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The South India Motor Owner.

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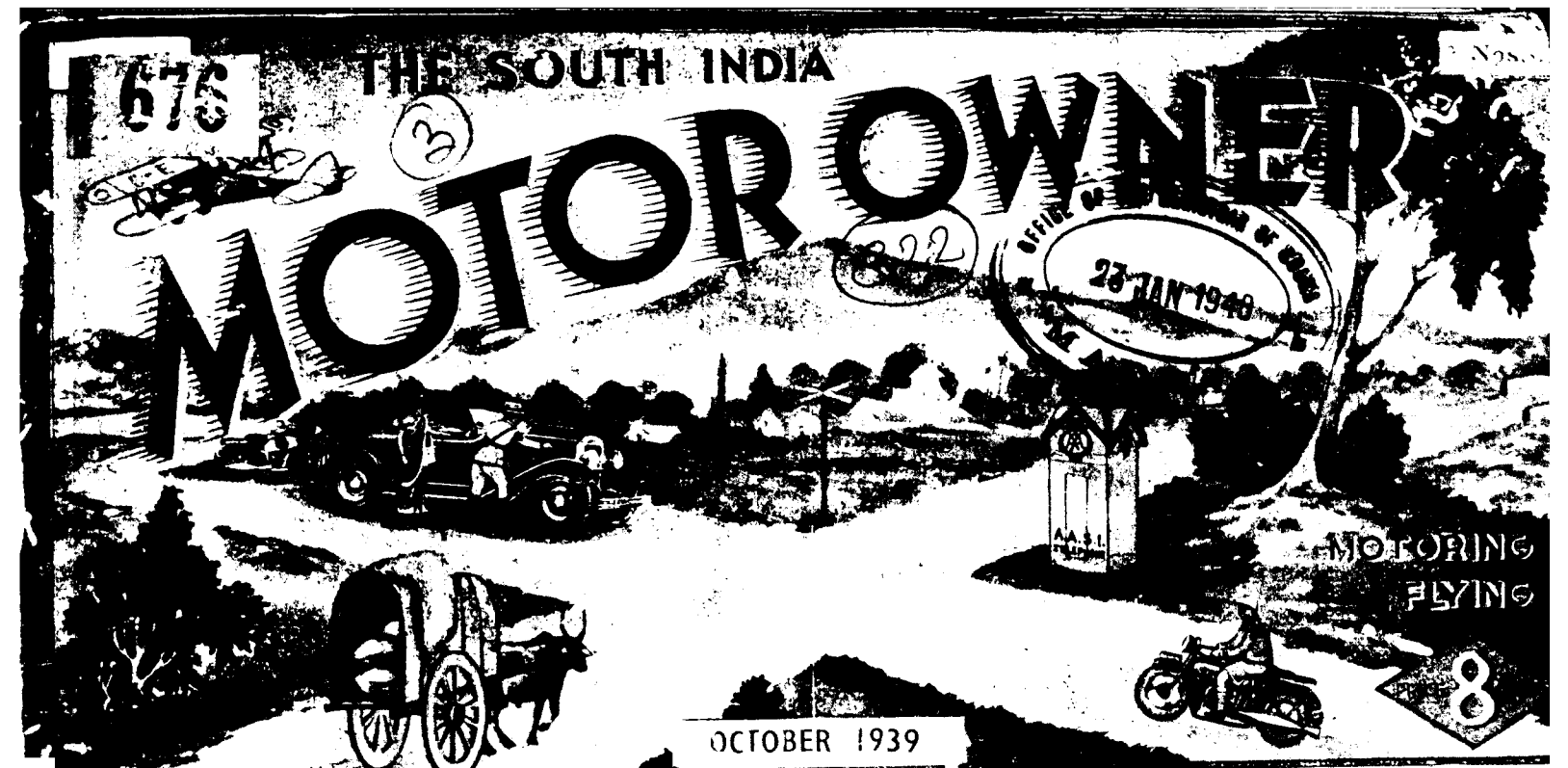
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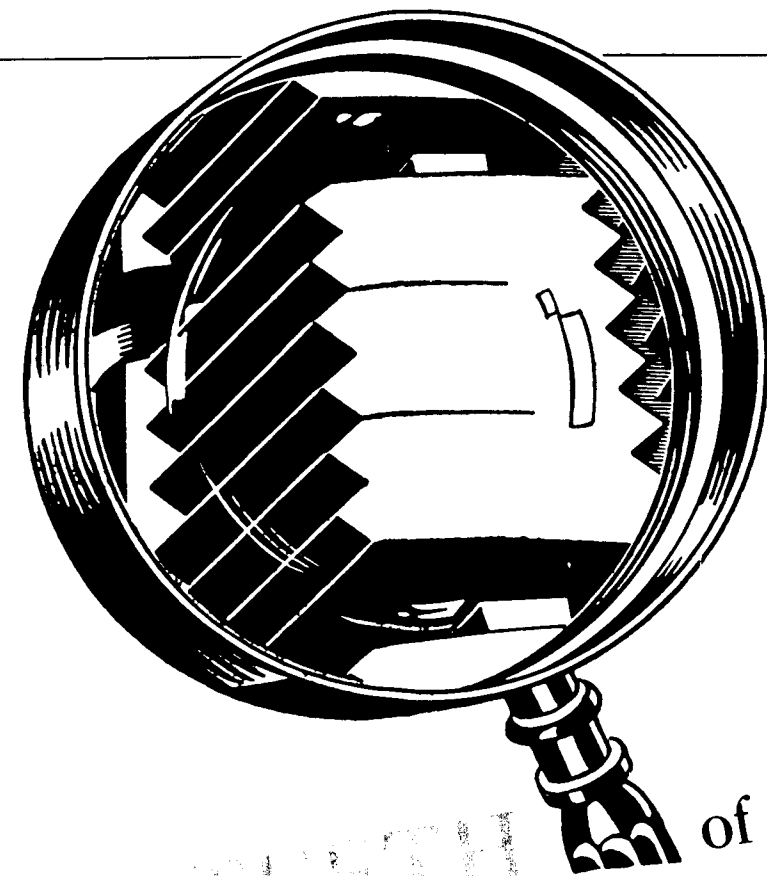


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Official Organ of THE AUTOMOBILE ASSOCIATION OF SOUTHERN INDIA



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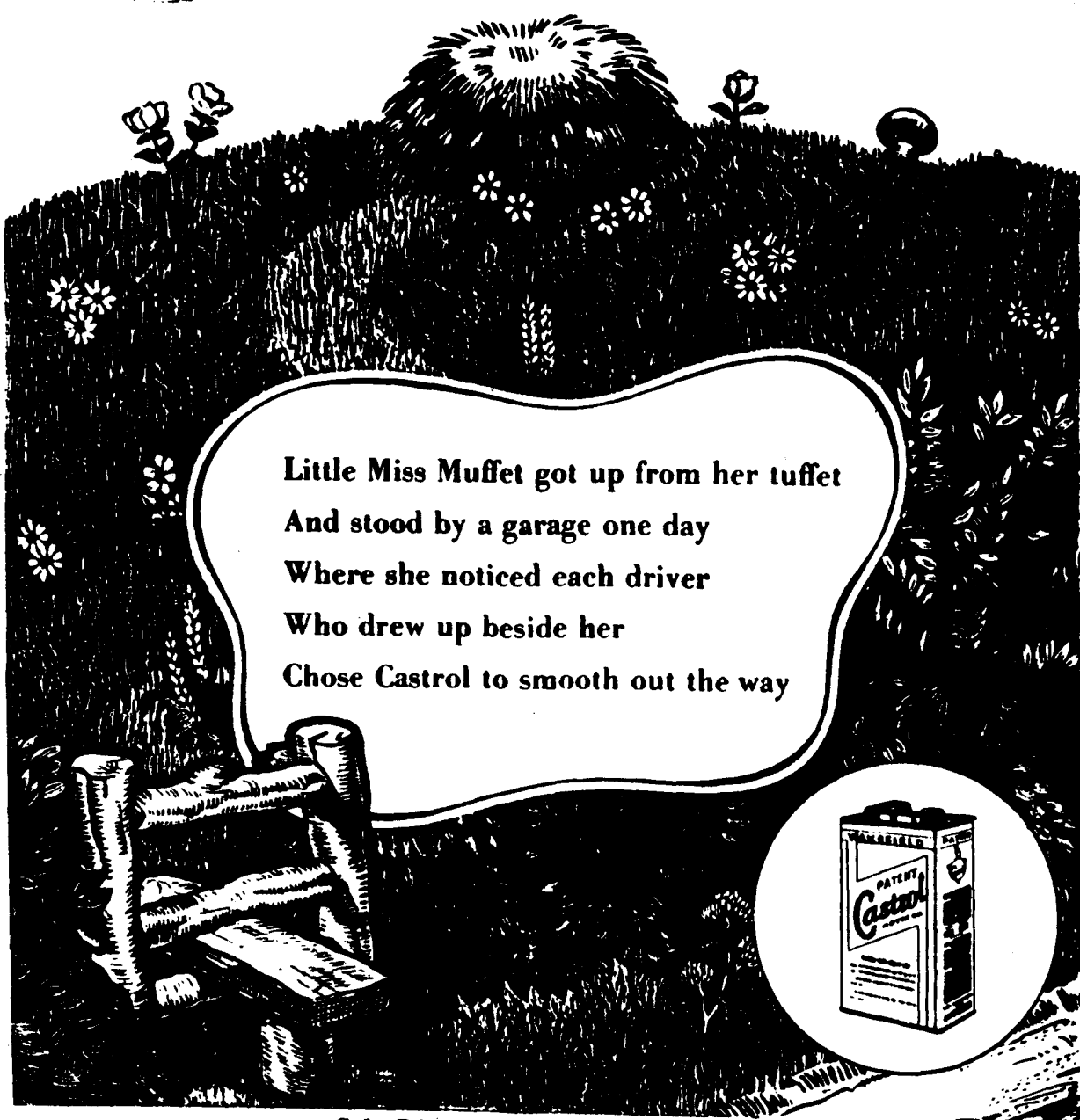
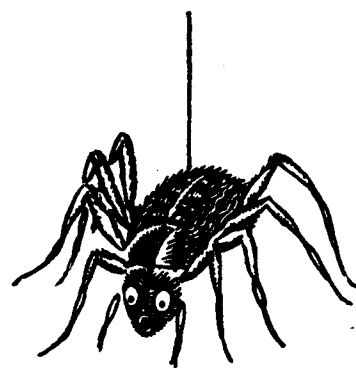
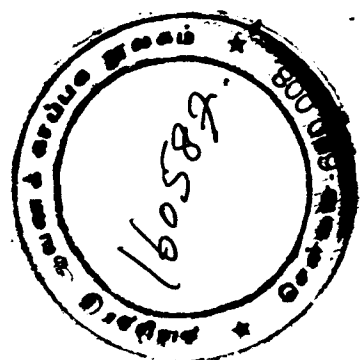
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Little Miss Muffet got up from her tuffet
And stood by a garage one day
Where she noticed each driver
Who drew up beside her
Chose Castrol to smooth out the way



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THE SOUTH INDIA MOTOR OWNER



The Official Organ of the
Automobile Association of Southern India

Vol. XI, Number 10]

OCTOBER 1939

[Single Copy As. 8

Secretary's Notes and News

All Members are entitled to a copy of this Magazine every month after their names have appeared in the monthly list of New Members Elected. Any member who does not receive his or her copy regularly is requested to inform the Secretary immediately.

The South India Motor Owner

OUR magazine has now caught up its arrears of publication occasioned by strikes and other troubles. As will be noticed this October number is being issued towards the end of September. This practice of issuing the number in the preceding month is that followed by the popular type of monthly magazine, and has been agreed to by the courtesy of the publishers on a suggestion from this office.

As our September number was issued only recently, it will be understood that there is not a full month's news to discuss in this issue. In future issues, this will adjust itself and the news will be fresher than heretofore.

The present world conditions will affect general subject matter, and probably the style of presentation of the Magazine. Prices of commodities are being affected by the war, and the various daily papers and other periodicals will feel the natural repercussions. It may be found necessary, therefore, to use a less superior class of paper, in future, for instance, but every effort will be made to maintain and improve the subject matter.

The Office

The change of quarters mentioned in the last issue has been all to the good. The improved convenience of the internal arrangements is most appreciable, and when we can acquire

better furnishings and appliances the improvement will be still more marked. The only point for comment at present is that the hall in which the office is at present accommodated is somewhat reverberating. This reverberation and amplification of the noise of clicking typewriters, consultations with visiting members in different branches, and so on, certainly give the impression of vast activity, but it must be admitted that our silencing attempts are only on a par with those on the earliest cars, and will need study to bring them up to modern efficiency.

Membership has gone up during the month. A resolution was passed at the last Committee meeting allowing a commission on the introduction of new members by recognized salesmen, agents and employers of motor, insurance and other companies connected with the motor trade. This practice is followed with success in varying degrees by the A. A. of Great Britain and other Associations in India and Ceylon. It is beginning to justify itself here already.

Routes covering a distance of 32,372 miles were issued to members during the month.

Routes to the Nilgiris from Madras

There are three ways of getting to the Nilgiris via Madras—(i) via Bangalore and Mysore, (ii) via Vellore, Krishnagiri and Mettur, and (iii) via Villupuram, Ullundurpet and Salem.

The last is not so generally known and employed, but is the shortest of the three being only 335.7 miles. In addition it is fastest route for average speed. There are long stretches of open road in good condition along which a good average can be maintained. The stretch from Ullundurpet to Salem through Kalladakurichi and Attur has been greatly improved of late. Without taking any risks or pushing the car unduly, I did the 205 miles from Salem to Madras recently in 5½ hours from door to door. Salem town is slightly tortuous to negotiate but quite well sign-posted. Follow the Calicut sign-posting in the town going to the Hills, and the Cuddalore sign-posts returning to Madras. There are two road diversions between Salem and Sankari near McDonald's Choultry, but these present no difficulty, though naturally they call for care. Bhavani just across the Coimbatore border has some sharp right angled turns, at which a look out must be kept for sign-posts. The bazaar is narrow and congested, calling for care and alertness. Thenceforward to Avanashi the road is fair but a mile beyond Avanashi is the turn off through Annur to Mettupalayam. This stretch is distinctly bad particularly as far as Annur 11 miles from the turn off. Beyond Annur is a broken bridge with a diversion demanding the usual care, but quite passable. The Ghat road can hardly be described in a few words, and is probably known to most motorists. Its 13 hairpins call for no reversing

and the surface is quite good. A rise of 7,000 feet in 26 miles brings the motorist to the cooler climes of Ooty. A 25 m.p.h. speed limit is in force on the Ghat roads.

This Salem route is useful for those who wish to do the trip in one day. The only convenient halting place for those who do not carry bedding, lights and food supplies other than the tiffin basket, is the Salem Railway Station retiring rooms, which, like all Railway rooms, are liable to be noisy and disturbing. For such as it affects it must be remembered that Salem is a Prohibition district.

The second route mentioned is *via Mettur*. This is 346 miles. Besides being longer, this route is not so fast as the Salem route already described. The road on the whole is not so good and is considerably more winding in parts. The first stage is to Ranipet. At the fork at the beginning of the town remember to take the left hand road. An efficient A. A. sign has been prepared for erection at this spot, and has been sent to the District Board Engineer to be installed. I hope it will be up shortly. At Ranipet there is a Causeway which is quite passable except in very heavy rain. There follows a twisting road from Arcot, the other side of the Pennar River, to Vellore. If the motorist is not in a hurry, a visit to the Vellore Fort is well worth the time if such matters are of interest. From Vellore the road runs to Krishnagiri and is quite adequately sign-posted. The Krishnagiri Travellers' Bungalow is nearest the half-way mark between Madras and the Hills, and can be used as a half-way halting place, but here again bedding and food supplies present difficulty for those who do not carry them. The most comfortable halting place *en route* is Mettur. A stop at this place affords an opportunity of inspecting the Mettur Dam, which is well worth seeing. To reach Mettur there is quite a pleasant run to Toppur which involves a gradual climb to the top of the Toppur Ghat and a steeper descent down the other side. The Toppur-Mettur road cannot be taken at a great speed, but has been improved considerably during the last three months. After Mettur the road to Bhavani is not too good, although that again has been improved. After Bhavani the road is the same as that for Salem.

The third route is one first mentioned, *via Bangalore and Mysore*. This is the longest of all being 392.4 miles.

If time is no particular object and a variety is desired, this is the most interesting route to follow. The Bangalore road strikes off from Ranipet at the place already mentioned. The District Board sign-posting here was very deceptive, one-arm points to Bangalore and along the road which takes you to Vellore and Krishnagiri. This road will take you to Bangalore *via* Krishnagiri, but is not so pleasant as the alternative route. At the Ranipet corner to take the latter go straight on and cross the railway. There is a causeway called the Rice Causeway across the Pennar River. A bridge has been built at this place and is ready for traffic. Unfortunately it awaits a formal opening by some high personage before its thrown open for general use. I have written to the District Board Engineer to try to find out when this desirable event will take place. Incidentally, when this bridge is opened it will afford an alternative and ultimately better road to Vellore as the road through Tiruvallam village to Katpadi and thence Vellore is being widened and improved. It will thus be possible to take either of these last two routes to the Hills without having to cross this river by a Causeway. To revert to Bangalore road, this is in very good condition in Chittoor District, and the turn off into Mysore is well marked. It may be remembered that a Rs. 3 short term licence will have to be acquired for cars registered outside Mysore. There will also be two tolls as far as Bangalore and four afterwards to the Nilgiri Border. This trip across to Mysore will cost Rs. 9 in tax and tolls. The tax can be paid at the border or the licence can be issued on payment at this office before the trip is undertaken. Bangalore and Mysore both have facilities for a night's stay; there are hotels of all kinds in both places. Sight-seeing can be indulged in Mysore, but space does not permit a detailed account of Sivasamudram, Seringapatam and other places of interest. If intending motorists require details of tours in Mysore we have several publications issued by the Mysore Government Publicity Department available for perusal in this office. After Mysore the best road at this time of the year is the Gudalur Ghat; in drier weather the Sigur Ghat is practicable, and cuts off a certain distance, but during rainy weather, owing to its steepness and muddy surface, it is unwise to try this short cut.

If any further details about these roads are required by any member we shall be only too glad to supply them.

Road Information

The Gudalur - Vayitri - Calicut:— Road was re-opened for through traffic on 11th September 1939.

2. Calicut-Mysore *via* Sultans Battery is closed to traffic from the turn off at Chundale.

3. Mysore—Hassan District:—

The I Section (Ghat Road) of the Sukravarasanth-Subramanya Road is closed for three weeks from 19th September 1939 on account of repair works.

Ponnai Bridge—Tiruvallam

Information has been received from the District Board Engineer, North Arcot, that the Ponnai Bridge near the Rice Causeway, on the Ranipet-Chittoor Road will be opened for traffic on the 30th September by the Hon'ble the Prime Minister to the Government of Madras.

Road Notes

A member writes as follows:—

The Association might care to know that the road from the Trunk Road *via* Gollaprolle and Pithapuram to Cocanada is a disgrace to the road authorities concerned. If one is lucky, one does the 21 miles in 75 minutes assuming a dry day and no bullock cart traffic. On a wet day, at least 50 per cent should be added to this time as the surface is damnable and there is sticky mud all over it (between Chebrole and Pithapuram) causing cars to skid unmercifully.

I did the trip just over a week ago in a heavy American car and I was utterly disgusted.

Main roads between Rajahmundry and Gopalpore are on the whole excellent and without forcing an easy average of 35 m.p.h. driving time can be maintained. Members should allow up to 40 minutes or so for the Vizagapatam ferry as they may be unlucky in catching it on the wrong side.

Lighting Restrictions

The following lighting restrictions have been issued in Madras under rule 52 (1) of the Defence of India Rules:—

Street lighting: All street lighting shall be screened so that direct light is invisible from any position above the level of the light.

Ornamental lights: All ornamental lights, flood lighting of buildings,

electric signs and petroleum incandescent lights out of doors are prohibited.

The Marina and houses, and buildings visible from the sea: Street lighting on the Marina is prohibited. Lights in houses and buildings visible from the sea shall be screened.

Motor Vehicles headlights: On the following roads only dipped headlights are permitted:—North Beach Road, South Beach Road, the Marina and San Thome High Road.

These orders came into force at sunset on the 27th September, 1939.

Heavy Cart Traffic on Roads Government's Restrictions

The Madras Government have issued instructions to local authorities that in view of the safety and convenience of the public the practice of carrying long lengths of timbers on the ordinary single axle bullock carts should be discouraged. With fast moving motor car traffic on the roads, the carriage of such roads on the ordinary type of cart is regarded as a source of danger.

The Government point out that exemptions for carrying such loads should be temporary for such period as will enable persons concerned to make more suitable arrangements. The authorities will have to consider whether exemptions should not be restricted to certain specified periods of the day and routes on which traffic is light.

Yellow Lights

A tourist in France states that for the first time he decided to conform fully to French lighting requirements and fitted yellow-tinted bulbs to his head lamps. Not only did he find them entirely adequate at night, but actually preferred them to white lights. Although, perhaps, not quite so powerful as a light-giving installation, the soft yellow tint was very restful, and singularly free from shadows. He is retaining them in his lamps for use in this country.

Tyre Noise

Three Factors Involved

Dr. A. M. Low, who is well-known for his research work in connection with

motoring matters, gives the following opinion on Tyre Noise:—

The appearance of a motor tyre from which it is claimed that "whine" has been eliminated should be a reminder not only to motorists but also to road engineers that the noises frequently attributed to running tyres are really not the fault of the tyres themselves.

Apart from "whine" there are two other principal types of noise associated with tyres: "squeal" and "rumble". "Squeal", produced when cornering, is as much the result of under-inflation as of tread design. A tread giving too much sideways movement does "squeal", but this sideways movement is, more often than not, caused by the motorist himself allowing inflation pressures to fall below the recommended figure.

Under-inflation is also one of the causes of "rumble" although that has been found to be created chiefly by stone sets and irregular road surfaces. Tread pattern has certainly little effect on it one way or the other.

In short, the quiet running, so wisely aimed at by the motorist of to-day as far as the tyres are concerned is, in fact, the result of the joint efforts of those who make roads, of those who make tyres, and of the motorist himself.

Silent running is extremely important, for noise not only indicates wear and tear, but has an exhausting effect upon the nervous system. In closed cars the results of noise are comparatively serious, and are fully capable of producing a feeling of exhaustion during a long drive.

Carburation

"Scribe" of the *Autocar* writes:—

Recently I spent a most interesting afternoon with Mr. Arthur Cox, the Atmos economiser man, who is probably one of the best authorities on carburation in the Midlands. It is safe to say that every automobile designer

knows Mr. Cox, and, if they don't always agree with his theories, they respect his opinions and never attempt to deny the remarkable results he obtains. One never meets him without a batch of the day's testimonials in his pocket.

He surprised me by saying that he did not produce the economiser merely as a petrol-saver; he inferred rather that the remarkable saving in petrol obtained with its use was more or less an accident. He was thinking of economy in a much bigger way, his aim being to save engines from the need of a rebore. This he certainly does, for I have seen letters from people who have run fifty and sixty thousand miles, and still don't need the attention to the bores. This is due to the fact that his device looks after carburation at the lower end of the range of the carburettor's work, where, he tells me, fully seventy-five per cent of the running is made.

He also surprised me by advancing the theory that oil carbon does not cause an engine to pink; in fact, it will prevent an engine pinking. He has had engines under observation that did not pink until a quantity of oil carbon had been removed. The economiser keeps any kind of carbon from forming.

This is not just sales talk, for Mr. Cox is one of those enthusiasts who are more concerned with proving theories than making a lot of money, and the testimonials he receives give him pleasure because they mean that he has convinced one more motorist that Arthur Cox must be right and that the economiser is a great deal more than a mere gauze cone.

Letter from a Member of A.A.S.I.

As a member of the A. A. S. I., I feel I must write and express my appreciation at the very efficient and courteous manner in which one of your Scouts, stationed at the Elphinstone Talkies, discharged his duties.

It was particularly pleasing to note that he waited for neither thanks or gratuity.

Branch Notes

however of easing up office hours which were 9 a.m. to 1 p.m., and 1-30 to 5-30 p.m. On three days at 6-30, two days 7-20, and on one day 8-15 p.m. The late calls were mainly for routes required for day-break next day.

The office opened on three Sundays for members: twice for 'breakdowns'

and licences, and once in connection with an accident.

Seventy-seven members etc. called at the office; they were:—

A. A. S. I.—51; W. I. A. A.—13; A. A. N. I.—3; A. A. B.—2; non-members 8.

BANGALORE

By Major A. W. Waters, M.B.E. (Rtd.),
Hony. Secretary, Bangalore Branch,
A. A. S. I.

AUGUST was a quieter month in all respects; fewer members called at the office and correspondences dropped. There was little chance

Itineraries issued.—17 covering 7,796 miles.

Licences

4 Mysore, 4 Madras, and 8 Station, total 16. Driving licences 2, and Registration of cars 2.

Seven claims for 'Refunds' due on Madras and Mysore Licences were taken up, including an unauthorized Mysore tax on a trailer and all, except one (to which I shall refer further on), were successful.

167 letters were received, and 258 letters, periodicals, etc., despatched.

Scouts

One Scout and one Car-Park Attendant were present the whole month and daily reports of their activities were sent to the Secretary. They were present at every important function in the Station and City. Their uniform, now showing signs of wear, was always clean and neat, and their conduct and smartness were—as hitherto—exemplary. Assistance was rendered to the cars of 12 members.

There were three big functions, namely:—The Mysore Horticultural Society's Show in the Lal Bagh on the 5th and 6th August, with about 200 cars each day; the "At Home" at Carlton House, (the residence of the Diwan of Mysore) to the "Army Indianization Committee Members" over 100 Cars, and the special visit of a scout to Tumkur (actually on 26th and 27th July, and omitted in July report) when this Town was *en fete* on the occasion of the visit there of H. H. the Maharaja of Mysore. The importance and necessity for this visit was added to by the fact that this Association was able to render in a small way, its humble homage to one of its Patrons. Advantage was also taken to make a road report of the road-conditions and signposts of that portion of the Bangalore-Bombay Trunk Road.

Motoring Legislation

I referred last month to certain traffic legislation up before the Station Municipal Commission: These had reference to 'use of horns'; 'use of head lamps and anti-dazzle devices'; and 'main roads' and the 'right-hand rule'. These propositions have been published for objections and suggestions, if any, and a copy has been forwarded to the Secretary, A. A. S. I. One other, by the way: the 'substitution' of 'Two and a half tons' for 'Two tons' to express a 'heavy motor vehicle'. This

latter will not, as the rules stand, affect the taxation fee for private motor cars in the station which have only two categories of weights, *viz.*, under 15, and over 15 cwt.

Refunds on M. V. Licences

I referred above to one failure to effect a refund on a Mysore licence; the details were:—

A member left Bombay to reside in Bangalore. Not knowing where his residence would be located, he very rightly got a 7-days Mysore licence and entered the State on the 29th March. In Bangalore he settled down just inside the City (Mysore) limits, and in April obtained a Mysore half-year licence expiring on 30th June.

In July a claim for refund of one-third (Rs. 6) was submitted for the period of three continuous calendar months of January to March the 'vehicle was not in use'. It must be noted that three months is the minimum period for which a claim can be made. This was objected to because the car was in use in March though under a separate licence, and had he in the first place taken out a licence for a half year, he would not have been entitled to a refund as its non-use would have been less than three continuous months. Also, it was said that, if a refund of Rs. 6 was admitted Government would lose Rs. 3 as follows:—Rs. 18 - 6 = 12 plus 3 on a short-term licence = Rs. 15 instead of Rs. 18 for half year. The correctness of this point is not disputed, but in the peculiar geographical circumstances of the Bangalore City and the Civil and Military Station; also the difficulties in the way of new-comers to Bangalore knowing precisely where they will reside, it seems to call for legislation that in such cases refunds be allowed for the excess paid over and above the amount for a half year's licence. In the case here referred to, the motorist paid Rs. 3 for 7-days, and then Rs. 18 for a half-year, a total of Rs. 21 for a period of three months and three days all within the one calendar half-year.

There is a strong precedent for this legislation in the case of visiting motorists who take out licences for more than seven days and who, within seven days after entering the State, reside in the limits of the Civil and Military Station, where they are obliged to take out a station licence, in such cases refund of the tax in excess of seven days is now granted (see page 113 of this Journal for May-August 1939). The former case calls for equal consideration.

Your Driver's Licence.

"That does not concern me" is a frequent answer I get from a new member when I suggest this item for our 'Reminder Service'.

It may surprise some to know that recently a member was summoned to Court for allowing his driver to drive his car after the latter's licence had expired, and was fined. The driver too was, of course, fined. Section 6 of "The Indian Motor Vehicles Act No. VIII of 1914" lays down that—

"6. No person shall drive... and no owner or person in charge of a motor vehicle shall allow any person who is not so licensed, to drive it". Similar provision is made in the "Indian Motor Vehicles Act, 1938", Chapter II, Section 5, page 4.

It is obviously of the greatest importance to have at all times a knowledge of one's driver's licence and though one may make the driver pay the fine, there is the trouble and personal annoyance of being hauled to Court. But of even greater importance is the fact that if one's car is insured, the car *will not be covered under the Public Liability Clause* whilst being driven by a non-licensed person. Just think of it! The driver in question evidently did not look at it from the insurance point of view.

There is no A. A. Free Legal Defence for not taking out a driving licence and this presumably includes the offence of allowing an unlicensed person to drive one's car? Perhaps this point will be made clear in future prints of our Free Legal Defence rules, page 4. It would certainly be a constant reminder to members to attend to this point.

Free Legal Defence

Our second and third applications were received. One of these, though not entirely successful, or free of fine, I might more correctly say, can, I think, be claimed as a success; the other case is pending.

Traffic Matters in the Station

South Parade

In accordance with a Police Notice dated 11th August, 1939, "No Motor Vehicle is permitted to halt on the South Side of South Parade within the limits of the Carriage Way for longer than is necessary to set down or pick up passengers, between the hours of 10 a.m.

to 2 p.m. and 5 p.m. to mid-night. No Motor Vehicle is permitted to halt on the footpath on the South side of South Parade. All Motor Vehicles must be parked on the North side of South Parade within the White line, and in accordance with the directions of Police Officers who may be on duty to regulate traffic and parking".

The reference to a footpath is evidently in anticipation of one to be constructed as none exists unless a narrow strip of stone paving up under the eaves of a few shops, and evidently the private property of those shops, is referred to.

I hear of a proposal to widen the parking area on the north side of this road, as in many places it is not possible to park diagonally without coming over the white line. In other parts where the inside curb is low enough and the bank permits, it is possible to park transversely and well behind the line. The latter method is the best as it enables a car to draw out and turn *right* or *left* without encroaching on the far half of the road. Speaking of 'diagonal' parking, I think this word is much better than 'stagger' which the Army is fond of using. 'Stagger' may mean slantwise but it also means zigzag as the spokes are set in a wheel-hub and thus, to the lay mind suggests disorder, much like the walk of a drunken man.

If there is one place where 'transverse' parking should be avoided at all costs, it is a narrow cul-de-sac. I know of one such in a church compound where cars so parked are frequently held up until a car parked parallel in front of it moves. In such places cars should be either diagonal, or as many do, back straight in. Some early comers, who do not wish to make a noise at the church-side, prefer to glide quietly and straight forward to the end and park tail outwards. This is quite all right in a private compound and those who do so know and are prepared to wait for those behind it to get away before they back out.

My Letter-Bag of Complaints

The six-days grace in the station for licences is a constant grouse in that it is not recognized in the "Reciprocal Arrangements" with the Mysore State. It operates against the Station motorist in the beginning of 'quarters', half-year, etc., as also if he happens to be returning, say, from Madras in the first few days of a new licensing period, and has not been able to get a fresh licence in advance. There is nothing subtle in

operating reciprocity in this matter, as one merely has to keep up the expiring licence for six-days or less beyond the expiry date.

