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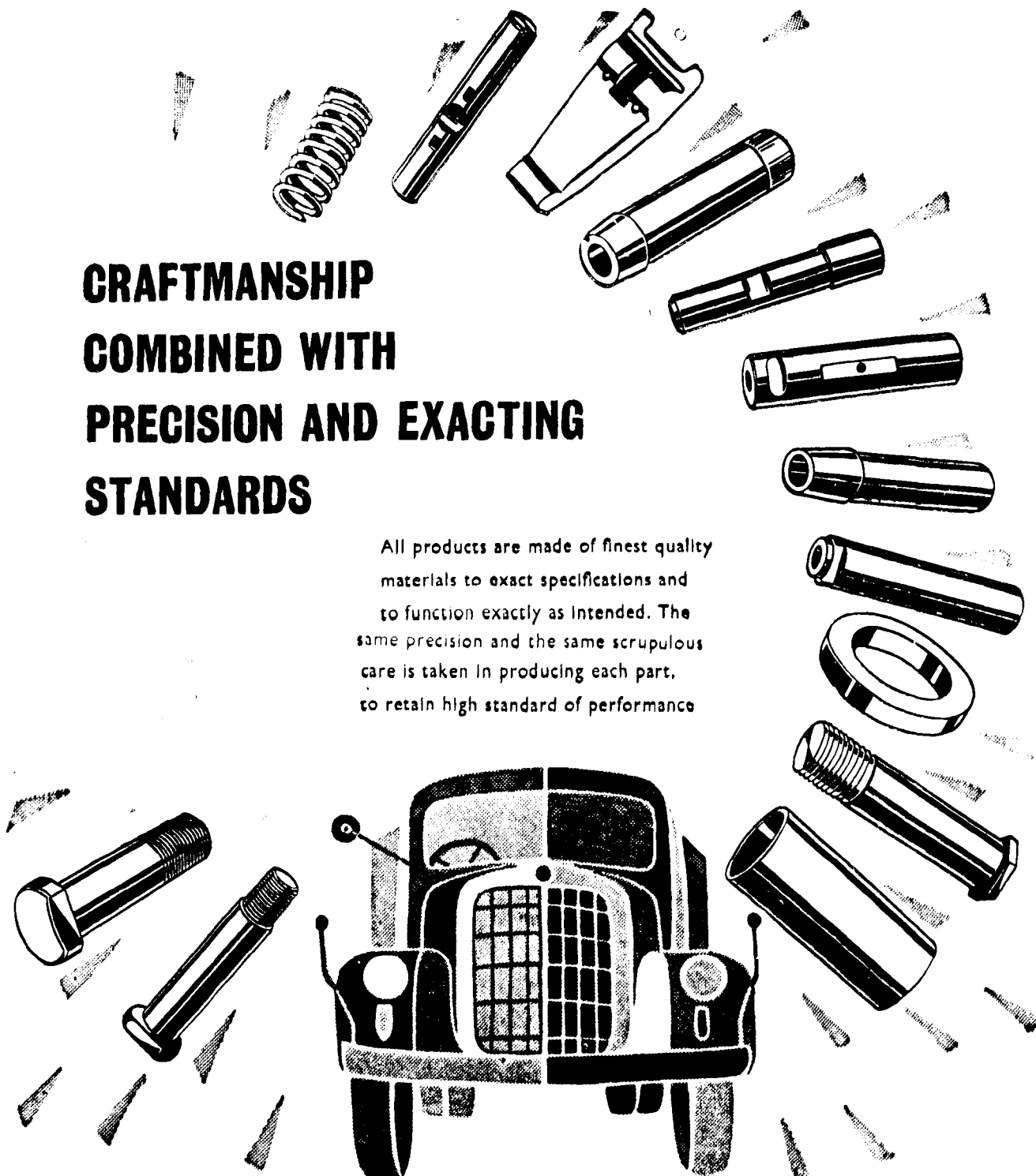
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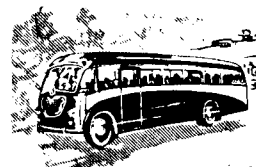
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ON THE COVER

*An impressive view of the
new Triumph T. R. 4 which
has just been released in the
U. K. Details of this Car are
published on page 7 of this issue.*

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No. 5

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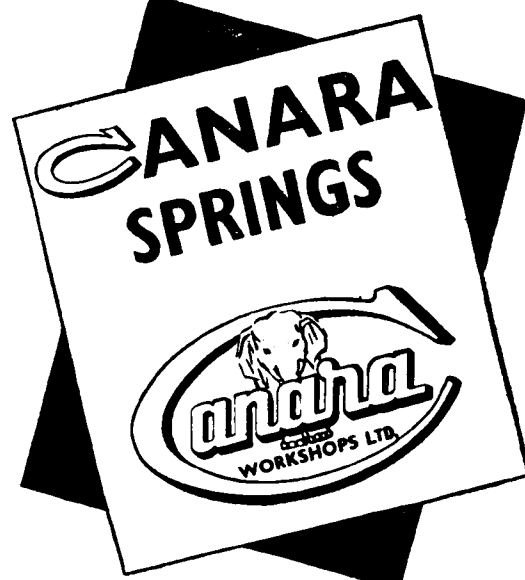
Fortnightly

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editorial

THE TARGET AND THE TRANSPORT

"There are now two clear alternatives before the country: either to increase the allotment for the construction of new roads and improvement of the capacity of the existing roads (so as to enable road transport to carry 70 million tons annually by the end of the Third Plan as against 20 millions at the end of the Second); or to allow about 50 million tons of traffic to remain uncarried in 1965, automatically reducing thereby the targets of production in the Third Plan and causing severe loss to producers."

In stating the above facts in his address at the meeting of the Indian Road Transport and Development Association at Calcutta last month, Mr. L. P. Misra, the Association's Chairman, has done a great service not only to the automobile industry, but also to industrial India as a whole.

It is difficult to imagine how, in spite of ministerial expressions of understanding on such a situation facing the country, steps are not being taken by the Centre and particularly by the Planning Commission to increase the allotment and facilities to enable 70 million tons of goods to be transported by road during the Third Plan. Unless the Planners expect industrial production in the country not to reach the overall target fixed by them, there is no other convincing reason, except prejudice perhaps, that can stand in the way of planning for a four-fold expansion of road transport facilities for the carriage of goods—roads as well as vehicles. The need of the hour is more roads, more vehicles and more incentive for the people to engage in road transport industry. In pin-pointing a tragic situation that is likely to develop during the latter part of this Plan, we are sure Mr. Misra has been influenced more by considerations of the country's economy and the development of her industries in general.

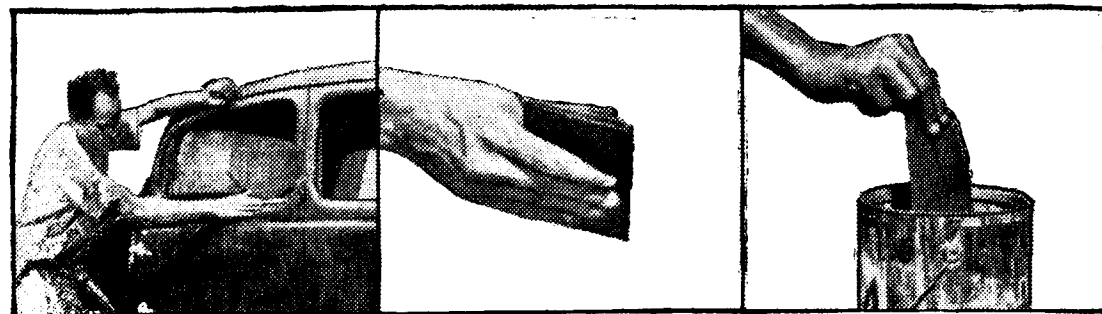
Similar warnings about the possibility of a bottle-neck in the matter of transport of raw materials as well as finished goods have been and are being given day-by-day by any number of important road development and industrial organisations throughout the country.

We, therefore, feel that it is time that the Government took this matter seriously. Any time lost in making up its mind will result in a situation that may not be possible at a later stage to rectify and the result may be a man-made failure of the Third Plan.

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From Our London Bureau

NEW TRIUMPH T. R. 4 SPORTS CAR

After nine years of popularity with private owners and rally and racing drivers, the Triumph TR2 & T.R.3 have been succeeded by the new T.R.4. To date more than 80,000 Triumph T. R. 2's and T. R. 3's have been manufactured, nearly 55,000 of which have been sold in the U. S. A.

Although the styling by Michelotti is entirely new, the T. R. 4. is recognisably a Triumph. It has been designed primarily for the North American market and it is planned to export more than 90 per cent of the output.

Replaces T. R. 3

The 1991 c.c. engine of the T.R.3 has now been replaced by a new and more powerful 4-cylinder overhead valve pushrod engine of 2138 c.c. developing 105 b. h. p. (gross) at 4750 r. p. m. which has already been tested in the Alpine Rally and other international sporting events. This unit provides particularly good top gear acceleration, and a maximum speed of over 110 m. p. h. Overall fuel consumption using the maximum power is said to be about 25 m. p. g. (Imperial) and the T.R.4 is now also the first British car to go into quantity production with synchromesh on all four forward speeds. Another change is the use of light and positive rack and pinion steering. A further new feature is the IMPACTOSCOPIC steering column as developed for the Triumph Herald models—safety feature is that it collapses on impact in the event of an accident and it also makes the column length adjustable.

5 inches longer

The T. R. 4 is 5 inches longer and 2 inches wider than the T. R. 3 while the track is increased by 4 inches at the front and 3 inches at the rear. These chassis modifications have improved road holding although softer damper settings are employed to give a smoother more supple ride on rough surfaces.

The interior is more luxurious.

Headroom and legroom have been increased. The two bucket-type seats have a wide range of adjustment and give support to the back and thighs. Doors are fully trimmed and have map pockets and there are now wind-up windows. Instruments including 5-inch tachometer and speedometer to 120 m. p. h. with trip and total distance

recorders and fuel gauges, thermometer, ammeter are in a group with pull-out ashtray. The fascia is padded at top and bottom, into it are built a lockable glove box and grab handle.

The top is new with deep transparent areas and a wrap-round rear window. It is said to be easy to

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raise and lower and there are special attachments and bracings to ensure a tight fit all round giving freedom from both noise and draughts. The cover for the folding frame forms a padded backrest for children whether the top is raised or lowered and a seat cushion is available at extra cost. There is a luggage trunk of usable shape with 5.5 cu. ft. capacity and additional space behind the seats for luggage.

Hood released by knob

The hood is now forward-hinged and is released by a knob beneath the fascia for increased safety. The engine is easily accessible and the panel is automatically supported when open.

There is also a Hardtop version of the T.R. 4. The hardtop consists of two parts—the roof panel and the rear window with its frame. The rear window is the wrap-round type and is bolted to the rear of the car mating up with the winding side windows. The space between the windshield and the rear window frame is covered by a detachable metal roof panel. If the owner wants open air motoring this panel is quickly removed, leaving the rear window frame in position to prevent back draughts. In rain or sudden down pours the space in the hardtop can be quickly covered by a vynide top which is called the 'Surrey top'.

Engine has larger bores

The latest engine has larger bores of 86 mm. with unchanged stroke of 92 giving 2138 cc, and on a compression ratio of 9 to 1 it produces 100 b.h.p. nett at 4600 r.p.m. Maximum torque is 126.6 lb. ft. at 3,350 r.p.m. equivalent to 147 lb/sq. in. B.M.E.P. It has twin carburetors and wet cylinder liners. With an axle ratio of 3.7 to 1 overall gear ratios are: 11.61, 7.44, 4.9 and 3.7 to 1., with reverse of 11.93 to 1.

Suspension is modified only in detail but the frame is strengthened particularly at the front end. There are wishbones, coil springs and telescopic dampers at the front, with ball joint top steering swivel and trunnion lower. At the rear are semi-elliptic springs with telescopic dampers. Brakes are Girling's,

discs at front and cast iron drums at rear. Centre lock wire wheels are optional at extra cost and they increase the track at front and rear by a further inch.

The de Normanville overdrive, operated by a lever under the steering column, is optional at extra cost. It functions on second, third and top, giving a range of seven forward speeds. Fuel tank capacity is 11½ Imp. gal. and the car weighs 2240 lb. with fuel, oil and water.

Road impressions

The T.R. 4 is both bigger and far better looking than the T.R. 3 but it retains a rugged masculine look and a distinct family resemblance. The doors open wide and the seats give good lateral support, though they could be more prominent in the lower part of the backrest. There are controllable fresh-air louvres on each side of the instrument panel. Under the three-spoke steering wheel are two levers one on the left for turn indicators, one on the right for the optional overdrive which was fitted on the test car. The built-in grab handle for the passenger is well padded and the radio speaker is in a housing between the seats where it is highly audible. With the aid of a spanner the wheel can be slid down to a point which permits an extended arm driving position and there is plenty of elbow room. Pedal positions permit use of heel and toe on accelerator and brake, although the accelerator is placed a little high in relation to the other pedals.

Quiet

Engine and gears are satisfactorily quiet. Torque at low speeds is good and in top gear the car will go from 30-50 m.p.h. in 7.7 seconds. The speedometer needle was waving badly on the pre-production model I tried but using 5,000 r.p.m. as a limit, speeds in gears seem to be about 49 m.p.h. in second, 56 in overdrive second, 70 in third, 86 in overdrive third and 92 in direct top. In overdrive top I timed it one way over a flying quarter-mile at 111.1 m.p.h. with the instruments showing 115 m. p. h. and 4,800 r.p.m. This was with the car open and there was a fair amount of wind scream due to air turbu-

lence. With the top erected and windows shut it should do 114 m.p.h. or so. Acceleration figures through the gears were approximately 0-50 m.p.h. in 7.5 seconds, and 0-60 in 10.2 m.p.h. Acceleration tests revealed one flaw in control layout on left hand drive cars. Both gear lever and overdrive trigger are worked by the right hand, so one cannot for example, change from overdrive second to direct third but must take overdrive third, if a quick shift is needed.

More comfortable

The ride is more comfortable than on the T.R. 3 and at the same time the car holds its course better on the straight and seems to have lost the peculiar tail end twitch in the corners. It can now be steered quite nicely through fast bends with the throttle. The wider track seems to have produced a big improvement in cornering stability and the softness of the suspension only becomes apparent in a quick emergency swerve and counter swerve at high speeds when there is a fair amount of roll and a strong grip on the wheel is needed to prevent the tail breaking away.

Hard anti-fade brake linings were fitted on the early car I drove and required fairly heavy pedal pressure from high speeds but I was able to tramp on the pedal hard at 100 m.p.h. to bring the T.R. 4 to a quick straight-line stop with no dramatics whatsoever. This I always feel is a good test of both brakes and chassis.

In appearance, performance passenger space and luggage accommodation the T.R. 4 represents a big step forward; a civilised sports car in which one can travel fast in comfort.

Dimensions

Wheelbase 7 ft. 4 in. Track front 4 ft. Rear 4 ft. 1 in.
Centre lock wheels add 1 in. to the track.
Ground clearance 6 in. Turning circle 33 ft.
Dry weight 2120 lb. Kerb weight 2240 lb.
Tyres 5-90—15. Length 13 ft. Width 4 ft. 9½ in.
Height with folding top erected 4 ft. 2 in.

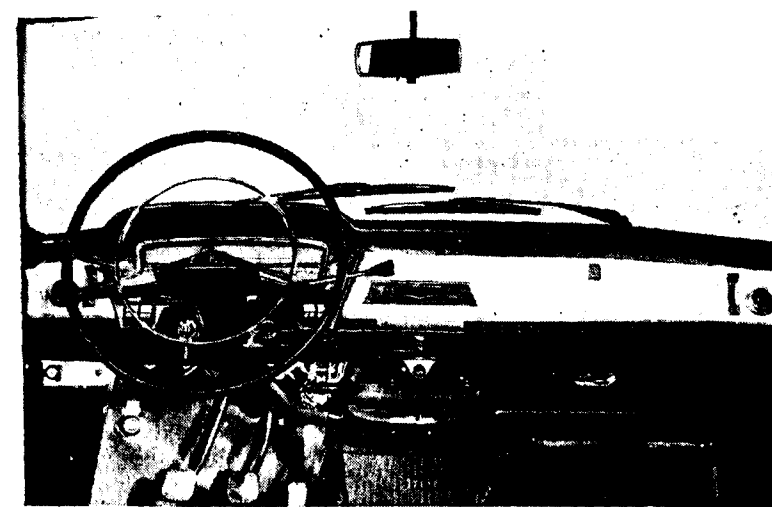
From Gordon Wilkins

FIAT 2300

a high performance six developed from the 2100

IMPROVED 1800

Fiat has completed an extensive redesign of their 2300. It is identified by the four headlamps neatly built into the existing front. Its engine has been increased to 2.3 litres, and now gives 105 horsepower installed in the car, enough to guarantee a speed of 100 m.p.h. British Girling disc brakes with vacuum serve are now fitted on all four wheels, and the de Normanville overdrive made in Italy by Bianchi is now offered as an optional extra. Later, a fully automatic clutch will be available. An interesting feature is the electro magnetic clutch which stops the engine cooling fan when it is not needed. This cuts down engine noise at fast cruising speeds, helps quick warming up in cold weather and should have a useful effect on fuel consumption.



