Vol.XXX No.767

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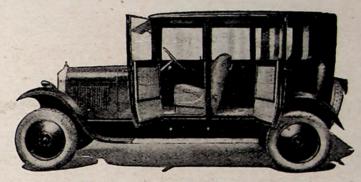
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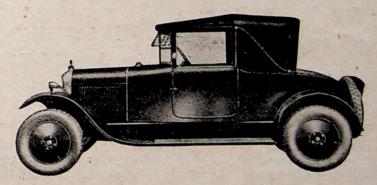
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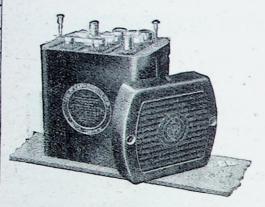
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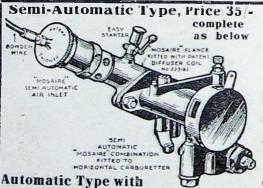
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Jones:- "--"

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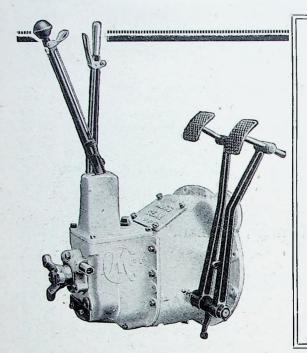
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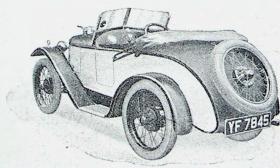
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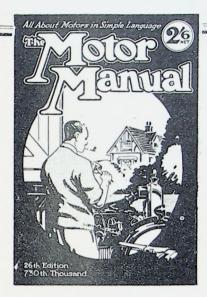
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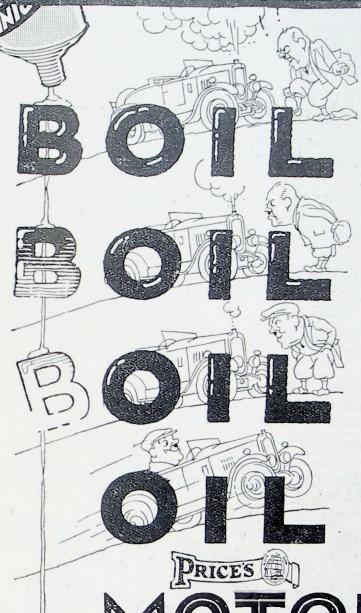
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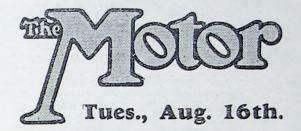
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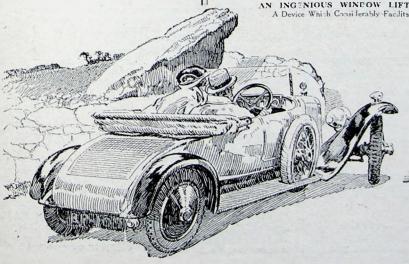
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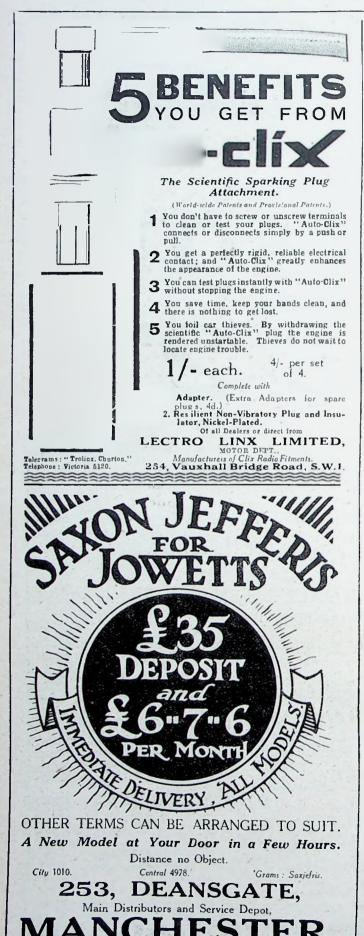
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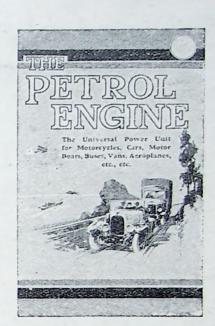
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disposal of all goods of interest to small car users.



THE LONDON-LUGANO RUN.

A sunny corner of Lugano, showing the Chiesa di S. Antonio and the Palazzo Postale. Lugano is again the objective of the Motor Cycling Club run which starts on August 20th, the route from London to the Italian frontier being an excellent test of the capabilities of a car. Full details of the run are given under "The Week - end Programme."

NOTES, NEWS & GOSSID The WEEK

The Great Splash.

Run off in a continuous downpour the J.C.C. Sporting Car race resulted in a victory for C. M. Harvey (Alvis). A vivid account is given in our centre pages.

A "Safety First" Number.

On September 9th we shall publish a greatly enlarged and copiously illustrated "Safety First" number. Order your copy now.

Fiat 12-cylinder on Test.

The "hush-hush" 12-cylinder racing Fiat has been tested at Monza by Bordino, the famous Italian "ace." It attained very high speeds.

This Week.

As a striking vindication of the claims made for small cars it would be difficult to provide a more convincing proof than that supplied by the story of the conquest of the Alps by an Austin Seven and an 11-22 h.p. Wolseley; the full story is given in this issue. Some interesting developments are foreshadowed under the heading, "On the Tapis," while technically minded readers will find much to make them think in "The Laws of Energy and Impact."

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LIGHTING-UP TIMES (Rear La	mps)
for Saturday, August 20th.	
London 8.42 Edinburgh	9.8
Newcastle 8.58 Liverpool Birmingham 8.52 Bristol	9.0
Birmingham 0.32 Distain.	0.72

Madresfield Speed Trials.

Moon-Last Quarter, August 19th.

The speed trials at Madresfield Court will be held on Saturday, September 3rd, commencing at 1 p.m. An R.A.C. open permit has been granted, and 14 of the 24 classes are open to cars. Entries should be sent to Mr. Eric Williams, Lowesmeor, Worcester, before August 27th.

For Danish Tourists.

Those who intend to take their cars to Denmark this summer should note that the Harwich-Esbjerg steamship route is very convenient; there are six weekly sailings and the trip is of comparatively short duration.

Salmson Secures Records.

Three international class G records were annexed by Mr. George Newman, driving a 1,094 c.c. supercharged Salmson at Brooklands recently. They were as follow:—100 kiloms., 39 mins. 18.47 secs., 152.641 k.p.h. (94.84 m.p.h.); 100 miles in 1 hr. 3 mins. 22.66 secs., 94.67 m.p.h. (152.356 k.p.h.); one hour, 94 miles, 1,201 yds., 94.73 m.p.h. (153.452 k.p.h.).

Next Week-

—Another helpful, instructive and amusing article from our versatile contributor, "Focus." This time he deals with the £ s. d. of Scottish touring, and complains that hotel and garage charges north of the border are far too high. A long article of outstanding usefulness will deal with a road test of the 9 h.p. Riley, which is certainly one of the most interesting small cars of the present day.

German Motorists.

Only one person in 125 holds a driving licence in Berlin, the ratio comparing very unfavourably with corresponding figures for heavily populated districts in this country.

Richmond Park Deer.

A stag has been killed by a car passing through Richmond Park, London. Motorists are cautioned to observe carefully the speed limit and to keep a look-out for deer straying on the road.

The "200."

Intending competitors in the 200-mile race are reminded that they must be members of the promoting club and that entries at ordinary fees close on September 1st. Major C. M. Harvey (Alvis Special) has obtained the coveted "number one."

Coventry's Trams.

Until recently there has been much discussion as to whether buses or trams shall be run along several new streets to be built in Coventry. At a meeting of the council a motion to run a double tram track along Corporation Street was heavily defeated. Motorists will entirely agree with this decision.

Leeds Car Parks.

The following car parks are now available in Leeds, the watch committee having granted several additions and extensions:—Park Square, King Charles Street, Albion Place from Albion Street to the County Court, Albion Street in two sections, King Edward Street from Briggate to Vicar Lane, and Vicar Lane (west side) from Lowerhead Row to Harrison Street. Park Square is to be available all day, but the others may be used only at certain hours.



WEEKLY WISDOM.

The seat of judgment it hath much dignity but little mercy. Come not before it therefore with levity, but rather in the manner of the worm that crawleth.

National Benzole Price Reduction.

In accordance with "cuts" made by other fuel companies the National Benzole Co., Ltd., aunounce a reduction in the price of National benzole and National benzole mixture of 1d. per gallon, wholesale and retail.

R.A.C. Sussex Office.

The R.A.C.'s new Sussex office will be opened at 28-29, Richmond Place, Brighton, on August 29th. The offices, which include a reading lounge, will contain a full stock of maps of the district and the officials will be able to issue routes and give touring information to RA.C members and associate members motoring in the locality.

The Nottingham "Roundabout."

The roundabout traffic control in Theatre Square, Nottingham, is being criticized on artistic grounds. Since the innovation of the scheme, it is said, "the square is an arid waste of cobbles, which....nothing relieves from stark hideousness."

Scottish Car Parks.

A warning to Scottish tourists has been issued by the R.A.C. with regard to cars left unattended in certain "parks." Vehicles are allowed to stand in a street only for a period sufficient to take up or set down passengers, according to the Burgh Police (Scotland) Act, and Scottish police have been very active in certain towns.

Continental Road Map.

A map which should be very useful to tourists on the Continent is the new and revised edition of the R.A.C. official motoring map of Central Europe and Algeria, which has been published recently by George Philip and Son, Ltd., 32, Fleet Street, London E.C.4. The map takes in France, Switzerland, Northern Italy, Belgium, Germany, Czecho-Slovakia, Austria and Hungary and all the principal main and secondary roads are shown. Altogether it is a very admirable guide.

Have You Ever Noticed ----?

How the owner who generally leaves things to chance has a big repair bill?

That hills in country to which one is unaccustomed are often steeper than they look?

How a wavy surface nearly always develops on the side of a hill on which traffic descends?

How a nervous or lazy driver generally slips the clutch rather than change down to a lower gear?



A SKID IN THREE PHASES.

An incident in the Sporting Car Race. (1) Owing to a sudden seizure of the engine of the Senechal on the right, the car decelerated violently, causing the driver of the car on the left—a Lea-Francis—to brake too heavily. The Lea-Francis skidded right round and (2) ran backwards, breaking the line of flags in the finishing straight, ending up as shown in photo No. 3.

THE SURBITON "150."

SATURDAY, September 3rd, is the date fixed for a very interesting event organized by the Surbiton Motor Club, which will be known as "The Surbiton '150." The object of the race

is to demonstrate that sporting cars can,

For the Boulogne Meeting.

In addition to the entries for the Boulogne meeting which have already been given in this journal, a Marendaz Special has been entered by D. M. K. Marendaz, both for the speed trials and the Grand Prix

Irish Traffic Regulations.

Suggested new truffic regulations in Dublin make it illegal for cyclists to ride more than two abreast. A rumour is in circulation that cyclists will be compelled to licence their machines and to carry identification dises.



This readily convertible body for an Austin Seven is being marketed by Duple Bodies and Motors, Ltd., Edgware Rd., Hendon, and sells for £177.

The price includes both van and touring "tail."

Road and Air.

Sir Harold Bowden, well known in both motoring and motorcycling circles, has recently purchased a D.H. Moth aeroplane.

Advertisements on Licences.

No action is yet to be taken by the London County Council with regard to the insertion of advertisements in driving licences issued by the L.C.C. It is stated that the Ministry of Transport has notified the Council that no objection would be offered to such a practice.

Car Parks at Ripon.

Certain alterations to the times at which the public car-parking ground at Ripon is available have been made by the corporation. Private cars may be parked in the market place free of charge, for one hour, any day except Thursdays. The suggestion has been made that garages should be erected on the public parking ground.

Redhill Service Station.

A service station was recently opened at Gatton Point, Redbill, which is equipped with all modern devices to ensure real service to customers, and which is said to be the first of 100 similar stations to be erected all over Great Britain. Rest rooms with telephone facilities are provided, and an ingenious labour-saving device has been installed which raises cars to a height of 5 ft., enabling mechanics to carry out with ease adjustments to the underside of chassis.

Lowestoft Speed Trials.

The Lowestoft Open Speed Trials will be held on the new concrete sea wall on Thursday, September 1st, at 2.45 p.m. R.A.C. and A.-C.U. permits have been granted to the Ipswich and District Motor Cycling Club, which is organizing the event, and the races will be run off on a course one mile long and 60 ft. wide. Particulars may be obtained from the organizers at Marquis Chambers, Butter Market, Ipswich, and intending competitors are especially requested to note that entries close on Thursday next, August 25th.

No Lights!

There is no law requiring cars to carry lights at night in the Canton Schwytz, Switzerland.

The Prince's Petrol Pump.

A petrol pump has recently been installed at the Prince of Wales's new London residence, Marlborough House, and is to be used solely for the Royal cars.

Lincoln Trams.

As repairs are now necessary to tram-tracks in Lincoln, the cost of which would be about £30,000, the City Council has decided to support additional bus services in place of the trams.

Posts for Pedestrians.

Sixteen signposts for the benefit of pedestrians are being erected in the West End of London. They will indicate to foot passengers the best places to cross busy thoroughfares, and motorists should be particularly cautious at these points.

Petrol Substitutes.

A new area in which raw material may be obtained for the production of alternative fuels to petrol has been discovered in Northern Queensland. The Distillers Co., working in conjunction with local sugar planters, has erected a distillery in the locality, which will be followed by others if the venture is a success.

and the following table shows the classes, governed by engine capacity, into which competitors will be grouped, the amount of fuel they will be allowed, the corresponding m.p.g. which will have to be obtained and the speeds at which theoretically the various classes will have to run—assuming an average of 70 m.p.h. in the unlimited class—so as to cross the finishing line in a bunch.

Class.	e.c.	Galls.	m.p.g.	m.p.h.
Λ	750	4.75	32	474
В	1,100	5.5	28	57
C	1,500	6.5	23	63
D	2,000	8.5	18	65
E	2,500	9.5	16	663
\mathbf{F}_{t}	3,000	12.5	12	68
G	Unltd.	17:75	84	70

The classes will not be started en masse but according to their handicaps, so that the event will present a real race for the finishing line. The handicap figures are as follow:—Class A, 60 mins. 54 secs.; Class B, 29 mins. 19 secs.; Class C, 14 mins. 18 secs.; Class D, 9 mins. 53 secs.; Class E, 6 mins. 46 secs.; Class F, 3 mins. 47 secs.; Class G, seratch.

No restrictions will be placed on engine or chassis details, but ears must must in touring trim, including wings, headlights and so forti. The entry fees are at the rate of ten guineas per ear, and entry forms accompanied by fees must be sent to the organizer, Mr. Lionel Martin, 1. Pembroke Villas, Kensington, London, W.S.

