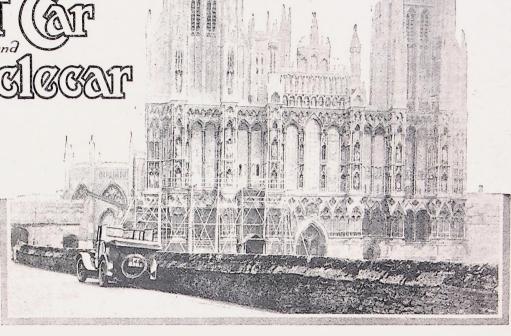




ONE OF ENGLAND'S MOST BEAUTIFUL CATHEDRALS.

The west front, Wells. The first church on this site was founded in 704, but it was not until two centuries later that a cathedral was built.



# NOTES, NEWS & GOSSIP The WEI

#### Petrol Prices.

Owing to an arrangement between the combine and non-combine companies, it is possible that a rise in the price of non-combine petrol may be announced this week. The combine concerns will probably follow suit in due course.

#### Tuition for Drivers.

Courses of instruction for owners and drivers of cars have been for many grans a feature of the work of the Borough Polytechnic Institute, London, S.E. (tube station, Elephant and Castle). The new course will commence on Monday, January 7th, 1929. Lectures are given on Monday and Thursday are stated to the state of the stat Thursday evenings during twelve weeks, while practical work on one evening per week, if desired, affords the opportunity of opening up and re-erecting engines and other components.

#### This Week,

Inevitably at this time of the year folk who motor more for pleasure than for business ask themselves whether or not it is worth while renewing their ear licence for the first three months of the New Year. It is, perhaps, quite natural to think that public convey-ances and so on will be handier, more convenient and less trouble, but we hold the view that, despite the three arch enemies of the motorist, namely arch enemies of the motorist, namely, fog, floods and snow, motoring is worth while, and in our centre pages this week we endeavour to vindicate this view. Owners of closed cars are referred to an interesting article showing how rattles and squeaks-often the bugbear of closed cars of the cheaper kind-can be eliminated.

#### ON OTHER PAGES

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LIGHTING-UP TIMES, Salurday, December 8, 1928. London . 4.20 Edinburgh . 4.7 Newcastle . 4.7 Liverpool . 4.22 Birmingham 4.21 Bristol . 4.30 Moon New, 12th.					

#### Scottish Road Improvements.

If appropriate grants from the Road Fund can be obtained, road improvements in East Lothian will shortly be started.

#### Developments Anticipated.

The fusion of the Hillman, Humber and Commer concerns which was unanimously approved by the share-November 28th. may have even more far-reaching results than was at first anticipated. In the course of a spirited speech one of the shareholders who was present it the meeting declared that he foresaw the time when there would be a powerful group of motor concerns in Coventry which would produce cars more economically than was possible by the present individual methods.

#### New Rover Director?

At the 23rd ordinary general meeting of the Rover Co.. Ltd., which takes place on Monday next, the shareholders will be asked to sanction the increase of the maximum number of directors from six to seven with the object of enabling Col. Frank Searle to have a seat on the board.

#### Fiat Wins Championship.

Having obtained the greatest number Having obtained the greatest number of successes, the 9 h.p. Fint (Model 509) has won the 1.100 c.c. Italian Championship for 1928. Recently this car gained a similar award in Switzerland where, incidentally, it has held the championship for two consecutive years. Further laurels have been added to those already gained by a number of to those already gained by a number of first awards obtained in the San Remo Rally, the Concours d'Elègance at Ferrara, Italy, and the Concours d'Elègance at Turin.

#### Next Week.

Interest in the possibilities of six-wheeled light cars has been reawakened by the introduction of an experimental 7 h.p. six-wheeled Austin, of which ex-7 h.p. six-wheeled Austin, of which exclusive details are given on page three of Notes, News and Gossip, and next week we shall investigate the advantages and drawbacks—the former greatly outweigh the latter—of six-wheeled cars. In the same issue we hope to include the second article of eur series "Light Cars of 1929 Reviewed in Detail," referring to the Austin Seven; the car will be dealt with Austin Seven; the car will be dealt with on the same lines as the 10 h.p. Swift with which the series opened last week.

Colocar

#### Chief Constable's Advice.

In acknowledging a presentation made to him recently on his retirement, the Chief Constable of Carlisle told policemen to "beware of being overzealous and meddlesome.

#### For African Tourists.

The Royal East African Automobile Association has now issued road reports, contour maps and profile maps covering the Eldoret-Busia, Busia-Kampala and Mombasa-Tanga roads. The headquarters of the association are at Nairobi.

#### Shillingford Bridge.

The R.A.C. warns drivers to exercise the utmost caution in crossing Shillingford Bridge on the Oxford-Reading road. The bridge is now being reconstructed and, while the work-which is likely to take from four to six months—is in progress there will be room for only one line of traffic. Danger signals have been erected and a man is stationed on the bridge to direct traffic.

#### Indignant Quarry Owners.

In the House of Commons recently the Minister of Transport was asked what response he had received to his circular letters addressed to local authorities in which he urged upon them the desirability of using British road material. In his reply, Col. Ashley said that so far as he could judge local authorities had responded satisfactorily to the representations made to them. The National Federa-tion of Granite and Road Stone Quarry Owners asks indignantly: ' How can the Minister of Transport say this in view of the fact that more foreign road stone has been imported into this country during the first ten months of this year than during the whole of 1927?" The first circular letter of this kind was the noted "No. 400" issued by the Minister of Health on May 15th,

#### CAR TYPES CARICATURED.



No. 7. The Home-made Cyclecar.

#### Appreciation.

Commenting on the first of our series of articles, Light Cars of 1929 Reviewed in Detail," a well-known personality in the motor world remarks: In the course of a long experience in the motor trade I have never come across a paper which has dealt in a more thorough or lucid manner with a particular type of car or in a way so calculated to be of real assistance to the average owner."

It is very gratifying to us to know

that the ambition which we had in mind when we planned this series of articles has been, in the opinion of our correspondent, so successfully realized. We feel sure that our renders will agree with the view put forward and we trust that they will co-operate with us by making the series known to their intimate circle of friends who own and run

#### A Neat Slogan.

"Carry the badge and not the burden" is a slogan of the R.A.C. It applies particularly to the assistance which the Club offers to tourists wishing to travel abroad.

#### Road Widening in Wales.

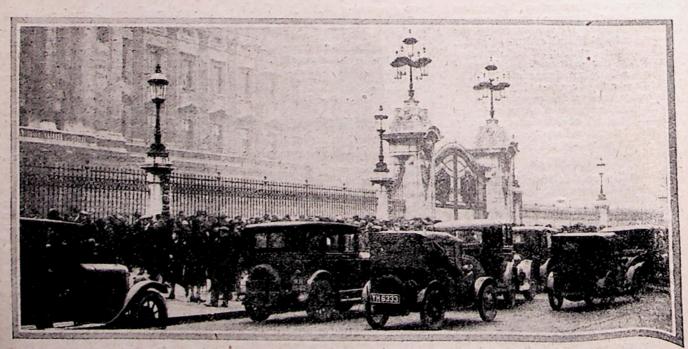
Carnaryonshire County Council has been urged by a conference represent-ing the local authorities of Pwllheli, Criccieth and Portmadoc to widen the Uwllheli-Capel Curig road, which carries 10,000 cars a week and in places is only 13 ft. 6 ins. wide.

#### Wire Hawsers Across Road.

Following representations made by the R.A.C. solicitor arising out of a case where two motorists were killed by a wire hawser stretched across the road for the purpose of hauling timber. the Ministry of Transport now states that the matter is receiving serious consideration. It is hoped that as a result it will be made an offence against the law to obstruct the highway in this

#### Cardigan to Cairo.

The feat performed by Mr. J. Williams, a young Welsh school teacher attached to the Secondary School at Cairo, in driving an Austin Seven overland through Europe, part of Asia, thence to Cairo, has created admiration for both car and driver and has led the Austin Motor Co., Ltd., to record the story of the trip. It makes very entertaining reading, and the point that impresses itself upon us perhaps more than anything else is that during the long and arduous journey there was not a single mishap and no mechanical failure or breakdown; in fact, the only set-back which the traveller met with was one puncture. The narrator of the story concludes justifiably by saying: "This is what an Austin Seven will do in the hands of a good driver."



A NATION'S ANXIETY.

During the course of the King's illness, crowds-increasing in numbers day by day have thronged the area in front of Buckingham Palace in order to read the latest bulletin. motorists stopped, alighted and pressed forward to ascertain His Majesty's condition-

# OF SIX WHEELS. THE POSSIBILITIES Experimental Chassis Sheds New Light on a Very Interesting Problem.

ROM time to time we have disr cussed the advantages and disadvantages of six-wheeled light cars and the commercial possibilities which they possess. Naturally, we were confined to the ortical considerations, as we had no actual data—with the obvious, but nott very useful, exception of large lor ries—to work upon. We have now been able to examine

We have now been able to examine and test an Austin Seven six-wheeler, the adlaptation having been schemed, made up and fitted by Mr. W. D. T. Gairdner, off Salisbury Road, Andover, and we are convinced that the idea has very practical advantages. These lie not only in the direction of a handy form of transmort for goods—and one which, inci-dlentally, sounds the death-knell of the trailer—but in the application of the iiden for passenger vehicles. The out-standing advantages are better braking -- all six wheels are braked—better road adhesion, greater stability—noticeably on corners—and far greater riding comfort

A chassis of this kind could, of course, be fitted with a very attractive caravan body, and it could be used equally well for a van body. As the accompanying photograph shows, in-stead of giving the car an appearance

of being at "sixes and sevens"-an appropriate description, by the way!—
the extra wheels greatly improve its general outline.

The modification shown in the photograph was very simply carried out, the frame of the Austin Seven being merely extended to carry the semi-elliptic spring mountings forming part of the assembly of the third pair of wheels. The rear-wheel centres are 31\frac{1}{4} ins. apart, the tyres being oversize, namely, 27-in. by 4.40-in. Incidentally, the treads show no signs of "scrubbing," and when cornering the steering did not appear to be affected in any way-even on full lock.

By means of T-lugs brazed on to the existing rear brake-operating arms the brakes on the driving wheels are coupled up by cables to those on the trailing wheels at the rear, and a very powerful

braking system results.

The platform is 4 ft. by 6 ft., and has carried a load of 8 cwt. on a trial run, during which 35-40 m.p.h. was maintained over give-and-take roads. It is intended to market this Austin sixwheeled chassis; the price has not yet been settled, but it will probably be in the neighbourhood of £125. Inquiries should be addressed to Mr. Gairdner.

#### All About Tyres.

A paper entitled, "The Tyre as an Article of Manufacture and Usage," to be read at a joint meeting of the Institution of Automobile Engineers and the Institution of the Rubber Industry, promises to be very interesting in view of the deep insight of the author-Mr. Paull-into the problems with which he Paull—into the problems with which he will deal. The meeting takes place on Monday next at the Blackfriars Theatre, William Street, London, E.C.4, at 7.30 p.m. Cards of invitation admitting visitors to the meeting may be had on application to the Secretary of the I.A.E., Watergate House, Adelphi, London, W.C.2.

#### A Safe Cut to Safety.

The acuteness of the western corner at the junction of Vauxhall Bridge and Grosvenor Road, Westminster, makes this one of the most dangerous crossings in London. No fewer than 2,000 vehicles an hour—3,000 during the rush periods—pass this spot, including hetween two and three hundred trams. Through the public spirit of Hovis, Ltd., however, who occupy the corner in question and who have relinquished their lease fifteen years sooner than they need have done and have set back their build-ing line, the situation is being remedied, for the L.C.C. is enabled to proceed forthwith with its widening scheme, without the alternative of paying a stiff price or waiting indefinitely for the necessary facilities. There will now be a clear view for traffic coming from the bridge and making towards the west. Hovis, Ltd., are, moreover, conferring another benefit on motorists: The flats which will be built above their new offices and showrooms, now in course of erection on the site, will have their own private lock-up garages.

#### The "London-Exeter."

Intending entrants in the forth-coming "London-Exeter" are reminded that entries close definitely on Monday next, December 10th. Already in the car classes there are over 70 entries, the majority coming within the 1,500 c.c. limit.

#### Mr. B. S. Marshall.

The condition of Mr. B. S. Marshall, the condition of Mr. B. S. Marshall, the pepular racing driver who has been ill for a considerable time, is still causing anxiety. Our readers, to all of whom Mr. Marshall's name must be familiar, will, we know, join us in wishing him a speedy recovery.

#### Petrol from Coal.

Negotiations are now being concluded between American and British groups with the object of producing high-grade motor spirit from British coal oils by a process which it is hoped "will ultimately make Great Britain independent of imported oils and petrol." Licence to use the process which, it is said, has already proved an enormous success in the United States, has been obtained and a company has been formed for the purpose of erecting suitable plant.

#### The Other M C.C.

When the Home Country team recently beat Queensland by an innings and 17 runs, a London evening paper came out with the news poster "Top Gear—y M.C.C. Result." A happy thought, despite the fact that it is not technically accurate, for "top gear" is not always a criterion of good not always a criterion of good performance.



"HOVIS A much-needed improvement is taking place at "Hovis CORNER" Corner," Vauxhall Bridge, London. (See paragraph above.)

# Motoring Matters in Parliament.

THE Minister of Transport has not A given any encouragement to those members of Parliament who have been asking for a compulsory test of the fitness of would-be drivers of motorcars and motorcycles. Replying to a question by Mr. Louis Smith, he said he had no power to make applicants for driving licences submit to a driving test, and, so far as he was aware, there was no evidence to show that any substantial proportion of motor accidents were due to any want of ability on the part

due to any want of ability on the part of drivers such as would be disclosed by a test of that kind.

The inadequacy of the rear lights which are carried on considerable numbers of both horse-drawn and motor goods vehicles was referred to by Sir John Power, and he elicited the information, that the attention of the formation that the attention of the police is being drawn to this matter by

the Home Secretary.

Another subject to which reference was again made was the danger which arises to motor traffic as a result of the excessive hours which drivers of heavy vehicles are sometimes required to work, causing them to be less alert than they

ought to be.

The Minister of Transport did not give satisfaction on this point. answer was simply that he has no power to regulate the hours worked by drivers of motor vehicles.

