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SOUTH RAIL NEWS.

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SOUTH RAIL NEWS

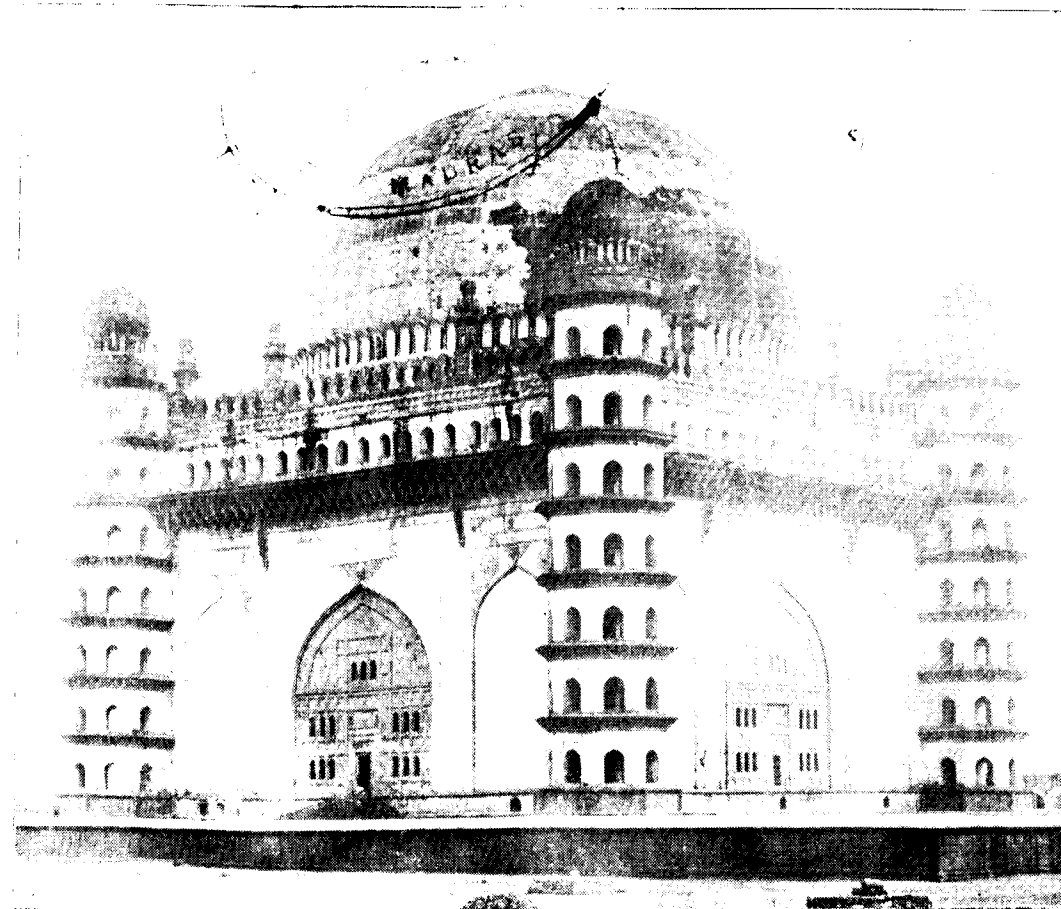


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VOL. I

SEPTEMBER 1954

NO. 6



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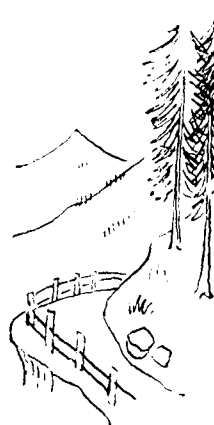
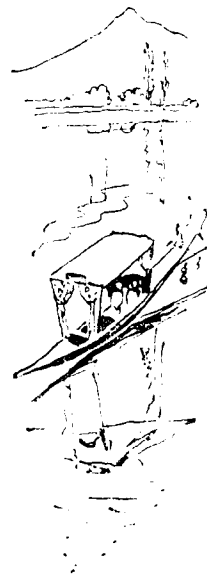
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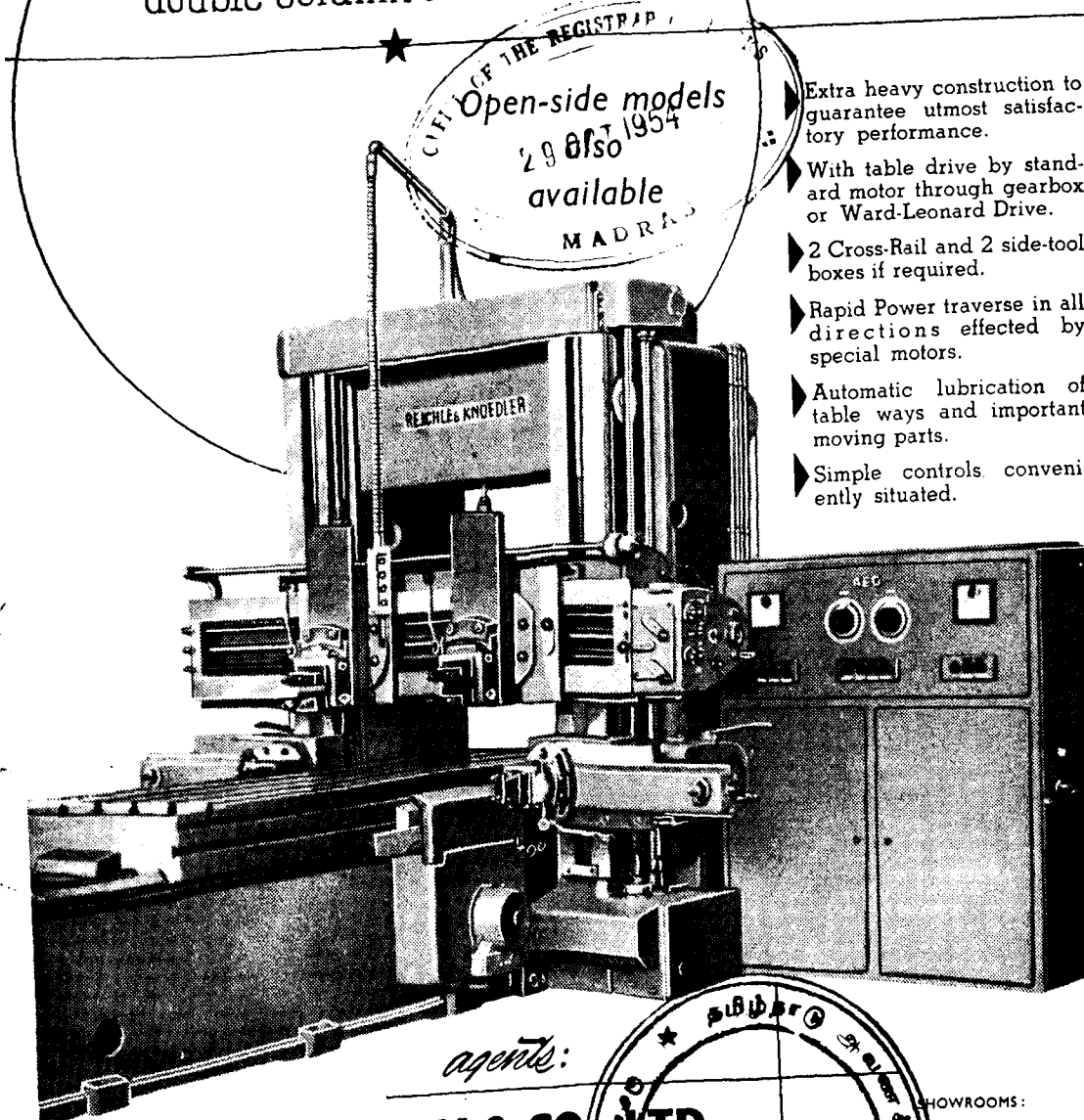
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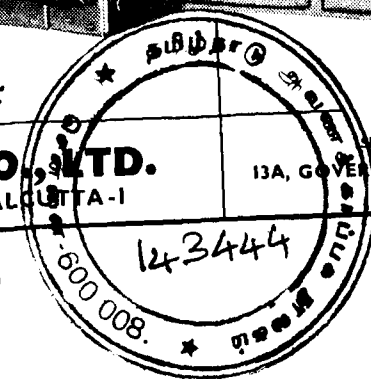
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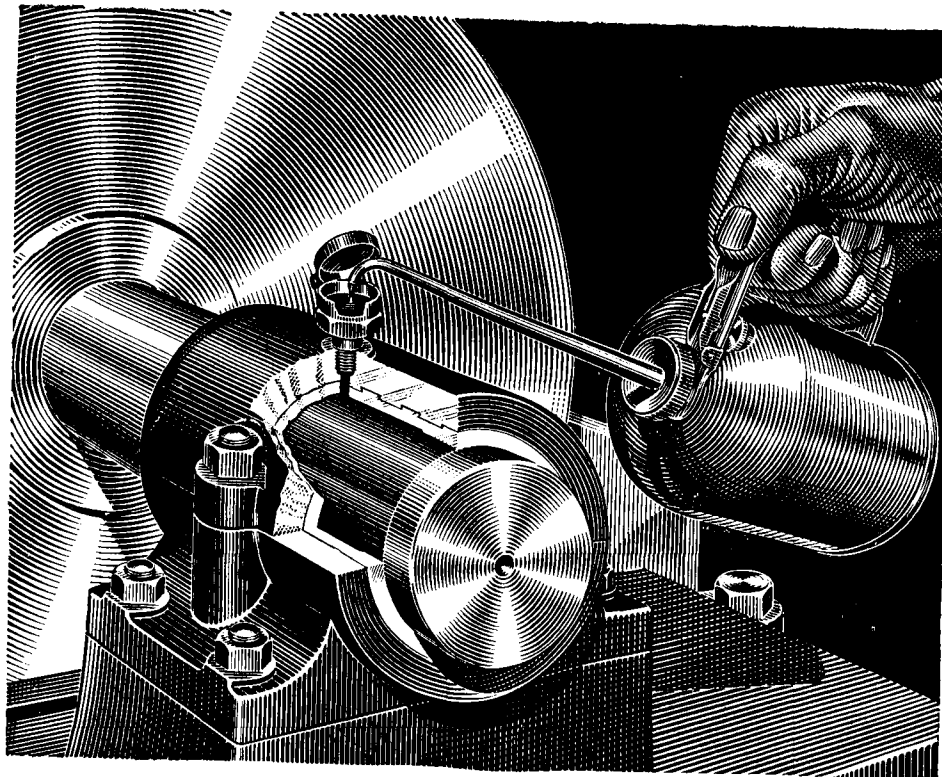
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SOUTHERAILNEWS

Vol. I

SEPTEMBER 1954

No. 6

OUR RAILWAY CELEBRATES RAILWAY CENTENARY

OF all the forms of transportation which have been developed during man's onward march, the one which has contributed most to the spread of civilization, the creation and diffusion of wealth, the expansion of industries and improvements in the standard of living, is the railway. Railways are also tremendously important from the broader standpoint of national development. The Indian Railway Centenary, the hundredth anniversary of the founding of railways in this country, which was celebrated last year was, therefore, an important milestone in the progress of India and a momentous occasion in the history of her railways. For several reasons, the celebration of the Centenary by the Southern Railway had been postponed to the happy occasion of the arrival at Madras of the broad and metre gauge Centenary Exhibition Trains.

The inauguration of the Centenary Exhibition Trains at Madras Beach station, which was performed on August 21 by Shri Sri Prakasa, Governor of Madras, was an event of great importance to the Southern Railway. As the function also marked the celebration of the Railway Centenary by our Railway, the elite of the city had been invited to take part in the celebration and to visit the Exhibition Trains declared open by the Governor. Shri Sri Prakasa, in his speech, referred to an aspect of the quiet, unassuming service rendered by Indian railwaymen which does not always receive the publicity and sympathy which are its due. He made mention of the difficulties of the station staff working in isolated stations in jungle areas who do valuable public service, oftentimes risking their lives. Referring to the Assam Rail Link, which was constructed at

7

considerable sacrifice and hardship on the part of railwaymen, he remarked "it has been truly said that underneath every sleeper lay buried a man who had helped to build the system." His words will be a source of inspiration to many a railwayman of the present and future and come as an eye-opener to the public at large who usually take things for granted in the working of railways and think little of the human element behind railway operation.

RAILWAY REHABILITATION SINCE INDEPENDENCE

"The responsibility railways have to shoulder during the next few years is very heavy indeed. The Second Five-Year Plan on the railways is therefore very important and I have every hope that it will be carefully planned for successful implementation. In the current Plan itself, we are in the midst of executing many urgent and important items of work which will remedy our existing deficiencies," observed Shri Lal Bahadur Shastri in a nation-wide broadcast made on the eve of the Independence Day which was celebrated all over the country on August 15. (A full text of the broadcast has been published elsewhere in this issue.)

Shri Shastri took the opportunity to review the achievements of Indian Railways since Independence and to take stock of the present and future problems facing the Government in the matter of railway rehabilitation. His review of the achievements so far accomplished showed in what main directions the effort of the Railway

Ministry was concentrated and to what extent the transport position of the country had improved. While in 1938-39, in undivided India, on an average, fourteen lakh passengers travelled in third class daily, the number in the Indian Union alone in 1952-53 was over 30.7 lakhs a day. To relieve overcrowding, the railways had introduced, between April 1949 and the end of 1953, 756 new trains and extended the runs of over 500 trains. A number of Janata Express trains exclusively for third class passengers had been introduced since 1948-49. Symbolic of the new approach of the railways was the decision in 1950 to provide Rs. 3 crores every year for a programme of passenger amenities.

As regards transport capacity, works designed to increase the existing limited line capacity were given first priority and shortages of rolling stock were met through large purchases, both in the country and abroad. As a result of the steps recently taken to increase the transport capacity of the North-Eastern Railway, the requirements of the Bihar Government for the Kosi Project would be largely met.

