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You are safe on ROSEDALE ABBEY BANK HILL on DON—you are safe always on DON—on hill—in dale—at speed—in traffic.

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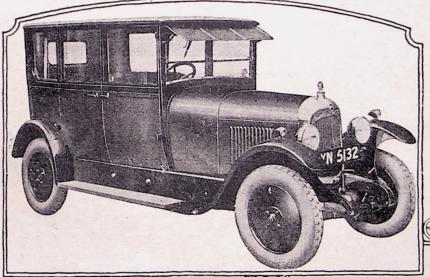
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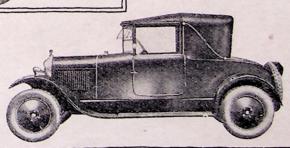
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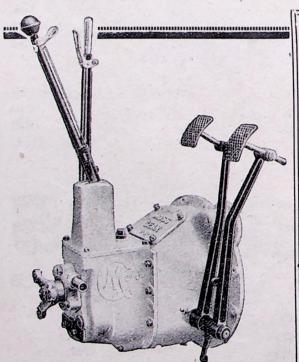
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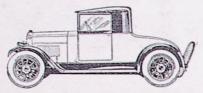
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there is a grade to suit your car, whether in cold or warm weather. On receipt of a post-card the manufacturers will send a chart stipulating the oil you should use for



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- have purchased the business known as

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and so secured the newest and finest motor showrooms in London and

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FIAT, 9 h.p. 4-seater, one of the popular £200:0:0

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AUSTIN 7, family £145 Os. LEA-FRANCIS, 10 £210 Os.

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## 'CHEMICO' Car Polish

produces astonishing results that last, especially on **NEW** Cellulose paint. Chemico Car Polish when applied removes grease, smears and

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still can be speedily obtained by these new "CHEMICO" Products — Chemico Cellulose Cleanser and Polish and Chemico Wax Polish. Both these Polishes are rapidly being adopted by the leading Car Manufacturers and coachbuilders, after many comparative tests against other polishes.

Price of Cleanser and Wax, 3/6 per tin.



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The Gaiter with the Wick Tube and the One-Hand Oil Gun. Jeavons have no equal. Through all wenthers they automatically keep the springs well oiled and clean-free from mud, dust and rust. Perfect springs action is assured and riding comfort is increased. Prices for Sets complete with Oil Gun:

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All pure wool; fringed, reversible and made in a large variety of beautiful designs and rich colourings. Really wonderful value. Satisfaction guaranteed or money returned.

Size 58" x 72" .. .. .. 22/6

Better qualities at 42/6 and 88/-

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Increases driving comfort, being specially shaped to bring driver nearer to controls. In coloured waterproof lenther, size 17'x 17" x 4".

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As above, but in black lenther cloth, sized and buttond in sealth a really appart.

As above, but in black leather cloth, piped and buttoned; a really smart cushion. Price 6/8
Special quality cushion in Blue Rexine, willappeal to Morris-Cowley Owners. Price 8/6

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Well made in coloured waterproof leather with leather carrying handle. Size 18" x 18". Price... 6/8

Cushions made to special sizes at a slight extra cost.

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Made from special close weave fabric of fine quality which dust cannot penetrate. Yet they are strong and hard wearing. Two qualities are available, with 12 h. blue. The blue does not show dust so soon.

In White .. .. 35/6
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Prices from £139.

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Dunlop Balloons and Stewart Speedometers standard.

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BODY: Two-scater Sports of very attractive apprarance. The tail is streamlined and colours. Light Blue, and Red. Any other colour, to choice, 65 extra.

EQUIPMENT: Self starter, 12-volt lighting set (5 lamps), clock, speedometer, hood, tools, punices. Englebert 100 x 90 (cord), four-wheel brakes.

PRICE: \$185. Two seater body.

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**26 YEARS AGO** 

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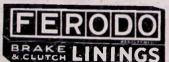
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when motor ears looked like this, Ferodo Brake Linings were being used on the cars owned by enterprising motorists. The experience gained during those early years stood us in good stead later, when higher speeds, heaver vehicles, and more rigorous conditions made high duty brake linings of para-

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The Linings that make motoring SAFE. Stocked by all Garages

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A gear change -easy and dignified.

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Unique and vitally essential to safe and easy gear changing, the Stadium "Easyreach" Gear Lever Extension obviates bending awkwardly forward and fumbling for the "elusive knob." It is instantly fitted by a clip and two bolts (no drilling or tapping required) and may be adjusted exactly to suit the driver's height and reach.

Model 999 for the "AUSTIN SEVEN."

Nectly and strongly made of solid aluminium and exceedingly well polithed and finished. Length of Lever, 8 in.

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#### Special Features of this week's issue



TWENTY-FOUR HOUR RUDGE -WHITWORTH CUP RACE.

BRITISH VICTORY AFTER AMAZING CRASH Vivid Descriptive Story and Pictures by Special Aeroplane.

WHAT THE ECLIPSE WILL BE LIKE. How to Photograph and How to See it. By an Astronomer.

WHERE TO GO TO SEE THE ECLIPSE.

MOTORING IN SPAIN.

The Coming Coun'ry for Motor Touring. By The Hon. Mrs. Victor Bruce.

DRIVERS WHO WON'T GIVE WAY. Some Characteristics Concerning Selfish Driving Methods.

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Dangers brought about by Rainstorms following Long Periods of Dry Weather.

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The 14-28 h.p. Standard Saloon.
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HIGH SPEED TRIAL AT BROOKLANDS.

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Fashions in Enclosed Body

HOW NOT TO MOTOR.

Pictures with a Point Showing Instances of Bad Driving.

LONG DISTANCE MOTOR-ING COMFORT.

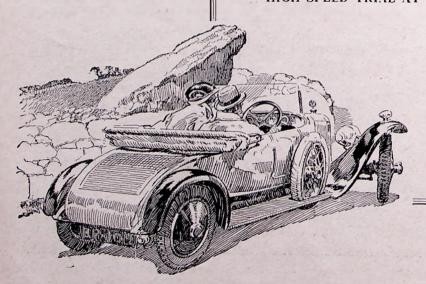
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An Illustrated Article on the most Common Mechanical Failures and How to Remedy them.

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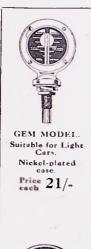
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SPORTS MODEL

Special streamline design for Sports and Racing Cars.

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With every Boyce Moto-Meter is issued a coupon entitling the purchaser to a free Insurance Policy which in the event of delay due to accident or mechanical breakage will cover:—

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All that is necessary is the filling up, by the purchaser, of the application form which is enclosed in every carton containing a Boyce Moto-Meter.

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— and feel safe!

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## The only Motor Accessory which carries with it a Free "GET YOU HOME" Insurance Policy.

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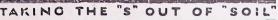
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Tottenham - - LONDON, N.17.

Telephone: Tottenham 1500 (4 lines) Telegrams: "Benjalect, Tottlane, London."





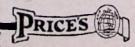
Carbon. Soot. Coke. You'll get it all right. Road dust, for instance, will get in. The finest oil leaves a residue. BUT-use the right grade of Motorine and you get less of t. Much less. There's the simple fact.

To learn why, send a p.c. for the book "The Car" (or if you're a motor-cyclist, "The Motor Cycle.") Both are free and post free from Price's, the Oil People (Dept. EEII), London, S.W.11.

You are also offered free the advice of Price's Technical Bureau. Send your oil problems to Price's.

## very special oil

Price's Palent Candle Company, Ltd., London, S.W.11.



#### Have you got it?

Have you got that enviable confidence in your brakes that you can sit back at the wheel and really enjoy your motoring, free from worry in all hazardous situations, in busy or awkward traffic, at cross-roads, and on steep hills?

Thousands of motorists have this confidence, which is engendered by the use of Chekko—the only Brake Lining that is guaranteed never to fail through weakness caused by scorching or burn-out. No cotton or anything inflammable is mixed with the ascessos used in Chekko hence the guarantee.

For your own safety—and as Chekko lasts longest—for your own pocket also—insist on Chekko, from your garage, from any of your stockists, or direct from—

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#### FOUR WHEEL BRAKES for

For the small sum of 30 - you can equip your AUSTIN 7 with four wheel brakes, you can link the front brakes with the foot pedal so that they will operate simultaneously, and at the same time in no way interfere with the mechanism of the hand lever. The first step is to send along to us for our leaflet on the BODELO BRAKE ATTACHMENT FOR THE AUSTIN 7.

The BODELO BRAKE ATTACHMENT is quite simple to fit and absolutely effective in use.



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Standard San Sebastian Salmsons Secure another sensational success

WINNING 3rd RUDGE-WHITWORTH CUP

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Thus Qualifying for the 4th (1927-8) Rudge-Whitworth Car Race.

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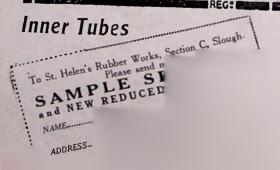
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## 200 miles on a 14 inch split!

Mr. Ross Isherwood, of Bolton, writes: "On a journey to the Potteries the cover burst for a distance of 14 inches along the centre of the tread, but in spite of this it travelled almost 200 miles before it was removed on its return to Bolton. The Everlastic Tube was perfect with the exception of a little roughness where it had come in contact with the burst canvas, and I have now had it fitted in another cover, which is also

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We do not recommend the use of "Everlastics" in burst covers, but we do claim that they prevent 95 punctures in 100. Blewouts are practically unknown. Lower inflation pressures are used. Bouncing and wheelspin are eliminated—lengthening tyre life, giving greater riding comfort and reducing strain on the chassis. With "Everlastics," outer covers can be run to destruction. to destruction.

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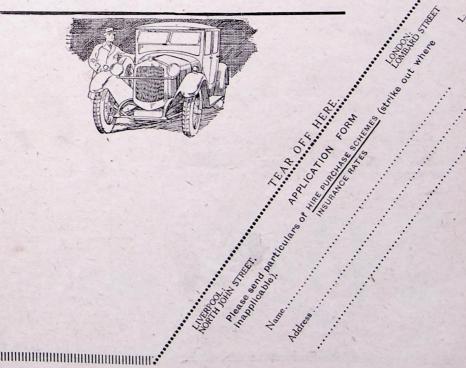
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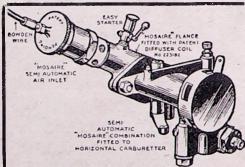
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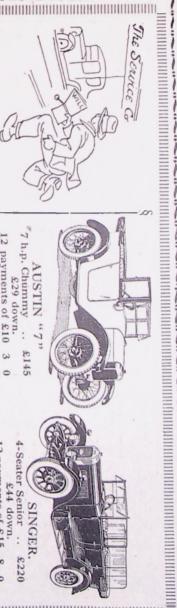
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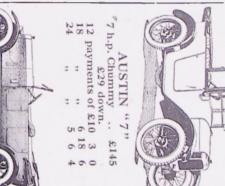


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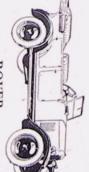


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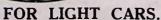
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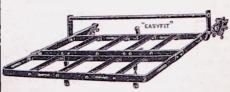
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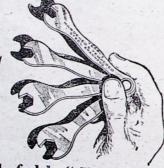
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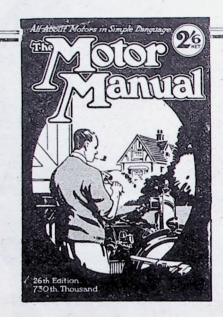
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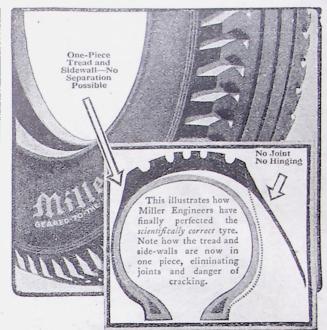
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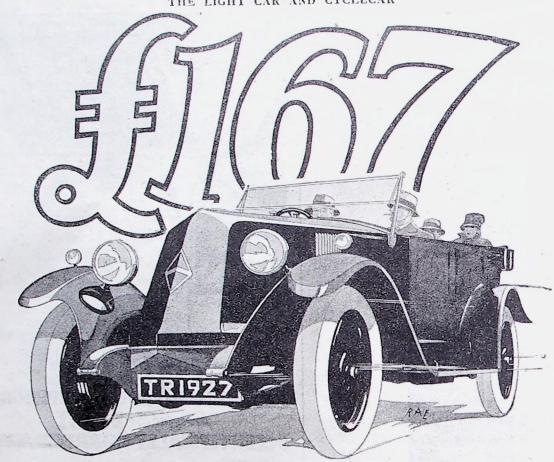
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and cuffs, and two pockets. The cloth is faced with a special rubber preparation, which gives the appearance of leather and value of in. A thoroughly practical Coat for the lady driver. Specially made for Gamages, it is guaranteed wind and rain proof, cut in a smart, doub'e-breasted style, belted, with storm collar rubber preparation, which gives the appearance of leather and will not split or crease and can be had in the following colours—Tan and Navy. Length 42 in. 46 in. and 48 in.

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THE LURE OF SPEED.

Both at home and on the Continent speed events for cars of touring and sports types are now extremely popular, and light cars perform with distinction in them. The illustration shows a Lea-Francis taking part in the high-speed trial at Brooklands last Saturday.

## NOTES, NEWS & GOSSID The WEEK

#### Trolley-buses to be Scrapped.

Trolley-buses in York are to be scrapped and replaced by petrol buses. This will mean a certain increase of driving comfort for motorists, as from the private owner's point of view trolley-buses are not a great improvment upon conventional trams.

#### Talyllyn Pass Road.

Immediate steps are being taken to repair the famous Talyllyn Pass road which recently became impassable for traffic owing to heavy floods. A £50,000 contract has been placed by the local council, and, with the assistance of the Ministry of Transport, it is hoped that repairs will shortly be effected.

#### This Week.

In "A Light-car Triumph" we describe the wonderful performances put up by light cars in the classic 24-hour race at Le Mans. Our contributor, "Focus," replies to the article, "What of 1928?" which appeared last week, in his usual convincing style; his reply is entitled "The 1928 Models." We publish a road test report of an 11.9 h.p. touring model Bugatti, whilst, in addition, an article entitled "Why Engines Get 'Dirty'" explains the causes of carbon deposit and suggests various means for reducing it.

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London .. 9.49 Birmingham 10. 2 Newcastle .. 10.17 Liverpool .. 10.14 Edinburgh 10.31 Bristol ... 9.55 Moon—New, June 29.

#### Station Garages for South London.

A new company, known as London and Southern Garages, Ltd., has been registered with a capital of £50,000. The object is stated to be to lease sites and to develop garages at suburbay stations on the Southern Railway. It will be remembered that a garage for the convenience of season-ticket holders was opened some months ago at Morden Tube Station in South-west London, and has since proved to be very popular with business people.

#### The Melbourne Motor Show.

Of the 52 stands occupied by motor dealers at the Melbourne Motor Show, which was opened recently by Lord Somers, Governor of Victoria, 20 are displaying British cars. The floor area occupied is approximately eight acres, and the Show is attended by vast crowds.

#### Better Roads-in Morocco.

Overseas motorists should note that a large army of men is being employed in the Ajdir section of Morocco with a view to forming good roads to the French territory. The schemes intended and the 12,000 people engaged in the task make our home arterial road work seem insignificant.

#### Next Week.

The article which we have prepared describing the working of a storage battery has been unavoidably held over this week, but it will appear in our next issue. We shall also publish an article dealing with certain aspects of engine cooling—a subject of very great interest and importance. A touring feature of an unusual nature, entitled "St. Leonard's Forest in Sussex," will describe the historic associations of a very heautiful but little-known part of Sussex.

#### 'Ware Snakes!

Snakes of an unknown species have recently been seen on Hayes Common, Kent, and the Conservators caution the public to exercise care at this well-known resort. At Keston large vipers sometimes alarm roadside pienic parties,

#### J.C.C. Members' (?) Room.

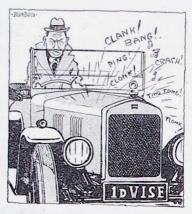
The much vaunted club room in the paddock at Brooklands is said to be very comfortable and at the disposal of all members of the Club. Few of them, however, had the opportunity last Saturday of testing its amenities, as the room was overcrowded with "officials," who locked themselves in.

#### Full of Emptiness.

According to the U.S. Department of Commerce, an Australian engineer has invented an internal-combustion engine which has no crankshaft, connecting rods, camshaft, valves or timing gear. If he had only omitted the crankease, cylinder block, pistons and sparking plugs he need hardly have troubled to invent anything at all.

#### A Lilliputian Car.

Upon its arrival in New York, a 7-12 h.p. Peugeot caused such a sensation that it could hardly be driven through the crowd which surrounded it. With their customary breeziness, the lay Press referred to it as a "dwarf motor," the "great-little Pugeot" (sie) and the "little sensation."



WEEKLY WISDOM.
Use not oil that is cheap lest thou be taught that new bearings they are dear.

#### Safer Car Shipment.

As a result of the representations by the Automobile Association, several shipping companies have instituted safe and efficient gear for the handling of motor car traflic, with the minimum possibility of damage. The British and Irish Steam Navigation Company, whose steamers run between Liverpool and Dublin, are now added to the list of those using approved equipment for taking cars on or off boats. The device is safe and reliable.

London Car Thefts.

During the year 1926, 809 cars were stolen in the Metropolitan Police district. Of this number 698 were recovered and restored to their owners.

F.M.C. Report.

The Federated Motor Clubs have issued a report of the activities of the Federation for the past year which will interest members of the constituent clubs. The Federation offers special facilities to motorists in the way of touring information, breakdown assistance and free legal defence. During 1926 the first F.M.C. handbook was issued and much good work was done in organizing social events.

Assisting Export Trade.

Export traders should note that the Government is prepared to provide facilities for credit insurance and for financing export trade. In certain instances orders which might be obtained involve larger risks than firms care to carry, and to meet such difficulties a new Guarantee scheme has been put into operation. Inquiries should be addressed to the Export Credits Guarantee Dept., 31, King Street, E.C.2.

Saving Eamont Bridge.

The Society for the Protection of Ancient Buildings has submitted a report to the Westmoriand County Council, making suggestions to save the fifteenth-century Eamont Bridge, on the main England-Seotland road, near Penrith, from demolition. The Cumberland County Council's proposal to erect a new bridge in consequence of the dangerous nature of the present "hump-back" structure was opposed by Westmorland, the Council of which has decided to consider a scheme based on the report of the society, and have now asked the Cumberland Council to meet them.

Really good lines have been achieved on the Taylor Austin Seven sports body, which is described below.

#### Sporting Austin Seven.

We mentioned recently in "Around the Trade" that H. Taylor and Co., Ltd., Sussex Place, South Kensington, London, S.W.7, are fitting a special sports body to the popular Austin Seven chassis. Full details of this have now come to hand, together with the photographs reproduced on this page.

The body has a very pleasing appearance, and there is ample room for the occupants, the inside width of the front seat being 41½ ins., whilst the distance from the seat squab to the pedals is 44 ins. Incidentally, the seat is adjustable. The pneumatic cushions rest on the floor so that a very low seating position is provided, and the spare wheel being carried on the tail leaves C12

the rear locker entirely free for the accommodation of luggage. A nickel-plated V-shaped windscreen is fitted, whilst the reversible ventilators in the scuttle are standard. The hood is of best-quality waterproof material and is arranged to fit snugly on to the top of the screen,

The equipment includes a five-lamp lighting set electric born hair earpet,

lino-covered running boards, and to the usual facia-board equipment is added an engine oil-pressure indicator. A maximum speed of 55 m.p.h. is claimed, whilst petrol consumption is said to be 45 to 50 miles per gallon. The colour of the bodywork is to choice, whilst the wheels and chassis frame are enamelled black. The price of the car complete to specification is £175.