Dash board and instrument panel of the New Fiat 1800 B

Second thoughts on Rear suspension

But in another respect Fiat engineers have had second thoughts about technical innovations. They have abandoned their rather complicated rear suspension with coil springs and laminated spring radius arms, which never seemed to me to give results commensurate with the extra cost and complication, and have adopted a strictly orthodox rigid axle, with conventional semi-elliptic springs and an anti-roll bar. This increases rear seating space and trunk capacity.

Inlet valves larger

In the new engine bore and stroke have been increased to 78x79.5 mm giving 2379 cc. Compression ratio is unchanged at 8.8 to 1, but crankshaft, pistons and manifold are new. Inlet valves are larger and the twin-choke carburetter has differential throttle control. Maxi-

mum useable power is now 105 bhp at 5300 rpm (117 bhp SAE) with torque of 125 lb. ft. at 2800 rpm (134 lb. ft. SAE). Gearbox and rear axle have been strengthened and tyre size is increased to 6.40.

Improved shape

The armrests on the doors are of improved shape. Instrument and switch layout is improved. Intensity of turn indicator warning lights is automatically reduced when the external lights are on, to prevent dazzle to the driver at night. A fan to demist the rear window is an optional extra.

With its innumerable clever refinements in trim and equipment (adjustable backrests pedal operated windshield washer, reminder lights for handbrake, fuel level, oil pressure and choke, defrosting for side windows, three courtesy lights and rear assist straps are all standard equipment), the Fiat 2300 is now one of Europe's outstanding medium-sized cars.

On the Station Wagon

On the station wagon the front suspension is redesigned and the new rear suspension permits a lower floor level.

The 2300 special saloon replaces the 2100 limousine which already had four headlamps. It is similar in appearance, but the body has been extensively modified and wheelbase has been increased by 3 inches. The grille is neater. Electric window lifts are optional but a rear window defroster is standard.

1800 B

Many of the changes appearing on the 2300 apply also in the latest 1800, known as the 1800 B. It has the disk brakes and new rear suspension and the interior improvements, but does not have four headlamps. Engine modifications raise the output to 86 bhp at 5300 rpm (97 bhp SAE) but the cylinder capacity is unchanged.

October 1961

Failure to develop roads will throttle national economy: L. P. Misra's Warning

"It is of vital importance that the sad experience of the Second Plan in which lack of transport facilities caused a serious dislocation of production should not be repeated in the Third Plan... Failure to develop roads will throttle national economy" said Sir L. P. Misra, Chairman of I.R.T.D.A. Calcutta Branch while addressing the meeting of the Branch on August, 26.

Two alternatives

He said :

"There are now two clear alternatives before the country : either to increase the allotment for the construction of new roads and improvement of the capacity of the existing roads (so as to enable road transport to carry 70 million tons annually by the end of the Third Plan as against 20 millions at the end of the Second); or to allow about 50 million tons of traffic to remain uncarried in 1965, automatically reducing thereby the targets of production in the Third Plan and causing severe loss to producers. It needs hardly to be emphasised that the second alternative will be a tragedy for the country in as much as it will not only dislocate the developing economy from year to year but

nullify to some extent the very object of the Plan.

"The depressing picture of the international tension and domestic discord is, however, not without some bright spots for our economy. The country has completed the Second Five Year Plan and has launched the Third Plan which is larger than the first two Plans put together. It has been evolved after a good deal of study and consultations. It is however obvious that a Five Year Plan for the progress and welfare of 1/7th of the human race in India cannot command universal acceptance. It must have its own critics. There are knowledgeable persons who have their own ideas as to how the Plan should have been prepared and how it should have been implemented. This fact, however, should not detract from the need of making a success of the Plan as finalised. The time for controversy is over, the die is cast, the Plan is before the country to implement. It is the duty of every Indian citizen whatever his views or sphere of work to make the utmost contribution, he is capable of, towards the implementation of the Plan. We have to remember that unless we aim at the Heavens, we shall not be able to shoot the trees and that even if we do not achieve what we have aimed at, in the Third Plan, the country would have progressed much further, even from its incomplete implementation. The country now looks up to every Indian to lift up his sleeves and get on to the task of making a complete success of the Plan, for, no Government however broad-based or resourceful can implement

it without a concerted national effort.

Transport problems

So far as our Association is concerned, transport facilities for the traffic developing is our immediate concern for nothing can dislocate more effectively the planned targets of production than lack of facilities for carrying what is being produced, to its destination. The Government has also an important part to play in getting the maximum out of the resources they are making available for the Third Plan. It will hardly be safe to assume that once the targets have been fixed and foreign and local resources found, full implementation will follow in due course, for, unless facilities are provided from day to day for transport of raw materials, finished and semi-finished products to their destinations, not only will production suffer and targets decrease but the cost of production will inevitably increase. This has been the experience of the Second Plan. Annual Reports of established industries are an eloquent testimony, if a testimony was ever needed for its confirmation. A large majority of the reports have bitterly complained of lack of transport facilities causing reduction of production. The same remarks would apply to agricultural produce as well. Unfortunately, the cultivator at this stage is still inarticulate and cannot raise adequate protest against the loss and harassment suffered through lack of facilities required for the transport of his product. In many instances he had to sell locally the product of his labour for a fraction of the price which he would have secured if his product had been carried to where it was in demand. It is of vital importance, that the sad experience of the Second Plan in which lack of transport facilities caused a

serious dislocation of production should not be repeated in the Third Plan. It is necessary, therefore, to analyse what happened during the last five years and how the mistakes made in the past can be avoided now. One of the chief causes of this failure was that the lift involved in the Second Plan was not properly studied from year to year. Provision was originally made for the transport of special industrial commodities like coal and raw materials for production of steel. For the rest, an annual percentage increase in traffic based on the experience of past years was provided for. It was also not adequately appreciated that some raw materials require transport more than once to reach the consumer, for example, pig iron has to be carried to a foundry and the castings produced out of it have to be carried again to the consumer either direct or through another halt in a Machine Shop. Steel sections have to be sent to fabricating workshops and the structures made out of them have to be transported again to the sites of works. It is also not generally recognised that the transport of cement does in many cases involve before its use the movement of six to eight times the quantity in the shape of bricks and sand or brick-ballast for utilisation of the cement. All this happened for the Planning Commission had no call for a regular study of the requirements of traffic as they developed from year to year. This was a grievous omission and was to a great extent responsible for the dislocation which took place and went on increasing from year to year in course of the Second Plan.

Lesson from the past

"What happened in the past is spilt milk. No useful purpose will be served by wasting time over it. Let us learn a lesson from our past failures and do whatever may be possible to get the maximum out of the existing transport facilities or those to be created out of the resources available in the Third Plan. It should be kept in mind that apart from the extra traffic resulting from the targets of the Third Plan, the impetus of the first

two Plans will be getting into full momentum and create a tremendous upsurge of traffic over what occurred in the last year of the Second Plan. What is urgently needed is to calculate first on a scientific basis the total lift involved in the targets of the Second and the Third Plans. It is only then that ways and means can be found for creating timely transport facilities in the most economic manner. It is necessary that separate cells should be established in the Planning Commission Transport Ministry and Railways to study the traffic development in the country continuously throughout the Plan period and to co-ordinate their studies in dealing with the traffic offering each year of the Plan.

Needless to say, Associations like ours will be too glad to assist the transport cell in Planning Commission, if required. In the absence of a definite lead from the Government in this respect, rough estimates of the lift to be handled towards the end of the Third Plan had to be worked out some months back from the targets notified in the tentative Plan. It has been found that the programmed lift in the last year of the Plan will not be less than 320 million tons and may easily go upto more in favourable circumstances. It cannot be overemphasised that the traffic offering is a perishable commodity, for, many articles or commodities offered for conveyance, no longer remain available

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for transport, if it is not readily available.

Problem not solved

"Transport facilities must, therefore, precede and not follow the requirements resulting from the progressive developments of the Plans. The position now is that out of the estimated lift of about 320 million tons, Railways have already taken up the great task of lifting about 250 million tons. I have no doubt that with the organisation and the resources available and also the experience gained in the Second Plan, they will be able to work up to their target. Their achievement good as it will be will, however, not solve the problem for it will still leave a balance of 70 million tons to be catered for by other forms of transport.

"With all the developments which have taken place in aerial navigation, air-borne traffic still remains and would continue to remain as far as one can see, only a class traffic, both for passengers and goods, for many years to come. Not much relief can, therefore, be expected from it in carrying the balance of the lift left over from railways. The inland water transport has unfortunately been so neglected for such a long time that its development has ceased to be a short term project. We have about 5,700 miles of navigable inland water routes carrying some sort of traffic. Out of this mileage, about 1,500 can carry steamer traffic and the other 1,200 miles can take medium country-craft. The remaining 3,000 miles can be nego-

tiated only by small country-crafts. Gokale Committee has made some suggestions for improvements but even with the best efforts which can be made for its development, inland water transport will also not be able to afford in the next five years any substantial relief by carrying the lift left over from railways. The net result will be that at least 70 million tons of the lift involved will have to be carried on roads if the national economy is not to be throttled. Unfortunately, details of figures of traffic carried on roads are not available but the consensus of opinion among those conversant with the problem is that with all the efforts made, annual lift by motor vehicles on roads still remains below twenty million tons. The crux of the problem, therefore, is how to make the roads take over the additional lift of about fifty million tons, thrown on them, after all other modes of transport have been saturated with the traffic offering and have carried all that they can.

Suggestions

The following practical steps have, therefore, to be taken to achieve the object in view :—

- (i) increase the mileage of roads to open up new and neglected tracts now developing under the impetus of the Plans,
- (ii) improve the capacity of the existing roads by better surfacing, bridging the gaps which are preventing their full utilisation,
- (iii) strengthening of the weak bridges which are reducing the loads to be carried per vehicle,
- (iv) increase the use of trailers,
- (v) quicker disposal of applications for registrations for new commercial vehicles,
- (vi) increase the outturn of the existing automobile factories to what is needed to meet the country's requirements.

"It is obvious that steps detailed above can be taken up only if adequate funds are available. This

question was considered in general by the Transport Ministry and a comprehensive scheme evolved to meet the needs of the developing economy in addition to whatever developments may take place in other forms of transport. It has been found that the normal needs of the country required an expenditure of about Rs. 11,000 crores in the next twenty years or an average of Rs. 600 crores per year. The present deficit of 50 million tons in the lift of the Third Plan creates an emergency of the highest priority and will have to be provided for, over and above the normal requirements. Against this new development the allotment provided in the Third Plan for roads remains more or less the same as it was in the Second Plan. Rates of labour and material are steadily increasing with the result that the development of roads in the Third Plan will be less than what it has been in the Second Plan if no more funds can be allotted for them.

"There are now two clear alternatives which I have stated before the country.

It has come to be regarded as a truism in modern times that every country has to pay for its roads whether it builds them or not. In fact, it has to pay more if it does not build them on account of the loss of development of its economy resulting therefrom.

No choice left

"There is, therefore, no choice left before the country. First things have to be taken up first. More funds shall have to be found out of the existing Plan, to enable roads to carry the balance of the planned traffic left over from other forms of transport. The problem is not as difficult as it appears on paper. It has been the usual experience during the last ten years of the planning period that of the various schemes planned, some make good progress and on others it is slow, but the net result is always lapse of funds allotted in a year. The increased funds required for the carriage of the additional 50 million tons on the roads will, therefore, not be difficult to secure out of the lapses by reappropriation, if a re-

gular check is kept of the flow of expenditure on various schemes each year. After, all, approximately only Rs. 600 crores more in course of five years for roads out of a plan of Rs. 10,400 crores cannot be said to present an insurmountable difficulty.

"Even if this amount cannot be conveniently obtained by reappropriation, there is another source of revenue which should go a long way not only to provide for the additional road requirements but leave a fairly substantial balance for Government as well. It is the normal revenue yield from the new motor vehicles which will have to be put on the road. It is not generally realised that approximately 5,50,000 vehicles on the road contributed in 1960-61 Rs. 142 crores to the coffers of Government making an average contribution of Rs. 2,583 per vehicle. In fact, average contribution of a commercial vehicle towards taxes come to between Rs. 5,400 and Rs. 6,000 per vehicle a year. In fact, a commercial vehicle begins to contribute to the coffers of the State from the day a start is made with the manufacture of its part in factories. Further, its contribution to the Government by way of taxes begins to grow more and more as its use increases. In other words, it makes its own contribution to capital and revenue expenditure of roads and towards reduction of the balance of the traffic left over from other forms of transport. If another fifty additional million tons of traffic are to be thrown on the roads, the number of motor vehicles on road will have to be increased by another 3 to 3½ lakhs in course of the next 5 years and should, therefore, be able to finance practically the whole of the additional expenditure required to carry the balance of the lift (fifty million tons of traffic) on roads.

Employment

"There is another aspect of motor transport on roads which has not been given the consideration it deserves. It has been established after a recent research into the employment potential of motor traffic on the roads that about 12½ lakhs are employed on the

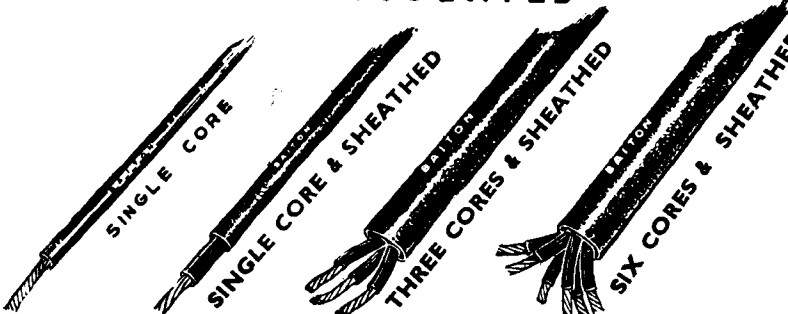
operation, maintenance of about half a million motor vehicles in the country and that million men are employed on the maintenance and repairs of the existing roads and construction of new ones. It has also been found that a worker in India has to support normally four/five dependants but even if the average is taken to be four, the number of dependants on 22½ lakh workers come to about 90 lakhs. The total number of persons who

depend for their food and shelter on roads would, therefore, come to about 11.0 millions out of a total population of 440 millions. It would be observed that even in the present undeveloped state of motor traffic on roads 1 out of 40 of the population of India depends for his food and shelter on them. If we take into consideration the fact that India is far behind in respect of the mileage per 100 square mile of the territory



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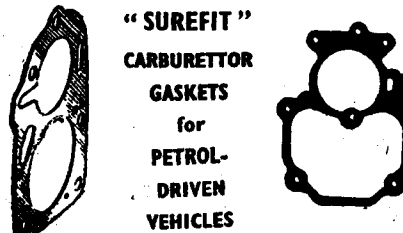
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or per million of population, some idea can be obtained of the tremendous employment resulting from the development of motor traffic on roads to carry the lift left over from other modes of transport.

"A number of experts in the country whose views should count in such matters are of the opinion that our Plans have to provide for three major problems in the country—unemployment, inflation and scarcity of foreign exchange. Enough has been mentioned about the employment potential of motor transport on roads. In respect of inflation it is held that schemes which get into a production stage early can fight inflation more effectively than those in which the gestation period is long, i.e., which take a long time to get into production. Expenditure on roads has a very short gestation period, for roads can be brought into commission in a year or two. With the increase in the production of steel in the country, construction or improvements of roads will hardly need any foreign exchange. The development of motor traffic on the road should in the light of what has been explained above get a special priority particularly on account of motor transport on roads having become the only method of effectively taking over the balance of traffic of the Third Plan left over from other forms of transport.

