200 words in length, and correspondents must give their names and addresses for publication. Actual facts-not opinions-are required.

The Writer of Every Letter Published will Receive a Six-shilling Sparking Plug-

A. P

1 11 inin the R'A.C



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Motorist who did not know the best Hotel.

The R.A.C. provides Associate-Members with confidential information about Hotels in the United Kingdom and on the Continent. The Club Handbook contains a comprehensive list of officially appointed and recommended Hotels and Restaurants.

ROAD SERVICE IS NEEDED BY EVERY MOTORIST.

The R.A.C. provides a complete service for the motorist's every need. Beyond the many Guides on the Road always at hand with help and information, there is the "Get-you-home Service—which alone is invaluable; then the Touring Facilities are of utmost use, so also are the Free Legal Defence, the Technical Advice and the Special Insurance Facilities. The Licence Reminder and Lost Property Services are in themselves special features, whilst the use of Local Offices and Reading Rooms is often extremely helpful. You know that you will undoubtedly require any one of these Services at some time—so become an R.A.C. Associate-Member now, and enjoy the most complete service whether on or off the Road. £2.2. O per annum, without entrance fee. Cars up to 1,100 c.c. pay £1.1.0 only.

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Misani.





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They contain the Right Kind of Cars at the Right Kind of Prices. The Right Kind of Terms, too, to suit your convenience.

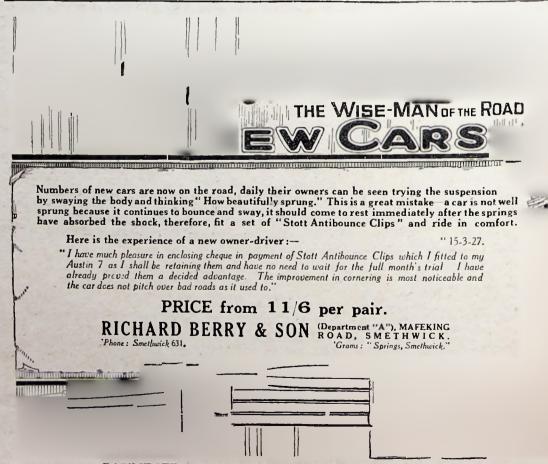
When you are "Up West," just take a glance at our Bruton Street Depot, our premises in Bruton Place, and our Service Section in Grosvenor Mews.

Whilst your car is here, we will run the tape over it . . . and if you would care to know its Real Value, the figure is yours, Gratis.

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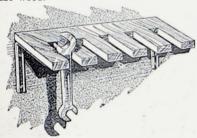


(2)

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.

Spare Plug Carrier.

A neat spare plug carrier, for fixing to the engine side of the dashboard, can be made by drilling four holes in a block of wood of suitable width and thickness so that the new plugs—with their cardboard thread covers—are a nice push fit in the holes. The last-named should not, preferably, go right through the wood.



The toolrack referred to in an accompanying paragraph.

A Spanner Rack.

A very simple spanner rack, which can be made up and fitted to the garage wall in less than half an hour, can be made by cutting a number of deep slots in the edge of a piece of board about 3 ins. to 4 ins. wide and ½ in. thick. The length will depend upon the number of slots required. Two plain L-angle brackets are used as fixing supports. The method is an improvement on the usual piece of leather strap tacked along its length at short intervals, for it is much easier and therefore quicker to extract and replace tools from a rack of the type illustrated.

Cleaning Aluminium.

The prospect of cleaning and polishing aluminium bodywork usually dismays prospective owners of cars with this type of body finish. A method which the writer has found to answer extremely well is as follows:—Having removed all dust from the surface with an ordinary leather and soapy water, sprinkle some Brasso on to a small area and rub vigorously, dipping the rag from time to time in some flour.

When an area of about a square foot has been cleaned it should be polished with a soft paper pad, preferably of tissue paper. A polishing cloth should be used to obtain the final lustre and to remove odd flakes of flour which may have adhered to the surface.

MOIOP

is claimed to be the most authoritative, the most enterprising, and the most original of the comprehensive motoring journals.

HE first motoring journal to use wireless photographs to illustrate American news—to issue classified car price lists and other presentation booklets—to adopt perspective illustrations of mechanical drawings—to publish a motoring-wireless feature—and to originate other ideas, since copied.