ON the TAPIS

THE EDITOR DEALS WITH PLANS AND POSSIBILITIES IN THE WORLD OF LIGHT CARS.

Bearing in mind the Home Secretary's recent outburst against noisy exhausts, car manufacturers are taking active steps to perfect silencing arrangements. This is all to the good really, for a loud exhaust may hide a multitude of mechanical noises. The "quieter exhaust" movement will, quite conceivably, lead to greater mechanical efficiency, for extraneous noises—which frequently spell wasted power—will have to be eliminated if they can no longer be camouflaged.

There is every indication that in a very short time the public demand for Weymann saloon bodies will be satisfied by the inclusion of at least one model of this sort in the programme of every go-ahead manufacturer; in fact, greatly improved Weymanns promise to be one of the most striking features of the Olympia Show.

If the efforts of one of the members of the committee of a well-known south country motoring club are crowned with success—and there is every indication that they will be—T.T. races for cars, inside private grounds and, in fact, of a similar nature to the Crystal Palace events, will be inaugurated before long. They should provide an even greater degree of interest, for the course, the venue of which we are not at the moment allowed to divulge, is faster and is within full view of the spectators all the way round. The Brighton speedway is not indicated—the course being very much handier for Londoners.

It has been anticipated for some time past that the dazzle question would be tackled officially and some measure introduced to bring the various contending parties into line, but the problem is still proving too much for politicians—which will cause no surprise. In the meantime, motoring authorities are agreed that it is wrong to black-out, whilst the manufacturers of dipping head-lamps are going ahead with plans for improved apparatus in the belief that under the new light-



ing regulations devices of this sort would be encouraged. The clause in the Lighting Bill relating to this subject is as follows:—

Unless otherwise provided by the Minister by regulations no lump carried on a vehicle other than a dipping headlamp shall be moved or swivelled while the vehicle is in motion.

In last week's issue we gave exclusive information concerning the Féjes car, which created a mild sensation when it was first announced owing to its unique pressed-steel construction. We have every reason to believe that the car will emerge with honours from the severe tests to which it is now being subjected, and that it will be offered to the public at a very attractive figure when it makes its real bid for popularity next year.

There are some very interesting all-weather equipment developments in the offing. At least one firm of bodybuilders will show at Olympia a snug little coupé with improved glass windows of the "lift and lower" type and a really substantial "top" that can be raised or lowered from within the vehicle with one hand.

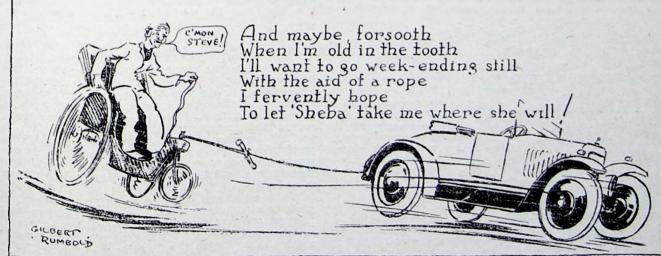
Another important development so far as bodywork is concerned is the increasing interest in "the closed car which will open." It is felt in manufacturing circles that a car should be at its best when closed, instead of when open, and that the way to attain this object is to make "allweather" cars which are to all intents and purposes saloons, but having a roof the whole or part of which can be lowered. The objection to this plan is, of course, that the window supports and top rails would remain in place when the car was opened in fine weather, and it is felt in some quarters that exception would be taken to this by the public on account of the unconventional appearance. Our own belief is that if the problem is tackled in the proper manner and the public is given a car which, when closed, is in every way as weatherproof as a saloon, the fact that the appearance with the hood lowered was rather unconventional would be of little account; the number of days in the year on which it is feasible to have the hood of a car lowered is really so pitifully small that

really so pitifully small that prejudice on the score of appearance is not likely to prove a serious obstacle. Singing a song
No troubadour gayer than I
There's a thrill in the feel
Of my own steering wheel
As the Milestones go saun

Over hill and through dale I teisurely sail. So happy, so carefree Eglad. Through police traps & such I neatly de-clutch. To make all the Bobb.

On the road I am Kin
Of every durned thing
My car is my Oueen, do you see
Like the hoary old story
Of Solomon's glory
My 10.H.P "Sheba" and me

Through all sorts of weather We week end together But never does 'Sheba' complain She knows that while she Remains faithful to me I'll not want to travel by train.



Showing that your real light car enthusiast intends to be game to the last.

THE LAWS OF ENERGY AND IMPACT.

THE EFFECTS OF A BLOW—LIVE LOADS AND DEAD LOADS INTERESTINGLY DESCRIBED—HOW TO CALCULATE BRAKING DISTANCES.

Although most motorists probably have forgotten the elementary mechanics which they learned at school considerable interest and instruction will be found in this article which explains clearly how the laws of energy and impact find a practical application in motorcar design.

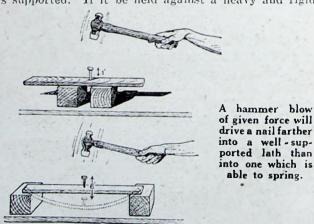


VERYONE who has used a hammer or has driven a car over a half-brick at 40 m.p.h. is familiar with the effects of impact which may be very useful or very harmful, according to the way in which they are allowed to take place. Knowledge of them is essential to a chassis designer, whose structure is always having to withstand the effects of blows, and forms an interesting study for motorists with a technical bent.

The principle involved is simply a matter of the dissipation of the energy possessed by a moving body, the effect being known as "impact" if the energy be delivered in a very short space of time; thus a hammer pressed firmly on to a nail will not cause it to penetrate the wood to any effective extent, whereas the same hammer brought down swiftly through a distance of about a foot will drive the nail downwards quite rapidly.

This is simply because considerable velocity is imparted to the hammer head, which gains energy thereby, and this energy is delivered in a short space of time, so creating a heavy blow.

Another important point to notice is that the severity of the blow depends upon the method by which the nail is supported. If it be held against a heavy and rigid



block of wood it will receive a big driving force and will penetrate very rapidly, whereas if the nail is being driven into a springy lath, the same hammer, used in the same way, will produce very little driving effect. The reason underlying this difference is simply that the energy of the hammer is absorbed in a short dis-

tance and, therefore, in a very short space of time when the nail is firmly supported, whereas the "give" of a lath spreads out the period of energy dissipation over a long distance and a corresponding long time, reducing the severity of the blow in proportion.

Quite a simple calculation can be made in order to show precisely what is happening. If we indicate the weight of the hammer by the letter W and its velocity in ft. per second by the letter V, then its energy just before it hits the nail is represented by the formula W \times V² \div 64.4. Consequently, if a hammer weighs 4 lb. and it is speeded up to a velocity of 10 ft. per second before hitting a nail, its energy will be, according to the formula, $4\times 100 \div 64.4 = 64$ ft. lb.

If this is dissipated while the hammer drives the nail a distance of 1 in, before coming to a stop, then, neglecting various losses of energy, the work which has been done by the hammer on the nail is represented by the force delivered to the nail multiplied by the distance through which the nail has been driven. If we represent the force in lb. by the letter P, then the work done is $P \times 1$ lb. in, or $P \neq 12$ lb. ft. This, theoretically, is equal to the energy possessed by the hammer before bitting the nail, and, consequently, $P \neq 12 = 6\frac{1}{4}$ and $P = 6\frac{1}{4} \times 12 = 75$. In other words, the blow is 75 lb.

Tyre and Spring Effects.

Now, it is easy to see that if the nail be placed in a lath with plenty of "give," so that the hammer head moves through a distance of, say, 6 ins. before coming to rest, the blow will be one-sixth of its former value, i.e., only about 12 lb. This shows at once the effect of springs and tyres in cushioning a blow received by a car and its occupants when a wheel meets with an obstruction. Owing to the deflection of the tyre and spring, the dissipation of energy is spread over a bigger time interval and the impact imparted to the chassis is correspondingly reduced.

Effects of impact can also be illustrated by other parts of a motorcar chassis. As an example, we may take an ordinary poppet valve operated by a tappet and cam and closed by a spring. If the parts are correctly designed, then at all ordinary speeds the valve will open and close smoothly with the tappet roller following the cam contour so that the parts will not be subjected to any check.

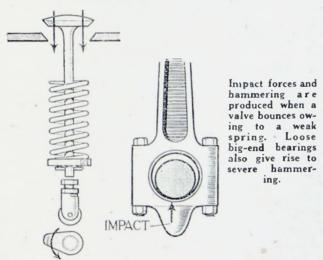
be subjected to any shock.

If the engine speed is very great, however, so that

the valve spring is not sufficiently strong to cope with the inertia of the parts, the tappet roller will leave the cam after the point of maximum lift has been passed, and, subsequently, the valve will be returned to its seating with a "bang." This produces impact and a hammering action which is very destructive to the valve and to its seatings in the cylinder block. A form of pitting takes place, and it may be necessary to recut the seating and valve faces.

Another case in point is a bearing such as a big-end subjected to alternating loads. So long as the clearance between the big-end and the crankpin is only a few thousandths of an inch, the bearing works smoothly enough, but if any marked degree of wear occurs play develops, so that, at the end of every stroke, the big-end is thrown upwards or downwards, hammering the crankpin and producing a characteristic knocking sound. The effects of impact of this kind are so potent that once a certain degree of wear has occurred matters are likely to get rapidly worse, until the engine can to longer be run in that condition.

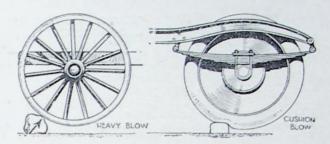
The effects of a live load, as compared with a dead load, in stressing a mechanism are very similar to impact effects, although in this case one part is not allowed to attain any great velocity before striking the other. A live load is one which is applied suddenly



to its full extent and is of a varying character, whereas a dead load is gradually applied and remains at a constant amount for long periods. The stress produced by the former in the material by which it is supported is twice that which will be produced by the latter. In the design of a car it is mainly live loads which have to be treated, and, consequently, an ample factor of safety must be allowed to take care of the stresses involved.

The brakes of a car constitute an example of a device designed for the dissipation of the energy possessed by a body in motion, the moving car being smoothly brought to rest when the energy which it possessed is dissipated in the form of heat at the brake drums. The formula that we have already described which con-

nects the four variables—weight, velocity, force and distance—can readily be applied to a car and its brakes either to calculate the theoretical stopping distance or to check distances which may be claimed by the makers or users of the car.



When a steel-tyred unsprung wheel strikes an obstruction the full force of the blow is felt; but a pneumatic-tyred sprung wheel absorbs most of the force of the impact.

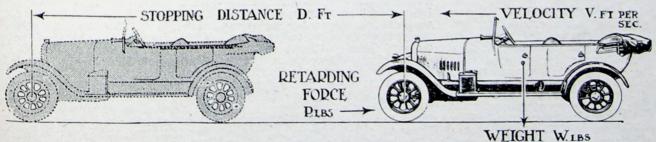
For example, if the weight of the car is, say, 1,000 lb., four-wheel brakes on a dry road can, or should be able to, produce a retarding force of eight-tenths of this amount, which would be 800 lb. At 30 m.p.h. the velocity of the car is 44 ft. per second and the energy which it possesses is, therefore, given by the formula as $1{,}000 \times 44^{\circ} \div 64.4 = 30{,}200$ ft. lb.

Now, the work done by the brakes in stopping a car (which is equal to the retarding force multiplied by the pulling-up distance) is exactly the same as the energy which the car possessed when the brakes were first applied. In this case the retarding force is 800 lb., and, therefore, calling the braking distance D feet, the formula gives us $800 \times D = 30.200$, or D = 38. The distance (D) in which the car can be stopped from 30 m.p.h. is, therefore, 38 ft.—a quite satisfactory figure.

Possible Stopping Distances.

Using the formula in another way, we will suppose that the owner claims that he can pull his car up in 30 ft. from 30 m.p.h. Having worked out the energy as 30,200 ft. lb., as before, we find that the retarding force produced by the brakes if the stopping distance is to be 30 ft., must be $30,200 \pm 30$, which is slightly in excess of the weight of the car itself. Such retarding force is, as a matter of fact, within the bounds of possibility, although it is not often attained. Authenticated tests have actually been made which appear to show that a retarding force of as much as one-and-a-quarter times the weight of the car can be reached in exceptional circumstances.

Incidentally, these figures can be used to show the very big force which is created when a car strikes an osbtruction sufficiently rigid to stop it very rapidly. For example, from the figures we have given it is obvious that the car in question, if pulled up in 3.8 ft, say, by meeting another car, would experience a blow of \$,000 lb.—over 3\frac{1}{2} tons. Surely an argument in fayour of fitting bumpers!



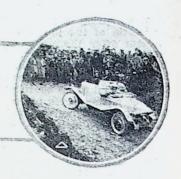
AN INTERESTING
CALCULATION.

This diagram shows clearly how the forces which govern the stopping distance of a car are disposed. The method by which the calculation is made is fully explained in the text; it applies to any car.



A "MIXED" RACE MEETING.

CARS AND MOTORCYCLES IN ESSEX MOTOR CLUB'S EVENT. LONDON-LUGANO STARTS FROM HARWICH TO-MORROW AT 7 P.M.



HE Essex Motor Club, which caters for motorcyclists as well Las car members, has always made a point of running thoroughly enjoyable mixed meetings, and tomorrow (Saturday) this policy will again be adhered to. Spectators will, therefore, be able to see both sides of racing, that is, motorcycle and car events on the one day and at the same place-Brooklands.

Racing will commence promptly at 2 p.m., the car events being as follow:-(1) The Essex 50-mile Handicap for cars up to 3.000 c.c.; (2) the Essex Senior Long Handicap, distance about 8½ miles, for cars over 2,000 c.c., and (3) the Essex Junior Long Handicap, distance about 8½ miles, for cars up to 2,000

The 50-mile handicap will be run on lines familiar to those who have attended previous E.M.C. meetings and, as usual, the start of this and all other races will be at the fork. No pits or depots will be erected or allowed, but, as in the past, there will be no objection, presumably, to competitors changing wheels making adjustments and so forth in the pir areas.

The Essex Senior Long Handicap

is a high-speed event, and with a view to giving each man a perfectly clear run the entries have been limited to six; there is no limit to the entries for the Junior Long Handicap. There will be three motorcycle events, including a long-distance handicap. The entries for these events are very good.

In order to provide the public with better facilities for viewing the races from the end of the fork enclosure, it is probable that the barriers will be erected at an angle, so that the public can approach nearer to the track itself.