#### Disabled Drivers.

During the course of a short speech which he made on the occasion of the closing rally of the Disabled Drivers' Motor Club, Mr. B. H. Austin, the chairman, emphasized the importance—in view of the controversy concerning disabled drivers and the licensing laws -for all disabled men to stand together. He thought that this could be done only by presenting a united front. and he therefore invited disabled

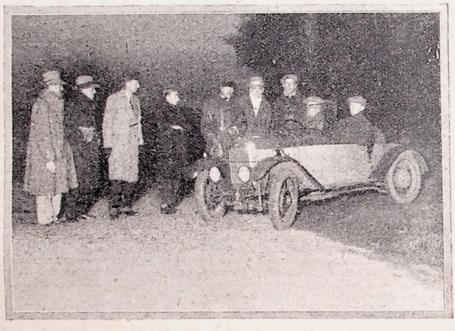
#### Swift Air Cushions.

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In our recent article on the Swift car we inadvertently described the air cushions as of Moseley manufacture. The cushions actually fitted are known as Seaco and are made by the Self-Controlled Air Cushion Co., Ltd., Clifton Street Works, Newton Heath, Manchester.

#### Strenuous Singer Test.

AST Tuesday at ten minutes to Junior Sports model, rated at 8 h.p. and selling at only £140, started off on an attempt to climb the notorious Porlock. Hill one hundred consecutive times. The drivers were E. Wood and E. W. Deely. The car was absolutely standard



THE EARLY A photograph taken just below the first bend of Porlock, preparatory to the start of the Singer test. MORNING START.

#### The Spanish Way.

The chiefs of the Spanish motorcar industry have invited all engaged in this industry to attend a general meeting at Madrid from December 8th to 10th, in order to consider a list of

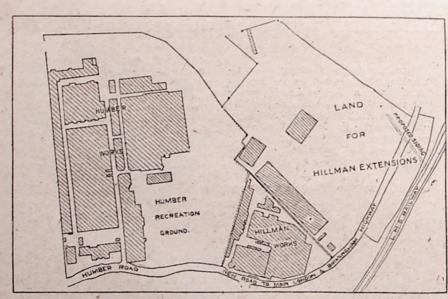
except for bigger headlamps, and the gear ratios were 5.25, 9.7 and 17.9 to 1. Starting from the drive of a house just above the Ship Inn, the car covered on each ascent a distance of about one mile, turning at the top and at the bottom. The fastest lap—that is, one ascent and the subsequent descent-was made in 6 mins, 50 sees. Deely, however, was driving very steadily, with plenty of throttle in hand. The drivers were changed every 10 laps, i.e., 20 miles; 21 laps were covered in the first three bourts and the half distance 50. three hours and the half-distance—50 laps—was covered in 7 hrs. 59 mins. 50 sees. The surface of the hill was very loose, rough and muddy, but the weather was ideal—warm, sunny and windless. The times given above, of course, include all stops for replenish-A wire received on Wednesday morning stated that a hundred climbs had been successfully completed, the time being 14 hrs. 55 mins., and that the car was in perfect condition at the end of the test.

#### Back to the Roads.

It is rumoured that a Mancheston firm will run a London-Glasgow-London road service, starting next spring. The return fare will be in the neighbourhood of 60s., and the journey will take 21 hours.

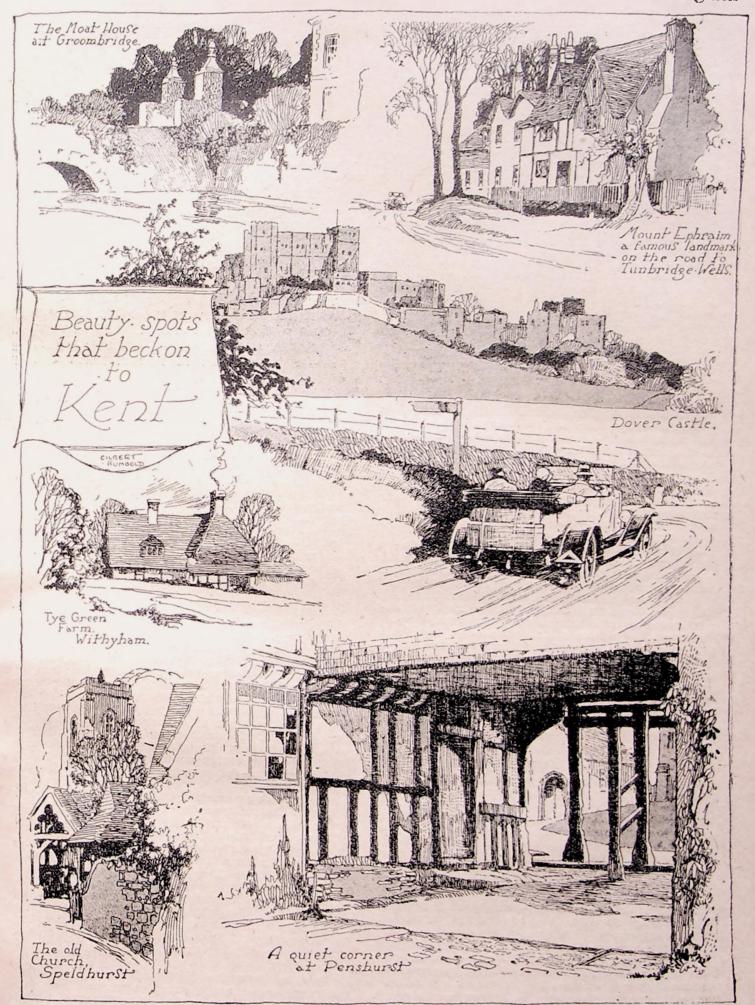
#### £5 Reward.

A platinum and diamond engagement ring was lost—possibly in the ladies' cloakroom—on the occasion ladies' cloakroom—on the briday. ladies' cloakroom—on the occasion the M.C.C. dinner last Friday.
ward of £5 is offered for its recover and all communications should be dressed to J. P. Davis, 81, Middle L. M. S. Middle L. M. S. M. Hornsey, N.S.

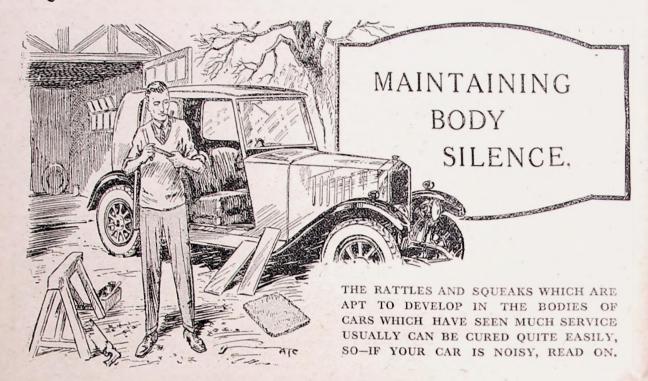


A site plan of the Humber and Hillman works, Coventry, showing the proximity of the two factories. The combine was COMBINE. referred to in a recent issue.

drivers who are not already members of the club to join without delay. Full particulars of the D.D.M.C. can be obtained from the hon. secretary, Mr. P. Brough, "Bradenhurst," Hale Lane, Mill Hill, London, N.W.7. demands to be submitted to the Government. The Spanish industry urge that raw materials are very dear and that the substitution of ad valorem duties for specific duties has done them a great deal of harm.



Winter or summer "The Garden of England" makes its irresistible appeal to the tourist.



NE of the objections which are made against salcon bodies is that they are noisy, or that they tend to accentuate noises which arise from the chassis. In the past this was to a large extent true, but modern bodies themselves are commendably silent, and as chassis also have been refined in recent years there really is very little about which to complain on this score. It is not everybody, however, who owns a comparatively new car, and, therefore, it will be helpful to suggest what may be done in the way of overcoming some of the noises which occur in older cars.

Roof drumming is a trouble which is, perhaps, rather difficult to cure, because it may be caused by an inherent defect in design. In any case, it will be necessary to strip off the interior roof covering and then to support the main roof with additional struts of timber or blocks glued into position, which is scarcely a job to be undertaken by the average owner-driver.

A prominent source of rattles in older cars is ill-fitting doors, due, perhaps, to shrinkage of the timbers, or to straining. If the door is secured only by an ordinary slam-type lock, wear may cause the door to move slightly in the opening and closing directions, thus causing the lock to "chatter" against the striking plate. Refitting the plate so that it remains in permanent contact with the lock plunger when the door is shut often is sufficient to cure the trouble.

#### Packing Door Hinges.

In some cases, however, it may be necessary to shift or even to pack out the hinges. Suitable packing can be made from thin three-ply cut to the correct shape and drilled with holes large enough for the hinge screws to pass through easily. If it is necessary actually to alter the position of the hinges the existing holes must be plugged with hard wood and the screws reinserted in the new position, which will, in most cases, be very close to that which they occupied originally.

Sometimes doors tend to drop, due as a rule to their being used as supports when opened by ignorant or careless passengers. Thus, when the doors are shut, their lower edges chafe against the sill board and set up an annoying creaking sound. Quite often this can be cured by packing out only the lower hinge so as to throw the door upwards slightly, but as a rule it is best to fit a rubber door stop. If the rubber be cased in a wedge-shaped metal housing it can be arranged so that the door is lifted a little when it is closed and, of

course, it is then held rigidly by the wedge and prevented from rattling by the rubber. Dealers in coachbuilding accessories carry a very varied stock of door buffers, and it is always possible to find one suited to the job in hand. Incidentally, these fittings are very inexpensive.

Sometimes, when all clse has been made secure the door handles themselves rattle. This is caused as a rule by the loose fit of the square shank of the handle through the hole in the lock. There are various methods by which the play can be taken up, the simplest—of a rather rough and ready nature, perhaps —being to remove the handle with its shank and to knock up projections on the squared pertion by means of a hammer and centre-punch.

#### Tightening Lock Handles.

If the play is considerable, however, it may be necessary to get a larger section shank, or to solder a strip of metal on to one or more sides of the existing shank. Usually the shank is formed integral with one of the handles, the free end of the shank being rounded and threaded to take a nut which clamps the other handle in place. If there is end play in the handles, when they are assembled in the lock, the squared portion of the shank can be cut back and the thread extended to suit. This will ensure that the handle goes on a little farther. An alternative plan is to put a light Thackeray spring washer—this is one of the double-coil type—between the handle and the escutcheon plate.

The foregoing remarks relating to door locks apply only to the normal type; the special locks fitted to Weymann bodies should not be interfered with by amateurs.

As a general rule sliding windows work in felt-lined guides, which sometimes perish and allow the windows to rattle. The cure in this case is obvious. New felt must be fitted to the guides, or, alternatively, new guides complete must be fitted to the body.

Windscreens seldom show much tendency to rattle, provided that the clamping devices are properly screwed up. If, however, in spite of tight clamping, there is still a rattle, it should be remembered that much may be done by the careful fitting of suitable rubber stops.

On some cars the floorboards have a distinct tendency to rattle, and to cure this owners often screw down the boards, only to find that the rattle then becomes transformed into a squeak, due to the friction set up between the board and the runner to which it is screwed. If the depth of the runner ledge will allow it, a strip of felt glued on between it and the board will be an alternative cure for both rattles and squeaks, but, failing this, it is sufficient, as a rule, to apply graphite grease to the opposing surfaces.

A floorboard which needs to be lifted fairly frequently in order to get at greasing points or for brake adjustment becomes a nuisance if it is screwed into place, but it can be held down quite effectively and removed easily if small turn-buttons are fitted. These should be let into the board so that they do not project above the general surface, and screwed down sufficiently tight to prevent them turning under vibration.

Weird tappings which occur at unexpected moments can often be traced to unsupported strangler control wires or oil-gauge pipes hitting against some adjacent part, but because the noise does not occur regularly it often is very difficult to discover its origin. When discovered, however, the cure as a rule is easy; the vibrating part can either be stayed with a clip or bound with insulation tape.

#### Petrol Tank Noises:

Often an annoying creaking will be set up by a dash-mounted petrol tank. Unfortunately, however, even when the cause of the creak is known its cure remains difficult simply because as a rule tanks mounted in this position are extremely inaccessible, it being necessary in many cases to dismantle not only the facia-board and switchboard, but also the steering column, before the tank can be removed.

The common method of securing tanks in place is to use flat metal bands with rounded and threaded ends, which pass through the dashboard and are clamped by nuts and washers. Mere tightening of the nuts will not always prevent the creaking which is caused by the front portion of the tank moving against the dashboard. The proper cure is to interpose a strip of felt between the tank and the board, but the problem is how to get the felt into position without going to the trouble of dismantling.

With a little patience, however, it is sometimes possible to do the trick by first slacking off the securing straps and then guiding the felt into position by means of stiff pieces of wire. Unless the straps are already faced with felt it is a good plan to slip strips of this

material between them and the tank on the principle that prevention is better than cure.

The actual mechanical noises set up by the engine or transmission are, of course, difficult, if not, indeed, impossible, to cure, and the tendency of a saloon body to accentuate them cannot be denied. Much of the noise can be deadened, however, by lining the under sides of all the floorboards with fairly thick felt and by using heavy mats on the floor. All slots communicating with the underside of the car, that is, those through which the pedals pass and so forth, should be closed up as much as possible, and care should always be taken to see that mudguards, running boards and so on are properly secured and incapable of rattling.

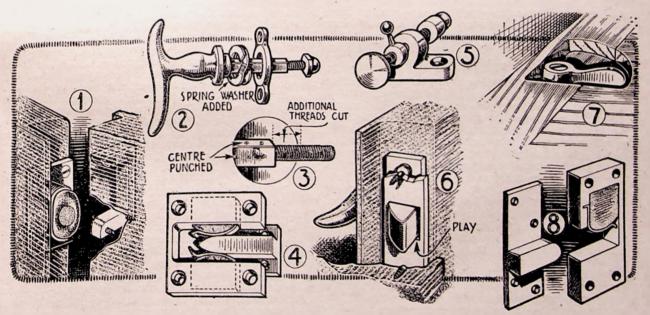
#### Curing Bonnet Rattles.

In the case of mudguards it is a good plan to insert strips of leather or woven canvas belting between the brackets and the guards, but no attempt should ever be made to strain either the bracket or the mudguard into position; the various bolt holes must line up naturally. When a bonnet begins to rattle it is a sign, as a rule, that the packing upon which it rests is either worn away or displaced.

Ordinary lamp wick of the correct width forms very suitable packing and it is easy to thread through the slots in the radiator flange. It is a good plan to coat the wick with tallow or with graphite grease. As an alternative to lamp wick, special rubber packing pieces, obtainable at most garages or accessory houses, can be used; they are made in various shapes and have shanks formed on them which enable them to be fitted easily to the radiator flange without the use of an adhesive or special tools.

Whether or not the packing is in good condition a bonnet will still rattle if the securing clips do not hold it tightly. These, although of various patterns, are usually spring-loaded and sometimes it is necessary to renew the springs—a job which is by no means either difficult or expensive.