No Road-Rail Competition

To sum up, the present position

is that during the Third Plan, each form of transport will, for reasons explained above, have more traffic to carry than what it can take over. There is no justification for the apprehension that the railways and roads will compete with each other for competition starts only when the supply is more than the demand. But when the demand is more than the supply, there should be no apprehension about competition. Some idea of the developments which must occur on our railways will be gained from the fact that our railways are loading 22,000 wagons a day while in one division of approximately 1,000 miles, in West Germany, they are loading 42,000 wagons a day. This gives some idea of how much traffic has to come on railways with the development of industries, commerce and agriculture. There is also no cause for any apprehension of reduction of railway revenues as they have been increasing steadily from year to year. It is hardly desirable, in these circumstances, to waste any time over the merits or demerits of each form of transport. When fire is raging, no sensible man will waste time or energy on deciding as to which source of water will be best to carry for extinguishing fire. The country is aflame with developments, industrial, agricultural and economic. The tons to be lifted, as mentioned above, are much more than what the four forms of transport can carry. The interest of the country demands that each form of transport should be developed to the maximum capacity for carrying the traffic brought to it. Safeguarding

one form of transport against the other would be justified only when the supply exceeds the demand. As far as India is concerned, we are fortunately living in a generation in which there is no need for such controversies for at least ten years to come.

"I apologise for the time taken to emphasise the urgency of more provision being made for the development of motor traffic on roads, for upon the correct solution of this vital problem will depend the success of plan, so much longed for in the country.

Calcutta's Traffic Problems

"The number of vehicles in Calcutta has increased during the last ten years from 71,000 to 99,400. The number of cars, taxis and other motor vehicles which are included in the above figures have risen by 50 per cent; while our roads excepting a few re-alignments here and there continue to remain the same as they were a quarter of a century back. The present mileage of 4*5 miles is quite inadequate for dealing with the developments outlined above. In fact, it would be correct to say that the position in regard to road facilities has deteriorated considerably for lack of attention from the authorities concerned. Even the present roads with the small mileage can be made to carry more traffic if obstructions in their widths like telegraph or electric posts, heaps of rubbish, and building materials piled on footpaths can be removed but unfortunately these ugly developments do not appear to be anybody's concern with the result that our footpaths are blocked and more pedestrians have to move on roads which have also become convenient places for rest for human beings, cows, bulls and dogs. The problem has become baffling to a degree. On account of other pressing problems the State Government has been able to give the road problem the attention which it deserves. Effort for improvement by the Calcutta Corporation is conspicuous by its absence. The result is more human misery and ever-increasing congestion of traffic. From 71 deaths per year

Estate for Manufacture of Components :

AN ENFIELD PROJECT

project with a view to component parts to industries in likely to prop up id of August next year in ed the Industrial Estate o the Enfield factory at hile the Enfield India (P) as a large scale industry oduction of industrial a wide variety of agri-nd industrial equipment, ifacture of component eto are proposed to be

e number went upto 289 On an average about 200 alities take place every ound is one of the ies of the World. The f deaths due to road there is one for every icles but in Calcutta the is almost treble i.e., one very 322 vehicles. With novement of traffic these rapidly increasing.

m is being encouraged in Foreign visitors coming irtport have to travel on roads with no rules of l filthy drains on both modern road from Dum een under consideration ; time but nothing has d so far. This big city e exit towards the West nditions on the Grand ad for the first twenty to be seen to be believed. ibbon development and ds which were originally out 50 years back for ic, modern buses and carriers with their huge to pass in both direc- hout the day to provide for traffic of Calcutta. rowth of Durgapur the on the Grand Trunk increased to a unbelie- nt. A modern road to as been in the offing ime but no beginning een made with it. These, e the depressing features nsport in the greatest entre of India.

left to 20 small-scale units in the private sector on a contract basis. With an estimated cost of over Rs. 1 crore Enfield India launches this first organised attempt to collaborate their large-scale manufacture with small-scale units and the credit goes to Mr. K. R. Sundaram Iyer, its Chairman, who has just returned from U. K. after securing technical etc., assistance of Villiers Engineering Co. of U. K.

Twenty small-scale units will form into a limited company themselves and receive all technical guidance from the Sponsoring

Company. There will be a Central servicing and maintenance unit for the machinery installed in the industrial estate besides tool room machinery and jigs. The small-scale units will sell the components to Enfield India for a contract price to be mutually determined.

To begin with, 15,000 industrial engines are proposed to be manufactured by Enfield India Ltd. and individual units will get all the necessary machinery and financial aid from the National Small Industries Corporation and the State Government.

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From Gordon Wilkins

NEW DAIMLER LIMOUSINE

new body, longer wheelbase,
V8 engine, automatic
transmission, disc brakes



The new Daimler Limousine has been designed to accommodate eight persons in the same degree of comfort as that associated with the current Daimler saloons, but interior space has not been achieved by sacrificing the luggage accommodation for the trunk has a capacity of over 20 cu. ft. This, combined with the high performance provided by the V8 engine, and the ease of driving aided by automatic transmission and power assisted steering should make it a car equally suitable for long distance touring, daily business use or ceremonial occasions.

It replaces the former six-cylinder 4.6 litre 1676 b.h.p. limousine, which had a fluid coupling and planetary self-change gearbox. The new model has the 4.6 litre 220 b.h.p. V8 engine, Borg Warner automatic transmission, serve assisted disc brakes and power-assisted steering. It has a longer wheelbase, bigger luggage trunk and much better lines.

From the front as far back as the centre pillar it resembles the Daimler Majestic Major saloon, but the wheelbase is 2 ft. (61 cm.) longer and there are four big doors

clear of the wheel arches, all hung on their forward edges by concealed hinges.

The rear doors, the apertures of which are fitted with a step, are particularly wide and open through a full 90 degrees. The steps are concealed by the doors when closed.

The main rear seat is upholstered in high quality cloth with foam rubber over a spring base. Wide armrests are fitted at each side and there is a folding armrest in the centre. Figured walnut is used for window surrounds. Large pockets are provided in both rear doors. On each side of the rear seat are cigar lighter and ashtray and above the rear quarter windows are flexible assist grips and interior lights with dual filament bulbs for general lighting or reading.

The two occasional seats fold flat into the floor and division and provide a good standard of comfort when in use. The mechanism is simple to operate and rigid in use. Maximum leg room has been achieved by use of foot wells in the floor, and by inclining the lower

part of the division between front and rear compartments.

The fixed division between front and rear compartments incorporates large sliding glasses, a centrally positioned ashtray and grab handles for use when entering or leaving the car.

The front compartment has a bench type seat trimmed in leather. Beneath the seat, accommodation is provided for cleaning materials and other items. Both front doors carry armrests and pockets with hinged covers. A map reading lamp is operated by a switch mounted on the instrument panel as well as by the front doors. The figured walnut instrument panel, incorporates an open locker on the driver's side, and one with lockable lid on the passenger side. Instruments include speedometer, electric tachometer, ammeter, thermometer, fuel gauge and clock.

Separate heat-ventilation systems are employed for front and rear compartments. The fresh air heater for the front incorporates a defrosting and demisting system for the

windscreen and is controlled from the fascia panel. In the rear, warm air outlets are located at floor level.

The power unit is the Daimler V8 of 4561 c.c. with pushrod-operated valves and twin SU carburettors.

On the Borg Warner automatic transmission Intermediate gear can be held by using a switch on the instrument panel. The recirculating ball steering gear has power assistance.

To deal with a laden weight of about 2½ tons, moving at high speeds, good brakes are essential and Dunlop disc brakes are fitted to all four wheels, with vacuum serve assistance. They have quickly replaceable pads. The handbrake operates on the rear wheels via a separate set of pads. A brake fluid level warning light is linked to the handbrake mechanism. Loss of brake fluid or the application of the handbrake illuminates the warning light.

Much development work has been done to evolve a suspension system which will provide a smooth and comfortable ride over all types of surface, whether there is only one person being carried or eight and their luggage. The system is quite conventional. Independent suspension using wishbones and coil springs is used at the front with telescopic shock absorbers and an anti-roll bar. At the rear, suspension is by semi-elliptic springs and telescopic shock absorbers.

Daimler Limousine

Engine.—V8 95.25 × 80.01 mm. 4,561 c.c. (278.2 cu. in.)

Compression ratio 8 to 1. 220 b.h.p. at 5,500 r.p.m. O.H.V. push-rod operated. Two SU carburettors.

Transmission

Borg Warner automatic with fluid coupling and three-speed planetary gearbox. Overall ratios Low 17.4/8.701 Intermediate 10.8/5.48 Top 5.77 to 1.

Wheels and Tyres

Bolt-on disc wheels with 7.00—16 in.

Road Speed Tyres.

Dimensions:—

Wheelbase ... 350.5 c.m.
11 ft. 6 in.

Track front and rear 4 ft. 9 in. 145 cm.

Length 18 ft. 10 in. ... 574 cm.

Width 6 ft. 1½ in. ... 186 cm.

Height 5 ft. 5½ in. ... 166.5 c.m.

Ground clearance 7 in. ... 17.8 c.m.

Kerb weight 4,500 lb. ... 2050 kg.

Fuel tank 16 Imp. gal 19½ U.S. gal, 72.7 litres.

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October 1961

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B.M.W.; A New 1500. A 700 Convertible

Improvements to 2.6 And 3.2 Litre

B.M.W. cars have always had a special character combining sporting performance with comfort and high quality finish. Now they have introduced an important addition to the 1½ litre class which is enjoying increased popularity all over Europe. The new BMW 1500 is a roomy four-door sedan with unit construction body of elegant but durable style for which Michellotti was responsible. It is powered by a four-cylinder single overhead camshaft engine canted on its side at 30° to the vertical. The engine with bore and stroke of 82 x 71 mm. giving 1499 c.c. produces a considerable output for its size; 75 b.h.p. nett at 5,500 r.p.m. but it also has a high torque of 86.6 lb. ft. at 3,000 r.p.m. The compression is 8.2 to 1 and a single solex downdraught carburettor is used on a water heated manifold. There is also thermostatic control for a warm air supply to the carburettor in bad weather. The single overhead camshaft is chain driven with an oil pressure chain tensioner and the valves are set at an angle to each other in the head. A torque of at least 72.5 lb. ft. is maintained all the way from 1200 to 1500 r.p.m., giving smooth top gear acceleration from 16 m.p.h. to over 90. The crankshaft runs in five bearings.

Transmission is through a single plate clutch with hydraulic control and a four-speed gearbox with Porsche synchromesh on all gears, then by a single shaft to a hypoid final drive mounted flexibly on the frame at the rear. Suspension of the car wheels is independent by trailing arms at an angle of 20° to the car centre line to prevent rear wheel steering, the suspension media being coil springs with auxiliary air cushions. The suspension arms are attached by Silentbloc bushes to a rubber insulated sub frame. Front suspension is by coil spring struts which are also isolated by rubber mountings and there is an anti-roll bar. Steering gear is a Gezmer unit made by ZF.

Disk Brakes

BMW — the first German manufacturers to adopt disc brakes—use them at the front on the 1500. A feature of the interior is padded centre plate on the steering wheel. Instruments are recessed in a panel which is padded on top, door latches are concealed under the arm rests and fittings for safety harness are built in by all four seats. Other items; single control for screen wiper and washer, head lamp flasher.

The new 3,200 CS Coupe has a body designed by Bertone and a high performance version of the twin carburettor V8 engine giving a maximum speed of over 120 m.p.h. It is luxuriously finished with leather upholstery, reclining front seats and electric window lifts. Front suspension is by independent torsion bars and the rigid rear axle is also

linked to torsion bars. The special engine of 3168 c.c. runs on a 9 to 1 compression and delivers 157 b.h.p. nett at 5,600 r.p.m. with peak torque of 177 lb. ft. The gearbox has synchromesh on all four forward speeds and there is an option of two axle ratios 3.89 or 3.7 to 1. The coupe has the same wheelbase as the saloon and kerb weight is quoted as 3190 lb.

Output of the Smaller unit

The normal V8 sedan is continued with the choice of 2.6 litre or 3.2 litre V8 engines, both stepped in power, and torque. Output of the smaller unit goes up from 100 at 4,800 r.p.m. to 110 b.h.p. at 4,900 r.p.m. Compression ratio is 9 to 1, inlet valves and carburettor are larger and valve timing gets more overlap.

The 3,200 L is single carburettor form now gives 138 b.h.p. at 5,400 r.p.m. against 118 at 4,800 r.p.m. and torque has gone up to 174.5 lb. ft. The twin carburettor super engine now gives 158 b.h.p. at 5,600 rpm and 177 lb. ft. It must be quiet too, for there is a new control to prevent the starter being used while the engine is running.

Under frame is reinforced

The BMW 700 range of rear-engined small cars is extended by a convertible with a quick-action folding top. To give the necessary rigidity the under frame is reinforced with longitudinal and transverse members. The 697 cc flat twin engine gives 40 b.h.p. on a 9 to 1 compression. It has two carburettors and a maximum speed of 84 m.p.h. is claimed. Equipment includes adjustable backrests, combined ignition-steering lock and starter switch, reversing lamp, screen washer.

ASTON MARTIN D.B. 4. SERIES FOUR

Improvements For 1962

A number of improvements have been made in the Aston Martin D.B. 4. Series A model which goes into production for 1962. Externally there is a modified radiator grille with bolder grid pattern and a modified bonnet panel with less prominent carburettor intake. At the rear there are hoods over the tail lamps. Mechanically, the most important change is the use of a twin plate clutch which brings this car into line with the G.T. model. It is Borg and Beck unit, 9 in. dia-

meter (22.8 cm.) and is hydraulically operated with self-adjusting pedal travel. All cars now have an oil cooler duct, the cooler itself being offered as an optional extra. Minor engine changes include the provision of an insulated and calibrated dip-stick and the use of an oil filled coil with ballast resistor.

Striking Internal Changes

Internal changes include an increased roll on the rear backrest,

new finish for the rear parcel shelf and an ashtray on the gearbox cover. The standard axle ratio is 3.54 to 1 with a choice of 3.31 or 3.77 to 1 at extra cost. The DeNormanville overdrive is also optional and is supplied with axle ratios of 4.09 or 3.77 to 1. Among the other options at extra cost are a limited slip differential, fog lamps, chromium plated wheels, rear window demister, electric radiator heater for winter use, heated rear window, and electric window lifts.

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Association News

The Tamilnad Motor Parts Dealers' Association, Madurai

The Executive Committee of the Tamilnad Motor Parts Dealers' Association met on the 20th August, 1961 at 'Kanugo House', near Tiger Falls Turning at Courtallam with Mr. N. Kannayiram, B.A. in the chair.

The following members were present: Messrs. N. Kannayiram, B.A., RM. A. RM. Ramanathan Chettiar, K. C. Francis, T. Ramasamy Pillai, S. Arumugam, S. Ganapathy Iyer.

It was unanimously resolved to place on record its appreciation of Mr. RM. A. RM. Ramanathan Chettiar, Proprietor of A. Ramanathan Co., Madurai and Thiruvavur for having arranged the party at Courtallam.

The following newly enrolled members were approved as the members of the Tamilnad Motor Parts Dealers' Association.

M/s. B. V. Rajagopal Naidu & Sons, Batlagundu, M/s. Pandyan Motor Stores, Madurai, M/s. Arunachalam Auto Stores, Kovilpatty.

A list of members who have not till now paid subscription for the year 1961-62 was considered and the secretary was requested to write to the parties concerned and give his final report at the next committee meeting.

It is resolved to restrict the membership of the Association to Madras State only and to classify the members outside Madras State as affiliated members. It is also resolved that the goods under the Import Licence which the Association is getting will be distributed only to members in the Madras State who are regular Automobile Spare Parts Dealers.

Mr. K. C. Francis, Honorary Secretary thanked Mr. N. Kannayiram for having presided over the meeting and also Mr. RM. A. RM. Ramanathan Chettiar for having arranged the nice party at Courtallam.

Salem District Lorry Owners' Association

Memorandum to the Collector

Mr. S. Chinnaswamy, Secretary of the Association in a memorandum submitted to the Salem District Collector and President of the Salem Regional Transport Authority, has referred to the very bad condition of roads within the municipal boundary of Salem and matters connected with the setting up of Lorry stand and difficulties experienced by the lorry owners.

It was pointed out that there are many potholes in the road which cause damage to the tyres and the municipal authorities have not paid enough attention to remove the tar barrels. The Collector is requested to take steps necessary and pass orders in order to rectify the position.