The other grouse which is constant is that motorists who are definitely passing through the State to stay in the Civil and Military Station have to purchase a Mysore licence for seven-days in addition to toll fees though the hours on the State roads may be only one to six hours, *e.g.*, coming from Salem one enters at Attubele and is just under one hour on the Mysore road. From Ooty: 156 miles from Bangalore or five hours; seven-days licence and Rs. 4 in tolls. This is a lot to pay for so short a time and the toll-fees should suffice for the wear and tear of their roads. There should be some means of recognizing a Station licence and the *bona fides* of the visitor to the Station. The real point about this licensing business all over India is, it seems, just a money-making one and does not concern wear and tear of roads by visiting motorists, for it must be apparent that if fifty foreign cars enter a Province, a possible equal number are touring outside in some other Province or State.

The Bullock Shoe Menace

Complaints of this danger are rife, and the latest comes again from the Mysore-Nanjangud road, where three cars were met with tyre trouble within a short distance. It is hoped that we may soon hear something in the Press of the activities of the Boy-Scouts in this direction.

Big Game Licences in Mysore

A Press Notice dated August 4th says:—"The Government of Mysore have been pleased to declare that sportsmen residing in Civil and Military Station, Bangalore, will not be required to pay double the fee prescribed for obtaining game licences and that they do not come within the category of sportsmen from outside-areas."

Roads and Boundaries of the C. & M. Station of Bangalore

Visitors are constantly befogged about the boundaries and will they be in the City or Station limits? It is not possible in the limited space of these notes to give an outline, but on the Eastern side, it is roughly Millers Road, Residency Park Road, Head P. O., Queens, Sidney and Sampangy Roads, but not Sampangy Tank Road,

The West End Hotel is in the City limits; while Lavenders, The Central, and Phoenix Hotels are in the Station, as also are—Mrs. Maish's Guest House, Shilton House, Joyburn, Clyns' Boarding House. The Modern Hindu Hotel is in the City. When driving round the town, other guides are the 30-mile traffic signs at the entrances to the Station. The speed-limit is now the same on both sides.

The Residency is *not* in that road but at the end of Cubbon Road. It was, I believe, where the Imperial Bank now stands and which borders on Residency Road. I seem to remember being shown a very curiously shaped staircase, and bedrooms sunk below the ordinary floor level in the upper floor of the said Bank building. The former being capable of being closed (or something like that) for defence, while the depth of the beds ensured one being below the trajectory of a bullet from the lawns in front. Pretty hot times those, it would seem.

There is no 'Resthouse' in the road by that name, though once upon a time there was, I'm told, a P.W.D. Bungalow.

Trinity Church Road runs from Trinity Church to Circular Road at Cornwallis Barracks, but, not a few will be surprised to know there is no 'Trinity Road'. Quite a dozen military officers live in bungalows rented to them by the military authorities all in the name of Trinity Road, and registered as such. Most or all of them, as also some of the other residents of that road, use Trinity Road as their postal address. Yet, old 'Trinity Road', from Dickenson Road (formerly 'East Parade') to Trinity Church—an extension of South Parade—was named "South Parade" by a resolution passed by the Municipal Commission in June 1922, and a very pucca signpost erected at its extremity in front of Trinity Church. I can obtain a road map at 8 annas plus postage.

This Month's "Obiter Dictum"

The outstanding thing coming to my notice is the very general ignorance, or perhaps thoughtlessness of motorists in general of their responsibility to report all 'changes of address', and sometimes, even 'transfer of ownership', or 'possession' whether temporary or otherwise. When a member's Registration Certificate passes through my hands for any reason, I never fail to check up on these matters, and if necessary as it often is, have it put right. In a few cases, it

afterwards proved to be of great value to them. Changes of address must be made, in Madras within 21 days; in Bangalore Station 7 days, Mysore forthwith. I refer of course to permanent changes. The A. A. S. I. Staff will always report these for members if the Registration Certificate is forwarded.

TRIVANDRUM

By A. K. Tambi, Esq.,

Hony. Secy. of the Trivandrum Branch

QUITE a number of routes was supplied including two major ones, two driving licences, and

four short term licences to go to British India, etc., etc.

The activities directed mostly towards the propaganda work by sending application forms, and the A. A. S. I. yellow folders, with the most tempting offer of "Free Legal Defence Scheme", the motorists are getting an idea of our activities and what we stand for. Naturally we were able to enrol four Members in the month of August. One Badge was supplied to a Member.

In my report for the month of July I had written about the decision of the Government of Travancore for concret-

ing the road from Trivandrum to Nagercoil, a distance of 43 miles. I think it must be one of the longest concrete roads in India. I am glad to say that they had already started the work and making a good progress. I can say when the road is completed the motorists will find it a pleasure to drive from Trivandrum to Cape Comorin, the land's end.

Scout and C. P. A.

One Scout and one C. P. A. were present throughout the month and a report of their work submitted separately.

Road Reports in Madura District

The following road reports in Madura District are published as a result of a tour by a Motor Scout of this Association:

Madura to Melur (18 miles).—The road is very bad owing to ruts, and needs early repair.

Melur to Tirupattur (22 miles).—Is in fair condition.

Tirupattur to Karaikudi (15 miles) and **Karaikudi to Devakottah** (10 miles).—The road is fair except that every few miles there are bad ruts which cause travel in rainy weather difficult.

Karaikudi to Kottayur (4 miles).—Fair except in rainy season.

Karaikudi to Pudukottai.—The road is very bad due to ruts and is

practically impossible in the rainy season.

Karaikudi to Kanadukottai (9½ miles). Fair but not advised during wet weather.

Devakottah to Tondi via Sarugani, Tiruvadanai.—Good at present. The other route via Vallimuttu—21 miles—very bad, not recommended for motor traffic and difficult even for bullock bandies.

Warning to Motorists

THERE are now no street lights on the Marina, and motorists are therefore warned that it is an offence to park motor vehicles on the Marina after lighting-up time without showing their parking lights and tail light.

Rule 54 of the Madras Road Traffic Code reads as follows:—

"When a motor vehicle is stationary in a public place, or is being driven in any public place, so illuminated that the use of head

lamps is unnecessary either the two head lamps shall be efficiently dimmed, or if both these lamps are incapable of being dimmed without being extinguished, then the two less powerful lamps referred to in Clause (1) of Rule 53 shall alone be used:

"Provided that when a motor vehicle is parked at the side of any public place so illuminated, all the lights may be extinguished".

There are a number of motorists who drive along the Marina at night without dipping their head-lights. This not only causes acute discomfort and inconvenience to motorists driving in the opposite direction, but is a source of great danger. Motorists are particularly warned to drive with dipped lights now that the Marina Street lights have been extinguished. They are also warned that excessive speed is all the more dangerous when proceeding with dipped lights.

THE DUNLOP RUBBER CO. (India) LTD.

The following letter has been received from the Ag. District Manager of the Dunlop Rubber Co. (India) Ltd.:—

"To The Motor and Cycle Trade

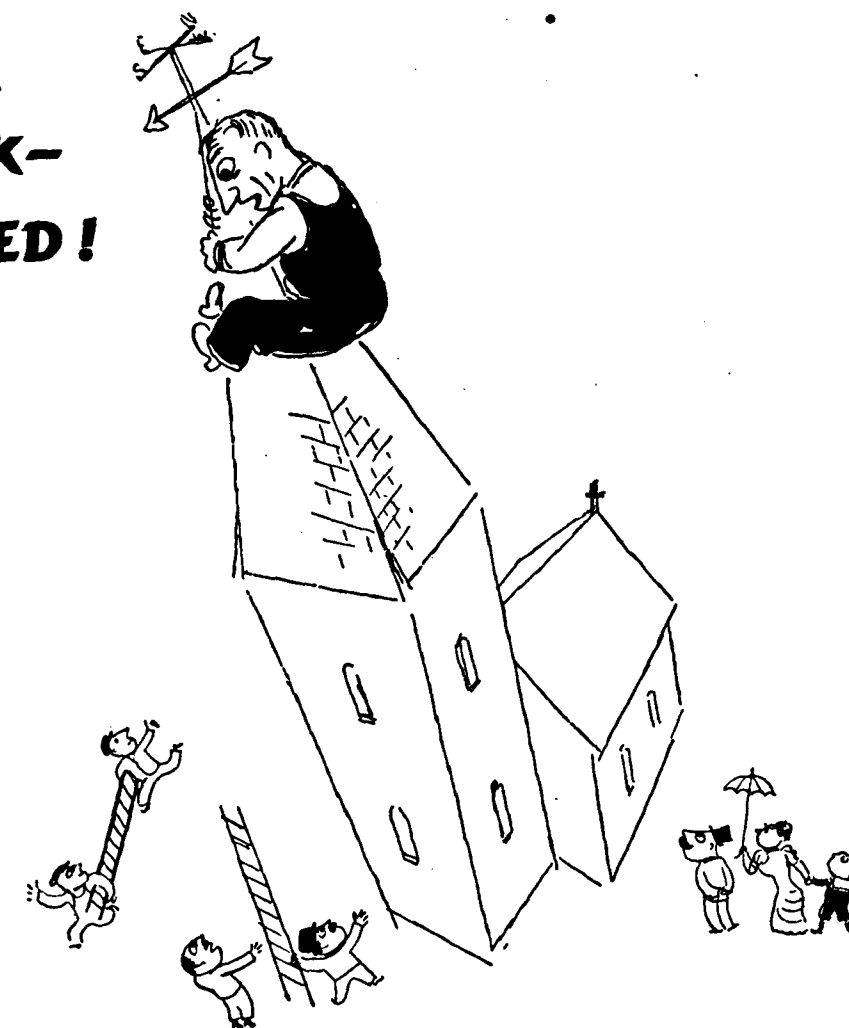
Dear Sirs,

The recent increase in price having

had the intended effect of checking speculative buying it is now possible to revert to prices ruling on September 1st. Credit notes will be issued on all purchases made at enhanced prices, and we reserve the right to decline to

execute in full or in part any orders which we consider are in excess of normal requirements."

FURTHER OUTLOOK— UNSETTLED!



It is all very well setting out for a long motor trip full of optimism, convinced that all will go well right to the last mile. Confidence in your car and your own capacity to drive are good things to have, but you do justice to neither if you overlook the all-important factor of correct lubrication. Without this assured, you can never be quite certain of not being left stranded in some remote spot, and in any case, your car will always be getting you into some kind of trouble and expense.

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Agents

Membership

Forty-seven new members were enrolled by the following members from 21st August 1939 to 18th September 1939.

The Committee thanks the members who have introduced new members.

9 by Madura Branch of the A. A. S. I.

3 by Bangalore Branch of the A. A. S. I.

2 each by Messrs. Simpson & Finance Co., Ltd., V. Duraiswamy and K. Ramaswamy.

1 each by Messrs. M. M. Salahuddin, N. S. Ramabhadran, S. Govind Swaminathan, A. B. Madapa, P. Madsen, P. G. Giffard, N. Ramakrishna Chetty, Cooverjee Dalal, The United India Fire & General Insurance Co., Ltd., A. Subbiah, T. S. Subramania Iyer, M. O. Oosman and R. M. Arjunan.

The remaining 16 were enrolled by the staff.

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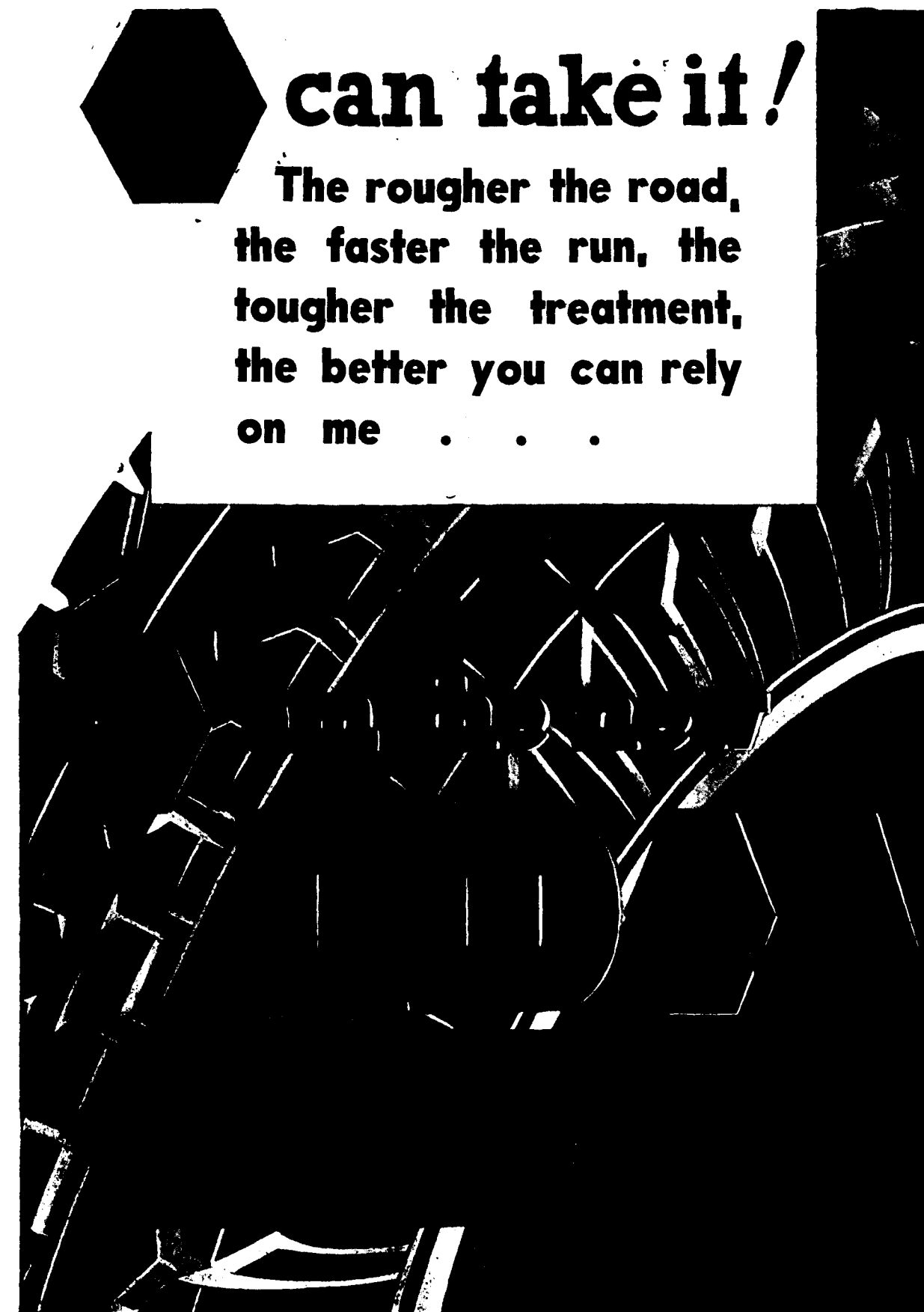
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Driving Licence Reminder Form

The Secretary,
Automobile Association of Southern India,
Box No. 304,
200, Mount Road, Madras.

Name of member.....

Membership No.....

Full Postal Address.....

Dated..... 19

My Driving Licence No.....

dated..... issued by.....

Expires on..... Will you kindly record this for your reminder service.

Signature.....

N.B.—It is important that every change of address be promptly communicated.

The Indian Roads & Transport Development Association Ltd.

Monthly News Letter

Approach Roads in Rural Areas, Bombay.

THE Government of Bombay have during the current year allotted a sum of Rs. 5,20,000 for the construction of approach roads to villages. This sum, it is understood, has been distributed among the Commissioners of Divisions as follows:—

Northern Division	Rs. 1,43,200
Central Division ..	„ 2,32,100
Southern Division	„ 1,44,700
Total ..	Rs. 5,20,000

In distributing the grants the Commissioners have been requested to take into account the amount required to complete the works undertaken during the year 1938-39, but remaining incomplete by the end of that year and then distribute the remaining grants in accordance with the orders announced by Government on the previous occasions.

Each Commissioner is required to see that the grant allotted to him is distributed among the various districts of his Division as soon as possible so that the works remaining unfinished at the end of the year 1938-39 will be completed in the current year and new works can be undertaken soon.

How These Allotments Have Been Made Possible.

These grants have been made possible because of a stipulation, which this Association arranged to be embodied in the Motor Vehicles Tax Act of 1935, which was to the effect that the proceeds of taxation under that Act, to the extent that it exceeded the revenue which Government and Local Bodies were up till then receiving in the form of tolls and other fees on motor vehicles, should be devoted to special additional expenditure on roads.

Under this clause a revenue of Rs. 7.96 lakhs accrued for special road expenditure in 1936-37 and Rs. 9.13 lakhs in 1937-38.

Reciprocity in Motor Vehicle Taxation—Bombay and Deccan States.

The varying systems and rates of motor vehicle taxation in the Indian

States bordering the Bombay Presidency (particularly the Deccan) and the absence of reciprocal arrangements between Bombay and these States, which results in multiple taxation, constituting a hindrance to the free flow of traffic across the borders, have been constantly referred to by this Association. As soon as the Bombay Motor Vehicles Tax Act was passed in 1935 the Association made certain recommendations for reciprocity between the Bombay Government and the States and the matter has been continually brought to the notice of the authorities during the last four years.

It is now understood that a tentative arrangement has been arrived at, at a conference held in Bombay this month. The conference was attended by representatives of Kolhapur, Sawantwadi, Miraj, Sangli and Jamkhadi States and also by Lt.-Col. K. A. G. Evans-Gordon, Agent to the Governor-General, Deccan States, while it was presided over by the Hon'ble Mr. A. B. Lathe, the Finance Minister of the Government of Bombay.

Under this provisional agreement which is believed to have been accepted by all the Deccan States except Kolhapur, it is understood the States will have the same tax as in Bombay and the collection work will be done by the Bombay Government, who will appoint their own Collection Agents in the States. The Bombay Government, it is understood, have guaranteed to the States the average annual revenue for the last six years from this source.

U. P. Scheme.

Road Over Railway Track in Benares

It is understood that Rs. 30 lakhs will be spent on the construction of a roadway above the railway track on the Dufferin Bridge over the Ganges at Benares. The Provincial Government will receive Rs. 12 lakhs from the Central Road Fund towards the cost and the rest will be spent from the Provincial revenues.

Eight months ago the Railway Board informed the U. P. Government of their proposal to regrade the Dufferin Bridge. The Board suggested that the Provincial Government could construct a roadway overhead and pay the cost of such construction. It seems that as a result of prolonged correspondence, the Central Government agreed to finance the

scheme partly out of the Petrol Fund. As only Rs. 25 lakhs is expected to be spent on the main roadway, the central share amounts to practically half the cost of the road. The remaining Rs. 5 lakhs will be spent on approach roads.

The roadway will be 25 feet wide with two foot-paths each four feet wide on either side. The road will be made of cement concrete and will, therefore, need little annual repair. The maintenance of the structure of the bridge will be a charge on the railways while that of the road will be a charge on the Provincial revenues.

For the last 30 years vehicular traffic has been put to a great deal of inconvenience owing to the closing of the bridge and there has been agitation for many years based on the allegation that the bridge remained closed for hours even when trains were not running. The railway authorities maintained that the bridge was primarily a railway bridge and train services must be allowed its use before any other form of transport. There are normally 54 trains crossing this bridge daily at varying intervals.

The construction of the roadway will begin in 1941-42 and will be completed in 1943. This programme is, of course, subject to any changes which may be forced on the Government by the outbreak of war.

Travancore Traffic Board Formed.

To co-ordinate the work of the Transport, Police and Public Works Departments, to investigate complaints by one department against another and to settle the various problems which arise in connection with the transport scheme and the working of the Motor Vehicles Act, the Government have constituted a Traffic Board consisting of the Chief Secretary to Government (Mr. M. K. Nilakanta Ayyar), the Superintendent of Transport (Mr. E. G. Salter), the Inspector-General of Police (Khan Bahadur G. S. A. Kareem) and the Chief Engineer to the Government (Mr. S. Doraiswami Ayyangar).

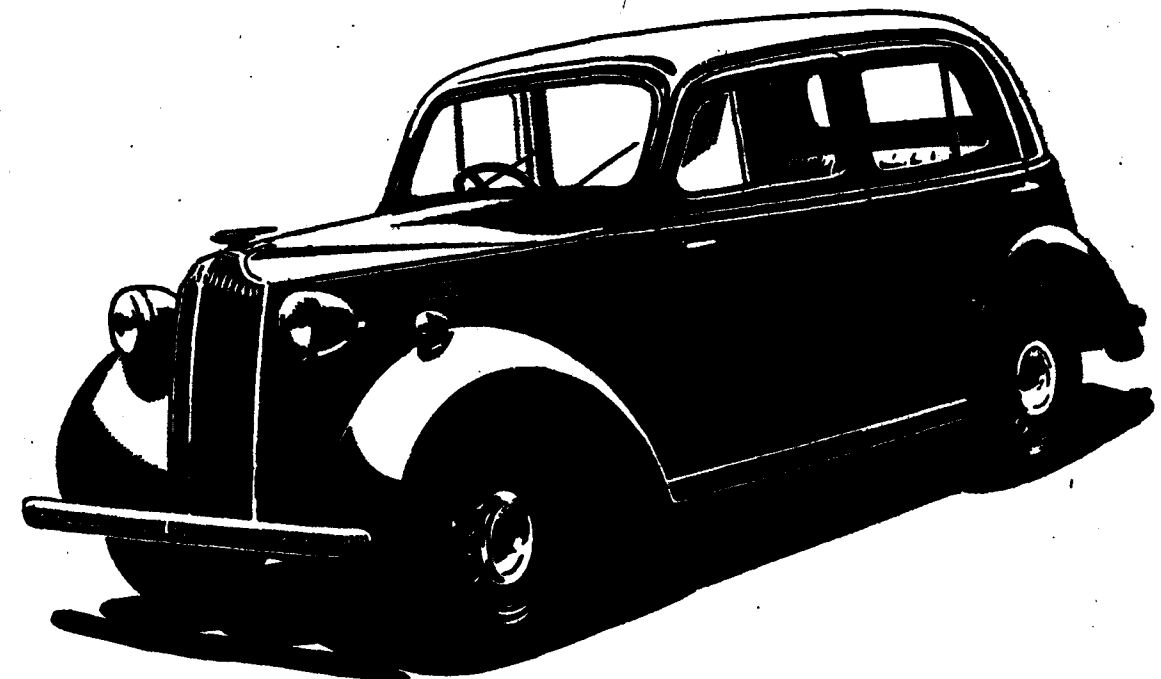
The decisions of the Board will be final unless revised by the Dewan at the request of any one of the members.

Afghan Road Programme.

The Afghan Government, it is understood, have sanctioned Rs. 5,00,00,000 (Afghanis) to repair the trunk road from

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Petrol Economy	✓
Independent Suspension	✓
All Steel Safety	✓
Powerful Performance	✓
Big Car Roominess	✓

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MADRAS

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Khyber to the Bolan Pass. This will be the first undertaking of the Afghan Government in its road-building programme. Several picket posts will also be constructed like the British India picket posts in the Khyber Agency.

Representative on the C. P. Board of Communications.

The new Branch of the Association in the Central Provinces has appointed Mr. H. G. Landray to represent the Branch on the C. P. Board of Communications.

New Motor Vehicles Act.

Validity of Rules in Force Hitherto

The Bombay Government has probably the first to issue a notification, for the information of the public, in regard to the changes introduced by the new Motor Vehicles Act and the validity of the rules hitherto in force, pending the publication of new rules. This notification will be found to apply in a general way, to the present position in all provinces, and we therefore reproduce it below :—

"The Indian Motor Vehicles Act, 1914, has been repealed with effect from July 1, 1939, and the Motor Vehicles Act, 1939, has come into operation from that date. Under Section 134 (2) of the Motor Vehicles Act, 1939, rules framed by the Provincial Government under Section 11 of the Indian Motor Vehicles Act, 1914, and those made under Section 14 by the Governor-General in Council will continue to be in force until April 1, 1940, unless before the expiry of that period they are cancelled by the Provincial Government or by the Central Government, as the case may be, by notification in the official gazette.

"Chapter VIII of the Act, which refers to insurance of motor vehicles against third party risks, does not come into effect until July 1, 1943. Until Chapter VIII comes into effect, rules made by the Provincial Government under Section 11 (2) of the Indian Motor Vehicles Act, 1914, requiring or relating to the insurance of motor vehicles will have effect under Section 184 (3) of the Act of 1939 as if they had been enacted under the new Act.

"Under the new Motor Vehicles Act, the position is that, pending further orders, so far as the Motor

Vehicles Tax Act, 1935, and the Motor Vehicles Rules framed under the Indian Motor Vehicles Act, 1914, are concerned, the existing procedure continues in regard to—(1) Registration, (2) driving licences, (3) A and B permits, (4) examination and certification of public service motor vehicles, and (5) taxation and fees, subject to the following modifications.

"*Registration Perpetual.*—Registration under the new Motor Vehicles Act is perpetual. This means that all motor vehicles will be registered once, and no re-registration will be necessary. Motor vehicles already registered under any enactment in force in British India at the commencement of the Motor Vehicles Act, 1939, will be deemed to be registered under the new Act until April 1, 1941, and on the application of the owner before that date, will be registered under the new Act without payment of any registration fee. There will, therefore, be no need for owners of vehicles registered for the current year to apply for re-registration in March next year. The registration authorities will issue notices in due course informing owners when they should apply for registration under the new Act.

"Until new rules are framed, driving licences will continue to be issued under the existing Motor Vehicles Rules, but all such licences will, under Section 3 (3) of the Act of 1939, be valid only for a period of twelve months from July 1, 1939. The Commissioner of Police and District Superintendents of Police will therefore issue licences valid only up to July 1, 1940. The Courts will, however, exercise the powers conferred upon them under the new Motor Vehicles Act in respect of disqualification or endorsement.

"*No Fitness Certificates.*—In regard to certificates of fitness of transport vehicles required under Section 38 of the new Act, Government are proposing to make a rule dispensing with the necessity for such fitness certificates in the case of all transport vehicles in respect of which certificates of registration and permits had already been issued before the commencement of the Act. Proposals are also under the consideration of Government

for the constitution of the Provincial and Regional Transport Authorities which have to be appointed under the new Act and which will be responsible for the control of transport vehicles. Transport Vehicles include taxis, motor buses and public and private lorries designed to carry goods.

"The control of motor traffic in other respects, e.g., speed, weight limits, parking, restrictions on the use of vehicles, traffic signals, etc. will continue to be regulated under the existing motor vehicles rules until new rules are framed.

"Offences, penalties and procedure are now regulated under Chapter IX of the Act of 1939. As stated above the existing rules under the Act of 1914 will expressly continue to be in force till April 1, 1940, or until their earlier cancellation. These rules will therefore be rules under the Act of 1939 and any contravention of those rules will be punishable under Section 112 of the Act of 1939."

First-Aid Training for Bus Drivers.

Over 1,000 bus conductors and drivers have received training in first-aid at the Mysore State Centre of the St. John Ambulance Association. It is understood that strict instructions have been issued by the Mysore Government that no licence should be granted either for the driver or for the conductor unless he produced a certificate of first-aid training.

Regional Areas for the Control of Motor Transport in Bengal.

Further Representations by Calcutta Branch

The Committee of the Calcutta Branch of the Association has recently made further representations to the Bengal Government regarding the constitution of Regional Areas under the terms of the new Motor Vehicles Act. The Committee has stressed the necessity of having the regional areas made as large as possible consonant with efficient administration and pointed out the grave dangers that would exist, of the dislocation of through transport services of both goods and passengers, if Government legislate in this matter with a view to using their existing district administrative machinery. Much larger areas than would thus be provided are necessary, and the Branch has therefore urged that in order to give the maximum

(Continued on page 193)

DIESEL MOTOR CARS

Examined from the Motorist's Point of View

THE recent announcement of the Nash Corporation of their intention to introduce a Luxury Diesel Engined Motor Car into the British market seems to have caused considerable discussion among private motorists.

Enquiries are so continuous, in fact, that we feel we ought to give some information in regard to the advantages of the Diesel Engine, particularly from the passenger car point of view.

The term "Diesel" is an adopted name. The correct expression is "A high-speed light-weight Compression Ignition Engine".

Although Dr. Diesel had quite a lot to do with the early development of the Compression Ignition Engine, a Scotsman, called Akroyd Stuart, deserves the credit for the modern high-speed type of Compression Ignition Engine.

The name "Compression Ignition" explains the theory of the so-called diesel cycle.

The Perkins Diesel Engine, made at Peterborough, which is used to power the Nash Luxury Diesel Cars, is of the 4-stroke type. In other words, in cycle it is similar to the more familiar modern petrol engine.

On the induction stroke air only flows into the cylinder, instead of a fuel and air mixture. At 16 : 1 the compression ratio is very high, and when the piston ascends on its compression stroke it compresses the air to a very high degree.

As a result of this compression the air becomes exceedingly hot. Fuel oil is sprayed into this hot air by means of a pump, and an atomiser, and immediately on contact burning takes place, without the aid of any firing devices, such as sparking plugs or auxiliary heater plugs. Pressure rises and the piston is forced down on its power stroke. The cycle is completed by the upward scavenging stroke of the piston, in a similar way to that of the petrol engine.

The higher compression ratio, with a consequent higher expansion ratio, gives

a very much higher efficiency, when compared with an engine such as a petrol engine, with a considerably lower ratio.

The efficiency referred to is a thermal efficiency, which is an indication, on a percentage basis, of the inherent ability of the engine itself to convert to power the heat resultant from combustion. The Diesel Engine, therefore, uses considerably less fuel for a given amount of work, when compared with the petrol engine or steam engine.

In actual practice it is found that a Diesel Engine uses approximately half the amount of fuel used by a petrol engine on similar types of work.

In addition to the major characteristic of economy, the Diesel Engine has numerous other advantages, when compared with a petrol engine.

1. It has no electrical components whatever, that is with the exception of the starter motor and dynamo. No distributor or coil or magneto or condensers or sparking plugs are used. It can be argued, therefore, that a Diesel Engine is considerably less complicated than a petrol engine, and, therefore, much more reliable.

2. A second advantage is that of torque or turning effort.

Torque is usually expressed in pounds of turning effort per foot. With a Nash-Perkins Diesel Engine this turning effort has little variation in the speed range. The Engine pulls better, therefore, at low speeds. Average speeds are higher, and there is less need for gear changing on hills.

3. A third advantage is that of starting. Owing to the higher compression ratio, the initial starting effort is greater than with a petrol engine. The Diesel Engine will start immediately it is turned over sufficiently fast.

A further starting advantage is that owing to the fact that fuel is sprayed under pressure into each cylinder, the Engine can give off its full power immediately. It does not require warming up.

4. Fuel used with Diesel Engines is non-volatile; it won't burn. The fire risk, therefore, is reduced considerably.

5. One can expect, and this is a further advantage, longer life from a Diesel Engine, particularly of valve mechanism.

As we have already explained, a Diesel Engine uses more heat in energy produced, and, therefore, wastes less. Exhaust valves and guides do not get anywhere near so hot as they do with petrol engines.

6. Another peculiarity of the Diesel Engine is that its exhaust gas is quite harmless. With a petrol engine there is a varying content of carbon monoxide in the exhaust, and this is a very potent poison. One cannot use a Diesel exhaust gas as a means of committing suicide, for instance!

This absence of dangerous poison in the exhaust ensures greater energy on the part of the driver, and freedom from headaches and undue fatigue. When one drives a Diesel engined motor car this becomes apparent after a long day's run.

In answer to the very natural question, "If the Diesel Engine is so much more efficient than a petrol engine, why has it only just been developed for private motor cars", we would reply that Diesel Engines hitherto have had certain disadvantages, particularly when examined from the point of view of the private motorist. Of these, weight, noise, i.e., diesel knock, and general flexibility, are three.

With the development of the Perkins all-British system of "Aeroflow" combustion these disadvantages have been entirely eliminated. It is actually lighter in weight per B. H. P. developed than many modern petrol engines, it is very smooth and flexible, it is silent in operation, its acceleration has to be experienced to be believed, and generally it provides real excitement in motor car driving.

The Selection of Tinted Sun-Glasses

A Note of Warning to Motorists

THESE are many factors which govern the degree of comfort in a car journey. There is the car, the road, the weather, and, among a host of other conditions, the light.

Nature in some parts of the country has endowed us with ideal surroundings in the form of variegated scenery. Trees, soft colours and many undulations act as agents for breaking up or "conditioning" sunlight before it is received by our eyes. The scenery in hill tracts, or the dull red roads and greenery of the West Coast would answer to this description. However, there are extensive tracts in Southern India which are anything but easy to the eye especially in the hot weather.