TWO IMPORTANT RAILWAY CONFERENCES

Several far-reaching decisions were taken at two important meetings of high-ranking railway officers held during the first week of August at New Delhi. In the first of these, the Financial Advisers and Chief Accounts Officers of the six zonal railways were in conference with the Financial Commissioner of the Railway Board

and discussed ways and means of improving the efficiency of the financial organization on railways. Among questions which came up for discussion at the meeting were steps necessary to strengthen and improve financial control by the accounts and finance machinery of the railways and staff matters, including the training of finance personnel. The recommendations made by the conference are under the scrutiny of the Board.

Ways and means of speeding up the progress of line capacity works included in the First Five Year Plan and implementing the heavy works programmes which are expected to be formulated for inclusion in the Second Five Year Plan, were the main subjects discussed at a Conference of the Chief Engineers of the Indian Railways

which ended at New Delhi on the 7th August. The conference felt that much larger funds would be necessary for line capacity works under the Second Plan and advance planning and placing of indents well ahead of the commencement of works would be essential. The question of improvements to old staff quarters in railway colonies was also discussed and it was decided to spend about ten per cent of the funds allotted for staff quarters for such improvements. The decision arrived at by the conference that railway colonies should be provided with good roads and improved water supply wherever these facilities were not in existence and that trees should be planted in greater numbers and parks laid, will be greatly welcomed by railwaymen.

AWARDS TO RAILWAY SERVANTS FOR SUGGESTIONS AND INVENTIONS IN REGARD TO RAILWAY WORK

The attention of staff is invited to the functioning of a Standing Screening Committee (Inventions and Suggestions) at the Headquarters for examining all suggestions and inventions received from railway staff as well as members of the public.

Any member of the staff desiring to submit his suggestion or invention should send it to the **Secretary, Standing Screening Committee, General Manager's Office, Madras.**

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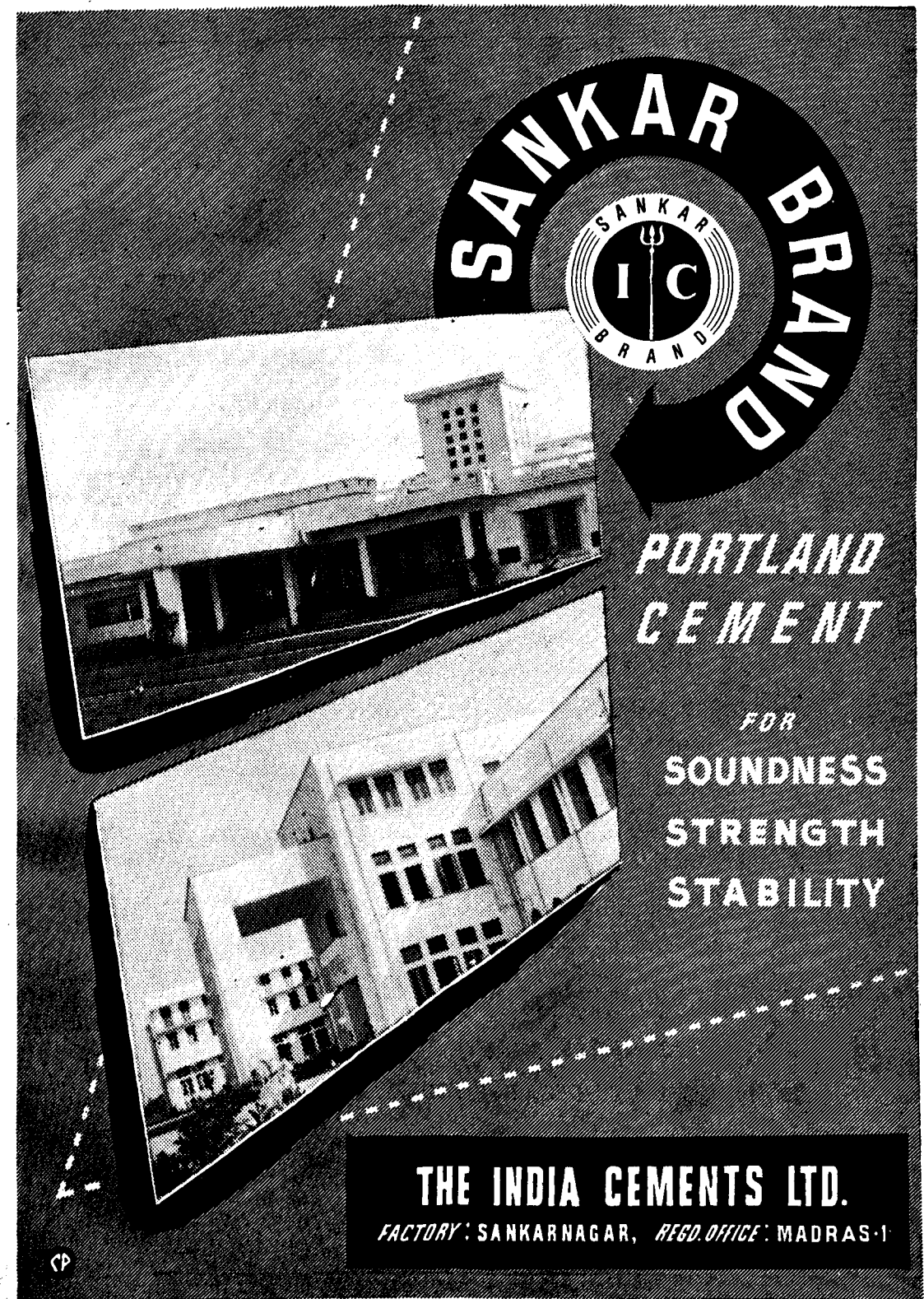
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SOUTHRAILNEWS

(Official organ of the Southern Railway)

VOL. I

No. 6

SEPTEMBER, 1954

Editor :

T. S. PARTHASARATHY

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All contributions must be clearly typed and double-spaced on one side of the paper only, and signed, not necessarily for publication but as a guarantee of good faith.

Manuscripts and photographs, not accepted for publication, will be returned only if the sender so requires and encloses the usual stamped, addressed envelope.

Contributions should be addressed to the Editor, not by name, and reach him not later than the 10th of the previous month.

The Editor does not assume any responsibility for the accuracy of the news supplied by correspondents or for opinions expressed by contributors. Opinions expressed in the *South-railnews* whether editorially or by contributors should be regarded as having no official authority.

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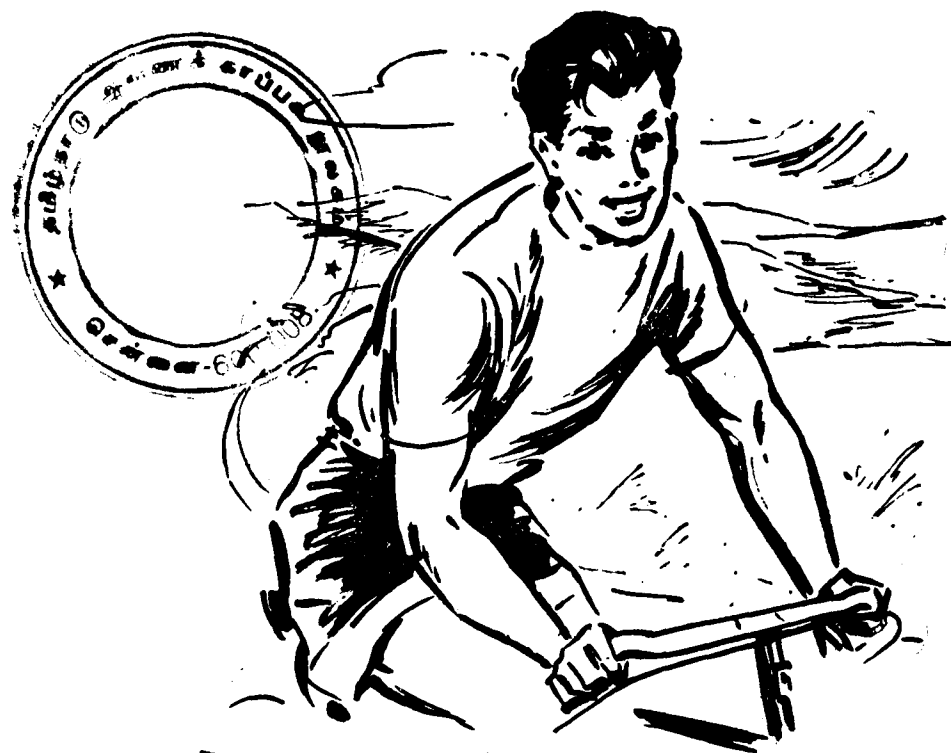
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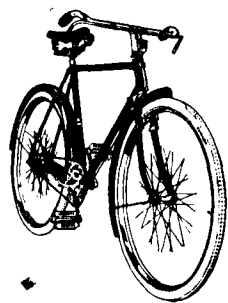
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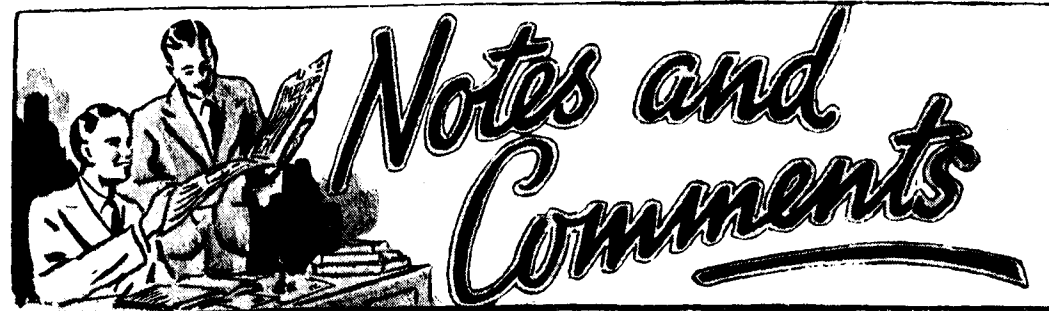


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Expansion of Railway Transport

MORE than a thousand miles of permanent-way have been added to the Indian Railway system since Independence and another thousand odd miles have been planned, a good portion of them being already under construction. All the new construction effected since Independence has cost more than Rs. 25 crores, while under the First Five-Year Plan it is proposed to spend Rs. 28.52 crores on new lines.

At the time of Independence, the Indian Railways with a total mileage of 33,566, the third largest in the world, faced four sets of problems. In the first place, they had to restore twenty-six branch lines totalling 858 miles, which had been uprooted in war time. Secondly, partition brought on urgent strategic problems and the need to overcome by new construction the virtual isolation of Assam. Thirdly, a number of areas which had long been awaiting Railway connection for their economic development had to be opened, the question of constructing links between already existing lines being the most urgent among them. Lastly, under the growing impetus for industrialisation and the Five-Year Plan new projects and production units were developing demanding construction of new Railway lines.

The success achieved in tackling all these different problems forms the core of the Railway record during the last seven years. The old dismantled lines are being restored as far as possible and wherever necessary, the allocation under the First Five-Year Plan for this purpose alone being Rs. 5.66 crores.

Restoration of 286 miles has already been completed and it is expected that by April 1956 nearly 75 per cent of the broad gauge and metre gauge lines and a good portion of the narrow gauge lines will have been relaid.

Meanwhile, the problem of Assam's accessibility to India was solved by January 1950, when the Railway administration had finished constructing the Assam rail link. This line which runs through a territory of mountains and forests interspersed with torrential rivers, tested the skill and morale of the Indian engineers, who were solely responsible for its construction. The engineers not only won, but succeeded in completing their historic undertaking in record time. Another need thrown out as an effect of Partition was met in the North-Western Zone when the Mukerian-Pathankot line was built. This line has cut the distance between Delhi and Pathankot by 44 miles.

The programme of new construction also includes the opening of lines in areas so far neglected and while doing so, the linking together of lines already existing. The two components of Travancore-Cochin State, Cochin and Travancore, are being linked for the first time by rail by the Quilon-Ernakulam line (96.5 miles) now under construction. The Chandigarh rail link has connected the new capital of the Punjab with the Ambala-Kalka main line. But the most important project in this category is the 187-mile Khandwa-Hingoli metre gauge line which will provide a direct metre gauge connection from Bhatinda in the North to Trivandrum in the South. At

present the metre gauge lines in the North, that is, on the North-Eastern, Northern and Western Railways are separated from the meter gauge lines in the South, on the Central and Southern Railways, and transshipment is necessary at several points. The new link will also help reduce traffic pressure on the broad gauge system making the through movement of goods and passengers on a parallel system possible.

It will not be out of place to mention here the Ganga Bridge Project which, though not a Railway line, will yet provide a vital link between North Bihar and South Bihar by connecting the North-Eastern and Eastern Railways across the Ganga enabling the transport of essential supplies to North Bihar.

With the launching of the Five Year Plan, Railway construction has naturally become closely integrated with all the other aspects of national economy. To help in the execution of some of the major development projects under the Plan and to meet the transport demands of newly developing industrial areas, a number of lines have been built, and more are under construction. The Gandhidham-Deesa line, built to help in the construction of the major port of Kandla in the Gulf of Kutch will remain an invaluable link between the port and its large hinterland. Similarly, the 116-mile Rupa-Nangal Railway has played an important role in the execution of the Bhakra-Nangal project, while it will meet an essential need of the Sutlej Valley which had earlier possessed no satisfactory means of transport. The Chunar-Robertsganj line opened recently by the Prime Minister will similarly serve the Uttar Pradesh Government's Cement Factory at Churk and at the same time help in the construction of the Rihand Dam.

At the same time, surveys for seven new rail links totalling a distance of 310 miles have been carried out and surveys for seven more with a possible mileage of 400 are in progress.