It is first with exclusive descriptions of new cars and all the NEWS by aeroplane and wireless services.

THE MOTOR caters for ALL MOTORISTS, from the small car owner-driver to the user of high-powered automobiles, and any statement suggesting that this is not the case is untrue.

A Universal Garage Lamp.

Many private garages are lit by one electric lamp hanging from the centre of the roof. This makes it inconvenient when working at the bench, because the light is obscured by the worker's own back. Similarly it is difficult to see the engine or the back axle if the car is directly beneath the lamp. An easy way of lighting the whole length of the building with one lamp is to fix up a piece of wire, stretching it about a foot below the eaves level down the central length of the motor shed. A longer piece of flex to the lamp will be necessary and it should be bound round a circular cleat, such as a porcelain wireless insulator, at about 2 ft. from the end of the lamp. The stretched wire should pass through the cleat and it will then be easy to pull the lamp to any desired position.

A Cure for Sulphated Batteries.

Quite a large number of accumulators become practically useless through the plates sulphating. It is often possible to remove this sediment, and the following remedy can be tried on a battery which otherwise would be condemned. The treatment for such a cell is to wash out the acid and replace it with a solution of distilled water and ordinary Epsom salts. The cell should then be put on charge at its normal rate and the action watched carefully. It will be found that after a little while chemical action displaces the sediment and with careful attention to this process the plates can be brought back to good condition. It will, of course, be necessary to remove the displaced sediment, and the inside of the cell should be swilled out freely with distilled water before refilling with acid solution and charging at the initial rate as recommended by the makers. It should be pointed out that this remedy is not infallible, but will almost invariably have the desired effect where the sulphating has not gone too far.

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.B. (Tunbridge Wells).—The correct tyre inflation pressure for your Austin Seven saloon is 20 lb. per sq. in. all round.

N.L. (Birmingham).—You seem to have a wrong idea as to the use of the tow rope. Of course, it will come in handy if you are ever called upon to play the Good Samaritan, but you will find it even more valuable should your own car break down and you are offered a tow.

B.A. (Stroud).—A special oil-injecting gun is supplied with Jeavons gaiters. It is of the push-on type and it is possible to recharge four gaiters in as many minutes.

R.D.C. (New Cross).—The date of the London-Holyhead Trial is May 13th-14th; the London-Edinburgh Trial, June 3rd-4th; Saltburn speed trials, June 4th; Land's End-John o'Groat's Trial, July 5th-Sth; Colwyn Bay speed trials, July 16th.

M.G. (Warlingham).—The cast lugs on the cylinder head and block of your engine are not intended to register. They are placed there to facilitate cylinder head removal, a screwdriver being placed between them and levered upwards after the holding-down nuts have been removed.





TRIUMPH CUP

The only light car to attain an award in the Bradford and D. M.C.'s Triumph Cup event was a Jowett driven by A. N. Sharpe.

HUDDERSFIELD AND D. M.S.C.

The first 1927 freak hill-climb will be run on Dalton Bank, Huddersfield, on Saturday, April 16th, at 2.30 p.m. Only members of the club will be allowed to compete, and there will be at least seven silver cups to be won.

LONDON TO LUGANO RUN.

The Motor Cycling Club's London to Lugano run has been fixed to start on Saturday, August 20th, from the L.N.E.R. quay, Harwich, at 7 p.m. Full particulars can be obtained from the Lugano Run hon. secretary, Mr. J. Van Hooydonk, Oakengates. Broadway, Letchworth, Horts.

KICKHAM MEMORIAL TRIAL

KICKHAM MEMORIAL TRIAL.

H. Clegg (Austin Seven) won the Tytherleigh cup and replica in the trial organized by the Wessex Centre A.-C.U. on Saturday, April 2nd. The two-lap course of 116 miles included five observed hills and 5 or 4 miles of "colonial" sections, with much hub-deep in places, in addition to a brake test and a restarting test. The Austin was the only car entered and was particularly good on Doynton Hill.

OOZELUM M.C.

The club's recent run to Bluchills Mine was stated to be a great success and was very well supported. A similar run will be held in the near future. An evening run will take place on Saturday, April 9th, to the White Hart Hotel, 5 miles on the London side) from Basingstoke, A munical evening is being included in the programme Another "theatre" night has been arranged for May 4th, the meeting place being the "Chandes" at the lower end of St. Martin's Lane, Condon, W.C., at 6.30 p.m.