Eyes will not tolerate shining surfaces, but have to endure them from certain types of road and surroundings which convert beneficial sunlight into that tiring agent we know as glare.

Glaring light reflected from the various types of road surfaces takes much of the pleasure out of car-driving. For drivers, and passengers too, it creates a sensation of fatigue. Added to this glare is the strain caused by quickly passing objects necessitating rapid eye adjustments; there is extra intentness of seeing, and the continual strain to see as much as possible as quickly as possible. These are contributing factors which place our eyes on a peak load when driving. There is little or no chance for relaxation and, in consideration of this, it behoves us to take whatever steps are possible to relieve our eyes; they should be afforded some protection, either by means of properly prescribed spectacles or correctly designed sun-glasses.

Another factor in tiring the eyes in India is dust, and the wind created by the passage of the car through the air, apart from the natural winds of the heavens. Anyone who has spent a day facing the hot weather winds of Coimbatore district, for instance, can vouch for the tired feeling experienced in the eyes. The use of goggles for this reason alone is obvious, and an eye bath of some proprietary or home made eye lotion is a welcome and well advised relief.

In the matter of sun-glasses and their selection, every care should be exercised

to see that these have perfectly "plane" lenses of the optically ground type. There are two principal factors to be considered. Firstly, the quality of the glass and, secondly, its colour.

Quality of Glass

Lenses should be free from any aberrations or flaws, and this can only be assured by the use of high-quality optical glass which must have its surfaces ground and polished perfectly "plane". The cheaper or rolled types are full of imperfections due to unevenness in the mixture of the glass, and to undulations of the surfaces. Such imperfections affect the vision and can only be compensated for by eyestrain, which causes more aggravation than relief. There is as much difference between the ground and rolled lenses as between the plate glass in your windshield and the ordinary window glass as fitted to a greenhouse.

A simple test will reveal the bad type. Hold the glasses at a distance of about 10 inches from the eye, and, looking through the lens, view the cross-bars of a window or some similar object situated about 20 or 30 feet away. Now move the lens up and down, then across from side to side, watching the cross-bars meanwhile; if there is any apparent movement, jumping or distortion of the bars, the lenses are imperfect, and should be rejected.

The colour of the glass was discussed in a previous article in our last issue. It should be remembered, however, in this connection that all apparent Crookes glasses are not the real article. Unfortunately modern commercialism has prostituted the reputation of genuine Crookes glass. Whereas this name was originally synonymous with perfect quality lenses cheap manufacturers have copied the tint but not the quality. Be certain, therefore, that your so-called Crookes glasses are genuine and not imitations made by crooks.

"Polaroid"

An entirely new principle in glare prevention has recently been developed. This is called "Polaroid" and derives its name from the fact that it polarises light. To appreciate this phenomenon it is necessary to describe briefly what polarised light really is.

Light normally radiates in all directions, but for the purposes of simplicity

a light beam, rod shaped, can be imagined. This beam of sunlight on striking a road, or similar horizontal surface, is reflected in a different shape; it loses its rod-like form and is converted into a horizontal flat band, just as though it had been pressed out, it is then termed polarised light. This is the form in which we receive glaring light from smooth roads, the surface of water, etc. Sunlight reflected from water presents a glaring surface which dazzles the vision and prevents it from penetrating the water.

"Polaroid" consists of a sheet of needlelike crystals all arranged with their axes parallel and sandwiched between two sheets of glass. There are tens of billions of these crystals to the square inch of this material, the thickness of a sheet being about three thousandths of an inch.

With this "Polaroid" set axis vertically before the eyes, the horizontally polarised light reflected from roads and other shining surfaces in neutralised and stopped by the lens, being unable to penetrate to the eye. Thus glaring reflections are eliminated and only diffused light from nature's broken surfaces is visible. "Polaroid" is a comparatively new material, and is the commercial substitute for that expensive "Iceland Spar" used in scientific laboratories and optical workshops.

The possibilities and uses to which this material can be applied are innumerable. Fishermen are enabled to see a greater depth below the surface of water; cameras equipped with a "Polaroid" filter can photograph a submerged submarine. It would seem that the answer to headlight glare may be supplied when such headlights are equipped with this glass, thus polarising the light in the one plane, while oncoming cars would have windshields fitted which similarly polarise, but in the opposite plane. The direct light from headlamps would be rendered invisible, but the light scattered by other surfaces would remain visible.

Until "Polaroid" windshields are fitted to our cars, we owe our eyes the best protection that they can be afforded, relieving them from the unreasonable strain of long spells at the wheel.

Be wise therefore and take care of your eyes, but take care of them wisely.

SOME FAMOUS CAR-NAME ORIGINS

WHILE a car by any other name would run as sweetly, any long-established car-name has almost unlimited significance and influence. Vast fortunes are spent in popularising and consolidating not only a car-name, but the goodwill and prestige that go with it, and were the impossible to happen and a popular car of to-day receive a new name, sales would assuredly fall with a "dull sickening thud". Millions more would have to be spent to regain lost confidence and put the new name on to the prosperity list.

Few car-owners know how their particular cars became so named. In the big General Motors group, for instance, Chevrolet is named after Louis Chevrolet, a famous racing driver who flourished at the time that Mr. Durant, one of the original driving forces in the General Motors Corporation brought out the first 490 Chevrolet. It is believed that Chevrolet was a Swiss and also had considerable engineering ability. As far as is known he was not directly connected with the Corporation although

it would seem that his contacts were fairly close. Assuming that Chevrolet was a Swiss this may have some influence on the broken cross emblem which has become world famous in its association with Chevrolet as its trade-mark.

The Chevrolet Maple Leaf Truck is manufactured in Canada and has taken for its trade-mark the Canadian Maple leaf, which is the national emblem of that Dominion.

Buick was named after David Buick, who had invented a valve-in-head marine engine of a type which Mr. Durant felt would do well in an automobile. It is supposed to be Buick's coat-of-arms which is used in the trade-mark.

Cadillac was named for the Count de la Motte Cadillac, the founder of Detroit, who was particularly prominent in the early French and Indian days in Michigan. It is his coat-of-arms which is used in the Cadillac trade-mark.

Oldsmobile is named after R. E. Olds, the producer of the first Oldsmobile,

and who was connected with its manufacture for many years until he retired to produce the Reo car, also named after him. Mr. Olds is still living. The Oldsmobile was the first car to become a really commercial proposition due to the aggressive selling methods adopted by Mr. Olds in his merchandising.

The Pontiac is named after Chief Pontiac, a famous American Indian who was noted for an attack on Detroit in the early days. The Indian head emblem was modelled on the features of Chief Big Tree who, it will be remembered, visited Australia during the Victorian Centenary Celebrations. Chief Big Tree is an interesting figure at the various motor exhibitions featuring new models of Pontiac in the U. S. A. He is still living.

The Bedford Truck produced by the Vauxhall plant is apparently named after Bedfordshire, the county in which Luton is located.

Canadian Ford Executive Heads Canadian War Supply Board

WALLACE R. CAMPBELL, President, Ford Motor Company of Canada, Limited, Windsor, Ontario, has accepted the Chairmanship of the newly formed Canadian War Supply Board and enters upon his new duties immediately—retaining, at the same time, his position at the head of affairs of Ford Motor Company of Canada, Limited.

The appointment, which has met with general approval in Canada, is a singularly

happy one, Mr. Campbell being recognized and accepted as one of the leading businessmen and most capable executives in the Dominion.

He brings to his task a wide and comprehensive knowledge of Canadian conditions and many years of accumulated experience in Canadian business and manufacturing spheres.

Canadian born and bred, Mr. Wallace R. Campbell has been with Ford Motor

Company of Canada, Limited, since 1905, being elected President in 1929.

Particular interest to India in the appointment lies in the fact that all Ford products sold in this Country (with the exception of their 8 h. p. and 10 h. p. models, which are made in England) are manufactured in the Canadian Factory of which Mr. Wallace R. Campbell is the head.

Copy of a Letter from The Executive Engineer, Vellore, dated 3-9-1939

A member of the Automobile Association occupied the Inspection Bungalow at Veerambakkam from 2-30 p.m. to 3 p.m. for taking his meals and paid a rent of Rs. 4. But he failed to

note the date and has noted only the time of arrival and departure. He has not even given his card Number or the membership Number.

I request that you will kindly instruct all the members to write all the above particulars in the Visitors' Books in future and also to write their names in block letters with full address.

(Continued from page 190).

facilities for the flow of transport, Bengal should be divided into six regional areas only, apart from the Calcutta-Howrah urban area.

Fixation of Petrol Prices in Bombay. Government Abandons Proposal

The Government of Bombay were reported, recently, to be considering the introduction of legislation having

for its object the fixation of the maximum and minimum selling prices of petrol in the Presidency.

The Council of the Association objected to the proposal, in principle, as such legislation, in respect of whatever commodity it may be, would constitute an unfair interference with the normal conduct of trade and curtail the ele-

mentary rights of private enterprise. As is well known, the fixation of a minimum price, in particular, can be of no benefit to the consumer in that it can only result in the public having to pay more than would otherwise be the case.

We now understand that the Government have decided not to proceed with the proposal.

The Fastest Man on Earth

MR. JOHN COBB, the wealthy London fur broker, and one of Britain's greatest racing motorists, recently reached the phenomenal speed of 368.85 m.p.h. over a measured mile on the Bonneville Salt Flats, Utah, U. S. A.

In September 1938 both Capt. G. Eyston and Mr. John Cobb set up new records within a few days of each other, the best of which was that done by Capt. G. Eyston who attained an average speed of 357.59 m.p.h.

Year by year the world's land speed record is set to higher figures, and this progressive increase of speed testifies to the supremacy of British automobile engineering and tyre manufacture.

It is only the more experienced manufacturers who can produce pneumatic tyres to stand up to the tremendous strains of high speed travel and at the same time provide the cushioning necessary, even on prepared tracks, at six miles a minute.

This year, John Cobb's Railton car was fitted as before, with special 7.00-31 Dunlop tyres. The 31 inch all-steel wheels were also made by Dunlop at the Coventry, England, factory, and were specially designed to be as light as possible.

Centrifugal forces are set up whenever an object such as a wheel or tyre rotates, at high speeds these forces may be sufficient to tear a tyre apart and strip it from the wheel if it is not strongly made and securely anchored.

Forces of this kind increase with the speed, and as the record speed climbs higher and higher, it becomes increasingly urgent to maintain the safety factor of the tyres.

At 360 m.p.h. a total force of over 100 tons is trying all the time to break the tyre cords and disrupt the entire casing.

Saving weight, however, is as important as strengthening the tyres. It is a tribute to the ingenuity of Dunlop designers that this year's tyres are actually stronger without being heavier.

Ordinary passenger car tyres may fail from over-heating at 80 m.p.h. How imperative, therefore, to take every precaution that tyres intended for 360 m.p.h. shall run as cool as possible and withstand the effects of heat.

Valuable information was gained from the tyres used in last year's record runs, and since then research has been increasing in the task of applying this knowledge to the greatest advantage. Cobb's covers and tubes embody all

Dunlop's unique experience of rubber compounding and tyre construction to give the coolest possible running and the greatest resistance to heat.

Test tyres were spun at 600 m.p.h. without load to check that there was sufficient margin of safety against disintegration under centrifugal force. Incidentally, no air leakages occurred even at this speed.

Apart from record breaking, the successful development of tyres for attempts of this kind has a very real and valuable effect on the general standard of performance of the tyre used by the ordinary driver.

The World's Land Speed Record (Over the Mile)

	Secs.	M.P.H.
Northwards ..	9.71	370.75
Southwards ..	9.81	366.97
Record (mean speed)	9.76	368.85

The World's Kilometre Record

	Secs.	M.P.H.
Northwards ..	6.08	367.92
Southwards ..	6.02	371.59
Record (mean speed)	6.05	367.74

Ambulance Work in Mysore

MYSORE State has been making a name for itself by its progressive ideas. One of interest to road users is that at all District Headquarters with the assistance of District Medical Officers, arrangements have been made

for training bus conductors and drivers in First Aid. Up to now over 1,040 men have qualified, and this figure is impressive in view of the fact that often the lack of knowledge in First Aid has been disastrous when accidents happen

in lonely bus routes, far removed from medical centres.

The idea is one which might be copied with advantage elsewhere. Presumably each bus is furnished with a First Aid Equipment.

Continental

Tyres & Tubes are reliable



Troubles and Technicalities

Carbon Deposits

IF the insulator of the spark plug is covered with dry black soot, clean the plug, check carburettor settings for being too rich, and use choke sparingly. If sooting of insulator is habitual, or if the insulator is covered with wet, soft carbon, clean or replace plug with a hotter type, and check oil level for being too high or for dilution. Pistons and rings may need attention. In any case, carbon deposits should be removed from the cylinder head, valves and pistons of every automobile engine at regular mileage intervals. Carbon knocks are a common cause of unpleasant and damaging engine noises; furthermore, excessive carbon causes a loss of power and pick-up.

Screeching Wood Wheels

To stop screeching in wood wheels, drill two 3-16th inch holes on the inside of the wheels close to the hub. Drill through the inside flange and through the spoke to the outer hub flange, but not through the outer flange. Fill one hole with linseed oil until it comes out through the other hole. Then plug up the holes. The oil will swell the spokes and stop the screeching.

Practical Maxims

Here are a few practical motoring maxims: Be completely master of your car. Don't drive if you are not physically fit to do so. Frequently inspect your vehicle. Always keep brakes and steering in faultless condition. Keep all your lamps in good order and properly focussed. Never leave a vehicle unattended unless it is fully secure. Don't rely upon the handbrake when parking on a hill; engage low gear.

Loose Cylinders

An old model engine that is subject to considerable vibration is liable

to have its cylinders work loose on the crankcase through the loosening of the holding-down bolts, or nuts if they are not watched. A wrench should be applied occasionally to make sure that everything is tight. The trouble that arises from loose cylinders runs all the way from leakage of oil to a wrecked engine.

Control Rods

Watch the control rods. More than one case of trouble has been met with lately in which throttle controls have come loose, allowing the motor to race. This is very dangerous, and drivers should immediately switch off, engage neutral, and pull up. One popular six, when worn or loose, will in some cases, and due to end movement in the shaft, lock the throttle-lever under the water jacket on the carburettor side, preventing the closing of the throttle. All split pins and ball joints should be periodically examined, joints lubricated, and pull off springs checked for tension. End play in shafting is unsafe. Replace excessively worn control joints and ball ends. Regular lubrication also helps.

Oil Warning

Because oil has a disintegrating effect, not only on rubber but on cotton and fabric as well, care should be taken to see that wiring for the electric lighting and engine starting system is well protected. If oil is permitted to remain on the wiring, the insulation will in time be softened so that the slightest chaffing will cause the bare copper to be exposed and a short circuit or a leakage of current follow, as well as the possibility of a fire. Oil falling on the fan belt or the fan pulley will cause the belt to slip, with the result that cooling efficiency will be greatly reduced.

Anti-Freeze

Precautions to be taken when risk of freezing exists vary with the severity of the climate in your particular territory. The great risk from freezing is that of a burst radiator or cylinder block. In cold countries it is the regular practice to use an anti-freeze solution in the cooling system, unless it is practicable to drain out whenever the engine is to be left for any appreciable period or overnight. While anti-freeze mixtures are available, they may be made up. The material is glycerine (pure distilled) admixed with water. Freezing will not take place above 12 degrees when the respective proportions are 30 and 70 per cent. This will look after extreme conditions, but the freezing point is raised by using a 20 and 80 per cent. solution. A 40/60 mixture freezes about zero. Certain precautions are necessary when using anti-freeze solutions. All hoses and connections must be good, and water joints and cylinder head must be tight. Glycerine does not evaporate appreciably. Top up with water, but not sufficiently to cause overflowing, which weakens the solution. Rugs or other covers thrown over the bonnet and radiator will prove helpful and keep things warmer.

Slipping Clutch

One common cause of clutch slip which can, and should, be quickly remedied, is incorrect adjustment of the clutch pedal. The pedal should always be adjusted in such a way that it can be pushed down for a perceptible distance—half to one inch—before the resistance is felt which indicates that it has commenced to operate withdrawal mechanism. After prolonged use, the clutch adjustment tends to change, finally allowing the pedal to foul the floorboards before the clutch is fully engaged. Another cause is oil reaching

the lining, from a leaky bearing in either the engine or gearbox. Normally a drain hole is provided at the bottom of the clutch housing to allow the oil to escape, but this may become choked with mud or dirt. Some clutches, of course, are designed to run in oil. Clutch slip should always receive prompt attention, or much damage may be caused by heat and wear. If you must drive with the clutch slipping, use as little power as possible and change gears to avoid having to open the throttle wide when extra power is needed.

Lubrication

If the transmission is noisy in second gear, check for the proper amount of oil. The transmission may be comparatively dry, yet the gears will not be excessively noisy in high gear. This is accounted for by the internal construction. In high gear the drive is direct, and if there is sufficient oil to keep the bearings cool and maintain

the film between teeth, quiet operation results. Almost every make of car has at least one hidden grease cup which escapes the notice and attention of the one responsible for the car's operation till trouble calls it to attention. Better do a little detective work the next time you're underneath the car. There may, for example, be a grease point on the clutch and brake pedal shaft that needs attention.

Coasting

Coasting down short declines with motor idling is usual practice, either in neutral or free-wheeling. Too much idling tends to load up the motor with rich mixture, and some unburned fuel will be available to dilute the lubricating oil. Coasting with the ignition switched off entails risk of charging the muffler with explosive mixture, a condition that has often resulted in blowing out. There are two methods of coasting: (1) In neutral (or by de-clutching to disconnect the engine from

the transmission); (2) using the engine as a brake. The engine offers much greater resistance to turning, i.e., greater braking effort is obtained when second is engaged than when you coast in top gear. Opinion is divided as to whether over-oiling takes place, but we suggest that a worn engine's spark plugs would be more liable to become fouled than would those in a new motor. Suitable spark plugs will usually throw off any such collected oil. When coasting, of course, the small throttle opening permits only a slight amount of gas to be inhaled, and this will tend to burn slowly and popping back may take place at the exhaust. Generally speaking, the practice of coasting, using the engine as a brake, is not considered harmful to the engine or working parts, but it reverses the direction of stress on the working parts. Therefore sharp opening of the throttle when picking up after a period of coasting is inadvisable.

(By courtesy of "The New Zealand Motor World.")

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THE MADRAS FLYING CLUB LTD.

Report for September 1939

RELIEF from the long drought came at last in September.

Mr. Sitaram made a flight to Trichy and back, taking his brother Mr. Rajaram. Mr. Raju flew to Nellore and back non-stop and Mr. Ismail Khan flew a test triangular flight of 200 miles with the instructor in pursuance of his A-1 licence, all up above the clouds.

There were three first solos, Messrs. Rana Yudhister Jung Bahadur, Sykes and Dhairiyam.

The annual Ames Shield landing competition was held. Only nine entrants this year owing to so many members being on tour and on leave. Dr. Dyson, the club's Chairman, won, with Messrs. Italia and Raju second and third.

FLYING TIME FOR SEPTEMBER

	H. M.
Dual instruction to members under training	18-50
Advanced dual to A, A-1 & B pilots	11-00
Solo flights by members under training	6-10
Solo flights by A, A-1 and B pilots	47-55
Pilot with passengers, A, A-1 and B pilots	16-30
Joy rides	2-10
Hrs.	82-35

The following members took dual instruction:—

Europeans.—

Mr. H. P. D. Sykes	Dual.
Mr. H. W. Horton	do.
Mr. D. G. Bhore	do.

Mr. D. H. McPherson	Advanced dual.
Mr. R. N. Rowson	do.
Mr. A. E. Lippincott	do.
Mr. J. D. Watson	do.

Indians.—

Mr. Shah	Dual.
Mr. Rana Yudhister Jung Bahadur	do.
Mr. Dhairiyam	do.
Mrs. Kapadia	Advanced dual.
Mr. M. R. Raju	do.
Mr. Rajaram	do.
Mr. J. D. Italia	do.
Mr. Md. Ismail Khan	do.
Mr. K. S. Krishnan	do.

Ceylones.—

Mr. C. S. A. Perera	do.
Mr. C. B. Darius	do.

CROSS COUNTRY FLIGHTS DURING THE MONTH OF SEPTEMBER 1939

Date.	Machine.	Pilot.	Passenger.	Journey.	Time.
16-9-39	VT-ACU	Mr. Sitaram	Mr. Rajaram	Madras-Trichy	2-35
16-9-39	"	"	"	Trichy-Madras	2-25
22-9-39	"	Mr. M. R. Raju	With passenger	Madras-Nellore and return	2-50
24-9-39	"	Mr. Tyndale Biscoe	Mr. Md. Ismail Khan	Madras-Tirupati-Arni and Madras	3-10

THE BOMBAY FLYING CLUB, LTD.

Report for August 1939

FLYING for the month amounted to 123 hours 20 minutes, as compared to 62 hours 34 minutes during August last year. This is the second highest record time for the Bombay Flying Club during the rainy month of August.

In Poona, rain has been almost continuous since the 20th July and the time spent on the ground was made use of by giving extra lectures to all the pupils.

Blind Flying.

Over 25 hours Blind Flying Instruction was carried out. Messrs. Pinto, Ratnagar and Zaveri have completed their Blind Flying Course and will

shortly undergo their Triangular Cross-Country Test. Mr. Bal too has made progress in this branch of flying.

Ab Initio

Mr. Dhuru has completed his 'Solo' hours for the 'A' licence, but his tests have been held back owing to unfavourable weather.

Mr. Kenjale, who reached the 'Solo' stage later in the month, has been prevented from going 'Solo' owing to this 'anti-first-solo-weather'.

Mr. Batliwala, who started training for the 'A' Licence this month, has made very good progress.

Instructor's Course

Mr. M. D. Mistry continued his training for his Instructor's Licence, but was unfortunately unable to put in much work owing to ill health.

Arrangements are being made for Mr. Bilwalkar to start his Instructor's course at this Club.

Army Co-operation

Three times during the month, Army Co-operation work was carried out successfully. Pupils were given experience in this type of flying, and on one of these occasions attacks were made in formation.

Much formation flying was practised.

SALES AND SERVICE GUIDE

Entries in these columns are charged for at the rate of Re. 1 per line per insertion, but no contract can be accepted for less than six consecutive insertions.

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Bedford Trucks

COIMBATORE—United Motors (Coimbatore) Ltd.

Buick Cars

MADURA (& Branches)—T. V. Sundram Iyengar & Sons Ltd.

Chevrolet Cars and Trucks

BANGALORE—Automobiles Ltd.

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Dodge Cars and Trucks

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Ford Cars and Trucks

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Opel Cars

COIMBATORE—United Motors (Coimbatore) Ltd.

MADURA (& Branches)—T. V. Sundram Iyengar & Sons Ltd

Plymouth Cars

MADRAS (& Branches)—Addison & Co., Ltd.

Pontiac Cars

MADRAS (& Branches)—Simpson & Co., Ltd.

MADURA (& Branches)—T. V. Sundram Iyengar & Sons Ltd

Triumph Motor Cycles

MADRAS (& Branches)—Addison & Co., Ltd.

Vauxhall Cars

MADRAS (& Branches)—Simpson & Co., Ltd.

MADURA (& Branches)—T. V. Sundram Iyengar & Sons Ltd.

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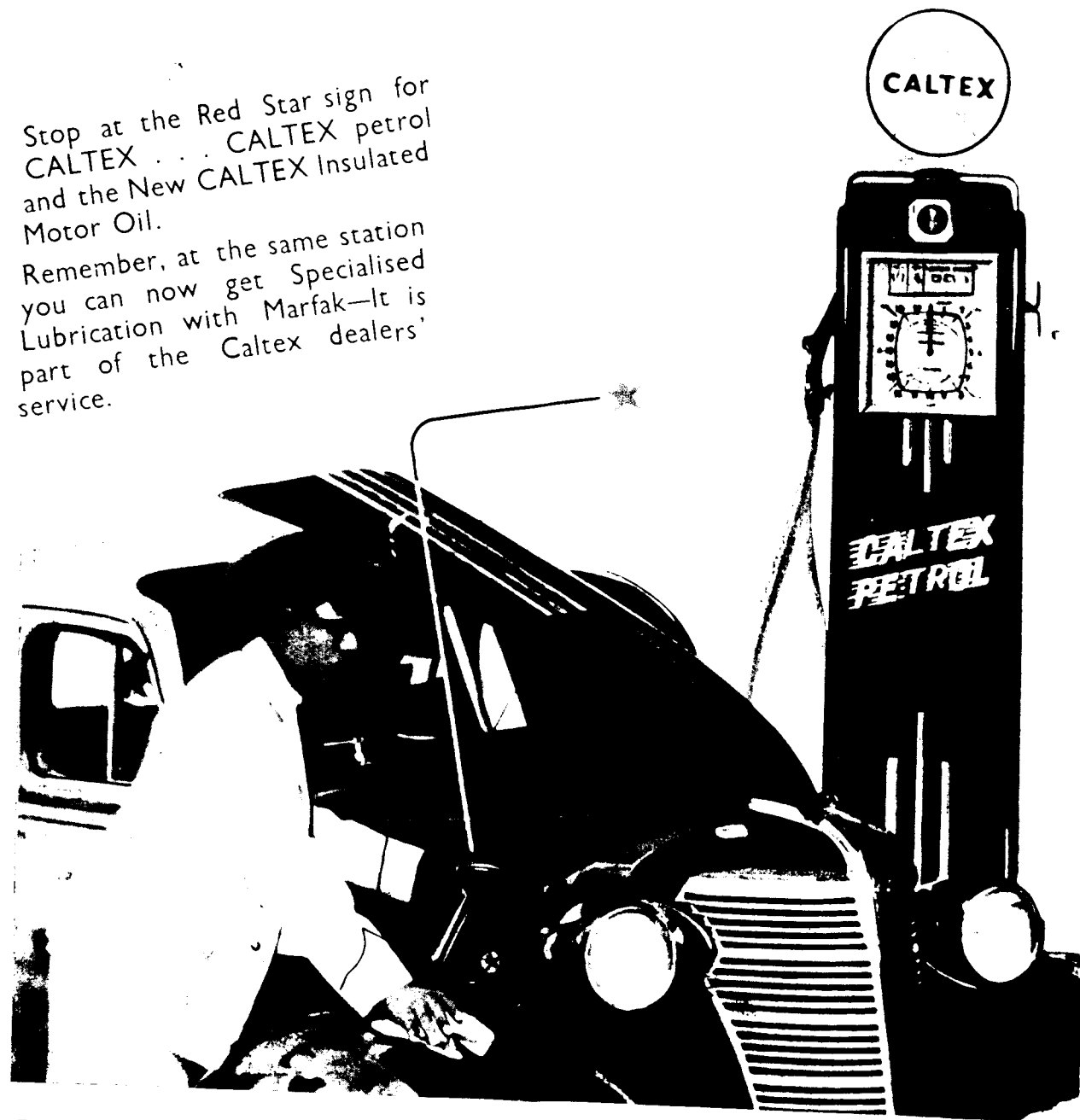
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8	R. C. Morris, Esq.	Honnammatti Estate, Attikan P.O., via Mysore.
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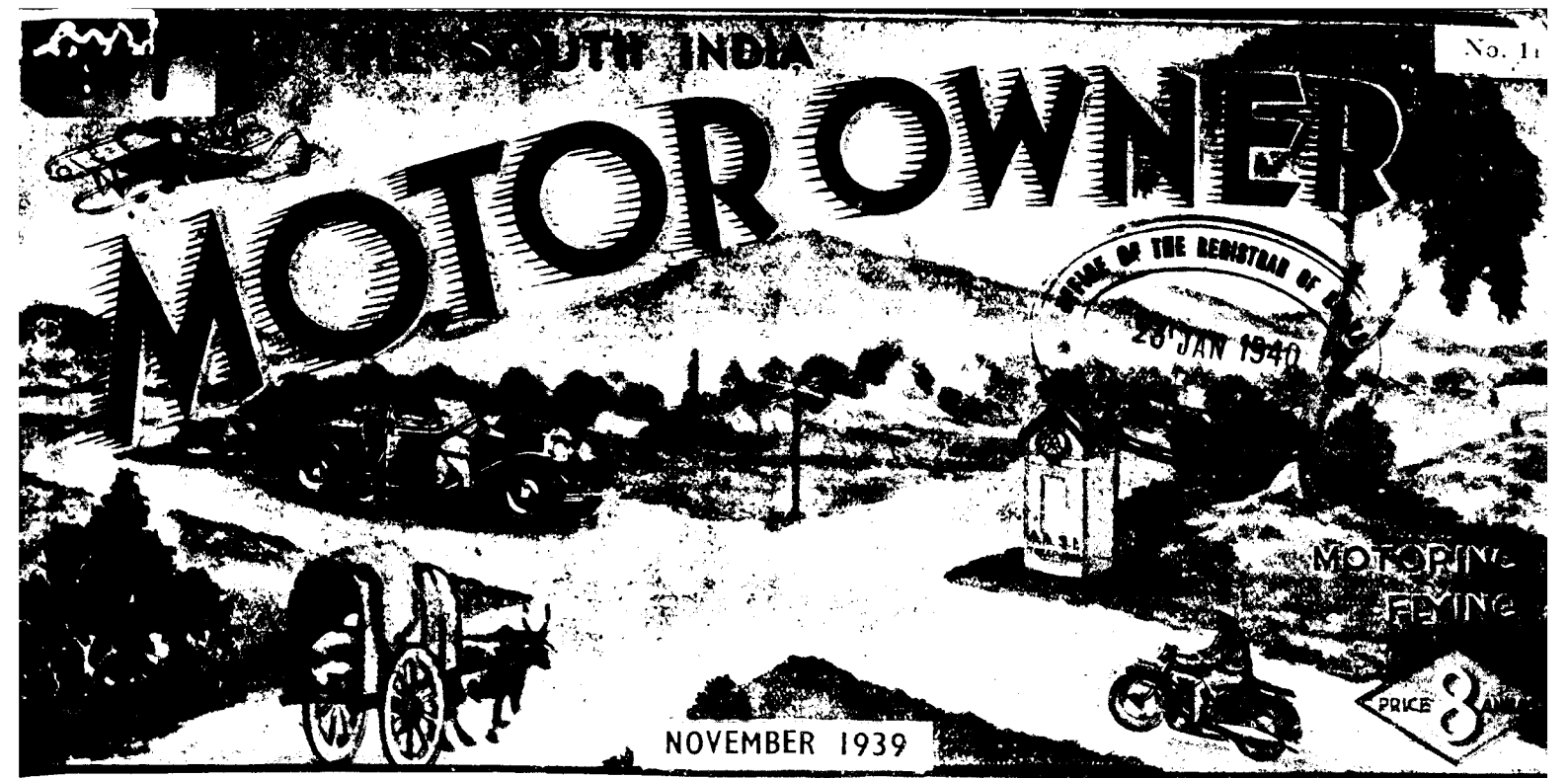
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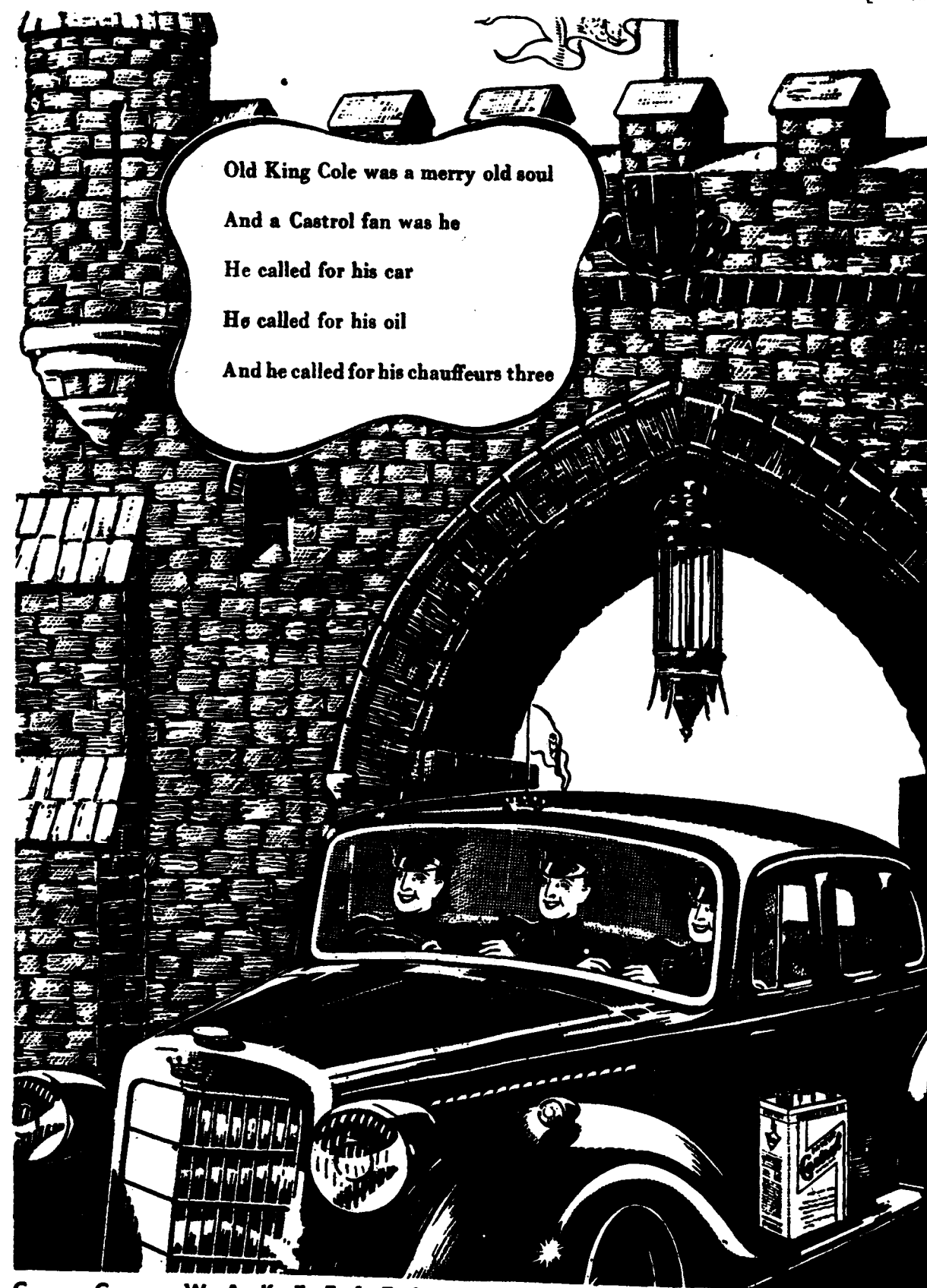
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Old King Cole was a merry old soul

And a Castrol fan was he

He called for his car

He called for his oil

And he called for his chauffeurs three

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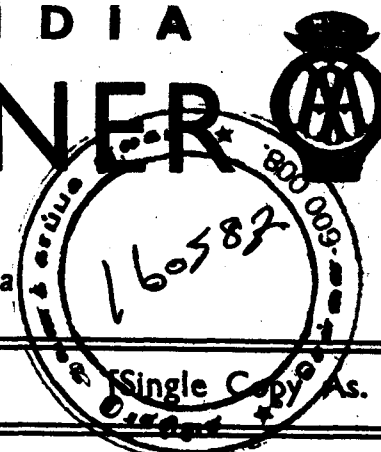


THE SOUTH INDIA MOTOR OWNER

The Official Organ of the
Automobile Association of Southern India

Vol. XI, Number 11]

NOVEMBER 1939



Secretary's Notes and News

All Members are entitled to a copy of this Magazine every month after their names have appeared in the monthly list of New Members Elected. Any member who does not receive his or her copy regularly is requested to inform the Secretary immediately.