Rail Requirements of North Bihar

Mr. Lal Bahadur Shastri, India's Railways Minister, opening the 14-mile long metre gauge Murliganj-Dauram-madhepur rail link in the Kosi belt on August 3, said the present railway requirements of North Bihar were receiving high priority. Bihar would have no cause for grievance against the railways who were indeed already trying their best to ease the transport bottleneck between South and North Bihar.

Built at an estimated cost of about Rs. 32 lakhs, the new line closes the existing gap between Dauram and Madhipura on the Saharsa-Dauram-Madhipura section and Murliganj or the Purnea-Katihar section of the North-Eastern Railway.

As a result of the westward swing of the Kosi river, the towns in this area are cut off from the outside world whenever the Kosi is in high floods. To obviate the hardship caused to the people, it was decided to connect Dauram-Madhipura with Murliganj or Thenkatihar-Purnea - Murliganj line. The construction was completed in about two years time.

Asked about the needs of Bihar Mr. Shastri said, he was sure the Planning Commission and the Government of India had Bihar's needs very much in view especially with regard to the Kosi Project.

Mr. Shastri disclosed that in their scheme for laying new lines during the next six to seven years, North Bihar would figure prominently. They had, however, to meet the needs of the whole country. The Railway Ministry had been flooded with demands from all over India for at least 15,000 miles of new lines. Laying rail lines would cost Rs. 3 to 4 lakhs per mile. It was impossible to meet all the demands with the limited resources of the Government. Priority was, however, being given to industrial areas, centres of trade and commerce and backward areas which needed development Mr. Shastri said.

The Railways, Mr. Shastri said, were going ahead with the construction of the Mokamah bridge over the Ganga which would join North Bihar with South Bihar and ensure free flow of supplies across the river. He hoped it would be completed in about four years. They were doubling the wagon capacity from 45 to 90 wagons through the Marbadih route. A ropeway bridge at Tarighat near Ghazipur was planned to be completed in about a year. At Monghyr Ghat also a similar bridge would be constructed.

Catering on Railways

With effect from 1st September 1954, a standard menu and a standard charge for Indian style meals in railway refreshment rooms have come into effect throughout the country and the present classification of meals as first, second and third, wherever it existed was withdrawn.

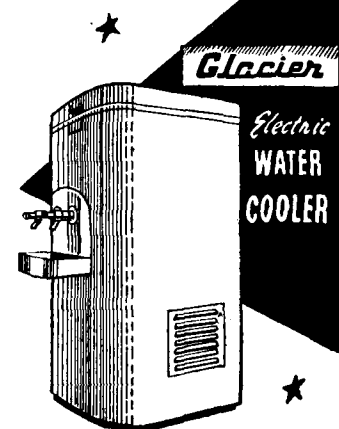
On the Southern Railway, a standard menu has been prescribed for a vegetarian meal only because the usual custom for non-vegetarian meals is negligible. A standard meal will be available at a standard charge of As. 10 plus As. 3 if served in a train. The day-time standard menu will consist of rice, pachadi, curry, kootu, dhal, sambhar, rasam, buttermilk, pickle or chutney, one pappad and two spoons of ghee. The standard menu at night will consist of rice, pachadi, curry, sambhar, rasam, buttermilk, pickle or chutney, a pappad and two spoons of ghee. The charge will be the same as during day-time. Extra curds will be supplied at a charge of annas two. A special meal in tray or carrier consisting of an extra sweet and an extra savoury dish will be supplied at Re. 1-4.

A standard vegetarian meal on the Eastern, North-Eastern, excluding Assam region, Central, Western and Northern Railways will cost As. 14, if taken in the refreshment room and Re. 1, if served in train. A standard menu for vegetarian meal will consist of dhal, a vegetable and curds or two

vegetables, four chappaties plus half a plate of rice or eight chappaties or a full plate of rice, chutney and a pappad. A standard menu for a non-vegetarian meal will consist of dhal, mutton or fish curry or egg curry, eight chappaties or four chappaties and half a plate of rice or one full plate of rice and chutney. Additional dishes can be ordered separately.

This decision was taken on the suggestion of a high-power committee, of which the Union Deputy Minister for Railways and Transport, Mr. O. V. Alagesan, is the Chairman. The committee is examining the entire question of catering on the railways and pending its final recommendations, the Board decided to implement the suggestion relating to a standard menu and a standard charge to provide the travelling public with food at reasonably cheap rates without any delay.

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TWO-CLASS SYSTEM ON EUROPEAN RAILWAYS

FROM summer 1956 the most important trains running on international services or on the internal services of European Railways will have only two classes. The cancellation of one of the present three classes is the result of a recent decision of the International Railway Union published in the bulletin of the International European Railway Company.

The present IIInd Class in the trains will be cancelled and the two new classes will be called Ist and IIInd Classes, having respectively six and eight seats per compartment as at present. The new Ist Class coaches will be the same in appearance as now, and the only difference will be a considerable reduction in fare. The new lower class, called IIInd class, will retain in substance the features of the present IIIrd Class as well as the fare. These changes will be put into effect in the beginning of summer 1956.

New Passenger Facilities in French Trains

In its constant endeavour to make train journeys as comfortable and as pleasurable as possible, the French National Railways are providing plug points for electric razors in the new coaches they are now building. These plug points are fitted on the

wash-stands of Ist and IIInd Class compartments with sleeping berths.

Reservation by Correspondence

The French National Railways offices in London, Brussels, Geneva and New York can now book by correspondence seats in French trains from more than 500 stations in France. This arrangement is a boon to foreign travellers going to France. They are now required only to drop a letter to the nearest of the above offices asking to book their train seat from one of the 500 railway stations in France having correspondence booking service. The reservation ticket will be sent to the passenger to any given address. The correspondence fees will be charged extra.

Model Kitchen for preparing three million meals

An immense kitchen for preparing three million meals a year has been set up in Paris by the International Sleeping-Car Company. "Raoul Dautry" is the name of this new establishment situated at 15 Rue Breguet, in the 7th District of Paris. This two-storied building with its two basements is modernised to the extreme. Electric ovens, tunnel oven for bakery, refrigerated rooms, control board, etc., are necessary for receiving the 475 tons of

September 1954

TWO-CLASS SYSTEM ON EUROPEAN RAILWAYS

15

meat, 144 tons of fish, 300 tons of bread, 11 tons of ham and many other stuffs that run into scores of tons consumed every year by the clients of the Company on the French rail network. Apart from the Restaurant cars on the French Railways belonging to the International Sleeping Car Company, the French National Railways have their own Restaurant cars in service on the principal French express trains covering long distances between approximately the normal hours for breakfast, lunch and dinner.

International Pleasure Train Trips

Every summer since 1951, the French National Railways organise international pleasure train trips which have become very popular with the public much on account of its considerably reduced fares and the pleasure it affords the travellers. These pleasure trips made in accord with the Travel Agents and a certain number of European Railway Administrations are extended from several rail terminals by motor coach and boat cruises. Hostess or guide service is provided in all the pleasure trains. In France, the tourist offices of the French National Railways which look after the tourist part of these travels have succeeded in getting very advantageous terms of stay in hotels where the touring party will stay. The different railways have granted a 50 per cent reduction on the travel fare of the pleasure train and a 40 per cent reduction on the trips which the members of the party have to make to join the pleasure train. Four trips are planned for this season out of which two, Nos. 1 and 2 have already taken place respectively from June 4 to 12 covering Paris—Lugano—Venice—Milan—Paris and June 17 to 27 going through Paris—Munich—Vienna—Salzburg—Innsbruck, Basle—Paris. The remaining two trips Nos. 3 and 4 will take place respectively on September 4 to 12 passing through Paris—Lugano—Venice—Milan—Paris and from September 18 to 27 making Paris—Barcelona—Madrid—St. Sebastian—Paris.



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EVEREST

SOUTHERN RAILWAY CELE INAUGURATION OF EXHIBITION

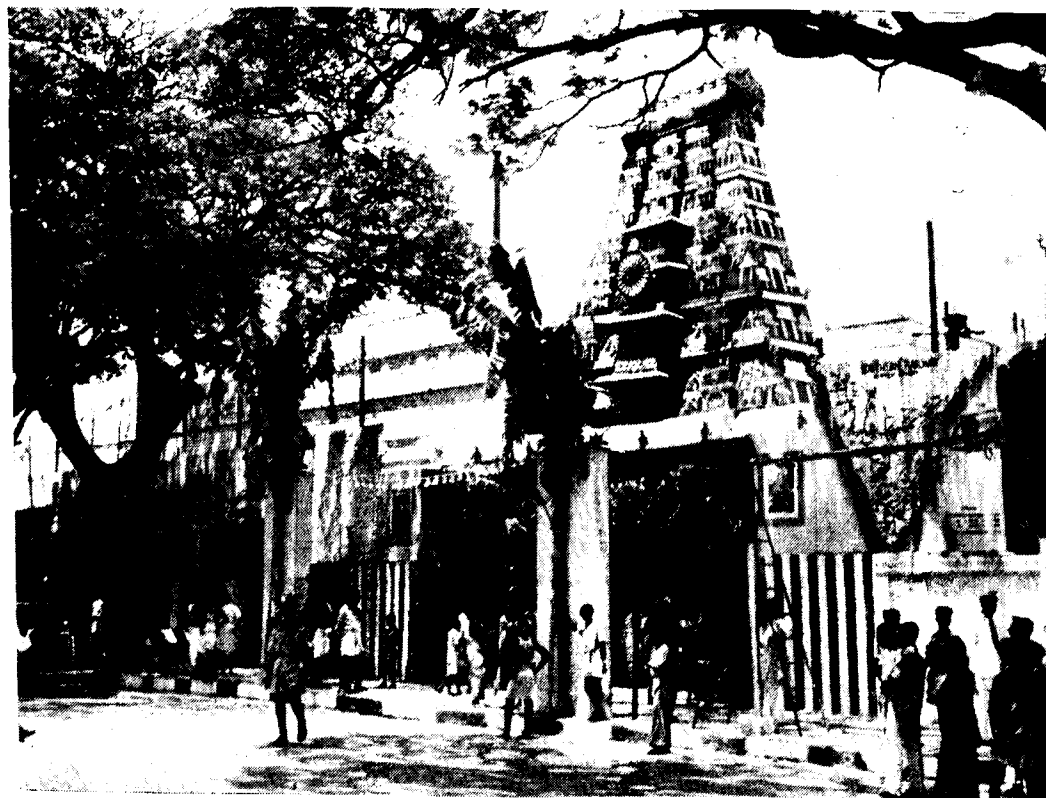
BEFORE a large and distinguished gathering which included Judges of the High Court, legislators, officers of the Central and State Governments, leading citizens of Madras, pressmen and Railway officers, staff and labour representatives, Shri Sri Prakasa, Governor of Madras, performed the inauguration ceremony of the Broad and Metre Gauge Railway Centenary Exhibition Trains at Madras Beach station at 10-30 a.m. on Saturday, the 21st August.

The Beach Station and its approaches had been tastefully decorated for the occasion and presented a festive

appearance. A typical South Indian 'gopuram,' 35 feet high, was erected over the main entrance to the station and was flood-lit. On either side of this tower, huge hoardings on which had been painted the choicest scenery on the Southern Railway, had been installed. Right at the entrance, a miniature 'dhvajastamba' and a stone 'nandi' (bull) of the 13th century A.D. had been placed artistically.

The inaugural function was held on the main platform which was bedecked with flags and festoons and the two Exhibition Trains were drawn up on either side of the platform. On the dais at one end of the platform was a

Decorations outside Madras Beach Station



BRATES RAILWAY CENTENARY TRAINS BY MADRAS GOVERNOR

representation of Mother India (Bharata Mata) in relief.

Welcoming the gathering and requesting the Governor to inaugurate the Exhibition, Shri T. A. Joseph, our General Manager, said :

It is indeed a great pleasure and privilege to me today to welcome you all to this function. For the Southern Railway the occasion is historic, for it marks not only the inauguration of the Exhibition Trains by our Governor but also the commemoration of the Railway Centenary, the completion of a hundred years of railway working in India. The century was completed on the 16th April last year, but its celebration in Madras had to be postponed for various reasons. For one thing these Exhibition Trains which started in July, 1953, from Delhi in the far north had to go round the whole

country before reaching the south. The public demand for seeing these trains was so keen that extra days had to be allotted in several towns and halts arranged at other centres not originally in the itinerary, including the Kumbh Mela at Allahabad early this year. The Metre Gauge train actually reached this Railway about three months back. But it was felt that it would be better to exhibit both the trains simultaneously in this metropolitan city. The Metre Gauge train was therefore allowed to do the round in other towns till the Broad Gauge train arrived.

It was on Saturday, the 16th April, 1853, that the first train in India steamed out from Bombay to Thana, a distance of 22 miles. The occasion, although historic and solemn, was not without its lighter side. 14 railway carriages carrying about 100 guests left Bori Bunder at 3-30 p.m. amidst a loud applause of a

Our General Manager welcoming the guests





A section of the vast audience

vast multitude and to the salute of 21 guns.' The Governor's hand was present, but not His Excellency the Governor. Lord Falkland, unlike the Governors of the present day, does not appear to have been an adventurous gentleman nor did he evince any desire to be transported from Bombay to Thana 'at the frightful speed of 20 miles per hour.' This in spite of the fact that the first locomotive had been named 'Falkland' to honour him. His Excellency was willing to lend his name and moral support but not his physical presence, and thought that discretion was the better part of valour. Needless to say this action of his did not pass unnoticed. The *Bombay Times* commenting on the ceremony reported:—

"The Governor, Lord Falkland and the Commander-in-Chief, Lord Frederick Fitz-Clarence, with their respective attendants, accompanied by the Bishop, the Rev. John Hardinge, left for the hills the evening previous in disregard of the memorable character of the occasion."