The paddock for car entrants will be on the other side of this barrier at the fork and, although the public will not be allowed to have access to this area, they will be able to obtain a fairly close-up view of the cars and their personnel. The actual starting line will be opposite the timekeeper's box-generally referred to as Chronograph Villa-at the fork, and the same line will be used for the finish of the races. Thus the public will be able to see the racing at close quarters from the word

It is rather regrettable that the car entry list is small, but even

racing car drivers require a rest from their labours, and many of those who would normally take part have been unable to do so as they be away holiday-making. Nevertheless, some interesting drivers and cars are down to start; these include Miss H. Lister (Aston-Martin), Mrs. W. B. Scott (Thomas Special), R. M. V. Sutton (Lea-Francis) and a Fiat entered by Mr. R. Warde, which will be driven by J. R. Cobb.

The complete list of car entries'is as follows :-

Essex Senior Long Handicap .- L. T. Redburn (Sunbeam), W. B. Scott (Bugatti), E. A. A. Stone (Vauxball), R. M. V. Sutton (Lea-Francis), J. R. Cobb (Fiat).

Essex Junior Long Handicap.—B. Eyston (Bugatti), V. Gillow (Riley), Eyston (Bugatti), V. Gillow (Riley), C. W. Johnstone (Bugatti), Miss H. M. Lister (Aston-Martin), R. F. Oats (O.M.), Mrs. W. B. Scott (Thomas Special), R. M. V. Sutton (Lea-Francis), A. V. Wilkinson (Salmson).

Essex 50-mile Handicap.—S. G. Nash (A.C.), B. Eyston (Bugatti), L. T. Redburn (Sunbeam), H. W. Purdy (Thomas Special), W. B. Scott (Bugatti), Mrs. E. M. Scott (Thomas

(Bugatti), Mrs. E. M. Scott (Thomas Special), R. M. V. Sutton (Lea-Francis), A. V. Wilkinson (Salmson).

THE THIRD LONDON-LUGANO RUN

THE Motorcycling Club's third London-Lugano run starts tomorrow (Saturday) evening from the L.N.E. Railway Quay, Harwich, about 7 o'clock. The promoters clearly state that the run is more in the nature of a touring holiday than a competition, as some of the finest scenery in the Swiss Alps is included in the route, whilst ample time is allowed for the journey, especially in Switzerland.

The total distance from Antwerp, where the run officially starts, to Lugano is about 750 miles, six days being taken for the journey. This brings the party to Lugano on Saturday evening. A stay is here made until Monday, after lunch, when individual members may return by the nearest route or extend the holiday as convenient. The route chosen last year will be followed, namely,

Antwerp, Brussels, Dinant, Namur, Arlon; this runs right through the Belgian Ardennes. After Arlon the party enters France and through Lorraine, via Metz and Strasbourg. Leaving Strasbourg the competitors enter the Vosges, a finely wooded, hilly district, make for Gerardmer and on through Belfort, enter Alsace, making for Bale, where Switzerland is first reached. After Bâle, Zurich and Lucerne, whence the real big country starts, including the Briinnen Pass to Meiringen, the Grimsell Pass to Gletsch and the Furka Pass—where the Rhone Glacier is reached at a height of over 8,000 ft.—on to Andermatt. Next comes the St. Gothard Pass, with the long glorious drop to the valley to Bellinzona, finishing up at Lugano.

The whole tour is scheduled so

that those taking part may be back in England within two weeks, but the time spent on the Continent may. of course, be extended by individual members.

Up to the time of going to Press the following car entries had been received:-John H. Ahern (19.5 h.p. Invicta), C. E. Barnes (42 h.p. Rolls-Royce), F. Broomfield (11.9 h.p. Lea-Francis), R. Frainey (9 h.p. Clyno), E. H. Grimsdell (12 h.p. Alvis), E. H. M. Grimsdell (12 h.p. Alvis), Lea-Francis (12 h.p. A Alvis), Jack Hobbs (11.9 h.p. Riley), Edwin Marks (7 h.p. Austin), D. S. Prentice (11.9 h.p. Riley), H. G. Reigate (19.5 h.p. Invicta), Chas. I. Robinson (13.9 h.p. Invicta), Cnas. 1. Robinson (13.9 h.p. Bean), S. H. Roe (11.9 h.p. Riley), E. N. Willyams (car unnamed), J. van Hooydonk (16.5 h.p. Essex), W. E. Still (12 h.p. Alvis), W. L. Allen (16 h.p. A.C.) (16 h.p. A.C.).

WILL THE FIATS RETURN?

LATEST NEWS OF THE ITALIAN GRAND PRIX AND THE 200-MILE RACE—STILL TIME FOR FIATS TO ENTER THE J.C.C. CLASSIC.

ROM September 4th to 8th Italy will indulge freely in motor sport. The Italian Grand Prix will take place on Sunday, whilst two other important events will be the second Grand Prix of Milan and the 24-hour

Touring Grand Prix.

One of the most interesting items of news is that the "hush-hush" 12-cylinder Fiat of 1,500 c.c. capacity will probably make its debut in the Italian Grand Prix. This car has been the subject of experiment for a considerable time and the greatest secrecy has been observed during its construction; even at the present moment very little is known about its specification.

We are able, however, to give the following information concerning it. The 12 cylinders are arranged in two blocks of six, a Rootes supercharger being fitted at the front. The single-senter frame is extraordinarily low and the lines of the body, of course, follow suit.

The design of the tail does not follow conventional lines, and this makes the car easily distinguishable when on the track.

On July 24th and 25th P. Bordino, the famous Italian "ace." brought the car to the Monza track and put in some serious practice work. According to our Italian correspondent, he approached the track lap record on several occasions. but a better performance is expected and it is probable that between now and the time of the Grand Prix modifications will be introduced so as to give the necessary higher speed. This car will probably be only one of the Fiat entries. and as the racing team is now in full training, it is anticipated with confidence

that Fiats will be represented in each of the three events which comprise the motor "week."

An International Duel.

The Italian Grand Prix should be particularly interesting because American cars as well as French will probably participate. Lockhart, Souders and Kreitz have, it is said, already sailed for Italy, and their cars are on the way to Monza. There will undoubtedly be a very hard-fought duel between the American entries and the Delage which has been entered at the last moment by Benoist. This determined young Frenchman is carrying all before him, and he may be relied upon to give a very excellent account of himself on the Italian speedway. In addi-

tion to the American personnel, Benoist will have to reckon with Maserati, an Italian racer of very great distinction.

A team of 2,000 c.c. eight-cylinder supercharged Alfa-Romeos has been entered for the second Milan Grand Prix, and this so far is the only item of information to hand.

High hopes are entertained that the 200-Mile Race of the Junior Car Club, to be held on October 15th, will attract several Continental entries and assume a far more international character than of yore.

Prospects of the "200."

Already about a dozen entries have materialized, including Major C. M. Harvey's Alvis Special, which will bear the coveted No. 1. Harvey will undoubtedly start a very strong favourite, for his recent exhibition in the Sporting Car Race proves that he has lost none of the skill or determination that he displayed in 1923 when he won the "200."

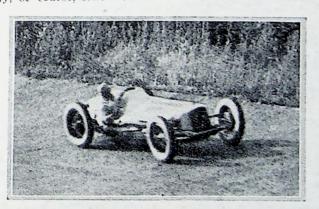
Incidentally, it will be recalled that it was in the year named that 1,500 c.c. Fiats first made their appearance on an English track. Their unexpected retirement within half an hour of the start of the race

was one of the sensations of the afternoon. If Fiats were prepared to send cars across the water to compete in 1923, it is not at all unlikely that with their perfected 12-cylinder racer they may decide to attempt to regain the prestige which they lost at Brooklands four years ago by taking part in the 1927 race. Entries, however, close at ordinary fees on September 15th—and up to the present it is to be regretted that no news has been received.

The effect of holding a race so late in the year as October 15th—during the run of the Motor Exhibition at Olympia, in fact—will be interesting, but those who have criticised

the Junior Car Club for choosing this very late date should bear in mind that the only alternative was August 13th, the day of the Sporting Car Race, during which rain fell unceasingly from 12 noon until 6 p.m.

As an added inducement to intending competitors the Junior Car Club will probably offer even more substantial cash prizes for the forthcoming race, but at the moment nothing definite has been settled. Another point of interest is that the sand banks in the finishing straight will be spaced at wider intervals than last year, so that far more spectacular and skilful driving can be witnessed. The substitution of the single-span footbridge across the track for that having two daugerous piers has been a factor in the decision which has been reached on this point.



The first published photograph of the new 12-cylinder Fiat racer, with Bordino at the wheel, putting in practice laps at Monza. The perfection of this ultramodern racer and the success which attended its two-day trial on the Italian speedway will lead enthusiasts to hope that it will be seen in the 200-Mile Race in October.

HOW TWO LIGHT CAR OWNERS EX-PLORED THE ETERNAL SNOWS OF DAUPHINY AND SAVOY,

HEN we told our friends we were going to spend our annual three weeks motoring in the French Alps they said: "What? In your 7 h.p. Austin?" ... "Won't it be terribly expensive?" ... "Aren't the French roads simply awful?" and "You won't see much in three weeks." But Sam and Sue, who own an elderly 11 h.p. Wolseley two-seater (known as "Winnie"), put a more sensible question—"Can't we come, too?"

Our chests bulging with tripiyques, passports, international travelling passes and other portentous documents provided by the A.A., we motored down to Dover one Sunday afternoon in June—the last fine day, I believe, enjoyed by folk in England that month. A

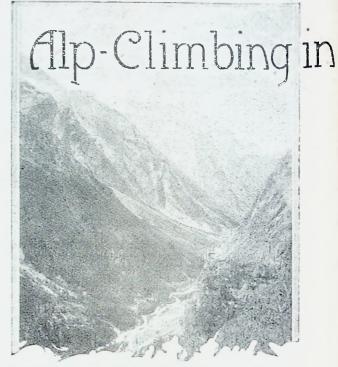
week later we were in the thick of it.

Petit dejeuner on a terrace on the sunny side of a deep ravine, 4,500 ft. above the sea; below us a rushing mountain stream and directly opposite, rising almost sheer into a cloudless blue sky, 8,000 ft. of snow-clad mountain. After breakfast we set out by car, climb gently out of the valley to its top 12 miles away and 2,000 ft. higher, and then, after an hour among the myrind varieties of Alpine flowers colouring the grass slopes, turn abruptly off the main Route des Alpes that leads on south to Monte Carlo, in order to climb the highest motor road in France.

Three miles on first gear, with a hair-pin bend every 50 yards, and then the road ends in a bank of half-melted snow, so the rest of the climb has to be made on foot. At the summit (8,700 ft.), a razor-back joining two knobby hills, is a most amazing view—range on range of purple, snow-topped peaks stretching away on each side and culminating in the white radiance of Mont Blanc itself, 60 miles or more distant but as sharply outlined and majestic in that clear morning air as if it were just across the valley.

Truly a view worth going a thousand miles to see. Actually we had come about 650 miles from London. Four easy stages had taken us to Grenoble and from there it was a mere 50 miles to the very comfortable hotel at La Grave on the terrace of which we had our breakfast





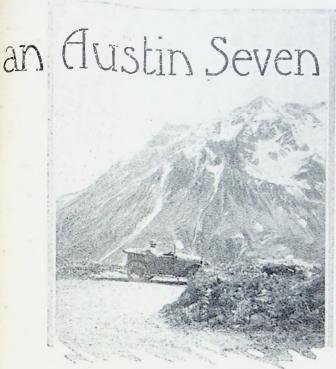
The valley from the Col du Lautaret to Grenoble.

three weeks later, we spent eight days travelling and had 14 full days for leisurely exploring, col-climbing and loafing.

Once in the Alp region, we chose three spots to serve in turn as centres. The first was St. Pierre de Chartreuse, a little village in the heart of a small group of mountains at a spot where three valleys join; that was a lucky choice, it made such an excellent curtainprise.

Three roads lead to St. Pierre and each of them to a roving Englishman is wonderful. That from the west, the direct entry for those coming from Calais, rises up through a narrow ravine, along the sides of which it twists and turns, often hewn out of the living rock. Going north from St. Pierre, 15 miles of downhill (most of it in second gear) end in a dramatic exit from a tunnel half-way down the side of a limestone precipice overlooking a beautiful, smiling valley, with Chambery in the foreground and the shining waters of the Lac du Bourget beyond. The third road, to the south, leads—although with less dramatic suddenness—to an equally lovely and even vaster view over Grenoble and the valley of the broad, winding River Isère. And round St. Pierre itself there are pine





On the road down from Col du Galibier, the second highest mountain in Europe.

forests and grassy slopes, walks and climbs, including that to the famous monastery of the Grande Chartreuse, silent and solitary in its own isolated ravine.

Two days we spent there and would have stayed longer had we not all been so eager to reach the real Alps. Sliding down one morning into Grenoble, hot and dusty, we picked up there the veritable Route des Alpes and set out on the 50-mile-long, 600-ft.-high climb to the first of the famous passes, the Col de Lautaret. Its summit was our objective, the second of our selected centres; but 12 miles short of the top we suddenly came upon La Grave, quietly gazing up, as it were, at towering, magnificent La Meije, and there was no question of passing that by.

La Grave is a tiny village of mediaval stone houses crowded together on a rocky knob which juts out of the steep valley side. Directly opposite, her lowest snows within easy walking distance, is La Meije, second only to Mont Blanc among the mountains of France for height and, as we decided later, far more rugged and impressive than her more famous brother.

(Below) Talloires, Lake Annecy of Savoy. (Right) The road north from St. Pierre de Chartreuse to Chambery.

MOTORING ABROAD, AS THIS STORY SHOWS, IS NOT NEARLY SO EXPENSIVE AS IS GENERALLY SUPPOSED.

But our six last days fled by; then we started off on the 500-mile trek to Calais and home.

Eighteen hundred miles we covered in all, including London to Dover and back, so as motoring it was not at all strenuous. There were days when we never entered our cars or drove only 20 or 30 miles, and we could have covered far more ground and climbed a dozen more passes; but these Alpine roads were so new to us, so wonderful, so different from anything in our previous motoring experience that we could enjoy them properly only by loitering and lingering. After we had reached the mountains we covered more than 100 miles only once in a day, and that was not because the roads were not good enough but because the scenery was too good.

As for the Alpine roads, there is nothing of which to be afraid. The surface is generally quite good and the climbs so beautifully engineered that the gradients, although long, are quite easy. Even the Col du Galibier, the stiffest of the lot, is nothing worse than 1 in 7, and both our cars got up and down quite comfortably. Both consumed a great deal more oil than usual, but neither even so much as steamed. An extra-air valve is a great asset on the long descents, and both cars sighed for four forward speeds; but when the real climbing began I wanted nothing better than my Seven, with its short wheelbase and ample power.

As for the cost—well, it worked out reasonably near our hopes. With the Michelin guide to help us we found hotels to suit our purses and the smallest of them was excellent. The daily cost worked out at about 15s. per head. Shipping costs, licences and everything included, my total expenditure for two was not in excess of 448

It was a wonderful holiday—the best I have ever had in a car. Be patient with the French roads and no English light car should have the slightest trouble. Winnie, the Wolseley, was six years old and had 37,000 miles to her credit, but neither car was held up once—except by punctures, of which, thanks, perhaps, to running with my tyres soft, I had seven!