THE LIVERPOOL M.C.

THE LIVERPOOL M.C.

We have to hand the regulations of the Blake amateur classification and car and "regularity" time. The start will be at Bartleys Garage, Hoson, on May 1st. Entry forms can be obtained from M. S. Parker, 55, Hardman Street, Liverpool. The Easter programme includes two events, the first being a one-day run to Coventry and back and the second a weekend tour to North. The stours are not competitions and are promoted purely and simply as sight-accing expeditions.

R.A.C. PERMITS.

R.A.C. PERMITS

R.A.C. PERMITS.

The R.A.C. has issued the following permits: Open, April 23rd, Surbiton M.C., Brooklands race meeting. Closed, April 9th. Southport M.C. Southport Tace meeting; April 10th, Rochdale and D. Mc. reliability trial and fuel consumption test; Northampton M.C.C. reliability trial; Middlesbrough and D. M.C., reliability trial; April 15th, Ipswich and D. M.C., reliability trial; April 25rd, Sutton Coldfield and North Birmingham A.C., reliability trial; April 24rd, April 24rd, April 24rd, Burdford Gipsy M.C., reliability trial; May 1st, Liverpool M.C., reliability trial; May 1st, Liverpool M.C., reliability trial; May 1st,

J.C.C. (YORKS CENTRE).

Liverpool M.C., reliability trial.

J.C.C. (YORKS CENTRE).

We have received a copy of the J.C.C. (Yorks Centre) summer programme. A number of interesting events have been arranged, including a rally and slow hill-climb which will be held to-morrow. April 9th, at 3 p. 1 and a gynkhana which has been arranged of June 11th. The contact competition held recently was voted a distinct success and was particularly attractive owing to the novelty of nearrangements. The scheme was on the principle of a treasure hunt, but the drivers were given scaled orders which, when followed out, carsed them to one place where their scaled orders, which is most of the principle of a treasure hunt, but the drivers were given scaled orders which, when followed out, carsed them to neet in pairs, and finally they all met at one place where their scaled orders, which is the place of the countryside was covered, and considerable fun was added to the affair because no competitor know which cars covered, and considerable fun was added to the paired until after the first "contact" had been made. Results were (the times being dinutes and H.O. Dearman (Hyde Park), Rover B, 48 mins; C. D, Wilson (Wortleyl, Alvis, 35 mond pair: C. D, Wilson (Wortleyl, Alvis, 35 mond pair: C. D, Wilson (Wortleyl, Alvis, 35 mins; total error, 83 mins. Third pair: A Morris-Cowley, 44 mins, and G. P. Andorsen (Binley), Rhode, 44 mins, and total error, 88 mins. Mrs. Beer (one of a number of lady drivers who entered) and J. Barker received a club spoon.

Reports and Announcements of Sporting and Social Events.

ALSTON AND D. M.C.

At a meeting held recently it was cided to re-form the club, and those desire of further information should communicate with Mr. G. Forsyth, Albert House, Alsto Cumberland.

SURBITON M.C. RACE MEETING.

SURBITON M.C. RACE MEETING.
This event will be held at Brocklands on Saturday, April 25rd, racing commencing at 2 of clock. Entries close on Thurses April 14th. There will be five open races and closed event for members of the Surbiton closed, Surbiton only, Entry forms are obtainable from the homogranizer, Mr. F. W. Barnes, Rex House, St. Andrew's Square, Surbiton. Phone. Kingston 0627.

FORTHCOMING EVENTS

April 9.
Surbiton M.C. Grand Cup Trial.
Southport Race Meeting.
West Ham and D. M.C. Opening Run.
J.C.C. (Yorks Centre). Slow hill-climb.
Oozelum M.C. Run to Basingstoke.

April 10.

April 10.