You will find a framed copy of this caustic report in one of the coaches of the Metre Gauge Exhibition Train.

Thus Bombay had the honour of starting the first Railway train in India. It must be

mentioned, however, that railway construction had started by this time near the other two big Presidency Towns also, Calcutta and Madras. Near Madras, construction started in 1853 the first sod being turned by the then Governor on 9th June. The first section of line from Rayapuram to Arcot (now Walajah Road), a distance of 65 miles, was opened for traffic on 1st July, 1856. If the Madras Engineers were content with a bare twenty miles as in Bombay they probably could have opened it in 1854.

Last year the hundredth anniversary of the founding of the Indian Railways was celebrated all over India, thereby adding a page to the railway history of the world. India can look back with justifiable pride on the development of her great network of railways during the past hundred years. It is an achievement which is not surpassed and probably not equalled in any other country in the continent of Asia. From a meagre twenty miles in 1853, the route mileage of the Indian Railways increased to 43,128 in 1937. After the separation of Burma and Pakistan it now has a mileage of slightly over 35,000. The capital outlay has increased from Rs. 38 lakhs in 1853 to Rs. 862 crores in 1951-52 and the gross earnings from Rs. 19,000 to Rs. 294 crores.

The wee infant born in 1853 has grown up into the giant of today, one of our greatest national assets. Speaking on the occasion of the Railway Centenary, our Prime Minister said, "I think that we have reason to be proud of our Railways in many ways. The Railways are our greatest national asset. They are a State undertaking run by the State, controlled by the State, wholly managed by the State. Now in these days of arguments about State undertakings, it is well to remember the success of this magnificent example of State enterprise in India. It is not only a success in itself, but I hope it is an example to others."

The Railway Centenary was such an important mile-stone in the progress of India and such a momentous occasion in the history of her railways, that the Railway Board was anxious to take the opportunity of presenting to the public an idea of the progress made by Indian Railways during these hundred years. They, accordingly, organised the Indian Railways Centenary Exhibition at New Delhi from the 7th March, 1953. The Exhibition was an endeavour to inform the public, who are their owners and patrons, about how the railways functioned, of the technical and industrial effort in the public and private sectors that lay behind the railway undertaking and the measure of self-sufficiency that has been achieved so far. Another important object of the Exhibition was to indicate in what manner our Railways assisted in the Five Year Plan, how they played a role of vital importance in the development of agriculture, trade and industry and how they compared with Railways elsewhere in the world. Railways are a subject of perennial interest to grown-ups as well as children and a railway exhibition even ordinarily would have been a great attraction. The Centenary Exhibition was therefore the centre-piece of the Railway Centenary Year. The Vice-President of India, who presided over the celebrations, remarked: "The origin, growth and expansion of the railway system are all epitomised in this Centenary Exhibition. I do hope that the railway system of our country will continue to progress and will continue to assist in building a community materially and culturally high and give us a satisfied India which will be able to make an effective contribution to the world itself."

The Railway Centenary Exhibition closed on the midnight of May 17, 1953. Although

nearly a million visitors saw it and special concession (*Shatabdi*) tickets were issued during the period the Exhibition was open, enabling large numbers of people from other parts of the country to see it, it was still out of reach for many. For this reason, even at the time the Centenary Exhibition was projected, it had been decided that when the Exhibition was over at Delhi, as many of the exhibits as possible should be put into Exhibition Trains and taken round the country to bring the Exhibition to the people.

Within two months of the closing of the Exhibition, work was completed on the fitting out of the Broad Gauge and Metre Gauge Centenary Exhibition Trains. The trains were formed by suitably converting ordinary coaching stock and vestibules were provided between the coaches so that visitors could walk from one end of the train to another without getting down. All the Indian Railways contributed one or two coaches each to this "Exhibition on wheels." As our Railways play a vital role in the implementation of the Five Year Plan, the Planning Commission, whose stall was one of the most attractive ones in the Centenary Exhibition, were invited to participate in the travelling exhibition also. A group of vehicles on each train was specially fitted out by the Planning Commission showing the projects started in the Plan period and the targets to be achieved in the fields of irrigation, power production, industry and community building.

The departure of the Exhibition Trains was signalled by the Prime Minister at a simple ceremony on July 10, 1953, at the Delhi Cantonment station. Both the trains have since toured the length and breadth of this vast sub-continent, the Broad Gauge train covering the Northern, Central, Western and Eastern Railways so far and the Metre Gauge train, the entire northern and southern metre gauge portions of Indian Railways. The former has covered 11,716 miles and was visited by 14,39,104 people while the latter was seen by 9,76,038 persons during its tour extending over 13,936 miles. Both the trains were exhibited at Allahabad during the Kumbh Mela and the Broad Gauge train at Kalyani during the last session of the Congress.

The Railway Administration have been extremely fortunate in having this function

inaugurated today by the Governor of this State. We are highly grateful to him for having found time, amidst the numerous engagements of his high office, to accept our invitation to be present here to declare the exhibition of the Centenary Trains open. Our thanks are also due to the distinguished guests who have, in response to our invitation, graced the occasion and contributed to the success of this function.

With your leave, I now request Shri Sri Prakasa to inaugurate the exhibition and declare the Centenary Exhibition trains open."

Shri Sri Prakasa then addressed the audience as follows :

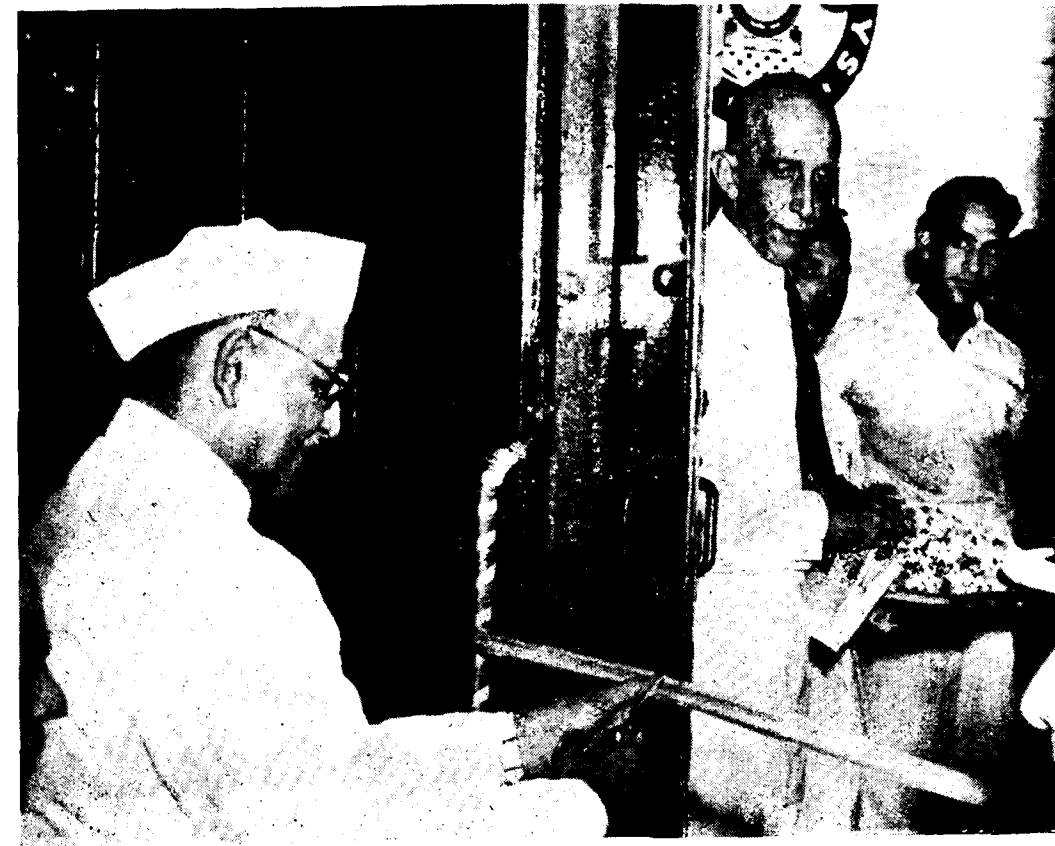
"From early boyhood, I have taken a keen interest in railways and the details of their working and had even corresponded with railway authorities pointing out the various defects as I found them. I regard the history of the railways in India almost as a history of India's struggle for freedom. Almost the only place where Europeans and Indians met in those days was the railway compartment and the meetings were not always very pleasant. Many incidents happened which upset the people of the country and they started a great

movement for the recognition of the right of the nationals. Such racial discrimination is now a thing of the past, remembered only in the setting of history. But I cannot omit to pay my tribute to what the railways had done, directly and indirectly, in helping us to realise the value of freedom and human dignity and to their solid record of over a century of useful service to the people. I remember the little engine that was placed in the precincts of Howrah railway station years ago. That was said to be the first engine that drove the train from Jubbulpore to Howrah. I am sorry that that engine is no more there. I would very much wish that it was exhibited in this Exhibition.

Tribute to late Shri N. G. Ayyangar :

"It has taken a whole year for the Exhibition trains to reach Madras. I had thought that the first sod for the railways was turned at Jubbulpore in 1856 by Lord Dalhousie. It was the late Sri N. Gopalaswami Ayyangar who was in charge of the Railway Ministry who told me that it was done three years earlier. Sri Ayyangar is one whom we must remember with gratitude for the many things he has done for us.

The Governor addressing the gathering



Shri Sri Prakasa opening the Exhibition

Like other citizens of Madras, I too have been eagerly awaiting these trains. The Indian Railways are the second longest in the world. They are the largest employers of labour—employing about a million men—and the largest State enterprise. I should not forget to mention with gratitude and admiration the private companies that had owned the railways in the past and had helped in making the system the success it is today. Railways are a popular means of transport and the Indian is among the greatest travellers in the world, though the common notion was that he travelled little and is a stay-at-home sort. While many other countries have given up the institution of pilgrimage, the people of India still adhere to it. The four great centres of Hindu pilgrimage, Badrinath in the North, Rameswaram in the South, Dwarka in the

West and Puri in the East, are in the four distant corners of India and our holy cities like Kanchi, Ayodhya, Kasi and Prayag are distributed all over the land so that a Hindu pilgrim did a lot of travelling and is an ardent patron of the railway.

The seeds of the freedom movement were, perhaps, laid by some incidents in railway compartments long ago. The railways have also contributed a great deal to the unification of the country, and making people realise the common bonds that knit together people in various parts of the land. No other institution had been so helpful in forging the bonds of unity as the railway and in this respect what English did for the English-educated classes, the railways did for the non-educated masses.

Life of Service and Sacrifice :

The people at large take things for granted in the working of railways and think little of the difficulties. Railways in the hill areas were laid and are run at considerable sacrifice and hardship. In the case of the Assam Rail Link it has been truly said that 'underneath every sleeper lay buried a man who had helped to build the system.' The difficulties of the station staff working in isolated stations in jungle areas might also be imagined. We have heard of attacks by wild animals and how the station staff have to fight to save the station and the passengers. And then there is the poor humble man at the level-crossing but for whose vigilance, there would be many disasters. These persons do valuable work of real public service in the face of tremendous difficulties, oftentimes risking their lives. For a long time, the general public and the government have had little to do with each other

and there has been a lack of understanding between them; but today we are a free people, democratically governed and it is necessary that the two should have increasing living contact, as that would help proper understanding and sympathy. Such exhibitions as I am opening today are of great value in helping such understanding. I hope that the people who visit the Exhibition will not only have a better understanding of what the railways have to show, but also realise that behind everything shown is the man who is as human as ourselves and who deserves all our sympathy for making considerable sacrifice for us.

On behalf of the State of Madras, its Government and its people, I extend a warm welcome to the Exhibition."

Shri Sri Prakasa then cut the ribbon and declared the Exhibition open.

The Governor evinced a keen interest in the exhibits



ACHIEVEMENTS BY INDIAN RAILWAYS SINCE INDEPENDENCE

SRI LAL BAHADUR SHASTRI

Union Minister for Railways and Transport

Text of a nation-wide broadcast made from the Delhi Station of All India Radio on Aug. 11

I AM glad to have this opportunity today to tell you what the Railways have been able to do, in the past seven years since we became free, to improve the quality and scope of their service to the community.

On the eve of Independence, India, as is well-known, inherited a railway system which was still groaning under the weight of the burdens cast on it during the last war. On the one hand, they had to overtake the heavy arrears of deferred maintenance, renewals and replacements, and physical assets worn out by wartime over-use. On the other, they were called upon to cope with an enormous increase in passenger traffic and at the same time to prepare for the needs of the expanding economy of the nation.

The immensity of the problems facing the Railways can be appreciated better against the background of the unprecedented increase in the postwar demand for rail transportation. Excluding the lines affected by the partition, there was an increase of 154 per cent in the number of passengers and of 130 per cent in the number of miles travelled by them as compared to 1938-39. Increases had also occurred on the goods side. These high levels of traffic had to be handled with actually smaller resources than in 1938-39.

The position with regard to power had deteriorated to such an extent that in March, 1949, nearly one-third of all the locomotives on Indian Government Railways were overage, and engine failures had become frequent. The position in respect of wagons and passenger coaches was no better.