As for the erection of a lorry stand it is requested that early steps should be taken to implement the decision of Salem Town Improvement Committee to erect the lorry stand near Chitral Chavadi in Sevvapet. It is also pointed out that if there is a public lorry stand as envisaged it would go a long way to satisfy the needs of lorry owners.

In Salem district there are about 600 lorries at present. Each lorry pays Rs. 500 as tax for each quarter. In Salem treasury alone Rs. 3 lakhs are collected for each quarter from these sources. So it is essential that the requirements of these lorry owners who pay sufficient revenue should be looked into and early steps are taken to redress their grievances.

Delhi Motor Traders' Association

The following new members were enrolled.

New Light Traders, Delhi 6; Narankari Motors, Delhi 9; Auto Niketan, Delhi; Jai Bharat Trading

Co. Delhi 6; Hanuman Trading Co. Delhi 6; Kohli & Co., Delhi 6; Madan Auto, Stores Delhi 6; International Traders, Delhi 6; Sethi Brothers, Delhi 6; Paradise Automobiles, Kashmir Gate, Delhi 6; Mahavir Motor Co. Delhi 6; Moolchand Shri Pal Jain, Delhi 6; Soona Singh, New Delhi 1; Harbans Singh & Sons, Delhi 6;

Steps to Improve Roads

In a communication to the Hon. Secretary of the Indian Roads and Transport Development Association Ltd., from the Govt. of Madras it was stated that the Govt. are aware of the necessity to improve the roads leading to, in and around industrial areas in the State and such improvements have already been taken up under the Second Five Year Plan and certain improvements are also proposed to be taken up under the Third Five Year Plan. As regards undertaking legislation to prevent ribbon development along side roads, it is stated that the matter is already under the consideration of the Government.

British Automobile Association Official to Visit India

Mr. K. L. Kelly, secretary-general of Britain's Automobile Association—the world's largest motoring organization—has left London on a 40,000 mile, four-month Commonwealth tour to make a first-hand study of the methods of sister organizations and to discuss problems of common interest.

He is due to arrive in Colombo on November 14, and on November 19 leaves for Madras. He will be in Calcutta on November 22, Delhi on November 25, and Bombay on November 29.

Mr. Kelly is vice-president of the Alliance Internationale de Tourism.

SUN COMES TO THE AID OF COMMUNITY LISTENING

Solar Cell lasts for 10,000 years!

The demonstration of Hoffman Solar-powered Community Listening Centre was held recently at Faridabad. This reliable self-contained maintenance free radio is worked by Solar Cell.

This device is able to convert the energy of light into electrical energy directly within itself. There are no moving parts to wear out, no chemicals are consumed; the cells are robust and resistant to corrosion. The best estimate to date of the life of a Solar Cell is 10,000 years.

Mr. S. Sundra, Managing Director of Electronics Limited, explained the working of the device and said that the output of a Solar Cell can be made to charge a battery from which the set will finally work.

All day long the Solar Cells soak

up the sun's rays and pour their energy into the tiny battery and that is all that is required for a transistor set. In the evenings after the sun is set the community set can be switched on and the battery now delivers up the energy it has received from the Solar Cells and the village is in touch with the world. The villagers get this entertainment by the help of the sun through the agency of Hoffman of the U. S. A. and Electronics Ltd., of India.

Hoffman manufacture high efficiency Solar Cells of different types which can be supplied separately or in modules to meet any requirements. The cost of the complete equipment specially designed for hundreds of villages in India is estimated at Rs. 4,800.



The Solar-powered unit is being introduced by Mr. Sundra of Electronics Ltd.

Mr. Sundra said "If we can interest the Government to install in the beginning only 500 sets as a trial measure, I have assurances from our associates Hoffman to get U. S. aid up to 50% of its cost.



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FIRST IN INDIA

TAFE — Tractors and Farm Equipment Private Ltd.

Production Plant for MASSEY-FERGUSON TRACTORS

Mr. K. Kamaraj, Chief Minister of Madras State formally opened the Tractor Production Plant now producing MASSEY-FERGUSON 1035 tractors for Tafe, the Madras member of the Simpson Group of Companies. Tafe Ltd. is very closely associated with the world-wide Massey Ferguson organisation.

Tafe Tractor Production Plant is a part of India's Third Five Year Plan food production drive and has been licensed by the Government of India to produce 7000 M. F. tractors a year on a two shift basis.

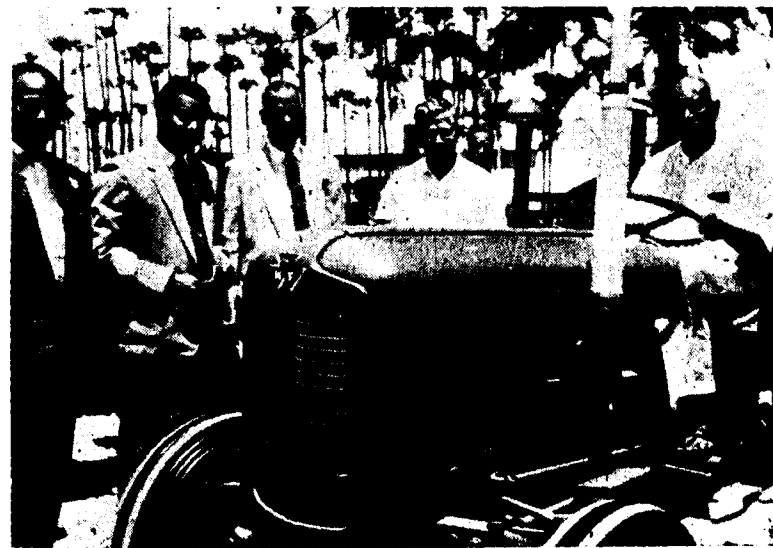
The History

Tractors and Farm Equipment Ltd. formed jointly by the Massey Ferguson Organisation and Simpson & Co., Ltd. Madras for the manufacture of M. F. tractors and farm machinery in India started operations on Jan. 1, 1961, taking over from that date all responsibilities hitherto discharged by Massey Ferguson (India) Ltd.

Dedicated to the service of Indian agriculture, Tafe has accepted the challenge of providing India's farmers with efficient and economic farm tractors and implements essential in the struggle to raise India's farm productivity.

Tafe inherits all the good work accomplished for Indian farming since Ferguson system equipment was first brought to India in 1949 under personal instructions from Pandit Jawaharlal Nehru. Since then 16,000 Ferguson System tractors and more than 30,000 implements have been purchased by Indian farmers.

Tafe is backed by the very large resources and wide technical



PLANT INAUGURATED: Tractors and Farm Equipment Limited celebrated on the 17th September the inauguration of its No. 1 Tractor Production Plant by Sri K. Kamaraj, Chief Minister, Government of Madras, at Sembiam, Madras.

Picture shows the Chief Minister at the wheel of an Indian-made 1035 Massey-Ferguson tractor. Also in the picture are Sri R. Venkataraman, Minister for Industries and Labour, Madras, Sri S. Anantharamakrishnan, Chairman, and Sri A. Sivasailam, General Manager respectively of Tractors and Farm Equipment Limited.

experience of M. F. and the Simpson Group.

India's first factory will be part of the massive Simpson Group of companies and will secure a special kind of prestige for India and for Indian industry. The employment of over 3000 workers at the end of the final phases of manufacture will provide an important form of support for the country's industrialisation policy, and a growing reservoir of technical skill greatly widening the country's pool of manufacturing knowledge.

The challenge

The Third Plan target for food-grains is nearly one and a half times higher than current production of a little over 70 million tons. This is very modest in the context of rapid increase in population. The achievement of Plan target is impossible with the present farming methods. Attaining the Plan goal of economic independence and national prosperity is feasible only through the application of advanced methods of farming particularly the

introduction of modern agricultural machinery. Tafe is dedicated to the fulfilment of India's economic aspirations through better farming with Massey-Ferguson farm machinery.

Only way

Mr. Kamaraj, while speaking at the function organised at Simpson's Industrial Estate, Sembiam, said mechanisation of agriculture was the only way to meet India's growing food requirements and the situation created by the exodus of underdeveloped farmers to urban areas in search of jobs in factories.

He complimented Mr. Anantaramakrishnan on his initiative and vision in promoting industries to serve the varied interests of independent India.

Welcome Address

Mr. Anantaramakrishnan, Chair-



man of Tafe, welcoming the Chief Minister Mr. Kamaraj and the Minister of Industries Mr. R. Venkataraman said but for their help this factory would not have come into being in Madras State. There was so much competition and but for Mr. Venkataraman's

interest the licence would have gone to some other State.

He also disclosed that tractors produced by Tafe comprised over 50 percent indigenous components including the engine and in about two years they were confident of increasing the indigenous components to 98 per cent.

Two Tractors sold

Mr. Kamaraj inaugurated the plant and delivered the first two tractors to dealers, one from Eluru and the other from Jaipur. He said: "Despite increased production there was still a deficit. This could be met only by adopting modern methods of cultivation. Indian farmers were conservative, but even they had come to realise that mechanisation and modern methods of agriculture yielded better results. There was enough land and man-power but with growing industries there was a flow from rural to urban areas and agriculture

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had to be mechanised in a big way to increase production."

Burden on land

Mr. Venkataraman was happy that industrialists were venturing into new spheres: He said, "the rate of industrial expansion was going up because of economic development in the country. More and more industries were the only answer to provide more employment. Their problem was to divert the burden on land to other channels of useful employment. He welcomed industries of this type which is a welcome addition to the State and which would employ ultimately about 4000 persons."

Basic aim

Mr. A. Sivasailam, Tafe's General Manager, presenting the Charter for Tafe said "the basic aim and motivating force of Tafe is to serve and thus constantly strive to improve Indian farming through effective mechanisation of farms. Tafe would be India's first factory for large-scale production and marketing of tractors and matching implements."

During the first eight months of operation Tractors and Farm Equipment Limited completely reorganised and realigned Massey-Ferguson marketing and manufacturing plans in India. Tafe is to-day the sole distributors of M. F. equipment in India and provides a direct link between factory and customer through over sixty main dealers in the country.

The first Tafe-produced Massey-Ferguson 1035 tractor rolled off the Madras production line on 23rd August 1961—Vanguard of many thousands of fine machines all destined to play an important role in India's future.

A magnificent framework of appointed main dealers supported by Tafe's team of qualified area representatives links Tafe with Indian farmers who can thus count on 100 per cent service and support at all times and in every corner of the country. Thus Tafe M. F. main dealers possess an unequalled and intimate knowledge of Indian farm mechanisation which is at the disposal of all who desire to increase Indian food production.

Service after Sales

Every M. F. tractor supplied by Tafe benefits from four free services carried out on the farm by trained main dealer mechanics during the first six months of its working life. Subsequent service attention is always available from any one of the 124 M. F. Main dealer service stations in India on request. All this is backed up by a Repair Parts Organisation second to none and by a universal desire on the part of the Tafe M. F. team to offer the hand of helpful friendship to all M. F. tractor users in India throughout their period of ownership.

Tafe enters Export Market

Tafe is making a vigorous export sales drive to earn valuable foreign exchange for the country.

When S. S. "Ray Andaman" sailed from the shores of Tuticorin in April 1961, it carried in its hold Tafe's first export shipment—a consignment of Indian-made M. F. 35 Tractor Jacks for the Massey-Ferguson distributors in Ceylon.

This maiden shipment was soon followed by a consignment of 40 pairs of paddy cage wheels to British Guiana per S. S. Khara-korum which sailed from Madras on May 22nd 1961.

A consignment of 31 pairs of Indian-made M. F. paddy cage wheels was exported recently by Tractors and Farm Equipment Ltd. to the Far East.

Board of Directors

Mr. S. Anantaramakrishnan, the distinguished Chairman of the fast-growing Simpson Group of Companies is the Chairman of the Board of Directors of Tafe. The other Directors are: Mr. M. V. Venkataraman, Mr. S. S. Raghavachari, Mr. A. A. Thornbrough (alternate Director is Mr. G. F. Muirhead) and Mr. J. W. Beith (alternate Director is Mr. J. Deavin). Mr. Thornbrough is president of Massey-Ferguson Ltd. Toronto.

Mr. A. Sivasailam leads the overall activities of Tafe as General Manager.

Mr. A.B.P.G. Behr formerly Sales Manager of Massey-Ferguson (India) Ltd. controls as Marketing Manager, the marketing operations of the company. Mr. L. M. Howarth who has worked in a number of important manufacturing capacities with the M. F. organisation in U. S. A. has assumed responsibility as Tafe's manufacturing Manager.

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MOTORINDIA

APATHY OF GOVERNMENT TOWARDS ROAD TRANSPORT DEPLORED

road haulage should be left in the hands of private sector

The thirtyfifth annual general meeting of the Association was held on September 22 in Woodlands Hotel, Madras 4. The Chairman Mr. K. V. P. Rao presided.

The report of the managing committee and audited accounts for the year ended 31-3-61 were adopted and passed unanimously.

Proposed by Mr. R. Ratnam and seconded by Mr. K. Hariharan the present chairman and members of the managing committee were elected. Mr. Krishna Iyengar of Reliable Motor Stores, Bangalore was elected as the 15th member of the managing committee.

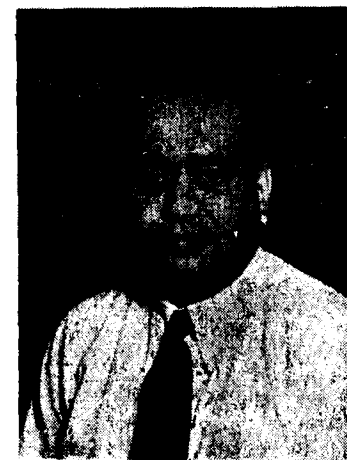
Mr. T.K. Doraiswamy, Dunlop Co. (India) Ltd. suggested Mylapore/Annamalaipuram area for the projected acquisition of premises for the association.

The meeting terminated with a vote of thanks by Mr. T. S. Santhanam who in a brief speech adverted to the pressing need for the manufacture of more trucks and to the very meagre provision for that purpose in the Third Plan. He pointed out the absence of any allotment of money on that Plan for the indigenuous manufacture of 'low price' car in the public sector, although the project is being finalised.

Presidential Address

Mr K. V. P. Rao, Chairman in his Speech said:—

Our country is now in the beginning of the 3rd 5-Year Plan. As you all know, this 3rd Plan is much bigger than the first two. Naturally therefore the all-round growth will be enormous during the coming 5 years. The Road and Road Transport requirements of our country will also increase considerably, and probably, at a faster rate than in the two previous plan periods. It



Mr. K. V. P. Rao who has been re-elected Chairman of the Association

is estimated that 10 million tons of traffic will have to be carried by road transport during the current plan period. We have to add to this a lot of feeder traffic for railways. There are a number of advantages the road transport has, which railways do not have. These advantages are vital which would make the difference between success and failure in any modern industry. Road transport is also labour intensive, which means more employment per a given investment than that of railways. The road transport gives a much higher return to the exchequer than any other industry inclusive of the railways. The road transport is a rapid means of transport thus giving quicker return on the investment to the manufacturer.

Congestion of traffic

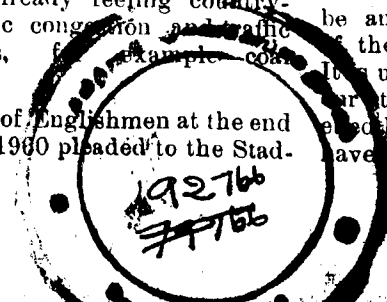
We are already feeling country-wide traffic congestion and traffic bottlenecks, for example, coal movement.

A group of Englishmen at the end of October 1960 pleaded to the Stad-

ford Committee appointed by the Government of Great Britain to study the future of British Railways, that the present railways be scrapped and the tracks converted into a network of motorable roads. According to these English industrialists railways can never pay. Similar is the case in respect of railways in U.S.A. Railways in general in the advanced Western countries are taking now a backseat to road transport. These converged in the West are based on the proved superiority of road over the rail and the consequent preference of the public for road transport. In India, if motor transport is provided with facilities such as good roads, and unbiased regulatory measures and reasonable taxation, I am sure very shortly our roads and road transport will become the predominant means for carrying the traffic available in our country.