A.G.T.



St. Albans-Radlett-Elstree.

WHICH is the most difficult section of road on which to drive in the Home Counties? I have heard the question asked, and I am inclined to give the palm to the road from St. Albans through Elstree to Edgware. Narrow, twisting and abounding in highly dangerous corners, it demands unceasingly the vigilance of drivers. In places there are no footpaths, and the presence of pedestrians on the road adds to the complications.

The contrast with the magnificent Watford bypass which runs into it is painful, and one cannot help wondering whether part of the huge sum expended on the latter could not have been more profitably expended on the other road. It would be difficult anywhere else to find such a safe and such a dangerous road in close promixity.

Mobility in Truth.

A MAN I know has been singing peans of praise recently over the mobility that the modern car affords to its owner. Happening to journey from the Midlands to the south coast of Devonshire on the Saturday preceding August Bank Holiday he found it impossible to obtain accommodation except at expensive hotels.

After fruitlessly journeying about he put up for one night and then, starting early next morning, drove right across England to a resort on the Wash where he knew he could find quarters. The journey was just over 300 miles, and he says that, thanks to the comfort of the car, he arrived only a little fatigued and not a bit weary. Such trips make our island seem very small!

The Holiday Toll.

THE tale of accidents during these holiday months makes sad reading. Unfortunately, the list given in the London dailies is not the whole story, for in a bundle of provincial papers before me I see accounts of serious local smashes not reported elsewhere. Personally, I am coming to the conclusion that there are some people who in their mental make-up actually lack a quality—difficult to describe but none the less definite—that normally should keep them out of trouble.

A cynic once defined common sense as something not commonly possessed, and perhaps it is this that seems so conspicuously absent in many cases. In

some instances this quality appears to have been supplanted by a bullying propensity in which courtesy or consideration for others finds no place at all.

I have met both types during the past two weeks and confess to having longed to take a tank out on to the main roads and let some of the hogs and thrusters meet the punishment they deserve. The scare created by the fatalities during the past few weeks is bound to be reflected in Parliament, and one can foresee bitter opposition to any proposals to interfere with the present speed limit.

The Horse Problem.

WHILE driving through an extremely narrow main street in a provincial town a few days ago I suddenly found a horse's head above my bonnet. The horse reared and I just avoided a collision my making a violent swerve. Meanwhile, the street resounded with the violent invective of a farmer who, seated in a dogcart, had been driving out of a side street on my left the entrance to which was absolutely "blind."

I have never measured the length of a horse or the distance from its head to the driver, but I do contend that in these days it should be obligatory on people driving a horse in traffic conditions such as I have described to take precautions before thrusting the animal into the path of other vehicles.

Horses do not possess the gift of Balaam's ass, and their drivers give no audible warning of approach, consequently, the trap or cart coming out of a narrow side street presents a danger which one cannot see until almost too late. Yet if a collision occurs it is invariably the motorist who is blamed.

Springing de Luxe.

Like many other drivers who have to make long runs at frequent intervals I keep my shock absorbers on the tightish side so that one obtains the principal benefit from them when driving fast on main roads.

A week ago, after collecting my car from a London service depot where it had been decarbonized, I noticed that the springing seemed extraordinarily good. At low speeds and high, on good roads and bad, I felt no road shocks, and there was

- FF013



not a trace of pitching. I guessed that new springs of an improved type had been fitted without my knowledge, and so soon as I arrived at home took the opportunity to examine them. That they were not new was obvious. Rust showed between all the plates and the mud of months lurked around the U-bolts. All that had been done was the complete slacking off of the shock absorbers!

Matters have since been put right by painting the springs with a mixture of old sump oil and paraffin and retightening the shock absorbers. It does seem a little hard, however, to find that rust between spring leaves provides as good a damping effect as an expensive set of "shockies."

Worth Watching.

THE effects of allowing springs to remain rusty are, of course, inclined to prove costly. Little ridges gradually form on the leaves at the end of the normal travel of the tip of the adjoining leaf and these in the end make the suspension harsh and are a prolific cause of broken springs. That is one of the reasons why owners of cars which have gaiters on the springs should take them off from time to time to make sure that all is well within.

The tendency to-day is to build up a spring with a large number of slender leaves rather than with a few of a more robust nature, and in consequence it is possible to have one or two broken leaves without their condition being apparent. I have heard, in fact, of several cases of car-owners having no idea that anything was amiss with the springs until several leaves have broken—possibly at a most inopportune time.

Instantly Adjustable Seats.

It is a pleasure, in connection with my recent remarks concerning easily adjustable seats, to hand a little bouquet to the Leveroll device, which has the advantage of making the seats instantly adjustable, whilst it also allows the front seats to be reversed for the occupants to face the rear seats. This is a big convenience when taking alfresco meals. In addition, the Leveroll fittings allow the seats to be removed very easily, whilst if they happen to obstruct the doorways they can be slipped back quite clear of them without any flynuts or other fiddling adjustments needing attention.

Trafford Park-Down South.

A RUN round the outskirts of London shows that a maze of new roads is springing up, and most astonishing of all, perhaps, is the network of new highways in the Finchley-Hendon-Harrow districts. One can spend a pleasant hour or more exploring the latter by car, and at the conclusion of one's run two facts stand out very prominently.

The first is that these broad highways, flanked at the outset by trees and pleasant fields, will soon be hedged in by row upon row of modern villas; and the second that ideal situations for factories and so on are being offered and snapped up. Will it be a sort of Trafford Park all over again, so far as circular roads and by-passes are concerned?

High or Low Pressures?

NOT tyres this time, but oiling systems. The question is this: Is there an ideal, approved and recommended figure for a force-feed system,

EN ROUTE FOR THE ISLE OF SKYE.

A charge of £1 is made to convey a four-seater (two seater, 15s.) to the Isle of Skye from Kyle of Lochalsh. The journey is well worth taking, for Scottish scenery is found at its best on the island.

or does it depend on the whim of the individual designer? Some engines appear to run quite well on about 5 lb., others on 20 lb., the readings being taken, of course, with the engines thoroughly warmed up. Now, there is a big difference between the two figures—the first, to my mind, is too low; the other too high.

Surely technical experts are agreed by now as to the proper pressure, and surely pumps could be set to work-within reasonable limits-at that pressure? I hasten to make it clear that I am referring to ordinary, standard touring model engines. With those of the sports and racing type the conditions are, naturally, different.

Renovated Coachwork.

CAR body which looks shabby, which squeaks A at the joints, and which has rattling doors, ill-fitting side-screens and other testimonies to scamped workmanship, can often be improved beyond recognition by a coachbuilder. I have in mind a 1925 four-seater which belongs to a business acquaintance. This car, a month ago, impressed one as being a complete "ruin," although the engine and chassis details were not in bad condition. A fortnight in the coachbuilders has absolutely transformed it. The facia board, mouldings, beadings and so forth have been repolished, the screen frame re-nickel-plated, the upholstery repaired and so forth, with the result that the car looks, and "feels," almost as well as it did when new. The cost of the renovation was £15, and this, of course, included repainting.

Easy Cleaning.

WITH some reluctance a month ago I cleaned down the cellulosed body and stove-enamelled mudguards of my Singer Junior with Karpol, and without first removing any of the mud or dust. The result was entirely satisfactory and there was not the slightest sign of scratching.

Encouraged by this experiment, I dry-cleaned the painted and varnished wings of my Lea. Francis with the same "dope," and found again that no damage was done and that a fine lustre was obtained with a minimum of trouble.

I seldom deal with proprietary articles in "Rich Mixture," but when one comes across something really good there is, I think, ample justification for calling attention to it.

A Hanger-on.

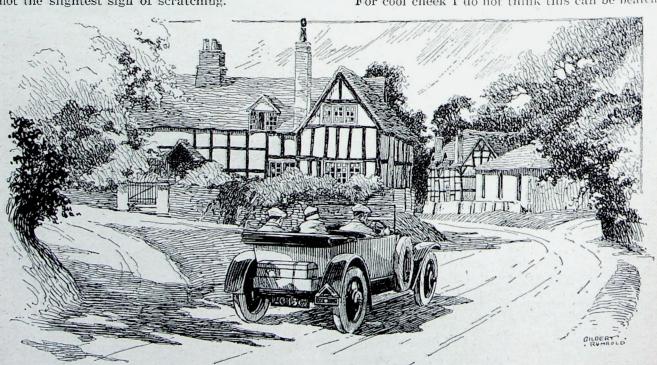
NE often reads of coroners' juries condemning the cyclists who hang on to the backs of lorries, but their remarks apparently fall on to deaf ears. Passing along a busy road the other day I saw a cyclist continue to hold precariously to the off-side of a huge six-wheeled lorry although a similar monster was approaching from the opposite direction.

It seemed impossible that he would get through, and my heart was in my mouth as he ducked his head to avoid a tarpaulin flapping on the other vehicle. One would describe his action as criminal and justifying heavy punishment by law. But the only policeman in sight who should have been sternly rebuking the offender was himself the culprit seated on the cycle! When policemen do such things what can be said of ordinary mortals?

Cheek!

THE action of people who put up at the entrance to private carriageways notices enjoining motorists to hoot or slow down has been frequently commented upon, but one such board which I recently saw on a main road in the south deserves mention. It is placed outside a house half-way up a gradient of fully 1 in 10, and on the side facing the rise is a notice in large black lettering: "Motorists, slow down and sound your horn. Concealed entrance."

For cool cheek I do not think this can be beaten.



With Broadway as the "focal point" the Evesham, Pershore, Worcester district is most attractive. It has the merit of being easily accessible, whilst the roads are good. The spot shown is only 110 miles from London. AT HARVINGTON. NEAR EVESHAM. B24



In 1928?

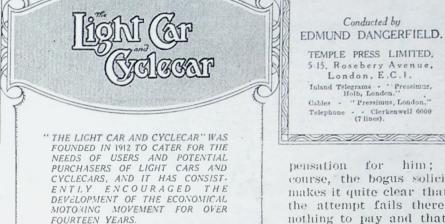
The time is opportune to suggest that the Royal Automobile Club and the Society of Motor Manufacturers might consider with advantage the desirability of a six-days' (or longer) car trial being held in 1928. The last important six-days' trial was held in the spring of 1924 at a time when car competitions had big entry lists and when the number of car trials was so great that none attracted the

public attention that several of them deserved. Even so, however, the R.A.C. trial was given world-wide publicity, and several successful competitors in it reaped a harvest not only of goodwill but of orders. Since then car design has changed, new types of small car have come into the limelight and the competition ban has paved the way to success for an "official" six-days' trial by giving it "news value" of a very high order.

We believe that such a trial would go a very long way towards convincing potential buyers the world over that the British light car of 1928 was in every way suitable for their requirements. Nobody is anxious to witness a reversion to the old days when all manner of irresponsible people were foisting off ill-organized competitions as "important events," but the time has come, in our view, when a big six-days' (or longer) trial conducted by the Royal Automobile Club under stringent and scrupulously fair conditions would be welcomed by the public and enthusiastically supported by the important section of the trade which would be immediately concerned.

After an Accident.

MOTORISTS are warned to be on their guard against a form of blackmail which has gone unchecked far too long and is now actually on the increase. We refer to attempts on the part of men who pose as solicitors to extract money from motorists who have been sufficiently unfortunate to become involved, through no fault of their own, in minor accidents as the result of which claims are made by blackmailers acting on behalf of some equally unscrupulous third parties. operandi of these gentry is to haunt the entrances of hospital casualty wards, watch the newspapers. or obtain from some other source the name and address of a person, say, a pedestrian, involved and to approach him with a view to securing com-



EXCEEDING 1,500 C.C. (11 LITRES) COMES WITHIN THE SCOPE OF THIS JOURNAL, THAT CAPACITY BEING GENERALLY RECOGNISED AND ACCEPTED AS THE LIMIT FOR A LIGHT CAR ENGINE.

NO CAR WITH AN ENGINE CAPACITY

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pensation for him: course, the bogus solicitor makes it quite clear that if the attempt fails there is nothing to pay and that if it succeeds he shares the " profits."

As often as not the victims of this form of sharp practice are drivers who, ascertaining that the third party involved in an accident is unharmed, or, accepting an assurance that it was not his, the driver's, fault, do not trouble to obtain witnesses, and are,

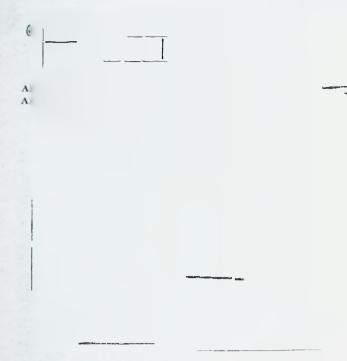
therefore, quite helpless when the claim is made.

The only way to counter this practice is to spare no pains when an accident occurs to secure the names of at least two independent witnesses and absolutely to refute any claim. If approached by one of the sharks legal advice should be taken at once. Frequently the attempt to extort money will fail if there appears to be the slightest chance of the case being argued in a court of law.

Important Lessons.

THERE are two obvious lessons to be learned from the foregoing. One we have already One we have already alluded to, namely, the importance of procuring witnesses, the other is not so obvious but is equally important. It is the possibility of bogus claims of the nature outlined being partly responsible for keeping up insurance premiums, for if the so-called solicitor persists in pressing his demands it is more than probable that the insurance company will make some payment in order to be rid of the fellow and to avoid going to court. There is evidence that many claims of this nature are settled by some sort of payment, and this must have an effect on premium rates. Another point is, of course, that if any payment is made the motorist loses his "no-claim bonus."

We should emphasize the fact that there is no question of encouraging motorists to endeavour to evade their responsibilities when there is a genuine case of compensation at issue; but even when a driver is considered to be wholly or partly to blame he should not neglect the obvious safeguard of obtaining witnesses who can be relied upon to give accurate evidence and who will not overexaggerate the part played by the alleged guilty party. It is only by exercising common-sense in this way that results-often so grave as to be entirely out of proportion to the real facts—can be avoided.



AINTENANCE, LTD., is a young but very vigorous child born of the far-seeing imagination of Mr. J. P. Dingle and Mr. S. J. Bassett—both of whom, as the result of much racing experience, have established their right to say something about "hotting up" cars and are to be congratulated upon the happy idea of placing at the disposal of Londoners a service station devoted exclusively to Austins and manned by a staff which knows the Seven and its larger relations inside out.

They live at Beavor Lane, Hammersmith, within a few minutes' run of the famous Broadway, and their workshop boasts of up-to-date machinery and equipment—even to a coachpainting and a cellulose spraying plant, from which it will be seen that the title Maintenance, Ltd., is very apt. Two items which figure prominently in their scheme of service are oiling and greasing (including gearbox and back axle), for which the really reasonable charge of 5s. is made, and washing and polishing (open bodies) 3s. 6d. Both charges refer, of course, to the Austin Seven. In addition, customers can have their Austins overhauled from stem to stern in a surprisingly short space of time and in an encouragingly efficient manner; the charge, naturally, varies with the amount of work that has to be done,

The real business of the day when we called at Beaver Lane recently was to take over for a trial run a Cup Model (Gordon England body) Austin, "hotted up" by Bassett-Dingle methods—a branch of activity in which Maintenance, Ltd., is specializing.