When all the foregoing points have received attention, the car, if it be in reasonable condition, should be commendably silent; at this point, therefore, it will not be out of place to mention the old joke about the man who made his car so silent that when driving he found it necessary to stop his wrist-watch because its ticking annoyed him!



ANTI-RATTLE DEVICES.

This group of sketches shows (1), (4) and (8) various forms of anti-rattle buffer for fitting to car doors. Each type is quite effective and its choice can be governed by convenience of fitting. (2) The position for fitting a spring washer to take up end play in a handle. (3) How the handle shank can be expanded by centre punching and re-threaded (see text). (6) Where play develops in an ordinary striking plate. (7) A turn-button for holding down the floorboards.

# Rocky Spots in Yorkshire

Depending for their attractions as much on rocks as on foliage, many of the famous Yorkshire beauty spots retain a large measure of their charm during the winter months and form ideal objectives for runs at this time of year.

OCKS and motoring appear incongruous, but it is curious how many places possessing attractions for the motorist in Yorkshire have rocks as their main feature of interest. Here, there and everywhere, from towering Ingleborough to the Flamborough cliffs, from Rosebery Topping to the Derbyshire border, there are rocky places, some of them awe-inspiring, others full of technical interest to the student of geology and the expert in search of specimens.

There is a quarry not far from Bolton Abbey which has been visited by geologists from far and near to see the curious contortions of the strata, cut into by the quarrymen getting limestone. Ingleborough is one great mass of rock of one sort and another, piled course upon course and representing various geological periods.

At Norber, near Austwick, a few miles from Ingleton, there is a small area which is literally a wonderland of nature. Here great boulders of grit have been moved by a giant's force and are left perched on blocks under which one can almost creep. The grit boulders rest upon the softer limestone, and with the action of the weather and storms the limestone has been worn and washed away, leaving the boulders in the air as it were. The boulders were brought there when glaciers moved down the Ribble Valley and were carried with the great accumulations of ice which gathered.

#### Ebb and Flow Well.

Buckhaw Brow, which is a two-mile-long hill, with a maximum gradient of 1 in 9, is well worth visiting on account of the magnificent panorama to be seen from the top as one looks back towards Settle. On the left is Giggleswick Scar, over which many people saw the eclipse of the sun last year. The sudden break in the rocks is the line of the great Craven Fault, which runs practically on the line of the road. The layers of the limestone on the higher side of the road are resumed at a great depth on the right under the surface, so immense has been the movement of the earth's crust at this spot. Somewhere hidden among the rocks of the limestone is a curious natural syphon which causes the ebbing and flowing of the well at the bottom of the Brow at which many motorists stop.

Equalling Buckhaw Brow in its majesty is Kilnsey Crag, in Upper Wharfedale, where the limestone towers up above the road and overhangs the field in some places. It used to be the custom for visitors to attempt to hit the rock with a stone from the road, but the distance is greater than it appears and it needed a sturdy right arm to accomplish the feat. A skimming penny was accounted to be the best missile. Nowadays visitors are requested not to throw stones.



Hebden Falling Rock, which is steadily leaving the face of the cliff and may one day tumble down the hillside into the valley below.

Although perhaps the best known, Kilnsey Crag is not the only rock wonder of Wharfedale. Just across the valley, above the village of Conistone, is what Is almost an exact replica of the Giant's Causeway in Ireland. Higher up the valley, at Starbottom, on a plateau overlooking the village, is a curious collection of rocks known locally as "The Cemetery," with limestone piled up in fantastic heaps, which the imaginative liken to animals and other objects. It is said that this was the work of a local man who had a curious hobby of arranging the boulders in this form.

At Hebden, near Grassington, a great rock is falling away from the cliff and will at some time roll into the valley below. The fissure between the rock and the cliff has grown perceptibly wider in the memory of present-day residents in the village.

#### Romantic Legends.

Isolated rocks to be seen from afar all have legends of old time fire worshippers associated with them. This is the case with the Druid's Altar Rock, overlooking the Aire Valley, near Bingley, where, it is said, the ancient Druids made their sacrifices. The Cow and Calf Rocks, overlooking Ilkley, easily reached by car from Ilkley or Burley, have many legends associated with them. Simon's Seat, overlooking Bolton Abbey and the Woods, is another great pile of rocks, and from here the become blazed in olden times.

and from here the beacons blazed in olden times.

Some rocks have supernatural legends associated with them. The Hitchin Stone, above Sutton-in-Craven, a great isolated boulder, is said to have been thrown from the top of Rumbalds Moor on the opposite side of the valley. The stone has a hole running through the whole length of it, about 24 feet.

In some places nature appears to have played a strange game and been in a whimsical mood, as for instance at Brimham Rocks, situated in the triangle formed by Ripon, Harrogate and Pateley Bridge. Here, overlooking the beautiful Nidd Valley, is a spot where nature has followed a fantastic whim and left us to wonder at the results. Rocky shapes, which it requires scarcely any stretch of the imagination in which to see likeness to many objects, are scattered about over an area of sixty acres. So delicately poised are some of the rocks that it is possible to set them swinging. A guide may be engaged for a few coppers to take parties over the ground and point out the best sites to identify the curious shapes. First we have the Wishing Rock, then the Oyster Shell Rock, the Mushroom Rock, the Druid's Idol, the Parson's Head, the Druid's Writing Desk, the Dancing Bear and a host of others. Here a very interesting afternoon may be spent.

A little nearer Harrogate, near a by-road which leaves the Otley-Harrogate road at Rigton, is Almscliffe Crags, an ideal picnic spot in fine weather from which a delightful view of the surrounding country may be obtained. Plomton Rocks, near Knaresborough, is another noted place of resort, while not far away are those great stone mysteries, the Devil's Arrows,

at Boroughbridge. The theories regarding the origin of the Arrows take us back to prehistoric times when man worshipped the sun.

But for sheer majesty of scenery there is little to exceed the great inland cliffs, Malham Cove and Gordale Scar, both near the pretty little Yorkshire dale village of Malham. From under these two great cliffs the streams which form the headwaters of the River Aire emerge. Malham Cove rises nearly 300 feet and is nearly a quarter of a mile across. The face of the cliff maintains the whiteness of pure lime-stone. Some years ago it was proposed to turn a stream over the top of the Cove instead of allowing it to sink into the limestone, as it does in all except the wettest weather, but this unnatural waterfall did not appeal to many people although it would have provided one of the finest sights in the country.

#### An Impressive Sight.

Gordale Scar is little more than a mile away, and to many people it is more impressive in its solemn majesty than Malham Cove. The cliffs here are divided. A cascade foams down between the cleft in the rocks and in dry weather it is possible to climb to the top and then wander along to Malham Tarn, a fine sheet of water noted for the excellent sport it provides for those who are able to get permission to fish in it.

These are but a few of the rocky places available to Yorkshire motorists, but all can be reached by car. In some instances it may be necessary to leave the car and walk a short distance before the full magnificence and grandeur of nature's architecture can be fully appreciated, but among the rocky places of Yorkshire are some of the most impressive scenes in the whole of England.



#### RUGGED BEAUTY.

(Top, left) The Cow and Calf Rocks on Ilkley Moor; a magnificent view may be obtained from the top of these rocks on a clear day. (Above) Known as the Druid's Idol, this queershaped formation is one of the many curious specimens which go to make up Brimham Rocks. (Left) Kilnsey Crag, in Wharfedale.

Hun

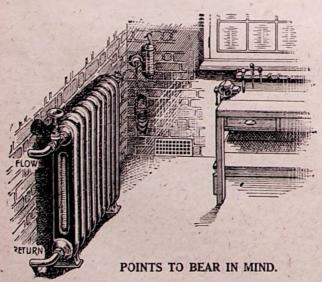
Hun Hun Hur

Jack



HERE are several good reasons why home garages should be heated—at any rate, during those cold snaps which are experienced at this time of the year. The most obvious, of course, is to prevent any possibility of trouble caused by the freezing of the water in the engine cooling system. True, this can be overcome quite easily by draining the radiator overnight; but only the most conscientious and painstaking of drivers do this systematically, and frequently it is merely making assurance doubly sure because if a car is use every day there is—in the absence of a very sudden and unusual drop in temperature—little chance of the water freezing in a closed garage in a single night.

For all that, folk who own and look after their own



If it is possible to install a radiator working off the domestic high-pressure water boiler, fix it as close as possible to the boiler. Electric light or power points should not be arranged at floor level, but air bricks should be as low as possible.

cars often suffer anxious moments when, looking out of the window first thing in the morning, they see the ground white with hoar-frost or notice a coating of ice over their rain-water tub.

The second reason why the temperature of a garage should be raised is 10 keep it dry and thereby prevent the rapid formation of rust not only on parts

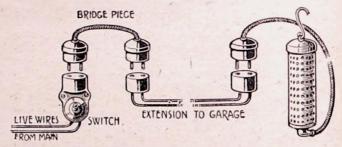
HEATING THE :: :: MODERN GARAGE.

AN ARTICLE OF TOPICAL INTEREST AT THIS TIME OF THE YEAR.

Many people are concerned only with the necessity for guarding against the cooling water freezing. There are other reasons why a garage should be warmed as the writer shows. Alternative methods of heating are also discussed and explained.

of the car which it may attack, but on garage fittings, tools and so forth.

The third reason is one which should be better appreciated; it is because with a heated garage starting up in the morning is much easier—which means that there is less mechanical and electrical stress on the working parts of the motor, whilst far less energy is taken out of the battery. It should be remembered that the initial torque required to move the flywheel puts a load on the battery which is vastly out of pro-



A simple way of extending the wiring from a power point in the house to a power point in the garage. When disconnected the extension wires are "dead."

portion to any other load it has to bear and that it is far greater than the energy which a battery has to supply when starting up the engine when warm. A new battery is an expensive item, and the cost saved by not overloading it may well be credited to any system of heating which may be adopted.

any system of heating which may be adopted.

The final reason why a garage should be warmed is because it will enable one to work on the car in the garage instead of neglecting jobs which really require doing—the excuse being "Ugh! it's too cold!"

We have emphasized the advantage of having a warm engine first thing in the morning; it is, perhaps, one of the most important considerations of all, and, needless to say, it is fulfilled in a simple manner by the use of some form of local heater.

Up to a short time ago these were confined solely to lamps, the source of the heat being either liquid fuel or electricity. These lamps can be obtained nowadays in an improved form, and in the meantime a development of great interest is the introduction of heating elements which are actually immersed in the cooling water.

No matter what the type of local heating apparatus, however, it is advisable to conserve the heat as much as possible, either by the use of a good radiator mult or by throwing a rug over the bonnet and draping it at the front so that it protects the radiator.

The majority of these local heating lamps are very economical in use. Those burning paraffin or petrol are, of course, the cheapest, but electric devices are much handier and probably give off more heat. The average current consumption is about one unit in ten hours, and if current can be obtained on a power

Little Local Local Lo Local Lo Local Local

Lig

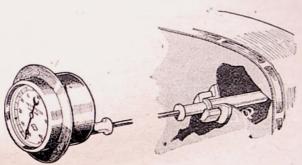
THE Light (ar Celecar

rate basis this means that in districts where electricity is fairly cheap it costs about 1½d, to keep the

electric heater going all night.

Most modern lean-to brick garages are equipped with one or more electric "points," but, as a rule, these are connected with the lighting circuit, and in a case of this kind it pays to run wiring from the nearest power point in the house: this point, however, must on no account be used for lighting purposes.

A convenient method of extending a power point is to run twin lead-covered cables from a power socket



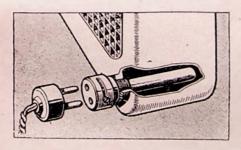
A facia-board thermometer connected direct to the radiator is a useful guide when direct heating is used in the garage in winter.

fixed on the wainscotting about two inches away from the nearest live power socket. The latter nearly always incorporates a tumbler switch. The other end of the extension terminates in a second socket fixed

to the garage wall.

This extension wire with its power socket at each end is normally absolutely "dead." When it is required to "switch on" to the garage, a short length of suitable flex with a plug at each end bridges the gap from the mains socket to the extension socket. The writer has had an arrangement of this kind in operation for a couple of years, and it has worked remarkably well.

If one's garage is large and commodious and boasts of a useful work bench, a proper heating installation is well worth rigging up. In nine cases out of ten the garage and the kitchen of the house are side by side, and this greatly simplifies the task, for the flow and return pipes of the high-pressure heating system used for domestic purposes can often quite conveniently be tapped and a radiator of suitable dimensions installed in the garage. The radiator should, of



# ALTERNATIVE METHODS OF HEATING.

(Above) The Russ electric heater, which screws into the radiator in place of the ordinary drain plug. On the right are shown several forms of heating for the garage. They are: (1) Balance gas heater (Davis Gas Stove Co., Ltd., Oxford Street, W.1). (2) Horseshoe (C. P. Kinnell and Co., Ltd., Southwark Street, S.E.1). (3) Electric radiator (General Electric Co., Ltd., Kingsway, W.C.2). (4) Allnight (Jones and Attwood, Ltd., Stourbridge). (5) Carbotron (C. A. Peters, Ltd., Derby, and Automobile Palace, Ltd., Llandrindod Wells).

course, be controlled by a stop valve so that the garage heating system can be cut off when not required.

For a normal one-car garage a radiator made up of about six units should be quite sufficient. In the case of a large garage housing perhaps two or even three cars, a heating installation similar to that used for hothouses is very advantageous. The slow combustion stove must be outside the building, but it can be secured to the wall of the garage so that the feed pipes from the boiler are as close as possible to the radiator inside the building. Alternatively, of course, pipes similar to those used in hothouses may be employed, but these tend to narrow the useful inside dimensions of the garage.

For several years now slow combustion stoves using special fuel have been on the market. They are entirely self-contained and have the advantage that they can be placed anywhere in the garage with perfect safety. Where general heating is required this is, perhaps, the most simple and the cheapest way out

of the difficulty.

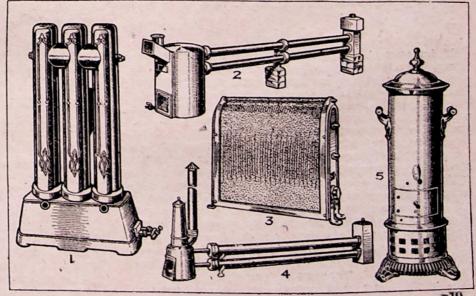
They represented the first serious attempt to provide a self-contained and portable installation for heating a garage, but during the past few years several new systems have been introduced, two of them—illustrated below—using gas and electricity respectively as the source of heat. The question naturally arises "Are heaters of this kind quite safe?" The answer is that no manufacturer would be so bold as to market them if there were the slightest risk in their use. Needless to say, obvious precautions with regard to petrol should be taken.