Leeds M.C. Buckden Hill-climb.
Sheffield M.C. Team Trial.
Sydenham and D. M.C. Touring Trial.
Sydenham and D. M.C. Touring Trial.
Catlord and D. M.C. Run to Ightham.
Usbridge M.O. Social Run.
Leicester and D. M.O. Slow Hill-climb
at Stockerton.
Watford and D. A.C. Trial.
Lendon Eagle M.O. Run to Leith Hill.
Woking M.C. and C.C. Social Touring
Trial.
J.C.C. Tea Dance, Hampton Court Club.
Helsize-Bradshaw L.C.C. Opening Rally.
Rochdale and D. M.C. Fuel Consumption Test.
Middlesbrough and D. M.C. Trial.
Northampton M.C.C. Trial.

April 15 (Good Friday).

London-Land's End. Starts Slough Scarborough and D. M.C. Two-day Trial

Starts.
Starts.
Catford and D. M.C. Run to Minchead Starts.
od Green and D. M.C. Run to

Starts.
Wood Green and D. M.C. Run to
Slough.
London Eagle M.C. Run to Porlock.
Cumberland County M.C.C. Main-road
Trial.
Ipswich and D. M.C. Trial.

April 16.
London-Land's End Finishes.
Hyddersfield and D. M.C. Hill-climb at Datton Bank.
Scarborough and D. M.C. Two day Trial Finishes.

April 17 (Easter Sunday).

London Eagle M.C. Run to Brighton.

Leeds M.C. Run to Scarborough.

City of London M.A. Easter Run to

Devonshire Starts.

April 18 (Bank Holiday). B.A.R.C. Opening Meeting.
Scarborough and D. M.C. One-day
Trial.

Leeds M.C., Ltd. Post Hill Speed

SYDENHAM AND D. M.C.

SYDENHAM AND D. M.C.

The annual speed hillclimb will be held by permission of Capt. G. Evans (one of the club's vice-presidents), at Farningham, on April 24th, commencing at 2 p.m. sharp. Competitors will be given a rolling start and electrical timing will be employed. Two runs will be allowed and the fastest time will count. The event will include classes for three-wheeled cyclecars, touring, sports and racing cars, and it is open touring, sports and racing cars, and it is open touring, which will be allowed and whitefit clubs, and those interested are asked to communicate immediately with hon. Secretary, Mr. Se. Hurlington, 1sfryn, Christchurch Mount, Epsom, or with the hon. Perss secretary, Mr. Se. Communicates of the communicate of the communicate of the communicate immediately with hon. Secretary, Mr. Se. Barber, 205, Brockley Road, Brockley, 8.E.4. Entries close definitely on Saturday, April 16th.

LIVERPOOL M.C.

Only one light car driver—E. A. Law (Alvis)— ucceeded in obtaining an award in the Liver-ool Club's opening run.

FRENSHAM CUP TRIAL.

FRENSHAM CUP THIAL.
Unofficial interlerence with route arrows and terrential deluge of rain and hall, which asked away most of the dye, resulted in pracefully all of the 62 competitors in the Frensam Cup Trial losing the course on the crossam Cup Trial Too committee has decided, ierefore, to re-run the event on May 1st.

BELSIZE-BRADSHAW L.C.C.

BELSIZE-BRADSHAW L.C.C.
The first rally of the reason will take place i April 10th, members meeting at Kew Green at 2.45 p.m. This will be followed by a run in Brackhell via Virginia Water. Belsze-Bradshaw owners will be welcomed, and further particulars of the club may be obtained on application to the hon secretary, Mr. G. E. R. Nicholson, 36 Barrowgate Road, Chiswick, London, W.4.

POST HILL RE-OPENS.

Post Hill, the test hill estate of the Leeds Motor Club, Ltd., opens for the new season on Baster Tuesday, when a challenge event between the Leeds and Tadcaster clubs is to be held. Seven member, on each side will compete the award being an oak challenge shield bearing the crest of the losing club. Crash helmed, are compulsory but no anti-skid devices are allowed.

J.C.C. TEA DANCE.

The Junior Car Club is holding a tea dance at the Hampton Court Club at 5 p.m. on April 10th. The club is situated by the river at Thames Dutton, and this event constitutes the record of a series of comprehensive social functions to be held throughout the season. The secretary, at Clock House, Arundel Street, Strand, London, W.C.2, will be pleased to forward particulars to any interested motorists.

SCARBOROUGH AND D. M.C.

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Entries for the Easter motor trials have come in very well. Up to date 40 entries have been received for the two-day trial taking place on Good Priday and Easter Saturday, and this event will close with the limit of 60 or 70 ontries. The one-day trial on Easter Monday—the more sporting of the two event—has received very much the same support, but from enquiries to hand it is expected that well over 100 entries will be received. There are a large number of awards to be wen and everything promises a record Easter for the club.