What "Hotting Up" Costs.

The standard "hotting up" costs £7 10s. and includes opening up and polishing the valve ports and fitting new double valve springs and a special induction pipe.

On the Cup Model we tested two additional engine alterations had been made, namely, the fitting of a 30 mm. Solex carburetter in place of the standard instrument and the removal of 3-64 in. from the cylinder head to raise the compression slightly; in 126

addition the hand and foot brakes had been interconnected and—a very pleasing feature—the clutch withdrawal mechanism had been modified so as to give twice the travel and twice the leverage.

On the road this tres chaud little bus gave a quite surprising account of itself, the following being the maximum speeds obtained in the various genrs—and, be it said, in a pleasantly short space of time from the word "go." First, 19 m.p.h.; second, 42 m.p.h.; third, 54 m.p.h. Under favourable conditions 45 m.p.h. can be attained in second gear.

To the credit of the Austin engine it must be said that throughout the range of speed it is exceptionally smooth; even when "flattened out" to a point previous to the beginning of valve bounce it shows no signs of fuss.

The interconnected brakes worked well; the pedal could be depressed fairly heavily at between 45 m.p.h. and 50 m.p.h. when the resulting deceleration was both smooth and rapid.

Continuing the good work which starts in the Austin factory, Maintenance, Ltd., has certainly succeeded in producing a sporting bus which, for its type, size and rated horse-power, may have equals, but ranks second to none when it comes to performance,



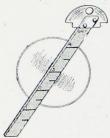
Simple Luggage Alarm.

NOWN as the Fulax alarm, a simple but practical device for preventing the loss of luggage from the grid of a car has just made its appearance in France. It consists virtually of a horn switch, the spring contacts of which are normally held apart by a tongue of insulating material attached to a push-in plug. The device is fitted to a convenient part of the rear of the car and wired up to the electric horn circuit. When luggage is strapped on the grid a piece of stout cord can be tied to the packages and also to a ring on the push-in plug; should the packages become loose and fall off the plug will then be pulled out, with the result that the horn will be switched on. The makers are Messrs, Maurice Dietschy, 293 bis, Avenue Jean Jaures, Lyons, France.

Austin Seven Petrol Gauge.

A N accompanying illustration shows a simple petrol gauge for Austin Sevens which has just been placed on the market by the Prima Co., Ltd., Commercial Street, Birmingham, and which sells at the attractive figure of ls. 6d.

Owing to the fact that the neck of the petrol tank on these ears is set at an angle it is difficult to obtain an accurate reading with an ordinary dipstick, because it cannot be placed upright, and there is no means of telling at what angle exactly it should be placed. In the case of the Prima dipstick, a specially shaped top-piece is fitted which just fits into the filler



The Prima dipstick for determining the amount of petrol in an Austin Seven tank.

orifice and ensures that the stick itself is at the correct angle. The headpiece is plated, whilst the stick itself is made of red libre which shows the mark left by the petrol very clearly. Incidentally, it may be mentioned that as the filler cap on an Austin Seven is approximately in the centre of the tunk inaccuracies due to the cap being on a camber when checking the petrol level are very slight.

Easier Cleaning.

W. M. KNOWLES (BEBINGTON), Cheshire, have sent us a sample of their Kar-ka-leen equipment which costs 7s. 6d. complete. The outfit consists of a large fin of liquid cleaner, a spray and a cleaning cloth, the procedure being to spray the liquid on to the car and then to wipe away the mud and dust with the cloth provided. We found that this equipment fulfils the claims which are made for it; the paintwork is not scratched, cleaning the car is made much less laborious and an excellent finish is soon obtained.

For Spare Oil and Petrol.

A USEFUL running board cabinet made of black enamelled steel and containing a one-gallon petrol tin, a half-gallon oil tin and a small space for tools, has been introduced by Etienne and Cie, Stadium House, 61 and 63, Great Eastern Street, London, E.C.2. The cabinat has a distinctly attractive appearance, it looks much neater on the running board than a spare petrol can, and it is reasonably priced at 22s. 6d.



Decarbonizing Liquid.

MESSRS. SHIPPEY BROS., 41, Finsbury Square, London, E.C.2. are marketing a decarbonizing liquid which, they claim, enables carbon deposit to be removed from an engine without dismantling the head and so on. With this liquid, which is known as Shippey's chemical decarbonizer, the method of decarbonizing is as follows:—The engine is first run until it is well warmed up, then one of the sparking plugs is removed and a quantity of the liquid poured in through the plug hole; further running of the engine is claimed to result in the deposit being dissolved and blown out through the exhaust; the process is then repeated for the other cylinders in turn.

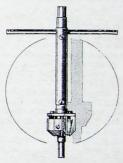
It is stated that a small quantity-

from two to four tablespoonfuls—poured into the cylinders every three or four weeks according to the mileage covered will keep the engine free from carbon, whilst Shippey's decarbonizer can also be mixed with the engine oil. A 16-oz. tin for single or twin-cylinder engines costs 6s. 6d., the 32-oz. size, suitable for four or six-cylinder units, being sold for IIs. The makers state that the liquid is not in any way injurious to engines as it will not corrode any metals used in car construction, whilst it is also non-explosive.

Valve-seat Refacing Tool.

A N ingenious tool for refacing valve by Mescats is being placed on the market by Mescas. E. J. Smyth, 3, Claverton Street, London, S.W.1. This tool, which is known as the Hall, has three principal components, a main shaft and rommy-bar, a blade-holder and a set of blades. Reference to the accompanying illustration shows the shape of the blades, which are inserted in slots in the holder and hocked over the upper edge, being retained in this position by means of a collar. When necessary, pilots to suit various diameters of valve guides can be fitted in the end of the main shaft.

Eleven sizes of blade holder, suitable for valve sears ranging from § in. diameter to 2,% in. diameter are available, whilst a large variety of pilots can also be obtained. The prices of single tools are 35s. and 37s. 6d., according to the size of the blade-holder supplied; for

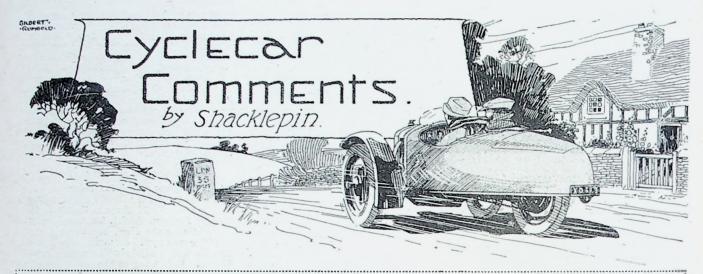


(Above) The Hall valve-seat refaring tool, the blade holder being cut away to show one of the blades. (Left) A useful cabinet for spare petrol and oil, marketed by Etienne and Cie.

garages, two combination sets suitable for a large number of valve sizes are marketed, the prices being £4 14s. and £6 10s. respectively.

An excellent feature of the Hall range of valve tools is that all parts can be obtained separately, thus allowing a user to replace parts which become lost or damaged or to add to the scope of his set. The makers claim that as the blades are solidly and strongly supported they can be made very sharp, thus very little pressure is required, and there is no tendency for them to "skate" over the metal; in addition, the fact that the blades are detachable allows them to be easily and cheaply replaced when they become blunt. Readers who are interested in the Hall tool should apply to the above concern for full particulars.





HOPEFUL OUTLOOK FOR THE PROPOSED CYCLECAR CLUB — VALVE-GRINDING MADE EASY BY SIMPLE MEANS-THE THURLOW THREE-WHEELER-A MYSTERY CYCLECAR IN LONDON.

BY the time these remarks appear in print the first meeting of the new club for cyclecar owners will have been held. I hope that next week I shall be able to say there was a full house and that the club is a going concern. Those of my readers who were unable to attend the meeting may rely upon seeing full details of the proceedings in this journal at an early date.

It is not to be expected that in one evening a full cut-and-dried scheme of organization can be drawn up, but I have no doubt that a sufficiently definite start will have been made to enable the elaboration of the details to be left in the hands of the committee which probably will have been elected at the meeting. As many prominent cyclecar drivers are taking a practical interest in the club there should be no dearth of members experienced matters who would be willing to serve on the committee. In my opinion, the outlook for the club is particularly cheerful.

Valve-grinding is a job which few people enjoy and for that reason it should be made as easy as possible. I have ground in my fair share of valves during the past 18 years, and I have come to the conclusion that in the first place it is a mistake to waste time and energy upon trying to make good a badly pitted valve with grinding paste.

My own procedure, having removed the valves and cleaned off all the carbon or scale, is to put a little medium grinding compound on the valve face and give it a few turns on the seating. Then by removing the valve and wiping the face with a paraffin rag it is easy to see the extent and depth of the pits.

If they are numerous and deep I make no attempt at further grinding until the valve face has been skimmed up in a lathe. By doing this not only is much labour avoided but, in addition, the seating in the cylinder is not ground away needlessly. After receiving attention in a lathe, the valve face is so smooth and true that only a very little grinding in with fine carborundum powder is needed to make a perfectly gastight seating.

When grinding-in valves which are not badly pitted I always use a coarse abrasive first, and I find that a spot or two of paraffin used with the abrasive on the valve face considerably increases the cutting speed. Final grinding is done with a very fine abrasive and, as a rule, I polish the seatings by first cleaning away all traces of grinding compound and then giving the valve a few twists with the sediment of liquid metal polish as the abrasive.

By this means a perfect seating is obtained and it is so smooth that the valve tappet clearances can be adjusted to their closest limits without any risk of the valves bedding in during the first few miles' running and so decreasing the clearances.

It is a good plan to polish the heads of the valves before refitting, but, in any case, great care should be taken to see that the screw-driver slots in the heads are perfectly smooth at the edges, because a little splinter of metal left sticking up, as the result of a slipped screwdriver blade, may become incandescent when the engine is running and cause pre-ignition.

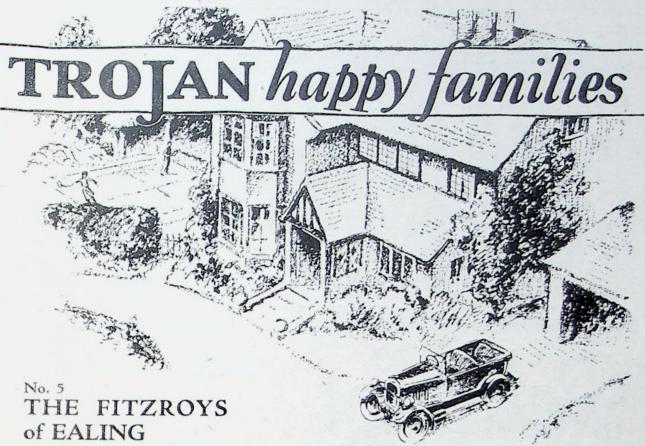
On engines which are not provided with any regular means of lubricating the valve stems it is a good plan when refitting the valves after grinding to smear the stems plentifully with graphite grease. grease will melt and run so soon as

the engine gets very hot, but the graphite will remain and act as a very efficient lubricant.

In the foregoing remarks I have not mentioned anything about recutting the valve seatings—a job which must be done sometimes, especially where old engines are concerned. Seating cutters are made to suit all sizes of valves and are quite easy to use; but care must be taken not to remove more metal from the seating than is necessary.

I have been taken to task by a reader concerning the "Thurloe" three-wheeler which I mentioned last week. In the first place, I am told that the name was Thurlow and that, after an initial difficulty had been overcome, the belt drive proved quite satisfactory. two of the machines were built and both were belt-driven. In the first of them the owner, who was quite a novice, toured Devon with every success. My correspondent goes on to point out that the design of the Thurlow made it almost impossible to fit chain drive. My original remarks were made entirely from memory, and I am very glad to have the opportunity of recording the fact that the belt drive proved so very satisfactory because, even in these days, it is a form of drive for which I have rather a weakness.

In my wanderings in and around London I have several times encountered what appears to be a home-made three-wheeler with a radiator placed in the conventional position at the front and closely resembling that of a Hampton light car. The tout ensemble is striking. and I should like to hear from the owner should this paragraph catch his eye.



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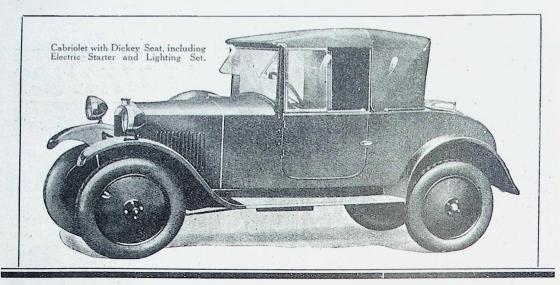
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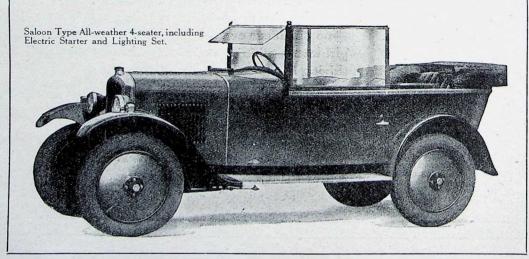
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TO THE READER.—By mentioning "The Light Car and Cyclecar" when replying to advertisements, the progress of the small car movement will be assisted.

The World of Sport.



THE START-IN HEAVY RAIN.

Cars visible in the photo are: (1) Glenny's Frazer-Nash; (2) Randall's Aston Martin; (3) Clutterbuck's Al i; (4) Peacock's Lea-Francis; (5 and 6) W. H. Green and Harvey leading (Alvises); (7) C. N. Green's Alvis; (8) Nash's A.C.; (9 and 10) Sutton's and Newsome's Lea-Francis; (11) MacDonald's Alvis; (14) Newman's Salmson.

PRIVING against odds seldom or never experienced before under racing conditions at Brooklands, 11 of the 15 starters in the Junior Car Club's Second Sporting Car Race finished the course on Saturday last.

They stuck with grim determination to a task which must have taxed their courage and fortitude to the utmost, for from the start at 2 p.m. practically to the inish at 6 p.m. rain descended in torrents, sonking the crews to the skin, the track was treacherous in the extreme and at certain points—notably the fork—diminutive lakes had to be taken at speeds in the neighbourhood of 90 m.p.h. The clouds of spray which were sent up high in the air as the cars engaged in these submarine-like exhibitions frequently obscured the vehicles from view, and when a bunch of them shot across a flooded area it was almost impossible to see from the grand-stand what was happening to any of them.