#### Surbiton Club's Brooklands Meeting.

The Surbiton Motor Club's open meeting will be held at Brooklands on Saturday, July 2nd. There will be five open races, including a 50-mile handicap event. This type of race has proved extremely popular of late, for it is a distance long enough to provide an exciting finish without boring the spectators in the interim.

#### Amateur Traffic Duty Men.

In connection with a county court case arising out of a collision at cross-roads, the judge at Newark recently made some interesting comments. He explained that drivers obeying unofficial signals did so at their own peril, and that the giver of such signals, however well intentioned he may be, might in certain circumstances find himself liable at law should a collision occur. He advised amateur pointsmen, in their own interests, to abandou the practice.



Official figures recently published show that during the 12 months ended March 31st, 1927, 2,903 convictions for driving without a current licence were recorded in the Metropolitan Police district.

#### The Schneider Trophy.

Three Supermarine scaplanes are being built for the special purpose of competing for the Schneider Trephy in the World's Scaplane Speed Championship. Napier engines are being used in these planes, which will compete on behalf of Great Britain.

#### Belsize-Bradshaw Engines.

Owners of Belsize-Bradshaw cars will be interested to learn that the New Welding Co., 2G, Rosebery Avenue, London, E.C.1, is prepared to regrind the cylinders and fit new eastiron pistons, complete with rings and gudgeon pins, at the special price of £2 19s. Gd. per pair.



Loose Road Material.

on a new building estate who wrote to

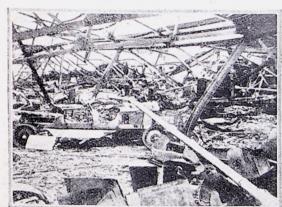
the local authority complaining of the heap of road material outside his garage was informed that it was "the

We hear that an unfortunate resident

Sir George Beharrell, D.S.O., managing director of the Dunlop Rubber Co., Ltd., elected president of the S.M.M. and T. for 1927-28.

#### Glass's Used Motor Show.

The approval of the S.M.M. and T. was given recently to the Used Motor Show to be held at Bingley Hall, Birmingham, from July 16th to 27th. A considerable portion of the Bingley Hall will be occupied by motor traders for the display of used vehicles of all classes, whilst the remainder of the building will be available to private owners who may enter cars and motorcycles for sale. Each vehicle in the show, whether entered by private owners or by the trade, will undergo a road test and critical examination by prominent experts, whose certificate, together with a guaranteed specification, will be displayed upon each vehicle. The show will be organized by Mr. William Glass, as formerly, who will occupy offices at the Birmingham Chamber of Commerce, 95. New Street, Birmingham.



The shop in which 9-20 la.p. Rover bodies are finished and mounted was destroyed by fire last Thursday, but plans for a new shop are already in hand. Delivery of saloon bodies is unaffected.

#### Wisdom from the Court.

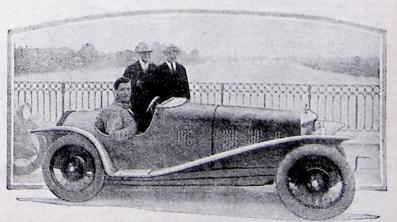
"A let of motorists have speedometers on their cars merely as ornaments, and it is possible for a driver to register any speed." This is the latest masterpiece attributed to a police-sergeaut at Kingston. Of course, when the speedometer happens to be on the policeman's vehicle the position is different!

#### For Austin Seven Owners.

Austin Seven owners will find much to help and interest them in "The Austin Seven Book," by R. T. Nicholson, M.A. (the Gregg Publishing Co., Ltd., 2s. 6d. net). The author, who will be recognized by some of our readers as the writer of "The Book of the Ford," deals with his subject in a simple and straightforward manner which will appeal to novice and old hand alike. Although not going deeply into technicalities, the work gives information about every job which an average owner-driver is likely to tackle and should unquestionably help Austin drivers to obtain the maximum satisfaction from their ears. The book is illustrated with line drawings, but owing probably to the paper used, the detail work in some of the more intricate sketches is somewhat lost. Nevertheless, "The Austin Seven Book" is well worth the attention of every owner of this make of car, particularly as the contents has been checked by the Austin Motor Co., Ltd.

#### Shelsley Walsh Hill-climb.

Intending competitors should not delay sending in their entry forms for the Midland Automobile Club's umateur hill-climb, which takes place on July 2nd. The event, which presents a fine opportunity for sporting amateurs to prove the paces of their cars, is one of the very few now being held. The entry list closes on June 27th.



A SPEEDY NEWCOMER.

Count G. Lurani in his Derby-Special, which he drove into second place, after establishing a lap record, in the Circuito d'Alessandria. The race was over a distance of 100 miles.

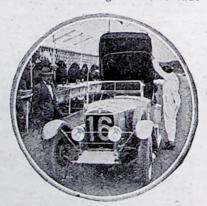
#### A LIGHT CAR TRIUMPH AT LE MANS.

PASSING THE PITS. The top picture shows Gregoire, driving the front-wheel-drive Tracta, followed by a large car, whilst below is Bouriat (E.H.P.) at speed. An indication of the large crowd which watched the race is given in each photograph.

A LTHOUGH the performances of the light cars in the Rudge-Whitworth Cup race at Le Mans last Saturday and Sunday were a little overshadowed by the high speeds of the larger vehicles, the fact remains that they put up an astonishingly fine performance. Indeed, among those that qualified for next year's final for the fourth Bi-annual Cup (1927-1928) six out of seven had engines of under 1,500 c.c. capacity. Owing to an astounding accident which put two of the big Bentleys out of the race, and the unreliability of the larger French cars, the third Bentley, driven by Benjafield and Davis, was the only car of over 1,500 c.c. to finish this most gruelling race.

Almost from the very beginning the team of three Salmsons, which were normal 1,094 c.c. models, ran in a compact group just behind a 4½-litre car and three others in the three-litre class, i.e., three Bentleys and a big Ariès. Lap after lap these three little cars came steadily round and it was not until 9.30 p.m. on the Saturday, that is to say, 5½ hours after the race had started, that one

of the Salmsous, driven by Goutte and de Marnier, was put out of the race owing to the starter having ceased to function. It will be recalled that the regulations forbade



Guibert (S.C.A.P.) lowering his hood at the end of the first 20 laps.

the use of the starting handle throughout the race, even after stops at the pits for replenishments.

The consistent running of the Salmsons is shown by the fact that

at 7 a.m. on the Sunday, after 15 hours of racing, under almost unbelievably strenuous conditions, heavy rain falling for some hours, the Salmsons driven by Casse and Rousseau and de Victor and Hasley were only 13 laps behind the big three-litre Ariès, which was at the time leading. In 15 hours they had covered 73 laps of the 10.7-mile circuit.

Three hours later the two Salmsons were still running third and fourth respectively, with 87 and 86 laps to their credit, until the Ariès, retiring on its 129th lap, let them into second and third places in the general classification. The Salmson driven by de Victor and Hasley thus covered in the 24 hours 1,254.79 miles at an average speed of 52.28 m.p.h., while that driven by Casse and Rousseau covered 1,244.12 miles, equalling a speed of 51.8 m.p.h. An interesting feature of the Salmsons is that they were using the new Silent-bloc bushes in their universal foints.

A Plucky Driver.

Possibly the most interesting light car in the race was the little Tracta front-wheel drive 1,099 c.c. two-seater, which actually qualified for next year's final, notwithstanding the fact that owing to an accident which took place some hours before the race one of the drivers was compelled to drive with a bandaged head and badly bruised face, while his team mate had never previously driven the car. The other three men who were to have formed the remainder of the Tracfa team and enable a second car to be run were all in hospital.

The Tracta had a very low chassis, slung beneath the axles, only four or five inches from the ground, reversed quarter - elliptic springs being used, Bugatti style, at the rear. The engine was a four-cylinder

overhead-valve unit.

Of the three S.A.R.A.s one was a new six-cylinder air-cooled job of

c14

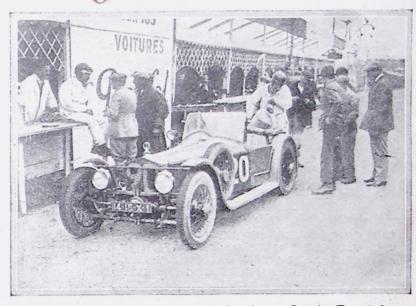
1.498 c.c., which made its first public appearance in this race. appeared to be a very nicely designed vehicle, the engine being equipped with three carburetters. The other two S.A.R.A.s were of the well-proved 1,099 c.c. four-cylinder type. The two E.H.P. cars both had six-cylinder side valve engines. is a sign of the times that one out of three 1,500 c.c. sports touring ears in this race had a six-cylinder engine and that two out of ten 1,100 c.c. vehicles were similarly equipped.

One of the E.H.P.s was put out of the race for a curious reason about two and a half hours after the start. The driver stopped about 500 yards short of the pits and ran up for some water, but as the replenishment of the radiator was not allowed until the first 20 laps (214 miles) had been completed he had to retire from the race.

The S.A.R.A. driven by Mottet and Maret was disqualified for not maintaining the minimum speed set after 12 hours, while the two small Aries were eliminated for insufficient speed after six hours. They were said to have been trying new valve springs which did not stand up to the work. The S.A.R.A. driven by Armand and Duval retired as the result of a loose propeller shaft.

### Darkness and Rain.

The race started in beautiful weather, but with the coming of darkness the wind rose almost to gale intensity and rain descended in torrents. Soon the speeding cars resembled motor boats rather than motorcars, columns of white spray flung from the wheels of the speeding racers shining in the light of the lamps in the pits. It was only to-



Owing to an accident before the race Gregoire (Tracia) drove with a bandaged head and a bruised face. He is shown sitting A WELCOME RELIEF. on his pit counter.

This particularly gruelling race proved conclusively that light cars are quite as reliable as machines of more than double their engine capacity and weight; in addition their average speed is not so very much lower than that of their larger opponents. These facts were noticeable also in the Essex Motor Club's recent six-hours' race at Brooklands.

It will be interesting to watch the future performances of the frontwheel-drive Tracta, especially as the Miller cars of this type proved rather disappointing in the Indianapolis 500-mile race. At Le Mans, however, the Tracta ran really well. The results were as follow:-

Placings for Third Bi-Annual Rudge-Whitworth
Cup 1926-1927:

1.—Salmson, No. 25, 1,094 c.c., driven by
Casse and Rousseau: average speed 51.8 m.ph.
2.—E.H.P., No. 26, 1,094 c.c. driven by
Bouriat and Bussienne; average speed 48.55
m.p.h.
5.—S.A.R.A., No. 21, 1,099 c.c., driven by
Marandet and Lecureul; average speed 47.76
m.p.h.
Saint-Didier Prize.

m.p.h.

Saint-Didier Prize.

1.—Salmson, No. 25, 1,094 c.c., driven by de Victor and Hasley.

Fourth Bi-annual Rudge-Whitworth Cup. 1927-1928.

1927-1928.

(Eliminating Race.)

1.—Bentley, No. 3, 2,989 c.c., driven by Benjafield-Davis, 1,472.64 miles in 24 hours = 61.36 m.p.h.

2.—Salmson, No. 25, 1,094 c.c., de Victor-Hasley, 1,254.79 miles = 52.28 in p.h.

3.—Salmson, No. 23, 1,094 c.c., Casae-Rousseau, 1,244.12 miles = 61.8 m.p.h.

4.—S.C.A.P., No. 15, 1,495 c.c., Desvaux-Vallon, 1,190.24 miles = 49.59 m.p.h.

5.—E.H.P., No. 26, 1,094 c.c., Bouriat-Bussienne, 1,164.76 miles = 48.53 m.p.h.

6.—S.A.R.A., No. 21, 1,099 c.c., Marandet-Lechrent, 1,146.58 miles = 47.76 m.p.h.

7.—Tracta, No. 20, 1,099 c.c., Grégoire-Le Mesle, 1,054.57 miles = 43.94 m.p.h.

wards sunrise that the rain finally left off and was succeeded by perfect sunny weather.

The two air-cooled four-cylinder S.A.R.A.s showed that this method of cooling is adequate even under the strenuous conditions imposed in racing, but the new six-cylinder model had hardly reached the stage in which it was safe to run it in a long race.

A really excellent performance was put up by the Salmson team, two cars of which finished close behind the winning three-litre RACING TO Bentley. They covered over 1,200 miles in the 24 hours at an VICTORY. average speed of more than 50 m.p.h.



OUR CONTRIBUTOR "FOCUS" REPLIES TO THE ARTICLE "WHAT OF 1928?" WHICH APPEARED LAST WEEK AND WHICH HAS AROUSED A VAST AMOUNT OF INTEREST.

CONTRIBUTOR of many years' standing is a privileged person in a newspaper office. He can penetrate, without let or hindrance, to the inner sanctums (or sancta) and find out all manner of things which are denied to others. I enjoy this privilege my-

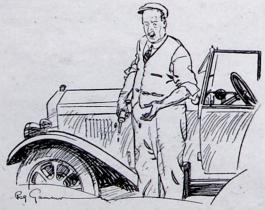
self and often make use of it.

Last week, on reading "What of 1928?" and learning that I had to reply to it, I started by asking a sub-editor who "Marmaduke" was. His 1926 article in similar vein provoked a great deal of attention and I was keen to know what kind of man he was. fortunately, my inquiries did not prove helpful.

"I've no idea who he is," said the sub. "You know,

of course, that he writes for us fairly often, he lives somewhere down west, and is, I believe, an ordinary common or garden sort of owner-driver. A bit of an ass, I should think."

That is all I know about the man to whose article I have to reply. I can deduce a little more, however. Clearly he cleans his own car, he tries to keep the brakes in adjustment himself, he appreciates a good performance, he likes to be warm and comfortable at the wheel, he is a believer in a smart appearance, and he leaves the oiling and greasing to a garage man.



"Kid-glove greasing is all bosh. We have all tried it and found that it simply does not pan out according to the advertisements."

That much can be gathered from his article (my dear Watson). It is clear that he does not oil and grease the chassis himself, or half his article would have been directed against grease cups, grease-gun nipples and oilers. These, in my view, are still too numerous, too inaccessible and too much trouble. We want fewer points needing attention, no grease cups at all and full he-man-size oilers (if any). There is room for more hollow brake cross-shafts, steering radius rods and drag links, torque stay brackets and other parts which would form oil reservoirs and automatically supply their various joints and moving parts.

Kid-glove greasing is all bosh. We have all tried it and found that it simply does not pan out according to the advertisements. To carry out the work which our instruction books tell us should be done at 250-mile intervals it is still necessary to start by putting on a boiler suit and filling our finger nails with yellow soap.

If we kept our cars in glass cases, the oiling and greasing business would not call for these preliminaries. But we don't. We use them on the roads, and they get plastered with mud, dust, tar and all manner of filth—especially around the greaser nipples! Fewer points needing lubrication and longer periods between attending to them is, therefore, clearly a goal which is well worth striving for between now and the Show.

Weatherproof Finishes.

"Marmaduke" pleads for a wider adoption of cellulose finishes. I entirely agree. It saves work, stayes off depreciation and, when properly applied, possesses no drawback of which I am aware. He might have put in a word for weatherproof brightwork or, alternatively, for cellulosed door handles, screen frames and bonnet catches. Lucas lamps are finished with a material which seems to keep smart for ever. Could not the parts of the pa not the parts at present nickel-plated be finished in a similar manner?

I am a believer in three-point body suspension. It allows bodies to be built of light materials and it prevents them from because vents them from becoming noisy in use. Are there drawbacks to building touring bodies on this principle? I know of none.

The perfect all-weather body is still lingering in the mind of "Marmaduke." I think he is on the wrong tack. Those who seek the amenities of an open car and a closed car on one chassis must look not for an open one chassis must look not for an open. open car which closes but a closed car which opens.

There is a world of difference between the two.

I have come to the conclusion that an "openable" saloon is the type of car which everyone who at present pleads for a "closeable" tourer will soon be wanting. It would have glass windows a signature of the signature of the saloon state. It would have glass windows, a fixed, rigid top rail and a folding, sliding or "roll-top" head. One has only to try such a car to realist. to try such a car to realize its attractions. I should like to see one in cross expense. like to see one in every manufacturer's 1928 catalogue.

Two troubles, friend "Marmaduke" believes, are a

necessary evil. He thinks that manufacturers should bow to their unreliability and supply us with top-hole jacks and wheelbraces, so that we can fit a spare wheel in a few seconds and with a minimum of amoyance. I agree. Let us have good tools and wheels that are easily changed, but what we really need are tyres that give less trouble.

Every manufacturer in 1928 could give us infinitely more reliable tyre equipment if he standardized larger tyres. The 27-in. by 4.4-in. size which is now so common was introduced, I believe, as a balloon replacement for 700 mm. by 80 mm. high-pressure tyres. Everyone who can east his mind back five years will agree that even 710 mm. by 90 mm. tyres (balloon equivalent 28-in. by 4.95-in.) are very small for cars which weigh a ton and a quarter when fully loaded. Allowing for the tyre makers having found new and better manufacturing methods, their 28-in. by 4.95-in. covers are, however, capable of wearing much better than their original 710 mm. by 90 mm. high-pressure types and are, in my view, the minimum size for every light car which weighs more than 18 cwt. when loaded.

### Throttle and Ignition Controls.

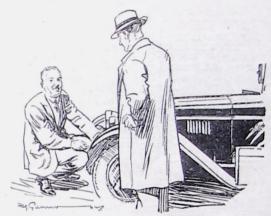
I do not agree with "Marmaduke's" views on throttle and ignition controls. He believes they should pass through a hollow steering column. The scheme is too costly. I have nothing against the present day "horrible bits of bent iron" except that the one which controls the throttle is rarely so sensitive as it should be for the first part of its travel. The rectification of this matter would be a matter of pence. "Marmaduke's" plan would call for redesigning the steering box, the column and the whole layout of the controls.

Front-wheel braking systems are mostly trouble-free, in my experience. "Marmaduke" must be basing his accusations upon the deficiencies of one make of car. Single-point adjustment is, in his opinion, a sine qua non. Is not a good system of compensation and individual thumb-nut adjustment for each brake as good a plan?

A lot of rubbish is written about four-wheel-brake adjustment. I know a man who runs a Singer Ten and who had it overhauled at a garage last February. Last month I drove the car and noticed that when one braked hard it "pulled" to the left. Investigation showed that a pin which should have locked the offside front-brake operating arm to the cross-shaft was

missing. The hole it should have occupied was full of enamel.

For three months that car had been running with three-wheel brakes; it had covered nearly 4,000 miles and no mishap had occurred, nor had the owner cause to complain of skidding. Surely this shows that the provision of micrometer adjustment for front-wheel-brake systems would be a needless extravagance.



"Front-wheel braking systems are mostly trouble-free, in my experience. . . . A lot of rubbish is written about four-wheel-brake adjustment."

I disagree with "Marmaduke's" views on car clocks and the inferences underlying them. Cars sell largely on price. They must, therefore, be cheap. Let us be content with cars which have no clock at all on the facia-board rather than press manufacturers to fit a costly timepiece and save the money by scamping the quality of the upholstery, the weatherproofness of the body, or the strength of the chassis.