BRIGHTON AND HOVE M.C.

The 1927 fixture list is an extremely full one, some of the most promiuent events being as follows:—May 1st, Brighton and Hove and Kent Clubs, combined May Day Trial; May 14th, Speed Trials at Lewes; June 11th and 12th, Brighton to Beer 24-hour Trial; August 21st, Simpson Lee Trophy Trial; September 11th, Whole-day Trial for Major and Schofield Trophies; September 24th, Speed Trials at the new Brighton track (if ready); December 5rd, annual dinner and dance; January 6th, 1928, annual general meeting.

CUMBERLAND COUNTY M.C.C.

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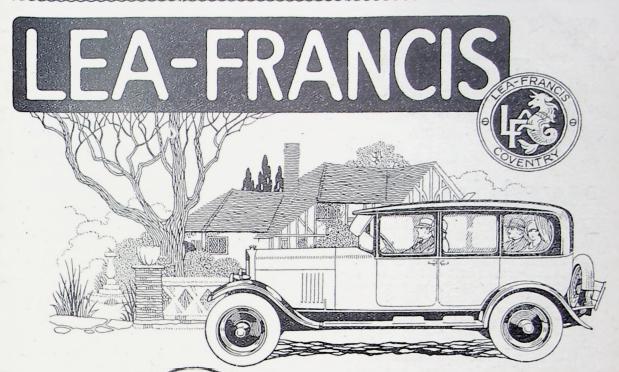
Several cars competed in the open reliability trial over an 88-mile course held recently in the Lake District. The outward journey was by Daiston over an unuber of observed hills, including Davil's Elbow, to Buttermere. The course was then covered in the reverse direction, but only Buttermere Hause was observed. All the cars failed on the stop-and-restart test on Newlands Hause, but in a brake test on Warnell Fell on the return journey the best performance was made by Mrs. P. Webster (Austin Seven). The following checked in at the finish:—A. D. Reid (980 c.c. Morgan) and H. L. Shechan (Rover Eight). The club will hold its annual main-road reliability trial in the Lake District on Good Friday over a course which is the same as last year, and which is particularly suited to cars. The only observed hills will be Warnell Fell, Red Bank and Kirkstone. Pass. Full particulars may be obtained from the hon. secretary, Mr. Fred Rowlands, Douglas House, Nelson Street, Carlisle.

CORDON ENGLAND SPORTS CLUB.

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The Gordon England Sports Club held another of their popular dances at the Star and Garter Hotel. Putney, last Friday. There were about 100 members present. During the number of the evening a cabaret interlude was introduced, commencing with a concerted Charleston dance by three young ladies and two gentlemen. The ladies were attractive light and dark blue costumes in honour of the Boat Race. This turn was followed by a solo Charleston exhibition by a small boy, also attired in the two shades of blue, from the stores department. His turn was exceedingly well done, and we were informed that, although not yet 15, he had recently won a valuable prize in a Charleston competition at the local Hippodrome. The show was concluded with a really good Apache dance executed by the club's secretary, Miss P. Matcham, partnered by Mr. Powell. All the true very was put into the performance, which lacked nothing but proper lighting effects. The entertainment fully deserved the encores which each item received. The only regrets were that Mr. and Mrs. E. C. Gordon England, who had frequently expressed their enjoyment of the national continued until 1.30 a.m.



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AROUND THE TRADE.

From the Welin-Higgins Co., Ltd., Morley House, 314-322, Regent Street, W.1. we have received a folder containing a dozen, samples of Fabrikoid leather cloth. A colour and grain card has been circulated among the trade.

Maintenance, Ltd. (Austin specialists). Beavor Lane, Hammersmith, W.6, have sent us a well-produced little booklet describing their works and their methods of business-Austin owners are recommended to apply for a copy.

We are advised that the works of the M.C.L. and Repetition, Ltd., have now been removed from Anchor and Hope Lane, Charlton, London, S.E., to new and more commodious premises at Pool Lane, Langley, Birmingham.