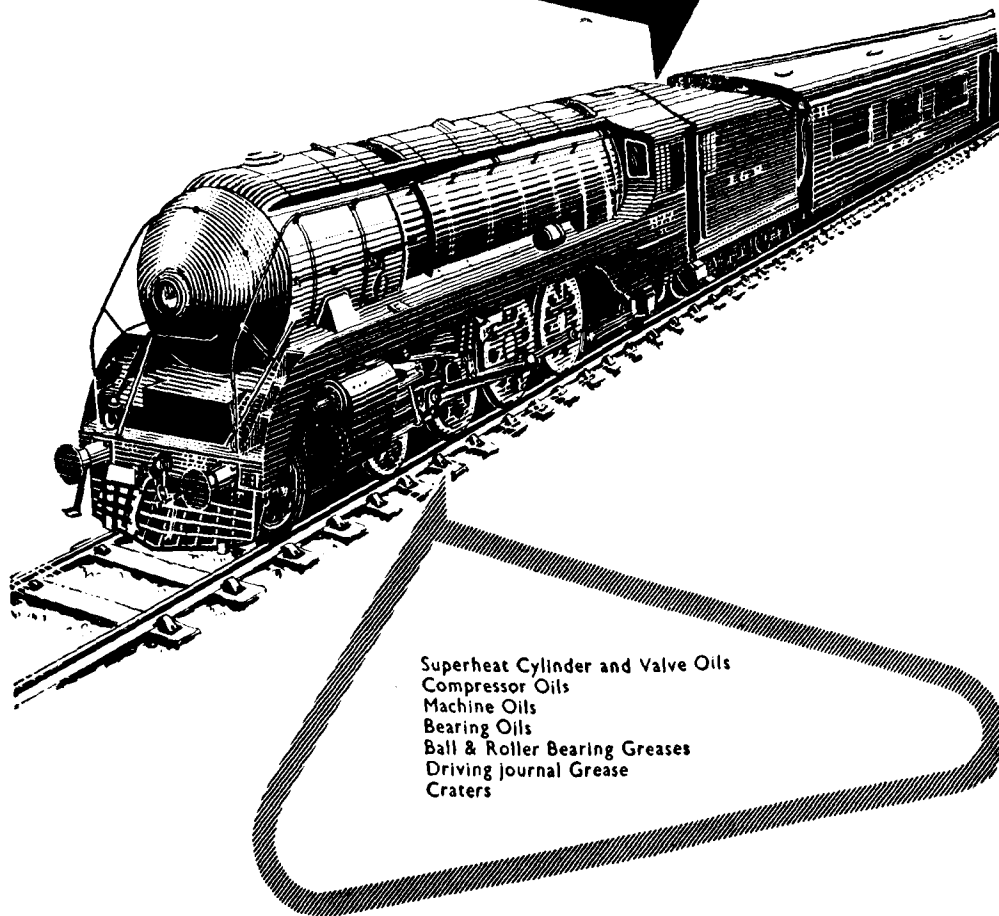
I do not wish to weary you with details of the various measures that have been taken to remedy matters, but I may perhaps tell you in what main directions the effort of the Railway Ministry has been concentrated and to what extent the position has improved.

Rates and Regrouping

One of the earliest steps taken after Independence was the revision of the fares and freight rates. On January 1, 1948, passenger fares which had formerly varied from railway to railway, were standardized for the country as a whole. The rating system, long criticised for its multiplicity of classes and special and station-to-station rates, was simplified. A Railway Rates Tribunal was also established in April, 1949, in place of the Rates Advisory Committee.

With the integration of the Indian States with the Indian Union, the States Railways aggregating 7,560 route miles were added to the Government-owned system on 1st April, 1950. With this, only a few hundred miles of narrow gauge branch lines are now left out of the nationalised system. With a multiplicity of new lines thus added, came the problem of their proper assimilation in the Indian Railway. This stressed the urgency of the problem of regrouping of the Railways, a live issue then for more than a quarter century. After a great deal of consideration, all the railways were regrouped into six geographical systems.

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Financial Convention

The financial arrangements relating to railways had been awaiting a revision since 1928. In 1949, a Committee of Parliament reviewed all aspects of railway finance, and their recommendations were accepted by Parliament in December 1949, and a new convention became operative with effect from 1st April, 1950. According to this, the general tax-payer assumed the status of the sole shareholder of the railway undertaking entitled to a guaranteed dividend of 4 per cent on the loan capital invested in the undertaking as computed annually. A Development Fund was constituted with the balances of the Betterment Fund for financing expenditure on passenger amenities, labour welfare and projects deemed necessary, though unremunerative, at the time of construction. As the new convention was adopted only for a period of five years, it is about to expire and a Parliamentary Committee is now going into the question of future arrangements.

More Amenities

Turning now to reforms connected with rail travel, a planned passenger

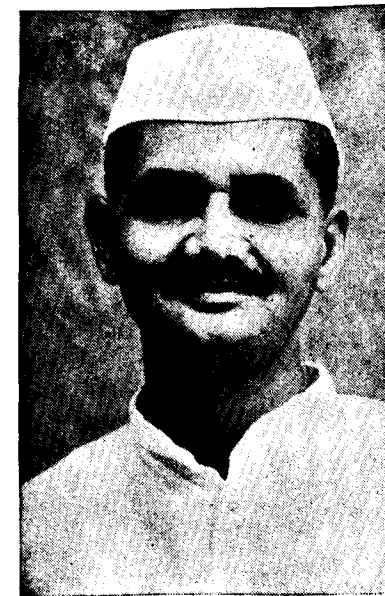
amenities programme has replaced the former *ad hoc* concessions made under the pressure of public opinion. Symbolic of the new approach was the decision in 1950 to provide Rs. 3 crores each year for this programme, whereas during the first two years after Independence, the total expenditure on passenger amenities was only Rs. 95 lakhs. This year Railways hope to spend the amount of Rs. 3 crores in full.

The chief complaint has undoubtedly been in regard to overcrowding in trains. It is rarely realised, however, why this complaint arose. While in 1938-39 in undivided India, an average of 14 lakh passengers travelled in third class daily, the number in the Indian Union alone in 1952-53 had crossed 30.7 lakhs daily. This increase of about 118 per cent in traffic occurred at a time of acute shortage of coaches. To carry the pre-war passenger traffic the railways had 18,800 coaches on the line on 31st March, 1939. On the same date, last year, there were no more than 15,300 coaches in service to carry all this increased traffic.

Relieving Overcrowding

To prevent or alleviate overcrowding in these circumstances was no easy task. Nevertheless, between 1st April, 1949 and the end of 1953 the Railways had introduced 756 new trains on their network and extended the runs of over 500 trains. Another step to relieve overcrowding has been the introduction in 1948-49 of the Janata Express, exclusively for third class passengers. This has afforded substantial relief to the third class passenger. A number of other steps have been taken to improve the lot of the lower class passenger. Fans have been provided in inter and third class compartments, for the first time, and about 35,500 fans had already been installed by 30th June, 1954.

The abolition of first class last year was an important step towards simplification of classes on the railways. An advantage of this step has been that the stock thus released assists



towards making increased accommodation available in the lower classes. It has also been decided to improve the standard of the second class coaches.

Catering arrangements on railways have been a subject of special concern to us, and a committee appointed under the chairmanship of the Deputy Railway Minister to go into this question is expected shortly to submit its report. As an interim step catering on various railways is proposed to be standardised and cheap meals are to be introduced.

Recently a decision has been taken to appoint a Deputy General Manager (Amenities) on each railway, whose special duty is to keep a watch on the provision, maintenance and effectiveness of the standard of amenities provided to the travelling public. Another important step in this direction was the setting up in 1953 of the Railway Users' Consultative bodies at regional or divisional, zonal and national levels. Every effort has been made to represent all important sections of users of railways in this machinery. The working of these bodies has already been of great value to railway administrations and Government.

Increased Transportation

As regards goods traffic the problem before the Railways at the present moment is to arrange for a quicker and increased transport of goods from one part of the country to the other. Works designed to increase the existing limited line capacity, which is greatly handicapping freer movement, are, therefore, being given first priority, and similarly shortages of rolling-stock are at the same time being met through large purchases both inside and outside the country. We are also considering the setting up of a 'Wagon chasing' machinery on each railway with a view to ensuring better utilization.

A few months ago an Efficiency Bureau was set up with high level

technical experts with the object of making spot studies of problems and of helping to remove difficulties which at present stand in the way of more efficient operation. They are at the present moment making a special study on the problems of detentions to and the slow speeds of, goods trains.

I have already indicated on another occasion recently the steps we propose to take on the North-Eastern Railway for increasing transport capacity. These include the introduction of night transshipment at Sakrigali Ghat and the stepping up of transshipment at Manduadih, the consideration of the possibility of installing aerial ropeways between Tari Ghat and Ghazipur and Monghyr and Monghyr Ghat for stepping up the movement across the Ganga, as also the question of proper arrangements for transporting materials required for the Kosi Project. I have every hope that we would be able to meet the requirements of the Bihar Government in so far as their Kosi Project is concerned.

Schemes for Augmenting Capacity

Similar measures on other railways are also in progress. Schemes for increasing the transport capacity via Agra East Bank and Viramgam are being finalized and a scheme costing Rs. 1.5 crores has been sanctioned to remodel the Sabarmati Yard. The doubling of the Ahmedabad-Kalol section has been sanctioned and the question of remodelling the Ratlam Yard at a cost of over Rs. 75 lakhs is under consideration. About Rs. 1 crore has been sanctioned for remodelling the Bezwada Yard and work for the extension of loops and additional crossing stations on the Bezwada-Madras section, costing Rs. 2.25 crores, would be carried out in the next three years. The conversion of the Gudur-Renigunta Section into broad gauge in order to divert traffic meant for stations south of Madras would also be carried out at a cost of Rs. 2 crores. These schemes, I hope, would greatly ease the transport difficulties on the

Bezwada-Madras section. The position at Moghalsarai has greatly eased and works to increase the capacity for movement of 2,000 wagons daily through this junction in the upward direction are under execution.

Rehabilitation Programme

The rehabilitation programme is the main feature of the Five Year Plan as it affects the railways. Under the Plan out of Rs. 400 crores allotted to the Railways, a little over Rs. 195 crores were spent during the first three years. The pace has been quickened during the last two years of the Plan, and during 1954-55 and 1955-56 the balance of Rs. 204.75 crores is expected to be spent. By the end of the plan period as a result of orders placed overseas and with manufacturers in India, we will have placed on the line 1,500 new locomotives, 5,800 coaches and over 59,000 wagons.

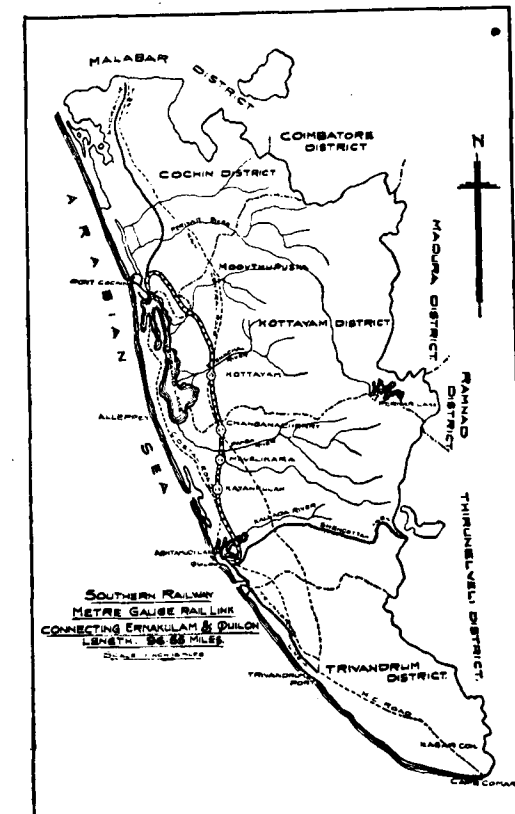
With the launching of the Five Year Plan, railway development has had to be closely integrated with other aspects of the national economy. Thus, many new lines have been constructed and more are under construction to help in the execution of some of the major development projects under the Plan and to meet the transport demands of newly developing industrial areas in the country. It is a matter of some satisfaction that since Independence more than 1,000 miles have been added to the Indian Railway system, while another 1,000 miles have been planned, a fair proportion of this now being under construction. Restoration of 316 miles of the lines dismantled during the war in different States has already been completed.

New Construction

An outstanding post-Independence achievement is the Assam Rail Link, completed well ahead of schedule despite the difficulties of a mountainous region and intractable rivers. This was an urgent necessity in view of the difficult situation caused by the breakdown of transit arrangements through