#### Need for Adequate Ventilation.

The need for adequate ventilation should not be overlooked, especially when a general heating system is installed. In a cold, unventilated garage with loose petrol about it *might* be safe to strike a match 5 ft. or so above the floor but if the garage were heated and the same conditions prevailed, an explosion might easily result. No one is advised to try the experiment under either of the conditions which are mentioned here merely to emphasize the point. A well-ventilated garage, even if heated, is fairly safe.

The danger where an electric heater is used is, of course, one which cannot be overlooked but it can be guarded against by periodical inspection of the flex—especially where it joins the heater and the wall plug—to make sure that the wire has not frayed.

Ventilators should be placed at ground level. Petrol fumes are heavier than air, therefore they descend. If there is a gentle cross current of air at ground level fumes will not accumulate and the danger to which we have referred will be practically non-existent.





A MOTORIST who has no car of his own and cannot always persuade his friends to lend him one, is frequently compelled to hire, and it should hardly be necessary to point out that this is a risky thing to do from any but a good garage or one well-known to the hirer. Cars which are let out on hire without a driver do not always receive too kindly treatment from the numerous folk who use them. As a result, some garage proprietors do not let out very satisfactory cars and many an unfortunate hirer has accordingly found himself stranded. In such cases, however, it may well be that he will have a legal claim on the owner of the car for the damage and inconvenience he has suffered.

In default of agreement to the contrary, there is an implied term in a contract of hire that the article hired is reasonably fit for the purpose for which it is required, and, if it turns out to be otherwise, the hirer will have a right of action against the man from whom he hired it for any damage that was a natural consequence of the defects in the car. Thus, if A hires a car from B at Cambridge and tells him he wants to go to London and back and the car breaks down on the way back owing to mechanical defect and through no fault of A, the latter will be able to claim from B the extra expense to which he is put—such as train fares, hotel bill, garage charges and the like. In addition, he is entitled to some reasonable amount for the inconvenience he has suffered, although this would depend upon the circumstances of the case.

#### Financial Losses.

If, however, A had told B before taking the car away, that, if he did not get back to Cambridge that night, he would lose, say, a £20 contract, B would be liable to make up to A the amount he had lost in consequence of the breakdown of the car. In any case, of course, the breakdown must be the result of mechanical trouble and not due to an accident. A hirer is entitled, in default of agreement, to have any repair reasonably necessary done to the car en route and to charge the owner with the cost.

Many laymen are of the opinion that unless a contract is put in writing it is not binding on either party, and some even think that a contract can exist only if it is in writing. This impression is altogether wrong. There are certain contracts which have to be in writing, but a contract of hire is not one of these, and, in fact, there are many more contracts which need not be in writing than there are that need be.

So, when A goes to B's garage and says "I want to

hire a car for the day" and B says "All right, the charge will be so much," to which A agrees, an enforceable contract is created. The only contract for hiring which need be in writing is one for hiring for a period of more than a year.

Naturally, under a hiring agreement, whether verbal or in writing, the hirer also incurs liabilities. He has a duty to treat the car in a reasonably careful manner, and he will be liable to the owner if the car is damaged or lost through, or partly through, his negligence. He will, of course, be liable as well to any third party whom, or whose property, he injures through his negligence. On the other hand, if the car is stolen,



Only the actual hirer may drive the car. If he allows a passenger to drive he will not, usually, still be covered by the insurance policy.

damaged, destroyed by fire or in any other way, the hirer will not be liable, provided he can show that the loss or damage was through no fault of his own.

The foregoing are the main rights and duties of hirer and the man who lets out the car on hire in default of agreement to the contrary, but it is, or course, open to the parties to enter into an agreement

on any terms varying or excluding these rights or dutices. Frequently the owner has a written form of agreement which contains the only terms on which he will let the car out on hire. An agreement of this kind must be carefully read before it is signed, for otherwise the results may be unfortunate to the hirer.

Iff, for instance, there were a clause in the agreement whereby the hirer agreed to return the car in the same condition as it was in when he took it out, reasonable wear and tear excepted, he will be absolutely liable for anything that happens to it, even if he were in no way to blame. No motorist should hire a car on these terms without insuring against such a risk. If he cam prove that an accident was caused entirely by the gross negligence of 2 stranger he will still be liable to the owner for the damage done to the car. He will, incleed, be able to sue the stranger, but the latter may noot have any money, and, even if he has, an action at law is often an expensive luxury, even to the successful party.

Different owners will insist upon different terms, and while the clause just mentioned may not be part off the agreement there may be others of a similar nature. There may even be a term by which the owner expressly disclaims any liability for breakdown due to mechanical defect, and, if the hirer accepts the aggreement on these terms, he may find himself stranded and have to incur considerable expense without being able to claim it from the man from whom hie hired the car.

#### Insurance Risks.

Many firms who let cars out on hire insist upon the car being insured, but, even when this is not insisted upon by the owner of the car, the hirer will be extremely unwise not to insure against third party risks. A motorist, who drives a car without being insured against the claims of third parties, is asking for trouble. It may need only very slight negligence on his part to make him liable to a claim of hundreds or even thousands of pounds damages. It often happens that a third party is injured owing to a collision between two cars.

It may be that one of the drivers was the chief offender, but the injured man will be able to recover the full amount of his damage from either or both of the drivers if he can show any negligence on the part of either driver contributing towards the accident.

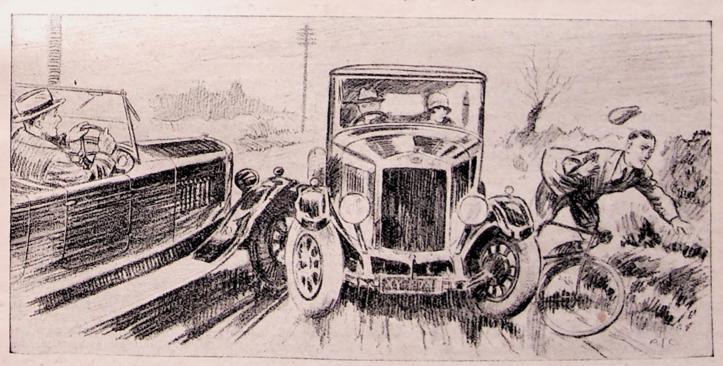
The damages are not apportioned according to the respective blame attributable to each driver, but each negligent party is liable for the full amount.

The hirer should never allow anyone else to drive the car, for he will be responsible in nearly every case for the negligence of anyone he allows to drive while he is in the car, and the insurance policy will seldom cover him against any but his own driving, un-



If the hiring agreement is in writing read it carefully before signing, and make sure that you understand all the clauses.

less he has made arrangements that it shall. If a hirer intends to let anyone drive besides himself he must see that he has a policy issued to him which covers this risk. Most difficulties will be avoided if the hirer discusses the matter with the owner first and has a comprehensive policy taken out in his own name. This is the practice with many good firms who let out cars on hire and saves a great deal of trouble and possible expense.



WHERE INSURANCE
IS INVALUABLE.

If a third party is injured owing to a collision between two cars he may have a gainst both drivers. Each may be liable for the full amount of the damages if the injured party can prove negligence against them.



RAL England is not devoid of curious rhymes and jingles of sorts, and observant folk may pick up choice gems of this kind here and there. Churchyard epitaphs are frequently amusing in their quaint doggerel and we are all familiar with rhymes on the swinging signboards of village "pubs" and with jingles and entertaining verses inscribed on window-panes in old country inns.

Rhymes written on wayside direction posts, however, are comparatively rare. Usually, the directions on finger-posts and notice boards are singularly terse, but in one district, at least, several unique specimeus of sign-post rhyming are to be found—or, at least, they were there to be read by all who passed that way some few years ago when the writer was last in that quarter of the globe.

In the quiet and idyllic neighbourhood of Arley and Great Budworth, in Cheshire, one may come across a number of quaint and novel examples of doggerel rhyme on wayside signposts. These interesting bits of verse were composed by a once well-known sportsman-poet, who evidently thought it a good plan to be original in the method of giving directions to passersby who travelled through his estate.

His efforts, although perhaps not always strictly to the point, certainly come as a welcome relief to the useful but unromantic signposts and direction boards of the present day. They were, however, put up in times when folk were more leisurely than they are now—times when the need for designing road signs which, literally, can be read at a glance, did not exist.

If you are ever in the locality of the above-mentioned villages look out for examples of versified direction.

When their acquaintance was made—a few years ago—these finger-posts were sturdy pillars of oak, substantially made, painted white and with black lettering, in the usual manner of sign-posts.

Among others the following attracted the eye:-

Trespassers this notice heed, Onward you may not proceed Unless to Arley Hall you speed.

Another notice was as follows:-

This road is forbidden to all Unless they wend their way to call At Mill or Green or Arley Hall.

One sign-post pointing out a foot-road gave implicit directions to all who wished to travel that way as to who should and who should not pass along it—the notice read:—

No cartway save on sufferance here, For horse and foot the road is clear To Lymm, High Legh, Hoo Green and Mere.

Over the gateway leading into the Arley grounds there appears a rhyme that informs all and sundry to the effect that—

This gate is free to all good men and true, Right welcome thou if worthy to pass through.

The author of these quaint rhymes and many others was Rowland Egerton Warburton, a fine sportsman who endeavoured to live up to the traditions of the countryside. During his life he certainly succeeded in endearing himself to the country folk who resided round and about the Arley estate.

A.S.

# CONFESSIONS OF A LAZY OWNER!

A CCORDING to my friends I am in a class by myself for laziness. However this may be, when I bought my first car, I soon learned that the most important and most troublesome part of its maintenance was lubrication. Further experience of four more cars showed that each has its special points of exasperation.

As old Euclid remarked, let it be granted, (1) that all cars require lubrication, and (2) that all lubrication is messy. It might be simple on a stripped chassis, but the designer always seems to forget that someone will put a body on the thing, and this may make all the difference to the accessibility of the grease nipples scattered in such profusion.

With my first car was an order to drain its gearbox after 3,000 miles. There was a nice plug for it; and there was also an undershield that barred any access to that plug. It is true the shield was detachable, after disconnecting both brake rods, the starter, the speedometer drive and a few other details. I didn't bother, but cook was quite huffy about the tin opener, and the peaches for lunch had a curious flavour!

**B**22

Next, grease nipples, which require attention every 500 miles. They look so easy of access on a clean car in the showroom, but anyone who has a prejudice against squirting road grit into the bearings with the grease, is apt to find that he has a choice between climbing into dungarces, or cleaning the underside of the wings with his sleeves while wiping the nipples clean.

My attitude to grease nipples is like that of Mohammed to the Mountain. I can't reach them, so they come to me—at the end of several inches of extension nipple with angle pieces where necessary.

extension piping, with angle pieces where necessary.

There are 10 points at which the "book of words" demands a few drops of oil every few hundred miles. These are exposed to all the mud and dirt that is splashed on to the underside, and it is necessary to crawl under the car to reach them. Once-a-year attention is good enough for them, if cleaned with paraffin, oiled and wrapped round with an oil-soaked rag. They are then covered with a strip of American cloth, puttee fashion.

Then the sump. The orthodox method is to lie on your back under the car with a container in one hand



and a spanner in the other. At the last moment the plug comes away suddenly and drops into the receptacle, where it has to be fished for later. Meanwhile, a stream of hot oil descends into the mouth or down the sleeve of the unfortunate useudo-mechanic.

My method is more subtle. I remove a front floor-board, having kicked an old biscuit tin into the required position under the plug, and with a tube-spanner undo that plug from behind. The spanner prevents

the plug from dropping into the tin. Now for refilling. My car has a filler opening fitted with a gauze filter holding about 4 pint. The sump holds 1 gallon. A simple calculation shows that the gauze should be filled 32 times. I dislike homoopathic doses and arm aches, so the filter is removed and a gallon tin has its elescopic spout draped with a hood of wire gauze. The tin is inverted, with the spout in the filling orifice, and is left to guggle till empty.

#### THE GLORIOUS FAILURE.

Its long stream-lined body glistened in the rays of the autumn sun and through the crystal-like windows one caught a glimpse of exquisite upholstery.

There was hardly a speck of dust to be seen anywhere on its perfect bodywork, for its driver was the most careful of his kind in the world.

Even the number plates were without blemish, and as for the winged mascot that was made of solid silver with its wings tipped with pure gold.

A perfect machine it was, the finest on the market.
On the facia board there was such an array of gadgets, all bright and shining, as to give it the appearance of a Lord Mayor's table set for a banquet.
The clock was jewelled in several places, the speedometer had been specially designed for the owner,

and even the switch reflected the sun's rays.

As for the mudguards and the top of the body, they were painted the most wonderful shade of blue ever conceived by the mind of an artist.

At the back of the car were strapped three clegant suitcases and on the running boards were two spare wheels fitted with brand-new tyres.

If one had peeped inside the chauffeur's tool-box, one would have gasped with sheer astonishment, for its contents were the last word in efficiency. Pliers, wrenches, spanners, everything for any emergency.

Reverting back to the interior of this wonder car, one found a folding table of the finest walnut wood, disappearing seats, silk cushions, cigar lighters, silver ash-trays, book-rests and a complete luncheon basket

ash-trays, book-rests and a complete luncheon basket.

The floor was covered with a thick pile rug into which one's feet literally sank, and, where the driver sat, the floorboards were covered with a mat of the purest rubber on the market.

Yes, indeed, it was a masterpiece from bonnet to rear light. A masterpiece, that is, except in one particular. It stood at the side of a little-used road miles from anywhere with its petrol tank and spare tins BONE DRY.

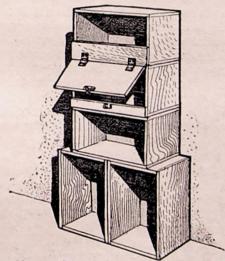
## KEEP YOUR GARAGE TIDY.

An untidy garage can nearly always be traced to two causes—lack of suitable places to put things which are and which are not wanted. The latter is easily remedied. An old oil drum with the top cut off or a large box placed in an out-of-the-way but accessible corner will accommodate anything in the nature of rags, and can periodically be emptied into the dustbin. It is very nearly as easy to throw rubbish into a box as it is to drop it on to the floor, but there is a vast difference in the result!

The floor, incidentally, should be kept as clean as possible so that jobs like lubricating universal joints, brake mechanism and so forth will be less objectionable. A stiff broom is a great help in this connection.

So much for getting rid of matter which is not wanted; there remains the problem of finding convenient means for storing items which are often called into use. Unquestionably, shelves—and plenty of them—are the solution. Lack of skill as a carpenter and the difficulties introduced if the walls are of brick may deter many motorists from trying their hands at putting up shelves, and for this reason there is much to recommend the scheme shown in the accompanying sketch.