Government's apathy

Unfortunately for us, the railway in our country is owned 100% by our Government. Therefore the Central Government have, in effect, been consistently discouraging other forms of transport; otherwise, we cannot understand why they did not fully implement the Masani Committee's recommendations. These recommendations have been shelved as all of us know, and another Committee has been appointed under the chairmanship of Mr. Neogy for recommending the inland transport policy in our country. The preliminary report of the Neogy Committee seems to be an attempt to nullify the work of the earlier Masani Committee. It is upto bodies like ours to strive our utmost to undo the harm threatened by the Neogy Committee. We have appointed a sub-committee



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to tackle this matter, and to prepare and send up suitable replies to the questionnaire attached to the Neogy Committee Report.

In an expanding economy when traffic demands are exceeding the capacity of the different modes of transport available, it is inconceivable that proposals for developing road transport should meet with very very poor response, nay sometime even opposition. Under the Second 5 Year Plan a sum of Rs. 250 Crores was allotted for road development. During the Third 5 Year Plan period, Rs. 325 Crores has been allotted for road development as against Rs. 1,220 Crores for the railways. If we should draw a lesson from the Western countries, to my mind it looks as though it would be a great risk to go on investing a lot of money over development of railways, as opposed to road transport. I say this because the railway transport in America and the other Western countries is receding to the backyard and transport is coming to the forefront. Therefore, why not our Government, be more realistic and reconcile themselves to the fact that road transport will, naturally and rightly in the future, be occupying a dominant position in our country just as is happening throughout the world, and do everything possible to give allround encouragement to development of road and road transport?

Appreciable job

Now let me discuss something about automobiles manufactured in our country. With the limited foreign exchange and available raw materials, the automobile manufacturers in our country have certainly done a very appreciable job. Within a few years' time the indigenous content of the automobiles made in India is now anywhere between 65 to 80%. This is really very good and we could be proud of it. This again speaks very high of our automobile ancillary industry although the ancillary industry did not precede the vehicle manufacturing industry as it ought to. Production of ancillaries in our country, I understand, has risen from Rs. 42 lakhs in 1951 to

Rs. 900 lakhs in 1960. Probably it must be much more now. Against 32,000 vehicles made in 1956, over 51,000 have been manufactured in 1960. Our planners hope to have the vehicle output doubled in 3rd Plan although the Government have been making repeated declarations that they would not increase the allocation of foreign exchange.

Financial assistance needed

In respect of sale of manufactured vehicles in our country, I would like to say a word. Just as in every other country, vehicles could not be easily sold unless there is adequate financial assistance to the purchaser. The financial assistance that is obtained in our country today is not at all what it should be. The volume of finance at the disposal of the financier is not adequate consistent with the motor vehicles available and it is going to be still worse during the current plan period. The terms and conditions of some of the financiers are very stiff. I therefore feel that the Government should find ways and means to have large financial bodies established in every State preferably under State control, with adequate and efficient staff so that the vehicles manufactured in our country may move out smoothly resulting in a tremendous amount of economic growth and a good and reasonable amount of profit secured by the financing establishments.

"Breach of Faith"

The operators of road transport are already suffering in very many ways on account of the consistently unsympathetic treatment by the authorities. In spite of this, with great difficulty they are in this trade, all with the hope that at least the goods transport would be always in the hand of private sector. During the past few years, at every possible opportunity and occasion, the Government both at the Centre and in the State have been making statements that the goods transport by road would not be nationalised, at any rate for some more years to come. This has naturally given the necessary

impetus to the private operators, and the growth of goods transport on a countryside scale has just begun. Unfortunately, just at this juncture, comes as a bolt from the blue the following statement by the Government of India, ref: 3rd 5 Year Plan page 554, para 46.

"In view of the great pressure on railway transport and the need for coordinated development of various forms of transport in the course of the 3rd Plan, it may be necessary for the public sector to extend its activities in the field of transport of goods by road."

This is, in my opinion, a breach of faith, and would certainly result in the opposite of what is desired. If the pressure on railway is too much, that should be all the more reason to encourage road transport by giving every type of facility, and not smother it when it is just in its infancy. Haulage by trucks is only a few year old in our country and long distance haulage is just started recently if you base this on a countrywide angle. Taking over by the public sector of road haulage from private sector should be deferred until the private sector develops to perfection. It is my conviction that road haulage should be completely left in the hands of the private sector and the Government should not think of taking it over at all.

This statement in the Planning Commission's Report will create a lot of damage to the harmonious continuity of goods traffic in the private sector unless the Central Government come out and make a declaration that they have no intention of nationalising road transport of goods for sometime to come. I fondly hope that they will do this.

'A place of our own' needed

Before I conclude, I wish to tell you that the feeling of the Committee of Management of this Association is that we should own our home. Though we are 35 years old, we are still in rented building. During the last 10 years we had to shift twice, each time on an increased rental. I therefore propose that we should go about in earnest and do everything towards our owning a building before the

property prices in the City go up considerably. Judged from current prices, it is felt that we need at least a minimum of Rs. 1 lakh by way of donation to buy a suitable property in or around Mount Road. We have already applied for exemption of such donations from income-tax. I feel sure that the response to our appeal for a Building Fund will be generous and overwhelming so that very soon we all may meet under a roof and in a premises which would be our own.

I now place on record my grateful thanks to the various Governments, at the Centre and in the States for the assistance and co-operation rendered to us. I personally feel very grateful to my colleagues in the Managing Committee for their unstinted and perennial co-operation. It also gives me much pleasure to thank the Staff of this Association for all the assistance they have continuously given me.

ANNUAL REPORT

The Association in its Thirtyfifth Annual Report (for the year ended 31st March 1961) says the sustained drive to enlist more members, has borne fruit and on 1st August 1961 the total number of members were 213—80 supporting members and 133 ordinary members. The

strength of the Managing Committee has also increased to 15 with effect from 1st August 1961. The Association has shifted their registered office to the ground floor of 6, Peters Road, Madras-6.

The general funds of the Association have gone up from Rs. 64,621 as on 1-4-1960 to Rs. 75,949 as on 1-4-1961.

During the period under report the Association continued to be represented on the State Transport Advisory Committee and Road Transport. The Association held a convention of Automobile dealer at Bombay with the cooperation of sister associations at Bombay, Delhi and Calcutta. The Association sent their delegates to the Zonal Conference of the South Indian Chamber of Commerce held at Madurai towards the close of 1960 and also to the annual session of the Federation of Indian Chamber of Commerce and Industry in March this year.

The reinclusion of business premises within the scope of the amended Building Rent Control Act of the Madras State, the enhancement of the imports permissible for fleet operators, increased reciprocity from neighbouring States in respect of interstate operators are a few of many things the Association worked for with success.

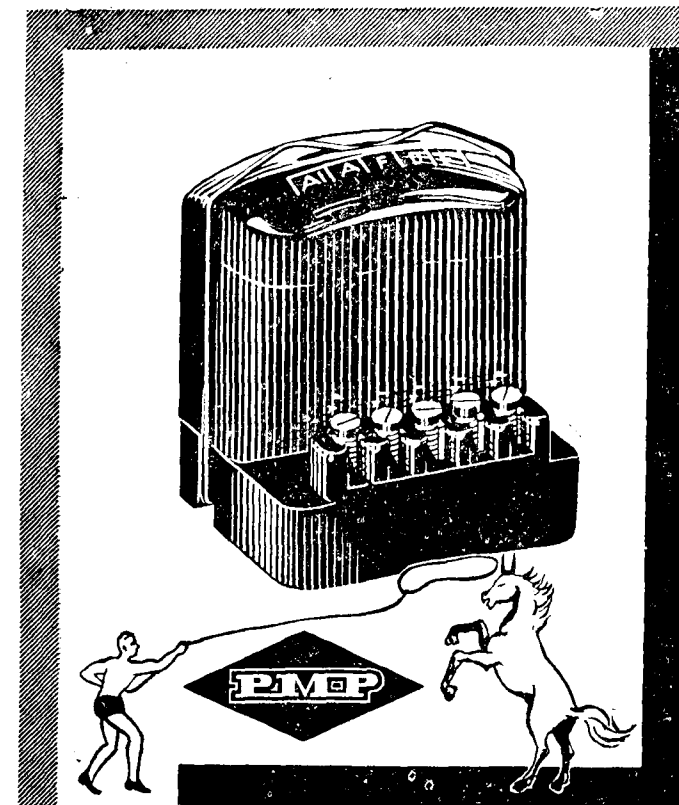
LAMBRETTA DEALERS LEAVE FOR ITALY



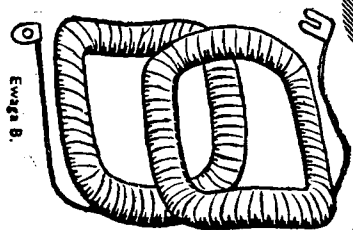
Mr. R. N. Pillai of South India Automotive Corporation who left on a tour to Italy and the continent recently.



Mr. V. Kunjilapadam of East Automobiles, Vizagapatnam, recently left on a foreign tour to Italy and other countries. In Italy he visited the Lambretta factory.



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MOTORINDIA

Paradise for Tourists

Kanchipuram—City of Temples

Kanchipuram which is at a distance of 45 miles from Madras to its south-west can be reached both by train and road. Of the two motorable roads leading to the city which are equally good, the road via Sriperumbudur is shorter and preferred for that reason. There are regular train and bus services between the two cities and Chingleput.

There are two travellers' bungalows—one near the station and another at a distance of seven miles from it available for the use of the tourists. There are a number of choultries and good hotels for the use of Hindu pilgrims and travellers.

If the visitor has the use of a motor car an excursion to important monuments can be accomplished in a single day.

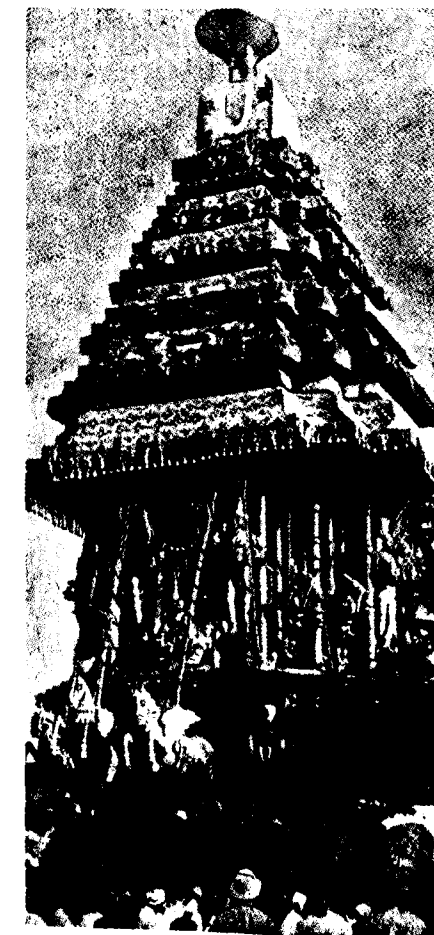
City of Temples

Kanchipuram is one of the seven sacred cities in India. This is one of the three most sacred Vaishnavite sthalams the other two being Srirangam and Tirumalai.

Kavi Kalidasa (1st Century B. C.) refers to this as the city of *par excellence* and Sri Vedanta Desikar (13th to 14th century A. D.) as the most important of the seven salvation bestowing cities.

Situated on the banks of the river Vegavathi it can be rightly called a City of Temples. Among the 108 sacred Vaishnavite Divyadesams 18 are located here and among the 1008 Saivaite Khetrams 108 are said to be found here.

This city has got an interesting record of political history apart from its religious importance dating back to the days of Gautama Buddha. This was the seat of Pallavas from 3rd to 9th Century A. D. The Cholas occupied it later till the 14th Century A. D. when



Rathotsavam (car festival) at Kanchipuram

the Vijayanagar kings established their supremacy over the southern part of India after vanquishing the Muslim rulers of the Bhamini dynasty. The Vijayanagar rulers held their sway over this part of the country till the 17th Century A. D.

The city deserves the tribute paid to it by the Sanskrit saying "Nagareshu Kanchi" meaning "Kanchi, the first among the cities." With a long standing tradition of culture and philosophy the city is

indeed a veritable treasure house of monumental art.

"Manimekalai" the famous Tamil classic and "Perumpanatruppadai" a political work of great merit describe the city as it was in the second century A. D.

The Pallavas

The Pallavas beautified this city with numerous pieces of architecture and sculpture. The claim of the Pallava supremacy was attained during the middle of 7th century A. D. when the great Narsimhavarman who is otherwise called Maha Malla was reigning supreme. A great aesthete and an intellectual of great merit, a playwright and a musician he has left the stamp of his genius on the art and literature of his period. And to this illustrious King are to be attributed the rock cut temples in South India. It was during his period the famous Kailasanathar Temple in Kanchi and the rock cut temple at Mahabalipuram were executed.

Hiuen-Tsang's Visit

The famous Chinese traveller Hiuen-Tsang visited the court of Pallava King Narasimhavarman. He praises Kanchi as a very big city where the people were superior in bravery, learning and piety to all others he had come in contact in India.

Hiuen Tsang records that Buddha had visited this place and preached the Buddhist Dharma, that Ashoka had built several stupas here, that Kanchi was the birth place of Dharmapala Bodhisatva and that the city was about six miles in circumference.

The reputed author of "Arthashastra" Chanakya (Kautilya) Parimalazhagar, the renowned annotator of Tirukkural, Poigai Alwar, the

first of the Alvars and Sri Vedanta Desika whose prodigality in both Sanskrit and Tamil unrivalled were all born and lived here.

Sri Sankara, and Sri Ramanuja have been propagating their Advaita and Visishtadvaita philosophies respectively from here.

Cholas

Cholas annexed Kanchi after the victory in Sripurambiyam battle. A large number of the Chola inscriptions on the walls of the temples at Kanchi reveal the importance of the city as a base of administrative operations and also speak of the rulers as great bestowers of gifts. For a brief interval during Chola period the city had passed into the hands of Rastrakulas. For the Vijayanagar kings Kanchi was the seat of Viceroyalty.

British Period

Kanchi was captured by the Golkonda Muhammadaus in 1646, by the Maharattas in 1677 and by Zulfiqar Khan a general of Aurangzeb. It remained in the possession of Mohammadaus till 1752. The city was sacked by the French once in 1757 and again in 1764. Later it was taken over by British.

Buddism, Jainism, Saivism and Vaishnavism had a significant following in Kanchi.

Buddhism and Jainism

By the beginning of the first century A. D. Buddhism had already taken deep root in Kanchi but the great Hindu revival of the seventh and eighth centuries and the lack of royal patronage for the Buddhist cause under the Pallavas, the Cholas and the Vijayanagara kings, had greatly undermined the vitality of this religion. Though scattered Buddhist relics have been discovered now and again, no vihara has so far been unearthed, it is stated. Among the Buddhist relics in Kanchi there are curiously enough no Jataka panels or friezes like those found at Amaravathi.

Tiruparuthi Kunram, a suburb



Varadharajaswamy Temple, Kanchipuram

of Kanchi which lies on the right bank of the river Vegavathi has long been known as Jaina-Kanchi. Since the seventh century A. D. this place has been a stronghold of Jains of the Digambara sect.

There are two Jaina temples here, one belongs to Pallava period and the other to Chola period. In Vardhamana temple the most interesting feature is 'Sangita Mandapa' with its high roof and the valuable paintings. The Mukhamandapa contains similar paintings. Here the figures are arranged in Panels. These paintings depict scenes from the lives of the Thirthankaras, particularly those of Vardhamana, Rishabadeva and Neminatha.

Kamakshi Temple & Kamakshi Peetam

The presiding deity of the city is Kamakshi and Adi Sankara is said to have established Shri Chakra in front of the idol and set up one of his Mutt "Kamakshi Peetam" in this city which was later shifted to Kumbakonam. The peculiar thing that can be noted in Saivite shrines in Kanchi is that there are no separate Sannidhis (sanctum sanctorum) for Amman and Kamakshi temple is the only Amman Sannadhi in Kanchi.

The monastery of Sankara at Kanchi was a prominent institu-

tion in olden days as an establishment for teaching Advaita. It was honoured by successive dynasties the rulers of which endowed it with considerable properties. It is evident from the historical records that the Mutt was situated in Kanchi till 1710 A.D. It is said that the Mutt was transferred during the insecure times of the Carnatic wars. The Mutt was finally established at Kumbakonam in Tanjore about 1730 A.D.

There is an image of Sri Sankaracharya in the Kamakshi temple whenever the procession of the goddess is taken out of the temple into the town the tradition continues even today to halt before the image of Sankaracharya to take the necessary permission.