Road Information

The Ponnai Bridge

THE Ponnai Bridge, on the road between Ranipet and Chittoor on the best route to Bangalore, was formally opened on 30th September by the Hon'ble the Prime Minister.

An A. A. Car Park Attendant was present at the opening ceremony, and was useful in parking the cars of the numerous spectators at the function.

This bridge has fulfilled a long-felt need in eliminating the Rice Causeway, and the inconvenient approach through Tiruvallam village. The opening was postponed some considerable time after the actual completion of the bridge, much to the mystification of most motorists, and to their apprehension due to the advent of rainy weather. However the bridge is opened at last, and all's well that ends well.

This bridge may be doubly useful in eliminating the Wenlock Causeway on the road from Ranipet to Vellore, when the cross road from Tiruvallam to Katpadi and so to Vellore is improved. Some work is being done on this road, but the full scheme which involves the construction of a completely new chord section may take two years. The cross road is practicable even now though not good and can be used if the Wenlock Causeway is flooded.

Wenlock Causeway

There was 1 ft. of water over this causeway on the 16th instant, and 18 inches the next day. Soft sand which was washed over the Causeway did not improve matters. The water subsided later and the Causeway is fordable again.

Secretary's Tour

The Secretary toured through Trichy, Madura, Trivandrum, and thence via Kottayam to Peermade returning again via Kottayam and on to Munnar. From Munnar down to the Northern outlet from the High Range led to Udamalpet.

A cross route from Udamalpet to Erode was explored. This route led through Dharapuram and Kangayam. Parts of the road were not too good, but other parts were excellent. The route is quite practicable as a short route towards the Salem side from Erode.

The return to Madras was made via Salem and the Southern road through Villupuram. This part was described in last month's issue.

Another cross road, which was tested, was the shorter route from Trichy to Madura town through Melur. This road on the whole is not too good, not to be recommended during wet weather and even during dry weather is distinctly bumpy in parts.

It is a subject for remarks how the road surfaces vary in different districts. The main roads in South Arcot are definitely good comparatively speaking; Chingleput is not quite up to the same standard. The roads in Trichy deteriorate considerably in comparison, and the main road to Travancore from Madura calls for unfavourable comment. The Travancore roads, as they have always been, are a vast improvement on those of neighbouring districts. High average speed cannot be attempted owing to the winding and hilly nature of the Travancore roads, but the pleasant scenery compensates for this, and there is not the same desire to hurry over a journey in consequence. Coimbatore main roads are very fair, but the roads in the south of the district are not up to the same standard.

In Coimbatore district there are two District Boards, and it is most noticeable that the roads in the jurisdiction of the Erode District Board are definitely better than those on the Coimbatore side of the district. These differences in the standard of the road cannot be ascribed solely to the lack of road metal or presumably the funds available. To say any more on the subject would perhaps lay us open to a charge of defamation!

In the course of this tour the Secretary was able to make contact with local Honorary District Representatives, and discussed measures for popularising the Association in various ways.

Scouts

The Madras Scouts have undergone a course of lectures upon First Aid, which in due course should enable them to procure the requisite First Aid Certificates and badges.

One Motor Cycle Scout was sent up from Madras to join up with the Bangalore Scout and do duties during the Mysore Dasara Celebrations in Mysore, Bangalore and the neighbourhood of Mysore. The other Scout was on duty along the Bangalore road from Madras.

The Girl Guide Rally also afforded scope for Scouts to be of use, and their efforts were appreciated by the organizers. Assistance was given to various members and non-members during the month by Scouts and Car Park Attendants.

The Petrol Position

Many members have asked why petrol prices have risen during the month and demanded what the Association proposed to do about it. As far as can be gathered the increase in price of petrol is due partly to the present war conditions in Europe. The prices in countries affected by the present conflict were bound to go up owing to the enormous demand for oils and petrol. The increases in prices are being spread throughout the petrol consuming world, and thus affect our particular corner. In addition locally, the prices have been kept down owing to competition from other quarters. This competition has now decreased or ceased for the time being, with the result that the prices have become more nearer normal profitable selling prices. Possibly the dollar rate of exchange may also have some effect. Local Companies, however, do not regulate the prices at their own sweet will, but have to act in conformity with the orders of higher controlling powers.

BANGALORE

By Major A. W. Waters, M.B.E. (Retd.),
Hony. Secretary, Bangalore Branch,
A. A. S. I.

Office and Routine Matters for September

VISITING motorists to Bangalore, and members in general will have noticed and appreciated our new 'Notice Boards' hung in prominent

Trivandrum Branch

It was decided by the Committee that this branch should be closed down during the month. It is very regrettable that such a course should have become necessary, but the present conditions do not allow us to take any financial risks until the position is clearer. Mr. A. K. Tampi, who was previously the Hon. Secretary, has very nobly offered to continue as Hon. District Representative, and we are sure that local members will find him as ready to be of assistance as he was before.

Hon. Dist. Representatives

The following changes and additions of our Hon. District Representatives have been approved by the Committee:—

TRIVANDRUM.—A. K. Tampi, Esq.
SOUTH ARCOT.—Einar Andersen, Esq.
(Panruti).

TRICHY.—R. Parthasarathi.

Mr. V. Dupen, who is well known in Munnar, has kindly offered to supply local members with routes when required. Mr. Dupen will be provided with copies of the routes generally asked for and will be glad to issue these on behalf of the Association.

Taxation Assessed on Unladen Weight

G. O. No. 4824, 9th September 1939, states that the Licensing Officer shall assess the tax payable in respect of a motor vehicle not falling under classes 3 and 4 of Schedules II and III to the Madras Motor Vehicles Taxation Act, 1931, on the basis of the unladen weight of that type and make of vehicles specified in the list of unladen weights of motor vehicles prepared from time to time by the Commissioner of Police, Madras; and if the unladen weight of

any such motor vehicle cannot be ascertained from the said list, the Licensing Officer shall ascertain its unladen weight in such manner as he may deem fit and assess the tax payable in respect of the vehicle on the basis of the weight so ascertained.

Provided that, if a certificate of the correct unladen weight of the motor vehicle, duly countersigned by a Police Officer in whose presence the weighment was made, is produced from an authority approved for the purpose by the Commissioner of Police in the case of the City of Madras and the District Magistrate elsewhere, the Licensing Officer shall, if he sees no reason to doubt the correctness of the certificate, assess the tax on the basis of the weight so certified.

Correspondence

Corrugations on Roads

A correspondent writes:—

I wonder if any of your members can say what causes the corrugations on certain stretches of roads. I have noticed that they occur most when the road passes low hills. Is it due to the action of the wind or the flow of rain water over the roadway?

Correspondence from Members

Thank you very much for the extremely thorough arrangements you made for transhipment of my car. Everything went off smoothly.

Please accept my thanks for all the arrangements made by you for transhipment of my car which arrived quite safely in Kumbakonam in time for me to use it when I got here.

Letter from a Member of A. A. S. I.

I am in receipt of the two Registration Certificates of my two cars and quarterly licences, which you sent me on 20-9-39. I thank you for your kind service, saving me trouble.

mation and advice on licensing matters, applications for licences and Registration Certificates, also driving licences are collected and handed in to the office after 'rounds'. At 11 o'clock licences are procured and are back by noon or earlier to the evident amazement of some motorists that things can move so quickly in this country. In consequence of this scheme fewer members have to call at the office, and until the

membership justifies the expense of a telephone the possible inconvenience caused by not having one is largely off-set. Hundreds of non-members must evidently become impressed. We are indebted to the Managements of these places for enabling us to offer such convenient facilities at their door, as it were.

General

There was a general increase all round in every branch of the office work. Much of this was in connection with our Eastern Touring Federation Agreement in the matter of the transfer of members from affiliated Associations, their change of address from all parts of India, refunds on their original licences and registration certificates (e.g.—Bombay, Northern India, etc.); more licences, and while 'Itineraries' were only seventeen with a total mileage of 3,946½, against August's figures of 17 for 7,793½ miles, the former, paradoxical though it may seem, actually entailed more labour and research, in that several were for mixed and cross-country tours, for planned trips to the sights of Mysore State, etc. For instance, an itinerary to Cape Comorin, Calcutta, Nagpur, Kodaikanal, etc. takes far less time than piecing together many shorter ones; the latter are, however, far more interesting.

The following are the totals of the 'daily reports' submitted to the Secretary:—

Letters from all sources 173, increase of 6 over August.

Letters etc. despatched:

To the Secretary ..	127
Outstation ..	38
Local ..	158
Total ..	323 (65 over August)

Licences.—Station 14; Mysore 11; Madras 11. Total 36.

Driving licences 2, and Registration of Cars 2.

Itineraries.—17 with a total mileage of 3,946½.

The numbers of members etc. called at the Office were:—A.A.S.I. 55; W.I.A.A. 20; A.A.N.I. 2; A.A.B. 4; and A.A. Burmah 1. Total 82. Non-members 5; Grand Total 87.

The number of cash transactions for which receipts were granted were: The 'main' A-C 10; and local temporary 27, the latter being for cash or bearer cheques for licences, etc.

Office Hours

9 A.M. to 5 P.M. fairly well maintained, the Staff (only) going away for the mid-day meal. On 7 days at 5-30; 1 day 5-54; 1 day 6-30; 1 day 6-40; 1 day 7-15 P.M. Sundays.—Opened twice to attend to 4 members, as also to prepare and submit cash accounts, overdue.

Registered Drivers

Several drivers have been supplied to members both in and out of the Station during the past few months, and we still have a waiting list of these. Every effort is made to verify qualifications and *bona fides* of drivers and driver-mechanics before registering their names.

Maps and Badges

Several members were still unaware that stocks of these are kept here. Apropos of what I said on page 181 of the October issue about the 8-anna road map of Bangalore; these maps, which were prepared by the Q. V. O. Madras Sappers and Miners, are now sold out and no longer available here. The only map of this kind now on sale at the Survey office is the "Bangalore Guide Map", 3 inches to a mile, Flat mounting at Rs. 3-8, and the Folding pattern at Rs. 3-12 each. Though comparatively expensive, it is a thoroughly good map, and with copious marginal references it fully justifies its name.

Short-term Licences in the Civil and Military Station

Motorists are indebted to the Station Authorities for introducing the 30-day and successive 30-day licences, while the 6 days' grace remains in force for those whose stay does not exceed 6 days, or who purchase a car within 6 days of the expiry of, say, a new quarter. The idea of this grace was probably to encourage visitors to the Station. We have always considered it to be a friendly gesture to neighbouring States and Provinces to also introduce a period of grace in order to stimulate touring and thus circulate money in other ways. In other words, 'what you lose on the swings you gain on the roundabouts.' Bombay is a fine example where one may once in each financial year run for 30 days free of fee if one leaves within that period, and complies with very

simple formalities. But after several years of observing how this 6 days' grace operates in practice, I, personally, am sceptic about its real utility to anyone but a minority of visitors, and fewer still of residents. As I said in last month's notes, it is not recognized in Mysore State. I am constantly meeting members who want to stay only 7 days, or having already taken a 30 days licence want to stay a few more days, in which case they must take a 30 days. I know of one case who had to pay for 30 days to cover one day. It does not benefit anyone whose stay or possession of a car exceeds 6 days; in such cases the licence starts, from the date of possession or of arrival in the Station. I have no knowledge of the number of flying visitors who alone could benefit, but very few members in such circumstances have called on us.

I hesitate to definitely suggest that the 'grace' should be abolished and a 7 day licence introduced, but I do think that the matter requires examination. It would be interesting to know what our members think about it. As a gesture to Mysore, it is probably valueless owing to the proof of the date cars entered therein if they adopted the same six days' grace. But tokens could be issued at the frontiers, and if objection to this be raised on the score of extra expense of these tokens, a fee of say 2 to 4 annas, ought to cover their administration. In Bombay, tokens are issued at the first convenient Police Station etc, within 7 days of arrival into the Presidency. Even Travancore gives recognition up to 10 days of valid British Indian Licences. Both Madras and Mysore issue 7 days licences. It has been suggested that the Station licences should, in the case of visiting motorists, commence from the date of expiry of the Mysore short-term one subject to a limit of 7 days from date of arrival in the Station. This would save the overlapping of the two licences, already aggravated by paying for a third, viz., a permanent Bombay or Madras one.

This is an excellent suggestion too, and very little revenue would be lost since the motorist who spent, say, 4 days in the State *en route*, would have to pay in the Station from the fourth day after entry therein. The flying visitor would still get in and out on his Mysore licence. The owner of a newly purchased car should pay from date of possession, noting, of course, that a 'used-car' already licensed holds good with the

new owner, since, unlike driving licences, these taxes are not personal.

Miscellany

The Mysore Power Alcohol Act, 1939

A certain amount of excitement has been created in the minds of some motorists who unexpectedly found they had purchased a mixture of 'Alcohol' with their petrol. "Was it a ramp", and "was it legal" were two of the questions put to me. In two cases it was alleged that cars which had formerly 'started' on the coldest morning with a finger touch, now gave trouble in this respect. For those motorists who have not seen the published notices, etc., about this innovation, the following remarks are offered:—The Act was introduced as 'Act VIII of 1939'. (See *The Mysore Gazette*, Part IV, No. 8, page 43; also further *Rules* issued under that Act, in No. 37, Part IV, page 446; Dated respectively, February 23, and September 14, 1939.

The Act extends to the whole of Mysore. 'Alcohol' means ethyl alcohol of not less than 99.4 per cent. purity denatured according to the provisions of the Mysore Excise Act, 1901. Such alcohol to be obtained from a properly established distillery in the State. The proportions of petrol and alcohol in such mixture shall be notified by the Government in respect of each local area, and may be enhanced or reduced from time to time; but the proportion of alcohol in the mixture shall in no case be more than 25 per cent. or less than 5 per cent. by volume. Ethyl alcohol means Ethyl hydroxide (C_2H_5OH) conforming to certain specification (which is laid down in detail). The foregoing are the brief details of the Act. As far as my information goes (published in the 'Press' but I have mislaid it) the areas in which it is at present operating are the Bangalore and Tumkur Districts. This does not, of course, include the Civil and Military Station of Bangalore. The present proportion of alcohol, as ascertained from the Lessee of a petrol pump, is 15 per cent.

Traffic Control in the C. & M. Station

This seems to have eased up, but with every available traffic-constable otherwise, and unavoidably, occupied this must be expected. Their early return to lick things into shape is hoped for.

New Arrivals in the Station

The Royal Norfolk Regiment has arrived from Delhi, and 'contact'

has already been made. Whatever "A.A." members there may be, will belong to a sister Association in the North, and we hope by continued contact to effect their transfer to us on due dates under the terms of the E. T. F. agreement. Meanwhile, such members are cordially welcomed and asked to make full use of our 'services', as also to bring in new members. Owing to the varying and complicated system of licence taxes in and around Bangalore, also the unique facilities for Shikar and tours offered in Mysore State—and beyond—membership is almost a necessity.

Free Shooting of Tigers in Mysore State

Apropos of my note on page 160 of the September issue, practically simultaneous with this remark, a 'Press Note' dated September 26, states that the Government of Mysore have thrown open three areas for the free shooting of tigers for a period of three months. These areas are within a five-mile radius of Umblebyle village, in Shimoga taluq and of Muthikere village in Arsikere taluq. The third area is the whole of Sringeri Jagir in Kadur district.

Travellers' Bungalow at the Jog (Gersoppa) Falls

The control of this bungalow, hitherto under the Chief Electrical Engineer to the Government of Mysore, has now been transferred to the *Public Works Department*. Applications for reservation of accommodation should hereafter be addressed to the Office of the *Superintending Engineer, Jog Falls Project*, Bangalore. (Press Note, dated Bangalore, October 12, 1939). It may be noted that the Jog season is from the middle of October to about the middle of January. The Falls are at their best in October and November. New-comers to the South may note that it is essential to book accommodation in advance for the Mysore bungalow, while booking of the Bombay one is not permitted for the general public and first come first served as in other Travellers' Bungalows in the Bombay Presidency. The Mysore bungalow faces the gorge and falls and is set amidst delightful walks which are kept clean and free from jungle. From here too a short walk takes one to Lady Willingdon's Seat, and close by one can paddle just above the Falls. Look after children if you do this and don't stay too late after sunset, for it was here that a tiger came down to drink and 'whoofed' just behind me when I was about to take a camera snap of my party in the water. Older members will remember reading in our Magazine of

what happened to the motor driver left with our cars some 400 yards away, when the tiger retraced his steps and passed by him. One car was a saloon and locked up while the other was a touring one hence neither offered security which a nearby tree did, but unfortunately the driver lost his hold—and his head—and fell to the ground almost at the feet of that gentlemanly tiger. No, he was not molested though pretty 'potty' for 24 hours; we also got our snap, for despite half a minute's whoofing, which to me seemed an anxious hour, I dared not alarm the ladies in case they stampeded out into deep-water and went over the Falls, I eventually got the party arranged suitably and, as I said before, with one eye on the camera and one over my shoulder pulled a shake trigger on the camera. Only one man of the party suspected something wrong behind me as I kept looking back, but the thunderous noise of the Falls stifled the tiger's roars.

Scouts and Mechanical First-Aid to Cars

These activities are a regular feature of our Scouts' work, but a case which we dealt with here some months ago must be unique. A car known by the sobriquet of "Leaping Lizzie", and owned by the most optimistic enthusiast I ever met, had, for an old creak, done trojan work; only last year it had, with moderate gingering, done the trip from Bangy to Kody and back, some 700 miles, so it may be forgiven when, some 15 miles out of Bangalore at a very late hour, the chassis broke in the middle and the fair lady driver found her feet sinking and the radiator poking its nose upwards. It was retrieved next day and sentimental attachment caused it to be put on the road again, and regardless of its senility and whenever it got out of sorts it always got round to the office on its own legs for a vetting. Alas! the day came when an S. O. S. said that it had settled down at a friend's house a mile from home and refused all coaxing. This time it was really serious and did not warrant an ambulance and the replacements necessary, so after a council of war, our scouts with a few coolies ingloriously manhandled "Leaping Lizzie" and took her home to her last resting place.

Motoralities—Mechanical and Otherwise

Locking Saloon Cars.—Recently I unlocked my car but in removing the key accidentally turned it again. I finished doing something inside it and just closed the door without locking it. Later on I found that by reason of turning the key it automatically locked itself

Fortunately, I had a duplicate key in the house or a deal of damage might have resulted. Incidents of this sort or lost keys suggest that the spare door-key should when touring be placed in the baggage on the outside of the car. The spare switch key can best be screwed down to the floorboards under a carpet, i.e., out of sight.

Nuts and Bolts

Neglect to keep these tightened up can reduce the life of a car by 50 per cent. Every few thousand miles or say, period of three months (not omitting after the first 500 miles—the most important) these should be gone over, paying special attention to the chassis, and perhaps *the most important of all*, the 'U' bolts or holding down clips of the axles and springs. Any slight looseness here may result in the axle getting out of alignment after hitting a pothole or curbstone which means that the wheels too will be out of alignment. One-eighth of an inch from the normal will soon ruin the tyres. A word of warning is necessary about tightening these 'U' bolts if they are to be really tight. I refer to 'Springs' which are 'underhung' that is, springs that pass under their axle, suspended therefrom, instead of passing over and resting upon the axle. In the case of these, always jack-up a bit under the spring pad or plate to take off the weight of the car before tightening up. It is not otherwise possible to get them really tight as they should be without using great force which is likely to damage the threads of the bolts. Underhung springs are frequently found under the back axles of certain cars. A simple inspection of such springs will make the matter quite clear.

Rattles

Investigate these before pulling parts to pieces. I once had a terrific metallic rattle develop under the instrument panel. It became alarming and being unable to trace it I took the car to a garage where exhaustive observation decided it came from the gear-box or clutch-case, and which would have to be taken down. This meant a big job and with my improvised—hollow bamboo—stethoscope I still seemed to think the rattle was in the instrument panel. Just then the Manager happening to pass and seeing me with the bamboo to my ear, said "try mine" and produced a real stethoscope but with a wooden cup in place of the usual rubber one. I was then able to trace the rattle to the oil-gauge and thence to the double coil in the oil-gauge copper pipe just under the

bonnet cover. This coil had somehow lost its tension, or in cleaning had got closed up and when starting up a cold car and the oil was thick it set up vibration in the coil. A few inches of insulation tape taken round one of the coils to dampen the vibration completely cured it, not without a certain loss of "face" by the would-be operators standing around. The 'pubs' weren't open or I feel sure I'd have had 'a round on me please'.

That 'Waste (?) of Oil'

That old bugbear and expensive recommendation of 'you must change the oil every 1,000 or 1,200 miles used to give us food for thought and there was some excuse for the motorist of small means who, having diligently and as per 'manual' changed at the first 500 miles, thereafter became less meticulous in such matters. Now, however, the experts recommend that after the 500, and perhaps 1,500 mile change, the oil is good for varying figures up to 5000 miles. There should then be no excuse for anyone omitting this most important matter. I am of course referring to gear and back axle oils; engine oils should never run beyond 1,000 to 1,200 miles unless you have one of the new conditioning gadgets.

One is less inclined to neglect changing oils of any sort when an economical use is found for the old stuff. I have always boiled old gear and back axle oil, put it by for half an hour to settle solids, then strained it and used it for lubricating all the shackle bolts for which, I consider it quite good enough. Being cheap, I use it very, very freely and often so that all grit is forced out. I do not recommend it for the king-pins, propeller universal joints, or wheel hubs all of which require brand new oil. Old engine oil mixed 50 per cent. with kerosene oil makes a splendid anti-squeak mixture to rub over the springs and is cheap too.

MADURA

By

Messrs. T. V. Sundaram Iyengar & Sons,
Hon. Secretaries of the Madura Branch
Report for September

General

It is gratifying to report that there is increasing popularity of our Association in general and growing recognition of the multifarious useful activities of the Branch Office here in particular.

The staff as a whole is very enthusiastic and has been working this month for a larger number of hours than usual and even on a Sunday the office was kept open.

The Office Hours

on 8 days ..	from 9 to 7 p.m.
on 10 days ..	from 9 to 6-30 p.m.
on 7 days ..	from 9 to 6 p.m.
1 Sunday ..	from 9 to 12 noon.

Important Event

The visit of Mr. W. A. Griffiths, Committee Member of the Association, on 12th September, 1939 was marked by the spick and span appearance of everything connected with the office, and attempts are made to keep up the same kind of presentation throughout hereafter. Mr. Griffiths suggested ways and means of improving the office and also gave useful hints towards the attainment of a perfect condition, of the principles and objects of the Association and it is hoped that future activities will be directed on the lines of Mr. W. A. Griffiths' suggestions.

Sri Subash Chandra Bose's hurried visit to Madura on 6th instant, attracted large crowds of people and the help rendered by the Scout on the occasion was really remarkable in the matter of parking of cars.

Visitors

The office can boast of the personal visit of 62 members and 12 non-members during the course of this month.

Correspondence

Though there is nothing particular about this item still it should be mentioned that indications are shown that with the slightly increased correspondence there is every likelihood of a rapid progress both in the matter of enrolment of new members as well as in matters pertaining to general conditions. Letters received from all sources were 94
Letters to the Secretary were .. 52
To others (outstation) .. 84
Local delivery by the C. P. A. .. 60

Scout

Apart from the reference already made about the Scout, praise is due to him for the work turned out by him in giving substantial assistance in the hard task of parking of cars at the following places:—

Rotary Club ..	2 occasions.
New Cinema ..	1 Do.
Court ..	6 Do.
Chintamani Talkies ..	2 Do.

The Scout has been solely responsible for the miraculous escape of a cyclist and the occupants of a car, by averting the collision of both the vehicles at the New Jail Road. Had it not been for

the fact that the Scout averted the accident courageously, by pulling up the cyclist at the most critical juncture, the cyclist and his cycle should have been smashed.

He rendered help for the following reasons to members:—

Mechanical Trouble.

Lack of petrol . . . 1 occasion.

Membership

Forty new members were enrolled by the following members from 26th September, 1939 to 16th October, 1939.

The Committee thanks the members who have introduced new members.

6 by Madura Branch of the A. A. S. I.

4 by Bangalore Branch of the A.A.S.I.

3 by Sri K. Ramaswamy (Simpson & Co., Ltd.)

2 each by Messrs. Gordon, Woodroffe (Motors) Ltd., and the Commercial Union Assurance Co. and

1 each by Messrs. S. R. Bhide, K. A. M. Allagappa Chettiar, H. B. Sethna, B. S. Nilker, C. H. D. Leonard, C. S. Krishnaswamy, V. Duraiswamy (Addison & Co.), the New India Assurance Co., the Hooper's Garage, and the National Employers Mutual General Insurance Association, Ltd. (Addison & Co.)

and the remaining 13 were enrolled by the staff.

NEW MEMBERS

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Bellary.

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Parish Priest,
Pondicherry.

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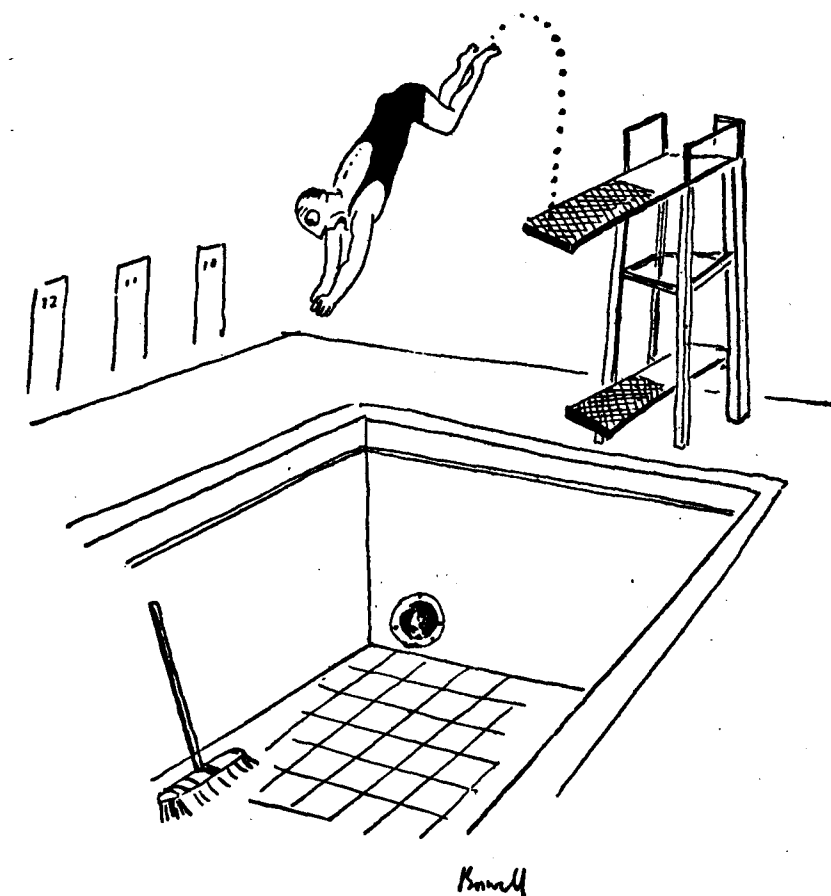
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SOMETHING COMING TO HIM!



Some people meet trouble half-way. Others (including, alas, too many motorists) never think of trouble until they are up to their necks in it. Off they blithely go on a long motor jaunt, all dressed up, with somewhere quite definite to go, but they just don't arrive.

Why? Because what with dressing up, and packing up, and filling up, they quite forgot to enquire what they were filling up with. And if it was the wrong sort of oil that went into the crank case, that doesn't worry them — oh no, not till the engine conks out on them, leaving them hopelessly stuck on the road.

Don't let that happen to you—cure trouble by preventing it, and buy—

SHELL MOTOR OILS
BURMAH-SHELL OIL STORAGE & DISTRIBUTING CO. OF INDIA LIMITED.
Agents: (INCORPORATED IN ENGLAND)

The Indian Roads & Transport Development Association Ltd.

Monthly News Letter

Travancore Traffic Board Formed

TO co-ordinate the work of the Transport Police and Public Works Departments, to investigate complaints by one department against another and to settle the various problems which arise in connection with the transport scheme and the working of the Motor Vehicles Act, the Government have constituted a Traffic Board consisting of the Chief Secretary to Government (Mr. M. K. Nilakanta Ayyar), the Superintendent of Transport (Mr. E. G. Salter), the Inspector-General of Police (Khan Bahadur G. S. A. Kareem) and the Chief Engineer to the Government (Mr. S. Doraiswamy Ayyangar).

The decisions of the Board will be final unless revised by the Dewan at the request of any one of the members.