According to stories told by the crews, they found themselves literally deluged by the "wake" of a car shead time and time again and—almost blinded by goggles smothered in water—they had to steer momentarily more by instinct than by sight!

No Accidents.

That there were no accidents speaks volumes for the skill of the drivers; that no one gave in through sheer fatigue and the possibility of disaster—hanging like the sword of Damoeles over his head—is a tribute to wonderful sportsmauship. We take off our hats to the drivers and mechanics who participated in this stern effort; only one man could win, but every man deserved to do so!

The wisdom of allowing a high-speed race to take place under such conditions may be queried—but only by those who were not present. Rain has been a proline "spoil-sport" at Brooklands this year and the J.C.C. decided to run off the event no matter what the weather.

Their decision was a popular one. After the finish, drivers and mechanics, wet through and almost unrecognizable owing to the plaster of mud on their

THE RESULTS AT A GLANCE. All Cars are "Specials."

"." Harvey's actual time was 4 hrs. 1 min. 32 secs. and the distance he covered was 254.34 miles. Each driver had to complete the lap upon which he was engaged after the "cease running" maroon was fired at 6 p.m.

faces, grinned and said it had been a mighty fine race, and the public who had stood beneath dripping unbrellas—or braved the elements in light rainproofs—averred that they would not have spiced it for worlds.

missed it for worlds.

When Major C. M. Harvey flashed me nearly wrote "splashed"—over the finishing line he received an ovation to which every man, woman and child contributed, and there was not one of the rest of the field who was not trented to a similar expression of public opinion.

a similar expression or public opinion. Harvey, like his team mate, W. H. Green, who finished second, made only one stop to change a plug. He drove a 1927 Alvis, but Green, a private owner,

handled an early 1926 model and managed to retain the lead for quite a

considerable time. Very well done, sir! R. M. V. Sutton, driving the Lea-Francis entered by H. E. Tatlow, was third, and, incidentally, the Lea-Francis camp scored a triumph in that three cars of that make started and three finished.

Fine Achievements.

Conspicuously fine achievements were those of George Newman and J. C. Doughas, both driving 1,097 c.c. Salmsons. Their average speeds were, roughly, only 3 m.p.h. short of the winner's and, in the general classification, they were fourth and fifth.

Harvey and Green used Dunlop tyres, Champion plugs, Solex earburetters, Hartford shock absorbers, B.T.H. magnetos, B.P. fuel and Castrol oil; Sutton used Dunlop tyres, K.L.G. plugs, Stromberg carburetter, Hartford shock absorbets, Lucas magneto, Pratt's fuel and Castrol oil.

The organization was good and a hearty tribute must be paid to those "ourside" officials who braved the elements with the utmost cheerfulness so as to ensure that everything should work smoothly.

So much for a summing up of the whole affair; now to the race in detail and a word as to the performance of each machine.

Owing to the bad weather it was decided to fill the tanks of the competing cars in the welcome shelter of the paddock and, punctually to time—and be it said in a heavy drizzle of rain—the competitors were sent down to the starting line. Sutton's Lea-Francis backfired as he got away from the paddock and the earburetter caught fire, but Pyrenes were handy and the flames were soon extinguished.

The fifteen cars were marshalled in a single line and, with the fall of the semaphore arm, they got off the mark en masse, with W. H. Green (Alvis) slightly in the lead by the time the end of the Vickers' sheds was reached. the railway straight, however, the became spread out considerably, they came off the Byfleet banking down the finishing-straight to the hair-pin in a continuous procession, which was almost obscured from the spectators by the clouds of spray thrown up from the flooded track. The hair-pin in the straight and the one which followed at the fork were negotiated fairly cautiously, and the completion of the first lap showed C. M. Harvey (Alvis) to be leading, with W. H. Green (Alvis) and (Salmson) lying second third respectively.

Trouble began early for

competitors,

straight to the first hair-pin. As he approached the turn the car jerked and staggered visibly owing to a con. rod breaking and coming through the side of the crankcase. K. S. Peacock (Lea-Francis), who was following close behind, had to brake violently, with the result that his car skidded completely round and ran backwards into the line of flags. No harm was done, however, and Peacock started off again, doing his best to make up for the valuable time which had been lost. Myers, of course, was compelled to retire.

Although not so fast as some other drivers, Nash (A.C.) driving very consistently, but had the misfortune to strip his near-side rear tyre completely off the wheel. He drove

54th lap at 61.14 m.p.h. C. M. Harvey (Alvis) maintained his speed, and on his the second man, W. H. Green. The completion of 60 laps found the positions of the leaders unchanged, and when the firing of the maroons signified

when the firing of the maroons signified the finish of the race, the order in the two classes was still C. M. Harvey, W. H. Green and R. M. V. Sutton; G. Newman and J. C. Douglas—C. M. Harvey having completed 81 laps.

The awards are as follow:—C. M. Harvey and George Newman, silver cups for winning their 'respective classes; W. H. reen, gold medal fer second place in bronze plaques finished the cours finished the cours

(1) The winner of the race, Major C. M. Harvey (Alvis). His car bears obvious signs of mud and water thrown up during the race. (2) W. H. Green (Alvis, No. 6), who gained second place, rounding the fork hair-pin. Third place was gained by (3) R. M. V. Sutton's Lea-Francis, car No. 9. The photograph was

Francis) calling at the pits after doing about five laps, as his oil gauge was showing no pressure. He restarted almost immediately and carried on without further trouble. At the com-pletion of his eighth lap A. P. Glenny (Frazer-Nash) came into the pits with a broken chain, the result of the ballast which he was carrying having fallen through the floorboards when the the same lap C. N. Green (Alvis) retired with big-end trouble, whilst a lap or so later Ian MacDonald (Alvis) commenced a series of pit calls with oiled-up plugs. He drained off surplus oil and carried on.

Although his engine appeared to be running well, T. E. Rose-Richards (Bugatti) also stopped at the pits to drain an excess of oil from his crankcase, but thereafter was compelled to make frequent stops to change plugs. C. J. Randall, who was driving the only Aston-Martin Special in the race, stopped once to adjust his shock absorbers and to put in water, whilst later in the race he came into his pit to clean the carburetter and fill up the spare oil tank.

In spite of the rain which was falling heavily all the time some very good lap speeds were recorded, A. E. Clutterbuck (Alvis Special), on about his 12th lap, being unofficially timed at 61.78 m.p.h. Harvey (Alvis) occasionally lapped at a speed as high as 66 m.p.h.

luck beset R. A. Myers Bad (Senechal) when coming down the his car into the pits on the rim and was soon away again with a new wheel and tyre in place.

At the end of 45 laps the position of the leaders was: First, C. M. Harvey (Alvis); second, W. H. Green (Alvis), (Alvis); second, W. H. Green (Alvis), 18 sees, behind leader; third, R. M. V. Sutton (Lea-Francis), 7 mins. 19 sees, behind leader. In the 1,100 c.c. class x. Newman (Salmson) was leading, 9 mins. 24 sees, behind Harvey, whilst J. C. Douglas (Salmson) was, mins. 29 sees, behind, having stopped to change a wheel. to change a wheel.

That the speed of the cars remained high is shown by the fact that R. M. V. Sutton (Lea-Francis) completed his

THRILLS AT REPOLITE SCAR.

FREAK hill-climb on Hepolite A Scar is invariably a great attraction, not only to Bradford motorists, but also to enthusiasts from farther

Events on the Sear are usually favoured by spleudid weather, but Monday last proved to be an exception.

Fortunately there was

little rain, but weather conditions were suffi-ciently dismal to keep the attendance down below a figure of 10,000. which for these Bradford events is reckoned as extremely moderate.

There were two classes for ears, one being described as the "round-course event," wherein competitors were spared the ascent of the 1-in-11 section, which ranks as the Hepolite special piece of frightfulness.

The other class embraced this freak gradient and was described as the "Rodeo." Consisting of a bee-line from bottom to summit of the hill, this course provides as many thrills as most competitors are likely to call for. Cars were allowed to run in any trim and both events were for unlimited c.c.

On such a course one naturally expected a preponderance of light car

great excitement when he was seen to fail on the very summit, but it was ruled that his rear wheels had crossed the line by some inches before ceasing to revolve. H. Camby was less fortunate when his 9.5 Salmson Sports stopped several yards from the top, then being assisted by marshals armed with chocks and finally being hauled up to the summit at the end of a tow-rope. W. S. Canney made another splendid climb of the steady touring kind, and although his time was not sensational, the performance of his car was impressive.

L. Cole, with his 8.7 h.p. Frazer-Nash, was spectacular and very fast,

taken at the Tub hair-pin. (4) George Newman and (5) J. C. Douglas, both driving Salmsons, who were fourth and fifth. (6) A string of cars taking the Tub hair-pin. They are: W. H. Green (Alvis) leading, followed by C. M. Green (Alvis), A. E. Clutterbuck (Alvis) and Newman (Salmson). (7) A busy scene at the pits. Clutterbuck (Alvis) and Newman (Salmson).

entries, and the only representative of the big battalions proved to be N.

Whitehead with his 30-98 Vauxhall.

In the "round-course" class J. Hepworth seemed to be troubled with wheelspin, and after struggling to within 10 yards of the summit his 7 h.p. Jowett succumbed and had to receive assistance.

L. Cole made au almost perfect climb in his S.7 h.p. Frazer-Nash, and his time of 44 secs. was unbeaten, his most serious rival being W. S. Canney, who made a beautiful touring climb with his

7 h.p. Jowett in 573 sees.

The "Rodeo" was awaited with lively interest; J. Hepworth was the first to challenge the fates on the 1-in-11 piece of frightfulness. There was

taking the 1-in-11 section in his stride, a feat which was warmly applauded.

The winners of the "Rodeo" event proved to be:—First, L. Cole, 8.7 h.p. Frazer-Nash, 37\(\frac{2}{3}\) sees.; second, J. Hepworth, 7 h.p. Jowett, 41\(\frac{2}{3}\) sees. third, W. S. Canney, 7 h.p. Jowett, 48 sees. The special silver cup (held for one

year) with replica, for fastest ascent on the "Rodeo course," also the "Chekko Trophy" for fastest ascent on the "round course," were both won by 1. Cole (8.7 h.p. Frazer-Nash).

RACING AT MONTLHERY.

THE heliday meeting which preceded the 24-hour Grand Prix de Paris, included a 25-kilometre race, on the short road circuit, for 1,100 c.c. cars. In the general classification on points the result was:-1st, Martin (Amil-car); 2nd, Morel (Amilcar); 3rd, Casse (Salmson).

A women's handicap was run in torrents of rain and a violent, gusty wind blowing. In spite of this, Madame Junek, driving a Bugatti (Grand Prix type), and starting scratch, managed to win the race at an average speed of 115.696 k.p.h.

The 24-hour Grand Prix de Paris started at 6.10 p.m. on Sunday evening and finished on Monday.

The Ville de Paris Cup was won by the big Bentley, as had been anticipated. Second in general classification came a little 1.100 c.c. voiturette, the B.N.C. driven by Dore and Pousee, and third a Lombard driven by Christain and Royer.

AN.

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.

THE WARMING-UP PROBLEM.

Experts' Views on a Novel Idea Suggested by "Focus."

Theoretical and Practical Considerations.

I am sure everyone will welcome the comments of "Focus" in your issue for August 12th on the subject of

engine cooling. The slow warming up after starting and rapid cooling when standing are

Pros and Cons grave evils in the winter, and are not negligible quantities on many alleged summer days. His suggestions was alleged summer days. His suggestions are not not negligible and starting values in the

alleged summer days. His suggested incorporation of two non-return valves in the circulating system is most ingenious. The idea is so simple and the cost so little that it seems almost too good The scheme is certainly well worth an experimental trial, but a few theoretical aspects of the matter may assist in arranging the experiments, or at least indicate the nature of the difficulties which may arise.

When the engine was started from cold both valves would be closed; so soon as the water in the cylinder jackets began to warm it would expand, and the pressure would began to warm it would expand, and the pressure would be relieved by the opening of the upper valve, but circulation would not commence until the lower valve opened. Now, what forces are available for opening this valve? If the scheme is to work satisfactorily, it seems to me that the valves should be operated by the thermo-siphon principle and not wait for the generation of steam.

Calculation of the forces which the thermo-siphon method would exert is not easy, owing to lack of data, but the following details should not be very far in error.

On my own car the temperature of the water issuing from the cylinder jackets is 185 degrees F., and that of the water at the base of the radiator is 120 degrees F, when the engine is working normally. The force available for operating the valves will depend upon the vertical height of water above the lower pipe (in the case of my car 21 ins.) and the difference in the mean density of the water in the radiator and that in the jackets. This difference of density radiator and that in the jackets. Into difference of density will depend upon the difference of temperature, and unfortunately we cannot assume that all the water in the jackets is hot and all that in the radiator is cool. As a guess, let us assume that the mean temperature of the water in the jackets is 175 degrees F. and that in the radiator is 140 degrees F. I am afraid that in practice the difference would be less than this, but even at this liberal estimate the force acting on the valves would only be 0.005 lb. per ft.-head of water for each sq. in. of valve

Thus in my engine, if valves were fitted of 11-in. diameter, the force tending to lift them would be less than a quarter of an ounce. It would appear, therefore, to be difficult to make a satisfactory valve light enough.

Now suppose the thermo-siphon principle fails. We can then wait for the generation of steam. I do not think that any auxiety need be felt over the higher working tempera-B3 4

ture involved, as it is widely claimed that at 212 degrees F. an engine is more efficient than at the more general temperature of 180 degrees F. In any case, "steam cooling" has now established itself as thoroughly satisfactory.

When the water in the jackets commences to boil, the steam, and doubtless some hot water, would pass through the upper valve, and the lower valve would open under the weight of the additional head of water on the radiator side and thus make up the deficiency. So far all seems well. The doubt which I have in my mind is whether the steam would be condensed in the radiator. I am inclined to think it would not be condensed to any appreciable extent, and thus much water would be lost on a long run. Steam is specifically lighter than air, being only slightly more than half as heavy, and therefore tends to rise. It will be recalled that in the steam-cooled engines the steam enters at the bottom of the radiator. In the case under consideration it will have to enter at-or, at least, near-the top, and as this is the hottest region of the radiator the facilities for condensing the steam seem far from good.

In the common type of thermostat the valve is opened by the expansion of a fluid in the metal bellows at a predeterthe expansion of a fluid in the metal bellows at a predeter-mined temperature, and is therefore independent of any force exerted by the water. I am aware, as "Focus" states, that thermostats are recommended only for pump circulation. Can anyone tell us why? I have never yet been able to find a single reason other than somebody's opinion. A large section of the L.G.O.C. buses have thermo-siphon cooling fitted with thermostats, and a well-known medium-powered car was similarly fitted. If these engines medium-powered car was similarly fitted. If these engines give satisfactory service, as they undoubtedly do, why cannot we have thermostats on the thermo-siphon systems of light cars? That, in my opinion, is the best solution of A. H. STUART. the problem.

A Thermostat More Reliable.