The legend is that Goddess Kamakshi was assuming the form of Kali, moving out at nights in the country and causing untold disturbances. Sankaracharya appeased her and extracted promise from her not to stir out of the temple without his permission. The divine mother, immensely pleased with his prayers, agreed to it.

Other Important Temples :

Ekambareswar

The most important shrine dedicated to Siva is the Ekambareswar temple at Big Kancheepuram. The

Linga of sand stone (Prithvi) is never washed as in other temples. Mr. Ferguson writes "No two Gopurams are opposite one another, no two walls are parallel and there is hardly a right angle about the place."

The front mandapams with 16 and 4 pillars respectively contain some exquisite reliefs depicting incidents in the Puranas. The important festivals are 'Mavadi Sevai' and silver car festival during 'Panguni Uttiram'.

The festival of *Maradi Sevai* is symbolic of the sacred mango tree whose branches bearing fruits of varying tastes are believed to represent the four Vedhas. The silver car completed in 1949 has been a major attraction of the festival in recent years.

During the wars waged by the French, the temple is said to have been hit by cannon shots. A valuable jewel is said to have been presented to this temple by East India Company.

Varadarajar

It was during the 12th century this temple became important and since then it has remained the stronghold of the Vaishnava faith. The city is in the shape of the bow. The temple of Shri Varadaraja is at the eastern end facing west. Hastagiri is a small hillock now completely covered by structures where the presiding deity is enshrined and consisting of five prakarams or enclosures. The Lord of Hastagiri is the proud possessor of many beautiful and precious jewels worth several lakhs. There is one jewel called Clive's Makarakanti. It is said that Clive after winning the battle near Kanchi happened to pass through this place. He presented a gem-set necklace of rare workmanship to the deity.

Kailasanathar

Among the Pallava temples in Kanchi the Kailasanatha temple is the oldest and most characteristic of Pallava architecture. In the west part of Kanchi it is situated among green paddy fields. This

Temples in Kanchi

PALLAVA PERIOD

Temple	Dedicated to	Builder	When Built
1 Kailasanatha	Siva	Rajasimha	700-720
2 Mahendravarma- varagriham.	Siva	Mahendra	720-735
3 Vaikunthaperumal	Vishnu	Pallava Malla	755-790
4 Valisvara	Siva	Unknown	700-740
5 Iravasthanesvara	Siva	Unknown	720-740
6 Muktesvara	Siva	Queen of Pallava Malla	730-753
7 Matangesvara	Siva	Rajasimha	700-720
8 Airavadesvara	Siva	Unknown	710-720
9 Trisurantakesvara	Siva	Unknown	700-720
10 Jalandharsvara	Siva	Unknown	700-720

CHOLA PERIOD

1 Sokkisarai	Siva	Parakesari	850-900
2 Anekathangavadam	Siva	Kulottunga I	1070-1120
3 Pandavaperumal	Vishnu	Kulottunga I	1070-1120
4 Jwarharesvara	Siva	Kulottunga III	1178-1216
5 Anantan Shrine	Alvar	Kulottunga III	1212

VIJAYANAGARA PERIOD

1 South Gopura at Ekam- baresvara.	Krishnadevaraya	1520
2 Kalyanamandapa at Ekambaresvara.	...	1520-1530
3 Vimana Mandapa	Harihara II	1393
4 Amai Mandapa	...	1500
5 Pillared hall at Varadaraja	Unknown	1530

From Dr. C. Minakshi's 'Kanchi'

was built by Rajasimha, Pallava ruler during the first part of 8th century.

Here and there in Kanchi there are a few Mosques adjoining the Hindu temples and these serve to remind the visitor of the brief Mohammedan rule over the city.

It was at Pallalore a suburb of Kanchi two battles were waged during the British period. It was here in 1780 the forces of Hyder Ali and Tipu Sultan routed the British army under Colonel Baillie. In 1781 another battle was fought between Sir Eyre Coote and Hyder Ali.



Other places of interest

Surattappalli

(Red Hills-Nagalapuram Road to Araniyar Head works). A rare form of Siva in 'Sayana' form (lying posture) can be seen here. Siva is depicted as sleeping on the lap of His Devi. This place is said to be the birth place of Lava-Kusa, sons of Shri Rama.

Ponvilaintha Kalathur

The temple here contains the unique icon of Shri Rama with four hands (Chaturpuja). Another icon of Rama with four hands can be seen in Valvil near Kumbakonam. The legend says that Hanuman, the Ramabhakta and Mandodhari wife of Ravana got the dharsan of Rama with four hands.

Uthiramerur

Edict on elections held in Chola times can be seen in Vaikunda Perumal Temple. Three forms of Vishnu can be seen here in the standing, sitting and lying postures.

Madurantakam

The temple of Rama who protected the bunds of the lake here during heavy rains is very famous.



EKAMBARESWAR TEMPLE—Kanchi

ORIGINAL DEITY

The deity worshipped today in Shri Varadarajaswami Temple is made of stone. It was brought from an old temple at Palaya Seevaram about ten miles from Kanchi, centuries ago and installed in place of the original deity. The original deity known as Atthigiri Varadhar is made of a kind of wood fairly impervious to water and it is placed in the tank called 'Anantasaras'.

The original deity is taken out of the tank once in 45 years and is worshipped for 40 days before it is placed again in the tank. It was last taken out of the tank on July 12, 1937.

Madurantakam tank, with a 12,960-foot-long bund, irrigates 18 villages with an ayacut of 2,702 acres. The depth of water, when the tank is full, is more than 100 feet, and the Capacity F. T. L. is 609 M. Cft. One can easily imagine the beautiful picture presented by the tank on the day when there was a surplus of seven feet above the weir-level.

In 1960 when monsoon broke out in November it was only by God's grace that this tank escaped damage.

A non-stop archana was performed for 24 hours to the presiding Deity of the place Sri Kothandaramaswami, praying for the safety of the tank-bund and for halting the rains. The Sub-Collector, Chingleput, also took part in the prayer for some time. From the next day onwards there was a significant decline in the rainfall and the bund remained safe.

This reminds one of an interesting story that goes with the name of Eri Katha Perumal (The Lord Protector of the Tank), by which the presiding Deity of Madurantakam is known. In the closing years of the 18th Century, when Col. Lionel Place was the Collector of Chingleput, the tank was notorious for breaches, and in spite of all the efforts to strengthen the bund, not a year passed without

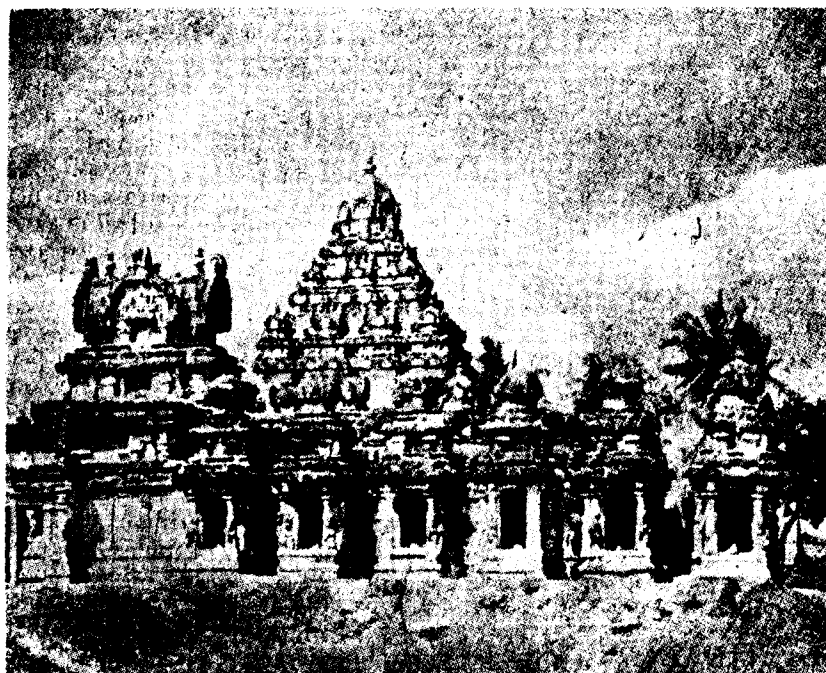
the bund giving way. In 1791, the monsoon was in full swing, and Col. Place anxious to safeguard the bund, was camping at Madurantakam personally inspecting the work. During his visit to the temple of Kothandaramaswami, he was told that efforts to construct a shrine for Sita Devi had not fructified. The Collector stated that if the tank bund survived the monsoon without breach that year, he himself would get a shrine constructed. That very night it poured heavily and the Collector, duty-conscious, set out with an umbrella and some persons towards the tank. Walking along the bund, he approached the weir and, to the surprise of his companions, kneeled as though worshipping in a shrine, putting off his foot-wear and umbrella. He shouted at his companions asking them if they did not see the Lord himself guarding the tank, with a bow in hand. The tank did not breach that year, and the Collector true to his word, constructed a shrine for Sita Devi. Thenceforward the presiding Deity of the place has been called Eri Katha Perumal.

Tiruvellore

Veeraragavaswamy temple here is famous and this place is visited by



KAMAKSHI TEMPLE—Kanchi



KAILASANATHAR TEMPLE—Kanchi

which is 37 miles to the west of Madras. This place is closely associated with Karaikkal Ammaiyar, one of the 63 Saiva saints. There is a Kali temple here where Karaikkal Ammaiyar is seen worshipping Siva in the "Thandava" pose dancing His cosmic dance of creation. This place is famous for its temple of Lord Nataraja.

From the reign of Pallava Nirupathunga Varma to the rule of Vijayanagar Kings who were at the height of their prosperity during the 15th Century, there are epigraphical records of the various monarchs who ruled over the land. It is evident that the temple was in a flourishing condition for about 1000 years from the 5th or 6th Century to the 15th Century A.D.

The image of "Urthava Thandava" Nataraja in this temple is a marvellous work of art, the equal of which is not to be found anywhere in Tamilnad.

devotees during 'Amavasayas', (New Moon).

Tiruvdaichuram

This lovely place is surrounded on all sides by hillocks. The lingam is made of green stone, (Maragadham).

Tinnanore

Also known as Tiruniraniyur. Manasika temple built by Pusalar Nayanar.

Mamandur

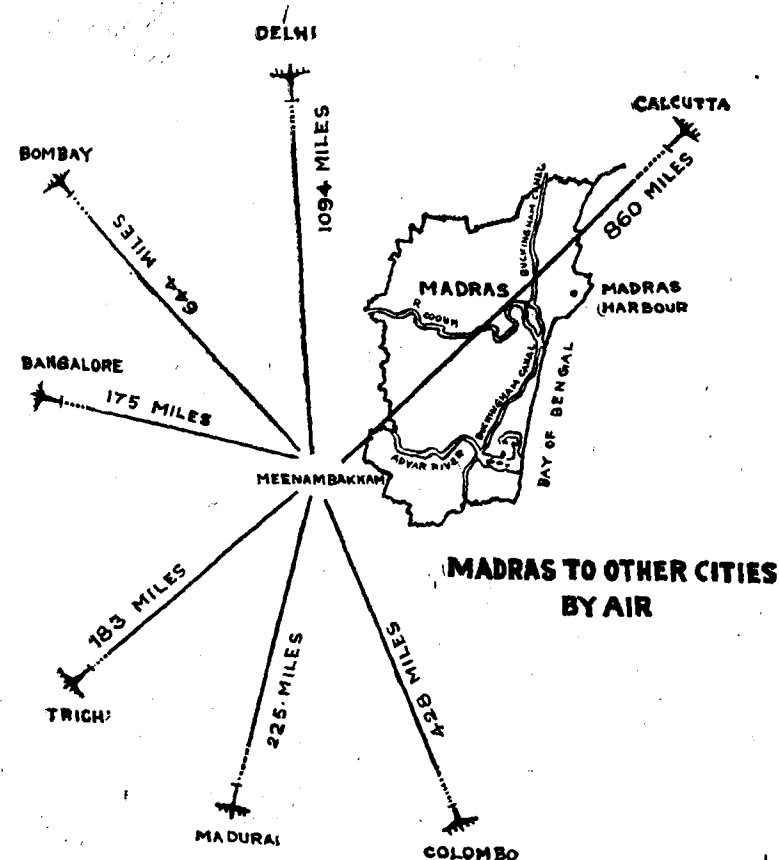
There are some cave temples here which resemble other such temples built by Pallavas.

Kuram

Birth place of Kurathalvar a disciple of Shri Ramanuja. A Vishnu and Siva temple of the Pallava period are extant in the village.

Tiruvalangadu

Alankadu is an ancient holy place



MOTORINDIA

INDIAN CABLE INDUSTRIES

The efficient transmission and distribution of electrical energy is dependent largely on the type of conductors that are used for this purpose. In the past years there has been common practice to employ Rubber Insulated Cables both for domestic and Industrial wiring purposes. However, with the growing realisation of the shortcomings of rubber as an insulating medium under tropical conditions, the use of PVC Insulated Cables has become popular in recent years.

It was with a view to manufacturing PVC Insulated Cables that the factory of *Indian Cable Industries* was founded in 1956. Our PVC Insulated Cables and wires are long known to the trade and industry under our brand name of 'Finolex'.

'Finolex' is not only a brand name, but it has remained linked with its exceptional qualities and peerful leadership in the field of PVC Insulated wires.

Factory

Our factory finds itself in ideal surroundings. Built on a spacious 15 acre piece of land, the building itself is a massive structure. The factory is situated in the Government Approved Industrial Estate at Pimpri near Poona. On the one side of it is the Pimpri Rail Station on the Bombay—Poona Main Line of the Central Railway, and on the other the Bombay—Poona National Highway. In close neighbourhood is the factory of Hindustan Antibiotics Ltd, producing penicillin and other antibiotics.

Products

The main range is—

1. House Wiring Cables in 250 and 660 volts grade.
2. Flexible Corda—Twin Twisted, Twin Parallel, Twin Flat Sheathed and Multicore Round.
3. Automobile Cables—Low and High Tension types.
4. Hook-up Wires—for telephones and radios.
5. Wiring Harness for Automobiles, Tractors, Tanks etc.
6. Braided Metallic Sleeveings.

PVC Insulation

The abbreviation 'PVC' stands for Polyvinyl Chloride. It is a versatile material which finds extensive use in a variety of fields, prominent among them being its use for insulation of electrical conductors.

PVC by itself and formed as a plastic is a brittle material. To give it flexibility plasticizers need to be added. With a plasticizer PVC finds wide application. It is the best dielectric, water-proof, tear-resisting, chemically inert and slow-ageing and does not support flame propagation.

By virtue of these outstanding characteristics PVC insulated cables have provided a practical answer to many of the electricians' problems and has enabled them to use PVC cables with confidence.

Superiority Of PVC Insulation

Thermoplastic materials have been used as an insulating medium in the wire and cable industry for some time. Among the many such compounds developed by modern science, none perhaps has versatility of PVC. A compound of PVC blended with suitable plasticizers has given us an insulation that is far superior to conventional insulation media in a higher degree, but what is even more significant, it has qualities that orthodox insulations like rubber, impregnated paper, waxed textiles and lead sheathing do not possess.

The conventional media suffer from several handicaps. They perish quickly under tropical conditions and the deleterious effects of direct sunlight and weathering shorten their life. PVC on the other hand is remarkably resisting to ageing, exacting atmospheric and soil conditions, oils, water, chemicals and flame propagation. Besides it can be extruded in a number of delightfully attractive colours that neither fade nor are affected by chemical reagents.

PVC insulation differs from customary rubber insulation in more ways than one. Rubber is available in a natural condition, and therefore its dielectrical properties are restric-

ted. The fruits of science and research have continually improved the types and characteristics of PVC and have made its user conscious of the fact that this material is a completely new substance on a synthetic basis and possesses specific properties. Such substances do not occur in nature. Their properties can be predetermined to meet the users' preference and requirements and designed to suit the particular task on hand. And therefore PVC for insulation.

PVC has promoted the development of cables not only for normal uses but for special applications under high ambient temperature conditions where resistance to weathering, sunlight and corrosive soil conditions is of prime concern.

Here are some remarkable properties of PVC insulation:—

PVC insulated cables have high insulation resistance over extremely long period.

PVC insulated cables are highly resistant to corrosive chemicals such as acids and alkalis.

PVC insulated cables are not affected by oils and greases.

PVC insulated cables have high abrasion resistance. No outer braiding is therefore necessary.