New Motor Vehicles Act

Validity of Rules in Force Hitherto

The Bombay Government are probably the first to issue a notification, for the information of the public, in regard to the changes introduced by the new Motor Vehicles Act and the validity of the rules hitherto in force, pending the publication of new rules. This notification will be found to apply in a general way, to the present position in all provinces, and we therefore reproduce it below:—

"The Indian Motor Vehicles Act, 1914, has been repealed with effect from July 1, 1939, and the Motor Vehicles Act, 1939, has come into operation from that date. Under Section 134 (2) of the Motor Vehicles Act, 1939, rules framed by the Provincial Government under Section 11 of the Indian Motor Vehicles Act, 1914, and those made under Section 14 by the Governor-General in Council will continue to be in force until April 1, 1940, unless before the expiry of that period they are cancelled by the Provincial Government or by the Central Government, as the case may be, by notification in the official gazette.

"Chapter VIII of the Act, which refers to insurance of motor vehicles against third party risks, does not come into effect until July 1, 1943. Until Chapter VIII comes into effect, rules made by the Provincial Government under Section 11 (2) of the Indian Motor Vehicles Act,

1914, requiring or relating to the insurance of motor vehicles will have effect under Section 184 (3) of the Act of 1939 as if they had been enacted under the new Act.

"Under the new Motor Vehicles Act, the position is that, pending further orders, so far as the Motor Vehicles Tax Act, 1935, and the Motor Vehicles Rules framed under the Indian Motor Vehicles Act, 1914, are concerned, the existing procedure continues in regard to— (1) Registration, (2) driving licences, (3) A and B permits, (4) examination and certification of public service motor vehicles, and (5) taxation and fees, subject to the following modifications.

"Registration Perpetual.—Registration under the new Motor Vehicles Act is perpetual. This means that all motor vehicles will be registered once, and no re-registration will be necessary. Motor vehicles already registered under any enactment in force in British India at the commencement of the Motor Vehicles Act, 1939, will be deemed to be registered under the new Act until April 1, 1941, and on the application of the owner before that date, will be registered under the new Act without payment of any registration fee. There will, therefore, be no need for owners of vehicles registered for the current year to apply for re-registration in March next year. The registration authorities will issue notices in due course informing owners when they should apply for registration under the new Act.

"Until new rules are framed, driving licences will continue to be issued under the existing Motor Vehicles Rules, but all such licences will, under Section 3 (3) of the Act of 1939, be valid only for a period of twelve months from July 1, 1939. The Commissioner of Police and District Superintendents of Police will therefore issue licences valid only up to July 1, 1940. The Courts will, however, exercise the powers conferred upon them under the new Motor Vehicles Act in respect of disqualification or endorsement.

"No Fitness Certificates.—In regard to certificates of fitness of

transport vehicles required under Section 38 of the new Act, Government are proposing to make a rule dispensing with the necessity for such fitness certificates in the case of all transport vehicles in respect of which certificates of registration and permits had already been issued before the commencement of the Act. Proposals are also under the consideration of Government for the constitution of the Provincial and Regional Transport Authorities which have to be appointed under the new Act and which will be responsible for the control of transport vehicles. Transport Vehicles include taxis, motor buses and public and private lorries designed to carry goods.

"The control of motor traffic in other respects, e.g., speed, weight limits, parking, restrictions on the use of vehicles, traffic signals, etc., will continue to be regulated under the existing motor vehicles rules until new rules are framed.

"Offences, penalties and procedure are now regulated under Chapter IX of the Act of 1939. As stated above the existing rules under the Act of 1914 will expressly continue to be in force till April 1, 1940, or until their earlier cancellation. These rules will, therefore, be rules under the Act of 1939 and any contravention of those rules will be punishable under Section 112 of the Act of 1939."

Fixation of Petrol Prices in Bombay Government Abandons Proposal

The Government of Bombay were reported, recently, to be considering the introduction of legislation having for its object the fixation of the maximum and minimum selling prices of petrol in the Presidency.

The Council of the Association objected to the proposal, in principle, as such legislation, in respect of whatever commodity it may be, would constitute an unfair interference with the normal conduct of trade and curtail the elementary rights of private enterprise. As is well known, the fixation of a minimum price, in particular, can be of no benefit to the consumer in that it can only result in the public having to pay more than would otherwise be the case.

We now understand that the Government have decided not to proceed with the proposal.

DRIVING ECONOMY

THE rationing of petrol in the United Kingdom, and the introduction of 'Pool Petrol' as a result of War conditions have caused motorists there to take more thought over obtaining the best possible results during the present state of affairs.

We in South India and India generally are fortunately not in the same dilemma as yet, and it is to be hoped we never shall be. However the recent rise in petrol prices, and the tightening up of scrutiny over expenditure from other causes will make many motorists more careful about m. p. g. and advice on obtaining better results should always be welcome.

The modern car on the whole has been designed and adjusted to give a quite high standard of performance with the best corresponding fuel consumption. Cars as sent out by makers are tuned to a certain general compromise of efficiency, and the keen motorist is able to improve on certain aspects by minor adjustments.

The Service Departments of car manufacturers are busying themselves to ascertain the advice which can be given to owners to attain this end, and we have no hesitation in publishing the advice given (with acknowledgments to the "Autocar") as applicable to this country.

There is, however, no doubt that in many cases quite a lot can be done to increase miles per gallon quite considerably but a certain amount of experiment will be necessary to arrive at optimum results. Even so, by attention to a few details, and especially by care in driving methods, the owner will find that his miles per gallon can be quite noticeably increased forthwith.

Before giving the notes from the car makers, here are a few generalities.

Take a look round all fuel pipe lines, and see that there is no weeping at the unions.

Check up sparking plug gaps, and also the contact maker gap, to see that they are set as recommended in the car's Instruction Book.

Drive steadily, avoiding sudden or fierce acceleration.

Drive at a reasonable speed, say a maximum of 35 to 40 m.p.h.

Do not idle the engine more than is absolutely necessary. Stop the engine and restart on the electric starter.

Keep on high gears.

Hold a Steady Speed

Blow up the tyres to two or three pounds higher than the normal recommended pressure. It helps fuel consumption.

Have wheel alignment checked over.

STANDARD

Pending the results of research into the matter of obtaining the best mileage from Pool petrol, if performance is relegated to second place the following points are recommended to Standard owners who wish to get the best consumption. It is particularly stressed that when driving the throttle opening should always be steady. A skilful driver will make the best use of engine revs, will not utilise maximum speeds, and will accelerate gently. The tyres should be kept fully inflated, and the recommended brands of oil only used.

Sparking plugs should be clean and have the correct gap setting, while the distributor points should also have the correct setting. It is important that the recommended ignition timing be adhered to, because if it is late the consumption will soon be affected.

Finally, on these general points there should, of course, be complete freedom from leaks in the petrol piping system.

RILEY

To improve fuel consumption first reduce average speed of driving. Check tyre pressures, see that brakes are not rubbing, wheel alignment correct, and the car free in its running. Set the plug points to 0.025 in. gap, the contact maker to 0.012 in. gap, and the tappets to 0.004 in. Set the ignition timing up to 10 deg. earlier on the manual control. For the 1½-litre engine with Zenith carburettor, suggested settings are: Choke 28, main jet 105, compensating

jet 80, pilot jet 65. For Riley Nines of 1937 or 1938 with twin Solex carburettors, correct the choke to 21, main jet 95, pilot jet 60. Further, as the weather becomes cooler, blank off the bottom of the radiator, so as to run the engine slightly hotter.

AUSTIN

Preliminary advice on obtaining increased consumption is, first, to drive to a lower average speed and avoid unnecessary acceleration. Also to coast down hills and slopes as far as possible. Keep the tyres inflated a pound or so above recommended pressure, and check often. If this is done, keep careful watch on the level of water in the radiator. Keep sparking plugs clean and points set correctly. On models not fitted with vacuum control of ignition advance, it may prove an advantage to advance ignition timing a shade.

If special tuning for improved consumption is considered, it is likely that a main jet one size smaller, together with a slightly smaller choke, will give the desired results. The smaller choke makes for easier starting, and economy of fuel at the low end of the range.

SINGER

The makers of Singer cars point out, as do most other manufacturers, that the usual high performance cannot be expected if serious attempts are made to reduce petrol consumption. It will be permissible to fit a size smaller jet, or, in some cases, a jet which is two sizes smaller than standard. Leave the air cleaner alone, but satisfy yourself that the gauze is perfectly clean and free from dirt.

Owners may, with confidence, use the recommended grades of thinner oils and experiment with a wider spark gap.

This firm, in common with several others, adds the warning not to obtain such a set of conditions that the choke has to be used for any undue length of time.

Bear in mind, also, that a little gentle warming up on a cold morning will not be so wasteful as the use of the choke when on the move. Use the approved tyre pressures, attend to the tightness of

gaskets, cut out all air leaks, don't use the lower gears more than is absolutely necessary, avoid rapid acceleration and violent braking and maintain a reasonable cruising speed of about 35 m.p.h. or slightly more.

WOLSELEY

It must be remembered that a very weak setting is not necessarily the most economical one, since great difficulty in starting and keeping the engine running without excessive use of the choke or jet control, as the case may be, may very easily account for more fuel than a setting which will give reasonably good all-round results.

Different types of engines vary so much in their response to ignition settings that it is difficult to lay down any hard and fast rule.

Generally speaking, of course, an early setting tends to improve fuel consumption, but here again, taking the process too far might have such an adverse effect on the performance under load that in the end no economy would be effected.

If an owner assumes that his ignition setting is as recommended by the manufacturers, it would be a simple matter to advance the ignition by means of the vernier adjustment of the distributor. It is best to alter the setting one degree at each adjustment and observe results.

In the majority of cases the most economical running speeds are from 30 to 35 m. p. h. If high running speeds are maintained, necessitating wide throttle openings, economy in fuel consumption cannot be expected.

It is certainly desirable to keep tyres on the hard rather than the soft side. Discretion is, of course, necessary and an increase of 2 or 3 lb. on the recommended pressures would meet the case.

Any device which enables an engine to reach its normal running temperature in the shortest possible space of time must naturally help fuel consumption. The owner should be prepared to make experiments himself as to the amount of blanking which is desirable, because if the blanking off is taken too far and the engine overheats, particularly when driving in traffic, the consequent starting and stopping may very easily negative the benefits obtained in other directions from a rapid warm up.

When considering what should be done in the way of modifications calculated to give great economy in fuel consumption, it should be remembered that all manufacturers have given a considerable amount of attention to this matter of late years, and in many cases it may be found that economy is not so much a matter of alterations from standard as of extreme care in driving.

The most fruitful causes of uneconomical running are:—

1. High running speeds demanding wide throttle openings.
2. Frequent starts and stops.
3. Allowing an engine to "tick over" when standing.
4. "Revving up" unduly on the indirect gears.
5. Excessive use of the jet control or choke when an engine is in the warming-up stage.

An owner can help matters considerably by doing everything possible to maintain the engine temperature while the car is standing, because it is during the warming-up period that an abnormal amount of fuel is used.

Many people advocate coasting when descending hills. There is certainly something to be said for this practice, more especially during warm weather; if the engine cools down considerably while coasting the benefit is very largely nullified. The great secret is to maintain engine temperature as far as possible at normal.

No matter what carburettor setting is given, the best results will not be obtained unless an engine is in good condition generally, so that it is useless merely altering a setting and not taking steps to ensure that all other points are in order.

WOLSELEY 18-80 H.P.

In place of the present needles in the two S.U. carburettors, use two needles stamped C. J. at the butt. No further alteration is necessary, but the car should be driven on not more than two-thirds throttle, and top gear used as much as possible.

MORRIS

As regards the best methods of conserving petrol, Morris Motors, Ltd., suggest that in the interim all owners should carefully peruse their Instruction Manual, which is issued with each car, and see that their engine, etc., conform with the recommendations therein.

HUMBER HILLMAN

It is felt that everyone will accept the fact that at times such as these, all must be prepared to sacrifice performance and absolute perfection of running in the interests of the national position. Therefore, so far as many of the moves which may be taken are concerned, it must be recognised in advance that the running of the car will undoubtedly be affected.

If the necessary sacrifice of performance is faced, a reduction can be made in jet size, and the owner should communicate with either the manufacturer or an accredited agent to obtain specific information and the parts to carry out the conversion.

On the subject of the carburettor, the level question is also one which will need to be most carefully checked as having considerable bearing on the matter of consumption.

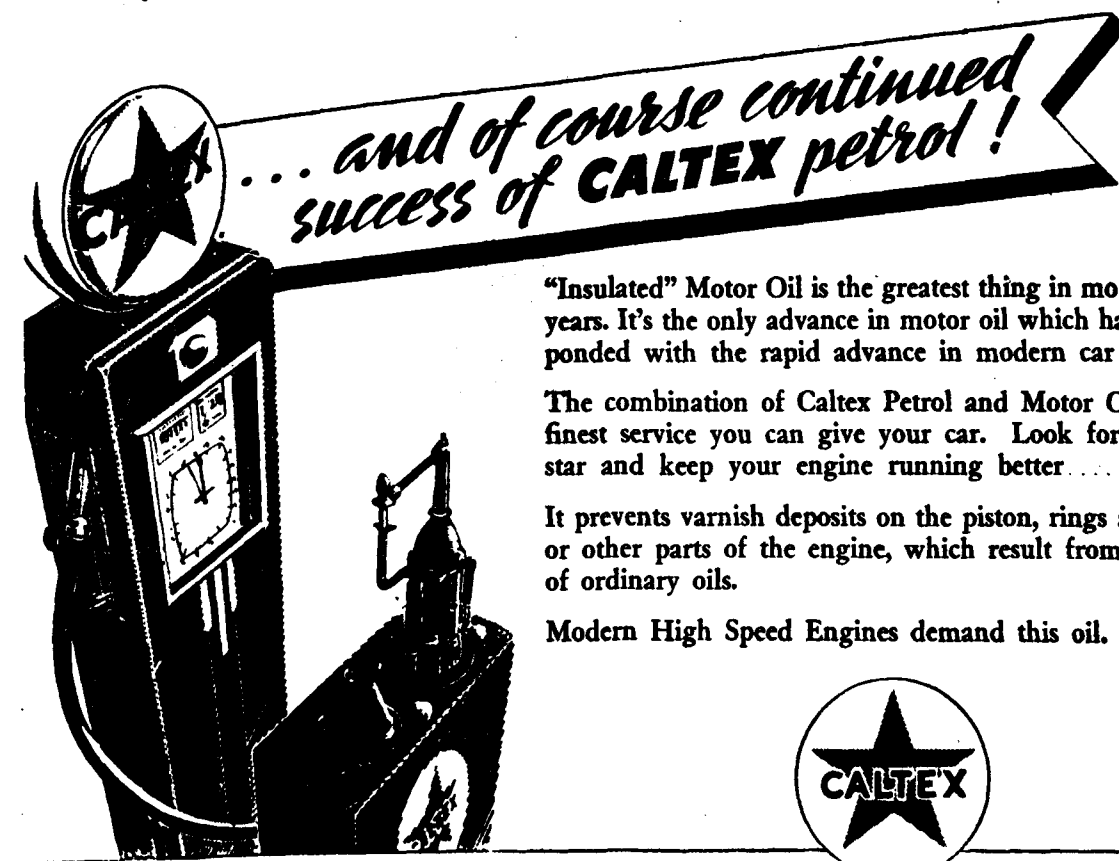
In the case of cars fitted with mechanical petrol pumps, the delivery of such pumps should be checked to see that the pressure is in no way excessive, this item having a considerable bearing on consumption.

It is very vital that the ignition system of the car should be kept in perfect trim, and when the vehicle is run with the leaner mixtures which will be necessary in these times, *more attention than normal will have to be given to plug points and so forth.*

With regard to ignition settings, it is essential that these first of all be chosen to suit the new wartime petrol, after which the degree of advance should be kept up to absolute maximum so that the engine, when forced on top gear, does just audibly "pink".

Owners should realise that the general condition of their engines in respect to seating of the valves, satisfactory rings,

INSTANTANEOUS SUCCESS of... **CALTEx** "INSULATED" MOTOR OIL



"Insulated" Motor Oil is the greatest thing in motoring in years. It's the only advance in motor oil which has corresponded with the rapid advance in modern car engines.

The combination of Caltex Petrol and Motor Oil is the finest service you can give your car. Look for the red star and keep your engine running better... longer.

It prevents varnish deposits on the piston, rings and slots or other parts of the engine, which result from the use of ordinary oils.

Modern High Speed Engines demand this oil.



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MADRAS : Railway Terminus Road, Royapuram, P. O. Box 50.	Telegrams: CALTEX	
NEW DELHI : Peareyal Building, Queensway, P. O. Box 39.	Telegrams: CALTEX	

correct tappet settings, and so forth, has a most marked effect on consumption, and engines, therefore, should be brought up to a state of good tune.

It is recommended that the very thinnest possible grade of oil be used throughout the emergency period, in order to reduce internal friction to an absolute minimum. In the case of very old and worn engines this may prove to be impracticable, owing to possible heavy oil consumption. Nevertheless, the thinnest oil grade that is practicable should be chosen.

It is important that everyone should recognise the fact that the modern internal-combustion engine should be operated at the highest possible temperature provided boiling is not experienced, and in this connection advice should be obtained from the manufacturers or agent on how to blank off the radiator to achieve the desired results.

It may be wise in many instances either to restrain throttle openings, which can be accomplished quite simply by the insertion of what is generally known as a speed washer, i.e., a washer between carburettor and induction pipe, which will restrict the flow of gas.

To eliminate all possible road friction it will pay to run the tyres at from 3 to 4 lb. above the normal manufacturer's recommended pressures.

The most economical and satisfactory method of getting away from cold is to start up and get the engine running relatively fast and the car off the mark in the shortest possible time, the choke or starting device being pushed in at the earliest possible moment. Under no circumstances should the old habit of gently warming up the engine be resorted to, as this is not only harmful, but results in the wasting of good petrol.

Avoid all unnecessary violent acceleration, either through the gears or in top.

Broadly speaking, a car has an economical running speed, and should be kept at between 40 and 45 m.p.h. on flat roads. This will be found very advantageous.

Do not drive the car in top gear with a heavy load on a gradient. Always rather use the gears and keep up the engine revolutions.

Although coasting would never be recommended under normal peace-time

conditions, this should now be considered as a by no means unimportant factor in obtaining economy. When a car is allowed to coast, under no circumstances hold the clutch out, but rather snick the gear into neutral, and, by using the correct technique at the foot of the hill, re-engage the gear.

CITROEN

The Solex carburettor has a 27 choke and a main jet of 130, with 230 correction. 125 main can be fitted or 130 main with 260 correction; that is, with the Solex assembly 22. With assembly 20 the standard setting is choke 27, main jet 135, correction 280. In that case change to 130 main jet. On the 15 h.p. with the Solex assembly 22, the standard setting is 26 choke, 130 main, 230 correction. Try 260 correction, or 125 main. Some engines will take both changes. With Solex assembly 20, the choke is 26, the standard jet 135, and correction 260. Alter to 230 correction or 180 main. The ignition should be advanced as near to pink point as possible, and no change of plug type is necessary. The manufacturers suggest that the gear ratio might be raised with advantage. Standard ratio of the 12 h.p. is 8-31, and of the 15 h.p. 9-31, except for the 7-seaters, which have 8-31. Either of these ratios can be replaced by 10-31 at a cost of approximately £10.

SOLEX CARBURETTORS

Here are some general notes on Solex carburettor adjustment on private cars to obtain maximum m.p.g., with a little deduction from general performance (on an average 10-20 m.p.h.; reduction in maximum speed; reduction in acceleration to 'flat spot' limit, in accordance with the degree of de-tuning effected).

Assembly No. 12 Carburettors.

Average recommendation:

Reduce choke tube one size.

" main jet two sizes (approximately).

For Example: 1934-35 Standard 10 h.p.

Normal setting:

Choke tube size 24.

Main jet size 112.5 x 57S.

De-tune setting:

Choke tube size 23.

Main jet size 105 or 100 x 57S.

For cars above 10 h.p., in many cases a choke tube reduction by two sizes can be effected, and main jet reduction by three or four sizes.

Assembly No. 20 Carburettors.

There are two methods of de-tuning available. Only trial and error experiment can prove which will be the more economical, as normal settings with 20 assembly are invariably more economical, by virtue of the design, than normal assembly 12 settings. Thus there is less latitude for reduction of mixture strength by de-tuning.

Method I.—Reduce the main jet by one or two sizes if possible. Use the largest air-correction jet possible with whatever size of main jet that gives reasonable acceleration.

For example: 1937 Standard 12 h.p.

Solex 30 F.I. Normal setting:

Choke tube size 27.

Main jet size 125.

Correction jet 290.

A good de-tuned setting, giving 3 or 4 m.p.g. improvement with good acceleration and reduction of maximum speed to about 60 m.p.h. is:

Choke tube size 27.

Main jet size 115.

Correction jet 240*.

* The largest usable with main jet 115.

This is an average. Some engines might take satisfactorily main jet 110 and correction jet 240 or 230; others 115 with correction jet 250.

Method II.—For extreme de-tuning with possibly a still better m.p.g. improvement, reduction of choke tube as well as main and correction jets may be productive of the best results. For instance, taking the foregoing example, a possible better alternative for maximum m.p.g. would be: Choke tube size 25 or 26. Main jet size 105 or 110; and the biggest correction jet possible with either, probably 230.

Everything depends upon the engine condition and its "characteristic," but, by following these general directions, the best m.p.g. will be forthcoming with a reasonable performance.

ABILITY TO PRACTISE SELF-HELP ON THE ROAD

How The Average Driver May Be Useful

Simple Adjustments Noted

THE ability to practise self-help on the road comes with experience, and more experience. The really new motorist is becoming more of a rarity as the years pass, yet evidence is not lacking that in emergencies many people with years of driving experience are unable to make the simplest adjustments. In the following notes it is proposed to deal with some of the more usual happenings and their handling, without going too deeply into any one subject.

Taking over a new car, everything seems just perfect. The motor is tuned to a nicety and controls are in correct adjustment. Although there is no apparent indication, most of the working parts are operating with minimum clearances and therefore it is unwise to drive above certain maximum speeds, especially in the intermediate gears, until a certain number of miles have been covered.

A frequent mishap in a new car, or for that matter any car or truck, is failure of the fuel supply due to sediment collecting in the fuel pump or vacuum tank. The procedure to remove it naturally varies with each piece of equipment.

On the Autovac type, and American vacuum tanks, a large union above the top cover is disconnected and a 3/4 in. nut unscrewed to gain access to the main filter, or a clamp is removed and the plug tapped out. An appreciable collection of rubbish is usually discovered. Two spanners are preferable, one to unscrew the union, the other to hold the fixed portion to guard against breakage of the cover. A second filter will often be found at the base of the vacuum tank, and frequently there is a gauze strainer at the float chamber intake.

Where a mechanical pump is employed, the bowl or the upper cover plate is removed to effect the desired cleaning. After cleaning out, a fuel pump will, if in sound condition, commence to supply the carburettor after a few seconds cranking.

The wise owner will request the serviceman to demonstrate the procedure for ridding his fuel feed device, vacuum tank or pump, of sediment or obstruc-

tion. As a rule, it is a five or ten minutes job, and therefore much time will be saved if he can do the job without sending for an A.A. patrol or garage-man.

Talking of being advised, a little knowledge relative to the adjustment of the clutch will prove useful sooner or later. While we do not advocate interference by owners with the internal clutch adjustments that are occasionally provided, it is essential to know when the pedal clearance has been absorbed.

A normally adjusted pedal is set with 1/2 in. to 1 in. free movement below the floorboard. You can either lift the pedal that distance, or press it down against a light spring before encountering the distinctly stronger resistance of the clutch spring or springs proper. As the clutch facings wear, this clearance is absorbed in modern clutch systems due to the leverage arrangement, and a time arrives when there is no clearance. This means that the clutch cannot engage fully, and slip and burning take place.

Invariably, however, the maker provides a ready adjustment to restore that clearance. An adjustable link as in Plymouth, Terraplane; a worm and nut in Austin, and a slotted-serration as employed by Morris and others, are some of the methods in vogue. In certain cases the only adjustment is internal, but it should be thoroughly understood, especially by those whose motoring takes them further afield than others.

Drive shaft vibration is an unpleasant condition easily recognised by a motor mechanic but a worry to the driver. More often than not it denotes loose universal joint flange bolts, or torn discs where they are used. A general tightening up with a pair of spanners (adjustable or set), will correct the trouble; at least it will prevent vibration and eliminate risk of bolt breakage until a good garage is reached. New fabric discs should be fitted to replace worn ones.

Quite a number of odd items of electrical attention can be given by the amateur with a little knowledge and confidence. Fuses have the habit of blowing (melting out) when the amperage exceeds

their capacity, as in a short circuit. That, in fact, is their function. Fuse blocks are located at the rear of the dash or on the cowl under the bonnet. The fuse is pressed in between a spring type holder, or takes the form of a blade (Lucas system). There are other systems of arranging fuse protection, too.

Always carry spares. A piece of fuse wire is also helpful, since it permits testing of various circuits to find the cause of fuse blowing. A long piece of flex wired direct from battery to lights will give illumination pending correction of a complicated fault at a service depot.

Similarly, spare globes for head and tail lamps should be carried. Rapid failure indicates poor quality globes or excessive generator charge rate, loose connections or use of incorrect voltage globes. See that all connections, battery, switches, starter, lights, etc., are well tightened prior to a tour, or at regular intervals in normal service. Keep the battery tops and terminals clean, and secure the battery (if loose) by tightening the clamps without over-stressing the lugs, or by packing with pieces of flat wood.

The suction type of screenwiper needs a little oil at times. Medium or light engine oil is used, and admitted via the small hose-pipe while working the blade to and fro. In a number of cases erratic action is traced to binding of the spindle in the screen frame or body rail, or to excess blade pressure against the glass.

The eyes and ears and the senses of smell and feel are all used to trace faults, even if you cannot rectify them. You can see an oil or water leak, and hear a squeak or knock. Burning of rubber or brake lining and escape of exhaust gas or petrol are detected by their characteristic odours. A hot brake, electrical unit, or bearing may be located by feel even if no other evidence is present. A sharp click when reversing or starting off suggests a loose axle taper in a rear wheel hub, loose spring clips or a broken spring leaf.

All these more or less call for expert attention, but it is a good habit to practise diagnosis, capitalising it by having

any potentially serious condition rectified before it develops. Learn how to read the indications on the dash, what is the minimum safe oil pressure, the maximum safe water temperature and charge rate.

A few points regarding lubrication of various parts. There are numerous body fittings that need regular if infrequent lubrication. Many a sedan door is slammed hard where the application of a film of door-ease or light grease would make it close by finger pressure, and be much less destructive of duco. Also oil the hinges and anti-rattles and wipe off the surplus. In stubborn cases locks must be removed for thorough lubrication, but the results warrant the small expense involv-

ed. Oil at bonnet clips and hinges, and grease on radiator and cowl strips will remove or prevent many squeaks and rattles.

Finally, a few notes regarding the starter, which sticks at times. Should the mechanism jam, examine the forward starter end for a "square." It may be covered by a small knurled cap. Where provided, usually on English and French types, turn with a spanner in direction of engine rotation. If this does not free it, let off the handbrake, engage top gear and rock the car to and fro, with most emphasis on the forward heave.

Some starters must be removed or loosened to release the drive, and if your

engine uses a threaded type of automatic coupling, it is wise to carry suitable spanners. As a rule the drive frees as soon as the starter is loosened, and it is seldom necessary to remove the unit completely except for repairs or examination. Always keep the starter well tightened.

Recurrent starter jamming suggests a worn ring gear or bent armature or a defective housing. The screwed sleeve should be thoroughly clean and needs no lubrication. Press the starter pedal or button firmly, avoid starting with too far advanced ignition, and see that neutral gear is engaged. These precautions help to prevent jamming.

Courtesy—*New Zealand Motor World*.

CLEAN THOSE PLUGS

A Good Spark Means Increased Engine Efficiency

RECENT experiments carried out both in England and America, have conclusively proved that the quality of the spark produced by the sparking plugs of an engine has a very definite bearing on the volume of power efficiently produced by any internal-combustion engine.

Unfortunately, there are many car-owners who seem to divide sparking plugs into only two classes—those which spark and those which do not spark. The result of this is that the average car-owner gives his plugs little attention, and only when after straining for months to keep on functioning and performing effectively the work for which it is designed, and eventually exhausting itself and dying under the strain, does a plug receive any attention. Then it is too late. The plug is taken out, thrown to the scrap heap, accompanied by uncomplimentary remarks about its manufacturers, and a new plug placed in position. A little thought, backed by a little attention given to the plug, would have saved this expense, and would have also saved the expense of gallons of petrol which have been wasted, owing to inefficient combustion due to weak spark operation.

If a plug has been operating in an engine for a considerable time it will

generally be found, on examination, that a ridge of carbon has been formed inside the plug. This carbon will eventually cause a short-circuit and the current will travel round the plug instead of across the plug points where the spark is needed.

WHAT TO DO

At regular intervals, say, once every three months, for a car which is in daily use, the spark plugs should be removed and thoroughly cleaned. Some modern plugs, of good manufacture, can be disassembled for this purpose. Care must be exercised when taking the plug apart, that the insulator is not damaged. Every particle of carbon which has formed on the plug should be carefully scraped off with a knife and the parts wiped clean before reassembling. The central electrode should be cleaned by rubbing lightly with a piece of emery cloth.

Before replacing the plug into position in the engine it will be advisable to test the gap setting. For the benefit of new owners, we may explain that the gap is the distance between the points of the plug where the spark is made as the current jumps across. Although it may seem something of an anomaly to say so, the gap, which is not part of the plug at all, is the most important thing con-

cerning it. Modern battery ignition cars demand a gap of 0.20 inch.

After the plug has been in use for some time, it is more than likely that you will find the gap wider than it was when the plug was new. A handy gauge for testing the width of the gap can be purchased from any accessory house. When adjusting the gap care must be taken not to interfere with the central electrode. The outer one may be moved until the correct gap is secured.

The amount of work associated with keeping this vital part of the engine operation efficient is so small that the tendency is to leave it undone.

Now be quite honest with yourself and answer this question: When did I last clean and adjust the plugs in my engine? When you have done that you will realise why your engine is losing some of its power if the period is more than of three months' duration.

If you cannot find time to do the job yourself, any well-equipped service station will do it for you at a small cost, and the expense incurred will quickly be saved in increased engine efficiency and greater petrol mileage.

TRAFFIC INSPECTOR LOOKS AT MOTORISTS!

Into which class of Drivers would you fall?

HE was just coming off point duty at one of the busiest intersections in the city when I met him. The anxious look which had marked his features a few moments previously as he directed the streams of traffic on their various ways had given place to a genial smile and I began to wonder if I could induce him to talk.

As he reached the footpath I ventured to remark: "I suppose you are not sorry that job is over for a while?"

He looked at me for a second, and then, evidently realizing that I was just an average human being and was not out to "nip" him either for a drink or a feed, replied: "Sorry? You go out there and do a constant series of physical jerks with your arms for an hour, and dodge around tramcars all the time, and then tell me whether you are sorry when the time comes for a spell."

The ice was broken and, as I wanted to get a line on—"The motorist from a traffic inspector's point of view"—I encouraged him to talk with the remark: "I suppose you find motorists just a little trying at times."

"Trying?" he replied, "I'll say some of them are. Some of them ought to be pushing prams, not driving cars. Why, one chap nearly ran over my feet only yesterday taking a corner too sharply."

"Yes," I replied, in my most sympathetic manner, "there are exceptions. But tell me what do you think of the conduct of motorists as a whole?"

After a few seconds' thought he replied, "No, you can't class motorists as a whole. In my opinion there are three classes of drivers on the roads."

"Indeed," I replied, showing interest and preparing to make a mental note of his classification. "How would you divide them?"

For a little while he thought over the question and then replied: "Well, to my way of thinking you can divide drivers into three classes—reasonable drivers, thoughtless drivers, and fools."

"Would you tell me," I asked, "what leads you to make so definite a division?"

At once I realized I had struck the right chord. Squaring his shoulders and

taking a long breath, he proceeded with a dissection of the motorists of the city, which, as I listened, I realized was the result of personal experience and a matter to which he had given a considerable amount of thought.