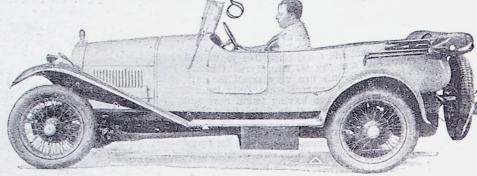
If we want our cars to cost more, let us ask for

If we want our cars to cost more, let us ask for patent spring shackles which need no lubrication, large rear petrol tanks with vacuum feed, full pressure-fed lubrication for the big-ends, larger-capacity batteries which will allow the starting handle to be forgotten, thermostatic control of the temperature of the water in the cylinder jackets, ground pinions in the gearbox which allow dead silent running on one or more of the indirect gears, Dewandre servo units for reducing the effort of braking, yoke and pin joints where bent rods and split pins now serve, and innumerable other refinements, all of which would have a distinctly unpleasant effect upon a manufacturer's balance-sheet—unless he raised his prices.

"Those who seek the amenities of an open car and a closed car on one chass's must look not for an open car which closes, but a closed car which opens." Road Tests of 1927 Models.

The II.9 H.P. Bugatti

A COMFORTABLE AND EXTREMELY LIVELY CAR FROM A FAMOUS FRENCH FACTORY. IT WAS FOUND TO BE A REAL PLEASURE, EVEN FOR A PROFESSIONAL TESTER, TO DRIVE.



IHE successes of Bugatti cars on the track and in important road races have been so many that the motoring public cannot be blamed for having formed the false impression that Bugatti productions consist only of racing cars. Certainly it is in the racing field that Bugatti cars are best known, but of recent years there has been in production a successful small touring model, and we were particularly interested to have an opportunity recently to test one of these cars.

We approached the task with a particularly open mind. Were we going to find an essentially racing chassis, with all its drawbacks, de-tuned to some extent, and called a touring model? Or were we going to find an ordinary, sluggish, go-as-you-please family type of vehicle, having nothing, other than the name, in common with the famous Bugatti productions?

The model tested was the 1,500 c.c. four-cylinder touring car. having English bodywork. In general, the chassis follows Bugatti racing practice closely. The four-cylinder engine, for example, has five bearings and three overhead valves per cylinder-two inlet and one exhaust. Rear springing is arranged on Bugatti's distinctly unconventional lines, the quarter-elliptic springs, which appear at first sight to be very heavy indeed for the job, being reversed and anchored to the extreme rear ends of the chassis members, whilst another unusual idea of M. Ettore Bugatti is the fitting of an ordinary fabric universal joint in the steering column. The gear ratios are exceptionally close, being 4.5, 5.75, 8, and 12.51 to 1 respectively. The English 4.5, 5.75, 8, and 12.51 to 1 respectively. coachwork provided has very low and pleasing lines, and is of excellent quality throughout. The importation of complete cars with French bodywork has now been discontinued, as it has been found that on a highgrade chassis of this kind most people prefer to pay rather more and to have light English coachwork of really high grade.

### Interesting and Easy to Drive.

It is difficult to imagine a car of this size more interesting to drive, although in remarking upon the great interest to be found in driving this model we do not wish to be misunderstood and to have the word "interesting" misconstrued as meaning difficult. The Bugatti is not difficult to drive; it is a car that is well suited to women drivers, but it is very different from the average humdrum, go-as-you-please family hack of about the same size.

In a word, to get any kind of results on the road it has to be *driven*, and it will not do simply to sit at the wheel and tread on the accelerator as and when required. The explanation of this lies, of course, in the altogether extraordinary capacity of the engine for high revolutions, in the very close gear ratios and in the light construction of both chassis and bodywork.

Upon first starting up the engine we thought that it was too noisy, particularly whilst idling, when it was more or less cold, and we still held this impression at the conclusion of our test. But the striking feature about the Bugatti engine is that, however fast it is revved—and the indicator will register some 4,000 r.p.m. if required—it is impossible to produce a period of any kind. Vibration or, in fact, any evidence of high revolutions is entirely absent.

Of course there are not many four-cylinder engines on the market with five main bearings, especially so far as small cars are concerned, but the entire freedom from periods of the engine frankly surprised us. The balance appeared to be practically perfect over the whole speed range.

The close-ratio, quick-change gearbox of the Bugatti, of course, requires a certain amount of getting used to, but when once the knack of changing had been learned the sheer joy of slipping from the 4.5-to-1 top into the 5.75-to-1 third and then screaming away at speed with the rev. counter indicating a cheerful 3,500 r.p.m. or so can easily be imagined.

In the course of a test run of about 100 miles through Surrey we tackled the usual hills, including Ranmore Common, White Downs and Wray Lane. Reigate. To make a good, fast, clean ascent in the Bugatti, engine revs. must be kept up, so that the man whose joy in life consists in boasting about what his car will do "on top" might perhaps be disappointed. But there is something very fascinating about changing

The front-wheel brakes on the Bugatti are cableoperated. Note the dynamo projecting from the front of the timing-case. down at around 50 m.p.h. and then accelerating straight away to about 60 m.p.h. We found, in fact, that the speed on hills was practically governed by the maximum speed at which it was safe to travel.

Driving such a car as this, proper use has to be made of the ignition control, to which the engine appeared to respond in a remarkably sensitive manner, whilst as regards the management of the gears the golden rule all the time is, "When in doubt, change down; but do it quickly." Of the engine's capacity for revolutions there appeared to be no limit—not that top gear performance leaves much to be desired; it does not, but performance on hills is altogether so remarkable on lower gears that top-gear performance is completely eclipsed. An ideal car for the man who really enjoys using his gearbox is the Bugatti.

It is some years now since we tested a new car not fitted with a speedometer. On the Bugatti this was the case, however, only an engine revolution counter being provided. With one eye glued to this indicator one could almost endow the engine with human attributes; at 1,000 r.p.m. to 1,500 r.p.m. it seemed to be almost miserable. At 2,000 r.p.m. it could be imagined as saying, "Yes, that's better; we're getting along well now." At 3,000 r.p.m. it appeared to settle down to work and thoroughly to enjoy the whistling of the wind through its radiator, whilst at still higher speeds the exhaust gave vent to a high-pitched song, and yet never would there be any trace of vibration or mechanical rattle. Maximum speed appeared to be in the neighbourhood of 70 m.p.h., but no accurate check was possible on the road.

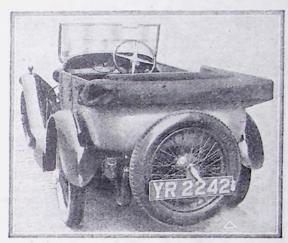
### The Joys of Acceleration.

It will be realized, then, that a driver accustomed to conventional touring cars on which, so long as the engine is actually turning over treading on the gas somer or later gives acceleration, has certain things to unlearn and certain things to learn on taking over a Bugatti. But after a few minutes at the wheel he will get more sheer joy from speed and acceleration than he probably ever achieved in the course of years at the wheel of a more commonplace car with only ordinary powers of acceleration.

Particularly impressive was the functioning of the reversed rear quarter-elliptic springs. We deliberately drove the car at speed over some of the worst roads in the south-west of London, having two passengers on board. Instead of the harsh thump experienced on hitting a deep pot-hole at speed on an average light sports car, there was just a faint swaying movement, as is experienced on a high-grade large car weighing 30 cwt. or so. The brakes we found to be particu-

larly sweet in their action and very powerful; on no occasion in the course of ordinary running did we have to bring them into action to anything like their full extent.

We were also impressed with the comfort and easy controllability of the car. It is a car that can be



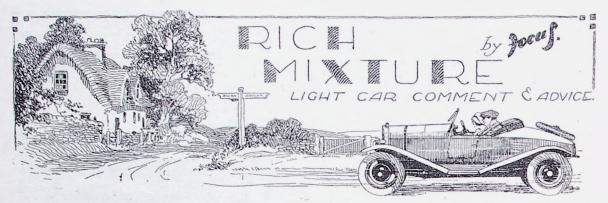
A rear view of the Bugatti car. Note the reversed quarter-elliptic springs, which appear to be distinctly heavy for the job; in practice they act smoothly under all loads.

driven for hour after hour and mile after mile without trace of fatigue to driver or passengers. Steering is finger-light, brakes require little effort for their operation, whilst the comfort of the rear-seat passengers is carefully studied. Fortunately, we did not in the course of our run have occasion to test the hood or all-weather equipment, but these appeared to be neat and workmanlike.

The result of this test has been to convince us that Ettore Bugatti has not been guilty of turning out a de-tuned fast machine, nor yet of producing a hybrid. He has succeeded in turning out a well-designed and thought-out light touring car, capable of speeds and performance generally associated only with racing models. The car appeared to us to be quite reliable, as nothing had to be done during the entire course of the run, not even a sparking plug having to be changed.

At the price of £475 this model represents a very attractive proposition for small car enthusiasts, to whom an ability to pass most cars on the road in comfort and safety is an essential part of the joy of motoring. It appeals equally strongly, however, to the man to whom speed is not so important a consideration as lively acceleration combined with comfortable running and smooth and powerful braking.

(Above) Under the bonnet, off side. Note the easily accessible H.T. distributor and the fabric universal joint in the steering column. (Right) The exhaust side of the engine.



### Age and Liveliness.

WHAT mileage must be covered before an engine is really run in? Of course it depends largely on the amount of preliminary nursing which is given at the works, but a friend assures me that in the case of his small four-cylinder it has taken exactly twelve months—the equivalent of about 7,500 miles.

When the car was new, he tells me, it would only just stagger up a gradient of about 1 in 30 in top if the acclivity were approached at anything under 20 m.p.h. Now, however, the car reveals a delightful amount of acceleration on the same stretch and, as it should do, makes light of it. I am inclined to think that my friend's engine must have been turned out with unusually tight bearings. In my opinion an engine should be giving of its best at the end of 3,000 miles at the most.

### Watch Your Gearbox.

POLK who have had long experience of cars almost invariably use a good grade of fairly thin gear oil in the gearboxes of their cars, even when a heavy-bodied lubricant is recommended by the makers. The lubricating properties of the one are, of course, just as good as those of the otherthe difference lies in the ability of a box to retain the one and fling out the other.

An experience of one of my colleagues, however, is worth recounting, and may serve as a warning. He tops up his gearbox every month or so with thin but really high-grade stuff, but recently he narrowly missed running his gearbox dry because the combination of worn bearings and hot weather had resulted in quite unexpected leakage. scented trouble when the gear lever developed a tendency to stick in top and, fortunately, found that he was just in time. The incident emphasizes the importance of taking particular care not to overfill the back axle, otherwise the brakes will tell their own story.

### Choose Quiet Squares, but-

RIVING instructors who live in big towns and Deities and have not the time to take their pupils out into the country to educate them, frequently choose a quiet square for the scene of operations, but, on behalf of many patient sufferers, I would beg of them to make sure that neither nursing homes nor hospitals overlook the square; the quieter it is the more likely is this to be the case.

I heard of a motorist suffering from a bad attack of brain fever in a hospital of this sort who was reduced to a frenzied condition by the constantly recurring exhaust note of a popular make of sports car which was driven round and round the square in which the hospital was situated for about two Strangely enough hours every day for a week. other patients in the same ward were unaffected; they were not motorists, and failed to detect the fact that it was the same car each time it passed.

### Air Locks.

RECENTLY mentioned an instance of a driver in the midst of London traffic diagnosing and curing what appeared to be an air-lock. This has brought me a letter from a reader who says he had been puzzled by similar symptoms on his own car and had always taken down his carburetter in a futile search for obstructions. However, he read my note, and the next time the trouble occurred he also applied his lips to the vent hole in the filler cap with similar happy results. He has since had the vent enlarged and has had no further trouble.

### Garages and Starters.

HILST waiting for a job to be done in a garage the other day I saw three instances of assistants making protracted use of the starter when wishing to move customers' cars to different parts of the garage. Not once did they lift the bonnet to investigate, nor did they attempt to use the starting handle. Instead, they steadily ground away until at long last the engine spluttered into life.

In two cases this happened just as the batteries gave obvious signs of becoming exhausted. I con-Axle-bogies tend that this is not good enough. can be used for moving cars about, and a couple of men can easily manœuvre a light car by hand. I mentioned a case some time ago of a garage assistant whom I saw actually driving the car along with the starter!

### Racing and Pride of Ownership.

ONE had only to watch the eager groups around bulletin boards giving news of the progress of the T.T. races in the Isle of Man to realise what the light car movement is missing through not having arything similar to keep it before the public. The T.T. races are the greatest possible advertisement both for the motorcycle as a vehicle and for the makes that win, and even people who normally have very little interest in the singletrack machine are quickened into excitement over the results. No one pretends that the T.T. machines are not special models, yet the success of the winning machine arouses almost a sense of personal triumph among riders of standard mounts from the same factory.

It would be the same with cars. We should know that the cars had been tuned to the last degree and were piloted by expert drivers, but I venture to suggest that this would increase the interest rather than detract from it. I am certain that if any owner read that his particular make of car had achieved premier honours in any big event like the T.T. he would sit with even greater pride at the wheel.

### Importance of Making Sure.

EMERGENCIES sometimes lurk even when the road seems clear. For example, at a narrow, hump-backed bridge over a canal between Warwick and Daventry I could see the road ahead over the crest and accelerated to mount the steep rise. To my astonishment, there, lying stretched out in the road on the downward slope, was a large sheep-dog dozing in the sun! It was barely a yard away when I saw it and only its amazing agility saved its life.

I had another fortunate escape in the Fens a few days later. In this case I noticed a side road on my left. Across the hedge I had a clear view of the road except for the last 20 yards of it, which was bounded by a low stone wall. There seemed nothing in sight, and yet, just before I reached the road, a herd of cows in single file walked out of it towards a gate on my right. They were in the charge of a small boy who was idling along behind the last animal, and the wall had been just sufficiently high to hide them. Fortunately, some in-

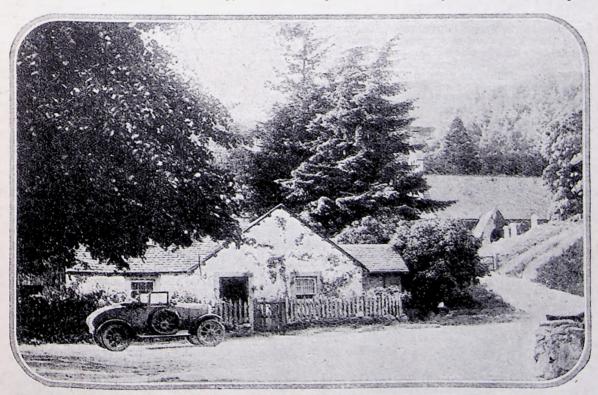
stinct had told me to slow down and there was no mishan

A third lucky escape occurred when I was approaching a small provincial town on a market day. Towards me was coming a farmer's cart drawn by a sedate-looking Dobbin. As I reached the cart I saw that behind it was a large, rawboned horse which was led by a rope and halter held by a youth in the back of the cart. At the sight of my car the led horse snatched itself loose, and then, rearing, slipped on the tarred road and fell full length. To avoid it I went on to the grass, whilst the horse lashed out wildly all round. I had to endure a certain amount of abuse from the farmer, directed more at motors in general than at me, but I counted myself lucky in escaping with nothing worse. A colleague of mine two or three years ago had a rearing horse put a hoof through his radiator.

### Road Repairs.

A FRIEND of mine who drives regularly to and from his place of business in London mentioned to me recently that he does not remember ever having completed the journey without encountering road repairs on some part of his route. The distance from his home to his office is only eight miles, but he says that no sooner is a road repaired in one place than it is taken up in another—not necessarily large sections of roadway; it might only be a few stone setts from the side of the tramlines, or perhaps a little pot-hole filling—but the fact remains that never is the entire road absolutely in "one piece."

When I come to think of it, I believe that my experience has been very similar and I live in quite



IN BONNIE

There are few more charming villages north of the Border than Balquhidder, near the head of SCOTLAND.

Loch Voil. In the village churchyard is the grave of Rob Roy.

a different direction from that of my friend. It seems reasonable to assume, therefore, that almost every road in London is constantly receiving attention of one kind or another from the picks and shovels of workmen, and on roads which carry a large amount of traffic even a square yard or two of "road up" causes quite sufficient congestion to make a considerable amount of difference to one's running time.

### When Petrol Pipes Break.

FRACTURED petrol pipe is apt to present an A alarming proposition to a novice who finds himself stranded with it miles from a garage, and he is not likely to receive much assistance in remedying it from other users of the road. hesitate to give a tip so ancient, but for those who do not know it I may mention that a humble potato can be used to excellent purpose in effecting a jury-rig.

A hole should be bored lengthwise through the "spud"—an ordinary lead pencil well sharpened will generally serve—and the two ends of the pipe pressed together inside. If the journey to the nearest garage is far the driver when obtaining the potato should take one or two others to act as "spares."

### The Puncture Fiend.

FRIEND who had a dozen punctures in a big A trial was naturally very sore about it, and his remarks about the particular make of tyre were somewhat vitriolic. It does appear strange that the puncture fiend should allow scores and scores of cars to go absolutely unscathed and reserve the whole of its armoury for one luckless My own opinion is, however, that in many cases the driver is to blame. It often happens that he passes over an exceptionally bad patch or is the first to encounter the handiwork of some wretched spoil-sport, and he picks up a whole crop of flints or nails in his covers.

One penetrates and down goes the tyre.

gate farther, and very shortly another point works through to do its fell work. And so the trouble goes on. Sometimes the first nail will just touch the other side of the tube when the tyre deflates, leaving a minute prick to cause more mischief later

### The Lanchester Epicyclic Gear.

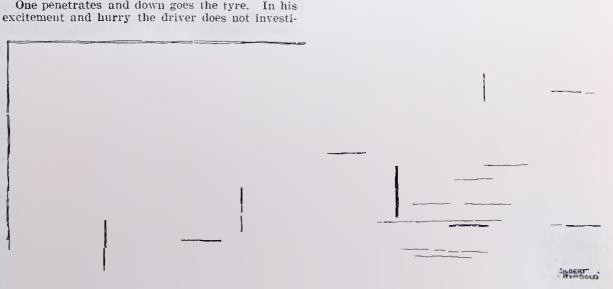
N connection with the Vauxhall pre-selective epicyclic gear, about which I wrote last week, a reader asks if I have any experience of the Lanchester system. I have, and I can say without reservation that it is delightful to handle, and would certainly be applicable to light cars, but rather too expensive, perhaps, to appeal to a very large public.

The first Lanchester so fitted that I drove was a tiller-steered model, which a relative owned in 1914. It had twist-grip control for the gears, the "clutch" being worked by the same lever, which, incidentally, was left-hand operated. Was this, I wonder, the first British car to be provided with a central gear change?

To change gear you grasped the twist-grip, moved the lever forwards, twisted the grip through an angle of about 75 degrees and then pulled back the lever. The change was quite easy and, of course, absolutely foolproof. Later Lanchesters had a more conventional arrangement.

### A Practical Notion.

WHILE at the coast recently I saw a neat method of carrying a route card. The car owner had typed the principal places on a long strip of paper, which he had fixed round a spoke of the steering wheel, securing it beneath with paper fasteners. It was unobtrusive yet directly beneath the eye, and struck me as being extremely practical.



PICTURESQUE AND A house of many memories is Ann of Cleeves's one-time domain at Ditchling, near Brighton. HISTORICAL. Few passers-by know its romantic history.



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### A Light Car Triumph.

A BSOLUTELY amazing performances were put up by light cars in the Le Mans 24-hour race which was held in France last Sunday. The race was run around a roughly triangular ten-mile road circuit, including many difficult bends and corners, and was confined to cars of sporting, as distinct from racing, types. The field comprised 22 cars, of which eight were over 11 litres and one over 3 litres.