PVC insulated cables do not support combustion. This is their most important feature. In contrast to the freely combustible nature of rubber, PVC will only char at the point of application of a flame and is self-extinguishing immediately on its removal.

PVC insulated cables are dimensionally smaller than rubber-insulated cables of equal current carrying capacity. Thus they save space and eliminate the need of large size conduits in that type of wiring.

PVC insulated cables can be

provided in a range of attractive colours for circuit identification. This is specially advantageous in telephone wiring, automobile wiring etc.

Finolex PVC Insulated Cables have all the above advantages in profusion and have proved their excellence in use under all kinds of exacting conditions.

Process & Quality Testing

Meticulous care is taken to ensure that *Finolex* PVC cables pass through every specified test during and after the process of manufacture. The result is a highly trustworthy

product. Apart from conventional tests, the following tests in respect of PVC insulation are carried out: (a) Voltage Test (b) Hot Deformation (c) Blooming of Pigments (d) Ageing.

A few important items forming the testing equipment are: (i) Spark Testers (ii) Conductor Eccentricity Detection & Control System: (iii) Cable Diameter Indicating System: (iv) Conductor Preheating Equipment etc.

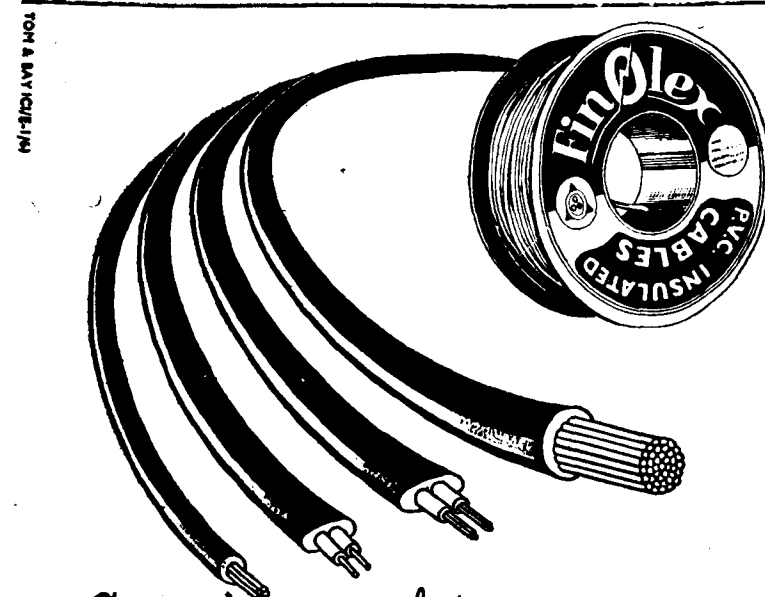
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the Indian Defence Services. We supply them our products in every variety. Principal among them are: (i) Automobile Cables; (ii) Complete Wiring Harness for Trucks, other vehicles and Tanks.

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- Automobile Cable
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FIRST I. D. A. LOAN TO INDIA

60 Million Dollars for Highway Development

The International Development Association, an affiliate of the International Bank for Reconstruction and Development has granted a credit of \$60 million to India for highway development.

This is the first credit granted by I. D. A. to India and the second since its inception. The earlier credit was given to Honduras.

The \$60 million credit granted to India was finalised under an agreement signed in Washington on June 21. The following are extracts from a press release issued simultaneously in Washington and New Delhi:—

"The International Development Association, an affiliate of the World Bank, has extended a development credit amounting to the equivalent of \$60 million to India for highway development. The credit will finance half the amount which will be spent on national highways during the first three and a half

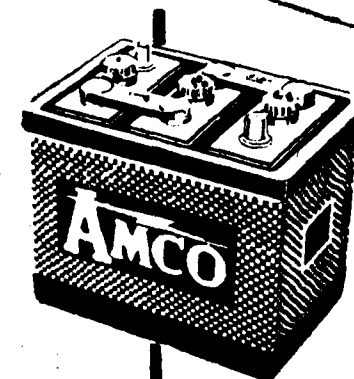
years of the Third Five Year Plan which began on 1st April, 1961. The funds will be used mainly for the construction of about 660 miles of highways, including 19 major bridges, which will open up some of the less developed parts of India, improving connections between important agricultural and industrial centres, and relieve traffic congestion in the vicinities of the two principal cities and ports of Calcutta and Bombay.

"This credit constitutes part of the funds which will be provided by I.D.A. to help meet the external

finance requirements of the Third Five-Year Plan. It is for a term of 50 years, interest-free. It is repayable in foreign exchange on amortisation to begin after a ten-year period of grace. Thus the first payment will be due on August 15, 1971. Thereafter, 1 per cent of the principal will be repayable annually for ten years and 3 per cent will be repayable annually for each of the final 30 years. A service charge of three-fourths per cent annually on the amounts disbursed and outstanding will be made to meet I. D. A.'s administrative costs.

"At present, India has 393,000 miles of roads, consisting of national highways, State, district and village roads; the 15,000 miles of national highways constitute a network of main roads connecting the centres of population. About 80 per cent

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October 1961

10

of the national highways are one-lane roads built to standards that require heavy maintenance. Numerous unbridged river crossings, congestion around cities and the poor condition of many of these roads hamper efficient road transport.

"The road works for which I.D.A. credit is being extended will eliminate some of the major deficiencies in the national highways system. All the works are allocated in the region of the Gangetic Plains in northern India and in coastal areas around Calcutta and Bombay where the density of population is the highest and which account for 40 per cent of India's total vehicle registration.

"The Roads Wing of the Ministry of Transport and Communications of the Government of India will be responsible for the design of the roads and for the supervision of their construction. The Public Works Departments of the four States concerned, Bihar, West Bengal, Orissa and Maharashtra will be in charge of construction."

Details of Construction

The Funds will be used mainly for the construction of about 660 miles of national highways including 19 major bridges. Out of this, about 148 miles of double-lane, Baharagora-Jamshedpur-Ranchi section and Chichara-Subernarekha section, 164 miles of single-lane Barauni-Phulberia section, and Barauni-Muzaffarpur section and four bridges (bridge over the Sone river and those over the Mahanada at Dingrghat, Kosi at Kurshela and Burhi Gandak) will be in Bihar; 128.5 miles of double-lane Joypurbeel-Bihar border and

Joypurbeel-Baidyabati-Saptagram, 2.5 miles of four-lane carriageway (Vivekananda bridge-Joypurbeel) and two bridges, Rupnarain and Kangabati bridges in West Bengal; 168 miles of single-lane Cuttack-Bihar border and eight bridges (bridges over the Mahanadi, Birupa, Brahamani, Kharsawan, Baitarni,

Salandi, Nuniajhari and Budhabalang) in Orissa; and 33.5 miles of double-lane Ghodbunder-Manor section, 13.4 miles of four-lane carriageway (Bombay Eastern Expressway) and five bridges (bridge over the Bassein and Kuman creeks and the Tons, Vaitarna and Vandri rivers in Maharashtra.

SAFETY HARNESS FOR BMC CARS

(From Our London Correspondent)

All British Motor Corporation cars are now being produced with built-in attachments for safety harness on the front seats, the harnesses themselves being offered as an optional extra. This is the first major constructor to adopt the new policy agreed by the British industry but several others will do the same on their 1962 models. The idea is to build in sufficiently strong attachments when the car is made, leaving the buyer freedom to fit the belts he prefers. This also leaves the harness manufacturers a certain freedom for eventual development of their designs but at the same time almost eliminates fitting charges.

The type offered by the BMC is a combination of a belt with a strap over one shoulder. It is made by Britax in Terylene. The webbing can stand a strain of over 4,000 lb. and the complete harness will withstand loads over 6,000 lb. Fitting points which are being provided on 25 car models are at three points, two on the floor structure or centre tunnel. The third is on the centre pillar, in the sedans or on the rear wheel arch on sports cars. For existing cars a set of parts for harness anchorages will be sold through BMC agents.

LEAK PROOFING FOR MINIMINORS AND AUSTIN SEVENS

Miniminors and Austin Sevens being made at Bowley are now being put through a severe test to discover water leaks.

Each car is driven into an enclosed test rig. One window is then opened and a shield is fitted tightly over the opening. The shield permits a pipe to be inserted to draw air out of the car, and so create a partial vacuum inviting water to come in if it can. The water is then turned on—150 gallons at 30 p.s.i. and air is blown round the car at a speed of 45 mph which is roughly equivalent of an Indian monsoon. Water hits the car from below and above as well as on all sides and the jets are so positioned that the force of the water is directed at all joints to test their sealing powers.

Each car stays in the rig for ten minutes which equals driving on the road in a tropical storm. Finally, the car is thoroughly examined for any trace of water inside it. This is the culmination of an intensive effort to eliminate the multiple leakages which were experienced during the first few months of Mini-production.

Motor Industry In Other Lands

Brazil Goes Ahead

Five years ago Brazil launched an ambitious project to establish an automobile industry in the country. At that time, although there existed about 1,200 plants manufacturing various types of components, all cars and trucks were imported.

The Brazilian Government set up an independent official body known by its abbreviated name, GEIA, to coordinate private enterprises, and an outstanding feature of an investment plan was a progressive manufacturing scheme.

Already 11 plants have been established and have now made about 325,000 vehicles.

A Perkins project in 1959 to manufacture diesel engines in Brazil was welcomed by the Brazilian Government as part of this scheme to develop the country's automotive industry as a primary step in opening up its wealthy and vast hinterland. A new company, Motores Perkins, S. A., was formed.

This plant is now producing a six-cylinder vehicle and a four-cylinder tractor engine and an ultimate production of 20,000 engines a year of all types is envisaged by Perkins in Brazil.

The first Brazilian Perkins engine was produced in November last year and the first Perkins-engined Ford tractor ever to be built in Brazil was officially presented in December to the Brazilian president, Dr. Juscelino Kubitschek.

Motor Vehicle Output in Italy

The Italian motor vehicle industry manufactured 644,617 motor vehicles in 1960, of which 595,907 were motor cars, with an increase of 28.73 per cent over 1959.

Exports totalled 203,939 motor vehicles, a 7.80 per cent decrease over 1959. The percentage of exports over total production is approximately 32 per cent. The slight decrease recorded in exports last

year was mainly due to certain difficulties which made themselves felt particularly in the United States market, motor car industry sources have revealed.

Continuing its policy of establishing world-wide marketing and service facilities, the Perkins Group, of Peterborough, has formed a new company in Italy.

Named Perkins S. p. A., with headquarters in Como, the new company's duties will include improving technical and field services to the many users of Perkins diesel engines in Italy and further expanding sales.

W. Germany Retains Her Exports

With an export of 983,000 vehicles (871,000 nos. in 1959) the Federal Republic of Germany has maintained her position as the largest automobile exporter also in 1960. Following are the U.K. with 710,000 vehicles exported, France with 555,000, the U.S.A. with 325,000 and Italy with 205,000 units.

German automobile exports have thus registered an increase of 12.8% over the 1959 figure. This relative increase is surpassed only by the U.S.A. with 16%. The rate of increment of U.K. automobile exports was 2% whereas Italy and France experienced a decrease by 7% and 1% respectively.

Since German automobile production has risen by 19.6% in 1960, informed circles believe that the further increase of exports in 1961 will be between 5 and 10%.

The veils of mystery around the new model of the German "Volkswagen" have been lifted. The world-known motor manufacturer in the West-German city of Wolfsburg has announced that it has completed the development of a new and larger model. The long-expected 1.5 litre medium-sized compact car, at a price of approximately 6,400

Deutsche Marks, has now been officially introduced at a sensational press conference. In Germany, too, the ever stronger trend towards larger cars has caused the Wolfsburg works to follow. At the same time it is hoped that Volkswagen enthusiasts who have decided to have a larger car will be won back; for many of the Volkswagen owners had been looking around on the German and on foreign automobile markets for a larger car. Moreover, the Wolfsburg works, which after their denationalization will have 1.5 million shareholders, expect even better sales chances on the American market for their new larger models which so favourably compares with American compact cars.

The production of the "little brother", i.e. the previous Volkswagen model which for more than 15 years has rolled off the assembly lines with but a few minor changes will continue at a rate of 3,400 cars and 600 micro buses and pick-up vans per day. This month the car number five million of the small model will leave Wolfsburg.

The outside shape of the new 1.5 litre Volkswagen, officially styled the "VW 1500", has been changed; also arrangements and design of the engine are novel, although the most essential old construction and design principles have been retained. This was to be expected in view of the many advantages of the well-proved Volkswagen design. The new model, too, will have a utilitarian design and is made for a long life-time of both engine and body.

Russia Produces Volga

The main purpose of the Soviet automobile industry is not merely to keep up with the latest car fashion but also to produce cars which are reliable and convenient in operation, economical and durable in running.

This actually was the underlying principle in the production of the

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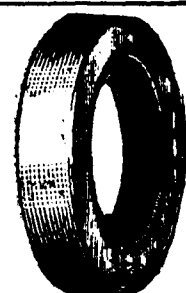
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MOTORINDIA

Ashok - Leyland Comet Becomes Mobile Exhibition Vehicle

A rather unusual type of body has been constructed on an Ashok Leyland Comet 203" wheelbase chassis.

This vehicle is now in Madras. It is operated by the Ministry of Information and Broadcasting of the Government of India.

A van type all-steel body is built on the Comet chassis with its entrance behind the rear axle. Immediately as one enters is an array of maps, charts and photographs hung along the sides of the body. These depict in an effective manner the progress made by Government in agricultural production, industries and mining, irrigation and power, health services and community development.

Volga, a Soviet medium class four-door saloon. This machine of a modest but graceful shape, in spite of its weight of 1,300 kg, is so easy on the wheels that you can push it with one hand on an even road. It has an excellent idle run (with the engine switched off) and a fine pick-up speed.

The machine is fitted with a 70 h.p. O.H.V. 4-cylinder engine of 2.45 litres. The parts of the engine are situated in such a way that they are easily accessible. It is common knowledge that the engine undergoes the greatest wear and tear in the car, specially the cylinder cartridges, pistons and piston rings. Formerly, when the cylinder cartridges got worn out, you either had to discard the engine or rebore the cylinders, a very difficult and expensive process.

Its light and convenient steering gear, reliable brakes, tubeless tyres, unafraid of punctures, enable the Volga to go safely with a speed of up to 85 m.p.h., consuming not more than a gallon of petrol per 30 miles of city driving.

There are three large windows on either side of the body where enlargements of photographs can be fitted and removed.

The vehicle is provided with a generator which is located at the right side immediately behind the driver's seat. This generator is used for film shows. Lighting has been an important consideration and fluorescent tubes provide lighting, the power being taken from the generator.

The vehicle is fitted with an overhead tank for storage of drinking water, a wash basin beside the driver and two exhaust fans. At the rear are also fitted two fans on either side.

This mobile exhibition vehicle is now touring throughout South India and the message it carries is mainly intended for people living in remote villages where communication are poor and where roads are not fully developed.

So far, the vehicle has covered over 17,000 miles since it was commissioned early in 1960. Lakhs of people living in villages in Kerala, Madras and Mysore have benefited by this mobile propaganda van.

In the words of the Field Exhibition Officer who is accompanying the vehicle, "we have found the Comet quite suitable for publicity work. Its engine is behaving splendidly and fuel consumption is extremely satisfactory. The nature of our travel is such that we come across all types of roads, good, bad, rugged and unmade. On all these and steep gradients, the performance of the vehicle has been thoroughly satisfactory."

The touring publicity vehicle is scheduled to proceed to villages in Andhra Pradesh shortly.

Similar types of Ashok Leyland

Comet vehicles are in operation in North India, carrying the message of the Five-Year Plans to villages in the North.

Expansion of Gear Cutting Section

Another major development in the manufacturing programme of Ashok Leyland Ltd. is the commissioning of the new gear cutting section.

Covering an area of over 7,000 sq. ft. the new gearbox section is equipped with a battery of lathes, gear shapers, hobbing and grinding machines costing over Rs. 30,00,000 which are installed on vibration-proof foundations.

The important machines employed are the famous Swiss "Maag" gear grinding precision machines for grinding the involutes of the spur and helical gears in almost all the gears involved in the gearbox to very fine limits. Potter and Johnston automatic machines fitted with pneumatically operated chucks and special capstan lathes of the Herbert No. 7 and No. 2D types for turning operations and the "Orcutt" spline grinders for accurate machining.

The type of gearbox taken up for manufacture is the 6B-241 5-speed constant mesh, heavy-duty type as fitted to Ashok Leyland Comets. This gearbox has earned a name for quietness of operation and has withstood the toughest treatment over a number of years.