Actually, the nest of shelves illustrated consists of nothing more elaborate than a number of wooden boxes nailed together, and it can be made in a quarter of an hour or so. Any grocer will supply suitable boxes—margarine containers will serve the purpose very well—and the price should not exceed 6d. apiece.



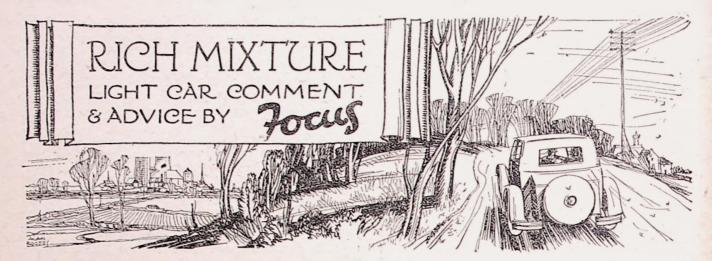
Neat and handy garage shelves made by nailing together a number of boxes.

The boxes may simply be placed side by side and nailed together, but the arrangement shown has many advantages, for by placing the two lower boxes on end they will provide accommodation for oil tins and other relatively tall objects, and will also serve to make the shelves more stable. If desired, a ledge can be nailed across the front of one of the boxes so that it can be used for storing clean rags and other oddments which might otherwise be liable to drop out. A hinged flap, too, can be fitted with little trouble.

Those who wish for a first-class appearance can spend a little longer on the job and smooth down the wood with sandpaper, afterwards painting and varnishing it. Alternatively, creosote may be used; this will produce quite a pleasing effect.

Apart from the merit of simplicity, the scheme has the great advantage that the shelves are portable, and if necessary can be transferred from one garage to another, whilst they can also be moved when the garage is "spring-cleaned."

A motorist who schemes his garage on the lines suggested will find that it can be kept almost as clean as the proverbial new pin with very little effort—and that little effort will prove well worth while, for a clean and tidy garage does more than merely please the eye of its owner. It induces him to spend more time under its roof and his car is much better looked after in consequence. The final result—an important one from the average light-car owner's point of view—is fewer and smaller repair bills.



#### What of the "Cops"?

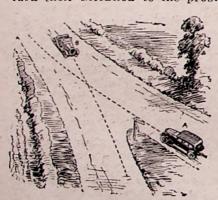
CRITICISM has been made in no measured terms of the "speed cop" system for trapping motorists which threatens to become common on our roads. It has been described as un-British and even as a sinister innovation. What is wrong with it? At least we should be "pinched" by a fellow motorist instead of by a constable who perhaps has never driven anything more formidable than a bad bargain with an ungrateful country.

The critics, I suppose, fear that the British version of the Yankee "cop" would feel it his duty to enforce the strict letter of the law and pounce upon everyone who exceeded 20 m.p.h. I cannot believe that this is the intention.

In my view, motoring police could be very useful in administering up-to-date motoring laws and in putting down hoggishness. It is hard, however, to see them achieving more than bringing their force into disfavour, if not ridicule, if, as some suggest, the intention is to employ plain-clothes "cops" to lure one on to "scrap" with them and serve a summons as the climax to every unsuccessful contest!

#### Where the Road Forks.

HEN the protagonists of the off-side rule have finished their arguments they might turn their attention to the problem presented by



the forked road. On a route which I frequently traverse there is a spot which has been the scene of innumerable accidents, and although drivers have a full view of each other smashes occur with painful

frequency. The sketch indicates the spot, and it is easy to see why collisions occur. Both roads are of equal importance, and there is no rule to indicate which car should give way to the other.

Now, it seems to me that at road junctions like this B should give way to A. Obviously, unless B gives a signal when the drivers first see each other, A is in doubt as to which of the two B24

roads B is going to take. On the other hand, B can have little difficulty in divining A's intentions, for if the latter was going to turn to go along the other arm of the fork he would have slowed down. Consequently, in order to simplify matters, B should not leave the left of the road until A has passed. It is a case of the man who is causing the doubt giving way. In the absence of any other element in the situation I cannot see how any other rule could be justified. But this is not everybody's opinion.

#### Critics Forward.

HERE is a chance for the critics to come forth and flay me. I am about to ventilate one of my well-intentioned, but utterly untechnical, ideas for the improvement of our cars. Here it is. Why should not front axles have a central "swelling" which is bored, screw-cut and fitted with a screwed plunger which acts as a jack and raises both front wheels simultaneously? The plunger could be operated with a tommy bar, the wheelbrace (via a little bevel gear) or a jack handle of the normal kind. It would facilitate proper greasing of the steering heads, tempt us to pay more attention to wheel alignment, simplify washing the underparts and remove many of the unpleasant difficulties in connection with changing wheels.

Similar permanent jacks could, of course, be employed for the rear axle, special bosses being formed on the axle casing to accommodate the plunger or plungers.

#### Snags Which Arise.

I ET us now turn to the drawbacks of a jacking system of this kind. It is hard to think of any except that ground clearance, or head room above the axle, might be seriously curtailed. Both of these difficulties could surely be overcome in cases where they applied by using jack plungers which were of minimum length to give the required lift and carrying in the toolbox a block of wood or a suitable distance piece to bridge the gulf.

Another snag which occurs to one is that an increase in unsprung weight is never desirable, whilst it must be agreed that the threads of the plunger would be liable to get rather badly plastered with mud. But, in the immortal words of the Two Black Crows, "who cares about that?"

#### Luxury Fittings.

NE is aware, of course, that there are on the market jacking systems which incorporate permanent jacks and remove most of the labour of lifting a car, but it is unlikely that they will ever figure in the standard equipment of the cheapest light cars. Their advantages are admitted, but the pockets of many of us are not sufficiently well lined to allow us to enjoy the benefits they confer. The scheme I outline in the foregoing paragraphs scores on them from the light car owner's point of view in that the cost would be very low, whilst jacking up would be quite as easy and convenient as most of us consider necessary.

It is not the last word in luxury appliances that we require, but compromises which save our pockets and provide a means for doing everyday jobs in a practical manner.

#### Another Licence Reminder.

A READER from Ballachulish points out that in addition to the Surrey County Council, which I mentioned recently as providing a licencereminder service, there is the Argyll County Council, which issues a reminder to driving licence holders in the district a month before their licences expire. The reminder takes the form of a letter accompanied by an "application for renewal" form, and the local taxation officer calls attention to the fact that "application for the grant or renewal of a licence may be received and dealt with at any time within one month before the date on which the grant or renewal of the licence is to take effect." He also points out that delay in obtaining renewal will be caused if application is not made on the prescribed form accompanied

by the expired (or expiring) licence and the renewal fee of 5s.

I always consider that the need for a licence holder forwarding his current licence when getting it renewed should be removed. There are plenty of people who lay up their cars during the two or three days which elapse, in some cases at considerable inconvenience.

Since writing the foregoing a note has reached me from Wallasey drawing attention to the fact that the chief constable there always sends licence holders a post card when their licences are about to expire.

#### A Knutty Car.

THE type of saloon body with symmetrically I curved sides is becoming very popular, but it has been left to a garage hand to describe it in the vernacular. A car of this type, finished in brown, was standing at the top of a garage which I was in the other day, and the foreman gave a youth some instructions concerning it. "Got a job?" asked a mate. "Yes; got to clean that Brazil nut!" was the reply.

#### Slide, Drop - or Both.

FROM time to time I have commented on the I various kinds of window lifting and sliding arrangements employed for small saloons, and from discussions which have resulted it seems that the "drop" and sliding light have a roughly similar number of supporters. Agreeing with this, the Austin designers have embodied the two principles in their latest fabric saloon and the result is extremely satisfactory.

In this case, the forward pane of glass beside the driver and passenger can be raised and lowered, whilst the rear pane slides in channels.



LAKELAND IN FARLY NOVEMBER.

Derwentwater and Skiddaw presented a magnificent spectacle in the morning sunshine of last month. This Singer party are viewing them from the road under the Cathells.

In the course of a 50-mile run the other day I found that for ventilation, vision, signalling and reversing this plan has everything to recommend it. The only fault I could find was that the sliding panes had no catches to make them "stay put," but suitable ones doubtless could be contrived by any ingenious owner of one of these attractive little cars.

#### Suspect the Button.

ELECTRIC horns of the motor-driven variety often become rather erratic in their action after considerable usage, because the small bearings, delicate adjustments and baby commutators which figure in their design generally call for a good deal more attention than most of us are pared to give them. After two years' usage, therefore, I was not at all surprised when an inexpensive Delco-Remy motor-driven horn of mine started behaving irregularly a week or two ago.

Last Sunday I stripped it down in an endeavour to find the trouble, but found everything mechanical to be in perfect working order and was just making up my mind that it had an electrical fault and was due to be pensioned off when it occurred to me to examine the press button. On dismantling it the trouble was immediately apparent. The surfaces of the contacts were dirty and badly pitted and it was perfectly clear that a proper connection was not being made. After a little trimming up with a file everything was once again in order.

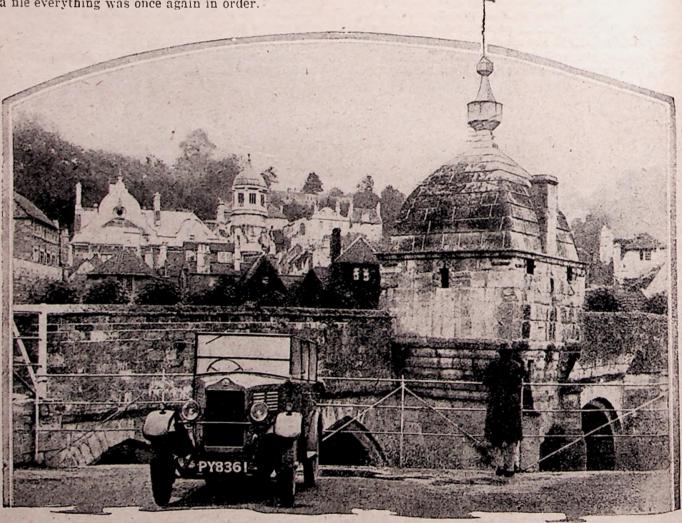
#### Changes Wrought by Time.

THE other day in the workshop of a big provincial dealer I whiled away a few minutes watching a mechanic removing a set of modern piston rings. No wider than about 2 millimetres, they were amazingly flimsy and light and the great care needed for removing them brought home to me the big changes in piston design which have occurred during the past few years.

In the days when we used to pull our engines to pieces about once a week a piston ring a quarter of an inch in width was far from uncommon, castiron pistons were the rule and gudgeon pins seldom took less than half an hour to remove. The featherweight aluminium piston of to-day, with its 2-millimetre rings and a gudgeon pin located either with a wire-retaining ring or with soft end caps, is indeed a very different article. It is not until one sees the old and the new side by side that one appreciates the reason why the car of to-day will pull twice the load with which its ancestors were capable of dealing.

#### Little Drops of Water.

A FRIEND of mine whose family is urging him to give up his tourer and purchase a saloon was chiding them for being frightened of the weather. "A drop of rain never hurt anyone yet," he declared. "What about the Flood?" was the reply of his young hopeful, aged nine.



THE OTHER BRADFORD.

At Bradford-on-Avon there is a chapel on the interesting old bridge which was originally intended for pack horses, heavier traffic taking the broad ford, from which the town derived its name.



#### The Broad View.

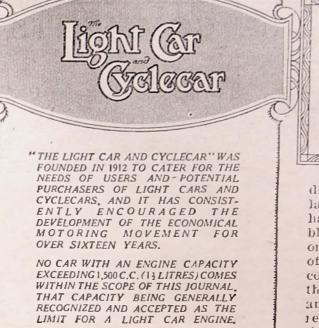
TIME taxation question Las been in the foregound during the past few days. There have been rumours and reports of an increase in the amount of the petrol tax and a reduced horse-power tax has also been discussed. Very little. indeed, has been heard, however, concerning the need for reducing the amount of money which road users have to pay to the Government and collecting it from other sources.

None of the acknowledged spokesmen of the people seems to have discovered how bad a thing it is to tax transport or, if he has, very little has been heard of his voice. Might it not be argued that the wonderful inventions of the past three decades and the magnificent manner in which we have recovered from recent industrial problems can be attributed almost entirely to the interchange of ideas made possible by the motorbus, the motorcar and the motorcycle?

These modern instruments of travel have changed the village hobbledehoy into a man of the world and the city clerk into what a few years ago would have been considered a widely travelled person; they have created understanding where none before existed, and by increasing the circle of every man's friends and acquaintances they have been the means of ripening to maturity an incalculable number of ideas of extreme national value. Great Britain must have understanding within its shores, and it must be in on the ground floor of the world's industrial developments. It will not do that by interfering with the free movement of its citizens.

#### "Cops" for Yorkshire.

REPORT to the effect that police authorities A in Yorkshire have decided to buy five fast two-seater cars in which plain-clothes policemen will patrol the Great North Road to trap users of motor vehicles has created a considerable amount of discussion. The "speed-cop" principle has been in use in America for a considerable number of years and has proved to be capable of helping the law to be administered in a reasonably equitable manner, but those who argue that this implies that plain-clothes motoring police would improve our own lot must remember that conditions at home and in the United States of America are entirely different. Not only are conditions



# opics of the

different, but the motoring laws of the two countries have few points of resemblance, whilst the laws of one State differ from those of another. They are on common ground, however, in that they are all up to date and framed to meet modern requirements instead those of 30 years ago. Let us bring our own motoring laws up to date for a start before considering ways and means for enforcing their

observance. Whilst

are in their present ridicu-

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lously muddled condition the proper usage of the roads is better left to the common sense of drivers than to the qualities of mercy, if any, likely to be exercised by a British version of the Yankee " cop."

#### Inadequate Reflectors.

WITH the idea of economizing in current consumption it was the practice a few years ago to wire up the tail and side lamps of some cars in series. For technical reasons which need not be gone into here the result of this arrangement was that the tail lamp burned very dimly, and it was not long before motorists were summoned in certain areas, where police vigilance is very strict, for having a rear number plate inadequately illuminated. We recall these facts in order to show that merely to provide a light is not considered sufficient; the light must have a certain standard of brilliance. This ruling, as applied to cars, presumably still holds good, and we are all the more surprised, therefore, to learn that the Minister of Transport cannot see his way to do more than has already been done to ensure that the ruby reflectors fitted to bicycles are satis-

Colonel Wilfrid Ashley expressed himself satisfied with the standard of reflection prescribed by the Road Vehicles Lighting Regulations. This is merely evading the issue. Everybody is satisfied with those regulations as they stand; the whole point is that quite a number of cyclists are using reflectors which do not conform with them. Sir John Power thought the matter serious enough to warrant a question being asked in the Commons. From practical experience gained on the roads at night we endorse the view which Sir John has taken, and we trust that the responsible authorities will not hesitate to take whatever action appears to be needed. **B27** 

# CYCLECAR COMMENTS. By SHACKLEPIN.

AN INGENIOUS G.N. CON-VERSION—HOME-BUILT BODIES—MAKING THE FRAMEWORK—THREE-PLY WOOD AS PANELLING.