Many of the competing cars were of an exceedingly costly type, and it is pleasing to be able to record that a British-built car in this class covered the largest mileage. But there was not another big car in the picture. A popular French 1,094 c.c. light car ran second, covering 1,254.79 miles in the 24 hours, averaging 52.28 m.p.h., and being awarded the principal honours on formula. A similar car ran third and averaged 51.8 m.p.h., whilst light cars were also fourth, fifth and sixth, averaging 49.59, 48.53 and 47.76 m.p.h. respectively. The only other finisher also was a light car. In the light of these amazing figures it may be said without contradiction that the small car of to-day is clearly not only the most efficient but the most reliable type of vehicle in existence. It was not long ago when light cars were regarded with suspicion, when their reliability was a doubtful factor and when the comparatively low speeds of which they were capable imposed prohibitive strains upon the driver. To-day small cars can be matched against £1,000 luxury cars in the most strenuous long-distance road races and come through the ordeal with flying colours—and with their competitors miles behind or stranded at intervals by the wayside.

Guarding a Good Name.

THE case which was heard at a provincial police court recently, when the proprietors of a garage were summoned under the Merchandise Marks Act, 1887, for supplying as a branded motor spirit a different and inferior spirit, is of considerable importance not only to motorists, but to the public at large, because it deals with the value of a name in branded or proprietary articles.

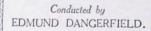
In every walk of life the buying public has been educated by means of extensive advertising and by personal experience to realize the unvarying quality of certain products, with the result that



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

NO CAR WITH AN ENGINE CAPACITY EXCEEDING 1,500 C.C. (11 LITRES) COMES WITHIN THE SCOPE OF THIS JOURNAL. THAT CAPACITY BEING GENERALLY RECOGNIZED AND ACCEPTED AS THE LIMIT FOR A LIGHT CAR ENGINE.

# opics of the



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the goods are bought without question on the strength of the name they bear. Thus the value of a trade mark or brand name is very real, and the owners of it are right in protecting themselves against substitution or other fraudulent practices by every means in their power.

In the case in question the distributors of a motor spirit of world-wide reputation for quality found that an inferior spirit was being delivered at the defendants'

garage from a pump which bore their name. This was proved by the analysis of two gallons of the spirit which was drawn from the pump in the presence of witnesses, a receipt being given at the same time for the spirit under the brand name of the prosecuting concern.

It was contended that the inferior spirit was run into the tank of the pump in mistake, but the Bench decided that the defendants' case was not proved, and they were fined. This case goes to show that the proprietors of branded articles are ever ready to guard their good name, and motorists may, therefore, take comfort in the knowledge that substitution is unlikely to pass unchecked.

Instructing the Police.

BY making arrangements for every policeman employed upon traffic duty in France to be instructed in motorcar driving, M. Chiappe, the new prefect, has set an example which might well be copied by other nations—our own in particular. Traffic control is bound up intimately with a sympathetic knowledge of the control of self-propelled vehicles, and policemen whose difficult task it is to direct the movements of converging streams of traffic in busy centres would be greatly helped in many ways were they to undergo a sound course of instruction in driving.

As drivers themselves the police would realize many little points concerning which, at the moment, they have very deluded notions-powers of acceleration and braking, the average turning circle of a car, the difficulty of keeping an eye on the "cross-roads man" and of interpreting his signals correctly are but a few of many examples which might be quoted. Thus, in every way, the plan commends itself. Its adoption in these islands would go far to institute a better understanding between drivers and police.

### CYCLECAR COMMENTS

By SHACKLEPIN.

2.10

WHY ARE THERE NO RACES FOR THREE-WHEELERS NOWADAYS? — THE SPORT IN FRANCE — FAST MACHINES AVAILABLE AND AMPLE ENTRIES CERTAIN-WIRE-AND-BOBBIN STEERING MECHANISM.

JUDGING by the tone of a number of letters which I have received lately, it seems that three-wheeler owners are feeling very much the lack of opportunity for indulging in a little racing occasionally, but to a certain extent they have only themselves to blame, because, so far as Brooklands track is concerned, three-wheelers are eligible to compete in most B.M.C.R.C. events, and they can also be entered in the M.C.C. High-speed Trial.

This event, although not actually a race, at least allows drivers to indulge in high speeds and a little friendly scrapping. Three-wheelers are not eligible to enter for races promoted by the B.A.R.C.; these are reserved exclusively for four-wheeled cars.

The Junior Car Club at one time afforded facilities to three-wheeler owners to participate in certain racing events, particularly the 200-Mile Race, but three-wheelers were banned after the 1924 race, and readers will remember that I devoted a considerable amount of space on this page some time ago to an endcavour to find out the reason for the ban and to show that it was unjustified. The J.C.C., however, could not be persuaded to give a reason for its action and we were led to assume, therefore, that the unfortunate accident to Mr. E. B. Ware was the cause.

I pointed out at the time, and I repeat now, that the number of three-wheeler accidents on the track is proportionately no larger than that of four-wheelers; in fact, the use of a three-wheeled vehicle does not impose any additional risk whatever. There seems to be no good reason, therefore, why they should not be allowed, and even encouraged, in racing events.

If there is any objection to running three-wheelers and four-wheelers in the same race, it surely c24

would not be difficult to organize separate events occasionally, and the Morgan Club might care to see what can be done in this direction. It would not be necessary to limit the entries to Morgans; any other make of three-wheeler should be eligible, because friendly rivalry is all to the good, and I know that this is the view held by Mr. H. F. S. Morgan.

We have had proof recently of the speed and staying powers of an H.P. three-wheeler driven by a little 350 c.c. engine. The machine was on the track continuously for eight hours and there was no untoward incident. Three-wheelers are raced frequently on road and track in France, and, so far as I know, the high speeds of which many of these machines are capable are accomplished in perfect safety. Certainly there are no more accidents with these machines than with four-wheeled cars.

So far as really high track speeds are concerned, Mr. H. Beart has shown us what can be done in this direction, and there is no reason to suppose that the world's record of something like 104 m.p.h. which he created over a year ago is the limit of which a three-wheeler is capable. Even supposing, however, that such a speed were the limit, two or three other three-wheelers capable of similar speeds would provide the spectators with a very interesting spectacle.

I am quite certain that the appearance once more of three-wheelers at Brooklands track would stimulate an interest in these economical machines in no uncertain manner, and this, at the same time, would have a beneficial effect upon the manufacturers, because the owner of a sports model capable of, possibly 75 m.p.h. or 80 m.p.h. nowadays is seldom able to open it out to its maximum with any degree of

safety on a public road. The majority of owners of this type of three-wheeler, however, are intensely keen and sporting, and they could be relied upon to enter for any race which might be promoted.

race which might be promoted.

If three-wheeler racing in this country were to become really popular I have no doubt that Continental exponents would be willing to come over and compete in many of the events.

A reader in Barnet is anxious to build a cyclecar which must be of a quite simple nature, as his workshop equipment is very limited. His idea is to use a 3½ h.p. Villiers engine, Sturmey-Archer motorcycle-type gearbox and a solid rear axle. The body is to be a single-seater, fabric-covered. The builder is concerned chiefly with the steering layout and design. He favours the wire-and-bobbin type and asks me to give an opinion upon it.

I can say, from experience, that, properly designed and fitted, wire-and-bobbin steering is entirely satisfactory and certainly cheap to make. I do not favour the centrally pivoted-type axle, but if an ordinary axle with orthodox type swivel ends be used, wire-and-bobbin control can still be fitted. I used a steering of this kind for some time on a Grand Prix Duo cyclecar and I never had a moment's trouble.

The actual layout, however, is a little difficult to explain without a drawing, and as my correspondent is not clear with regard to the working of wire-and-bobbin steering. I think that it will be best if I have a drawing prepared and arrange to publish it next week on this page, together with full constructional details, especially as I feel sure that a large number of my readers will he interested in this simple and inexpensive type of steering mechanism, which is positive in action and perfectly reliable.

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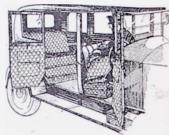
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Cabriolet with Dickey Seat, including Electric Starter and Lighting Set. . . £165

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### AN IMPROVED 9-20 H.P. ROVER.

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POPULAR CHASSIS—
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TRANSMISSION LAYOUT
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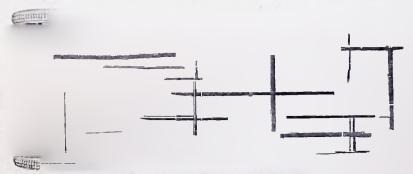
FOR the past few weeks 9-20 h.p. Rover cars have been delivered to the public with an improved chassis and engine. The main features of this sturdy little car are retained, but experience has led to the adoption of several new items in the chassis layout. The same wheelbase—8 ft. 8 ins.—is retained, but the whole of the transmission is now enclosed, and a slightly different rear springing has been substituted, whilst in addition the engine now has a bore of 63 mm. (instead of 60 mm.) which increases the R.A.C. rating to 9.8 h.p. and the capacity of the engine to 1,185 c.c. The tax is, therefore, £10.

Dealing first with the transmission it is interesting to note that the clutch is now totally enclosed, and that engine oil is recommended for the gearbox, as in practice it has been found to be quite satisfactory. At the rear of the gearbox there is a spherical universal joint, to which is attached a torque tube connecting with the underslung worm housing in the rear axle. The propeller shaft has a centre bearing in the torque

The latest 9-20 h.p. semi-sports two-seater. Note the artillery wheels, which are now fitted as standard.

The operation of the brakes is arranged as follows: A rod attached to the pedal runs rearwards to a vertically disposed compensating bar, the top arm of which is attached to an adjustable jaw coupled to an arm on a cross shaft. On the extremities of this cross shaft are swinging links which are connected by rods to the brake arms of the front wheels. The lower extremity of the compensating bar runs to another cross-shaft, from which swinging links are connected with the rear-brake arms; thus the front pair of brakes are compensated to the rear pair. The centrally-disposed hand-brake lever is connected to a roller chain—adjustable for length—which operates direct on to

CHASSIS DETAILS.



(Top, right) The new rear spring mounting and the brake gear for the single pair of shoes; note the wing-nut adjustment. (Above) A plan view of the latest chassis; the propeller shaft is now enclosed and no torque stay is therefore necessary. (Right) A sketch of the redesigned brake gear, showing also the speedometer drive from the gearbox and the spherical universal joint at the front end of the torque tube.

ube which entirely cuts out any possibility of whip in he shaft itself. The rear axle is of the same type as reviously fitted to Rover Nines, but the casing has seen strengthened and the stay removed from beneath he axle.

A new type of spring mounting is now fitted, in which the master leaves of the quarter elliptic springs rest on flanged hardened steel rollers located beneath he axle casing. The brake gear has been simplified considerably by fitting only one set of shoes to each of the rear drums. The pedal applies shoes within the drums attached to all four wheels, and the hand lever applies the rear pair only. Thus only one rod is required to each rear drum, making a very neat ensemble.



the cross-shaft connected to the rear operating levers. There has been no alteration in prices for the modified models, and the range of bodies includes a four-door Weymann saloon costing £250, two and four-seater semi-sports models at £260, a two-seater tourer at £220, a four-seater tourer at £225 and a detachable head coupé at £235. All the cars now have artillery wheels instead of discs, and wire wheels can be obtained at an extra cost of £9.

Since its introduction in the early part of 1924, when it aroused considerable interest amongst motorists, the 9-20 h.p. Rover has gained an enviable reputation as one of the most popular of present-day light cars. The original 9-20 h.p. model, it will be remembered, was practically identical—apart, of course, from its engine and radiator—with the very successful air-cooled Rover Eight. Many important improvements have been made since that date, practically every part of the chassis having been modified. The first Rover Nines, for instance, have quarter-elliptic springs all round, no front brakes, rack-and-pinion steering and a 7-ft. 10-in, wheelbase. Obviously, the latest model is a vast improvement on its prototypes and should prove a firm favourite with light car enthusiasts.

### THE 1.094 c.c. CARMIER SPORTS CAR.

IT seems likely that before very long motorists in this country will have a still wider choice of French light cars than at present. Last week we described a newcomer to the British market, and now comes the news that a very interesting light car, known as the Carmier, is also to be marketed here.

The design of the car is distinctly original, but by no means freakish. In the first place, the power unit consists of a four-cylinder, horizontally-opposed, air-cooled engine, the detachable heads being cast in pairs and the cylinders having a bore of 64 mm., whilst the piston stroke is 85 mm., these dimensions giving a capacity of 1.094 c.c. A single centrally-placed camshaft operates the overhead valves through the medium of tappet rods and rockers. The crankshaft of the engine is shown in an accompanying photograph, and it will be seen that each opposed pair of connecting rods works on a common crankpin, one big end of each pair being forked whilst the other is of the normal type.

The bush of the ordinary connecting rod is extended on each side to form a bearing for the forked rod which works on the exterior of this bush. The rods themselves are tubular and they are connected to aluminium pistons. The magneto is mounted on the top of the crankcase at the forward end of the engine, whilst direct coupling is used for the combined dynamo and starter motor, which is mounted on the nose of the crankcase. An extension of the dynamotor spindle carries a pulley from which the cooling fan is driven.

A rather heavy flywheel is fitted to the engine, which develops its full power at comparatively low speeds, that is, at about 1,800-2,000 r.p.m. It is claimed that owing to very careful balancing, vibration is practically eliminated. Bolted directly to the engine crankcase is a three-speed and reverse gearbox, the complete unit being housed under the bonnet.

Deep-section pressed-steel side-members are used for the chassis frame, and the suspension is by means of long half-elliptic springs. A fully floating rear axle is fitted, the spiral-bevel gearing of which is of the Gleason type, and the driving torque is taken through the tubular easing of the propeller shaft. The steering reduction mechanism is of the worm-and-sector type.

An attractive two-seater body is fitted to the car, and owing to the length of the bonnet a speedy and

pleasing appearance is given to the vehicle.

The makers of the Carmier are La Société Commerciale des Automobiles Carmier, 239, Bvd. Pereire, Paris 17°, France.

### AN UNCONVENTIONAL FRENCH CAR.

(Top, right) The two-seater Carmier, which has a four-cylinder air-cooled engine with overhead valves; the actual power unit is shown in the photograph on the right. (Above)

The sturdy crankshaft.

# Snaps from a Camper's Album

The delights of a holiday with car and tent have to be experienced to be appreciated to the full, but these photographs, taken by an ardent camper, should be sufficient to convince any doubting molorists of the care-free attractiveness of this form of open-air life.

(Above) A box, in which cooking utensils and so forth can be packed for travelling, makes an excellent table for those who dislike taking their meals in a reclining position. (Below) A pleasant camping site on the banks of a Cornish waterway.

(Above) A canvas "village" at a picturesque spot near Newquay, Cornwall.

The only disagreeable moment of the holidays—when all is packed up ready to start for home. Regret is tempered, however, by the cheering thought of an equally enjoyable time next year. That is the best of a camping holiday, if the company is right it is certain to be a success.

TIS

# Amongst the

### An Interesting Feature of What

N the limestone hills of Upper Wharfedale there are many caves and "pot-holes" well worth a visit by tourists in the Yorkshire dales. Most of them are situated in remote places of the wildest solitude and amid romantic scenery which alone is worth going far to see.

A good centre is Skipton-in-Airedale, where there is good accommodation, but Grassington, Burnsall and Kettlewell, in Wharfedale itself, are ideal if a time is chosen when their accommodation is not already overtaxed.

From Skipton the nearest cut into Wharfedale is via Embsay and across the moors to Barden. From here Troller's Cave (or Hell Hole) can be visited. Crossing Barden Bridge the road to Skyrcholme, just off the Pateley road at the schoolhouse, may be taken, after which the visitor should follow the stream to Troller's Gill, which, incidentally, is well worth going

(Above and right) Two photographs which give a fine impression of the wild, rugged beauty of Dowk Cave, which is situated in the ravine below Park Rash, the famous test hill near Kettlewell. (Below) Troller's Cave (or Hell Hole), just off Greenhow Hill on the Skipton-Pateley Bridge Road.

through. The cave lies between the lead mine for the high road—not in the Gill—and must be looked among the hollows, for there is no path to it.

among the hollows, for there is no path to it.

Visitors will find access fairly easy by way of or or three large rocks like huge steps. At the end is the first chamber, which is lofty but narrow, there is a cascade which in wet weather fills the cave will thundering echoes. Only experienced and equipped climbers should go farther. This cape only about two miles from the famous Stump caverns on the ridge between Wharfedale and Nides.

From the pretty village of Burnsall two or relation miles farther up the Wharfe tourists can Elbolton Cave, which should not be missed, if the sake of the fine views of the country success to Skipton Fells. Two miles from Burnsall two on the Grassington road turn left for Thorpe, lies about a mile away up a steep, narrow laue road widens a little in the village, where the capture be left. Visitors should then turn left and the path along the foot of Elbolton Hill on the

# rkshire Caves

## Which is Often Missed by Tourists.

of the stream; this leads over a rough moor and then up the hillside where the cave is situated. Many traces of extinct animals have been found in the cave, and at one time 12 human skeletons belonging to the Stone Age were unearthed. The descent into the actual cave is made easy by sliding down a sapling, but exit by the same means is extremely difficult, and as the cave is not very extensive the task is hardly worth while.

Returning to the road, motorists may proceed to Linton and on to Kilnsey, and about two miles past the Crag turn left up Littondale on a narrow but passable road. On the left there is a solitary farm, and here the car must be left, visitors proceeding on foot through a gate at the side of the house and up the hillside. Dowka Bottom Cave is in a flat stretch of coarse pasture and cannot be seen until closely ap-

の観光度に

(Above) Another view of Dowk Cave. (Left) Elbolton Cave, where no fewer than 12 human skeletons belonging to the Stone Age were once unearthed. (Below) The entrance to Dowka Bottom Cave, showing the ladder left by the old lead workers and now used by visitors; the cave is very extensive.

ins cave also has yielded many relics of the remote ages, and it has a most impressive entrance. Descent is by a ladder left by old lead workers, and, after leaving the German ages, one Is by a ladder left by old lead workers, and, after leaving the first chamber by a narrow passage, one reaches a large, lofty cavern, which is 60 ft. high and has a shallow pool for the floor. Passages continue and floor are perfectly white with a lime deposit.

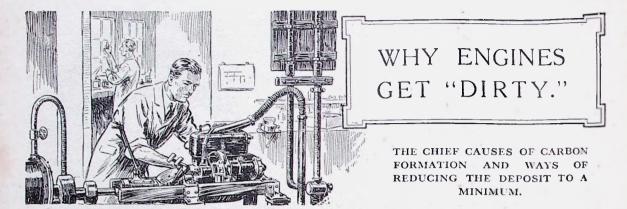
The next cave to see is Dowk Cave, near Kettlewell.

The next cave to see is Dowk Cave, near Kettlewell.

After four miles of fine hill scenery to Kettlewell, the road leads up the foot of the notorious test hill, Park Rash. Just before the steep bend there is a stile on the right the right, and a 6-in. footpath cut in the hillside a few hundred yards until the cave is reached some way up the slope on the opposite bank. It is the way hundred yards until the cave is reached some way up the slope on the opposite bank. It is the bassage spot imaginable. Entry is easy and the cave of a mile. wild up the slope on the opposite wildest spot imaginable. Entry is easy and passages can be followed for a quarter of a mile. Trips to mait these caves have a peculiar fascing the car at times Trips can be followed for a quarter of a mile.

tion, and the necessity for leaving the car at times to gives a welcome over rough but beautiful country and the necessity for leaving the car at times to gives a welcome from driving.

gives or scramble—over rough pur a welcome change from driving.



OW often do you have to decarbonize?" is a question which invariably crops up when two or three car owners are comparing notes. The fact that this query is so often raised is in itself sufficient to show that the distance which engines can run between decarbonization varies considerably. This, perhaps, is only to be expected where engines of different design and make are considered, but it usually comes as a distinct surprise to an owner to learn that a car which is identical with his own has to be decarbonized at very different intervals.