At this time of the year when touring engages the serious attention of motorists, facilities for carrying luggage are well to the fore, and in this connection J. B. Brooks and Co., Ltd., 74, Margaret Street, London, W.1, make a speciality of trunks. Further details can be obtained from the address given.

Philips Lamps, Ltd., Philips House, 145, Charing Cross Road, W.C.2, have sent us a photograph of a smashed headlamp which became involved in a car collision with a motorcycle. Although the two headlamps were broken beyond repair, it was found upon test, they state, that the bulbs were perfectly serviceable.

After five years' stay in Pall Mall, with Marlborough House as a near neighbour, the Dunlop organization moved round the corner into St. James's Street recently. Their new quarters, St. James's House, on the corner of Ryder Street and almost opposite the Cocoa Tree Club, are the third which the organization has occupied in London.

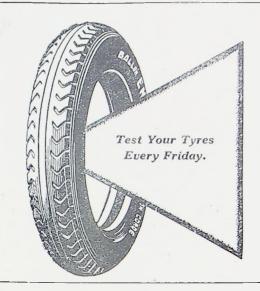
The Parsons Non-Skid Co., Ltd., makers of the well-known non-skid chain and agents for "Twinbar" spring bumpers, announce that they are removing to larger premises at Macaulay Road, Clapham, S.W.4, and that in future orders and correspondence should be directed to that address. Their telephone number is Battersea 2492-3.

The Leamington Valve Co., Clinton Street, Leamington Spa, have issued a price list of motor engine valves, in the manufacture of which they have specialized for many years. They state that their valves are made of 3-5 per cent. nickel-steel and guaranteed exact to makers' pattern. The price list includes recommendations for a number of light ears.

Messrs. A. Schrader's Son. Inc., have produced a very novel form of advertisement in the shape of a little folder headed "A New Motoring Habit—Every Friday." In a circle on the front page is a hand holding a tyre gauge, and on opening the page this hand descends, applying the gauge to a valve on a wheel. The leaflet contains many particulars concerning Schrader tyre gauges.

We have received notifications from the following concerns advising us that their products were used in connection with Major Segrave's record-breaking Sunbeam:—Herbert Terry and Sons, Ltd., Terry's aero quality valve springs. The British Thomson-Houston Co., Ltd., B.T.H. magnetos. The Dunlop Rubber Co., Ltd., Dunlop tyres, and C. C. Wakefield and Co., Ltd., Wakefield Castrol oil.

Very good quality insulating tape, supplied in rolls of a suitable size for carrying in a car, is being marketed by A. H. Hunt, Ltd., H.A.H. Works, Tunstall Road, Croydon. It is claimed that it can be kept for years without going hard and that it retains its adhesive properties for an exceptionally long time. The small, medium and large rolls sell for 3d., 6d. and 9d. each respectively, the two latter sizes being supplied in tins.





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Volume I, containing the maps, is a thin, handy book, particularly convenient for use when touring, bound in limp waterproof maroon leather cloth. Transparent flaps, marked in inch squares, are attached to the two front edges of the cover in such a way that they can be inserted in any part of the book, thus aiding easy reference.

Volume II is divided into two wellillustrated sections. The first deals in an interesting and informative manner with all the Great Trunk Highways and Touring Centres. The second section deals in alphabetical order with the most important cities, towns and resorts to be found upon our roads, and contains information of vital importance to every Tourist.

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EVERY tyre manufacturer, every car maker, every wise garage man, urges the importance of proper inflation—and even inflation—for each pair of tyres—front and back. Your garage man can tell you exactly what pressure to use.

The good habit of testing all your tyres, including the spare, at least once a week with a Schrader Gauge will ensure easier steering, better

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The Schrader Tyre Gauge has been standard for years. It is dependable, inexpensive, easy to carry and use. Schrader products are sold by more than 100,000 dealers throughout the world.

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BE SURE IT'S A SCHRADER: LOOK FOR THE

Pages from the Diary of an Austin Owner

Page Seven

Wonderful how many Austin Seven Saloons there are about. Noticed four only yesterday in less than thirty miles. Of course, the Tourer is ideal for me, with the long business trips I make. But it's Madeline's birthday next month, and the Saloon would be an absolute treasure to her for shopping and calling, and the links, etc. I can think of nothing that would please her better, nor of any car so simple and so safe. Yes, a call at the local Austin Agent's is clearly indicated.

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