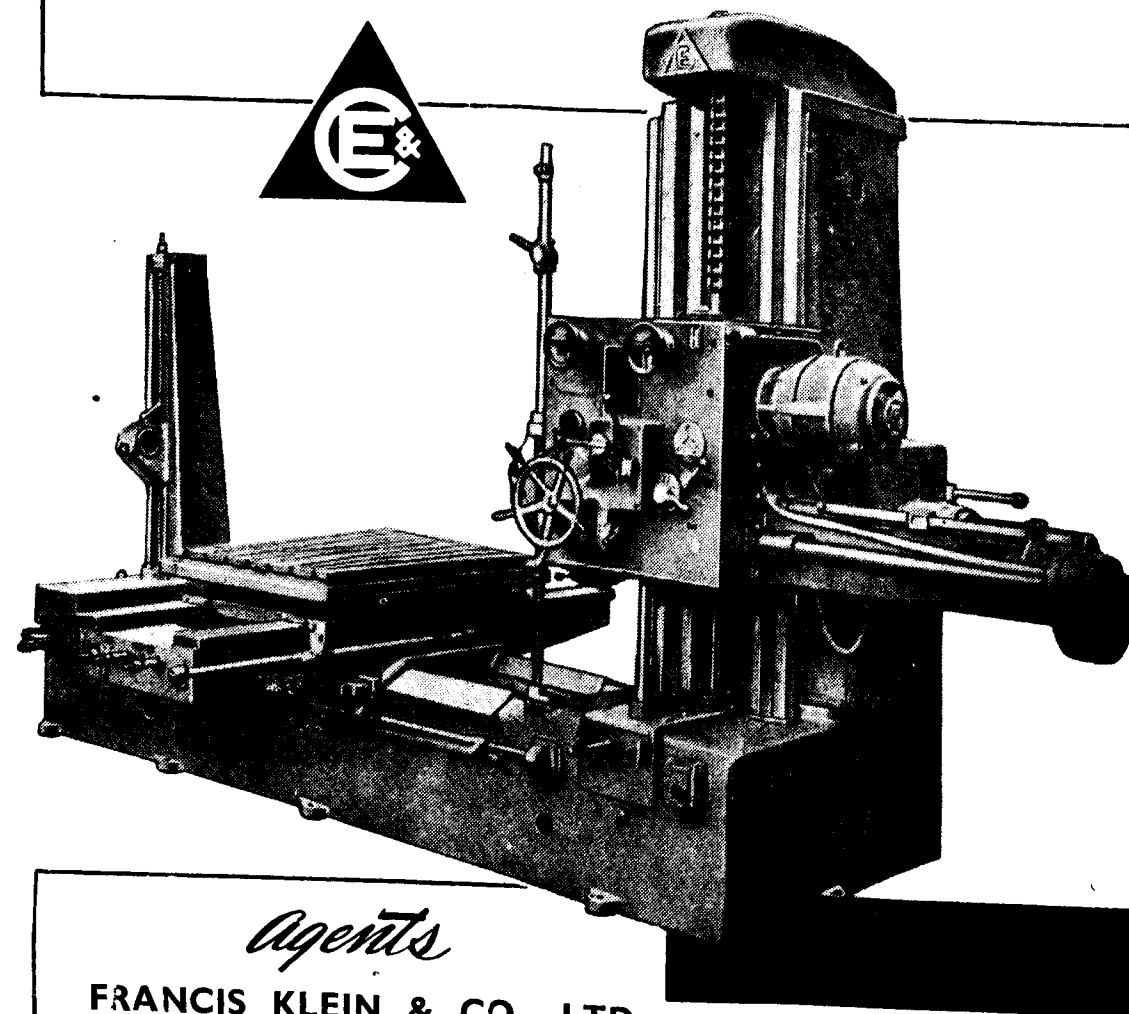
Pakistan after partition. Another line which had to be taken in hand as a result of partition was the Mukerian-Pathankot line, cutting the distance between Delhi and Pathankot by 44 miles. The longest of the new lines is the Gandhidham-Deesa metre gauge line of 170 miles opened to serve the needs of the developing Kandla port. The conversion into metre gauge of the narrow gauge line leading to Bhuj is also under consideration. Among new lines of industrial importance opened is the Rupar-Nangal railway which has played an important part in the execution of the Bhakra-Nangal project, meeting at the same time the essential need of the Sutlej valley which formerly possessed no satisfactory means of transport. More recently the Prime Minister opened the Chunar-Robertsganj line which will serve

The Quilon-Ernakulam line which connects Travancore with Cochin



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Uttar Pradesh Government's cement factory at Churk and at the same time help in the construction of the Rihand Dam. The Chandigarh Rail Link has connected the new Capital of the Punjab with the main Ambala-Kalka line. Another new line, the Quilon Ernakulam line, which is now under construction, will for the first time link by rail the two components of Travancore-Cochin State. The Champa-Korba line on the Eastern Railway is nearing completion. A project of great importance is the 187-mile Khandwa-Hingoli metre gauge line which will provide a direct metre gauge connection from Bhatinda in the north to Trivandrum in the south. At present the metre gauge lines in the north on the North-Eastern, Northern and Western Railways are separated from the metre gauge lines in the south on the Central and the Southern Railways, and transshipment is necessary at several points. The Khandwa-Hingoli line will help to reduce the pressure of traffic on the

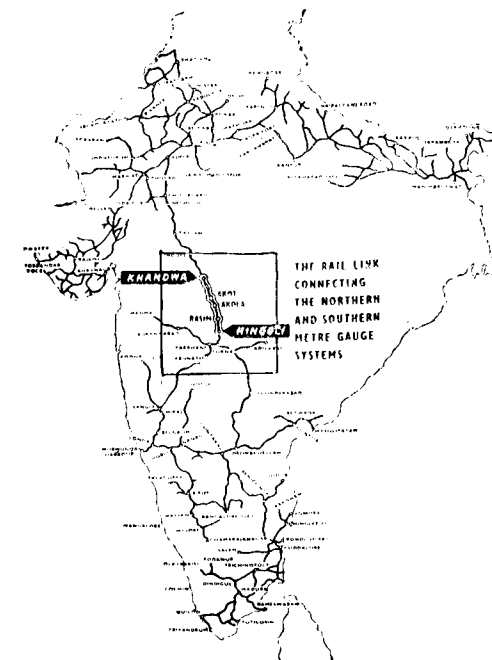
broad gauge system, thus making the through movement of goods and passengers on a parallel system possible.

Electrification

We have also made some progress in regard to railway electrification. Preliminary work has begun on the big scheme for electrifying the Howrah-Burdwan and the Sheoraphuli-Tarakeshwar lines in West Bengal, while sanction has been given for the electrification of the Madras-Tambaram line. Schemes for extension of the electric suburban traction both on the Western and Central Railways are also under consideration.

While on the subject of new projects, it will not be out of place if I mention the Ganga Bridge Project which will provide a vital link between north and south Bihar by connecting the North-Eastern and Eastern Railways across the Ganga, enabling easier transport of essential supplies to North Bihar.

The Khandwa-Hingoli link which will connect the North and the South



Achieving Self-sufficiency

In certain other directions, too, the railways have made notable advance. Great efforts continue to be made to achieve self-sufficiency in regard to rolling-stock which has traditionally always been imported. Two landmarks in this direction are the Chittaranjan Locomotive Works whose capacity we have decided to increase to 200 locomotives a year, and the Perambur Coach Factory which will have an installed capacity of 350 coaches per year. In regard to coaches and ordinary goods wagons, as well as a number of other items used by railways, I am glad to say that self-sufficiency will have been achieved in the very near future.

I may refer here to some of the special committees which we have set up. A committee to review the capacity of railway workshops to increase their output and gear up the workshops for better performance, has already started on its labours.

The Railway Accidents Enquiry Committee has gone into the question of accidents on railways and their report is under examination of Government.

The Railway Corruption Enquiry Committee is now actively engaged in its work and we are looking forward to their findings and recommendations to guide us in dealing with that evil.

Railway Research

We have reorganised the research activities on the technical side by establishing the Railway Testing and Research Centre on 1st September, 1952, as a Directorate of the Railway Board with headquarters at Lucknow and two sub-centres at Lonavla and Chittaranjan. The principal objectives of this organization are to further the application of modern techniques in railway engineering, apply necessary tests and devise modifications in the design of locomotives, carriages, wagons and track components. The activities of the research organization will also be directed towards developing indigenous substitutes for imported articles consumed by the railways and thereby promote self-sufficiency on the railways.

Staff Problems

Labour and staff relations have a special significance for the railways. Many difficult problems had to be faced since 1947, mostly the heritage of World War II and Partition, such as the large proportion of temporary staff, the fitting in of the staff which opted for India, etc. So far approximately 123,117 posts have been converted into permanent posts and 250,186 temporary staff confirmed since 1st June, 1948.

The implementation of the Adjudicator's Award on the hours of work, periodic rest, leave reserves, leave rules and holiday concessions, etc., was another important achievement. This involved roughly the employment of 100,000 men and a recurring cost of

Rs. 10 crores per annum in addition to a non-recurring expenditure estimated to cost more than Rs. 40 crores for staff quarters.

The acceptance of the Central Pay Commission's recommendations so far as they applied to the railway service, was another step of far-reaching importance. Certain anomalies which arose were straightened out in a spirit of mutual discussion and consultation in a Joint Advisory Committee set up in May, 1949 representing labour as well as management under an independent Chairman.

Improved status of Employees

The status of the railway employee has improved in other ways too. The benefit of Provident Fund has been extended to temporary staff with more than a year's continuous service. The benefit of the concessional rates under the revised grainshop scheme has continued in order to alleviate the hardship of the staff, the loss to the railways on sales, staff, freight, etc., amounting to Rs. 8.47 crores in 1952-53 alone.

Today nearly one out of every three railwaymen lives in a house built for him by the railways. To the 3 lakhs of railway quarters built up to March 1953, another 20,000 is proposed to be added during the last two years of the Plan.

One of the most gratifying features of railway working in recent years has been the cordial relations between the management and the staff. Railwaymen have peacefully, and with quiet efficiency, carried on their work during these years, and they deserve our sincere congratulations. Their problems may not all have been solved, but may I say that there is a genuine desire on the part of the management to help in their solution? If this happy atmosphere continues, of which I have little doubt, the railways will be able successfully to go ahead in fulfilling the great task which has devolved on them in the building up of our country.

Public co-operation sought

While I miss no opportunity to exhort railwaymen to put forth their best effort in making the railways the efficient service that the public expect it to be, I must at the same time ask the general public to offer its hearty co-operation in the matter of eradicating anti-social practices, such as large scale thefts of valuable parts and equipment in carriages, ticketless travelling and the pulling of alarm chains.

The responsibility the railways have to shoulder during the next few years is very heavy indeed. The Second Five-Year Plan of the railways is therefore very important, and I have every hope that it will be carefully planned for successful implementation. In the current plan itself we are in the midst of executing many urgent and important items of work which will remedy our existing deficiencies. But we cannot afford to ignore one very important factor, and that is the time factor. Whether it is the case of new constructions, or of works designed to increase line capacity or of remodelling or extension of workshops or stations, or of self-sufficiency in the matter of rolling stock, it takes a certain

minimum period of time to put them through. Important works now in hand, for example, may easily take two to three years to be completed. But, given the time, I have no doubt about the capacity of railways to fulfil the targets laid down.

Our resources financial and otherwise are limited. Shortages of material, specially steel and some parts and components, are a real handicap to our progress at the present moment. If the raw material is not made available to us from within the country, I think I shall have to revise my plans to some extent in so far as meeting our requirements from indigenous resources of wagons and coaches is concerned. Then we are badly in need of rails for replacement purposes. If a sufficient quantity of rails is not available in the country, we will have to go in for imports. This matter is under my consideration just at present.

The different items of works in hand during 1953 have progressed well, and in 1954 a faster speed is being aimed at and maintained. I am sure of their continued progress, and am confident that railwaymen will prove equal to the task.

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PREPARING THE TIME-TABLE

"OPRAIL"

A Time-table please? Some small change is passed from hand to hand and the clerk at the counter, or the railway book-stall keeper, hands over a time-table to the purchaser. Perhaps he is a passenger about to make a long train journey, and it is within the covers of the time-table that he can find all the information he needs about his forthcoming journey—the station names, times of arrival and departure at each stopping station en route, where he will have to change trains if he has to go to some destination on another railway, a branch line, or if there is a break of gauge from broad to metre or narrow, where he can get refreshments, and other miscellaneous information useful for travellers.

When he is looking up his time-table the passenger will obviously notice the meticulous manner in which the train timings are tabulated, and may wonder how it was all done. Apart from the millions of passengers who travel by rail, there are large numbers of railwaymen also who are not aware of the careful planning, the forethought and accurate compilation that has to be done by the officers and staff of the Operating department, in framing a railway system's time-table. So let us take a peep behind the scenes and get some idea of the way in which time-tables are made.

The common classification used by railways for their passenger carrying trains is mail, express and passenger. The mail and express trains are timed to run at fast overall speeds, with stoppages only at junctions, watering and important stations. These trains are intended mainly for long distance traffic, and the same rake of passenger

coaches will be used throughout journeys over one, two and even three railway systems, up to distances of over a thousand miles. The passenger train is timed at slower speeds with a halt at every station and caters mainly for sectional and branch line traffic of shorter distances. Although the timings of goods trains will not be found in a railway time-table for sale to the public, these trains also run over the same routes and sections, and have to be reckoned with in framing the time-table.

Even a cursory study of a time-table will reveal that there may be as many as twenty to forty main line mail, express and passenger trains running into and out of a large railway junction or terminal station. To this can be added a large number of suburban, sectional and even goods trains, all of which will rumble out of the various starting platforms on to the quadruple, double or single line tracks a few miles out. The time schedules of each of these trains are required to be calculated so accurately as to ensure a smooth and safe flow of trains in both up and down directions.

During the course of preparation of time schedules of trains, a number of important railway operational and technical factors have to be considered. First, there is the motive power unit that will haul the train. These are of various types and may be steam, diesel or electric. In India steam traction predominates. The Mechanical Engineers will provide all the necessary data required in regard to the numbers, types and capacities of the locomotives to the Operating department officers and staff, the latter being responsible for the actual framing of time-tables.

Next comes the subject of the availability of rolling stock, i.e., the number of coaches that will be available for carrying passengers. Based on this, the number of trains that can be run each day is then determined. This information is available with the Operating department.

The condition and type of permanent-way and the physical contours of the various sections of a railway over which the track is laid also have to be considered. Where the permanent-way consists of a heavy section of rails, trains can be timed faster; if of a lighter section, speeds must be reduced. Land contour may be of a long flat stretches over which fast speeds can be attained, and steep gradients on hilly sections over which even the fast trains must move at a reduced speed. Bridges, curves, tunnels, and cuttings are also features which have a marked bearing on train speeds depending on the maximum permissible, obviously combined with the safety factor. It is the Engineering department of a railway who provides the Operating men with all the required data for these factors.

If a railway system is fortunate in having long sections of double line track, the problem of making time schedules is much easier; but if single line sections predominate, great care has to be taken in working out accurate timings and stoppages of the slower trains so as to allow the faster and more important trains to get ahead on their faster schedules. Crossings of trains which are moving in both directions on the same track are also formidable problems to be tackled on single line sections.

The length and frequency of block sections are other important items in time-table work. Short block sections help in quicker reception and despatching of trains, whereas more time must be allowed between stations for trains on those sections where the block sections are further apart.

Another factor to be reckoned with is the yard and line capacity at stations. The ability of a station to receive and despatch trains with rapidity and safety is dependent on its yard and line capacity. Awkwardly constructed station yards are often bottlenecks to smooth operation, and will mean adding more time on the overall journey time of trains.