Letters published in the correspondence columns of The Light Car and Cyclecar some months ago revealed the fact that, whilst some owners of a popular make of small car decarbonized every 1,500 miles, others were able to cover a mileage of 6,000 without removing the cylinder head. This discrepancy can in some measure be accounted for by the varying mechanical sensitiveness of different drivers, for it is well known that some owners are quite content so long as the car runs passably and does not give any trouble, whilst the least falling off in power is a matter of grave concern to others.

A difference of 400 per cent, in the mileage run between engine overhaul cannot be accounted for entirely in this way, however, and the fact is that engines of the same make and type do vary a great deal.

### What Analysis Shows.

The formation of carbon in an engine cannot, admittedly, be prevented altogether, but the rate at which it accumulates is certainly not beyond the control of the driver. Analysis of the deposit found on a cylinder head and piston crown has shown that it has two main constituents; the first is the element carbon, produced by lubricating oil which has burnt and by the combustion of petrol; the other is of a mineral nature and is the result of road grit finding its way through the carburetter.

Before going into the question of reducing the carbon formed by oil, it will be well to consider briefly the composition of engine oil. There are three main classes—first, those oils which are composed entirely of hydrocarbons (a combination of hydrogen and carbon), and these are by far the most used in ordinary touring engines. Then come pure vegetable oils, which are usually a combination of hydrogen, carbon and oxygen, whilst in the third class are those oils which are formed by a combination of hydrocarbon (or mineral) and vegetable oils.

carbon (or mineral) and vegetable oils.

No matter what its composition, however, engine oil tends to become thinner or lose body when it becomes hot, and at very high temperatures it will decompose. In the case of vegetable lubricants the decomposition may first result in the formation of acids, which cause the oil to turn rancid, but in the case of a hydrocarbon oil intense heat will result in the oil "cracking"; that is, splitting up into simpler

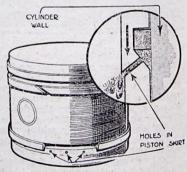
hydrocarbons, such as petrol and kerosene, with the formation of pure carbon. Apart from the loss of its value as a lubricant, an oil which has "cracked" will obviously result in an engine carbonizing quickly.

Pure hydrocarbon oils, however, will stand very high temperatures without cracking, although, of course, they will become thinner. "Straight-run" oils—that is, those which distil completely over a limited range of temperature—cause less carbon formation than those which are composed of light and heavy fractions mixed to obtain a suitable viscosity. This is because the lighter constituent will volatilize and burn at a lower temperature than the heavier fractions, thus leaving a viscous constituent which cracks under prolonged exposure to heat.

Many good oils contain small proportions of vegetable fats, such as castor oil, which improve their lubricating value considerably, provided these fatty oils are not present in large quantities. They will not affect the rate of carbon formation owing to their high flash-point—the temperature at which they will give off an inflammable vapour and burn—but except for racing, where their property for resisting heat is valuable, oils containing a large proportion of vegetable fats should not be used.

From these remarks on the composition of lubricating oils, it is obvious that great care has to be taken in producing them, and this accounts for the comparatively high prices charged for good-quality engine lubricants. It also emphasizes the futility of buying cheap oils in the belief that money is thus saved.

A piston with a scraper ring; (inset) how the ring collects excessive oil from the cylinder walls, and returns it to the crankcase.



It is always wise to follow the engine manufacturers' recommendations, for by doing so the owner is sure not only of getting an oil of good quality but also one which is suitable for his engine. It is quite obvious that a lubricant which is too thin, for instance, will not be satisfactory, because, to give only one reason, there is far more likelihood of it finding its way past the piston rings into the combustion chamber, where, of course, it will be burnt.

Much can be done to reduce carbon formation by



The Arabians had theirs-in fiction

The TROIAN (in actual fact)

takes you as surely as the magic carpet was reputed to do-it is the Simplest Car in the World.

And for the first 5000 miles

you have the makers' signed undertaking that the TROJAN will not cost you a SINGLE PENNY beyond the usual running costs for petrol, oil and tyres.

# he Trojan

The price of the TROJAN complete on solid tyres

Fitted with full pneumatic £130
The 3-door 4-seater model £140
The 3-door 4-seater model £145
on pneumatics

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Leyland Motors Limited Leyland Lancs

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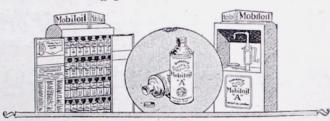
# Make the Mobiloil Chart your guide

If your car is not listed belowyou will find it in the Mobiloil Chart at your Garage.

WARNING:
Don't ask for "A" or "BB";
always ask for Mobiloil "A"
or Mobiloil "BB."

		_		_		
	1927		19	1926		25
	Engine			Engine		gine:
	120	resiliation.		1	-	
NAME OF	7	-	1	-	2	-
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Alva	88	A	BB	A	BB	A
Armstrong-Siddeley	BB	A	BB	A	BB	A
	A	Â	A	Â	A	A
Austin, 7 h.p. ——————————————————————————————————	BB	A	A	Â	Â	A
Austin (other) -	BB	A	BB.	A	eB.	A
Bean	A	A	A	A	A	A
Gtroen, 7.5 h.p	4	-	A	Arc	Â	Arc
Citroen, 12/24 h p	A	A	_	_		_
Citroen (other) -	BB	A	BB	A	BB	A
Clone	BB	A	BB	A	BB	A
Crossley, "Sia" and	~13	"	100	1		
14 hp.	A	Α	A	A	A	A
Crossley (other) -	1	-	BB	Ã	BB	A
Daimler (all models)	A	A	A	A	A	A
Darracq, 12/32 h.p.	EB	A	BB	A	BB	A
Darracq (other) -	A	A	A	A	A	A
Hillman	A	Â	Â	Â	BB	A
Humber, 8 and	13	"			-0	
9.20 h.p.	A	Α	A	A	A	A
Humber (other) ~	BB	A	6B	A	BB	A
	A	A	A	A	A	A
Lagonda, 12:24 hp.	A	A	Â	A	Â	A
	BB	A	BB	A	^	<u>-</u> .
Lagonda (other) -	A	A	A	A	A	A
Lancia (Lambda) - I	A	Aic	A	Arc	A	Arc
Morris-Cowley	A	A	Â	A	Â	A
Morris-Outerd	Â	A	A	A	Â	A
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12 h.p.)	Α	Arc	A	Azc	A	Are
Prygoot (other) -	BB	Arc	BB	Aic	88	A
Riley, 11 and 12 h.p.	BB	A	BB	A	BB	A
Rolla-Royce	BB	A	BB	A	BB	A.
Rover, Bh.p	20	_		-	BB	HB
Rover (other)	A	A	A	A	A	A
Singer	Â	Ã	A	Ã	A	A
Standard, 14 h p	2		BB	A	BB	A
Standard (other) -	A	A	A	A	A	A
Sunbeam, 4 and 6 cyl.	A	A	Â	A	Â	A
Swift	Â	Â	Â	Ä	Â	Ä
Talbot, 18/55 and	10	"		1	1	
20160 h.p	A	A	A	Α	ВВ	A
Talbot (other) -	BB	Â	BB	A	BB	A
Trojan	A	A	A	A	A	A
Vauxhall, 14/40 h.p.	Â	A	A	A	ВB	A
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25/70 h.p	A	A	A	Δ	A	A
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Welseley	闘	A	BB	A	BB	Â
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At 1.11.11 Days and stone and						

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# The Mobiloil Chart is your guide to correct lubrication

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107

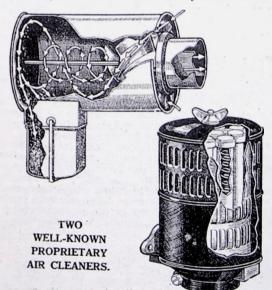
keeping the oil in the sump cool, but this, of course, is more a matter for designers than owners. base of a sump will sometimes be found to be ribbed. and this is done solely to keep the oil as cool as possible. In racing cars, and one or two high-powered production models of Continental origin, makers have gone so far as to fit a special oil radiator. Although it is, of course, beyond the scope of an owner to go to these extents, he can at least make sure that his front number plate does not interfere with the draught of air past the sump; if it does, the owner will find it worth while to alter the position of the plate.

Much attention has been directed of late to oil rectifiers; these devices are fitted in the oil-circulating system of an engine and serve to remove any particles of solid carbon contained in the oil and to distil off any petrol which may have become mixed with it. Oil rectifiers, however, serve rather to prolong the life of an engine by ensuring better lubrication and to cut down oil bills owing to a less frequent need for draining the sump than to reduce carbon forma-tion, and, in any case, their fitting to an existing engine would be a fairly expensive matter.

### Results of Wear.

The great thing to remember is that oil must be kept, so far as possible, out of the combustion chamber, and in this matter much can be done by a private owner. After an engine has been used for a considerable time its oil consumption almost invariably increases, and this is nearly always due to oil finding its way past the piston rings. The call for more frequent decarbonization follows as a natural result. When an engine is dismantled, therefore, it is false economy not to replace a piston ring which has become worn or has lost its springiness.

Many manufacturers fit a scraper ring, which removes any excess of oil from the cylinder walls and



(Top) The A.C., in which dirt is extracted by centrifugal force, and (right) the Zenith which also employs centri-fugal force, but is fitted with felt-covered filtering tubes in addition.

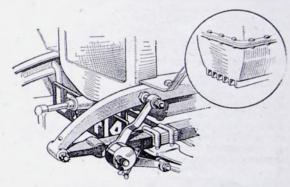
returns it to the crankcase. The actual ring itself does not, as a rule, vary from the others, but the nower edge of its groove is bevelled off and holes are drilled through the piston; thus, as the latter descends, oil is collected by the ring and forced through the holes in the piston back to the crankcase.

Where a scraper ring is not fitted and the cylinder mails have worn, rapid carbon formation and high oil consumption can often be checked by bevelling off

the lower edge of the bottom-ring groove and drilling holes through the piston, thus causing the ring to act as a scraper. Although this job may be a little bit beyond the scope of most amateurs, any well-equipped garage would carry out the work at a reasonable cost.

When reassembling an engine always be careful that the piston-ring gaps are not in line, for, beside: causing poor compression, this will allow oil to creep past. Descending long hills in gear with the throttle closed is another cause of oil being drawn into the combustion chamber, because the vacuum produced by the descending piston tends to suck oil past the rings. Under these conditions an extra-air valve is of unquestionable value, for the throttle can be closed and the valve opened, so that air is drawn into the cylinder and a vacuum avoided.

Aluminium pistons, owing to their high coefficient of expansion, naturally have to be allowed a greater clearance in the cylinder than the cast-iron type, and it might be thought that this would result in a more



A front number plate often obstructs the draught of air past the sump and allows the oil to become unduly hot. (Inset) A sump ribbed for cooling purposes.

frequent need for decarbonizing. Admittedly, there is more likelihood of oil finding its way into the combustion chamber, but this disadvantage is offset by the fact that aluminium is a much better conductor of heat than cast-iron. The piston, therefore, runs cooler and there is less likelihood of oil on the piston crown and underneath the head being burnt.

A certain amount of the carbon formed is produced from petrol, and here again an owner can take steps to reduce it. With a perfect mixture of petrol and air the principal products of combustion are carbondioxide and water, but if the mixture is too rich not enough air will be supplied to oxidize the fuel completely; as a result, soot-or, in other words, carbon -will be produced. For this reason a carburetter should be tuned to give as weak a mixture as possible without loss of power.

### Common Mistakes.

Then, again, excessive use of the air strangler when starting up must be avoided, as this produces a very rich mixture, whilst the carburetter should not be flooded before starting the engine unless abso-lutely necessary, as this has the same result.

Finally, we come to the question of dust and road This is responsible for quite a considerable percentage of the carbon deposit in an engine. Some power units are worse offenders than others in this respect, for the air intake to the carburetter is so placed that a large amount of dust is sucked in through the air intake. The position of the intake cannot always be varied readily, but the difficulty can be overcome by fitting an air cleaner.

A number of proprietary makes which can be fitted to any engine are now on the market, and their value is unquestionable, for, apart from contributing towards carbon formation, road grit will obviously have a bad effect on the wearing qualities of the engine.

### ROAD MAPS IN THE MAKING.

THE BICENTENARY OF A PIONEER SURVEYOR AND THE SIGNIFICANCE TO PRESENT-DAY WAYFARERS OF TWO OLD CANNONS.

N a market garden bordering on the Bath Road, about four miles west of Hounslow, and almost within a stone's

throw of the busy highway, there stands the barrel of an old cannon, embedded vertically in the ground, muzzle upwards, and looking strangely out of place among the cucumber frames and gooseberry bushes.

Some 51 miles away, at Hampton Hill, and, by an odd coincidence, in another market garden, stands an exactly similar cannon, sunk vertically into the ground in precisely the same way, with about 3 ft. of the grim old barrel showing above the surface.

These quaint old guns have stood in their present positions for nearly a century and a half, marking the commencement of a great national work which has gone forward steadily ever since, and is still continuing day by day, the work of that unobtrusive Government department, the Ordnance Survey, thanks to which Great Britain possesses the most perfect maps of any country in the world.

The preliminary step in the survey of a large tract of country involves the accurate measurement of a line, several miles long in most cases, carried straight across a portion of the area to be mapped and technically known as a "base."

Whenever possible, the base is located in a flat, open district, and when the first exact survey of Great Britain was commenced, towards the end of the eighteenth century, the level stretches of West Middlesex between Hounslow and Hampton, which at that time consisted largely of open heath, provided an excellent site for the initial base-line and the guns were used for marking the terminal points. Starting off from this preliminary process, the entire country was gradually surveyed, with marvellous accuracy and in great detail.

When their historical significance is realized, there is a certain romantic glamour about the two old cannons, and they now possess an added interest—quite recently a bronze plate was attached to each in order to perpetuate the memory of Major-General





One of the old cannons which mark the starting points of the survey of Great Britain.

William Roy, F.R.S., to whom we owe the whole idea of providing Britain with accurate and detailed maps.

The wording on the plates is not without interest. That on the Hampton gun reads as follows:—"This tellet was affixed in 1926 to com-

tablet was affixed in 1926 to com-memorate the 200th anniversary of the birth of Major-General William Roy, F.R.S., born 4th May, 1726, died 1st July, 1790. He conceived the idea of carrying the triangulation of this country, and of constructing a complete and accurate map, and thereby laid the foundation of the Ordnance Survey. This gun marks the S.E. terminal of the base which was measured in 1784, under the supervision of General Roy, as part of the operations for determining the relative positions of the Greenwich and Paris This measure-Observatories. ment was rendered possible by the munificence of H.M. King George III, who inspected the work on 21st August, 1784. The base was measured again in 1791 by Captain Mudge, as the commencement of the principal triangulation of Great Britain."

Some technical particulars are given beneath, which indicate that the base was nearly 54 miles long. There is similar wording on the Hounslow gun.

Our road-maps are drawn from Ordnance maps as their original basis, the various publishers merely modifying the scale, colouring, lettering and minor details, and thus every map user owes a debt of gratitude to General Roy, while to those who count their maps as treasured possessions, capable of yielding a vast store of interest and enjoyment, the romance of the old cannons will make a strong appeal.

the old cannons will make a strong appeal.

The cannon at Hampton Hill is not readily accessible from the road, but its companion is clearly visible from the branch road leading to Staines which diverges from the Bath Road at the "Three Magpies." about four miles beyond Hounslow. It is necessary to proceed only a short distance down this side turning, when the gun will be seen in the market garden on the left-hand side, standing in a railed enclosure.

B.G.G.M.

### BACK SEAT CHAUFFEURS.

N occasion, and very rarely I am glad to add, I find myself as a passenger in another man's car. It is safe to say that, however good the driver, I suffer agonies every inch of the way. I seem to visualize every possible movement before the driver makes it, and ponder, for instance, whether he will accelerate and get past a slow old lorry in front, or draw up behind it, and let the oncoming vehicle through.

Whatever I decide to be the right thing, I can be very certain that any friend who drives me will do the opposite. But I do not make remarks.

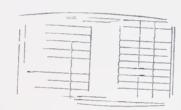
"Back seat chauffeurs" are a nuisance. I have come across them myself, and nothing is more disturbc38 ing than to have a still small voice from the rear chipping in with, "There's a car behind, old man!" or, "This is a dangerous corner we're coming to; a chap was killed here last year," and so forth. There was a case reported in the papers the other day where a driver claimed that an accident occurred solely through a friend continually proffering advice.

through a friend continually proffering advice.

If, on occasion, we accept a lift in a friend's car, we should sit as still as the Sphinx (the monument, not the sparking-plug), and we should keep as silent also—at any rate so far as driving matters are concerned. It is not etiquette to do otherwise.

For myself, if I go by the side of a good driver, I sit still and say nothing. If I go with an indifferent

# FOR ROOMINESS



# 250

### 9/20 h.p. ROVER MODELS

2-seater touring	£220
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Coupe (detachable head	£235
Saloon	£250
Semi-Sports, 2-seater .	£260
Semi-Sports, 4-seater .	£260

### ROVER 9/20 H.P. JALOOM

Read what "The Light Car and Cyclecar" said about this new 9/20 h.p. Rover Saloon on May 6th:-" So far as external appearance is concerned, the body conforms to all the latest ideas in enclosed coachwork, i.e. the waist line is high and the roof comparatively low, yet there is plenty of head room even for a tall passenger. There is sufficient width in the rear seat to accommodate three normal passengers quite comfortably. . . . A 6 ft. driver can be accommodated at the wheel without feeling cramped in the slightest. . . . The front seat is adjustable over a range of several inches. . . . The four wide doors are as wide as can be expected on a car rated at twice the horse-power of the Rover, yet the body does not look disproportionate in any way.... The seats are upholstered in grained leather.... Each door has a sliding panel glass window.... A single-pane front screen can be swung open by a conveniently placed knob in the centre of the car and slightly above the facia board. . . . There are two cubby holes in the facia board; both front doors have pockets, and a blind to the rear light is operated by a cord from the driver's seat.... There are also lady's and gentleman's companion sets.

This is absolutely the finest value in Saloons on the market: smart (choice of three colours), superbly finished, wonderfully roomy, and very speedy and reliable.

Full particulars with pleasure on request to the Rover Company, Ltd., 61, New Bond Street, W.I., or Coventry.

9/20H.P.

# ROVER CARS "STURDY AS AN OLD SEA ROVER"

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

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Special Subscription for Light Cars not exceeding 1,000 c.c.

driver I clutch the side of the car and say nothing. If I go with a bad driver—which I never do more than once—I sit on my hands and swear sitently.

Once, and once only, did I fall from grace. It was whilst sitting beside a friend who was a notoriously bad driver, and whose offer of a lift I had accepted only in a grave emergency. He appeared to be on the point of running over a child who was wandering in the roadway, and I plead guilty to having snatched the steering-wheel out of his hands to guide the car to safety. That is why now I sit on my hands.

Curiously enough, he took the incident in good part.

Curiously enough, he took the incident in good part, and did not seem to be annoyed in the slightest. I must confess that had a passenger grabbed the wheel out of my hands I should have deposited him on the

pavement there and then.

However, a really bad driver sometimes seems to be aware of the fact, which calls to mind an instance when I accompanied a business friend from Leeds to Gloucester. He owned and drove a particularly luxurious Alvis, and he would have been a danger on the highway with a push-cart. However, we reached Gloucester in safety after a dozen lurid incidents and hair-breadth escapes, leaving a trail of cursing motorists and scared pedestrians behind us.