"Yes," he said, "there are certainly three classes of motorists. The great majority of them may be said to be reasonable drivers. Men who realize that just because they own a motor car, they haven't bought the earth. You can always depend on them to wait for your signal and to do their best to get out of the road as soon as you signal them on."

"Then," he continued, "there are the thoughtless lot. These people, the second they reach the intersection, start tooting their horn and making a general nuisance of themselves. If they are held up for a few seconds they glare at you as though you had done them some personal injury. They never do any thinking for themselves and so, when you give them the signal to go, they are never ready. I have seen some who ought to bring their mothers with them to do their thinking for them."

"Then there are the 'fools.' I some times wish I had the power to take their

driver's licence away from them for a month, just to teach them sense. These drivers come tearing up to the intersection at thirty miles an hour, they toot their horn, and, if the signal is against them, there is a screeching of brakes. I have seen this class of driver tearing across the city street intersections with their fingers pressed on the horn button, risking everything on the other chap getting out of their way."

"And now," I asked, "what is your opinion of lady drivers?"

A smile played round the corner of his lips, and for a second, there was the semblance of a twinkle in his eye as he replied: "My opinion of lady drivers! Now, look here, I've got a wife at home, so if you don't mind we'll let it go at this and say—the average lady driver in the city is just as good as the average male driver. There are exceptions, but there are exceptions among the men, too."

I bade him "good-bye," and as he left me I thought of the words of the great Scottish poet when he said it is well for us all, at times, "to see ourselves as others see us," and if by this interview we can increase the number of reasonable drivers in the city, the effort of the inspector will not have been in vain.

Driving Licence Reminder Form

The Secretary,
Automobile Association of Southern India,
Box No. 304,
200, Mount Road, Madras.

Name of member.....

Membership No.....

Full Postal Address.....

.....

.....

Dated.....19 ..

My Driving Licence No.....

dated.....issued by.....

.....

Expires on..... Will you kindly record this for your

reminder service.

Signature.....

N.B.—It is important that every change of address be promptly communicated.

PETROL PRICES COMPARED

THE recent increase in petrol prices has occasioned some hard thoughts in various quarters against the supplying companies.

It is interesting, therefore, to compare our local situation in this respect with that of other countries. The figures given below are for May 1st, 1939, and so have no comparison with conditions enforced by the present War. Even so, it can be appreciated that there are other places worse off than India. The importance of local or adjacent supplies in relation to price is obvious.

Country	Retail Price	Taxation Included	% of Tax to Retail Price
(Pence per gallon)			
Italy	41.9	30.8	73.5
Germany	36.5	18.8	51.5
India (Delhi)	28.1	11.3	40.2
Portugal	25.7	15.1	58.8
Ceylon	24.3	13.5	55.6
India (Madras)	21.89	12.9	50.9
France	20.0	13.2	66.0
Great Britain	19.0	9.0	47.8
Canada	9.2	3.5	38.0

The percentages of taxation are heavy and show how much the motorist contributes to revenues in this respect alone.

The effects of war on a country directly affected are illustrated by the prices in Great Britain during the last war. In January 1914 the price of petrol was 15s. 9d. a gallon. This rose to 4s. 3½d. by August 1920 when the price of a gallon exclusive of duty had risen to 3s. 9½d. a gallon. The duty was cancelled from 1921 but reimposed in 1928 since when it has been rising gradually to the present rate of 9d. a gallon in May 1939.

FACTS AND FIGURES

AN array of facts and figures is apt to be regarded by many as stodgy and unpalatable fare to be passed over with little interest by the average reader. The 1939 edition of "The Motor Industry of Great Britain" issued by the Statistical Department of the Society of Motor Manufacturers and Traders Limited, at first sight might appear to be a publication of this nature. The American Automobile Manufacturers Association have a similar publication entitled "Automobile Facts and Figures", a more colourful composition (literally) in which much use is made of comparative charts and graphs.

Both of these editions repay study, and provide much information of surprising interest. Either book is an excellent volume to pick up and browse over at odd times, and personally we found that the fascination of these facts and figures—dry as they might seem at first sight—was a very real one.

It is impossible to review the contents in the usual way as they are a condensation of a vast amount of information which cannot be abbreviated much further. We can only extract some

points which strike the average motorist. The figures refer mainly to the year 1938 or the financial year 38-39 in case of the United Kingdom.

Of the total new cars sold in the domestic market of the United Kingdom 62.4 per cent. were 10 h.p. and under, while the United Kingdom manufacturers held approximately 97 per cent. of the domestic market in 1938. 66 per cent. of the world automobile production, however, was in the United States of America and Canada.

Australia and New Zealand are the United Kingdom's best customers with 27,722 and 15,015 vehicles respectively. British India and Burma took a total of 4,227, while countries outside the British Empire bought 15,499. The grand total of exports was 89,661. Against this the foreign market took 1 out of every three American passenger cars and the United States of America and Canada together have a total foreign sales figure of 492,028.

The average in life of private cars in the United Kingdom is 8.22 years.

In America 91 per cent. of the Motor Vehicle trips are under 30 miles and the

average vehicle travels 8,870 miles yearly.

The number of miles of Highway in the United Kingdom is 179,630 with 17.2 vehicles per mile. This compares favourably with the United States of America with 359,639 miles considering the relative sizes of the countries.

The world's total of cars as opposed to buses and lorries is 35½ millions. Needless to say North America has the greatest number of cars, but the United Kingdom is the world's second largest car user, British India less Burma has 69,590 cars of which 13,799 are in Madras Presidency.

The population per motor vehicle (all kinds) is as under:—

1. United States of America 4.
2. Canada 8.
3. United Kingdom 18.
4. France 18.
5. Germany 42.
6. Italy 114.
7. Ceylon 204.
8. India 3,164.

There is much information of similar interest in the publications mentioned, an examination of which must be held over for some future time.

THE BOMBAY FLYING CLUB, LTD.

Report for September 1939 .

THE flying time of 127 hours is the highest recorded figure for September in India for the Bombay Flying Club, Ltd., and compares favourably with 62 hours flown in September, 1938.

"A" Licence Training

Mr. J. J. Alexandroff, Capt. F. J. H. Nelson and Mr. E. J. Ralli have started their training for the "A" licence. Messrs. Alexandroff, Ralli and Cassinath can only spare week-ends to motor up to Poona for their flying. Capt. Nelson is attached to Head Quarters, Southern Command.

Messrs. Kenjale and Batliwala carried out successful first Solos, and Mr. B. B. Dhuru has completed all his tests for the issue of Pilot's "A" licence.

Miss M. H. Wigan, who already holds an Indian Pilot's "A" licence, flew twice during the month to keep her hand in.

Mr. K. A. Zaveri renewed his "A" licence.

"B" Licence Pupils

Progress of Messrs. Pinto, Ratnagar, Bal and Commissariat has been maintained. Mr. Zaveri has been on leave for the past two weeks. Results of Test Papers set on "Aircraft" have been encouraging, and Lectures on "Aero Engines" will commence next week.

Message dropping and Bombing a moving target was practised.

Pilot Instructor's Licence

Mr. M. D. Mistry's Instructor's course will be completed next month, and Mr. V. S. Belvalkar has started work on his Instructor's course. It is possible that Mr. J. M. Mathai will come over to Poona to complete his Instructor's course.

General

The Club was to continue its activities in Bombay from 1st October, but at the end of September it was decided to continue in Poona for a further period of a few months owing to certain reasons.

No Army Co-operation was called for this month, but preparations are being made for this type of work next month. Pupils are given every possible opportunity to gain experience in Army Co-operation and some of them are doing good work.

Including week-end Pilots, seventeen members made use of Club aircraft this month.

It is believed that Tatas will operate from Bombay after the 15th October. We, in Poona, will miss them, particularly Mr. Figgins, who has given us his full co-operation throughout the last four months.

DRIVING ECONOMY

(Continued from page 112).

Similar methods can be adopted with Solex on commercial vehicles, except that in 99 per cent. of cases it is best to commence experiments with a choke tube at least two sizes smaller than normal, tuning in jets to suit.

In all cases keep the pilot jet mixture as fine as possible, and use the starting device as little as possible.

With diaphragm or piston-pump carburettors always reduce the stroke to the limit which will just cover a flat-spot.

The Engineering Department of the Rover Company recently propounded a somewhat startling method of driving to get the best fuel consumption at a reasonable speed. It was stated that the best method, treated, of course, in a reasonable way, was to accelerate on full throttle on top gear to about 40 m.p.h. and then to coast to about 15 m.p.h. with the engine idling, repeating the process again and again, on the level road. With a Rover this is an easy thing to do because the car is already fitted with a controlled free wheel. In other cars, when coasting, the gear has to be shifted into neutral, and re-engaged before commencing to accelerate.

Expressed shortly, it is a principle of "open" or "shut" for the accelerator. When accelerating, accelerate on full throttle; when coasting or over-running have the throttle quite shut to idling position. Apply this principle to

driving a small car whenever circumstances permit. It need not be carried to extremes, and a skilful driver might make great use of it without others being aware of the fact.

At first sight this may seem a queer theory of progression, but examination shows that it is undoubtedly founded on facts. First, it must be borne in mind that the petrol engine gives its highest efficiency on full throttle; that is to say, it consumes the fewest pints of fuel per brake horse power per hour on full throttle.

Percentage Losses Reduced

Secondly, the friction losses in an engine are approximately the same, irrespective of the actual power being developed. The more the power that is being developed, therefore, the smaller is the percentage of loss through friction. It follows, then, that an engine working hard for short spells wastes less fuel than when working more lightly for long spells. This is a broad approximation of the truth.

(The details of the actual tests are omitted).

It must be emphasised clearly that the purpose of this article is not to advise driving continually in the manner described, but to make clear exactly what real advantage may be gained by intelligent use of the underlying method.

In view of the results obtained by these tests there can be no doubt that a considerable advantage in fuel consumption can be secured by driving in this way.

The fact that this method is valuable on a level road to such a marked degree lays emphasis on the desirability of making use of every down grade for coasting, and also of switching off the engine whenever possible.

The best slow speed to employ for the limit of coasting depends upon the particular type of car and the timing of the valves in the engine. Some engines are more efficient at low speeds than others.

As regards the use of the accelerator pedal when running down short slopes or in traffic slow-down, it must be remembered that if the throttle is quite closed the amount of fuel consumed is the same as when the engine is idling. The consumption only increases if the throttle is opened. Hence it is desirable to release the accelerator pedal completely whenever you want to overrun, and not merely to raise it back a trifle.

When a long, gentle slope with a straight ending presents itself, it is as well to put in a short burst of full throttle over the brow and work up a good speed. Then slip out of gear, stop the engine, and coast as far as possible until the speed drops to about 20 m.p.h.

SALES AND SERVICE GUIDE

Entries in these columns are charged for at the rate of Re. 1 per line per insertion, but no contract can be accepted for less than six consecutive insertions.

Ariel Motor Cycles

MADRAS (& Branches)—Addison & Co., Ltd.

Bedford Trucks

COIMBATORE—United Motors (Coimbatore) Ltd.

Buick Cars

MADURA (& Branches)—T. V. Sundram Iyengar & Sons Ltd.

Chevrolet Cars and Trucks

BANGALORE—Automobiles Ltd.

Chrysler Cars

MADRAS (& Branches)—Addison & Co., Ltd.

Daimler and Lanchester Cars

MADRAS (& Branches)—Addison & Co., Ltd.

De Soto Cars

MADRAS (& Branches)—Addison & Co., Ltd.

Dodge Cars and Trucks

MADRAS (& Branches)—Addison & Co., Ltd.

Ford Cars and Trucks

MADRAS—Gordon Woodroffe (Motors) Ltd.

Hudson 112

MADRAS—B. R. Motors, Mount Road.

M. G. Cars

MADRAS (& Branches)—Addison & Co., Ltd.

Morris Cars

MADRAS (& Branches)—Addison & Co., Ltd.

Oldsmobile Cars

COIMBATORE—United Motors (Coimbatore) Ltd.

Opel Cars

COIMBATORE—United Motors (Coimbatore) Ltd.

MADURA (& Branches)—T. V. Sundram Iyengar & Sons Ltd

Plymouth Cars

MADRAS (& Branches)—Addison & Co., Ltd.

Pontiac Cars

MADRAS (& Branches)—Simpson & Co., Ltd.

MADURA (& Branches)—T. V. Sundram Iyengar & Sons Ltd

Triumph Motor Cycles

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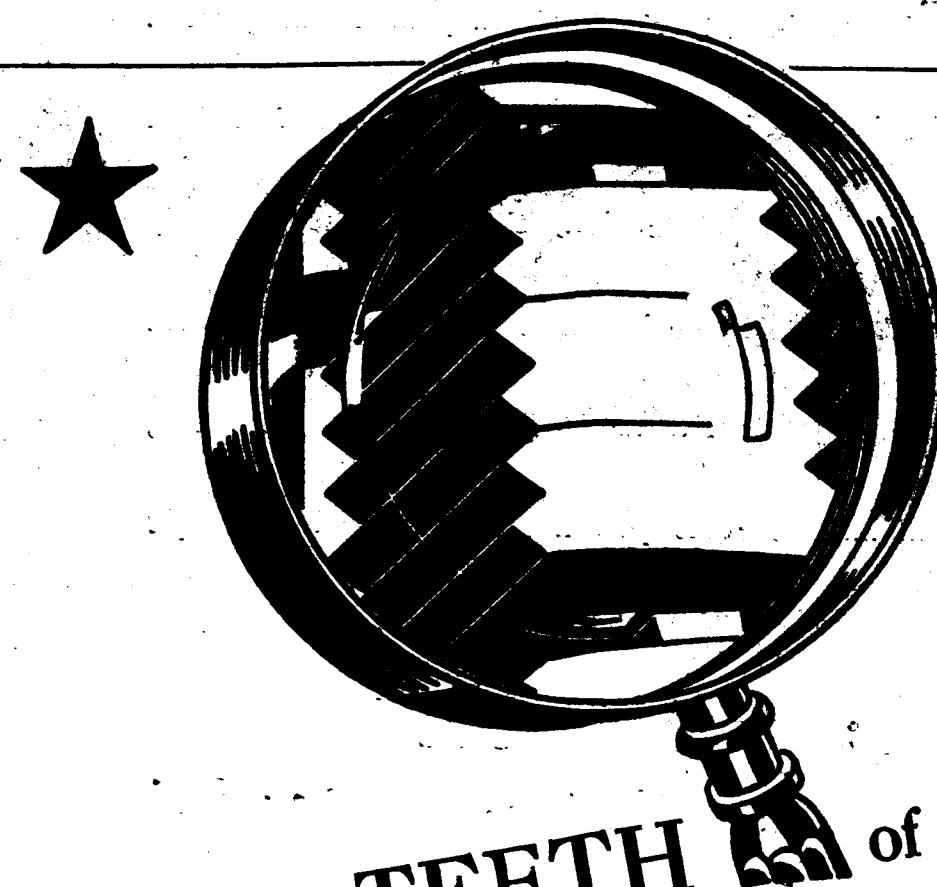
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DECEMBER 1939



Official Organ of THE AUTOMOBILE ASSOCIATION OF SOUTHERN INDIA



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THE SOUTH INDIA MOTOR OWNER



The Official Organ of the
Automobile Association of Southern India

Vol. XI, Number 12]

DECEMBER 1939

[Single Copy As. 8

Secretary's Notes and News

All Members are entitled to a copy of this Magazine every month after their names have appeared in the monthly list of New Members Elected. Any member who does not receive his or her copy regularly is requested to inform the Secretary immediately.

Road Information

THE North-East Monsoon which had been capricious in its early stages, showed what it could do towards the end of October and the beginning of November. The Northern Trunk Road has been severely damaged in West Godavery District, and in Nellore from Kovur to Kavali. No repairs were possible till the floods subsided, and roads in these parts will not be pleasant for travel for some time, though they are not impassable.

The Causeways on the Southern Trunk Road and at Ranipet have been ringing the changes on "Fordable" and "Unfordable" so rapidly that it was difficult to keep up with their vagaries, though it is true they were not unfordable for many days at a time. The blessings of the Ponnai Bridge were very real this monsoon, as it eliminated the unpleasant Rice Causeway, which now becomes a thing of the past as far as motorists are concerned. However the intelligence system regarding these trouble spots worked quite well, and we were able to answer queries promptly and accurately.

The Executive Engineer, Coorg Division, Mercara, intimates that the road to Cannanore from Anechowkur on the Coorg-Mysore Frontier, to Periyambade is in good condition for motor traffic and all bridges and culverts in that section

are safe, and none of them is under repair.

This is the direct route through Gonicoppal to Tellicherry and Cannanore, and avoids the route through Pollibetta and Virajapet.

Itineraries

The Secretary has now covered 1,600 miles of road personally since taking charge, and has made notes on the routes. Several routes have been covered more than once. An improvement which is being made gradually in Itineraries is to note the actual milestones at places mentioned in the Itineraries. Formerly the latter gave the distance between places, and the rising aggregate of mileage as regards the section in question. This, of course, is useful and interesting, but entails consultation of, and calculations from the speedometer reading which are a nuisance, and not always possible for the owner driver who is otherwise occupied negotiating traffic on a tricky road. Whereas if the Itinerary shows, for instance, a sharp bend at Mile 50 and so, it is easy to look out for the nearest milestone, and be prepared for whatever there is.

Owing to the changing systems of marking milestones commented on in a previous issue, milestones alone do not necessarily show how a journey is progressing, but a reference to individual milestones undoubtedly is a better guide

to the road conditions for which the motorist has to be on the alert.

The Honorary District Representative for South Nellore has sent in a succinct report on the road from Madras to Nellore which will be found elsewhere in this issue. It would be real help if other members would follow this example, and send us in more road information.

Touring Department

During October, 96 routes were issued, covering 42,250 miles.

The Sigur Ghat

The Marinhalli Bridge at mile 15.2 is still uncompleted. The present diversion is impassable during bad weather owing to the steep descents and mud to which may be added water in the river bed. The old bridge was removed last January, and the new one was only half completed by June, since when nothing appears to have been done. The District Board Engineer has been addressed, and says the bridge will be ready by January next. Meanwhile motorists are advised not to use this route during wet weather, but to go round by Gudalur in spite of the extra distance.

Alcohol-Petrol Mixture in Mysore State,

The Act enforcing the admixture of a 15% proportion of alcohol with

Petrol has led to some perturbation amongst motorists affected. An article on these mixtures is published in this issue for the information of motorists generally. A communication from a Correspondent to the 'Daily Post', Bangalore, is also reproduced verbatim as a matter of interest. The contentions therein do not agree entirely with our article. Perhaps these very discrepancies will start the ball of controversy rolling, and provide final elucidation of any difficulties. There has been a greater demand for straight Petrol in Bangalore C. & M. Station from motorists who otherwise would be forced to use the mixture sold in Bangalore City.

It is hoped that members will give us the result of their experiments with the admixture, and any hints and tips as to adjustments required to overcome its drawbacks and to take the best of its advantages.

Signposts

A number of defective signposts have been noted by the Secretary in the course of his travels. Such defects have been brought to the notice of the District Board Engineers concerned. The concrete signposts erected in many Municipalities cannot be called a complete success. There are evidently brittle the arms not being reinforced—with the result that many direction arms are missing,—whether by accident or wantonness it is difficult to say. Their visibility again is not good. The natural concrete colour is too neutral to stand out against any ordinary background, or to afford sufficient contrast to throw up the lettering. Perhaps a colouring admixture to the concrete would solve the problem, and still save painting. The idea is recommended to the consideration of those concerned. The concrete sign, it is true, does not offer the same temptation for fuel purposes as a wooden one, nor does it present such an attractive mark as an enamelled sign to the small boy who has only too much loose road metal at hand by way of ammunition. (Incidentally it would be a matter of interest on some roads to know the proportionate time road metal spends piled or scattered by the side of the road as compared with that during which it is incorporated in a road surface!) Apart from durability the chief defect is that it is not sufficiently conspicuous, hence the suggestion of coloured concrete in bands up the upright if possible, and certainly visible colouring on the arms.

Though the main roads may be reasonably signposted many lesser municipalities and towns are woefully lacking in these travellers' guides. Letters have been sent last month to several of the authorities concerned on the varied types of signposting defects. We should welcome earlier information on this point from members to enable the Association to take up the matter more generally.

Mr. L. J. Dee, our Hon. District Representative at Ernakulam, is meeting the local authorities in Trichur and Ernakulam, and we expect before long to have A.A. signs to assist motorists to find the main route through those towns.

The Municipal Engineer, Trichinopoly, has been supplied with 14 A.A. signs with the same object, which should be erected shortly. These will supply a long-felt want, as Trichy is a horrid place to traverse for those unused to it.

Six A.A. signs have been erected already in Madura, thanks to the Hon. Secretaries of that Branch.

Constructive co-operation from touring Members will be of assistance. The local inhabitant, with the usual contempt bred of familiarity, does not always appreciate the difficulties of the stranger.

Garages and Repair Shops

A list of Garages and Repair Shops in all bigger towns is being compiled for the information of members, and for publication in this magazine. Hon. District Representatives have been asked to supply the information required classifying such Garages and Repair Shops under different categories according to their capabilities and appliances. As soon as the returns come in, they will be published.

Notes and News from Nellore

The following notes have been received from Mr. W. J. U. Turnbull, our Hon. District Representative of Nellore, which will be of interest to readers:—

Road Report

North Trunk Road to Mile 106

From Madras to mile 13.—Experimental concrete, Mexpalte, etc.

Condition good. Slippery if wet.

Mile 13 to mile 33.—Laterite.

Condition very bad.—Pot-holes, which, after rain, are full of liquid mud and necessitate continual use of the wind-screen wiper. This portion of the road lies in Chingleput District and is a dis-

grace to the authorities responsible for its upkeep. Piles of metal have been lying by the roadside for months but no repair work is being done except about mile 32.

Mile 33 to mile 50.—(Sulurpet) Laterite and Gravel.

Condition bad, but repair work in hand.

Mile 50 to mile 84.—(Gudur) Gravel.

Condition fair but some corrugations and pot-holes. Re-surfacing is proceeding in several places.

Mile 84 to mile 105.—(Nellore Town limit) Gravel.

Condition bad, but repairs in hand.

Notes.—North Trunk Road, Madras to Nellore.

A short causeway between miles 85 and 86, just North of Gudur, is occasionally impassable during heavy rain, usually only for a few hours at a time. There is a good Traveller's Bungalow (in charge of the P.W.D.) at Gudur, and European and Indian Refreshment Rooms at the Rly. Station. There are also facilities for railing cars.

Any members held up at Gudur are invited to get into touch with our Hon. Dist. Representative, Mr. W. J. U. Turnbull, at the 'Mica Bungalow', about one mile from the station.

In Nellore Town motorists going towards Bezvada should turn left at the second sign-post marked BEZWADA. The first post indicates a road leading through the main bazaar. The Authorities are being approached with a view to removing the misleading sign.

Petrol Supplies.—There is a petrol pump in the village near the Red Hills—about mile 12. The next supplies (tin) available are in Gudur (mile 84) on the west of the road after passing the main bazaar. Supplies can usually be obtained also at Nayudupet—mile 66—but the depot is off the main road in a very narrow and crowded bazaar.

There are several pumps in Nellore Town, all on the Trunk Road.

A. F. I. Members in C. & M. Station.

Exemption from Motor Vehicles Tax

A. F. I. members in Bangalore C. & M. Station will be glad to hear that they are exempted from payment of the tax under Section 34, Appendix 1

of the A. F. I. Act, 1928. Applications for the issue of free licences in such cases are received through the Commandant, A. F. I., Bangalore.

If the tax has been paid for the period to which a member is entitled to exemption, the amount of the tax paid will be refunded.

The Hon. Secretary, Bangalore Branch, will be glad to assist members of the A. A. S. I. in making their applications for recovery.

Members of the A. F. I., Coorg, are similarly exempted, and this Association

Chassis Number, Engine Number etc., have to be entered in the passes for easy identification of the vehicles. Considerable difficulty is felt by Land Customs Officers in locating these numbers, as in many vehicles, they are covered with oil and rust. They have therefore to rely on the declaration of the owners and drivers who are also not always able to give correct particulars, nor are they able to locate the engine and chassis Numbers. As a result, wrong particulars are entered in the passes and when the vehicles covered by such passes recross the frontier, the discrepancies are

production of the "C" certificate was obligatory, but this was not the intention and the order merely meant that the "C" certificate should be referred to for verification if it was being carried by the owner. It is now being made clear to the Land Customs staff that the non-production of the certificate does not alone justify withholding a Customs permit and I hope that no future inconvenience on this account will be caused to any member of the Association."

Petrol-Alcohol Mixtures

The Mysore Power Alcohol Act of 1939 has made obligatory an admixture

IMPORTANT

Quarterly Licences and Tax

Members are reminded that the quarterly tax is due for payment by the end of December.

In the case of persons in possession of a full current quarter's licence **THERE IS NO OBJECTION TO THEIR OBTAINING THE NEW LICENCE AS EARLY THIS MONTH AS POSSIBLE.** The earlier licences are procured the less congestion and delay is caused. The reason for delays complained of in obtaining licences is that most applications are not put in till after the end of the quarter during the "days of grace." The consequent last minute rush is more than the Taxation staff can cope with expeditiously even with the best will in the world.

Licences can be issued during the Xmas Holidays. Do not leave it till then. Holiday time is a forgetful time.

Therefore Members are advised to send in their Registration Certificates with the required taxation amount **WITHOUT DELAY** to the A.A.S.I., and obtain their licences in good time.

New registrations for cars not registered for the latter part of the current quarter can be issued on the last day of the quarter and not beforehand.

is now examining the question as to whether exemption should be claimed for members of the A. F. I. in Mysore State.

Customs Passes for Motor Vehicles

The Headquarters Assistant to the Collector of Salt Revenue, Madras, writes:—

"I have the honour to refer to your letter No. 3245, dated 18th October 1939.

When Customs passes are issued for motor vehicles passing the Land Frontier, certain particulars, for example, the

noticed and the vehicles are detained. In this way the Department and the owners are put to unnecessary trouble and much time is lost to both in consequence. To avoid these difficulties, the Assistant Commissioner of Salt Revenue, Pondicherry Frontier, has issued a circular to all Chauki and Outgate Officers to avoid these discrepancies by a more careful examination of the engine and chassis and also by a reference to the "C" certificate which contains these particulars. Unfortunately the Outgate Officer read this as meaning that the

of 15% alcohol with the petrol sold in the Bangalore and Tumkur Districts of Mysore State. This includes a portion of the Bombay-Bangalore Trunk to a point just beyond Hiriya about 90 miles from Bangalore C. & M. Station. The C. & M. Station is not affected.

Sundry complaints and comments have been received as a result of enforced utilisation of this mixture. The chief complaints are: Difficulty in Starting, Poor Acceleration, Decreased Mileage, and Engine Stoppages. The A.A. Foreign

Tourists Guide for 1936-37 has also been quoted, viz., "In France, by Government decree, practically all petrol contains a minimum of 10% dehydrated alcohol, a mixture which does not suit all types of British cars". There is thus a feeling of uneasiness amongst affected motorists unused to this admixture. The following brief information about these dehydrated alcohol mixtures and their properties should be of interest and assistance:—

Constituents and Source

The alcohol which is ordinarily used for mixture with petrol is Ethyl Alcohol (Ethanol or Grain alcohol—chemical formula C_2H_5OH). This is produced by the fermentation of solutions of sugar and water, the raw materials used being chiefly molasses or agricultural raw materials such as potatoes, beet, grapes, cereals, etc., etc. Molasses is the main source of industrial alcohol, especially in this country, owing to the large quantities of molasses produced by the Sugar Industry.

The Fuel Properties of Ethyl Alcohol

The first salient point with regard to the fuel properties of Ethyl Alcohol as compared with Petrol lies in the difference in calorific value. The following figures are in calories per gram nett:

Ethyl Alcohol 100% purity	6,360
Petrol	10,500 (about)

Either on a volume or weight basis Petrol is decidedly superior in calorific value; consequently a greater quantity of Alcohol is required to produce the same power output as any given quantity of straight Petrol.

Another point to be noted is that owing to the high latent heat of vapourization of Ethyl Alcohol as compared with Petrol (the former approximately 205 calories per gram as against 75 calories per gram for the latter) a greater quantity of heat is absorbed in vaporizing the fuel, resulting in a cooler fuel air intake to the engine. Since cool gases are denser than warm ones, one consequence of this is that a larger charge of fuel can be drawn into the cylinder and a greater power output can be obtained although, of course, with a correspondingly greater fuel consumption. In other words, some super-charging effect is obtained, and for this reason fuels containing high percentages of Alcohol are in demand for

racing, for which purpose fuel consumption is immaterial.

The extent of the increased consumption required for equivalent power may be indicated by the fact that there is a 40% higher consumption of pure Ethyl Alcohol for any given power output when each fuel is used at the compression ratio best suited for it. As will be noted below, however, this is not an important factor when blends containing a comparatively small percentage of power alcohol are considered.

Advantages

The advantage of Alcohol as compared with straight Petrol is that Alcohol has a very good anti-knock value. Petrol-Alcohol blends consequently show an improvement in anti-knock properties. Where, however, a good straight Petrol is available, this is really of no practical advantage to the average car owner, though it is, of course, to the few owners of sports or racing cars with high compression ratios.

Disadvantages

The disadvantage of Alcohol from the point of view of consumption and performance arising out of its low calorific value already mentioned, and from the fact that, if the best performance is to be obtained with a mixture containing a high percentage of

power alcohol, special engine adjustments are necessary, leads in practice to the amount of alcohol in Petrol-Alcohol mixtures being limited to a maximum of about 20%, which is regarded as the highest proportion which can be maintained without the technical objections being of more than relatively minor importance to the average motorist. The effect of changing over to an Alcohol-Petrol blend largely depends on the carburettor adjustment and the spark setting of the car. Most cars are turned out by the manufacturers to give maximum performance (power output) on straight Petrol. The mixture thus tends to be on the rich side, while a leaner mixture will usually be given by an Alcohol-Petrol blend. An improvement in consumption may thus result at the expense of power output and acceleration. As already noted, for blends up to, in some cases, as much as 20% alcohol content, little or no difference will be detected by the average motorist in comparison with Petrol. Where, however, the engine is adjusted to give the same performance on the Alcohol blend as with pure Petrol, the same power and acceleration can only be obtained at the expense of 3% to 4% in volume greater fuel consumption for each 10% of alcohol contained in the blend. This, naturally, is the direct result of the lower energy value of the alcohol.

Driving Licence Reminder Form

The Secretary,
Automobile Association of Southern India,
Box No. 304,
200, Mount Road, Madras.

Name of Member.....
Membership No.....
Full Postal Address.....
.....
Dated.....19 ..
My Driving Licence No.....
dated.....issued by.....
Expires on..... Will you kindly record this for your reminder service.

Signature.....

N.B.—It is important that every change of address be promptly communicated.

A practical difficulty arises in the case of blends containing low proportions of Alcohol, which blends, as already noted, are the only ones suitable for supply to the ordinary motoring public, is that the Alcohol will separate if comparatively small quantities of water are introduced into the mixture. For such mixtures to be possible at all, it is necessary for the Alcohol to be 99.5% anhydrous: such alcohol can only be produced if special dehydrating plant is provided at the factory. Owing to this tendency to separation, fairly stringent precautions have to be taken in handling and distributing the Alcohol and the mixture, and care has to be taken by motorists to see that no water gets into fuel tanks.

The high latent heat of alcohol has already been mentioned. This, and the fact that Ethyl Alcohol boils at 78°C while lacking the volatile actions present in ordinary Petrol, tends to impair startability and prolongs the warming up period, though this feature is not noticeable with not more than 15% to alcohol present. This lack of light fractions, i.e., fractions boiling below 75°C, combined with the high latent heat of Alcohol also tends to deprive Alcohol fuels of liveliness of pick-up necessary for good acceleration when the engine is cold. However with limited proportions of Alcohol in the blend, and in warm climates this aspect is not of great importance.

Experiments have shown that with a blend containing 10% Ethyl Alcohol vapour lock is liable to occur at about 10°F. lower air temperature than when pure Petrol is used in the same car.

Alcohol and Alcohol blends have certain deleterious effects of a corrosive nature.

On changing over from ordinary Petrol to a blend, inconvenience is likely to be caused at first by the scouring action of the Alcohol, which will remove any accumulated rust or scale from the tank and lead to choking of pipes and filters. Once this works itself out, however, it will not recur.