Constant with the manufacture of the gearbox is the training of operators and setters by two technicians, one from Albion Motors Ltd. and the other from Leyland Motors Ltd. They are assisted by Mr. K. Suryanarayana, B.E., of the Indian Institute of Technology, Kharagpur, who has had special training in the manufacture of

various types of gearbox in England and Germany.

With the establishment of Ennore Foundries Limited, as an associate company of Ashok Leyland Limited, the problem of securing supplies of iron castings for the Comet chassis has substantially been solved and in keeping with the policy of increasing the indigenous content, steps are now being taken to secure an increasing number of indigenously produced forgings. Although it is possible to secure from the ancillary industries a certain number of forgings, to speed up supplies Ashok Leyland Limited are in the process of establishing a small forge shop at their factory in Madras.

Initially, two Massey 5-cwt. power hammers and a number of oil-fired furnaces to the value of over Rs. 1,00,000 are being installed to produce small items such as levers, support brackets, strap ends and jaw ends. The installation of heavier hammers required for the production of larger forgings is under active consideration by the Company.

Located adjacent to the Heat Treatment Department, the power hammers are being installed on solid concrete to avoid shocks and tremors to adjacent machinery and necessary dies are being designed at the works for the initial production.

It is anticipated that the Forge Plant will commence operations within the next two months and its establishment and future expansion will be further valuable steps in the direction of reducing the amount of foreign exchange required for the manufacture of heavy duty truck and bus chassis in India.

LEYLAND'S SERVICES IN THE STATES

Ashok Leyland's vehicles are being used in all the States in India and more orders are being placed for the Comets by the State Transport Undertakings and by

private operators operating in those States.

U. P.

Uttar Pradesh Roadways have invested large sums of money on Leyland vehicles since they decided to "dieselize" their fleet early in 1951 and from that time their orders for Ashok built Comets have been so large and regular that today they have a fleet of over 640 Comet buses in operation.

Gujarat

A fleet of 40 Leyland Royal Tiger Cub underfloor engined passenger chassis has been ordered by the Ahmedabad Municipal Transport Service. This service is already operating 40 Leyland Royal Tiger Cubs fitted with synchromesh 4-speed gear boxes.

Eastern Stores Company one of the biggest transport operators is operating 6 Comet haulage chassis and has 16 more on order. The Comets are used mostly to carry coal from the railway siding to the textile mills in Ahmedabad and on their return journey to carry cloth bales to the railway station.

Orissa

Orissa Road Transport Co. Ltd. has ordered an Ashok Leyland long wheelbase Comet chassis intended to be used as a luxury coach. A number of Comets are operating in Orissa now.

Assam

Assam State Electricity Board has ordered a tractor-trailer combination with two Comet haulage chassis. The first Ashok Leyland Comet 118 tractor chassis to go to Assam was ordered by Walford Transport Ltd., main distributors for Ashok Leylands for the State of Assam.

Bihar

Bihar State Road Transport Corporation are operating 60 Ashok Leyland Comet, single deck buses.

Punjab

A fleet of 26 Ashok Leyland Comet bus chassis of 203" wheel base has been ordered by Punjab Roadways for their Jullunder division. Punjab Roadways has now 130 Comets in operation.

W. Bengal

Calcutta State Transport Corporation Operators of over 500 Leyland buses in Calcutta have ordered another 15 Leyland Tiger single deck bus chassis.

The Iron and Steel Works at Durgapur have placed an order for 8 Ashok Leyland Comets.

Andhra Pradesh

Andhra Pradesh State Road Transport Corporation are steady buyers of Ashok Leyland Comet vehicles and ever since the Corporation was formed late in 1956 they have ordered nearly 600 Comet buses.

Mysore

The Mysore Government Road Transport Department has given a contract for Rs. 11,50,000 to Ashok Leyland for the supply of 30 forward control long wheel base Comet bus chassis. The department is already operating over 200 buses.

Heavy diesel vehicles for Madras Corporation

One of the Municipalities in India who are consistent buyers of Ashok Leyland Comet vehicles is the Madras Corporation.

The Madras Corporation started buying Indian-built Comets early in 1956 and has slowly built up its fleet which now comprises over 20 Comet vehicles.

The order just received from the Corporation is for another 4 Ashok Leyland Comet ECOS. 2/1R - 163" Wheelbase truck chassis, which will be used as conservancy lorries after bodies are constructed on them at the Corporation's own workshop.

Social & Personal



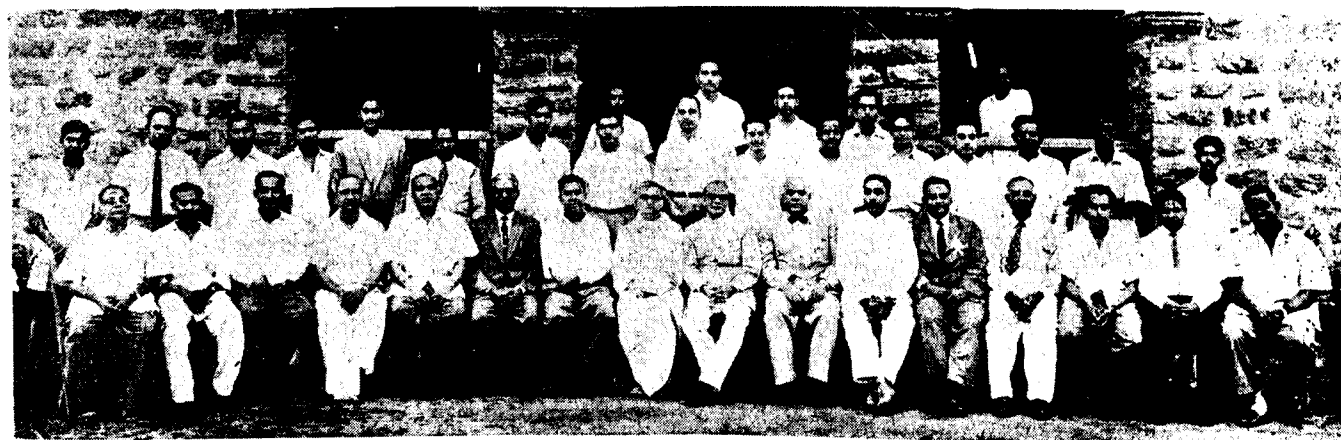
Contribution of Rs. 1368/- handed over to Mr. M. Bhakthavatsalam, Home Minister, for the renovation work of 'Sri Meenakshi Amman Temple', Madurai by 'The Tamilnad Motor Parts Dealers' Association' on the 1st August.



'Donation of dhothies and sarrees worth Rs. 1001/- handed over to Mr. M. Bhakthavatsalam, Home Minister, for Flood Relief on 24th July, 1961 by 'The Madura Ramnad Tyre Syndicate, Madurai.'



Rs. 1001/- handed over to Minister Bhakthavatsalam, for the renovation work of 'Sri Meenakshi Amman Temple', Madurai on the 1st August by 'The Madura Ramnad Tyre Syndicate, Madurai.'



Lambretta owners at Visakhapatnam have formed themselves into a Club of their own on the lines of The Madras Lambretta Club with Mr. R. Gopalakrishnan as the first elected Secretary and Treasurer. The inauguration function of the Club was held on 19th September, 1961 when the photo above was taken of the members.

Traffic patrols of London's Metropolitan Police are to be equipped with these stylish, 130 miles-per-hour Daimler 'Dart' sports cars.

Three of the cars are in service for a trial period and, if the experiment is successful, others will be added to the police motor pool. Powered by a 'Vee-8' engine, the glass Fibre-bodied 'Dart' has outstanding acceleration and roadholding, in addition to its high top speed.

Manufacturers are : The Daimler Co. Ltd., Radford Works, Coventry.



Minister Bhakthavatsalam having tea with members of the automobile and tyre trades in Madurai.



Donation of dhothies and sarrees worth Rs. 600/- handed over to the Collector of Madurai for Flood Relief on 24th July, 61 by the 'The Tamilnad Motor Parts Dealers' Association.'



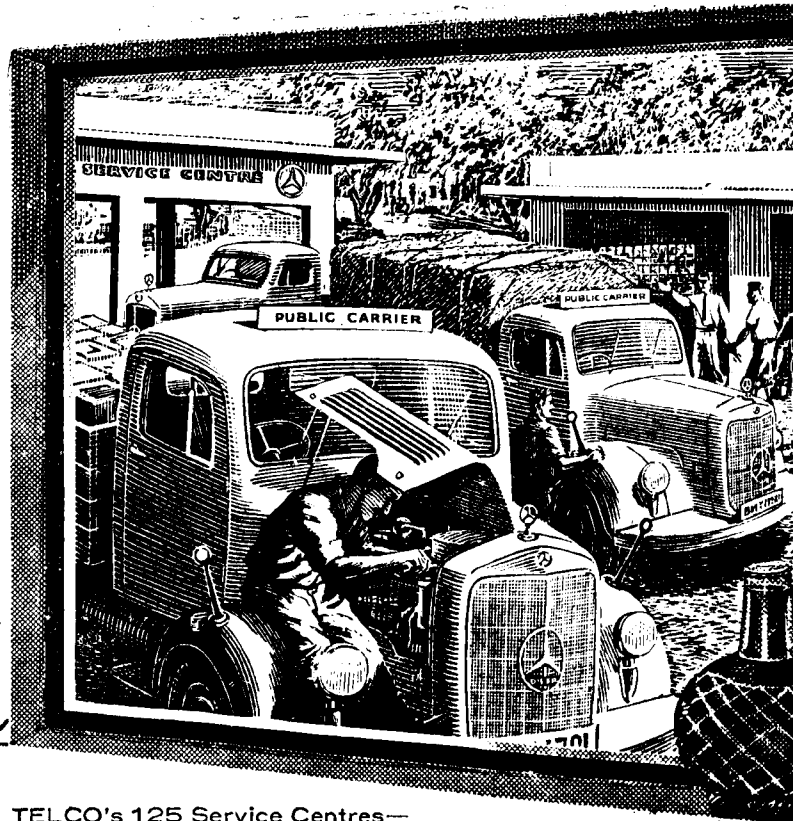
Sri R. Srinivasan, representative, Standard Garage, Bombay (brother of Sri R. Guruswamy, Partner, The Bharath Auto Stores, Tiruchirapalli-2 married on Wednesday the 13th Sep. Sow. Meenakshi Sundari (daughter of Sri N. Venkata Subramaniam, of Indian Oxygen Co. Ltd., Madras



Group Photo of the couple with some leading Automobile friends who attended the wedding.

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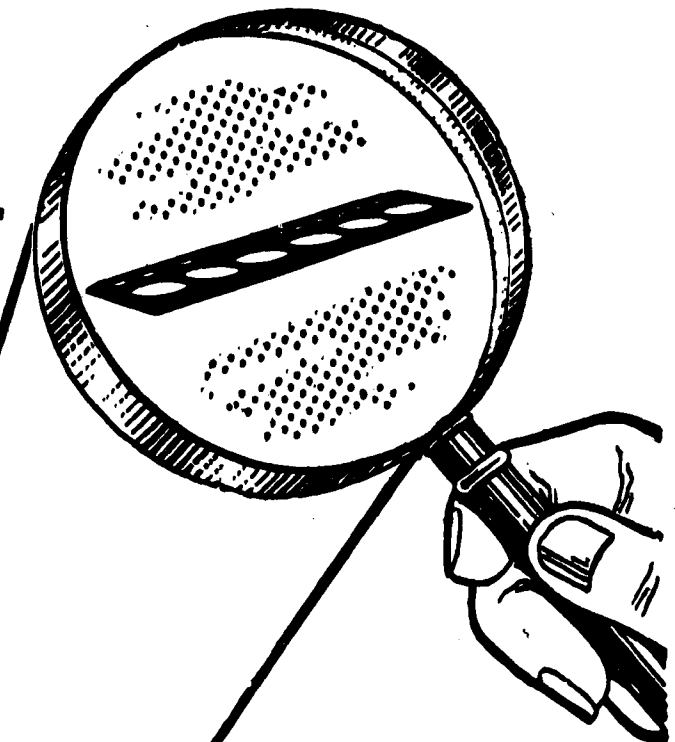
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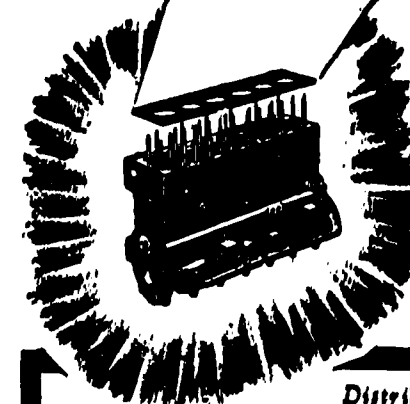
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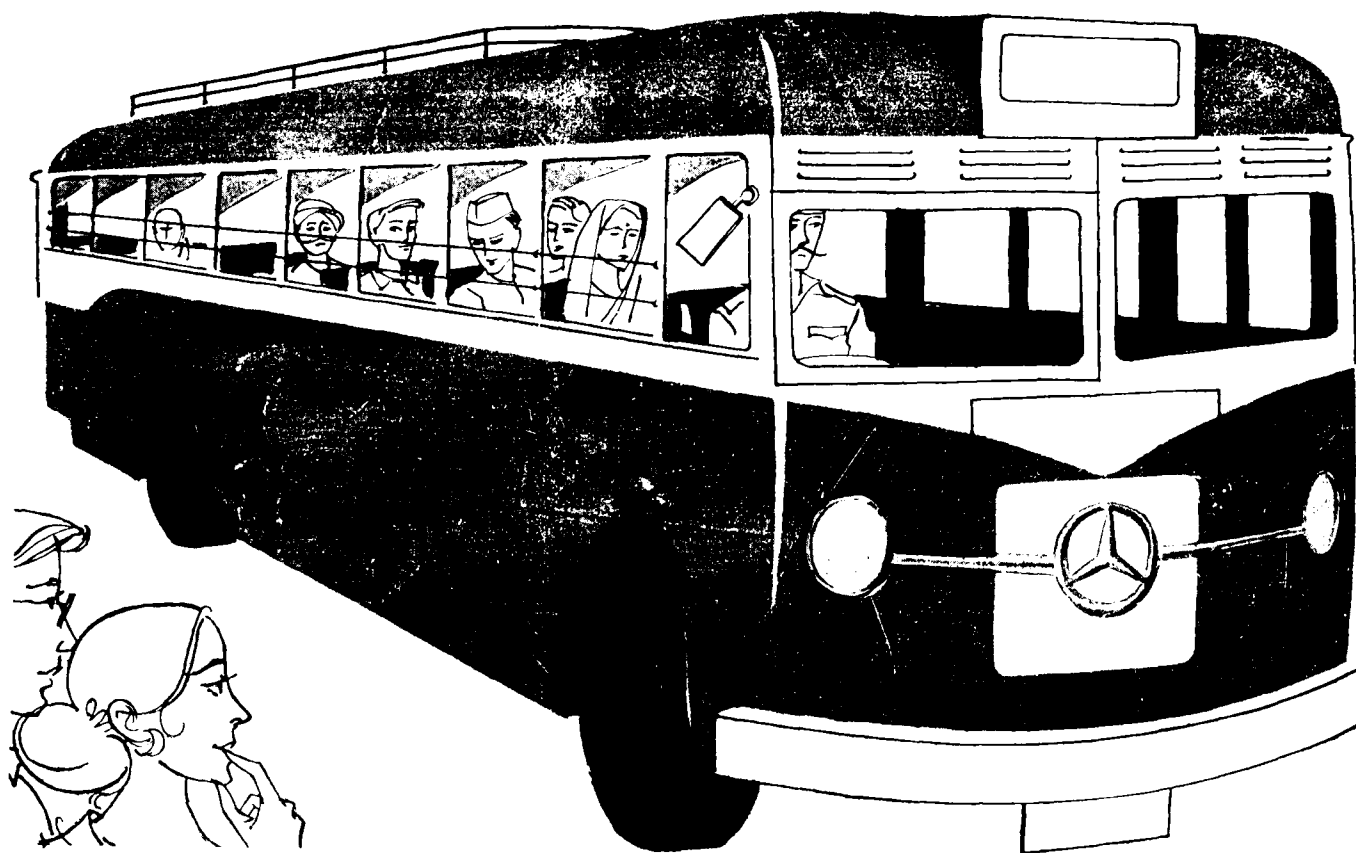
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