Our business completed, I proposed to go back by train, making any and every excuse to avoid accom-

panying my friend again.

"Oh! I suppose you don't like my driving," he said,

at length.

"Well!" I replied as diplomatically as I could in the circumstances, "I'm so used to driving myself, you know, that I'm not quite at home at the side of anybody else I—er—see things in a different perspective, and—" "Oh! Cut that stuff out, old chap." he broke in. "I know I'm a rotten driver! I tell you what, you drive back, and I'll take a rest!"

He was a sport, at any rate, and I much enjoyed the return journey. I went out again with him several times after that, for, after the Gloucester occasion, he always asked me if I "cared" to drive. There are not many owners like that.

I suppose that in this world of ours the attainments of various people cannot ever be equal. Nevertheless, it is up to the passenger to remember his position.

One often admires the chauffeur employed by a man who is fond of driving himself, and who keeps him only to wash the car, carry the parcels, and do any other dirty work. I saw one such recently on the back seat of a brand new saloon. The owner was driving, with his wife by his side, and the chauffeur sat bolt upright, with folded arms, and with an expression of stern resignation on his face.

The owner decided to cut through an impossible

The owner decided to cut through an impossible opening in the traffic and, changing his mind at the last moment, did weird and wonderful things with his gears, making the welkin ring with the noise of

grinding teeth.

An accident was averted only by inches, thanks to the skill of a driver coming the other way. The chauffeur on the back seat did not move a muscle. He did not even unfold his arms, and only his blanched face and tightly-closed lips gave any indication of what was going on in his mind. Of such stuff are heroes made.

I always try to emulate that chauffeur whenever I have to go driving with a friend. He is my ideal of what a brave man should be—the stern silent hero of romance—the ideal passenger. F.G.D.

### A NIGHT DRIVE ON WATLING STREET.

FOLK who are on the look-out for a new experience should try motoring along Watling Street from London northwards at two o'clock in the morning. At this time commercial transport seems to take possession of the highway with a camaraderic more obvious than during the day. Private cars are few and far between—I am speaking of the early months of the year—and one rarely meets a motorcycle or combination. Instead, there are lorries, lorries, lorries in almost unending procession.

As one speeds along with the telegraph posts and wires stretching away far ahead in a vista of silvery ribbons, and the triangular milestones appearing in the grass like sitting rabbits, one may see a glare of light over a hill betokening the presence of a vehicle ahead. It proves to be half a dozen lorries drawn up at the roadside while the drivers enjoy a rest and ex-

change information of the road.

Many a time I have stopped and chatted with these groups, a cigarette case or a well-filled tobacco pouch being a wonderful talisman to conversation. Sometimes they are assisting a fellow-driver in need of help, and it is astonishing what feats in this direction these drivers can perform. At such times the grass by the roadside may resemble an engineering shop! All work with a will, and under the silent stars many a job is tackled and accomplished in a surprisingly efficient manner.

Occasionally a mishap such as a lorry getting one wheel down a bank will involve removal of the entire load weighing several tons, and I have come across half a dozen drivers with their mates working like niggers to get their unfortunate comrade of the road out of his difficulty. In one case the stranded lorry was laden with porcelain baths, and as I came along my lights revealed them carefully placed on the road-side like so many white boats riding at anchor. All these had to be safely packed again with straw when the lorry was once more on four wheels.

On cold nights the watchman in charge of road repairs lacks no companions beside his brazier. I have counted eight or ten lorries packed away down the road while the drivers come to warm their hands in the cheerful circle. Such wayside fires are godsends, for water can nearly always be boiled for hot drinks, and when benumbed limbs are warmed and the inner man refreshed it is a genial company that disperses with "So long's!" and "Cheery-O's!"

Of fascinating interest are the little refreshment huts which cater for these drivers at night. The scene is reminiscent of canteens near the line in days which most of these men have ample cause for remembering. The catering is modest, the service perhaps rough, but cups of hot, steaming tea or coffee are handed out and the atmosphere is one of excellent good-fellowship.

Sitting quietly in these places one hears some amazing stories of the road, and it is astonishing how familiarly these drivers speak of people and places along the great highways. I have heard a whole roomful of drivers hushed into profound regret at the news announced by one of their number that a certain inveceper a hundred miles from the spot had suddenly passed away. Immediately there were suggestions about a wreath, and arrangements were made by means of which a floral token would be duly delivered for the funeral.

These buts are great centres for the exchange of information, which is assimilated by the proprietor and duly passed on. Other "clearing houses" for news are the petrol-filling stations which are open all night, and some of these present a very busy scene when several lorries are taking in supplies.

Through the night they go, these descendants of the drivers who before the railway era carried the merchandise of the country along the main high roads; rumbling through small towns and villages hushed in sleep and cities where only a policeman or belated home-seeker sees them pass.

G.A.

c41

### THE I.C.C. HIGH-SPEED RELIABILITY TRIAL.

INTERESTING 100 MILE EVENT IN WHICH 48 LIGHT CARS TOOK PART AND MANY GAINED PREMIER AWARDS.

THE opportunity to watch the performance of standard touring and sports cars when driven hard over a difficult course of 100 miles might reasonably be expected to prove attractive to a very large number of enthusiasts. This. however, does not appear to be the case, because only a few hundred spectators were present last Saturday Brooklands when the Junior Car Club held its third annual High-speed Reliability Trial over a special road and

track course.

There were 48 cars in the trial, and these were divided into four classes according to engine capacity and type. Class A was for standard touring cars with engines of up to 1,100 c.c. An average speed of 34 m.p.h. had to be maintained. Class B (average speed 38 m.p.h.) was for standard touring cars with engines of between 1,100 c.c. and 1,500 c.c. Standard sports cars up to 1,500 c.c. were in Class C, and they had to maintain an average speed of 41 m.p.h. Class D was for nonstandard cars in full touring trim with engines not exceeding 1,500 c.c. An average speed of 43 m.p.h. was required of them.

The classes were started at intervals of two minutes, and the first ten laps of the 35-lap course had to be covered with boods erected. This gave the saloon car drivers in Class A a slight advantage so that they were away first, five of them rushing down the straight almost together, with C. Reilly (Austin) leading slightly. Other drivers who got away very quickly were S. Watson (Surrey) in Class B and W. H. Green (Alvis) in Class C, but the drivers of cars fitted with Continental sports-type hoods were, of course, not so quick.

The early starters were coming down the test hill on the completion of their first lap before all the competitors in Class D had started. In this class, however, there were some quite fast sports cars, and it was evident from the manner in which the drivers ac-

The hair-pin bend by the tunnel proved troublesome to several drivers, but the photograph shows G. Newman (Salmson) rounding CORNER. it with his usual skill in the early stages of the trial-

celerated from the start that they intended rapidly to make up for lost time. Admittedly, the event was a high-speed trial and not a race, but that there would be a little friendly scrapping was a foregone conclusion.

Trouble began for some competitors early in the trial. H. W. Stonard (Amilear) collided with a barrier on the bend just after the tunnel, whilst H. W. Pitt (A.C.) in taking the hair-pin bend at the tunnel approach nearly went through the hedge. R. A. Myers (Gwynne), who had been leading Class A, retired after a few laps with engine trouble, and at about the same time V. Gillow (Riley) also retired.

The engine of L. C. Pockney's Newton-Ceirano was noticed to be making an intermittent hissing noise, which sugopened, but he carried ou until the end of the 10th lap, when, after consulting a marshal, he raised the bonnet and looked for the cause of the trouble. Apparently, however, he was not allowed to effect a cure, but soon after the tap carboned up and allowed him to run normally until the carbon blew Out!

On about his fifth lap R. C. Abbott (Lea-Francis) was seen to come down the test hill with a flat offside front tyre. He called at the pits to change the

wheel, losing little time in doing so.

During the trial several competitors over-shot the turning which led from the track to the road section, and lost some time in getting back on to the

course.

Some rapid work was put in when the drivers stopped at the end of 10 laps to lower hoods and change a wheel with the assistance of their passengers. Mrs. Urquhart Dykes (Alvis), who worked most skilfully, was very quick, taking only about 12 minutes to complete the Several competitors appeared to be handicapped by having passengers who could not or would not help, and times of 21 minutes or more were recorded against them.

Calling later at the pits with tyre trouble, H. N. Thompson (Austin) disdained to use a jack; he lifted the rear of the car and held it whilst the pas-

senger changed the wheel.

Mrs. Dykes was unfortunate in being compelled to retire later with a slipping clutch, and P. J. Calvert (Gordon England Austin saloon) ran up a bank as a result of steering trouble and overturned the car. Although his woman passenger was thrown against the windscreen she escaped injury owing to the fact that it was made of Safetex glass. Another car which was put out of the running was

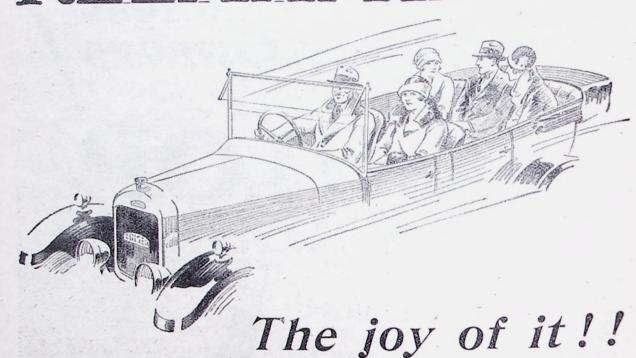


ALL READY The classes were started at two-minute intervals, and the picture above depicts the drivers in Class C TO START. awaiting the fall of the flag before running to their cars, erecting the boods and starting.

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# GET YOUR SINGER NOW

H. W. Pitt's A.C., which went off the road at the tunnel approach and dropped into a ditch.

It was certainly on the road section that most incidents occurred, although some skilful cornering and skidding was to be seen on the two artificial hairpins at the fork. L. C. Pockney (Newton-Ceirano) avoided what might have been a crash at this point by executing a very skilful skid. G. Newman (Salmson) went through a fence on the curve above the tunnel, but his car was undamaged and be continued unperturbed by the incident, which might have unnerved a less experienced driver.

Although the test hill had to be descended 35 times there were no signs of brake trouble on any of the cars, and it was remarkable, too, that there was very little tyre trouble, although the tyres of all cars were subjected to verv drastic treatment, especially on

the hair-pin bends.

Owing to the existence of a 15 m.p.h. non-passing section at the end of the road portion of the course, that is, from the approach to the member's bridge to the top of the test hill, many drivers did their best to overtake cars ahead before reaching this section, and a great deal of horn blowing was indulged in through the tunnel and on the hill bevond it.

This was the section, too, where full use was made of lower gears to obtain rapid acceleration. Several drivers of the non-standard cars in Class D. all of which were sports models, changed down before entering the tunnel, and often passed slower cars at this point.

Towards the end of the trial the surface of the corners on the road section

became very much ploughed up, so that slower and more careful driving was necessary, and this resulted in a slight

on every portion of the course the skilful driving of W. H. Green (Alvis) was distinctly noticeable; his braking and cornering were well judged and

much less spectacular than that of some of the other drivers. Incidentally, he completed the course in the shortest time in his class, although this does not count in the results, as in order to qualify for an award the cars in each class were required only to maintain an average speed which would allow them to finish within a given time.

No official notice was taken of the order of finishing, and the arrangements for showing on the lap-scoring board when a competitor had finished were by no means ideal. From our own observations, however, the letter F (finish) was shown, in order, to the following

Class A. (1) J. W. Twyford (Singer Junior); (2) E. C. Gordon England (Austin Seeen). Class B. (1) Miss W. M. Plnk (Alvis); (2) H. Allardice (A.C.). Class C. (1) W. H. Green (Alvis); (2) G. Newman (Salmson); (3) S. H.

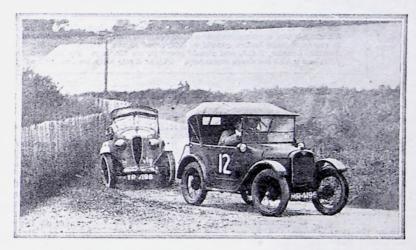
Newsome (Lea-Francis); (4) L. C. Pockney (Newton-Ceirano). Chas D. T. E. Rose-Richards (Bugatt). W. H. Green was the first competitor to finish.

The following were the provisional awards:—Class A.—Gold medals: C. W. D. Chinery (Gwynnel); E. C. Gordon England (Austin); J. A. Macnab (Salmson); J. W. Twyford (Singer); F. J. Clark (Salmson); F. H. Boyd Carpenter (Austin); H. N. Thompson (Austin); and S. F. Ellis (Amilear).

Class B.—Gold medal: Miss W. M. Pink (Alvis), Bronze medal: S. Watson (Sur.ey).

Class C.—Gold medals: W. fl. Green (Alvis); L. C. Pockney (Newton-Ceiranoi); S. H. Newsome (Lea-Francis); Lord Waleran (Frazer-Nash); G. Roberts (Bugatti); Bronze medal: G. Hendy (Lea-Francis); Class D.—Gold medals: T. E. Rose-Richards (Bugatti); G. J. Razdell (Aston-Martin). A. A. Pollard (Aston-Martin); and W. L. Booty (Aston-Martin).

An official list of non-finishers was not available, but these included C. Anthony (Senéchal); D. O. Lorkin (Rover); H. W. Pitt (A.C.); R. A. Myers (Gwynne); C. E. Wood (Talbot); Calcott Reilly (Agsilm); A. Braid (Austin); Mrs. U. Dykes (Alvis); V. Gillow (Riley); A. E. Ciutterbuck (Alvis); C. M. C. Turrer (Gwynne); I. Martineau (Salmson); P. J. Calvert (Austin).



F. H. Boyd Carpenter (Austin) leading H. W. Stonard THE ROAD (Amilcar) just after leaving the track portion of the SECTION. course. It was here that skilled driving was needed, as the road is narrow and winding.

### SPEED LIMIT QUESTIONS IN PARLIAMENT.

THE speed limit has been the subject of several questions in the Commons. It is notorious that the cuforcement of the law in this matter, or rather its non-enforcement, varies to an extraordinary degree in different localities. The Minister of Transport promises to deal with it in his forthcoming Road Traffic Bill, but members of Road Traffic Bill, but members of Parliament wish to know whether steps cannot be taken at once to bring about something like uniformity.

Meantime, outside the walls of West-minster one member of Parliament was raising the matter in a more direct form. He deliberately infringed the letter of the law by exceeding the legal speed on one of the past important by speed on one of the most important by-pass roads. He was brought before a local bench of magistrates and fined, and he told them that the object of his deliberate breach was to draw attention to the anomalies which sur-round the administration of the law as

to speed.

This action was all the more remarkcable in that it was done by the gentleman who until a few months ago occupied the position of Parliamentary Secretary to the Ministry of Transport. While he filled that post, Colonel Moore-

Brabazon, M.P., gained high and well-deserved praise for his intimate knowledge of all transport problems, which he knew at first hand. During the war he was one of our most distinguished and daring of aviators. More is likely to be heard about the subject which he took so original a method of bringing into prominent public notice.

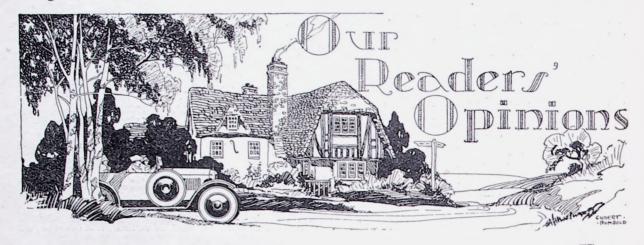
The speed of chars-à-banes on the road is one of the greatest anomalies of all. It was pointed out in the Commons during the last few days that the time-tables of certain motor-bus services are sufficient proof that the law is habitually broken with regard to speed; but apparently this is a matter in which the Home Secretary cannot interfere, as it rests with the discretion of local authorities. The need for a complete overhauling of the law with respect to road traffic is becoming more evident with every week that passes, but the Road Traffic Bill, is regarded as one of the apparently, subjects which can be shelved, at least

until the autumn session.

The House of Commons has also shown an interest in pillion-riding. When questioned, the Minister of Transport confessed that he has no statistics as to the number of accidents which

have resulted from this practice. Some members expressed the view that pillionriding ought to be prohibited as dangerous. But there are others, notably Lieut.-Commander Kenworthy, M.P., who pointed out that this is a method by which thousands of people of limited means can enjoy long runs into the country which would be impossible to them if pillion-riding were prohibited. The Minister of Transport promised that something would be done in his forthcoming Bill to make the pillion seats safer and better, and the subject was pursued no farther.

Apparently the Chancellor of the Exchequer intends to pay scant atten-tion to the protests which are being forwarded to him against his raid on the Road Fund. He was asked by Mr. Hore-Belisha, M.P., whether he had received from the Association of Municipal Corporations a resolution which they had passed stating that they viewed with alarm the proposed diversion of the Fund from road purposes, and what reply he proposed to make. All that Mr. Churchill intends to do, however, is to send a formal reply "in view of the statements which he has already made on the subject."



We welcome letters for publication in these columns, but take no responsibility for the opinions expressed. No anonymous communications will be accepted, but writers may use a nom de plume. To ensure publication in the next issue letters should be addressed to the Editor, "The Light Car and Cyclecar," 5-15, Rosebery Avenue, London, E.C.1, and should reach us on Monday. We reserve the right to make any alterations or deletions which we deem necessary. Please write only on one side of the paper and leave a wide margin.

### WHAT OF 1928?

### Improvements which Readers Want for Next Year.

### Better Tool Equipment Wanted.

I read with interest the article entitled "What of 1928?" and should like to add a few details to the writer's opinions. First, there is the much abused two-way petrol tap; could

not the makers reduce the amount of petrol Taps. should be remembered that this supply is intended solely to carry on with as far as the next garage, and, to my mind, anything upward of half a gallon for a light car is too much? Next, with regard to tools, could not a tyre gauge be included, and why not a hydrometer for testing the batteries; also, could not a respectable foot pump be included in place of patent "break-back" hand pumps? Why not include a fine-wire brush for cleaning plugs; this should prove very useful and quite inexpensive.

H. K. Compton,

### The Importance of Accessibility.

I was much interested in the article by "Marmaduke" on "What of 1928?" On several points he hits the nail—and the manufacturer—on the head. One or two points

have occurred to me which might be added to his suggestions. It seems to me very desirable that manufacturers should concentrate on accessibility.

Why will some of them insist on their customers being expert contortionists? A certain car I had gave me writer's cramp, lumbago, housemaid's knees and a stiff neck every time I greased or overhauled it, to say nothing of the cuts and bruises I sustained. I always made it a practice of taking into my garage a miniature field dressing outfit when starting an overhaul.

To put a few drops of oil in the mag. would require an oilean shaped more like a spiral staircase! The grease nipples on the front axle were inconveniently placed behind the number plate, whilst the grease nipple at the foot of the steering column was immediately behind one arm of the throttle-manipulating rods, where no grease-gun could reach it. I used to unscrew the nipple and pack in some grease with a penknife and a matchstick.

To drain the oil sump, I—with an "out-size" waist—had to crawl under a clearance of about 8 ins. The jack was not big enough to raise the car sufficiently to allow a wheel with a fully inflated tyre to be fitted, whilst it would not go under the axle if the tyre were flat. Yet the car was a really topping one, and is to-day a most popular make. The manufacturers cannot possibly bring the price much lower, but they could make those parts which need periodical attention much more "get-at-able."

The question of brake adjustment is vital. I know of one car, the Rhode, in which the manufacturers certainly have made this a simple matter by providing two knobs in the floor of the car near the driver's left foot. Brakes can be adjusted even when travelling.

in the floor of the car near the driver's left foot. Brakes can be adjusted even when travelling.