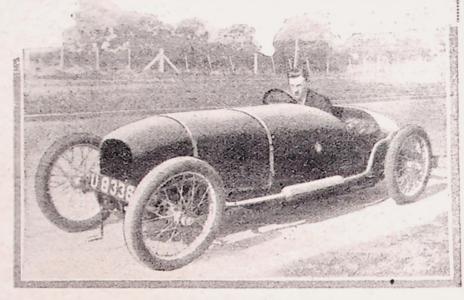
THE machine depicted in the photographs on this page is a rebuilt 1920 G.N., all the work having been done at home by the owner, Mr. M. Meo, who has sent me full details of the alterations.

Starting with the engine, the bronze big-end bearings have been replaced by the roller type and an improved camshaft has been fitted. A Feroldi carburetter replaces the original Capac and Mr. Meo tells me that after careful tuning which, incidentally, proved rather troublesome, the new instrument gives very good results.

After having been stripped of the original body, the chassis frame was lowered 3 in. by inserting packing between the springs and the side members. The springs and blocks are secured by bolts which pass through them and through the side members and also by long U bolts.

Tubular distance pieces and a special steel plate were used to raise the lower end of the steering column about 2 ins., whilst to improve the lock alterations have been made to the track rod and to the exhaust pipes. As the new body is only 24 ins. wide at the dash, the gear lever is mounted outside it and the brake pedal is on the left of the steering column alongside the clutch pedal.

Three-ply wood is the material used for the body panels and for the undershield. It is laid on over a well-strutted framework which serves also to support the dashboard and the steering column. Four separate pieces of three-ply



The cowl and the long bonnet give this converted G.N. quite an impressive appearance. Note the starting handle in front.

are used to panel the main part of the body, whilst to cover the tail no fewer than eleven sheets of three-ply have been used. In this manner, by careful fitting, an absence of "waves" or "flats" is assured.

The cowl is made up from the corner pieces of the back panel of an old car, the centre of the panel being cut out and the corner pieces welded together. Originally, there was an expanded-metal guard in front of the cowl, but owing to a collision during a trial run this part of the machine was "dissed"—to revive an old D.R. expression—and has not yet been made good.

I think that Mr. Meo is to be congratulated upon having made a really good job of the conversion; the body has a distinctly sporting appearance and the lines are quite pleasing. I regard this as another instance of what may be done by

an amateur who is prepared to take some trouble in re-building an old eyclecar.

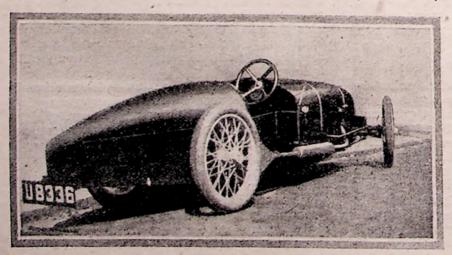
A certain amount of skill and mechanical ability undoubtedly are necessary, but there are many amateurs possessing these qualities who do not exploit them to the full; their only idea is to get on the road as soon as possible. Thus their machines, although workmanlike and reliable, have a rather rough-and-ready appearance.

Bodybuilding is interesting work, but it is useless to embark upon it without a fair knowledge of joinery and a reasonable kit of tools; furthermore, the design of the body should not be too ambitious. Few amateurs, I take it, ever embark upon building anything but a two-seater body and usually this is of the sports type. The framework should be of ash, with all joints carefully made; mortice joints, screwed and glued, are best. There is, however, no objection to an occasional butt joint provided it is strengthened with metal plates.

strengthened with metal plates.

For covering the framework I think it would be hard to improve upon thin three-ply, as used by Mr. Meo. This material is easy to cut and it can be secured by means of glue and brads or very small countersunk screws. Three-ply can be made to follow curves quite readily: in the case of metal panels, however, very skilful hammering is needed to produce the required curves, and this is no sort of job for an amateur to undertake.

When painting three-ply two or three coats of flatting must be applied first, because the wood is rather absorbent.



By lowering the chassis frame 3 ins. and carefully proportioning the lines the amateur builder of this body has attained a quite professional result.

# NEXT YEAR'S SPORTING FIXTURES.

PROBABLY FEWER, BUT CERTAINLY MORE INTERESTING, EVENTS AT BROOK-LANDS-RAMPONI TO LEAD ALFA-ROMEO TEAM-THE "DOUBLE TWELVE."

OTOR sport in this country, it is generally admitted, is beginning to lose favour in the eyes of even those people who a few years ago were proud to be recognized as enthusiasts. Realizing this, the various clubs and organizations responsible for racing are making a determined effort to provide exceptionally good fare for 1929.

Brooklands, the hub of the English racing world, will be quite definitely brighter and better, and whereas the track will still be available for smaller clubs who wish to run events more or less to amuse themselves, the best dates have been allocated to events which promise to be of outstanding importance.

Among these are the B.A.R.C. meetings, the Junior Car Club's "Double Twelve" and a maiden effort on the part of the British Racing Drivers' Club to be known as the "Five Hundred," which will take place late in the season. Doubtless, there will be other big events, but up to the present details are not available. One thing may be predicted fairly accurately, and that is that the 200-Mile Race will not take place. It has been the aim of the Junior Car Club to stage a big event each year at the track, but it is doubtful whether there is room for both the "Double Twelve" and the "200." and although we may regret the passing of the latter, we must take comfort in the thought that the club is endeavouring to stage something on a much bigger scale. Amongst events staged outside our "tight little island" an outstanding fixture is, of course, the Ulster T.T., for which August 17th as the provisional date has been booked. So successful was this year's event that next year it seems more than likely that the R.A.C. will receive even greater support, both from competitors and the public.

There will, of course, be the usual series of international Grand Prix races, but there is a rapidly spreading belief that events confined to sports cars of the kind which took part in last year's Ulster T.T. are the best medium for racing, and that the public will take a far greater interest in sporting car events than they will in events which favour freak racing vehicles.

#### New Italian 'Ace."

The Alfa-Romeo—one of Italy's finest makes of racing car-promises to take a very prominent part in international racing events next year, and it is very interesting, therefore, to learn that Giulio Ramponi, the dashing young Italian driver who came into prominence last year in England when he won the Essex Six-hour Endurance Race, is to lead the Alfa-Romeo team for next year.

Ramponi, who was born in Milan twenty-six years ago, has had an eventful career. He began



Giulio Ramponi.

life in the racing department of the Alfa-Romeo concern, his first actual racing experience being with Campari in 1919. Later he acted as chief mechanic to Ferrari and Sivocci, then he was detailed to assist Masetti.

The finishing touches were put to his training by his association with Ascari, and he sat beside this great driver in all the G.P. races until the fatal 1925 Grand Prix, when Ascari actually died in the arms of his faithful mechanic. During the same race, but previous, of course, to the accident, Ramponi showed his dexterity as a mechanic by changing two rear wheels in 48 secs.; for that he was very heartily cheered.

After Ascari's death he transferred his allegiance to De Paolo, acting as mechanic in the 1925 Italian Grand Prix, and in 1927, driving a 3,000 c.c. Alfa-Romeo, he made his debut in the First Thousand Miles Cup Race. Up to within 50 kiloms, of the finish he was leading; then bad luck overtook him, and he was forced to retire. Nothing daunted, he persevered, and took part successfully in several important hill-climbs.

The year 1928 set the seal on his skill and popularity, so much so that he is now regarded as a new star in the Italian racing firmament. As Campari's assistant driver he helped to win the greatest Italian road race so far held, namely, the Second Thousand Miles Cup, beating all records with his 1,500 c.c. Alfa-Romeo. Later, as we have already mentioned, he won the Essex Six-Hour Race at Brooklands.

#### Racing Here and Abroad.

In passing, it is worth noting that to him it was an entirely fresh kind of event run on a speedway which he had never seen before; moreover, he did not know a single word of English! Returning to Italy, he was successful in several other outstanding events.

Ramponi's impressions of racing in this country and abroad are interesting. He was particularly struck by the care with which entries are considered and the exactitude with which the regulations are carried out in England. He has been accustomed to the way they do things in Italy, where, for example, cars are admitted on the very eve of such a race. This, says Ramponi, is a tribute to our thorough-going English methods, and a great help to competitors themselves, for they know some time beforehand exactly what they are up against.

Ramponi was particularly impressed with the hearty welcome given to him when he visited this country last year, and with the ovation which he received when he won the "Six Hours" at the wheel of an Alfa-Romeo.

THOSE WHO LAY UP TH MONTHS BECAUSE OF L ALL COUNTS. READ T



Snow, floods, fog and rain form unpleasant driving conditions-

N these days of saloon bodies and of really efficient all-weather equipment fitted to open touring cars we feel that the majority of motorists will agree with our contention that winter motoring is worth while.

The pessimists and "Dismal Jimmies," however, will look at the photographs on these pages and ask how, in the face of such evidence to the contrary, we dare to advocate winter motoring. We can dismiss their objections in very few words.

Snow, floods and fog are bad enemies, but each can be overcome without very much trouble. It must be remembered also that in this country we have very little snow—last winter was an exception—and few of our main roads ever become seriously flooded. Fog certainly is unpleasant, but it seldom is so thick that driving becomes impossible, especially if one's car is fitted with a good fog light. Furthermore, without going into statistics, we suggest that the number of foggy days experienced during an average winter is very small indeed.

#### Financial Aspects.

If a car taxed at £10 per annum be laid up from January 1st to March 25th-that is, during the first quarter of the year—the saving on the tax will be £2 2s. 6d., but all other items chargeable to the motoring account, except, of course, fuel and oil, will be the same. Thus, the car—although standing idle in the garage—will depreciate in value as much as if it were on the road, the garage rent will have to be paid, the capital sunk in the car will be lying idle, and, in addition to all this, the owner will be compelled to travel for three months in public conveyances and to pay

For recreation, instead of a run in the car with his family or friends, he may visit a theatre, which means, for many people, first-class tickets on the railway and a taxi. Any visit beyond walking distance will entail the use of a train or a "metropolitan stage carriage."

With regard to insurance, if a car be laid up for three months, the policy can be suspended for that period and carried forward, as it were, by having the three months tacked on to the other end; but whilst it is laid up the car will be entirely uninsured.

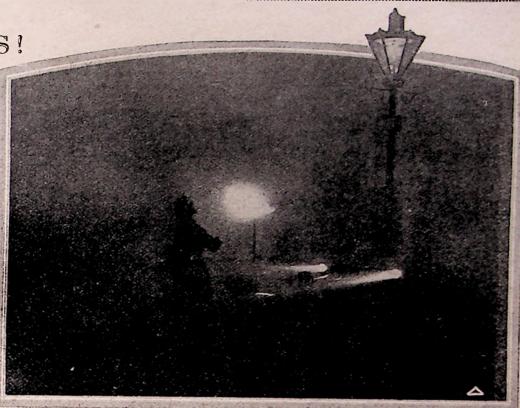
No same owner would overlook the possibilities of



ATICALLY—YES!

DURING THE WINTER
WEATHER LOSE ON
LIE AND LEARN WHY.





-but, even so, travelling by car is much botter than walking.

fire or theft, so that these clauses in the policy must remain valid and, when they do, the "credit" period is reduced by 50 per cent.; that is, the company will carry forward the policy for only six weeks instead of three months. In no case is a monetary rebate allowed, so there is no direct cash return on insurance when the car is laid up.

Let us turn now to the various aspects of winter driving. We have mentioned already that fog can, as a rule, be negotiated successfully with the aid of a good fog light. At the very worst, a passenger walking ahead and holding a sheet of white paper can pilot a driver through any "pea-souper."

Many cars were stranded in the exceptional snow-drifts experienced last winter, but mostly they were driven by pioneers who were trying to blaze a trail along the roads. In any case, motors were not the only forms of conveyance which the snow stopped. Incidentally, the use of non-skid chains makes snow driving easy and safe.

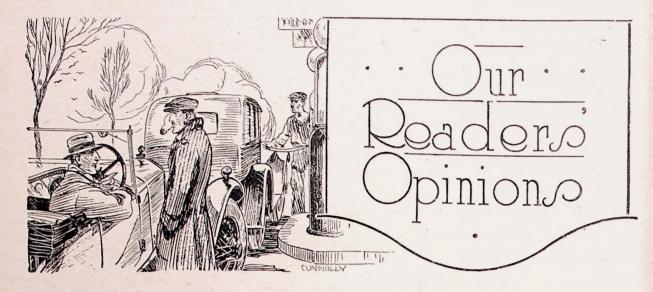


#### Negotiating Floods.

Flooded roads can be negotiated with impunity if the speed be kept down to a minimum. It is folly, of course, to tackle a really deep flood, and, in general, a depth which brings the water up to the wheel hubs should be regarded as the limit. By keeping in low gear—which should be engaged before entering the water—and avoiding slipping the clutch there is little risk of being stranded in the middle of a flooded stretch of road.

When the clutch is well above water and fully enclosed, there is no reason why a change-up should not be made in the flood, but the speed must still be kept down to avoid setting up a bow wave, which might swamp the engine.

Given a weatherproof body and a good screen-wiper, one can drive in the heaviest rain in absolute comfort; in fact, to put the matter in a nutshell, the more inclement the weather—rain, fog or snow—the more does a car become preferable to any other mode of transport, if only because in no other way can one travel under cover absolutely from door to door wherever one may be going.



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.

# **IUDGING PERFORMANCE "ON PAPER."**

## Catalogue Data Should be Amplified.

#### Specifications Which Fail.

As an engineer, whose choice of a car is governed mainly by the mechanical specification, I should like to endorse the views expressed by "J.M." in your issue of November 23rd. It is unlikely that all the sugges-

The Need for tions which he makes will be adopted by manufacturers, but I do think that a power curve might be included in the catalogues. After all, the R.A.C. rating is not very informative when it comes to calculating the probable power developed by or engine.

developed by an engine.

With regard to existing specifications, those issued by several makers are really comprehensive, but there are some, several makers are really comprehensive, but there are some, fortunately a minority, which convey nothing whatever to prospective buyers. How does it help us to be told that the gearbox is "of approved design, providing three forward speeds and a reverse"? Similarly, our choice is not aided by the knowledge that "the engine, which is rated at 10 h.p., develops ample power."