With reference to the remarks on engine-cooling systems "Rich Mixture" in your issue of August 12th, it would seem that the author has overlooked the use of the ordin-

A Well-known
Authority's

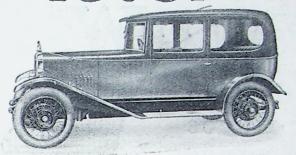
A Well-known
Authority's Authority's probably be the cheaper arrangement than the two non-return valves sug-View.

gested and would almost certainly be more reliable in action.

This would probably be even more noticeable in the case of a light car in which, almost certainly, there would be no water-circulating pump, and with thermo-siphon circu-lation it is rather doubtful whether the pressure would be sufficient to open the non-return valves.

H. KERR THOMAS.

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July 25th-30th

Scottish Six Days Trial

Manufacturers'
Team Prize won by
Triumph riders, using

Mobiloil TT

SEA

At Cowes, July 30th

British Sea Mile

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Mobiloil "BB

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Mobiloil

Caxton House, London, S.W. 1

OUR READERS' OPINIONS (contd.).

Oil Consumption of Modern Cars.

"Land's End," writing in your issue of August 5th, is astonished at the small consumption of oil in his 1927 astonished at the astonished at the astonished at the state of this year, drained the state of this year, drained the state of this year, drained the state of th

of this year, drained the sump at 800 miles and again at 2,000; the speedo-The 1927 meter now registers 3,200, and not once Swift. during this period has it been neces-

sury to add any oil to keep it up to the proper level. I consury to and any on the heavy of the proper level. I consider the 1927 10 h.p. Swift one of the best of the light cars to-day. Usual disclaimer. J. H. APLIN.

An Accident Attributed to-

I was very interested in your leading article headed "Keep to the Left" in last week's issue of The Light Car and Cyclecar, particularly as I have just had an accident, which occurred through following this

teaching. May I suggest that so long as one is not impeding the progress of faster vehicles by keeping the off-side -Keeping to the Left. wheels on the crown of the road, this is a much safer practice and enables one to observe approaching vehicles better, particularly around left-hand bends? I have driven

my ear, a four-seater Rover Eight, for about 10,000 miles in a district which abounds in winding roads and hair-pin bends, and the accident referred to above is my first. It happened in the following circumstances:

Travelling at a speed of about 15 miles an hour (I had visitors from London as passengers anxious to see the country), I ran behind a huge steam wagon going at about 10 miles an hour fifty yards from a left-hand bend in the road. The wagon drew in to the left-surely a sign that the road was clear to pass—and, vigorously sounding my horn so that it would be heard above the rattle of the wagon, I drew out to pass. The wagon slowed down, speeded up a trifle and slowed down again. My front wheels were just clear of the rear wheels of the wagon, when a motorcyclist came into view round the bend at about 25 miles an hour. I braked hard, drew to the left as much as possible, but owing to the slow speed of the wagon and the excessive speed (in the circumstances) of the motor-cyclist, who apparently either lost his head or could not brake in time, a collision occurred. My car was damaged to the extent of about £5, whilst the motorcyclist was fortunate to escape with a bent legshield, a dented lamp and a broken horn.

Now, had I been travelling on the crown of the road, I should probably have seen the motorcyclist in sufficient time to have drawn in behind the wagon; as it was, the wagon so hid my view that it was not until my position made this course impossible that I saw him.

The mate of the driver of the steam wagon stated that he signalled to me not to pass, a signal which I did not see, but which one of my passengers interpreted as first a signal to go on, rapidly changed to "keep back."

No. Mr. Editor, let the very slow-moving vehicles keep to the left—they seldom do—but the crown of the road for me every time in future!

* *If our correspondent had kept to the left and not
" attempted to pass a moving vehicle when it was impossible to see very far ahead it is improbable that an accident would have occurred. Although we strongly urge drivers to keep to the left, we do not recommend them to pull out suddenly when about to pass, as this practice is very dangerous.-En.

Revive the Rover Eight!

I have been much interested in the various letters which ou have published concerning the Rover Eight, as I am the owner of a 1924 four-seater model. I am sure there is a tremendous market for a Rover

Water-cooling Eight exactly as the 1924-5 model, but with the improvement of water-cooling. Wanted. One of your correspondents wanted a

two-piece windscreen, but in my opinion this is not essential; 99 per cent, want utility and reliability, and, speaking as a mechanic with 20 years' experience. I think watercooling, a larger greaser for the clutch and an ample bearing for the clutch plate, so as to prevent that annoying rattle which occurs when the clutch is disengaged if this bearing is worn, are all the improvements actually required.

I bought my Rover Eight last December for less than £60, the original paintwork being in first-class condition. as was the chassis. I have run over 4,000 miles on pleasure trips this year. I average 50 m.p.g., can obtain over 40 m.p.h. (my speedometer is correct) and can keep up 30 m.p.h. all day. The only time when I long for water-cooling is when I have been "pushing" the car along at 35 m.p.h. and then have to ascend a long hill or when I have to climb hills like Birdlip or Crickley; water-cooling is then desirable or an efficient fan.

I have just returned from Cardiff, whence I went via Chepstow, the distance being 86 miles; the time taken was 3 hrs. 30 mins., but the last 12 miles was covered at about 15 m.p.h. in pouring rain. The engine was not stopped once during the journey, the only time the car came to rest being when I stopped for cigarettes in Newport. I returned via Monmouth and Ross, and climbed Crickley Hill with two passengers. The total distance covered since leaving my home was 2003 miles, the petrol used being three gallons seven pints, whilst I used barely a quart of oil.

If the Rover concern could market a water-cooled "eight"

at £140 or less I think it would sell like hot cakes.
S. G. HUBAND.

* *'This letter is typical of several which we have received * on this subject .-- ED.

(Above) L. Cole (Frazer-Nash) conquers the 1-in-12 stretch at the finish of the Rodeo course after making a fine climb.
(Right) H. Canby (Salmson) in difficulties on a very rough portion of the



OUR READERS OPINIONS (contd.).

Tyre Wear on Morgans.

May I be permitted to reply to the question contained in the last paragraph of the letter of "PF 6673," published in your issue of August 5th? He asks if there is a tyre

which will stand up to 5,000 miles' use on the back wheel of a Morgan. The answer is a 26-in, by 3\frac{1}{2}-in, S.S. Duulop A Reply to "PF 6673." cord. I have been running a 1926 de luxe

Morgan fitted with an o.h.v. water-cooled Anzani engine Morgan fitted with an o.h.v. water-cooled Anzani engine since Jaly, 1926, and have, up to date, covered 13,000-odd miles. The original tyres are still in use, but at 11,200 miles I had the rear one retreaded and shortly afterwards the front ones as well, and they now look as good as ever. I have never had a single puncture or suffered one involuntary stop, the only precaution taken against punctures being the use of Jackson's Impervo in the back tyre.

The excellent service obtained from these tyres I put down to the following reasons:—Good material, correct in-

flation, the avoidance of violent acceleration or braking and, above all, correct alignment, which in my opinion is the secret.

As to other parts of the car, the only major replacements have been one chain and three sprockets, the latter not really essential, but fitted so as to give the new chain a longer life. I have replaced several small parts, such as steering pins, exhaust and magneto control wires, which everyone expects to do. The engine has been decarbonized twice, the heads only being lifted; the same gaskets were used each time and a new set of valve springs were fitted only on the second occasion. The fuel consumption is 50 m.p.g., whilst the oil consumption is almost negligible. inlet valves have never required attention and the exhaust valves have needed very little grinding-in, being merely discoloured; in fact, the whole engine seems in better fettle now than after it had covered only 5,000 miles. There now than after it had covered only 5,000 miles. appears to be unlimited power, the speed quickly reaching 40 m.p.h. with no fuss, and this pace can be maintained over give-and-take roads all day without a change down.

To show that the indicated economy in tyres is not due to timid and nursemaid methods of driving, I may say that I frequently make a journey of 209 miles in 71 hrs., including four stops to take in petrol and raise or lower the hood. Anyone acquainted with the difficulty of putting up a good average over long distances will realize that this performance calls for considerable acceleration and braking powers, thus testing the tyres to the utmost, especially as I do not as a rule exceed 45 m.p.h., and usually keep the speedometer needle at the "40" mark. At this speed the engine gives of its best, and the machine holds the road well. Incidentally, I consider it far superior to many fourwheelers of the light ear class so far as road-holding quali-

Summing up, I think the Morgan is the ideal poor man's ear, on the score of its reasonable first cost, performance, comfort, economy and, above all, reliability,

A Plea for Open Car Trials.

I do a little competition work-usually half or one-day reliability trials-in my light car, but find, in common with some of my friends, that in the average event one is

pitted against motorcyclists; it is rare to find more than five to ten ears in an entry of, say, 60. One usually gets Unsuitable Courses.

a sporting run, but some of the courses (naturally, planued for motorcycles) are much too narrow for ears, which come through a little mangled as regards paintwork. The recent South Midland Centre A.-C.U. championship trial is a case in point, for the cars had to traverse very narrow tracks, overgrown in places with brambles. Cannot the R.A.C. or one of the live clubs near London organize an open trial for cars only? I feel sure it would be well supported.

In such events as the Scottish Six Days', the London-Barnstaple and the London-Holyhead one has to be a member of the promoting club to compete, and it is rather an expensive business to join a club for the sake of taking part in only one event.

Perhaps the R.A.C. will be good enough to state through your columns why "open" permits are not granted for car trials. Should an open one-day trial be held for cars we should have a big entry and more intensive competition, Should an open one-day trial be held for cars making the winning of a premier award something worth 11.4 DRADNATS.

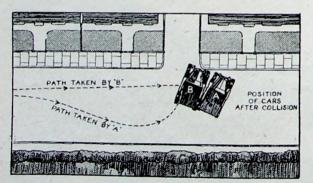
* *A member of a prominent club can sometimes take part * in invitation trials; that is, events organized by one club, but open, with official sanction, to the members of other named clubs, and "11.4 Dradnats" might eare to follow up this possibility. Some promoting clubs are against the open permit because frequently awards paid for out of the club funds are won by outsiders, and the organizers feel that it is fairer to arrange for the people who have provided the awards to get the full benefit of their support.-ED.

Awkward Road Situations.

A Further Letter from "R.E.S."

I apologize for writing to you again about the "Awkward Road Situation" which I mentioned some weeks ago. So far as the replies go, those whose opinions differ from my

own seem to me to have not grasped B" Fined for the full facts of the case, as one states Dangerous he would be surprised if the car (Δ) Driving. had passed in front of him after signalling his intention to turn right; so would I, but there was no signal given. Again, another correspondent reduces the question to an absurdity by bringing in vehicles ob-viously pulling up on the right-hand kerb. However, there



A plan view of the accident referred to a few weeks ago by "R.E.S." The driver of "B" was fined for was fined for dangerous driving.

must be some point in my contentions, and this letter is written solely because I have just read the report of the police-court proceedings (I notice a police constable was on the scene of the accident), in which the driver of saloon (B) was fined £5 and £2 costs for driving to the danger of the public. "Nuff said!" R.E.S.

A Case of Cutting-in.

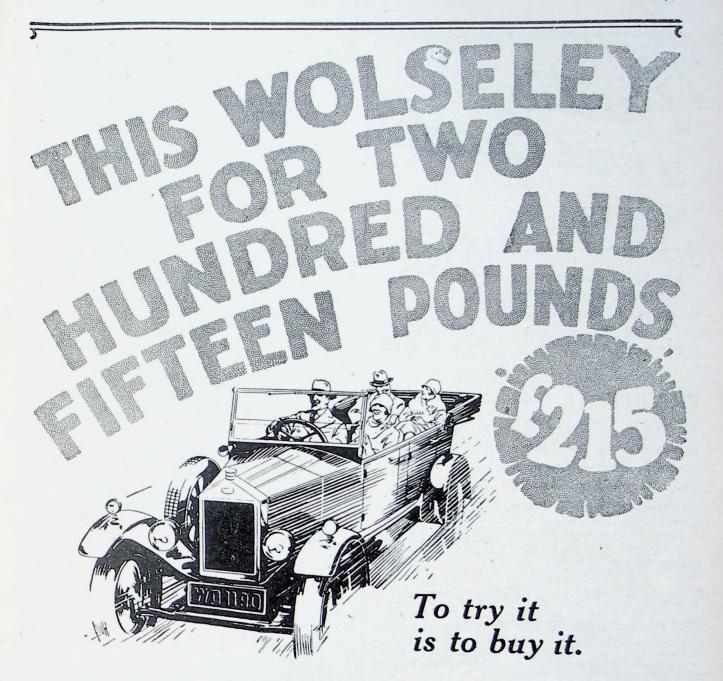
As a reader of The Light Car and Cyclecar, I have been very interested in the letters on awkward road situations which have recently appeared in your correspondence

columns, and I should like to know who was in the wrong in the following Passing on case :- Ahead of me was a small bus, a Hill. followed by a light car and a motor-

cyclist carrying a pillion passenger, whilst behind me was a large, high-powered two-seater. The driver of the latter decided to get ahead and accelerated on a rise, but as he got abreast of me a car appeared over the top of the hill coming in the opposite direction, and he immediately shot between my ear and the motorcycle; the space, however,

was insufficient for his car, and I had to brake hard.

Now, supposing I had been unable to stop and had crashed into the tail of his ear, who would have been to blame—he for cutting-in or I for being at that moment a following ear? The speed of the land was a following ear? The speed of the bus at the time was about 24 m.p.h. I know, of course, that he had no right to drive in the way he did from the point of view of road manners, but he evidently believed that he could pass the whole procession until the other car came into riew, when he found that he was travelling too fast to drop in behind me. behind me.



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D.A.

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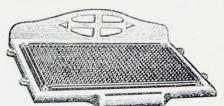
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OUR READERS' OPINIONS (contd.).

A Mysterious Rattle-

For some weeks I was troubled by a mysterious rattle in my Austin Seven. I traced the noise to the universal joint between the two cardan shafts and I concluded that

it must have worn. Against this was the fact that the rattle had started quite -and its Cause. Suddenly and also that there appeared to be no perceptible backlash in the

joint. Another curious feature was that steering round a left-hand bend tended to increase the noise, whilst taking a right-hand hend would often cure it momentarily. however, unable to think of a better solution, and other

people also put it down to wear in the joint.

A few days ago, however, I had occasion to crawl under the car to disconnect the speedometer, and I noticed that the leather easing over the universal joint had burst open at the seam and the edge of the leather was hitting each side of the shaft tunnel as it revolved. A piece of wire was bound round the leather and the noise disappeared.

B. C. DAVIS.

Annoying Noises.

Rarely does one open a newspaper newadays without Rarely does one open a newspaper nowadays without finding a considerable space devoted to the subject of the multiplication of noises. Medical gentlemen have a great deal to say of the daugers to health Motorists Often introduced by prolonged disturbances, Blamed Unfairly, and with them we must, most of usagree wholeheartedly. The medical gentleman have a following of individuals writing under such pseudonyms as "Fairplay," "Paterfamilias" and "Raterpayer," whose him idea is to blame it all on to private

whose big idea is to blame it all on to private payer.' motorists.