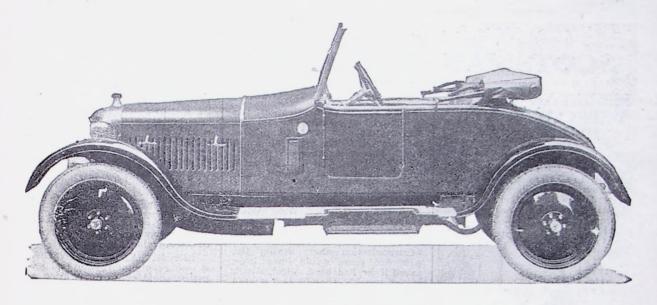
Another point: it should be a simple matter to have some arrangement by which a driver can tell if his rear lamp is illuminated or not. There are, I believe, such gadgets on the market, but they are "extras." They should be in the standard equipment of every car. Again, why not a foot pump? I bought one three years ago for 5s. 6d, having had enough of the back-breaking up-and-down motion of the usual combined hand-and-foot type. The foot pump I purchased is simplicity itself. In addition, it folds up and occupies considerably less space in the car than the original.

Finally, I come to delivery charges. Manufacturers may or may not repudiate responsibility in this direction, but their prices are generally quoted as so much "at works." What a simple matter to substitute "delivered anywhere up to 200 miles." For "at works." Would it make a great deal of difference to their profits? It recently cost me nearly £4 to take delivery of a new car. When we buy a car at, say, £200, that is what we expect to pay, and I suggest that under our present system no one gets a £200 car for that sum. Why not be honest about it and say £200 plus delivery charges, plus number plates, plus odds and ends, or why not advertise the car at £220, including everything—delivery, oil, gallon of petrol, number plates, licence, etc.,—"delivered to your door"? In short, if you have a driver's licence, you should be able to put down £220 and drive off.

### A Car Fulfilling "Marmaduke's" Specification.

In response to your invitation for readers' opinions on the article "What of 1928?" I would like to refer the author to the 1927 11-22 h.p. Wolseley, which, in my opinion, provides all the essential improvements referred to in the article.

Wolseley
Recommended.
The makers will give cellulose finish to order for no extra charge, there are no order for no extra charge, there are no de luxe model is as handsome as that of any expensive car, while four doors are standard on the four-seater models. Regarding side curtains, there is ample storage room behind the rear seat, while canvas sheets are in position for placing between each screen to prevent scratching. The lood is easily erected and taken down and, when erected, provides cover equal to a saloon. The four-wheel brakes are powerful and absolutely silent in operation, while the "all-gear" engine is a delight.





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and perhaps the highest tribute I can pay her is to say that she has never, even on my longest runs, stopped of her own accord.

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"My experience is that the A-C is the last word in reliability and economical running.

"Yours faithfully,

"H. E. BENNETT."

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### SCOTSMAN IN COURT.

RESULT OF S.P.C.M. INSPECTOR'S VISIT TO ABERDEEN.

The Society for the Prevention of Cruelty to Motors have extended their ceaseless activities to Scotland. Yesterday, in the Northern Court of Roads, Mr. Justice MacTyre heard

a prosecution by the Society against a certain gentlemanof Aberdeen, who, it was alleged, had sacrificed h e health of his



SWOONED IN DOCK.

car for the sake of a few bawbees.

During the cross-examination the accused admitted that he did not see why he should pay 1/11d. a quart for Adcol N.P. Oil when he could buy Klinkerup, a competitive brand, for 1/10d. He was, he said, a careful man and added that a penny saved was a penny gained.

When the murmurs in Court had been suppressed, Mr Wise, W.S., the Society's learned counsel, proceeded to point out to the accused that the money he had spent on decarbonisation alone during the past five years would have been saved if he had used Adcol, which meant roughly that he had wasted the equivalent of a year's supply of oil. On hearing these words the accused swooned in the dock and was removed in an ambulance to the local infirmary, the case being adjourned sine die.

The sequel is a sad one. Remorse, generously tinged with parsimony, preyed upon his mind to such a degree that the unfortunate man succumbed

to his m ental agonies. On Highland brae he rests in peace at last His final words were said to have



been HE RESTS IN PEACE.
"O wad some power the giftie gie us,
to see oursels as others see us."

MR. W. HEATH ROBINSON.
A remarkably interesting and informative booklet on lubrication and other problems for car owners is specially issued by Messrs, Alexander Duckham. It is entitled "Technical Talks" and is illustrated by Mr. W. HEATH ROBINSON, the worldfamous humorist, in his own inimitable style. A copy will be sent on receipt of a postcard addressed to Messrs. Alexander Duckham & Co., Ltd., 6, Broad Street Place, London, E.C. 2

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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.

### OUR READERS' OPINIONS (contd.).

Such trivialities as the dropping of side curtains into the bodywork should not trouble any full-blooded motorist, and I consider that manufacturers deserve considerable sympathy, taking into account the petty nature of the many criticisms emanating from people who are apparently too lazy to do anything for themselves and ought to be wheeled about in Bath chairs,

Perhaps the author of the article in question would consider the 11-22 h.p. Wolseley de luxe, which sells at £250, too expensive a car to be included in the category he refers to. If so, it appears unreasonable to expect the refinements he desires for less money, and the moral would appear to be, "Spend a little more and buy a really good car."

Beyond the fact that I am the fortunate possessor of a Wolseley 11.22, I have no axe to grind.

COLIN H. G. ROSS.

### Friction-drive Preferred.

I bought a new car in 1924 and have done a five-figure mileage in it, and speak without close experience of 1927-built cars, but, so far as I am concerned, the following are

built cars, but, so far as I am concerned, the following are my needs. In the first place, I want a silent semi-sports engine. Why cannot Flexible Glass? we have a four-cylinder Knight engine within the 13-litre class? I want a simpler, cheaper edition of the 16-55 h.p. Daimler as, for a man of limited means, and limited use for his car, the Daimler is too expensive. My present engine pulls well and runs very nicely up to 40 m.p.h., but to cover long distances a silent, vibrationless 50 m.p.h is required.

I should certainly insist on cellulose paintwork or Wey-

I should certainly insist on cellulose paintwork or Weymann construction, but I must admit I am not dying for these features, as my three-year-old paintwork looks fairly new still. Yet I cannot remember when I last hosed my car down. The mudguarding is good, so I have very little, if any, mud to trouble about, but I should never go in for nickel work. I have had most of mine, such as screen frame, painted the same colour as the body. Cellulose body finish and chromium plating, to the same extent as my present paint and nickel, are what I want.

So far as instrument boards are concerned, we must

So far as instrument boards are concerned, we must have our dials grouped in a neat, internally-lit and dampproof case, as in many American cars. We can then have them permanently clean and tidy. If the instrument board were hinged all connections would be accessible, as are those on my present 1924 car.

As regards all-weather equipment, what I chiefly desire is "flexible glass," which was supposed to be ready for marketing some months ago. Celluloid gradually discolours, and I do not want anything less clear or less easy to keep clean than glass. My side screens have plain pegs, but after three years do not rattle, because each frame is bent in such a manner that it has to be "sprung" to get the pegs into the sockets. I shall want sliding-panel, saloontype, side-screen equipment on my next car. My Auster hood is quite satisfactory and I can handle it myself, and one hears very well of the Calso; either would do for me, but my ideal would be something of the roller-blind type on permanent rails. I cannot bear a roof over my head except to protect me from rain.

In 1924 front-wheel brakes were a novelty, and I did without them. My back brakes have met all my needs, and I have never had a crash which brakes could have prevential although I nearly always use the maximum speed of my car during a run. Possibly as a preventive of skidding I should have four-wheel brakes next time, but, again, I have never had any trouble in this respect from my present brakes, which may be due to the fact that my routes do not include any of the modern skid-producing road surfaces.

I have done without a gearbox these last three years and have climbed all sorts of mountain grades with up to six passengers and a 1,363 c.c. engine, so I do not see why I should ever want a gearbox, with its changing difficulties and noise. My car is a G.W.K. with friction drive, to which I have given seven forward gear notches, and I can without any "changing" in the gearbox sense of the word, always have my engine turning at the most appropriate speeds, simply by pulling a lever as one pulls a brake lever. Cork was originally used as the friction material, but I have found that far better results can be obtained by using a special material made by the Ferodo concern.

a special material made by the Ferodo concern.

Quarter-elliptic springs without shock absorbers may possibly have some disadvantages, but, as all springs are fitted with some controlling device to-day. I prefer the lighter weight and lack of shackles of the type mentioned. I cannot see, however, that spiral springs would not be the best in every way, now that rebound dampers or shock absorbers are used. What about the famous Lancia front springing?

Ivor E. MERCER.

### "Light Cars for India."

In the article entitled "Light Cars for India," which was published in your issue of June 3rd, your contributor, "An Exile Returned," states that the British motorcar maker has completely forgotten the

Manufacturer's very existence of the Empire of India, but we, ourselves, and other manufacturers, have made a great effort to get business in that Empire. We have sent two representatives to that country—one a traveller of great renown, who has written many books of travel. He went across India in an A.C. car, doing most valuable propaganda work, from our point of view. He took a fleet of A.C.s with him, which were sold at various ports.

What more can we do to assist the purchaser in India to buy a British car?

It is stated that a track of 4 ft. S ins. is absolutely essential. With this we cannot by any means agree. There are many towns in India where the roads are as good as in Great Britain, and a heavy, cumbersome car is quite unnecessary. Further, we claim that in districts where the roads are namade, the light car with a narrow track can frequently be used over roads where the wagons and heavy cars with a 4-ft. 8-in, track have made the ruts so deep that even a car with this wide track cannot proceed, owing to the wheels being right down in the ruts and there being no clearance left.

In the case of a light car such as the A.C., with its normal track, which we claim to be a virtue, we know of many cases where users of the heavy, cumbersome type of American car have found that these cars simply bury themselves, whereas a car with a track of 3 ft. 9 ins., and with the power and rigidity of construction of the A.C., can be driven with one set of wheels in a rut and the other wheels between the ruts, or that the car can be driven over the

ground between the ruts without any fear of getting stuck. Your contributor emphasizes the fact that the Americans have been able to do more in the Indian market than the British manufacturer, but we would ask him to bear in mind the fact that during the years when Britain and European countries were fighting for their lives, American firms were able to turn out supplies to satisfy the huge depend, which meant that they were sale to sall every

firms were able to turn out supplies to satisfy the huge demand, which meant that they were able to sell everything they could make at a profit. This enabled them to build up such reserves that they were able practically to capture the world's markets, and it will take some years before Great Britain gets back her fair share; but we venture to suggest that this is taking place monthly, and this is evidenced by the fact that your contributor himself states that two or three well-known English firms have recently established their depots in Bombay and Calcutta.

We quite agree with your contributor that the British manufacturer may be three years late in getting into the Indian market, but this three years is more than counteracted by his enforced retirement from motor manufacturing during the great war. This also applies to the stocks of spare parts with which the American has been able to finance the Indian market. Your contributor shows some of the difficulties we have to contend with when he points out, firstly, that an agent for an English car tried to sell him an American car and, secondly, that an agent for an English car did not know how to start the engine

Would your contributor like to come down to our works at Thames Ditton, to see what we are doing with the manufacture of A.C. cars, and how we are endeavouring to meet the needs of overseas users? If so, I shall be glad to arrange to send a car to call at his residence and bring him down here at his convenience.

S. F. Edge.

### OUR READERS' OPINIONS (contd.).

### Local Pronunciation.

Your contributor "Focus" recently made an interesting reference to the supposed local pronunciation of Circnester. I am aware that the majority of visitors are usually under 'Cirencester" or "Cisseter," but I have never heard a native pronounce it that rear heard a "Cisseter"? native pronounce it that way. I think it will be generally found that the majority of people in or near Cirencester usually say "Ciren" and occasionally I have heard "Cister."

COMPOSER.

### Easy to Adjust.

I read with interest Mr. E. P. Grant's letter, headed "Are F.W.B. Worth While?" and would like to say that I have found front-wheel brakes to be a great improve-ment, for on several occasions they Are F.W.B. have saved what would certainly have

Are F.W.B. Worth While? Worth While? been a smash had my car been fitted
with rear-wheel brakes only. I have
never had any judder take place and find my four-wheel brakes very easy to adjust.

They do not require to be adjusted very frequently, as

Mr. Grant would suggest, and, after all, who minds taking a little trouble over one's own car now and then? It is in the interests of safety after all.

J. WILKERSON, JUNE.

### "The Light Car and Cyclecar."

With regard to the criticism in your columns last week on the contents of this journal. I should like to suggest a few articles which might be of general interest :- How to

clean, adjust and lubricate the suspen-Suggestions for sion system; the best methods of Future Articles, cleaning and polishing a car; a description of the functions, positions and adjustments of various types of valve; how to dismount, and replace different binds of two and leather. repair and replace different kinds of tyre, and, lastly, a repair and replace different kinds of tyre, and, lastly, a chart which would give the approximate cost of various running repairs, for 7 h.p., 8 h.p., 9 h.p., 10 h.p. and 11 h.p. cars. This would tend to stabilize garage charges better than anything else could.

H. K. Compton.

\* Our correspondent's last suggestion is, unfortunately, impracticable, owing to the widely varying construction of different cars .- ED.

### Thermo-siphon Circulation and a Thermostat.

"Froth Blower" is, I think, a little hard on water in his complaint that on account of its high specific heat, which makes it so efficient as a cooling medium, an engine

A Satisfactory is so emergent as a cooling medium, an engine is slow to warm up to its normal working temperature. One cannot have it both ways. I am, however, fully conscious of this objection, as my car is used to a very large extent for numerous short runs, during which the engine falls to extend its best working temperature. which the engine fails to attain its best working tem-

perature.

On this account I went into the subject last winter of fitting a thermostat. I am aware that the makers of this accessory recommend them only for engines having pump-operated water circulation. As my car depends upon operated water circulation. As my car depends upon thermo-siphon cooling, I asked two makers of thermostats whether there was any just cause or impediment why a thermostat should not be employed. They both repeated that they usually recommend them only on pump circuits, but were unconvincing in showing any objection to their

use in thermo-siphon systems.

I was influenced by the fact that a large section of the L.G.O.C. buses have thermostats in their thermo-siphon cooling systems, and decided to fit one in spite of the makers' advice. The result has been all that could be desired. A similar car, which is used by a friend regu-larly for a three-mile run to the station and which on these runs did not warm up at all, was fitted with a thermostat on my recommendation, and now reaches a comfortable working temperature while the garage doors are being closed. We have not been able to discover any adverse closed. We have not been able to discover any acceptance. It would be very interesting to hear from others who have had experience of this combination and to know who have had experience of this community, whether any serious objection really exists.

T. Totaller.

Horns Supplied with Cheap Cars.

The letter written by "Headlights," in your issue of June 17th, contains a grouse which I quite understand. I am the owner of a 7-12 h.p. Peugeot car which is fitted with

a straight-through bulb born as
Straight-through standard. This born has a powerful
Type Favoured. and high note, which clears the traffic
very efficiently, owing to the fact that
its tone is higher than the usual rumble and rattles of a lorry and so is heard by lorry drivers. I think the reason lorry and so is heard by lorry drivers. I think the leases why the manufacturer of a low-priced car often supplies an electric horn is because it looks a nice fitting to specify in a catalogue and is rather a "selling point" than a useful accessory.

W. H. SMITH.

High Mileages in a Day.

I am very pleased to note the interest my letter aroused. Perhaps I am more pleased with the physical feat than the actual result. As an ex-pilot, I can say that driving a car at over 50 m.p.h. most of the

Mr. J. Rodger day is not so easy as some of the Brown Replies. famous flying efforts recently accomplished. Many of your readers doubtless think it a senseless ordeal, but in my case this is not so. I live in the south of Suffolk and my home is in the north of Renfrewshire. If I want to go home, why If I want to go home, why not travel pleasantly until 9 p.m. or 10 p.m. in the evening? I can assure my critics that stopping the night in some wayside hotel after wasting an evening over a lonely dinner and a bad picture show is a much more senseless practice. There must be scores of London Scots who waste a day of their holidays and many "saxpences" because they will not, or cannot, "step on the gas" for 12 hours. I can

not, or cannot, "step on the gas" for 12 hours. I can assure them that the last 50 miles are quite exciting.

I was pleased to see that Mr. G. C. V. Brown can average 36 m.p.h. on his 12-50 h.p. Alvis. When I can afford the extra 10 b.h.p. I hope to get home between breakfast and dinner.

J. Rodger Brown.

### CONDENSED CORRESPONDENCE.

Mr. Harold R. Barnard, 15, Ashmere Grove, Brixton, London, S.W.2, would like to get in touch with Bleriot-Whippet owners living in or near London.

Mr. V. Hutson, of 49, Crowther Road, S. Norwood, S.E.25, wishes to thank those motorists who so kindly helped him out of his trouble with his Austin Seven on Berry Hill on Sunday, June 12th.

Mr. T. A. Millar (Streatham) points out that the story of the murders in the Ostrich Inn, at Colubrook, which appeared in the article entitled "Tales of Old Taverns." published last week, applied to the original inn, which was destroyed something like 100 years ago, and not to the present building.

### INFORMATION WANTED.

MARSEAL .- An instruction book for this car is wanted. -Major J. P. M. Cotter, 131, Leinster Road, Dublin.

NEW HUDSON THREE-WHEELER.—Will any reader please lend or sell an instruction book for the 1922 model?—G.E.F., 98, Athelstan Road, Faversham.

SWIFT.—The opportunity to buy or borrow an instruction book for the 1915 10 h.p. model would be appreciated.

—J. Piper, 7, Kedleston Road, Derby.

Rover.—The opportunity to buy or borrow an instruc-tion book for the 1923-4 8 h.p. model would oblige.—F. Gladwell, Shanwell, Kingsway, Ewell, Surrey.

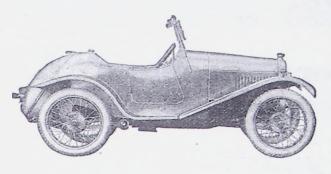
COVENTRY PREMIER THREE-WHEELER. - Any reader has an instruction book dealing with the 1921 model, which he is prepared to loan or sell, is asked to communicate with A. C. Berry, 21, Beacon Rise, Sedgley, Staffs.

SHOCK ABSORBERS .- Any reader who has used aeroplane elastic as a shock absorber for the rear axle of a Jowett is asked to give his experience, with particular regard to the tension of the clastic.—J.A.E., Towngate House.

Baildon, Yorks.

L.S.D. Three-wheeler.—Information on the following points about the 1922 model would oblige:—(1) How can points about the telephone (2) What is the method of the back wheel be detached? (3) How can the front huls he lubricated? (4) What is the method of adjusting the hubricated? (4) What is the method of adjusting the brakes?—A. F., 47 Connaught Road, Kensington, Liverpool.

# Shows what the "old hands" think!



# 4 out of 5 buyers of "England" Cup Models are experienced motorists

OT for them the car whose only "merit" is cheapness. But real economy—outstanding performance at low cost—yes! The 55 miles an hour of the "England" Cup Model Austin 7, its easy average of 40 miles an hour over long distances, its total running cost of under 10/- a week including tax and insurance, are facts that take a lot of overlooking. And to this prowess is added the smooth silence and comfort of "England Bodywork.

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drum or rattle or creak.
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Write for this booklet to-day.

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This obedient little sports model does 55 m.p.h. with ease, yet holds the road with the tenacity of a heavy tourer. Average of the speed up hill and down dale 35-45 m.p.h. Petrol consumption 59 m.p.g. Real leather pneumatic upholstery. Unspiniterable safety glass screen. All-weather equipment, with rigid side curtains opening with doors, packs in boot with spare wheel and baggage when not required. Automatic windscreen wiper, carpet, step mats, etc.