You will note that I have referred to entalogue specifications. Those which appear each year in the First Show Number of The Light Car and Cyclecar are, in nearly every case, fully comprehensive, and one realizes that they must be condensed as much as possible, owing to considerations of space. If, however, upon application to the makers

tions of space. If, however, upon application to the makers of the car in which one is interested, amplified details, on the lines suggested by "J.M.," were forthcoming, one's choice would be simplified.

M.J.INST.E.

#### Car Performance Figures.

In your issue of November 23rd there is a very interesting letter signed "J.M." This correspondent says some very letter signed "J.M." This correspondent says some very wise things, and undoubtedly if the questions he puts were truthfully answered by the manufac-R.A.C. Certified turers concerned a very valuable

turers concerned a very valuable synopsis would be obtained. But the fact is, I fear, that all kinds of mis-R.A.C. Certified But the Tests.

tact is, I fear, that all kinds of mis-leading claims would be made by enthusiastic salesmen that would be most difficult to check, and finally the purchaser would be at the mercy of, and probably fall a victim to, the most unscrupulous of the sales policies competing. To my mind it is much wiser and much safer for the purchasing public to rely on facts and performances certified by the Royal Automobile Club.

It is perhaps not so generally known as it should be that п34

the R.A.C. has a staff of highly trained and skilful engineers whose business in life it is to examine and test performances of motorcars and parts, and to record exactly what happens under very precise conditions. These gentlemen are entirely above suspicion, and cannot be influenced either for or against any car or part of ear.

Judging by his letter, "J.M." obviously knows a great deal about cars; and he stresses the importance of weight. It is impossible to over-stress the importance of weight.

It is impossible to over-stress the importance of power-toweight ratio; but, of course, it costs money to make cars light, and that is why so many manufacturers fight shy of this question.

S. F. Edge.

#### Catalogue Arrangement.

Whilst I quite agree with "J.M." that car manufacturers might well give us a little more detailed information about their models, I am afraid he does not entirely appreciate present-day marketing conditions. Were

Sections for Novice and

manufacturers to include all the details

Novice and
Expert.

many people who have not previously owned a car and who are a little doubtful of their ability to understand and maintain one, would be seared by the technical terms and possibly give up the idea of buying a car with the thought that it might prove too complicated to look after. A way out of the difficulty is already adopted by some manufacturers, who give at the beginning of their catalogues body particulars and a brief superficial chassis description of each model, this being supplemented at the back of the catalogue by greater mechanical detail for the benefit of the technically minded. The system, in my opinion, is an excellent one and has everything to recommend it.

So far as performance details go, I am afraid it is not much use to ask for too great detail in this respect, as much use to ask for too great detail in this respect, as were it to become common practice for such particulars as brake horse-power, maximum speeds on gears, maximum gradients climbable and so forth to be given, the buying public would be open to exploitation by a few unscrupulous concerns who would issue exaggerated or deliberately misleading figures. I think this aspect of the question is best leading figures. dealt with hy officially observed tests, and I, personally, take my hat off to those makers who have the courage to substantiate their claims by submitting their products to trials of this nature.

N. A. Rhyder.

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

#### Tuning an Austin Seven.

I have read the letter on tuning an Austin Seven by Mr. G. H. R. Chaplin, and my experience is that it is not necessary to depart from the standard setting of the Zenith

carburetter, except to substitute a 70 compensator for the 75 and a 26.35 slow-Hints on Jets. running jet. With the ordinary standard setting I used to get from 48 to 50

m.p.g. when the car has been run-in, and when new from 40 to 44 m.p.g. Last year, with the substituted jets, I made a tour through the Lake District, the borderline of Wales, then from Devon and the south to London, averaging 51½ m.p.g. on a 1,250 miles tour. This year I did 1,295 miles on 22 gallons, i.e., an average of nearly 59 m.p.g., on a tour through the Midlands, the Derby dales, through North Wales to Aberystwyth, across to Worcester, through Bath to Minchead and round the coast to Bodmin and Plymouth, and then across from Weston-super-Mare to Worthing, a rather hilly give-and-take road.

With regard to your correspondent "YV6770." I am of the opinion that he might do much better by taking out the chassis bolt by the throttle lever and replacing it by a longer one through a block of wood 2 ins. to 2½ ins. high and use that as a footrest. I have found that the position without a rest is a great strain and that one presses down the accelerator too hard, that, no doubt, being a cause for overconsumption. WILLIAM A. HARRIS.

#### Austin Engine Speeds.

I was pleased to rend, in last week's issue, the remarks by Mr. G. H. R. Chaplin in reply to "YV6770" regarding Austin Seven jet sizes. My Austin is a Cup model but,

Austin Seven jet sizes. My Austin is a Cup model but, unfortunately, I do not know the gear ratios. It they are standard (4.9, Curve. 9 and 16 to 1) the engine speed at 24 m.p.h. in bottom gear and 43 m.p.h. in second is approximately 5,000 r.p.m. To me this seems rather high in view of the fact that figures published in this month's issue of the "Austin Magazine" show that maximum b.h.p. is developed at 2,800 r.p.m. Of course, if the engine to which Mr. Chaplin refers has an increased if the engine to which Mr. Chaplin refers has an increased compression ratio and has otherwise been hotted-up, one can account for the additional r.p.m.

The jets recommended to me by the Zenith Co. for conomy and good all-round performance were 75 main,

70 comp., and 26-4 slow running with a 15 choke. This comp., and 20-1 slow random state a for choice. This combination gives quite good all-round results. 45 m.p.g. being obtainable on a long run, whilst the peed under favourable conditions is 50 m.p.h. My engine is perfectly standard.

It would be interesting to learn what results are obtained by other owners of Cup models with standard and with hotted-up engines.

\* \* The genr ratios of Cup models are the same as the \* standard models.-En.

Why? Oh, Why?

Although I am a motorist of 19 years' experience, I have never been able to find answers to the following questions. Perhaps other readers may be able to enlighten me :-

1. Why does vibration always undo nuts?
2. Why are neckties so inquisitive when doing repairs?
3. Why is the force of gravity at the bottom of the undershield so great at night when the most important nut is resting there?

4. Why does putting on a new suit sometimes cause back-

axle or gearbox trouble?

5. Why does the tip of the ear or nose invariably irritate and require scratching when the hands are black and greasy 6. Why should taking out one's wealthy, aged aunt cause

tyre deflation, misfiring, or complete failure to start?
7. Does a car know when it is being sold?

TUFF-TUFF.

#### Maintaining Old Cars.

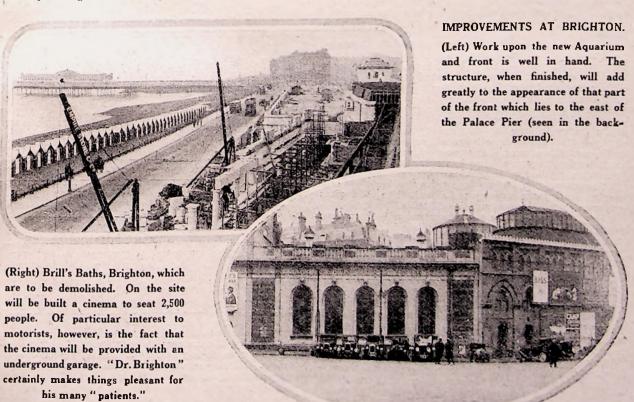
As a regular reader of your paper I should like to point out that there is a large proportion of readers who are unable to afford new cars and must always be content to make the most of second and third-hand

cars. I count myself as one of these, having graduated from a motorcycle A Reader's Suggestion. only two years ago. Might I ask as a favour to these readers that you publish in your columns an

occasional article on the lines of your new series on 1929

cars, but dealing with old cars?

I have no doubt that you have dealt with these cars when they were new, but I, for one, was more interested in Motor Cycling in those days. The members of your staff who have used these old cars will know wrinkles about them which will be quite new to a lot of your readers, so please let us have something such as "Getting the Most out of a 1923 Car." BELSIZE-BRADSHAW.



#### The Future of Motor Clubs.

The suggestion contained last week in "Topics of the Day" on the subject of club life merits the attention of all motor club officials, and our experience in this direction should be of interest. Less than two

years ago our present chairman urged Develop the development on social lines, and this policy has been fully justified by results. Membership has increased beyond the expectation of most. In the present year it has been also as Social Side.

within the two months yet to come it may, in fact, be fully

You seem to suggest that social events will supplant competitions. That may be true in part, but our experience proves that they help competitions. A while ago it was found almost impossible to run a trial of any sort. This year, however, we have run several confined to members. with a maximum entrance fee of 5s., and after deducting all expenses each one has proved profitable.

The same increased interest is shown in speed events at Brooklands. Formerly these were regarded as being all right for London, but of no interest to Liverpool. This year at least half-a-dozen awards have been won at the Weybridge track by Centre members.

This increased interest and the increased membership can be traced to the policy of fostering the social spirit.

What I have said of the Centre is true of the J.C.C. as a whole, and although the club, in common with others, has suffered from the decreased public interest in sporting events, I claim that it is still the most successful and enterprising motor club of the day.

Once again, I repeat, secretaries and committees of motor clubs threatened with extinction should take note of your suggestion and follow our example. G. A. QUEMBY.

Honorary Secretary. Liverpool and North Wales Centre Junior Car Club.

#### Sporting Events.

I notice that you ask for readers' views of the opinion expressed in the letter of Mr. Geo. H. R. Chaplin respecting

the curtailment of sporting reports, etc. As a reader since your first issue, may I say that I agree?

Club Members' I am quite well aware of the fact that Mr. Chaplin and I are possibly in the Interest. minority, but I, for one, look back with

regret to the days when sporting events received a full measure of publicity. The curtailment of these reports seems to date from the manufacturers' and traders' ban, which may be the reason.

Now, apart from the question of my own interest as a reader, I am quite convinced that the present policy has had a bad effect upon clubs. The average club member, it must be confessed, has his normal share of human vanity, and likes to see his name in print and photographs of himself and his car distinguishing themselves (perhaps) in his club competitions. In other words, he needs the stimulant of publicity, and, since he has lost this, he has also lost interest, to a certain extent, in club events. The enthusiasm of the motorcyclist, on the other hand, has been constantly

stimulated by full reports of all his doings.

I do not agree with Mr. Chaplin that the technical articles are "dry as dust," but I would welcome a return to your old policy as regards racing and sporting events.

CYRIL A. POTTS.

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## Running Costs of a Trojan.

and Shed)
Depreciation:

Shed

The following genuine accounts of the total costs of running a Trojan car for three years may be of interest to prospective light car owners, and may help to dispel the

illusion that a car necessarily becomes Three Years' worn out or costly in upkeep after two or three years of reasonable use by an inexperienced owner. The accounts Accounts. The accounts

include every expense, direct or indirect, in connection with the car, the view taken being that it is fair to charge against running costs such items as tips, parking fees, painting shed and so forth, and any other out-of-pocket expenses which would not be incurred if no car were

No attempt at economy has been made. For instance, the petrol used is B.P. in tins, because in this way it can be taken home and put into the tank with the necessary Adool whenever time permits. Petrol consumption has slightly improved, but the tax has more than counteracted any saving in this respect.

The car is used chiefly for shopping and short journeys; long runs being the exception rather than the rule. Much of the driving is done in lanes and by-roads the surfaces of many of which, as is well known, are exceptionally bad in Sussex. They are either corrugated, steeply cambered, or untarred and rough at the edges where it is necessary to drive when meeting other vehicles. The car has never in the three years been laid up for repairs, nor has there ever been an involuntary stop upon the road. The solid tyres appear to be good for many additional miles.

The greasing and oiling every thousand miles have been catefully done by the owner. A reduction in number and change of position of some of the points which require the grease gun would be a welcome improvement in future models if it could be attained without withdrawing some

of the present advantages in other respects.

The "additions to car" were unnecessary, and were purchased for personal convenience only. The renovations to the garage were also not essential, and were carried out mainly for the sake of smartness. As to the condition of the car; it has, of course, lost most of its original gloss, but it is in good, sound condition inside and out, free from rust, and in no real need of decorative repair.

The car has never been washed except by the rain since The car has never been washed except by the rain since it was purchased, and its still decent appearance is probably mainly due to this. It is always dusted at the end of the day, and it is always carefully dried when it comes in wet. The mudguards, insides of the wheels and underparts of the car are not touched. During the past few months a liek of wax polish has been applied to the body to fill up the minute cracks for which the sun seems to be mainly responsible.

The car keeps remarkably clean, and it is hard lines that it should inevitably become more or less heavily sprayed with mud in bad weather by most of the rapidly moving

	Nov. 10, 1925 to	Nov. 10, 1926 to	Nov. 10, 1927 to	
Licences Insurance Petrol (91 gals.) Oil Grease Oiling and Greasing (twice)	Nov. 10, 1926 Covering 2,804 miles	Nov. 10, 1927 Covering 5,009 miles	Nov. 10, 1928 Covering 5,077 miles	
	£ s. d. 10 8 4 10 0 0 7 7 0 1 1 9 1 10	£ s. d. 10 5 0 9 0 0 56) 10 10 0 (1 1 11 4 5 9	£ n. d. 10 5 0 8 15 0 11 8 1	
Renewals Additional	2 4 2	8 0 6	4 14 1	
Additions to Car Repainting Shed	1 2 9	Ξ	1 18 4 <b>1</b> 2 17 6	
	£33 16 10	£39 12 7	£42 5 21	
	About 31 m.p.g.= 3d. per mile	About 32 m.p.g.= 1.88d. per mile	About 32½ m.p.s.— 2d. per mile	
OVERHEAD CHARGES				
Interest (5% on £200 for Car	ж. п. d.	£ :. d.	£ z. d.	
1 C) 1)	10 0 0			

allowed to dry on, and is gently wiped off with a soft cloth. Occasionally, if some very tenacious material such as chalk is splashed on, it is necessary to moisten the stuff with a sponge. Nothing seems to give more trouble to clean than a thoroughly duety can be a specified in the second of the second o a thoroughly dusty car on which rain has fallen, hence the rule of dusting the vehicle before it is put away at night. The short time thus spent is well repaid if the next morning be wet.

C. J. Davies.

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

#### Deaf Drivers.

Devious are the developments of newspaper correspondence! In my letter "Driving Examination Possibilities," which you so kindly published in your issue of November

16th, I tried to say something which may be fairly summarized as follows:—
"There is now an agitation afoot to impose driving and medical tests on " Sightline " Replies. motorists. Those behind it have something of a case, and

may succeed. If they do, at least let the tests be held under the auspices of the great motoring associations, who would then issue certificates which should be recognized by the authoritie." the authorities.

And, straightaway, five stalwarts rush forward and exclaim: "No, Sightline, deaf drivers are not dangerous, and we don't want to be tested or examined at all, please.