As I write it is nearly eleven o'clock on a Sunday night. I am in the sitting-room of my modest suburban villa, and while things have now pretty well quietened down, I still

have a splitting head as the result of the constant din that has been going on since early this morning, but of this din comparatively little is due to private motorists.

It started about five o'clock. Some hours before the whistlings of the milkmen and newspaper boys there is a noise reminiscent of being in the direct path of a 10-in, shell. This is caused by four and five-ton lorries hurtling about the place at excessive speeds as they distribute buik supplies of milk to suburban retailers. At about ten o'clock and thereafter hourly came the clanging of a bicycle mounted on the tricycle of an ice-cream vendor. Added to all these noises there has been an almost unbroken yapping of degs.

Only unusual circumstances kept me indoors to-day. the ordinary way I am out in my car enjoying myself, but my sufferings have prompted me to issue this appeal to all small-car enthusiasts to be considerate at all times and to disorders, the unnecessary blowing of horns or revving up of engines may cause untold suffering.

INFORMATION WANTED.

Coventry Premier.-The opportunity to buy or borrow an instruction book for the 1922 four-wheeler model would be appreciated.-T. McGrail, 35, Sandtoft Road, Charlton, London, S.E.7.

LOST AND FOUND.

LOST .- Between Moreton-in-the-Marsh and Broadway, Worcestershire, a lady's umbrella, having a black-and-white handle with a silk cord attached. The finder is asked to communicate with W. H. Leach, 127, Boulton Road, Handsworth, Birmingham.

FOUND .- On August Sth, between Boscastle and Tintagel, a mackintosh with the name "W. S. Field" inside the collar. The owner should get in touch with Mr. C. M. Beamish, Grosvenor Hotel, Bude, Cornwall.

CLUB ITEMS AND SPORTING EVENTS.

KENT AND SUSSEX L.C.C.

Owing to lack of entries, the paper-chase which was to have been held on August 15th was cancelled, and for the same reason the reliability trial fixed for September 10th will not be held. The next event promoted by the club will be the speed trials on October 8th, full particulars of which will be available shortly from the hon. secretary, Mr. Lewis Humphries, 12, Malling Street, Lewes.

SOUTHERN JOWETT L.C.C.

The next rally of the club takes place on Sunday, August 28th, at 12.30 p.m., the venue being a spot about one mile from the top of Bury Hill. Cars will be parked opposite the gateway of Arundel Park. The fourth annual reliability trial will be held on Suuday, September 25th, the route being the same as for the past two years. Entries must be sent in by August 51st to the bon secretary, Mr. E. A. Dudley Ward, 186, Tamworth Lane, Mitcham, Surrey.

R.A.C. PERMITS.

The R.A.C. has issued the fellowing per-

mits—September 1st: Motor races (Lowestott), Ipswich and District M.C.C. September 5rd: Surbiton 150-mile race (Brooklands), Surbiton M.C. September 24th: Hill-climb (Shelsler Walsh), Midland A.C. Closed--August 20th: Races, Southport August 27th: Speed Trials (Gopall Park), Sutton Coldfield and North Hirmingham A.C. September 4th: Reliability Trial, Sunbamm M.C.C. September 10th: Race meeting (Wallasey Sands), North Liverpool M.C.C.

WOKING AND D. M.C. AND C.C.

WOKING AND D. M.C. AND C.C.

The awards wen by competitors in the three-wheeler and car classes in the annual "Seven Counties" Trial, held on August 6th and 7th, are as follow:

Three-wheelers:—Silver Cup: E. L. Forge (Morgan). Silver Medals: R. A. Martin Morgan). H. R. Taylor (Morgan), F. A. Boggis (Morgan), G. Pollard (Morgan), C. Is. Clayton (Amilear), Miss T. M. Satten (1,996 c.c. A.C.), W. L. Bishop (2,987 c.c. Blsbop Special). Silver Medals: S. G. Smith (Austin Seven). W. A. Schooley (Brockiebank). R. D. Wilson (Cup Model Austin), H. J. Lovatt (Jowett). Bronze Medals: C. G. Fitt (Cup Model Austin), D. Duncan-Smith (Frazer-Nash). Competitors not mentioned above gained no award.

OXFORD MOTOR CLUB.

Owing to unforeseen circumstances, the gym-khana which should have been held on August 18th was cancelled.

HUDDERSFIELD AND D. M.S.C.

A reliability trial will be held on August 28th, the start being from St. George's Square, Huddersfield, at 10 a.m. A route of 91½ miles will be followed.

WHITGIFT MOTOR CLUB.

The race meeting which was to have been held on August 1st has now been fixed for August 21st, starting at 5 p.m. Club members willing to act as officials during the meeting are asked to get into touch with the hon. secretary, Mr. H. C. Jeffree, 191, St. James's Road, Croydon.

LEEDS M.C. TRIALS.

On August 21st the club's Amateur Cup Trial will be held, in which there will be classes for cars, three-wheelers and motor-cycles. During the course of the trial there will be restart and brake tests on Keighley Gate. August 24th, 27th and 28th are dates also fixed for various sporting events, including team trials and relay races.

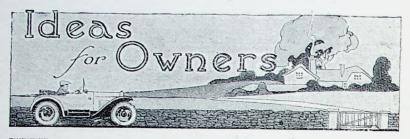
WOOLWICH, PLUMSTEAD AND D. M.C.

The annual Harvest Moon Reliability Trial, which is open to members of all clubs in the south-castern centre (A.-C.U.), starts at 10 p.m. on Saturday, September 10th, from Epsom racecourse grand-stand and finishes at Dunster on Sunday, September 11th. There are classes for threwbeelers and for cars. Entries clese first pest on September 5th.



IN THE INTERNATIONAL SIX DAYS'. .

W. A. Carr finds the Longlands "splash" too much for his Morgan, but he was not the only competitor to find trouble at this spot!

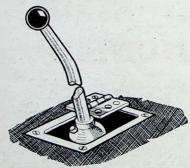


We invite readers to send us hints gained from their own experience for inclusion in this feature. Five shillings will be paid to the sender of any hint published, but we cannot undertake to return contributions not used.

Easily Made Reverse Lock.

In the absence of a reverse stop it is by no means a difficult matter to change accidentally from bottom gear to reverse. If the gear gate does not project too far above the level of the floorboards an effective reverse stop may be provided by screwing a stout binge to the board. The position of the hinge should be such that when the hinge is open and lying flat on the floor the free arm will prevent the gear lever being moved into the reverse notch.

When it is desired to reverse it is necessary merely to raise the free arm of the hinge.



A door hinge screwed to the floorboards near the gear-lever acts as an effective reverse stop on certain cars.

Waterproofing the Dickey Seat.

Occasional showers in summer-time frequently mean a drenching for the unfortunate passengers in the dickey sent of a ear, for in most cases they will not be provided with the waterproofs and other protections against inclement weather which are usually carried in winter-time. One source of trouble which is particularly annoying to dickey-seat passengers is the leakage of raindrops down the rear of the hood. over the slope of the tail of the car and down into the dickey seat, dripping on to the passengers' feet from the front edge of the hole in the tail.

To cure this trouble a shallow "gutter" should be fixed to the forward edge, and arranged at a slight angle to give a fall to the water which drips from the hood. The gutter may be of sheet metal enamelled to match the bodywork and screwed to the top of the rear part of the car in front of the dickey seat.

A Sidescreen Improvement.

After long use it is sometimes found that the "push-in" side screens, as fitted to Austin Seven cars, have become a loose fit in the door sockets. A cure may be effected by fixing a small plate inside the door, just below the level of the aluminium beading and opposite one peg hole. It should be drilled and tapped to take a setserew with a butterfly head, a hole of the requisite size being drilled in the door to allow the point of the setserew to bear on the peg when inserted in the door socket. When the side screen is put in place, the butterfly bolt should be given a half-turn to clamp the supporting peg of the screen.

A Parcels Net.

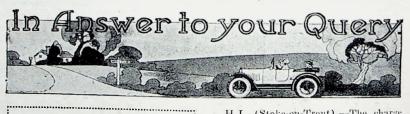
A handy fitting to the car is a container for parcels, and this is of particular importance if no cubby hole for oddments is provided in the facia board. One of the neatest forms of container—and, at the same time, the easiest to make—is that consisting of a square of fine-mesh string netting stretched between two convenient supports, such as the hood sticks of an open car, or tacked to the roof of a saloon. The netting chosen should have a fairly

close mesh to prevent small objects dropping through and it will be necessary to sew on a hem of canvas by means of which the netting is attached to its supports. A convenient position for the parcels net in an open four-scatter car is between the cross-hood stays above the squabs of the front and rear scats, although the netting will be useful only when the hood is creeted. Another position for the container—if a large petrol tank is not fitted which fills up the space behind the instrument board—is between the dash and the underside of the facial board. Short, flat-headed tacks should be used to fasten the netting, and these should be nailed through the canvas hem.

Petrol Pipe Protection.

When the petrol tank is attached to one side of the dashboard the supply pipe is usually taken through the floor-boards, a short length of the pipe and the petrol coek being under the facial board and within easy reach of the driver. In some cars the pipe is so placed that there is the possibility of a passenger striking his foot against it and damaging it.

A cover may easily be made from sheet metal to protect the pipe. The metal should be cut to a suitable shape to fold round the tubing and to cover the hole in the floorboards through which it passes. Tags should be left at the base of the metal protector by means of which it may be fixed, with wood screws, to the boards. If the latter are covered with rubber matting, the appearance of the shield may be improved by covering it with a piece of the same material. A coating of black enamel also is serviceable if not artistic, and will prevent the metal from rusting.



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

V.G. (Barnstaple).—Swifts have been fitted with engine, clutch and gearbox as a unit for several years. Yes, we tested a 1927 four-senter and found it very satisfactory.

T.T. (Isle of Man).—The car you have in mind is either a Lagonda or a Humber Nine. The latter is still being made with o.h. inlet and side exhaust valves—an arrangement which in this case gives very high efficiency.

D.P. (Flint).—The silencer fitted to your car is built up by welding and it is impossible to dismantle it to free it from carbon. The greater part of the deposit may be removed, however, by heating the silencer in a fire until it is at almost a dull red heat and then plunging it in water. The carbon will be freed and should be removed with the aid of a wire brush.

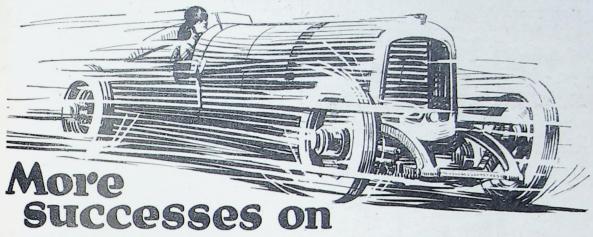
H.J. (Stoke-ou-Trent).—The charge for the use of Brooklands track, Weybridge—including the test hill—is 10s. per day.

A.A. (Dovercourt). — Standardized controls are still a long way off. There is a lot in your argument, but experienced drivers find little difficulty when changing over from side to central control.

Regular Render (Brentwood).— Bumper heights have been standardized by the S.M.M. and T. and you are merely repeating the arguments we put forward in a recent editorial, "Regular Reader" (?)

L.E.T. (Durham).—There should be no harm in mixing two brands of oil, providing both are either vegetable or mineral products, but it would be better to drain the sump and fill up with the fresh brand you intend to use.

R.B. (Wanstead).—Very slight alteration to the setting of the slow-running control on your Zenith carburetter is all that should be required. From the symptoms mentioned the need for a slightly weaker mixture is indicated.



DUNLOP TYRES

SPANISH GRAND PRIX

JULY 31st, 1927

1st

Delage

on DUNLOP

2nd

Bugatti

on **DUNLOP**

3rd

Delage

on **DUNLOP**

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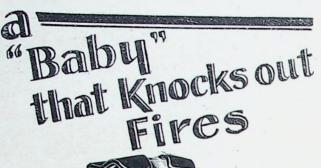
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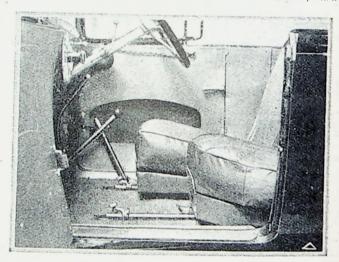
An attractive booklet describing in full detail all makes and models of ear for which they are agents has been issued by Messrs. Tamplins, 12, King Street, Twickenham.

Car owners who like to keep the floors of their vehicles as clean as possible should investigate the merits of the "Cone" step mat and scraper. It is made by R. W. Coan, Ltd., 219, Goswell Road, London, E.C.1.

A large number of useful bargains are always to be found advertised in our "Miscellaneous" columns, and readers in want of inexpensive fittings should make a point of glancing at the various announcements each week.

Guaranteed for five years and fitted with a jewelled movement in a damp and dust-proof case the Despatch Rider wrist watch marketed by the Services Watch Co., Ltd. Leicester, is a very good proposition at 15s. 6d.

John Oakey and Sons, Ltd., Wellington Mills, London, S.E.1, supply an efficient valve-grinding paste in a two-compartment tin. Coarse abrasive is contained in one compartment, whilst in the other is a fine finishing compound.



As applied to a 10 h.p. Singer—the Leveroll adjustable seat mechanism referred to by "Focus" in "Rich Mixture" this week.

A number of new and interesting accessories suitable for light cars are described and illustrated in the August issue of the "Cadison Bulletin," which we have received from Messrs. R. Cadish and Sons, 5 and 6, Red Lion Square, London, W.C.1.

Owing to an increasing volume of business, Messrs. Max B. Watson and Co., makers of the Watson Car-Track-Tester, have found it necessary to move to more commodious premises. Their new address is Poplar Works, Seer Green, Beaconsfield, Bucks.

We learn that a new type of Champion sparking plug, known as the Champion Aviation, was used in the engine of the Wright Whirlwind monoplane, "The City of Oakland," which on July 14th-15th flew non-stop from San Francisco to the island of Molokai, a distance of 2,340 miles, in 25 hours 36 minutes.

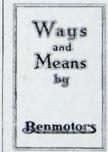
We understand that considerable extensions are now being carried out at Fort Dunlop to cope with the largely increased business in all departments. New buildings are being erected to supplement the mixing mills, moulding and curing shops, and a new four-storey office block is being built for the clerical staff. The water supply will be augmented by a 15-in, main capable of supplying water at the rate of 400,000 gallons per hour.



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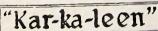
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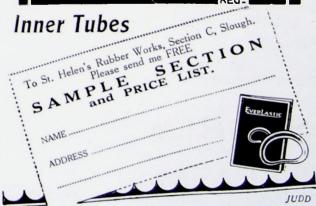
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