Alcohol blends also attack zinc coated or galvanized tanks, or fuel pumps and carburettors containing high percentages of zinc, but generally nowadays, thanks to the adoption of corrosive resisting alloys by manufacturers, problems of this nature seldom arise.

Alcohol has powerful solvent effects, and a lacquer capable of withstanding

its action has still to be developed. Hence constant care is required to avoid splashing Alcohol fuels on car coach work.

Some claim that Alcohol-Gasoline mixtures have a decarbonising effect on the engine, but practical experiments lead to the conclusion that this assertion is without foundation.

General

The general conclusions are, therefore, that with a comparatively small admixture of dehydrated alcohol, such as 15%, an Alcohol-Petrol mixture should not cause an appreciable increase in consumption, but that the same power and acceleration would entail a slightly higher fuel consumption, but this should not amount to anything serious.

With the above proportions, the mixture may affect starting in some engines, but this defect should not be serious in this climate. Some slight adjustments to carburettor and spark should overcome the difficulty.

Scale from the tank may cause engine stoppages when the change to the mixture is first made, but this defect should vanish in time and ought not to recur.

The subject of comparative price is purposely not discussed, as there are many complications which affect this.

Up to date the Alcohol-Petrol mixture has not had an extensive or prolonged trial. Experiences will be interesting, and members are invited to give us the fruit of their experiences.

Petrol-Alcohol Mixtures for Motor Cars

Mysore Government First to Introduce it in India

(From a Correspondent of the "Daily Post," Bangalore).

The Government of His Highness the Maharaja of Mysore are to be congratulated upon for having been the first to introduce power alcohol in the form of petrol-alcohol mixtures in India.

The advantages of using petrol-alcohol mixtures in motor cars are:—

(1) Addition of a certain amount of alcohol to petrol brings about more complete combustion of the air and fuel vapour mixture and increases the efficiency of cylinders with higher compression ratio,

and decreases the power obtainable from leaky cylinders. There is less deposition of carbon owing to complete combustion.

- (2) Alcohol prevents knocking of the engine due to prevention of ignition. 10 to 20 per cent. of alcohol by volume are equivalent to about 1 to 2 c.c. of tetraethyllead per gallon regarding the anti-knock effect.
- (3) There should be no difficulty in starting in a tropical country like India even in winter.
- (4) The Power output, thermal efficiency and heat loss to the cooling water do not change appreciably with addition of alcohol.
- (5) Addition of alcohol permits the use of optimum spark advance.
- (6) On the Highway the fuel consumption will be 7 per cent more if the air fuel ratios are kept the same as with petrol. With optimum air-fuel ratios, only a 3 per cent decrease in fuel consumption should be obtained.
- (7) The formation of carbon monoxide is the same as in the case of petrol.
- (8) With less than 10 per cent. of alcohol, there is no necessity to adjust the carburettor for satisfactory practical operation.
- (9) The mixture shows a favourable advantage and slightly greater power output over petrol at low speeds and at part throttle of the engine.

On the other hand the disadvantages are:—

- (1) The separation of alcohol occurs when 0.4 per cent of water is added to a 15 per cent mixture of alcohol and petrol. This is serious because anhydrous alcohol used for blending absorbs water from the atmosphere and there is always some water practically in all tanks coming from air on damp days. This difficulty could be got over by taking precautions with the tank covers.
- (2) Another difficulty with alcohol petrol mixtures lies in the increased solvent action on those parts of the carburettor where carelessly made shellac joints are used. This results invariably in choking

up the carburettor by the loosened bits when the fuel is first used. There should be no difficulty once all the exposed joints are washed away.

- (3) When the carburettor is adjusted to give the same mileage as that of pure petrol, the acceleration is poorer.
- (4) The increased solvent action also creates some difficulties with the hose and the diaphragm of the fuel pump.

The attention of the public is drawn to these peculiar properties of alcohol-petrol mixtures so that they may be able to overcome the various difficulties attendant on its uses.

Occupation of P. W. D. Bungalows

Members, who are liable to register under the Registration of Foreigners Rules 1939, are reminded that, under Rule 14, they must enter the particulars required for the completion of Form C, for which purpose a special register is maintained in all P.W.D. Bungalows. This register is in addition to the register ordinarily produced by the Bungalow attendant.

Road Signs in U.S.A.

"Leonian" writes in *Indian Trade*:—Motorists the world over appear to be made of more or less same stuff. For example read the road signs picked up at random from roadsides in U. S. A. and see if they do not deserve to be implanted on our roadsides with no less appropriateness.

Road Signs in U. S. A.

If you drink don't drive.
If you drive don't drink.
Carefully drive to arrive alive.
Children should be seen and not hurt.
The car has no head—use yours.
Drive carefully—Death is permanent.
Death and fools are close pals.
Expect the unexpected when you drive.
This is highway not speedway.

A Denial

It is not true that R. A. F. bombers, pending the arrival of a raider, are to be utilised to drop A.A.S.I. leaflets.

Post Bags

C. P. A. No. 1 was of immense help to me till 12 noon today.

Many thanks for yours of 8th instant with enclosures as stated—the itinerary is just what I require.

I am obliged to you for truly reminding me about renewing my driver's licence which would have escaped my notice if the reminder had not been sent by your office.

I am much obliged for the full and helpful information given.

I have to thank you for the courteous and prompt manner in which you have sent me the route itinerary.

Publications Received

"The Indian Radio Review" published at 14j Building, Hornby Road, Fort, Bombay.

"An independent journal dealing with Radio technique, Programmes, Criticism and Review of Radio Sets."

Hints and Tips

From The "Record" A.A. of Ceylon

Driving in Thunderstorms

Persons inside a saloon car are not exposed to danger during a thunderstorm on account of the "Faraday Cage" effect of the body and chassis. It is, however, advisable to reduce the speed of the car, especially when driving in flat country, since, if a trail of rarefied air is created in the rear of the car, any electric discharge is attracted to it. The windows on the side of the car from which the wind is blowing should be closed, as lightning strokes have a way of following draughts.

Drivers who wish to seek shelter during a thunderstorm should pull up on the leeward side of a building.

Cement and Soil for Low Cost Road Surfaces

Thousands of miles may be added to the country's hard-surfaced road system at low cost by a method of mixing concrete with surface soil, according

to reports given by the American Road Builders' Association. The soil is first tested to determine the amount of Portland cement to be added for hardness and durability; then the ground is dug up with a tilling machine to a depth of four inches. Cement is spread over the loose soil and mixed thoroughly by the tiller. After water is added to make a moist mixture, the road surface is finished by levelling, rolling and a few days of drying.

Grease on Spark-Plug Insulators Causes Motor to "Miss"

If your motor misfires badly when first started during exceptionally damp weather the trouble is probably caused by dirt and grease on the surface of the spark plugs. This grime collects moisture from the air and allows the plug to short circuit across the porcelain insulator. Usually such trouble can be avoided by keeping the porcelain clean.

Audible Check for Short Circuits Better Than Sight

Connected into the ground cable between the frame and battery a door buzzer is handy to check wiring for a short circuit as it will sound when the "short" occurs. To make the check, remove all lamps in the car and insulate the distributor points by slipping a piece of heavy paper between them. Then turn on all switches and go over the wiring, moving it from side to side and back and forth especially where it passes over or through metal objects.

War Conditions in Factories

Extracts from the "Specialloid Bulletin" give some idea of the effects of the War, and the readjustments necessary.

War

After all that has been done to avoid it, war has come and we have now to adjust ourselves to new conditions. We, in the Specialloid Factory, are well on the way to the necessary adjustments—we have our dug-outs, our sandbags and our full complement of Wardens, Firemen, etc. Whatever happens Specialloid are ready, war or peace—business will carry on.

Maintaining Supplies

Every possible effort will be made to maintain supplies to our Distributors and other customers. In some cases, delays are inevitable and price increases must be looked for with the increasing costs,

taxes, etc. Full details about service and prices will be supplied to our Distributing Organisation and other customers in the course of a few days but, meanwhile, we wish to give our assurance, while contributing fully to the requirements of the Government, we will at the same time endeavour to maintain adequate service; please help us by ordering well in advance of requirements.

Specialloid Extensions

New extensions taking place are a little unorthodox, although quite in keeping with modern ideas, namely burrowing into the ground and constructing Air Raid Shelters. These are complete with telephones, air-conditioning equipment, electric light, etc. and delight in the dis-

tinguished names of 'Mexico Way', 'Lambeth Walk', 'Berchtesgaden' and 'Booms-a-Daisy'. The progress Department, which has been covered into an interior shelter, reinforced and fully sandbagged (necessitating the use of artificial light during the day) glories in the appropriate name of 'Sunshine Corner'. Mr. Baldock, our Despatch Manager, has been crowned the 'Specialloid Sandbag King'.

Labour Wanted

Expansion of output necessitated by the outbreak of war has involved considerable increases in our Factory personnel to maintain, at the maximum output, our 24-hour working day. Practically the

whole of this extra labour is already engaged but we are still wanting a few core-makers; improvers and permanent mould casters for aluminium. If any of our friends, disposing of such labour at the present time, will put their men in touch with us we shall be obliged.

Packing Cases

The delays involved by the War service of trains sometimes causes a hold-up in the return of empty cases. The co-operation of all is most earnestly requested for the prompt return of cases so as to ensure our stock is fully maintained. Our Despatch Department have been asked to reciprocate in the fullest measure in this direction and to return all cases to our suppliers immediately.



Comes now the World's first "Glass" Car, making its appearance at the New York World's Fair. It is a Pontiac Six with a transparent body by Fisher. Fenders, Hood, Radiator and all of the door and body panels ordinarily made of sheet steel were made from a new glass-like plastic for this car. Windows raise and lower; doors open and close, while the Pontiac engine and the rigid interior bracing of the unisteel terret-top Fisher Body are revealed in every detail. The car can be driven and if it is ever taken out, doubtless it will create a stir even in blase New York.

Branch Notes

BANGALORE

By Major A. W. Waters, M.B.E. (Rtd.),
Hony. Secretary, Bangalore Branch,
A. A. S. I.

Office and Routine Matters

A VERY busy month as the figures below will show.

A larger number of visitors called at the Office and this number would have been greater had it not been for our Scouts contacting members when on their morning rounds to the Hotels, Clubs, etc.

The Office rarely closed before 6 p.m.

On five occasions it varied between 6-10 and 7 p.m.

The Office opened on two Sundays to supply urgent information to visiting members.

Correspondence etc. reached peak point in the history of this office.

Letters received from all sources were	227
Letters etc. despatched:—	
To The Secretary	155
Out Station	42
Local	174
TOTAL	371

(48 over September.)

Licences

Station 11; Mysore 8; Madras 9;

Total 28.

Driving Licences 6.

Itineraries

15 with a total mileage of 3,776 miles.

The number of members called at the Office were:—

A.A.S.I. 68; A.A.N.I. 1; W.I.A.A. 11; A.A.B. 4; A.A. Burma 4;

TOTAL 88

Non-Members 6

GRAND TOTAL 94

Badges and Maps

1 Map, 8 Badges and 4 extra fittings were supplied to members.

New Members

A slight improvement, while several members of our 'Sister Associations' have arranged to transfer to us, in the terms of the Eastern Touring Federation, when their current membership expires. It will hardly be believed that I accidentally came across a gentleman who, though a resident of Bangalore and Mysore, had for some 12 years continued to subscribe to an Automobile Association outside South India and knew nothing about the "E. T. F." and, to say the least, the moral claims to his transfer, by this Association in whose area he resides. He did not even know that our services were at his disposal despite his membership elsewhere. He has promised to transfer to us on 31-1-1940. This state of affairs seems to point to a 'moral'.

Scouts

Scout Whymys, and Car Park Attendant Fitzgerald were present throughout the month except that the former, with one Scout from Madras, was away on special duty in Mysore City from the 13th to the 23rd October. Their annual visit to that City seems to increase in popularity with our members judged by their frequent appreciatory references to meeting them everywhere, and of receiving assistance. As usual, they worked in conjunction with the Police whenever required to do so, and which was pretty often. The Car-Parks were their chief concern.

They also submitted road reports of the Bangalore-Mysore road, and others of the various roads between Mysore and the Brindavan Terrace Gardens at the Krishnarajsagar Dam. In consequence of this, the better signposting of some of the latter has been taken up.

Detailed daily reports of the Scouts' work have been submitted. Their conduct has been exemplary. They have taken into use the new pattern 'helmet' which is an improvement on the old blue pattern.

Signposts

A scheme for the better signposting of the roads entering and leaving Bangalore—both in the Station and the City—as also interior ones to help in making ones way out, is being drawn up to submit to the Secretary and subsequently to the authorities concerned. The latter have been approached and the

most cordial co-operation can, I think, be anticipated. I hear of very pucca steel and slab signs already being made for some of the outlying cross roads which will greatly facilitate motorists coming from, or leaving for such places as Bellary, Kurnool, Mysore, Shimoga and Jog Falls, Salem and Bombay.

The scheme will take a little time owing to pressure of work.

Speaking of pressure of work reminds me that a deal of time is taken up by one of our most important items of A.A. activities, namely interviewing members. When members from outstations, many of them hundreds of miles distant and in obscure places like plantations and hills, and who are kind enough to call and furnish us with first-hand information on the roads, ferries etc., and at the same time make contact with an office of their A.A., nothing gives the staff greater pleasure than such visits as also to get to know each other. Then again, when an office like the writer's is situated in a private bungalow and in pleasant surroundings as opposed to one on a public road, it is, I think, more conducive to the combination of business and social talk.

The C. & M. Station Short-Term Licences

It is too early to expect to receive members' suggestions as regards what I said last month about the six days 'grace', or the question of a 7-days licence. I do, however, continue to deal with cases where motorists demur at having to take out a thirty-day one when a seven would have sufficed.

Credit where credit is due

One often hears of the inordinate delays of getting motor tax licences, but this certainly cannot now be said of Bangalore, either in the Station or in the City (Mysore). Both places seem to vie with each other for the best record in these matters. The same promptness, combined with courtesy in respect of driving licences, registration, etc., can also be claimed for Bangalore which, from all I hear, must surpass most other places.

Professional drivers and cleaners

After supplying members with two this month, I still have a few available on my selected list.



can take it!

The rougher the road,
the faster the run, the
tougher the treatment,
the better you can rely
on me . . .



MEMBERSHIP

Forty-five new members were enrolled by the following members from 23rd October, 1939 to 13th November, 1939.

8 by Bangalore Branch of the A. A. S. I.

3 each by Messrs. Govan Bros. and Madras Branch of the A. A. S. I.

2 each by Mr. A. K. Tampi & Messrs. Simpson & General Finance Co., Ltd.

1 each by Messrs. C. A. Godfrey, A. A. Killick, V. Duraiswamy, A. S. M. Sundram, The Ocean Accident & Guarantee Corporation, Dewan Bahadur Govindoss Chathurbhujados, the Hercules Insurance Co., Ltd., the Union Co., Addison & Co., Ltd., Messrs. F. Smethurst, K. Ramaswamy, W. G. Smith, Dr. P. A. Naidu, the Commercial Union Assurance Co., and The Reliance Co.

and the remaining 12 were enrolled by the staff.

The Committee thanks the members who have introduced new members.

NEW MEMBERS

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Champion Reef Post,
K. G. F., Mysore State.

The Indian Roads & Transport Development Association Ltd.

October News Letter

Indian Roads Congress

WE are pleased to be able to publish the following statement sent to us by the Secretary of the Indian Roads Congress:—

The Indian Roads Congress was inaugurated at the instance of the Government of India in the year 1934, as a society for the promotion of the science and art of road making and maintenance by the pooling of accumulated knowledge and experience and by unity in progress. It is now well established as a valuable and authoritative body, with a membership of about 450, of whom about one quarter are usually able to attend the annual meetings, so far held at Delhi, Bangalore, Lucknow, Hyderabad (Deccan) and Calcutta. Besides discussions on valuable technical papers, these meetings afford first-rate opportunities for personal contacts and exchange of views as well as the inspections and study of road works of Engineering interest. Over sixty papers covering such subjects as modern layout, construction and maintenance of roads, soil and other research in relation to roads, traffic statistics, design of submersible and high-level bridges, safe wheel loads, and ribbon development have been discussed at these meetings. Both the papers and discussions are incorporated in the annual proceedings, and these alone are worth the annual subscription to those unable to attend any meeting. The holding of meetings at different centres, however, gives everyone in course of time a reasonable opportunity of attending a meeting.

The Congress has standardized units of weight, measure, and cost to be used in road specifications, estimates and reports; has prescribed standard methods and forms for recording particulars of experiments carried out on roads; has standardized specifications for sizes of stone metal and nomenclature for bituminous materials and types of construction; has laid down standard methods of recording traffic statistics; has been largely instrumental in advising the Government of India to finance (i) the establishment of a Test Track at Government Test House, Alipore, and (ii) a scheme for soil research in connection with earth roads; and, finally, has drawn up and published standard loadings to be adopted

in design with specifications and Codes of Practice for Road Bridges in India. This and other technical publications to be issued in the future are supplied free to all members and new members get old publications at reduced rates. Members can also have advice on all matters connected with roads for the asking and obtain the loan of books from the up-to-date library on road subjects kept by the Government of India (Consulting Engineer, Roads). All this is good value for the ordinary member's subscription of ten rupees a year.

The Congress is flourishing and strong but still wants more members to add to its pool of experience and to benefit thereby. *Good roads are vital to every country. India has much leeway to make up and little money to do it with. Briefly, the aim of the Congress is constantly to strive to improve what may be called the road-rupee ratio. Let no one suppose that because of the war, progress will be halted and bodies like the Congress will be temporarily of less value. It will not abate the need for more and better roads. As in many other things, the primary ingredients of good roads are money and brains. The more you have of the one the less you need of the other. The war unfortunately may mean temporarily even less money*

than before. Few people are so blessed with brains that they will not benefit themselves by contact with other members of their profession. So to those responsible for roads who do not yet belong to us we say—*join the Roads Congress and help to improve the road-rupee ratio.*

Further particulars and forms of application for membership are obtainable from the Secretary, Indian Roads Congress, New Delhi.

Motor Vehicles in Operation on 1st January, 1939

Details very kindly supplied to the Association by the various Provincial and State authorities in regard to the number of motor vehicles in operation in India on 1st January 1939, show marked increases in the number of vehicles in use in most of the Provinces, over those in use a year ago. Bombay Presidency records the highest increase, with over 3,800 new vehicles on the road, which is followed by Bengal with an addition of more than 2,000 vehicles. The Punjab records an increase of 1,000 vehicles and Assam of 800, while many other provinces follow with increases in a less marked degree. One prominent feature in the steady increase in goods lorries, recorded in almost all cases.

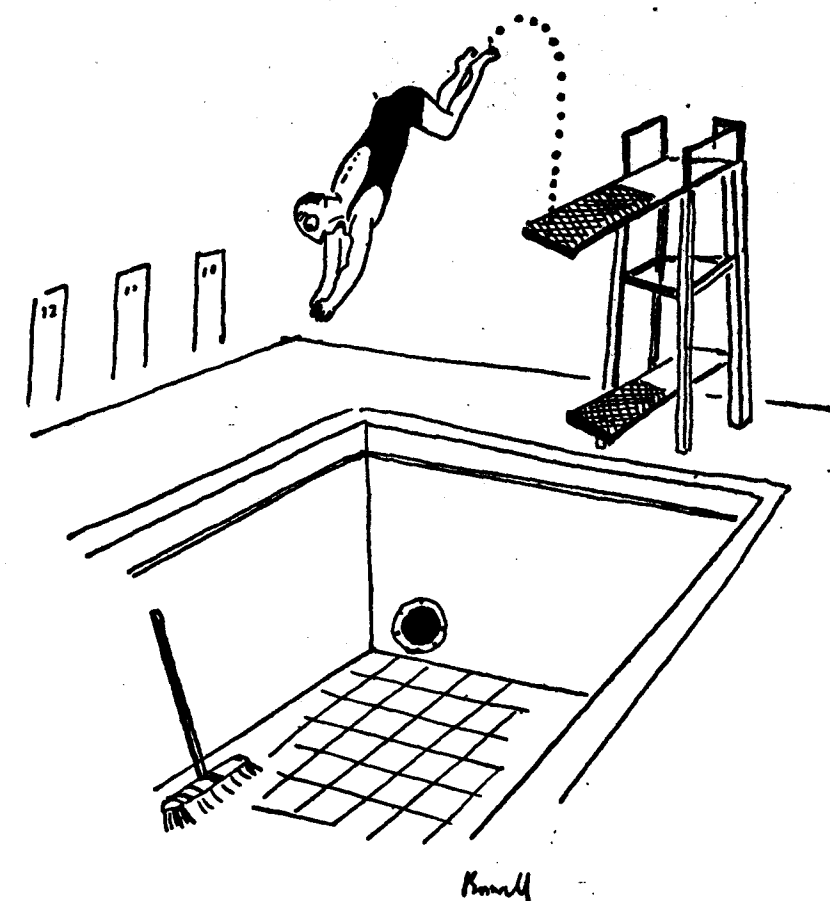
Statement showing motor vehicles in operation in India on 1st January, 1939.

Province	Private Cars	Taxis	Buses	Lorries	Motor Cycles	Total
Bombay	19,551	*	5,575	4,772	1,838	31,736
Bengal	19,990	2,129	1,725	3,376	1,155	28,375
Madras	14,008	367	4,119	1,747	1,319	21,560
United Provinces	12,945	431	2,730	194	919	17,119
Punjab	5,713	406	2,054	3,966	811	12,950
Bihar	4,962	407	645	504	549	7,067
Central Provinces	4,028	*	1,742	†	737	6,507
Assam	3,078	238	846	1,226	209	5,597
Sind	3,147	*	616	332	418	4,513
N. W. F. P. (Estimated)	2,132	125	732	760	360	4,109
Delhi	1,481	120	270	215	388	2,474
Orissa	690	*	286	100	105	1,181
Ajmer-Merwara	660	7	148	40	82	937
Coorg	92	10	35	26	8	171
Total British India	92,477	4,240	21,523	17,158	8,898	144,296

* Included in buses.

† Light lorries included in cars.

SOMETHING COMING TO HIM!



Some people meet trouble half-way. Others (including, alas, too many motorists) never think of trouble until they are up to their necks in it. Off they blithely go on a long motor jaunt, all dressed up, with somewhere quite definite to go, but they just don't arrive.

Why? Because what with dressing up, and packing up, and filling up, they quite forgot to enquire what they were filling up with. And if it was the wrong sort of oil that went into the crank case, that doesn't worry them—oh no, not till the engine conks out on them, leaving them hopelessly stuck on the road.

Don't let that happen to you—cure trouble by preventing it, and buy—

SHELL MOTOR OILS

BURMAH-SHELL OIL STORAGE & DISTRIBUTING CO. OF INDIA LIMITED.
(INCORPORATED IN ENGLAND)

Agents:

Statement showing motor vehicles in operation in India on 1st January, 1939—Contd.

Province	Private Cars	Taxis	Buses	Lorries	Motor Cycles	Total
STATES—						
Hyderabad	5,908	669	388	750	517	8,232
Mysore	3,238	90	585	375	468	4,756
Travancore	1,583	179	1,081	454	603	3,900
Gwalior	1,216	274	623	19	68	2,200
Holkar	1,379	14	195	48	59	1,695
Patiala	1,254	58	165	(In buses)	116	1,593
Jaipur	776	76	341	23	30	1,246
Baroda	566	47	479	129	15	1,236
Jodhpur	580	6	68	122	53	829
Cochin	450	80	195	30	50	805
Kolhapur	228		309	61	11	609
Pudukkottai	419	7	103	11	5	545
Bhopal	383	51	77		22	533
Bikaner	348	58	4	56	19	485
Udaipur	173	13	62	10	14	272
Bhavnagar	191	22	19	27	9	268
Sawantwadi	17	123	129			269
Rewa	107	20	94	12	16	249
Gondal	89	87	31	17	19	243
Rajpipla	168	11	16	10	4	209
Rampur	160		27	17	1	205
Rajkot	85	98	7		9	199
Tonk	98	10	10	33	2	153
Porbander	47	39	30	9		125
Alwar	65	5	36	9	3	118
Kapurthala	42	62		1	4	109
Dholpur	56		25	4	7	92
Bundi	52		26	10	2	90
Bahawalpur	63		10	1	11	85
Keonjhar	40		9	31		80
Banswara	41	10	4	2	1	58
Khairpur	26	13	17		3	59
Other States (Estimated)	850	75	200	120	100	1,345
Grand Total, All-India	113,175	6,437	26,888	19,549	11,139	177,188
Burma	13,875	(In cars)	4,330	3,004	1,101	22,310

† Includes 4,435 vehicles not re-registered, but presumed to be in use.

Timber Bridge Opened Near Alleppey

Claimed to be the first of its type in the world, the bridge over the Thottapalli Canal near Alleppey which is constructed entirely from treated timber was opened by the Dewan of Travancore on October 15th.

The Director of Development, Travancore, claimed that it afforded, in the present stage of knowledge, the best solution for inexpensive but efficient construction of highway and foot bridges of spans up to 150 feet.

It was not only of a pioneer type but was also a monument to the invincible faith in science of the Travancore Government and their readiness to experiment with new ideas.

November News Letter Roads and the War

IN the conditions obtaining during the war, the I.R.T.D.A. has a great task ahead of it if the road system of India, already deteriorating in many parts, is not to suffer a set-back from which it will be extremely difficult to recover.

The present deplorable condition of roads in certain parts of the country has been caused by the diminished expenditure on road maintenance during periods of economic depression combined with the unfortunate fact that, while motor traffic on the roads continued to increase, the additional revenue derived therefrom was mostly appropriated for the general revenues and was not allotted to the roads for their improvement so as to accommodate the increased traffic.

The maintenance of roads in the highest possible state of repair is important not only because the efficiency and safety of road transport depend upon it but also because their neglect, as has been pointed out by the Chief Engineer of the United Provinces in his report referred to elsewhere in this News Letter, would lead to the deterioration of foundations and a wholesale destruction of the road fabric, necessitating their reconstruction at a greatly increased cost.

It is false economy to try to save money by reducing road maintenance costs—a point which unfortunately is insufficiently appreciated by many of the authorities responsible for the allocation of money for roads. It is clear therefore that the war, as far as this Association is concerned, does not involve any slackening of activities, but, as a non-official organization working for the improvement of roads and road transport, it will be the duty of the Association to work to bring about due appreciation by the authorities concerned of the fact that road transport and road maintenance are entities which transcend the vicissitudes of war.

The Secretary of the Indian Roads Congress, as reported in the October News Letter, has stated that "Good roads are vital to every country. India has much leeway to make up and little money to do it with. . . . Let no one suppose that because of the war, progress will be halted and bodies like the Congress will be temporarily of less value. It will not abate the need for more and better roads."

So, just as the Indian Roads Congress is aiming to improve what may be called the Road-Rupee ratio, it is up to the I.R.T.D.A. to see that the Rupees are forthcoming during the war. The Association will need to bring the strongest possible unofficial influence to bear upon the authorities to provide adequate funds for both road maintenance and construction.

Inadequate Expenditure on Road Maintenance in the United Provinces

The Chief Engineer of the United Provinces in his Administration Report for 1937-38 recalls that both in his Administration Report for the preceding year and in the Budget Demands for 1938-39 the attention of Government was drawn to the fact that the existing annual grants for the maintenance of provincial roads was not only considerably less than is necessary to prevent deterioration but had been so for many years. The Chief

Engineer then quotes the following figures which give as nearly as possible a comparison between the grants actually received for road maintenance by his department and the allotments actually considered to be necessary:—

Year.	Demand as per quinquennial statement.	Demand for new roads not in quinquennial statement.	Total requirement.	Budget Provision.
	(Rs. lakhs)	Rs. (lakhs)	Rs. (lakhs)	Rs. (lakhs)
1932-33	30.77		30.77	20.75
1933-34	30.77	00.03	30.80	20.74
1934-35	30.77	00.04	30.81	22.75
1935-36	30.77	00.04	30.81	22.79
1936-37	30.77	00.14	30.91	23.12
1937-38	30.77	00.43	31.20	24.54
1938-39	31.93	00.41	32.34	24.64

Proceeding, the Chief Engineer states that out of the present reconstruction programme, over Rs. 60 lakhs are being spent on the reconstruction of the existing provincial roads and this amount is some indication of the deterioration which has been allowed to occur owing to insufficient maintenance funds.

There are in round figures some 2,000 miles of provincial kanker roads in the Province and present grants allow for their renewal in a period of about 6 to 7 years; the number of kanker miles renewed annually is therefore about 300. The Chief Engineer in this connection mentions that the time is rapidly approaching, even if it has not already arrived, when all or nearly all the kanker miles must be converted to a surface which will not only withstand the wear of modern traffic but the repair of which will not cause as much dislocation and difficulty to traffic as does the renewal of a kanker road. He therefore suggests that the mileage renewed annually should be converted to surface treated roads, in order to do which his department will require an additional annual grant of roughly Rs. 30 lakhs for 6 to 7 years.

Village Road Works in Bombay

In our September News Letter we referred to the grant of a sum of Rs. 5.2 lakhs for the construction of approach roads by the Government of Bombay and, how this money, which represents a part of the additional revenue derived from growth of motor traffic, is annually allocated to road expenditure as a result of this Association's efforts. These grants have hitherto been allocated by Commissioners to district committees which drew up lists of village roads and framed estimates of costs for each work, and the approved works were executed by

such agencies as were chosen by the Commissioner.

The Bombay Government, says the Public Relations Officer, have now directed that, with effect from the next financial year, the district committees should cease to exercise their functions and powers in respect of village road works, which should then be entrusted to district local boards.

The revised instructions provide that in January each year the Collector will call upon the District Local Board in his district to draw up and submit as soon as possible to him an estimate of the cost of each work and lists of incomplete as well as urgent new village road works to be taken up during the following year.

As soon as the Collector receives such lists, he will scrutinize them and send an approved list to the Commissioner, who will allot funds from the grants at his disposal on certain conditions. These include that the grants should be expended solely on the construction and repairs of approach roads to villages and, in special cases, on the construction of causeways, culverts or bridges whenever these are essential.

In spending the grants, preference will be given to those villages which agree to make some contribution in cash or in the shape of free labour, free supply of carts, etc., during the off-season.

It is also stipulated that where motor traffic exists the roads are to be metalled to a width of nine feet with two side lanes of murum or kankar, each about seven feet wide for use by bullock carts.

The Commissioners are also authorised to sanction grants for the maintenance of village roads provided that the maximum percentage allowed for maintenance

should not exceed 25 per cent. of the grants, and that such grants should be given only to those villages in which the villagers are ready when called upon to supply free labour for that purpose throughout the year.

Emergency Powers for the Control of Road Transport under the Defence of India Rules

Under Part XIII of the Defence of India rules, Clause 89 relates to the control of road transport. We reproduce this clause below for the information of our members:—

89. Control of road transport.—(1) In this rule—

(a) "vehicle" means any vehicle used, or capable of being used, for the purpose of road transport, whether propelled by mechanical power or otherwise, and whether used for drawing other vehicles or otherwise, and includes a tram-car and a trolley-vehicle;

(b) "animal" means any animal used, or capable of being used, for the transport of persons or goods.

(2) Without prejudice to any other provision of these rules, the Central Government or the Provincial Government may by order—

(a) regulate, restrict or give directions with respect to, the use of any animal or vehicle for the purpose of road transport, or the sale or purchase of any animal or vehicle;

(b) require any person owning, or having in his possession or under his control, any animal or vehicle to make to any person specified in this behalf a return giving such particulars as may be specified in the order with regard to such animal or vehicle and require such return to be verified in such manner as may be specified in the order;

(c) require any person owning, or having in his possession or under his control, any animal or vehicle to give notice in such manner as may be specified in the order before disposing thereof or allowing it to pass out of his possession or control;

(d) require any person owning, or having in his possession or under his control, any animal or vehicle to comply with any directions given by any person specified in, or duly authorised in pursuance of, the order; and such directions may require the person owning, or having in his possession or under his control, any animal or vehicle to use such animal or vehicle for the conveyance of

(Continued on Page 238)

THE DYNAMOTOR

A Simple Explanation of a little understood part of your Car's Electrical Equipment

IF the motor-car could be driven by the dynamo, the motorist's heaven would be achieved and directors of petrol companies would commit hari-kari en masse.