Several months ahead of the issue of a new time-table the Operating men are collecting all the relevant data needed, and when this is at hand, the intricate and arduous job of actual time-table making is tackled. To help the Time-table Officer get a graphic view of how the trains will move, master charts are prepared section by section. On the chart is plotted the entire journey of each train. This graph plotting shows at a glance the stations at which trains stop, where crossings or precedence are to be arranged, the time taken on the run from one point to another, where connections can be given for branch and sectional trains with through trains, and a mass of other data.

After a considerable amount of painstaking work on the part of the Time-table Officer and his staff, the time schedules are made out ready for the printers, and so the thousands and thousands of copies of railway time-tables roll off the press and are despatched to be on sale at booking and enquiry offices and railway book-stalls.

When a passenger buys his time-table, consults it, and finds the information he wants within a few seconds, little does he realise that those printed words and figures have entailed an enormous amount of intricate, detailed and accurate preparation for several months. And he gets the fruits of all this effort for a four-anna bit.



TRAVEL NEWS

THE CITY OF SEVEN BRIDGES

THERE is a mistaken notion that a holiday in Kashmir, or in any other hill station for that matter, is not worth the expense if it is not a long drawn-out affair. It is not realised how, with some planning and forethought, one can pack into a 10 or 15-day recess, fun and enjoyment which would fully repay one's financial outlay.

It is possible, for instance, to "do" Srinagar in a week or even less. If the recess extends to ten days or a little more, visits to Gulmarg, Pahalgam and other conveniently located beauty spots and historical places nearby can easily be fitted into the programme. Here are a few suggestions.

Before starting, an hour or two spent in reading literature about Kashmir in general and Srinagar in particular would be a useful investment. For greater enjoyment and relaxation, let a house-boat be your base.

Life in Srinagar centres round the river Jhelum. "Born in Olympian heights and cradled in a valley of velvet," the Jhelum flows serpent-like through the heart of Srinagar, dividing it into two. Seven picturesque bridges span the river, joining the city's two almost equal halves.

Floating on the Lake

A delightful personality you come across while moving about in Srinagar is the **shikarawala**, captain of the **shikara**, who will be your companion on many an outing. Soft-spoken, the picture of courtesy, he can also serve as a guide. On your first day in the City of Seven Bridges, abandon yourself to his care for a tour of the Dal Lake area.

Seated in the **shikara**, you are able to relax without effort as it glides noiselessly over the placid waters of the Dal Lake—five miles long and two miles wide, a spot of exquisite scenic beauty. You see the Nehru Park, built on a miniature island in the Dal Lake. A little beyond is the **kabutar-khana** literally meaning the "pigeon house."

The visitor who is pressed for time may combine the famous Moghul Gardens with his pleasure cruise on the Dal, and make a full day's outing of it. The **shikara** will take him everywhere. Alternatively, there is the bus.

Visit to Gardens

Five miles from Srinagar is the Chashma Shahi, famous for its mineral water spring. The water is believed to have digestive properties.

Nishat Bagh, literally the Garden of Pleasure, is two and a half miles beyond Chashma Shahi—Kashmir's most popular garden, with its water-falls, rows of prosperous looking chinars and stately poplars, surrounded on three sides by snow-capped mountains.

Two miles away from Nishat in the north-eastern corner of Dal Lake is the Shalimar Bagh, the Abode of Love. A canal running through the middle of the garden connects with the Dal Lake.

On the eastern side of Dal and six miles from Srinagar is the Naseem Bagh, a popular camping ground where a cluster of ancient chinars provide constant shade for rest and recreation. Near the Dal Gate is the Chinar Bagh, skirting which are rows of house-boats.

Kashmir's Handicrafts

Shopping in Kashmir's capital deserves at least a day to itself. Whether the visitor buys or not, a visit to the main shopping centres is a delight. Here he comes across an infinite range of beautiful Kashmiri handicrafts, such as shawls, rugs, fine wood-carving, papier mache, wicker-work, silver and copper ware, furs and carpets, available in all price ranges.

Going down the seven bridges of the city in a *shikara* is another enjoyable experience which will claim the best part of a day, particularly if the visitor is inclined to combine with it shopping at many famous show-rooms dotted along the river-embankment.

As you go down the bridges in your *shikara*, relaxed and fighting back the temptation to doze, another *shikara* comes skimming alongside yours, almost unnoticed, offering you Kashmir's fruits, flowers or handicrafts. This is one of Srinagar's "floating shops."

Climbing the Shankaracharya

A morning spent in climbing the mighty Shankaracharya mountain is an outing which every sturdy tourist will enjoy. The climb and the descent

takes about three hours. As the visitor goes up, he sees Srinagar and its surrounding in all their panoramic charm. Here are some tips for the climbers: start at least an hour and a half before sunrise. Climb scientifically, halting frequently for breath. A walking stick with a pointed end would help. Rubber shoes give a surer foot while descending and help in avoiding the danger of slipping. A camera and a pair of binoculars would prove useful accompaniments.

On another morning, a climb up the Hari Parbat, on the top of which is perched an old fort built by Akbar, may be a good outing. It is only about 500 ft. high, half of the height of Shankaracharya, and much easier climbing.

A few hours can be usefully spent on a visit to the Harvan Waterworks, an hour's bus journey from Srinagar. Here the visitor sees a lovely lake nestling at the foot of mountains. On the way to Harvan is a trout fish culture farm.

Evenings in Srinagar can be spent promenading on the Bund, which runs parallel to the Jhelum. It is a fashionable shopping centre which also provides a good evening's walk. Here a crowd of holiday-makers turns out every day for a stroll.

Moving out from Srinagar

After the visitor has seen a good bit of Srinagar, depending upon the time available to him, he can move out. Tourist buses take passengers every morning from Srinagar to Pahalgam and Gulmarg and bring them back in the evening. On two days of the week, the bus to Pahalgam takes passengers en route to Achhabal, Kokarnag, Anantnag, Bawan, Martand, etc.

For those on a longer vacation, of course, there are numerous other gardens, lakes, springs and resorts which with their natural loveliness provide a fascinating time to the holiday-maker.

Planning your holiday in Kashmir

A trip to Kashmir and a holiday in the hills! There is a wistfulness in the thought, for ever since the Moghul emperors set the fashion of spending the summer in Kashmir, holidaying there has remained an exclusive privilege of the rich. But it is no longer so now. Transport concessions and facilities in travel have brought hill stations in India well within the means of all classes of holiday-makers and this is particularly true of Kashmir. These concessions have been made available since the beginning of this year to tourists travelling in all classes by Railway so that they need not any longer feel that a journey and a holiday in the hills had to be given up because of expensive travel conditions.

People can now visit Kashmir without much strain on their pockets. And wise tourists usually plan their holiday tours. To get full value for one's time and money, one should advisedly seek in advance a pretty good picture of the many delights which a particular summer resort in the hills can offer him. In the case of Kashmir, this is particularly important, for in every sphere the country has much more to show than can be covered by any holiday visitor.

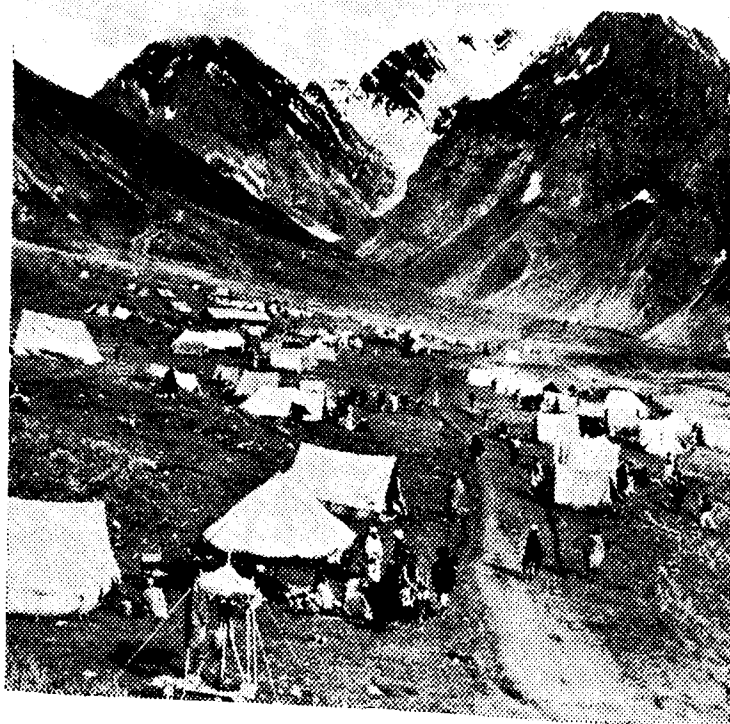
We can well take Pathankot as the starting point, in the holiday-maker's journey. Indeed he has already arrived there by train and if he is an experienced traveller, he might now notice the introduction of concession fares for families and groups on the Railway. From Pathankot, he can go to Srinagar either by air or by land route. He would prefer the former only when he is in a hurry and on business, for the land route which can be covered by bus or a hired station wagon or a taxi, holds for him a fascination all its own.

The route from Pathankot to Srinagar covers a distance of 267 miles. Though a pretty long journey, it is exciting and refreshing in its own way. Unlike a journey through the sweltering heat of plains, it is interrupted by

many charming halting spots on the way. As one drives his way up mile after mile of undulating hill-slopes, one becomes conscious of a strange transformation. The body feels refreshed with a new feeling of relaxation. The mind regains repose and quietude by a close proximity to the hills, reflecting a feeling of serene majesty. The first night's halt, whether at Kud or Batote gives a feel of the cool mountain air at an altitude of over 6,000 ft. above sea level. Thereafter one goes through a sloping mountainous track to the Bannihal pass and Pir Panjal range. On the other side of this high mountain wall, one can view the undulating valley of Kashmir—a rare sight for the lover of scenic beauty. For miles on end, one can see endless terraces of green paddy fields interlined by shining streams of snow water or interrupted by long avenues studded on both sides by stately poplars. The valley on the whole unfolds a multi-coloured vision of verdurous quietness and beauty.

The Pilgrimage to Amarnath

In a world full of vicarious thrills and canned ready-made adventures, served in penny-thrillers and glossy magazines, it might seem somewhat incongruous to seek spiritual comfort in a mountain retreat and undertake a hazardous 3-day trek over icy glaciers, sheer sloping heights and slippery pathways. And yet however much we might try to slake our thirst and subdue our inner restlessness at the easy founts of ersatz pleasures, our deeper craving for something real, something more enduring and genuine is never stilled, is never satiated. The spiritual vacuum that haunts the modern man remains obstinately lingering in the recesses of his consciousness. Perhaps it was to avoid this sense of inner vacancy that India's spiritual genius had invented more sustaining interests for the people. One of these is a seasonal journey to the holy places of popular pilgrimage like Amarnath.



Pilgrims' camp
on the way
to Amarnath

Scaling a stiff mountain height has something akin to a spiritual experience. It involves a measure of voluntary suffering and self-surrender and also courage and comradeship of a kind. Moreover, it establishes a sense of naked affinity with the elemental aspects of nature and thereby subdues our inclinations for pettiness and egoism in a large measure.

The annual day when people undertake the Amarnath Yatra fell last month. The Yatra reaches the cave every year on the Raksha-bandhan Purnima (full-moon). The pilgrimage to the holy cave began this year on August 4 from the Dashnami Akhara, Srinagar. The Puja of the Chhari which heralded the pilgrimage was performed on the same day in the Dashnami Akhara Temple.

Breaking its journey at Pahalgam, the Chhari followed by thousands of pilgrims halted at Chandanwari. This is the first halt on the upward journey and is only eight miles from Pahalgam. Chandanwari is a small camping ground about a square mile in area. It

is situated at the bottom of a huge cup which is skirted along the sides by piny ridges.

The route to Chandanwari runs along the swift running Liddar stream. The path runs through verdurous uplands and mountain tracks full of wild flowers. If you are not particularly averse to trekking, you will find the climb delightfully refreshing. The sound of the Liddar, hardly a hundred yards away, keeps varying in intensity. It comes echoing through the vacant spaces with a strange soothing resonance. It is a companionable sound and one gets used to it, as you get used to the verdurous landscape speckled with pines and birch trees.

On the second day, however, the liddar does not keep you company. You have to trudge along a steep path all by yourself. If you cannot do it on foot there is the pony or dandi to assist you. In fair weather it provides a good test for your sturdiness and it is some fun to have a try. In bad weather this nearly two-mile climb becomes awfully slippery and is a

warning sign to tread your way cautiously.

As you ascend this slope you are rewarded by a fascinating view of the mountains below from where Pahalgam can be seen nestling on a green verdurous plateau and the Liddar making its restless way down through receding plains. A little ahead you are struck by a still more beautiful sight. A huge glacier rises to over 15,000 ft. opposite you and from its shining snows, a silvery stream falls down the mountainside and joins Liddar at the bottom. You have now crossed the tree-line and stand at a height of over 12,000 ft. where only grass and green shrubs can grow.

Half a mile more of rather stiff climb and we behold the lovely lake of Sheshnag surmounted by a mighty glacier. On August 12, the pilgrims will pitch their tents at Sheshnag. The camping ground lies across a bridge of solid ice under which runs a crystal

clear stream of snow water. Three mighty peaks of immaculate white snow rise up like sentinels of elemental beauty. They form an inspiring backdrop to the milky green expanse of the lake. The whole scene breathes an air of terrifying grandeur. The mountains and their deep shadows on the lake water impart a feeling of eerie stillness.

The next stage on the upward climb is Panchtarni, eight miles from Sheshnag. The pilgrims camp here and go for darshan of the icy Lingam, resting in the ancient cave of Amarnath and return to Pahalgam the same day.