Well, neither do I, nor was my letter an attack on deaf drivers, who were very casually mentioned among others to whom an exception might possibly be taken. Allow me to ask "Deaf but Competent" and Co. one question; it is this: "If tests of any kind are introduced, where would you be more likely to get a sympathetic hearing to your protestation that your deafness is of a kind that is no detriment to your skill as a driver? Before a medical board appointed by the A.A. or before a police surgeon?

The obvious answer to this question concedes the whole point of my original and much misunderstood letter.

SIGHTLINE.

#### INFORMATION WANTED.

Morcan.—Advice and experiences regarding merits and demerits of air and water-cooled engires respectively would be appreciated.—G. F. Tebbs, 12, St. Catherine's Grove,

## CLUB ITEMS AND SPORTING EVENTS.

SURBITON M.C. DINNER AND DANCE.

What was undoubtedly one of the most successful dinner and dance festivals of the season took place on Friday last at the Park Lane Hotel, London, this being the event organized by the Surbiton Motor Club. It was extremely popular, over three hundred members and friends attending. The speeches, which were few, were happily brief and bright. Trophies and awards won during the season in racing and other sporting events were presented by Lady Mays-Smith.

MIDLAND JOWETT CLUB.

MIDLAND JOWETT CLUB.

Following the success of the dance organized by the Midland Jowett Car Club in the early part of November, the club is organizing a further event of a similar nature. This will be a carnival dance, which will be held at the Devon Cafe, Corporation Street, Birmingham, or December 22nd, and it is hoped that all members will be present with their friends. It is worth noting, incidentally, that cars may be parked without lights in the passage by the side of the cafe.

THE SIXTH CRESPICUP.

On Sunday, November 25th, the Sixth CrespiCup Race, free to all cars, was held on the Monza rota-cum track circuit. Twenty cars started, a 7 h.p. Fiat being the limit car, with supercharged Alla-Romeo on the scratch line. The race was of a handicap nature, the length of the course being 100 kiloms, which, of course, included numerous sharp bends on the road section of the course. The winner proved to be Dafara, in a Lancia, and a Lancia also gained second place. Third place was gained by Pirola in a 1,500 cc. Alfd-Romeo. The three fastest cars were Alfa-Romeos driven by Natali, Pirola and Count Lurani, whilst the firstest lap of the circuit was put up by a supercharged Alfa-Romeo at an average speed of 130.90 kp.h.

tondon Motor Club's recent visit to the London Hotor Club's recent visit to the London Hippodrome, followed by supper at Lyons's Corner House, was voted a very successful event by the 60 members who took part. An attractize winter programme, including a number of social runs embracing beautiful country both north and south of the Thames, has been arranged, the next item on the fixture list heing a run to Coldharbour on December 16th, starting at 10 a.m. Toa will be taken at Dorking.

A rosy future seems assured for the club, as membership is increasing and now runs well into three figures. Full information concerning its activities and details of membership can be obtained on application to the hon, secretary, Mr. H. W. Platt. 38, Loudon Road, St. Johu's Wood, London, N.W.8.

LEICESTER AND DISTRICT M.C.

Members of the Leicester and District Motor Club are reminded that the last day for obtaining tickets for the annual dinner, dance and presentation of trophies is to-morrow (Saturday). The price of tickets is 10s. 6d. 

FORTHCOMING EVENTS.

December 7.
J.C.C. Annual Dinner and Dance.

December 8. orih-West London M.C. London-Gloucester-London Trial. North-West

December 9.
Wood Green and District M.C. Run to
Box Hill.
Liverpool M.C. Reliability Trial.

December 12.
Cranford and District M.C. and L.C.C.
Gramophone Evening.

December 13.

Leicester and District M.C. Annual Dinner. Dance and Presentation of Trophics.

December 15.

Civil Service M.A. Christmas Party. Cranford and District M.C. and L.C.C. Annual Dinner.

December 16.
Wood Green and District M.C. Sporting Dya Chase.
London M.C. Run to Coldharbour.
Bradford and District M.C. Reliability
Trial.

December 19
Cranford and District M.C. and L.C.C.
Christmas Sing-song.

December 22.
Midland Jowett C.C. Carnival Dance.

December 23.

Wood Green and District M.C. Run to Bedford.

December 27.

London M.C. Run to View Start of London-Exeter Trial.

December 27-28.

Motor Cycling Club. London-Exeter Trial.

each, and they can be obtained from the hon-secretary. The dinner takes place at Boots' Restaurant at 7.45 p.m., and dancing will be continued until 1.50 a.m. It is hoped that all members will attend and bring as many frends as possible with them, so as to ensure the event being as great a success as in previous years.

"RAIO" ON OSLO.

The R.A.C. of Milan is organizing a "raid," which will start from Milan on December 9th and end at Oslo on the 12th-a non-stop run of 2,300 kiloms. Not more than 20 cars will start and a minimum average speed of 40 k.p.h. has to be maintained. Our Italian correspondent informs us that this year the Gards Cup, dus to be run on December 7th, will not take place.

NORTHAMPTON M.C.C.

The results of the car trial held by the Northampton Motor Cyclists' Club on Northampton Motor Cyclists' Club on Northampton Town and the Cyclists' Club on Northampton Companies of the Groze Cup for the best performance was won by P. A. Thornton (Austin), who also won the Shale T. Woodrow Cup for the best run achieved by the driver of a British car. G. J. Stevens (A.C.) obtained a silver medal, whilst F. Pay (Clyno) was awarded a bronze medal.

LONDON-CLOUCESTER-LONDON TRIAL.

LONDON-CLOUCESTER-LONDON TRIAL.

A record entry has been received this year for the London-Gloucester-London reliability trial—the eighteenth of the series—which takes place to-morrow (Saturday). The route is approximately 230 miles in length, and restarting and acceleration tests will be included.

The following are the cyclear and car cutries:—G. Dudley Smith (Morgan); C. J. Turner (Morgan); J. S. Thurlby (Morgan); G. C. Harris (Morgan); H. J. V.dler (Morgan); A. H. Sparks (Morgan); H. J. V.dler (Morgan); A. H. Sparks (Morgan); H. E. G. Watts (Morgan); G. C. Harris (Morgan); H. E. G. Watts (Morgan); G. J. Turner (Morgan); H. E. G. Watts (Morgan); G. J. Turner (Morgan); H. E. G. Watts (Morgan); G. J. Turner (Morgan); H. E. G. Watts (Morgan); G. J. Ramsey (Austin); G. W. Gemmell (Morgan); R. T. Horlon (Morgan); A. J. Mollart (A.C. Royal); H. G. King (H.E.); J. J. Ramsey (Austin); G. W. Gemmell (Lagonda); W. J. Haward (Baylis-Thomas); Mrs. J. M. Taylor (A.C.); Miss M. V. Milna (Austin); Miss L. M. Roper (A.C.); Miss V. Worsley (Jowett Sports); Mrs. O. W. Clayton (Amicar); G. F. Hyams (Swift); D. C. Collina (M.G.); G. H. R. Chaplin (Austin); A. J. Whitmere (Tabot); R. R. Chaplin (Austin); A. J. Whitmere (Tabot); R. J. G. McHugh (Morris); G. W. Olive (Standard); B. Roberts (Schneder); J. W. Richards (Frazer-Nash); C. H. Lawford (Fiat); H. G. Davidson (Austin); W. L. Watson (Standard); J. A. Jelly (Riley); E. G. Batss (Riley); G. H. Tuson (Amilicar); W. H. Julian (Standard); G. B. F. Recco (Riley); G. E. Taylor (Morris-Cowley); Miss J. Dickins (Austin); Hon. Mrs. Chetwynd (Frazer-Nash); C. L. Guiver (Salmson); N. W. Raa (Salmson); H. Allehin (Austin); V. L. Sayd (Austin); C. F. Dobson (M.G.); R. M. Andrews (Austin).

# The M.C.C. in Festive Mood.

THERE was a large attendance of members and friends at the Connaught Rooms, London, on Friday evening last on the occasion of the twenty-second annual dinner and dance of the Motor Cycling Club. At the outset several members nearly went off the course when the stentorian voice of a toastmaster raised high above the babel of voices in the foyer invited, "Overseaf... this way "but the invitation, it transpired, referred to another function.

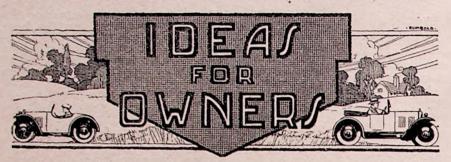
All the chief dignitaries of the club were present, Mr. J. van Hooydonk, the president of the M.C.C., being is the chair. The speechesfortunately for the speakers—were few; despite microphone ampliners, it was difficult to hear what was said above the sound of exuberant

merrymaking, but one gathered from fragmentary scraps of cloquence that reached our cars that the president, in proposing "The Guesta," was concerned about the ladies. "We welcome them here to-night," he said, "and we like to see them lining the hillsides to cheer us on our competition way; but we do not want them to drive in our events, which are quite big enough already." He paid a tribute to Mr. F. T. Bidlake by quoting the late Sir James Percy's summing up of the popular trials organizer, "the man with the head of silver and the heart of gold." Mention of the names of W. II. Wells J. A. Masters, Loonel Martin, L. A. Baddeley and others aroused onesiderable enthusiasm then, time having been called, the president sat down.

In the absence of Commander Armstrong of the R.A.C., who was unfortunately ill, Mr. T. W. Loughborough responded to the toast. The main point of his speech was in the nature of a comment on a proposal to hold a national trial organized by the A.C.U., the various contres to compete for the championship, ..., but what about the M.C.C. team trial? "he asked. That appeared to clinch the matter and to pave the way for a display of redoubled enthusiasm when the presentation to the likley and District M.C. of The Matorcycle Team Trial Cup was made.

That ended the formal part of the proceedings and the floor having been cleared, dancing was carried on uninterruptedly until 1 a.m.

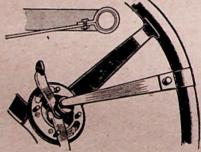
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We invite readers to send us hints gained from their own experiences for inclusion in this feature. Five shillings will be paid to the sender of any hint published, but we cannot undertake to return contributions not used.

#### Protecting Doors.

An ingenious way of preventing extra wide doors from swinging open at right angles—with obvious disadvantage or danger under certain conditions—is to temove the check strap and cut a piece of stout rubber—inner tube will do—the same width as the check strap, but somewhat shorter; the original leather strap should then be replaced, the rubber strip being secured at each end beneath it. The result is that the door will open freely up to a certain point, after which further opening is possible only by stretching the rubber, which will, of course, tend to close the door show the most suitable length for the rubber strip.



A novel scheme by which the horn of an Austin Seven can be sounded without removing the hands from the wheel.

#### Austin Seven Horn Operation.

The Austin Seven, in common with certain other cars, has the horn button placed in the centre of the steering wheel, and this position, whilst being very convenient in the ordinary way, has the disadvantage that the horn cannot be operated when one hand is extended to give a signal and the other employed in steering the car.

A novel idea which not only overcomes this difficulty but makes horn operation still easier under normal conditions is to obtain a strip of spring steel long enough to extend from the top of the horn button to the inner portion of the wheel rim. This should be attached to the rim of the wheel by means of a suitable clamp, the attachment being adjusted so that the spring strip is just clear of the button. To sound the horn it is then necessary only to press the strip, which can be done with one hand whilst steering.

#### Floorboard Fixing.

Floorboards secured in place by turn buttons are very easy to remove, but the trouble with this method of fixing is that the turn buttons often move round under the influence of vibration, so leaving the boards loose. This can be overcome by turning the button to the closed position and driving a wire nail into the woodwork close to one side; at a corresponding point on the other side of the button, a small hole should be bored, and into this can be dropped a nail having a large flat head. It is then impossible for the button to turn of its own accord, but when it is desired to remove the floorboards it is necessary only to pull out the loose-fitting nail, when the button can be turned.

#### Under-chassis Repairs.

The low build of modern light cars makes the task of carrying out repairs and adjustments to points underneath the chassis very difficult. A good scheme is to jack up the front or back wheels according to which portion of the chassis needs attention, and then lower each wheel on to a brick placed hollow side uppermost. This has the effect of raising the chassis some 3 ins, and makes a wonderful difference to the ease with which repairs can be carried out. Owing to the fact that the tyres

will to some extent fit into the "frogs" or hollows of the bricks, there is little risk of the car moving, but it is advisable to take the precaution of applying the brakes or, in the case of a car without front-wheel brakes, to scotch the front wheels if the rear have been placed on bricks.

#### A Battery Hint.

A good many motorists who would not dream of using anything but distilled water for topping up their batteries, lightheartedly employ an ordinary iron funnel; this sooner or later becomes coated with rust and dirt, much of which is carried down into the battery. If an enamel funnel is not obtainable locally an effective substitute may be secured by pouring a dessertspoonful of enamel into an iron funnel and working it about until the whole interior has been covered, keeping the end stopped up with the tip of the finger until it is desired to drain out the surplus. The result, when dry, will be a dead smooth surface.

#### Removing Water Connections.

The trouble which is often met with in freeing the flexible water connections of an engine can usually be avoided if the following method is adopted. After slacking the hose clips, carefully insert the blade of a small screwdriver between the fabric and the pipe, using gentle leverage to force the two apart at one point. Then inject petrol into the aperture and work round in this manner until the hose is completely freed.

Incidentally, a small oilean, such as is used for bicycles, makes an excellent petrol squirt for the job. When replacing the hose a little rubber solution smeared on the pipe will be found an advantage, as it will serve to make the hose slide on to the pipe more easily and will also ensure a good joint.



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

E.J. (Wrexbam).—Spiral-toothed gears are now used in Morgan bevel boxes.

R.E.M. (Eastbourne).—The reason for the paint on your car fluking off is more likely to be due to the fact that the surface was not properly prepared before repainting than to the use of unsuitable paint.

N.A.B. (Fort William).—Thermosiphon cooling is quite satisfactory provided that the radiator and water connections are of adequate size and that the cylinder block is placed fairly low in relation to the top of the radiator.

A.N. (Ipswich).—On a six-cylinder engine the magneto armature revolves at one-aud-half times crankshaft speed.

F.A. (Mexborough).—A pressure gauge intended for high-pressure tyres may not give satisfactory results when used for testing "balloons," as the calibrations do not always give a close enough reading.

R.E.C. (Chatham).—You need not worry because the oil pressure of your Singer Junior is considerably higher when the engine is cold. This is quite usual and is due to the fact that cold oil has a heavier body than hot.

G.C. (Cheadle).—We should not advise you to turn grooves in the pistorn skirts unless there is an unusually large amount of metal at this point.

not bevel off the bottom edge of lowest existing ring groove and six 1-in. holes at equal distances through the bevel? This will virtually convert the lower ring into a scrape ring.