The dynamo is the most efficient component on a car. Like all efficient persons and machines, it gets on with its job without noise or bother, and needs practically no attention.

The dynamo is frequently referred to as "the generator," but this is a misleading term. It does not generate nor create an electric current. The action of the dynamo is really similar to that of a pump connected to a well. The water is already in the well; the pump simply produces the water at the location required by lifting it out of the well.

The dynamo merely disturbs the balance which exists between Nature's supply of positive and negative potential existing in all space. The dynamo therefore simply creates this difference of potential by virtue of which a flow of current is enabled to take place.

The first dynamo was constructed by Michael Faraday in 1831, the principles being based upon his discovery that "Electric currents are generated on a magnetic field, so as to cut magnetic lines of force."

It was found by experiment that the most convenient method of cutting "magnetic lines of force" was to arrange loops of wire in such a manner that they could be rotated between the poles of a magnet.

The armature is the rotating part of the dynamo and upon this is wound the loops of wire. It is built up from thin laminations or discs, not more than 1-32 of an inch in thickness.

The armature is rotated between the poles of the dynamo. These are spaced opposite each other. From the north pole to the south pole of these magnets, the invisible "magnetic lines of force" traverse. It is obvious they must pass

through the loops of wire wound lengthwise along the armature.

When a loop of wire faces the centre of the pole pieces, it receives the maximum number of lines of force. These lines of force depend upon the strength of the magnets and may exceed 100,000 lines per square inch of metal.

If only one loop of wire was wound on the armature, it would develop a maximum voltage when facing the centre of the poles and then gradually decrease as it moved away from the centre until it was zero, then gradually increase again as it approached nearer to the opposite pole.

The result would be a constantly fluctuating voltage which would reflect in the headlamps, which would burn brightly, gradually getting dimmer, then again increase in brilliancy to a maximum, and so on *ad infinitum*.

To correct this, a number of loops of wire are spaced round the armature, then by quickly rotating the armature the fluctuations or impulses are flattened down to a steady flow.

When the armature is at rest, the magnetism in the pole pieces dies down to almost zero, there being only the residual magnetism (which is very weak) left in the magnets.

It will be remembered that when a wire conducting a current of electricity is passed round a piece of soft iron, the iron becomes magnetised. The greater the number of turns and the greater amount of electricity passed round the iron, the stronger the magnet becomes.

To achieve this, a number of turns of wire are wound round the magnets. This wire is connected to the armature in such a manner as to divert a small fraction of the current from the armature, thereby building up the strength of the magnet.

The stronger the magnet, the more magnetic lines of force are generated. The process of strengthening the magnets is termed exciting the magnets.

It is necessary to cut 100 millions of magnetic lines of force to produce 1 volt.

When the armature starts to rotate a very weak current flows. Within a few seconds this increases and more current flows round the magnets, gradually strengthening them, thereby increasing the number of magnetic lines of force radiating from the pole pieces.

When the magnets are "fully excited" the maximum voltage is developed.

The current flow, however, changes in directions when under the influence of the two different poles, travelling in one direction when under the north pole of the magnet and in the opposite direction when under the south pole.

Such a condition would not allow of the use of an accumulator and self-starter. The commutator was therefore introduced.

The commutator is built up of copper bars, insulated from each other by mica. There must be two of these copper bars for each loop of wire on the armature, the two ends of the loop being connected with different copper bars.

The commutator changes the alternating current into continuous current. It "commutes" them to direct current.

Carbon brushes are fixed in contact with the commutator, their job being to collect the current from the commutator and pass it on to the battery lights, starter, and other electrical components.

Your dynamo goes on steadily cutting 600 million magnetic lines of force a second to provide 6 volts for your service. He is a contented little chap and hums with self-satisfaction, for he knows he is doing a good job.

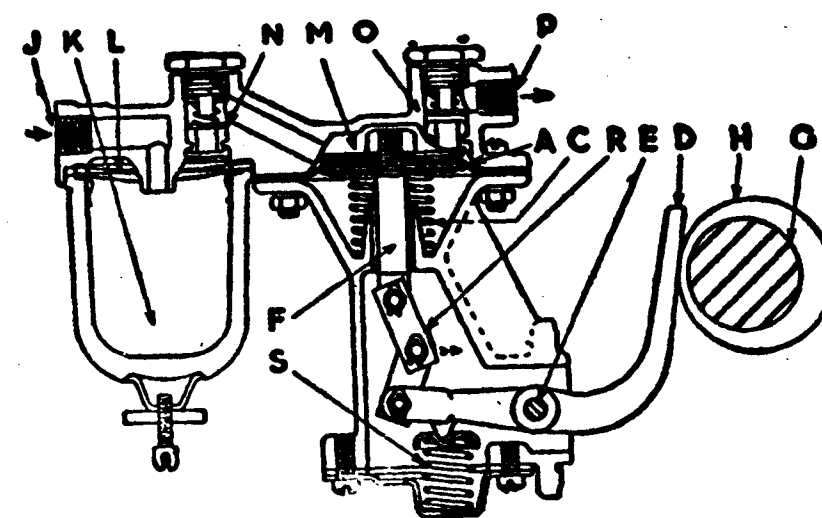
Treat him well! A few spots of oil every 1000 miles. A new set of carbon brushes every 250,000 miles, obtained from the manufacturer. He abominates damp, so keep him dry, and he will never let you down. He's a faithful little chap.—(By courtesy of "The New Zealand Motor World.")

THE RETROL PUMP

Its Operation and Possible Troubles Explained

MOST modern motor-cars are so designed that the main fuel tank is lower than the carburettor. A single and inexpensive method of pumping petrol from the supply tank to the carburettor

Further, the movement of the diaphragm occurs only when the carburettor needs fuel; this movement is directly proportional to the amount of petrol used by the engine. This means that in practically all normal driving conditions



(C) pushes diaphragm (A) upwards, forcing fuel from chamber (M) through pressure valve (O) and opening (P) into the carburettor. When the carburettor bowl is filled the float in the float chamber will shut off the inlet valve, thus creating a pressure in pump chamber (M). This pressure will hold diaphragm (A) downward against the spring pressure (C), and it will remain in this position until the carburettor requires further fuel and the needle valve opens. The rocker arm (D) is in two pieces, the outer operating the inner one through (R), and the movement of the eccentric (H) is absorbed by this "break" when fuel is not required. Spring (S) is merely for the purpose of keeping the rocker arm (D) in constant contact with eccentric (H) to eliminate noise.

is obtained by a device known as the petrol pump.

The petrol pump is of the diaphragm type and is attached to the crankcase and is operated from an eccentric on the camshaft, reciprocal motion of $\frac{1}{4}$ inch is imparted to the rocker arm by the eccentric on the camshaft.

The diaphragm is composed of several layers of specially treated flexible cloth, which is absolutely impervious to petrol. This cloth material is held between two metal discs and is pushed upward by a pump spring. This diaphragm, in its upward motion, almost fills the pump chamber, so that, in its downward movements a very high vacuum is obtained, thus assuring high pumping capacity, even at low speeds. The repeated movement of the diaphragm is possible indefinitely without any injury, due to the extreme flexibility of this material.

this diaphragm is pulsating in a movement of a few thousands of an inch. This movement is controlled by linkage, because when the diaphragm is in the depressed position, due to sufficient petrol in the carburettor, the up and down movement of the petrol pump link ceases, and the rocker arm spring keeps the rocker arm in contact with the eccentric on the camshaft.

Referring to the diagram above, the operation will easily be followed. By revolving shaft (G) the eccentric (H) will lift the rocker arm (D), which is pivoted at (E) and which pulls the fuel rod (F) together with diaphragm (A) downward against spring pressure (C), thus creating a vacuum in pump chamber (M).

Fuel from the rear tank will enter at (J) into sediment bowl (K) and through strainer (L) and suction

valve (N) into pump chamber (M). On the return stroke, spring pressure (C) pushes diaphragm (A) upward, forcing fuel from chamber (M) through pressure valve (O) and opening (P) into the carburettor. When the carburettor bowl is filled the float in the float chamber will shut off the inlet valve; thus creating a pressure in pump chamber (M). This pressure will hold diaphragm (A) downward against the spring pressure (C), and it will remain in this position until the carburettor requires further fuel and the needle valve opens. The rocker arm (D) is in two pieces, the outer operating the inner one through (R), and the movement of the eccentric (H) is absorbed by this "break" when fuel is not required. Spring (S) is merely for the purpose of keeping the rocker arm (D) in constant contact with eccentric (H) to eliminate noise.

The petrol pump, like most fittings on the modern car, gives little trouble. However, should there be a shortage of fuel in the carburettor, the following points can be checked over without removing the pump from the engine.

All pipe fittings must be tight, to ensure proper pump operation. If the glass bowl becomes loose, tighten the retaining nut, making certain that the cork gasket lies flat on its seat and is not broken.

If the filter screen becomes clogged with sediment, remove the glass bowl and clean the screen, being sure that the cork gasket is properly seated and not broken.

If the pump valves are dirty or warped, remove the valve plug and replace the valve, being sure that the stem of the valve is inside the coil spring and that the gasket is under the valve plug.

It is not necessary to prime the pump when re-starting the engine.

For any other repairs that may be necessary, such as a leaky diaphragm the pump must be removed from the engine. A major repair of this nature is best left to the agents, who keep the equipment and spares for all types of pumps in stock, or to some reliable garage man.—(By courtesy of "The New Zealand Motor World").

TYRE PRICES

THE following letter has been received:—

Motor, Motorcycle & Giant Cover and Tube Prices.

As you are, of course, aware it has been possible for the undermentioned companies to continue to offer their products to you at pre-war prices although over two months have now elapsed since the outbreak of hostilities. This has been possible on account of the stocks of finished products in the country before the outbreak of war, and has been adhered to in spite of the upward trend in prices that has been visible in almost every class of merchandise.

To-day we regretfully find it impossible to ignore longer the effect on our own manufacturing and operating costs of this upward trend in prices. As you will realize, we are faced with most serious increases in almost all our vital raw products irrespective of whether our goods are manufactured in this country or imported from abroad. On top of this, freight and insurance to India, either on raw products or on the finished articles, have increased substantially since the outbreak of war, and to cover such increases, it is now necessary for us to pass on some share of this to our customers.

Effective to-day, therefore, the 7th instant, our present list prices for all Motor, Motorcycle and Giant Covers and Tubes are increased 10%, current terms and discounts remaining unchanged.

We feel sure that you and your own customers will appreciate that this increase is in the circumstances quite unavoidable, and we would point out that even at this new price level our products are offered to you and to the public at a level below that ruling in India as recently as two years ago.

Yours very truly,

DUNLOP RUBBER CO. (India) LTD.

FIRESTONE TYRE & RUBBER CO. OF (India) LTD.

GOODYEAR TYRE & RUBBER CO. (India) LTD.

INDIA TYRE & RUBBER CO. (India) LTD.

300 MILLIONTH TYRE

AKRON, OHIO, August 9th

ROUNDING out a cycle of events that have made the current year one of exceptional importance in the rubber industry, the 300,000,000th pneumatic motor vehicles tyre to be manufactured by The Goodyear Tyre and Rubber Co. was lifted from the mould on Wednesday, August 9th.

In addition to being the centennial of the discovery by Charles Goodyear of the process of vulcanization, on which the entire rubber industry of to-day is based, 1939 also marks the fiftieth anniversary of the building of the first pneumatic tyre, and the fortieth anniversary of the founding of the Goodyear Tyre & Rubber Company. In its four decades of corporate existence, Goodyear has grown from a struggling concern located in an abandoned strawboard mill in East Akron, to the largest rubber company in the world.

The tyre that will bear the number 300,000,000 is in itself unusual, and will have an unusual purpose. It will be the first of six giant casings that are being constructed for the Research Foundation of the Armour Institute of Technology, and will be fitted on a huge

"snow cruiser" to be used in exploring the frozen wastes of the Antarctic Continent.

Designed by Dr. Thomas Poulter, a member of the Foundation Staff and second-in-command of the Second Byrd Antarctic Expedition, the "snow cruiser" will be 55 feet long, 15 feet wide and 15 feet high, will weigh 75,000 pounds loaded, and will carry sufficient fuel and supplies to allow its crew of four to remain away from permanent bases for a year at a time. Goodyear's 300,000,000th tyre and its mates will be the biggest ever manufactured for actual use on a motor vehicle, being 10 feet in overall diameter nearly a yard in cross-section and 12-ply construction.

Tyre No. 300,000,000 was pulled out of its mould in the presence of President Paul W. Litchfield and other Goodyear Officials; Dr. Thomas C. Poulter, designer of the "snow cruiser, who is the Scientific Director of the Research Foundation of Armour Institute of Technology and second-in-command to Admiral Byrd; and other notables. The fact that production of the three hundred millionth tyre, a mark unequalled in the rubber industry, was reached during the current

year was regarded as especially appropriate in view of the fact that 1939 is the one hundredth anniversary of the discovery of the process of vulcanization by Charles Goodyear and the fiftieth anniversary of building of the first pneumatic tyre.

While the tyre was being cured, Goodyear statisticians did some figuring, and declared that if the 300,000,000 pneumatic motor vehicle tyres built by the company were to be shipped at one time, a train of 250,000 freight cars, stretching 1,800 miles, would be needed; that if the tyres were piled one on top of the other they would reach into the sky a distance of 23,000 miles; that if a single motorist, driving his car 10,000 miles a year, would attempt to wear out this enormous production, it would take approximately 100,000,000 years; that on the average rubber production schedule these tyres would require all the rubber that could be produced in the world for two years; that on Goodyear's tyre production schedule in 1902, it would take 67,000 years to build up 300,000,000 tyres; and that more than 70 per cent. of these tyres have been produced since Mr. Litchfield became President of Goodyear in 1926.

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EMPIRE ORDERS MORE CARS

British Manufacturers Coping with War Time Boom

EMPIRE countries are ordering greater numbers of motor cars made in the United Kingdom, and manufacturers are now free to export all types except Commercial vehicles and ambulances.

Since war began there has been an exceptionally big rush of orders for overseas. Lord Nuffield's export group, the largest organisation in the world solely devoted to the export of British cars, state that in the first month of the war

the orders for Morris cars alone were 65 per cent greater than those in the last month of peace, and had increased by no less than 316 per cent over the export orders for September, 1938.

Places in the British Commonwealth which have chiefly contributed to the bigger business are Australia, Burma, Canada, Ceylon, Eire, Gibraltar, Guernsey, Hong Kong, Jamaica, Malaya, New Zealand, Rhodesia, South Africa and Trinidad. Among foreign countries

wanting more British cars are the Argentine, Holland, the Netherland East Indies, Portugal and Siam.

"Economical motoring is in demand in most countries throughout the world, and the small British car can provide this" said a representative of a large firm of manufacturers. "Thanks to the adaptability of the industry, it is still possible to make cars for Empire motorists as well as to produce vast war requirements for the home Government."

FIRST "INVENTOR" OF A CAR

"Master Patent" G. B. Selden

IT is just 60 years ago that George B. Selden, a shrewd and mechanically-minded American lawyer, first applied for his so-called "master patent" which for many years was used to control car manufacture in U.S.A. Selden had specialized in patents work, and had a thorough knowledge of his country's patent laws, which were then even more complex than they are today. But how he ever negotiated a vaguely-stated patent specification as his "master patent" has never been ascertained.

Selden never actually produced a working car with which to substantiate the

sweeping claims that his specification bore. Among the many claims were the following:—"The combination with a road locomotive, provided with suitable running gear, including a propelling wheel and steering mechanism, of a liquid hydro-carbon gas-engine of the compression type, comprising one or more power cylinders, a suitable liquid fuel receptacle, a power shaft connected with and arranged to run faster than the propelling wheel, an intermediate clutch or disconnecting device, and a suitable carriage body adapted to the conveyance of persons and goods."

Selden obtained the full grant of the patent on November 5, 1895. On the strength of this, he announced himself as the first "inventor" of the motorcar, and, moreover, claimed that no car could be manufactured in America without infringing his so-called "master patent," which, he declared, covered the whole mechanism of a motor-car. There followed complications which would fill a book. It was not till January 11, 1911, that the validity of the Selden patent was quashed in what proved to be one of the most important industrial patent actions the world has ever seen.—(By courtesy of "The New Zealand Motor World").

(Continued from Page 233).
such persons or goods at such time and by such routes as may be set forth in the directions;

(e) prescribe the conditions subject to which, and the rates at which any animal or vehicle may be hired for the purpose of road transport and persons or goods may be carried by road, and the conditions subject to which goods so carried or to be carried may be discharged or loaded;

(f) provide for prohibiting or restricting the carriage of persons or goods of any class by road, and for prescribing the radius or distance within which persons or goods of any class may be carried by road;

(g) provide for the giving of directions with respect to the carriage of persons or goods on any particular vehicle,

or by any particular route, or to any particular clearing-house or depot;

(h) provide for the regulation of the priority in which persons and goods are to be carried by road and vehicles are to be used for the purpose of road transport;

(i) makes such other provisions in relation to road transport as appear to that Government to be necessary or expedient for the regulation of traffic on highways.

(3) If any person contravenes any order made in pursuance of this rule he shall be punishable with imprisonment for a term which may extend to six months and shall also be liable to fine.

Road Development Fund

The Road Development Fund constituted from the revenue from the excise/import duty on petrol, has up to the end

of March 1939 received an allotment of Rs. 1260.30 lakhs. Deducting a grant to Civil Aviation amounting to Rs. 7.97 lakhs, the net credit to the Fund is Rs. 1252.33 lakhs. Out of this sum, an amount of Rs. 204.20 lakhs has been set apart as Reserve, leaving a balance of Rs. 1048.13 lakhs available for distribution to the various provinces, States and Minor Administrations in proportion to the amount of the petrol consumed within their respective areas. The total allotments already made to the Governor's Provinces (including Rs. 80.58 lakhs to Burma prior to separation) is Rs. 813.55 lakhs, to the Chief Commissioners Provinces, Tribal Areas and Administered Areas in States Rs. 31.56 lakhs, and to Indian States Rs. 117.65 lakhs, making a total amount of Rs. 962.76 lakhs distributed up-to-date, which leaves a balance of Rs. 85.37 lakhs in the Fund at present.

CRICKET UNDER COLD STATISTICS

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THE BOMBAY FLYING CLUB LTD.

Report for October 1939

THE Bombay Flying Club is still operating from Poona owing to the congestion caused at Juhu during the construction of a new Runway.

At the end of the first three weeks of the month the flying time amounted to about 133 hours, but for the last week there was only one machine, as two Moths have been flown to Bombay for their annual overhauls and the Tiger Moth was taken over by the Government. However the total time for the month amounted to 161 hours 30 minutes, which happens to be the highest figure for any month in Poona, and shows an increase of $9\frac{1}{2}$ hours over the number of hours flown in October 1938, when the Club was operating in Bombay.

The Moth Minor

The Club has purchased a Moth Minor and at the time of writing it is on its way to Bombay being flown over from Karachi by Messrs. Pinto and Byramjee.

Probably next week one of the Major Moths will be sent back to Poona, after its "C" of "A" overhaul.

'A' Licence

Captain F. J. H. Nelson successfully carried out his first "Solo".

Mr. B. B. Dhuru has received his Pilot's "A" Licence, and is continuing his flying for the "A-1" Licence.

Mr. C. D. Batliwala completed his flying hours and tests for the issue of an "A" Licence and has now returned to Bombay. He is extremely keen on flying, but unfortunately he is unable to stay in Poona all the time.

The following members renewed their "A" Licences:—

Mr. H. S. Ratnagar.
Mr. E. Pinto.
Mr. M. U. Parekh.

Mr. S. Ejel went over for a week-end to Poona to put in some flying for the renewal of his Licence. Mr. D. B. Grime too, flies for the renewal of his Licence.

Messrs. R. M. Geddes, G. D. Lancaster and W. J. E. Brown joined the Club this month as Flying Members.

Messrs. Geddes and Lancaster already hold English "A" Licences and they are now going in for the Indian "A". Mr. Geddes stayed in Poona for a week and put in 8 hours including a return Cross-Country to Bombay in the Tiger Moth.

Mr. W. J. E. Brown, Chief Wireless Operator, Tata Airlines, took a few lessons but was called back to England.

Commercial Pilot's Licence

Mr. E. Pinto's application for the Pilot's "A-1" Licence has been forwarded to the Director of Civil Aviation.

Messrs. Ratnagar, Bal, Commissariat and Dhuru continued their training for the Commercial Licence.

Mr. P. N. Bal did return Cross-Country flights to Sholapur, Phaltan and Bombay.

Other pupils did Cross-country flights to Bombay.

There was great demand for local flying for "A" Licence pupils but the training of pilots for Commercial Licence has not suffered, and instruction in advanced forced landings, Cross-wind Landings and Take-offs, and elementary Aerobatics was given.

Mr. K. A. Zaveri was on leave.

Pilot Instructor's Course

Mr. M. D. Mistry has completed his course for the Instructor's Licence and his papers will shortly be sent to the

Director of Civil Aviation. He should do well as an Instructor and the Club wishes him every success.

Army Co-operation

A lot was learned this month regarding Army Co-operation. Arrangements have been made by which weekly Lectures in Army Co-operation by Capt. Harrison will be delivered at Poona to pupils of the Bombay Flying Club. Brigadier Hawkins was good enough to deliver the first Lecture himself.

On the 3rd three machines took part and co-operated with Poona Horse Brigade carrying out reconnaissance over a given area, for over three hours. Instruction was given in reconnaissance and the following pilots took part:—

Mr. N. K. Dubash
" P. D. Byramjee
" M. D. Mistry
" E. Pinto
" P. N. Bal
" H. S. Ratnagar
" K. B. Commissariat
" S. S. Farooqui

On the 12th Mr. N. K. Dubash with Col. Baines and Mr. M. D. Mistry with Capt. Wakefield reconnoitered a certain area.

On the 27th Mr. N. K. Dubash with Sir Jamshetjee Jeejeebhoy had to go up and ascertain the effect of camouflaged trenches etc.

On the 30th Mr. N. K. Dubash with Mr. N. F. Mehta had to give a demonstration in reading T codes and co-operating accordingly.

PARTICULARS OF MOTOR VEHICLES IMPORTED INTO INDIA

MONTH OF SEPTEMBER					SIX MONTHS, 1st APRIL TO 30th SEPTEMBER						
1937		1938		1939		1937		1938		1939	
Quan- tity	Value Rs.	Quan- tity	Value Rs.	Quan- tity	Value Rs.	Quan- tity	Value Rs.	Quan- tity	Value Rs.	Quan- tity	Value Rs.
425	7,77,079	223	4,01,328	233	4,46,732	2,625	49,85,719	1,721	34,70,140	1,955	37,09,180
107	1,78,382	88	1,73,823	1	2,029	619	9,93,748	644	10,96,279	247	4,69,939
29	43,154	6	11,507	18	32,254	180	2,12,116	60	97,617	119	2,08,806
103	1,91,144	32	63,029	49	1,00,350	946	15,50,883	276	5,27,581	453	8,92,988
371	7,29,028	365	6,43,721	83	1,21,618	2,251	44,78,421	1,305	27,16,514	1,549	31,08,604
20	34,080	7	13,157	21	38,063	173	2,94,938	163	2,50,460	120	2,71,488
1,055	19,52,867	721	13,06,575	375	7,41,076	6,774	1,24,95,835	4,169	81,58,591	4,443	86,60,985
222	3,91,347	137	2,65,054	153	3,04,316	1,708	31,16,689	1,110	21,60,722	1,184	23,38,447
540	10,24,224	485	8,49,627	117	2,47,137	3,484	64,49,738	2,124	41,40,799	2,103	40,78,152
87	1,82,692	42	89,548	35	66,915	516	10,52,894	341	7,12,384	387	8,06,082
206	3,54,604	57	1,02,346	70	1,22,708	1,084	18,76,514	594	11,44,686	769	14,38,324
1,055	19,52,867	721	13,06,575	375	7,41,076	6,774	1,24,95,835	4,169	81,58,591	4,443	86,60,985
20	13,557	33	16,866	31	12,997	225	1,21,770	151	79,413	222	1,11,077
48	10,699	65	17,214	12	2,890	353	76,103	363	91,771	586	1,38,310
5	3,260	3	1,930	16	4,010	24	14,754	33	16,910	66	24,136
73	27,516	101	36,010	59	19,897	602	2,12,627	547	1,88,094	874	2,73,523
2	3,272	19	27,749	42	94,723	116	2,08,841	124	2,67,290	353	10,35,012
1,112	15,13,414	606	8,76,269	766	12,14,470	6,879	88,96,683	2,640	41,34,232	6,447	85,21,214
247	4,16,754	20	1,28,079	32	1,03,155	1,116	20,29,728	160	4,85,490	489	9,47,491
236	2,73,797	187	2,72,991	213	3,90,072	1,474	18,06,686	873	12,47,385	1,487	22,95,636
626	8,12,500	413	4,93,344	562	8,13,891	4,259	49,13,334	1,652	24,51,155	4,745	31,57,866
5	13,635	5	11,602	1	2,075	146	3,55,776	79	2,17,492	79	1,56,533
1,114	15,16,686	625	9,04,018	808	13,09,193	6,995	91,05,524	2,764	44,01,522	6,800	95,56,226
	9,61,734		6,31,272		6,18,112		55,32,432		39,77,715		47,62,269

Motor Cars (including taxi cabs)—
From United Kingdom ..
" Germany ..
" Italy ..
" Canada ..
" United States of America ..
" Other Countries ..

Share of Bengal ..
" Bombay ..
" Sind ..
" Madras ..

Motor Cycles (including scooters)—
From United Kingdom ..
" Germany ..
" Other Countries ..

Motor Omnibuses, Vans and Lorries—
Imported with bodies ..
Chassis ..

Total of Motor Omnibuses etc.—
From United Kingdom ..
" Canada ..
" United States of America ..
" Other Countries ..

Parts and accessories (excluding rubber tyres)
Total Value

Extracted from the Publication of the Department of Commercial Intelligence and Statistics, India.
THE MOTOR MANUFACTURERS & IMPORTERS' ASSOCIATION LTD.

FORB, RHODES & PARKS,
Secretaries,
Chartered Accountants,
Registered Accountants

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His Excellency The Maharaja of Mysore
His Excellency The Maharaja of Travancore
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The Maharaja of Jyotsna
The Maharaja of Patnam State
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The Raja of Ranavav
The Raja of Vankar State

J. K. S. Anand, 10 Chatterjee Street, Calcutta
 Sri Abanindranath Dasgupta
 Sri C. P. Krishna Kumar Aiyar, 10, 11
 Sri M. S. Subramanyam, 10, 11
 Sri M. S. Subramanyam, 10, 11
 Sri Charles Chatterjee, 10, 11

OFFICE-BEARERS

PRESIDENT

5. The Commission is of the opinion that the Commission should be given the authority to request the Government to provide information on the progress of the implementation of the recommendations of the Commission.

VICE-PRESIDENT

Journal of Interpersonal Violence 26(10)

CHAIRMAN

ACKNOWLEDGMENTS

VICE-CHAIRMAN

[illegible]

HONY, TREASURER

11. *De la détermination des points de vue*

CONTINUED:

J. W. Houghton, Esq., *London, England*
R. R. Shapiro, Esq., *New York, New York*
J. G. and S. J. Green, Esq., *London, England*
W. A. Green, Esq., *London, England*

1. A. Watson, *Eng. Trade Monitor*,
Brian Babalifer, Aram, Haper, Mahmood, Satt
Moh. Kazim, Khaleel, F. J. ...
G. S. ...
K. S. ...

HON. SECRETARY

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BRANCH OFFICES

Bangalore	10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 84
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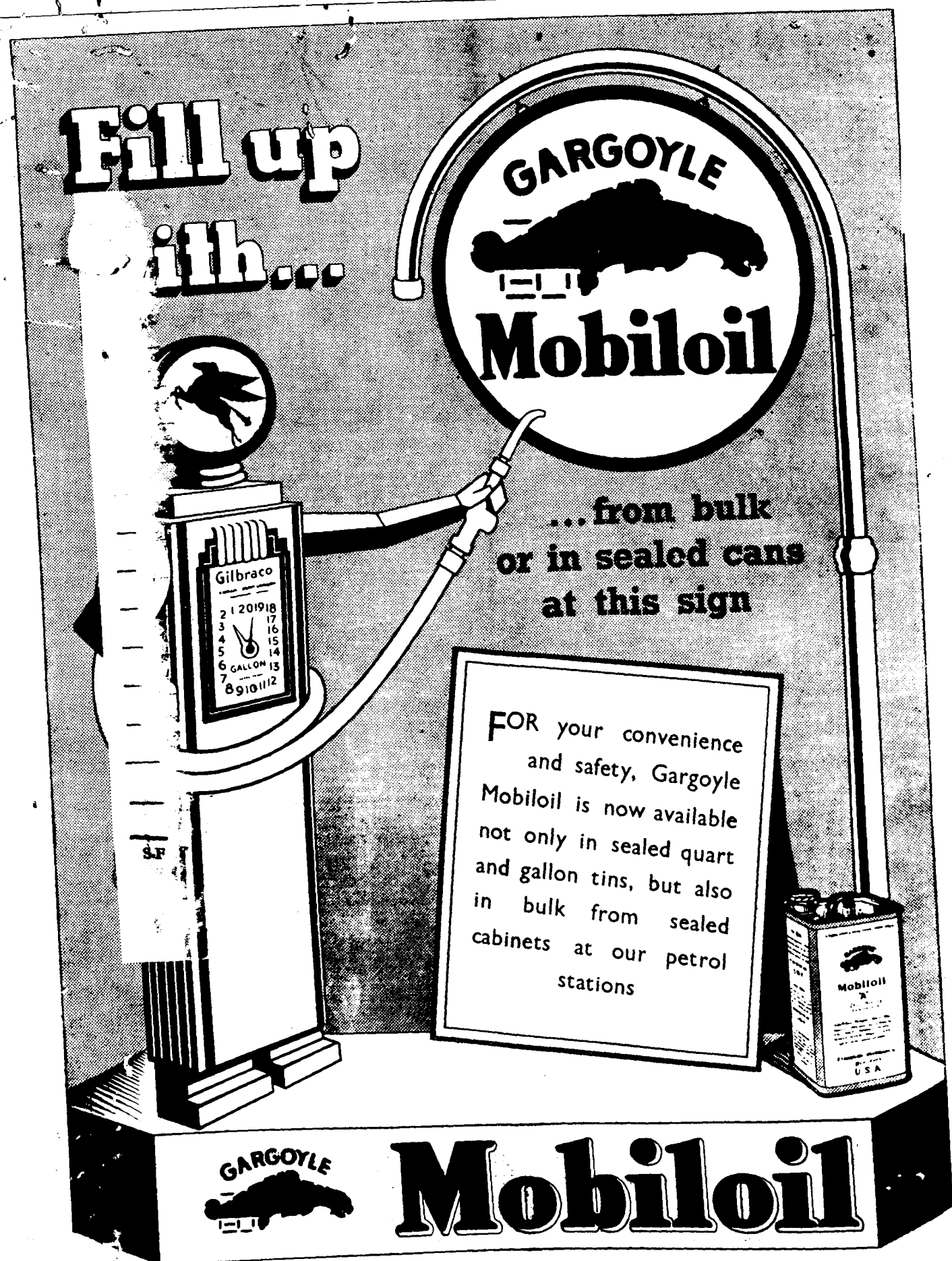
PORT REPRESENTATIVES

<i>Mammals</i> —C. L. Winters, 1936, p. 1, fig. 1, 1942, p. 1, fig. 1, 1943, p. 1, fig. 1.	<i>Labridae</i> —J. L. P. Koenig, <i>Archiv. Zool.</i> , 1936, p. 1, fig. 1, 1942, p. 1, fig. 1, 1943, p. 1, fig. 1.
<i>Neogobius</i> —K. H. J. van Veen, 1936, p. 1, fig. 1, 1942, p. 1, fig. 1, 1943, p. 1, fig. 1.	<i>Cichlidae</i> —M. J. H. van Veen, 1936, p. 1, fig. 1, 1942, p. 1, fig. 1, 1943, p. 1, fig. 1.

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