"ENGLAND" AUSTIN 7 Silent SALOON

Ample room for two adults and three children. Adjustable driving seat, pneumatic upholstery. Unsplinterable safety glass throughout.

Double sliding windows. 50 m.p.h., 50 m.p.k., 50 m.p.k., 400 m.p.k., 50 m.

Also Austin 7 CHUMMIES for IMMEDIATE DELIVERY-£145.

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C51

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DESCRIPTION OF THE PROPERTY OF



Reports and Announcements of Sporting and Social Events.

MIDLANO JOWETT CLUB.

The rally of the Midland Jowett Club will take place on June 26th, when a run to Doradale will be arranged. The start will be at 10 a.m. from New Corporation Street, Birmingham, the route being via Lichfeld, King's Bromley, Yoxall, Sudbury and Ashbourne.

### FORTHCOMING EVENTS.

M.C.C. Inter-team Trial.
Bristol and Bath Inter-club Trial.
Belsize-Bradshaw and Morgan Clubs'
Joint Run.
Bradford and D. M.C. 24-hour Trial.
Kent and Sussex L.C.C. Speed Trials
at Lewes.

Wood Green and D. M.C. Run to Clacton. Letester and D. M.C. Run to Newark-on Trent. Austin Seven C.C. (London Branch). Run to Salisbury. Midland Jowett Club. Rally at Dove-dulc.

Middlesbrough and D. M.C. Fuel Con-sumption Test.

July 2.
French Crand Prix.
Surbiton M.C. Brocklands Meeting.
Midland A.C. Shelsley Walsh Amateur
Hill-climb.
Surboaur M.C.C. Trial.
Brighton and Hove M.C. Gymkhana.
Stalybridge and D. M.C. Speed Trials.

July 3.
French Grand Prix,
Catford M.O. Trial,
Sale and D. M.O. 24-hour Reliability
Trial.

Bristol M.C. and L.C.C. Lynmouth 12-hour Trial. M.C.C. Land's End to John o' Creat's Run,

July 9. Grand Prix de Tourisme (Belgium).

### BRADFORD AND D. M.C.

The club's Scottish 24-hour Reliability Trial will be held on June 25th and 26th. The event is closed, and metorcycles, sidecars, three-wheelers and cars of club members will be competing. The start is from The Stoup, Yearden Moor, at 6 p.m., and the route is approximately 400 miles in length over main roads. Two text-hills, Kirkstone Pass and Oughtershaw, will be iscluded.



Gregoire (Tracta) leading Casse (Salmson) on one of the straights in the Le Mans 24-hour race run last week-end.

### OXFORD M.C.

OXFORD M.C.

On June 11th a golf competition was hold at Frillord Heath, when Mr. R. J. Pigott proved to be the winner, and Mrs. W. H. Benfield won the ladies section. Mrs. Andrew Walsh won the sweepstakes. On July 9th a team representing the O.M.C. will play a motorcycle football match against Fairlord at Fairlord. The next social event will take the form of a picnic on July 10th, and all members will receive invitations in due course. Referring to the golf section, the golf secretary, Mr. R. J. Pigott, 4C. Commarket Street, Oxford, will be pleased to hear from any golfing members, as he is anxious to compile a list of members who wish to be invited to golf competitions, so that he may notify them of the various events from time to time.

### NORTHERN CENTRE SPEED TRIAL

NORTHERN CENTRE SPEED TRIAL,

It has now been decided to hold the Northern
(A.O.U) Centre's Speed Trials on Saturday,
June 25th, on the West Shore of Walney Island,
the course used by the Furness M.C.C. last
course is within a short distance of Barrottenses,
course is within a short distance of Barrottenses, and it is hoped that a bus service will
be run for the benefit of the spectators. The
shore at this particular point forms a natural
amphithentre, as the shingle makes a steen bank
with a grassy, flat surface at the summit.
Spectators will thus be able to view all the
races without trespassing on the course. Mr.
F. Pilling, of Nalad Street, Barrow-in-Furness,
is the secretary of the meeting, and Mr. H. C.
Moore, 18, Infield Park, Barrow-in-Furness,
from whom all particulars of the meeting may be
obtained, will be the clerk of the course.

### PENRITH AND D. M.C.

Ten competitors took part in the club half-day reliability trial for the Allison Cup on June 12th. The course, covering between 70 and 80 miles, was of a sporting nature and included no lewer than five mater-splashes. After ascending Wull brow, the competitors proceeded to Brybeck, Appiebv and Long Marten to the control at Culgoith. The finish was at Lazonby.

### ANNAN A.C.

There was a satisfactory entry of 24 for the Opening Reliability Trial in the English Lake District on June 12th. The outward route lay throughs Carlisle, Troutbeck and Keswick, The grassy climb of Rake How proved the undoing of many. The homeward route was through St. John's in the Vale, Ambleside, up Kirkstone Pass, Patterdale, Penrith and Carlisle.

### AUSTIN SEVEN C.C.

AUSTIN SEVEN C.C.

The London branch of the Austin Seven Car Club held a successful hidden treasure hunt on June 11th. The clues were cleverly arranged and quite an execting race to the finish resulted in Mr. Rolle just beating Mr. Bardwell. Messrs. MucLachlan and Teos were third and lourth respectively. The next club run will be to Salisbury Plain on Juno 26th, starting from the east end of the Great West Road at 9.30 a.m.

### NORTH-WEST LONDON M.C.

NORTH-WEST LONDON M.C.

The 22nd annual London-Coventry-London 12-hour Reliability Trial will be run on Saturday, July 16th, and is open to motorevices, sidecars, three-whoelers and cars in the South Midland Centre A.-O.U., and to mombers of the Suth Midland Centre A.-O.U., and to mombers of the Midland Centre A.-O.U., and to mombers of the Midland Ko.C. The start will be from the Manheam Alma Hind, and the through Walferd, Davontry, Coventry, Warvick, Stratford on-Avon, Winchcombe, Northleach, Witney, Abingdon, Henley and Slough Alma Hill will not be included but there and Slough Alma Hill will not be included but there must reach the clerk of the course, Mr. H. Afarmar, 216, St. Paul's Road, Canonibury, N. 12 of before July 5th, and full particulars of the event can be had from Mr. Farmer or from Mr. F. W. S. Osborne, St. Anthony's, Vivian Avenne, Hendon, N.W.14.

### "THE EDINBURGH." LIGHT CARS IN

The following classified results show at a glance how the various makes of light car fared in the recent London-to-Edinburgh run. The results are official, baving been supplied by the M.C.C.

A. A. B. C. R. C. Rogers (1.500). C. E. S. Hutchenco (1,496). LWS, LB, LA, I.C. Alvis.

R. L. Williams (1,496). G. C. S. Stanley (1,498). G. K. II. Daniel (1,496). G. J. G. Simpson Leo (1,496). G. Amiliams Amiliam.

Amiloar.
G. II. Bucklo (1,078). G.
W. M. Couper (1,078). NS.
T. R. Wainwright (1,078).

1. R. Wainwright (1,078). NS.

Austin.
G. Richardson (747). G.
H. Clerg (747). G.
W. J. Millon (747). G.
G. H. Strong (747). G.
C. G. Fitt (747). G.
C. G. Fitt (747). G.
S. B. Vos (747). S. SA.
H. C. Juctin (747). S. SA.
H. C. Juctin (747). S. SA.
L. J. C. Juctin (747). S. SA.
L. W.S. L.B.
J. J. C. Juckin (747). S. SA.
L. W.S. L.B.
J. W. S. L.B.
J. W. S. J. SA.
L. W. S. L. J. S. SA.
L. W. S. J. SA.
L.

W. J. Haward (1,496). 8. LWS. D. S. Redman (1,496). Ret.

Carmier. T. Twentyman (1,094).

J. A. Driskelt (1,098). S. LWS. E. E. Watson (1,098). S. LWS. LWS. LB.

LWS, LB.

Donnet-Zedel.

C. W. Gallident-Holmes (1.086).

S. LWS:

D. L. Gilchrist (1.086). NA: SA:
LWS: E.C.

Fiat.

W. F. Bliss (1,460). G.

G. F. Faulkner (1,460). G.

D. West (990). G.

W. B. Bramley (1,527). G.

Frazer-Mash.

F.N.

W. B. Bramley (1,327), G.

Frazer-Nash.

R. G. C. Schwalm (1,496), G.

R. Jelleris (1,496), Ret.

D. Jelleris (1,496), Ret.

D. J. L. Cornish (1,496), Ret.

C. W. C. Cwynner (1,247), G.

H. D. Cornish (1,496), Ret.

J. A. Nowman (1,056), NS.

Humber (1,247), G.

H. J. Loratt (907), G.

H. J. Loratt (907), G.

H. G. Russell (907), S. L.

R. L. Richardson (737), G.

Laste.

P. D. Walker (1,496), G.

L. W. Turner (980), S. LWS;

L. R. L. W. Turner (980), S. LWS;

F. C. E. Cleaver (1,247). Ret. A. Podmore (1,497). Ret.

A. Fodmoro (1.497). Ret.

Morgan.

8. A. McCarthy (1.096). G.

8. Hall (998). G.

9. S. Thurlby (1.095). G.

D. S. C. Macaskie (976). G.

C. H. Marshall (1.096). G.

A. C. Maskell (996). G.

G. C. Switt (1.096). G.

G. C. Harris (1.096). G.

H. J. Vidler (1.096). G.

W. G. Godley (1.096). G.

H. W. Baker (1.096). G.

H. W. Baker (1.096). S.

M. J. P. MacMahon (1.096). S.

G. J. Stalford (1096). S. SA.

J. J. Stalford (1096). S. SA.

J. J. Stalford (1.096). NS.

Newton-Ceirano.

S. SA.

J. I. Johnson (1,096). NS.

Newton-Ceirano.
R. M. Dixon (1,460). G.
G. B. Wicland (1,460). S. SA

Renault.
R. J. A. White (951). NA; EC.
Rhode.
C. M. Walker (1,232). G.

Ritey.
J. B. Tointon (1,498). G.
E. A. Clegg (1,498). S. I.WS.

Rover.
J. Ward (1,074). G.

Salmson.

J. Ward (1,074); G. Saimson, J. W. Barber (1,087); G. O. B. Moss-Blundell (1,087); G. I. Martineau (1,087); G. I. Martineau (1,087); G. A. Herber (1,087); G. C. R. Berry (1,095); G. K. F. A. Walker (1,098); G. C. D. Gonradi (1,087); G.

G. F. Vaughan (1.087). S. S.A. R. B. Waters (1.207). NS. Sénechal.
O. Clark (1.087). G. F. H. Buckingham (972). G. Singer.
E. A. Fullbrook (848). S. LWS: LR. A. II. S. Thorburn (1,308). S. LWS. J. H. Gem (1,508). NS. Swift.

R. Reffell (1,097). G.

R. Reffell (1,097). G.
Taibot.
G. I. L. Saye (1,000). Ret.
Windsor.
W. R. Reove (1,350). G.
Wolseley.
F. H. Haynes (1,201). S. SA.
EB=Early at Brough.
EBW = Early at Brough.
ESA = Improperly seated on Askrigg
Hill.
LA=Late at Appleby.

ISA - Improperly seated on Askriga Hill.

IA - Late at Appleby.

IA - Late at Brough.

IO - Late at Carlislo.

I.F - Lato at Finish.

IG - Late at Grantham.

IH - Late at Grantham.

IH - Late at Start.

IWS - Late at Start.

IWS - Late at Start.

SA - Stopped on Askrigg Hill.

SW - Stopped on West Stonesdale.

G - Gold Medal.

B - Bronze Medal.

B - Bronze Medal.

NA - No Award.

NS - Non-starter.

c53



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.

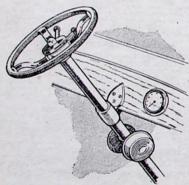
### Steering Column Comfort.

It is possible greatly to increase driving comfort on some cars simply by providing a support on the steering column for the right knee, and during a prolonged drive a support of this kind

will be found very useful.

A motorcycle tank kneegrip or a simple pad of rubber sponge is strapped to the column so that the right leg, in operating the accelerator pedal, may not

chafe against the metal.



Rubber kneegrips fitted to the steering column will increase driving comfort.

A little preliminary adjustment may be necessary to obtain the right height for the kneegrip and, of course, the idea is applicable only to cars on which there is a fixed casing over the steering column.

### A Safety Horn Switch.

Considerable annoyance is frequently caused both to pedestrians and to motorists by mischievous children sounding the electric hooter. The horn button is generally placed in a pro-minent position for convenience, and it seems to be an irresistible temptation to children to sound the hooter whenever a car is left unattended. The nuisance is easy to overcome, however.

A small tumbler switch, as used in wireless receivers and for portable lighting sets, should be connected in one of the leads to the hooter or to the pushbutton; it may be concealed behind the facia board, or in some other covered position, and if turned to the off position before the car is left a disappointment will await those who anticipate a rancous noise on depressing the horn

### Retrieving Lost Nuts.

When nuts and other small parts are dropped in the undershield during engine overhauling it is frequently no easy matter to retrieve them. If a magnet be at hand they can usually be picked up from the bottom of the shield without the need for dismantling it.

An alternative method of overcoming the trouble is to use a length of stout wire with a blob of hard grease on the end to which the small metal parts will

readily adhere.

### To Remove Tight Nuts.

Nuts which are constantly under great strain, such as those holding down the cylinder head, are apt to jam tightly on their threads and present unusual difficulty when it is required to remove

If all ordinary methods have been tried and have failed, the quickest course is to split the nut in the follow-

ing manner.

Two holes should be drilled parallel with the bolt, or four fine holes if the nut be large enough, and it will then be easy to split the nut with a stout, sharp chisel. If this be done carefully no damage will be caused to the threads of the bolt.

### Easier Starting.

Although the effort needed at this time of the year to start the engine of a car is small in comparison to that needed in cold weather, yet quite a considerable strain is placed on the battery if the electric starter is relied upon frequently to turn the engine over when

The effort needed to turn the crank-shaft may be reduced if the clutch be disengaged while the starter button is This relieves the starter of pressed. the necessity for churning up the oil in the gearbox, consequently greater turning effort is available at the engine

crankshaft.
This should also be borne in mind when the starting handle is used; the clutch pedal may be kept depressed with a stout piece of wood placed between the pedal and the steering wheel.

### Rapid Gear Changing.

Upward gear changes on Morgans can be made more rapidly by fitting an ignition switch near the gear lever. This magneto cut-out control should be operated when the gear lever is being shifted to the "top" position, when it will be found that owing to the reduced speed of the engine with respect to that of the road wheels the gear dogs will engage more easily than when the throttle control is relied upon to slow the engine.

The cut-out switch can actually be fitted on the gear lever if desired, when the combined operation of declutching, shifting the gear lever and cutting out the magneto should present no particular difficulty. The ignition switch should not be brought into operation for downward charges, of course, for it is then not desired to slow down the speed of

the crankshaft.



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

F.G.E. (Nottingham).-The drive of the Duplex car, now out of production, is of the spiral bevel pattern.

(Teddington) .- Blackburne engines were fitted as standard to Bleriot-Whippet cyclecars; spare parts may still be obtained for the engine from Burney and Blackburne, Ltd., Atlas Works, Bookham, Surrey.

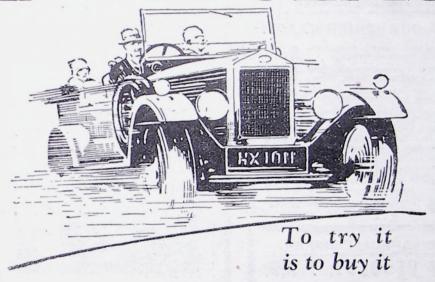
E.P. (Hailsham) .- Provided that the speedometer cable is not taken round many sharp corners the efficiency of the drive will not be reduced. Sweeping curves, however, do not affect the working of the connection, and provided that the inner cable is kept well lubricated the curvature of the casing will not affect the length of useful life of the drive.

(Shoreditch) .- The correct tyre inflation pressures for Singer Senior saloon cars should be 28 lb. per sq. in. for the front and 30 lb. per sq. in. for the back tyres.

C.H.A. (London, N.) .possible to convert your Dixie magneto to a dynamo only if it is not of the stationary armature type. Conversion of this nature can be carried out only in a magneto having a rotating arma-ture by stripping the windings and rewinding with, say, 24-gauge enamelled wire to the full capacity of the armature.

P.N. (Leyton).-The oil filter gauze will in time collect small pieces of dirt which, if not removed, may eventually which, it not removed, may eventually find their way into the sump. We recommend that you shake the filter in a bottle containing a little paraffin, subsequently drying the gauze and replacing it in the filter body. You will find that the body of the filter in your Coventry Simplex engine screws into the sump and is detached by undoing the small nut at the end of the casing.

# SUPREME IN THE F11-TAX CLASS



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O car coming within the £11 tax class offers you such value as the 11.22 Wolseley. The quality policy which has made the Wolseley world renowned for the past quarter-of-a-century guarantees this fine small car. To try it is to buy it. Price £215 for the open car, £300 for the Saloon. Also obtainable by hire-purchase; write for terms and catalogue.

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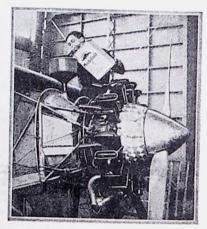
### AROUND THE TRADE.

David Moseley and Sons, Ltd., Chapel Field Works, Ardwick, Manchester, advise us that H.R.H. Prince Henry has especially stipulated that Float-on-Air upholstery is to be fitted to his new Sunbeam ear.

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Occasionally we hand a bouquet to one of our advertisers. Lea and Francis, Ltd., surely deserve one for the very high standard of their advertisement "copy" and "layouts." A reader writes to say that they make him "long to buy a Lea-Francis car."

An interesting and amusing folder has been issued by the Alvis Car and Engineering Co., Ltd., describing the "terrible fate which befell the man who did not buy an Alvis." The nine little verses have illustrations of a humorous nature, and copies of the leaflet can be obtained from the above-mentioned concern at Coventry.



Colonel Lindbergh's monoplane, "Spirit of St. Louis," being replenished with Mobiloil "B" at Le Bourget Aerodrome.

Demonstrations of the Brooks Super Sparker and magneto tester are being given by the inventor in many large towns. Light car owners will thus have the opportunity of verifying for themselves that the claims made for this device are fully justified. Demonstrations, we learn, have already been given at Blackpool, Bradford Leeds, Manchester and Southport.

We learn that Johnson Neal, Ltd., 40, Conduit Street, W.I., well known some two or three years ago as distributors of De Dion Bouton cars, and who subsequently amnleamated with De Dion Bouton, Ltd., have now been reformed and have recommenced business with show rooms at the above address. Mr. Theelke, for many years associated with De Dion Bouton, Ltd., as sales manager, has joined the board.

Owners of Rover Nine cars numbered from 53,001 enwards are now provided for in the Rover garage chart. A previous issue of this chart covered cars up to this number and met with much appreciation from Rover owners, and the response to a paragraph which appeared in these columns a few weeks ago was highly satisfactory. The charts are supplied free of charge and can be obtained by sending a stamped addressed envelope to the Rover Co., Ltd., Publicity Dept., Meteor Works, Coventry.

The advertisement columns of Lamb's, Ltd., contain some striking examples of how any make of car can be bought on very convenient deferred payment terms. This concern also has an after-sales service for their customers which they claim to be one of the finest in London. Would-be owners are invited to visit their London premises at Wood Green or Walthamstow to view their stock of cars and to see how easy it is to become a motorist if they buy "Lamb's Way."

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