Thus ends the holy yatra to one of the most revered places of pilgrimage that India offers to its devotees. The road to Amarnath has been trodden through many centuries. Shankaracharya, Ramtirtha and Swami Vivekananda all have, in their own day, gone to pay their homage. It has, therefore, acquired a sanctity which only those who traverse the route can feel.

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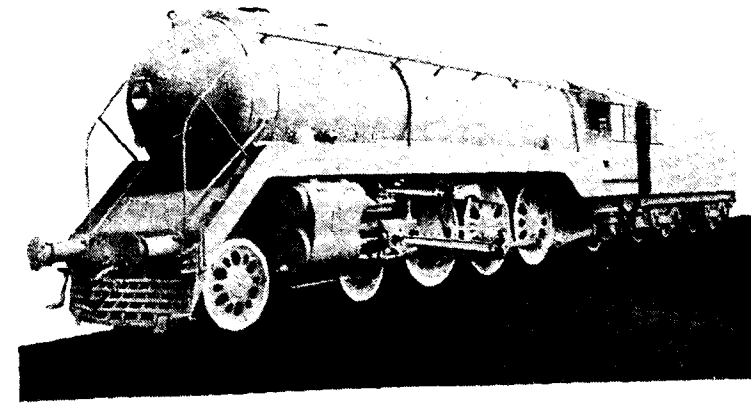
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PROBLEMS OF A LOCO MAN (4) LOCOMOTIVE MAINTENANCE

C. CHALAPATI RAO
Works Manager, Eastern Railway

I HAVE discussed in the previous issue the pre-requisites for proper maintenance of locomotives. In this article I propose to deal with the actual maintenance of locomotives.

Locomotive is a mechanical gadget with a large number of moving parts subjected to wear and various stresses. It is, therefore, necessary to attend to these parts frequently to enable the mechanism to be maintained in an efficient manner. How this maintenance is to be achieved and what is to be done is the problem.

It is an admitted fact that locomotives should be stopped from service periodically and the various parts attended to. To decide the periods, different people have different views. Some Railways prefer to stop engines on a time-basis and others, on a mileage basis. Mileage basis is a better system as time only rusts an engine but does not wear it. To decide the interval between periodical attention it is very necessary to make a close study of the repairs booked on the various parts,

Unnecessarily meddling with a locomotive part because the 'book of words' says so, is a dangerous practice as it not only results in wastage of man-hours but is also likely to result in a part which is in good working order going out of order quickly due to its being frequently uncoupled and coupled. I have known of a case where some one without a proper study said that pistons should be drawn out every month to examine the wear on rings although the rings in practice were lasting for 3 months. The result of this was that the piston rod was being separated from the cross-head frequently and unnecessarily and after about every 6 months the piston and cross-head assembly had to go to shops as the piston rod cone-end became slack in the cross-head. The modern locomotives are being designed with more wear-resisting parts and it is, therefore, necessary to maintain proper wear figures on the various parts, study these very carefully and then decide the intervals between periodical attentions.

Apart from wash-outs, the intervals for which depend to a large extent on the type of water in use on the district, there should be at least two other types of periodical attention in shed. There should be a light periodical attention in which parts subject to rapid wear are attended to and another, i.e., heavy periodical attention when parts such as tyres, boxes, etc. not subjected to rapid wear are to be attended to. A proper schedule of items to be attended to should be drawn and this schedule, as I have already stated, should be made after a careful study. The intervals between the periodical attentions should be such that it should not be normally necessary to attend to a wearing part in between periodical attentions. At the time of the periodical attentions the supervisor in charge should compare the actual wear with the wear limits laid down and although a part may not have reached the condemning limit, he should use his discretion in the matter and change the part or attend to it if he feels the part will not last till the next periodical attention. Several unnecessary holdups of engine have taken place because of lack of foresight on the part of the supervisor.

Having decided the intervals between periodical overhauls and drawn out the schedule of items to be attended to, the next question is how to deal with the periodical attentions. I have seen several sheds come to grief purely due to lack of planning in this regard. Most of the foremen stop engines for periodical attention because the engines are due, without for a moment thinking if capacity and facilities for dealing with the engines stopped exist in the shed or not. Each shed has a limited number of staff and facilities and if more engines than what the shed can deal with efficiently and quickly are stopped, the result will be either an unnecessary holdup of engines or kutchra jobs being done just to get rid of the engines. In one shed where the maintenance of engines had gone down very badly and 15 to 16 per cent of the

engines were being stopped every day for repairs, I got the foreman to call for a meeting with his fitter and Boiler Supervisors every Saturday and plan the work for the following week taking the existing facilities into consideration. After this system was introduced the condition of engines improved considerably and the percentage of engines laid up dropped to 7 per cent. At this meeting, the foreman discussed the material position also with a view to get the materials required to repair an engine before the engine was stopped. The main point to be remembered is "do not stop an engine unnecessarily but when you stop it do not do a half-hearted job because you are asking for trouble."

Another important item on which time must be devoted for the proper maintenance of locomotives is 'repeated booking.' Pages of engine repair books should not be treated as scraps of paper on which repairs to be done are written and once they are attended to, the importance of that page is over. If the same job is booked again and again in spite of attention being given to it, the matter should be gone into in great detail, the root cause of the trouble located and eliminated. For instance, piston glands may be booked as blowing after every trip and although the glands are attended to after every booking, the trouble has not stopped. When the matter is gone into in detail, it may be found that the actual cause of the gland blowing was not due to any defect in the gland but due to the piston rod going out of alignment as a result of heavy wear on the cross-head slippers. From this it will be seen that the job to be done is on the cross-head slippers and not on the gland itself. In some cases, the repeated bookings are due to defective design and until the design is altered the booking will not stop. Due to insufficient attention being paid to 'repeated bookings' apart from poor maintenance of the locomotive, several avoidable failures have taken place.

(5) POWER REQUIREMENTS

Different methods of assessing the power requirements of a shed are adopted. Very little difficulty is experienced in arriving at the number of engines required for passenger and shunting services. For passenger service regular links can be drawn out and on the links the number of engines required can be worked out. The links should, however, be drawn out very carefully. To the actual requirements according to the links is to be added repair allowance to arrive at the overall requirements. The repair allowance is generally calculated as a percentage of actual requirements and is normally about 12 per cent of the actual requirements. In sheds where regular scheduled repairs are undertaken it is much better to arrive at the repair allowance by calculating the number of scheduled repairs to be undertaken daily and to this if we add about 4 per cent of the actual requirements towards non-scheduled repairs, the full repair allowance can be arrived at. For shunting engines a similar procedure can be adopted by first ascertaining the daily requirements of shunting engines from the Traffic Department and adding to this the repair allowance.

Finding out the actual requirements of goods engines is not an easy problem as the volume of goods traffic generally fluctuates and the running of goods trains daily to the scheduled paths similar to passenger trains cannot be guaranteed. On Railways where Regular Goods Train Time-tables exist, power requirements can be worked out by making goods train links similar to passenger train links. Here we have to assume that the full service will materialise daily. On days the full service does not materialise, the spare engines will give the necessary flexibility required on account of goods trains running out of path. This method although simple is not an accurate method and generally results in misuse of power on days when traffic is light and a struggle to get

powers on days when the full service materialises. On Railways where goods train time tables do not exist a slight modification of the link system is adopted. If a train takes 'X' hours from originating station to destination station and the permissible turn-round time at home station and outstation is 'Y' and 'Z' hrs. respectively, for an engine to work an Up and Down train, turn round and be ready for the next up train, time required is $(2 \times X + Y + Z)$ hrs. If power is required for 'N' trains daily the number of engines required will be $N \frac{(2 \times X + Y + Z)}{24}$. If to

this figure, the washout and repair allowance is added, the goods power requirements can be arrived at.

In the above two methods it is assumed that the full service will materialise daily. In actual practice this does not happen and therefore considerable misuse of powers results. A method of working out the requirements for actual working conditions is as follows :—

First find out from statistics available the actual maximum goods engine miles earned by the shed in a month after checking the previous 12 months figures. Suppose 'M' miles have been earned.

If the engines are working between stations A & B the distance between which is 'A' miles and if 'x' is the average time to do the distance, and 'y' and 'z' the average turn-round time at stations A & B respectively as taken from statistics available then for the engine to do '2a' miles time taken is $(2x + y + z)$ hrs. If the engines are given a washout after 'b' miles then the number of round trips an engine will do between washouts will

be $\frac{b}{2a}$ = say 'f' trips.

For a washout 24 hrs. are required.

∴ For the engine to do 'b' miles, she takes $f(2x+y+z+24)$

In a month the engine will, therefore, do $\frac{30 \times 24}{f(2x+y+z)+24}$ × b miles, which is say 'N' miles.

∴ The number of engines actually required for working the goods train service is $\frac{M}{N}$.

To this figure if we add repair allowance we will get the overall requirements.

It will be seen that in the above method figures are based on actual working conditions and therefore the final figure arrived at is more accurate.

During my discussions with several Transportation and Loco-Officers, it was mentioned to me that we should always have a few extra engines in shed to give the necessary flexibility. This move is all right as long as men in charge of operation do not misuse the extra engines when traffic is just normal or below normal and withdraw the extra engines to a central place and store them as fit. Unfortunately this precaution is generally not taken by the Operating Supervisory officials and this results in the performance of the shed deteriorating. As extra engines in a shed mean extra work and expenditure, the additional engines should always be kept in a central workshop as stored fit and only released for any above normal traffic and to be withdrawn immediately the heavy traffic is over.

SOUTHERN RAILWAY

TENDER NOTICE

The Regional Engineer, Southern Railway, Mysore, invites sealed Percentage Schedule Tenders to reach him not later than 12 noon on Friday, the 10th September, 1954, for stone ballasting working material trains in connection with the work of re-railing 5.7 miles from mile 176/5 to 182/3 with 50(R) rails on wooden sleepers in lieu of existing 41½ lbs. rails on steel sleepers on Gadag-Sholapur Section, Hubli District.

2. Tenders should be submitted in the prescribed form, obtainable from the Office of the Regional Engineer, Mysore, on production of a receipt for the amount of Rs. 2 (Rupees two only) paid to the Regional Accounts Officer, Southern Railway, Mysore or Trichinopoly or Chief Cashier, Madras, towards the cost of the form. Extra copies of the form can be had, if available, on payment of Rs. 2 (Rupees two only) each. In no circumstances will the cost of the Tender Form be refunded. The Tender Form is not transferable.

3. Tender Forms will be issued upto 15 hours on Monday the 6th September, 1954 only.

4. The quotations submitted in the Tender shall be on the basis of a percentage above or below the rates shown for Hubli District, in the Printed Schedule of Rates for Northern Region. A copy of the Printed Schedule of Rates can be had from the Office of any District Engineer on Mysore Region, on payment of Rs. 5 (Rupees five only) and a copy of the Southern Railway Specifications of Works on payment of Rs. 3 (Rupees three only), in cash or by Money Order. Copies may also be had from the Regional Engineer's Office, Mysore, on production of a receipt for the said amount paid to the Regional Accounts Officer, Southern Railway, Mysore or Trichinopoly or Chief Cashier, Madras.

5. Earnest money of Rs. 1,960 (Rupees one thousand nine hundred and sixty only) should be paid in advance to the Regional Accounts Officer, Southern Railway, Mysore or Trichinopoly or Chief Cashier, Madras not later than 15 hours on Tuesday the 7th September, 1954 and the receipt submitted along with the Tender. No demand draft, or cheque etc. to be attached to the Tender.

6. Tenderers are required to submit Income-Tax Clearance Certificate along with the Tender.

7. The Tenders will be opened at 15 hours on Friday the 10th September, 1954 at the Office of the Regional Engineer, Mysore.

8. The Regional Engineer reserves to himself the right to reject any or all tenders without assigning any reason.

BIJAPUR—CITY OF MAGNIFICENT RUINS

T. S. PARTHASARATHY

Public Relations Officer

"They say the Lion and the Lizard keep
The Courts where Jamshyd gloried and
drank deep;
And Bahram, that great Hunter—the Wild
Ass
Stamps o'er his Head, and he lies fast
asleep"

wrote the immortal Omar Khayyam in his famous 'Rubaiyat.' Little would the great Persian poet have imagined that his almost prophetic words would literally come true in the case of a dynasty of kings founded in India a few centuries later by a Prince who, though born in Turkey, spent his youth in Persia.

The eyes of a traveller approaching Bijapur from any side of the historical city would immediately get rivetted on the upper part of a big dome in the horizon when he is still at a distance of 8 or 10 miles. This dome, the second largest in the world, shelters the tomb of Muhammad Adil Shah, the seventh of the nine Sultans of the Adil Shahi dynasty, which ruled at Bijapur for nearly two centuries from 1490 to 1686.

Although the city of Bijapur was of some importance even as far back as in the eleventh century A.D., very little of the splendour of its pre-Mahomedan days is now left excepting a few stone inscriptions and some beautiful images of Buddha recently excavated. The splendid mosques and monuments which now attract the traveller to this "City of Magnificent Ruins" were raised by the kings of the above dynasty. It was the ruling passion of the Mahomedan kings to build mausoleums for their remains after death, which was mainly responsible for these exquisite and grand works of art. It is therefore meet that

we should know a few details of the history of the dynasty whose love of architecture manifests itself in every building of Bijapur.

The Adil Shahi Dynasty

Among the five Sultanates of the Deccan of the 15th and 16th centuries, the most important and interesting was Bijapur ruled by the Adil Shahi dynasty founded by Yusuf Adil Khan, a son of Sultan Murad II of Turkey. According to a romantic tale, which even Firishta, the conscientious Muslim chronicler, accepts as respectable authority, the Prince was saved by stratagem from the massacre of princes, which usually occurred in Turkey at the accession of a new sovereign and was brought up secretly in Persia. When the disguised prince was seventeen years old, he found continued residence in Persia unsafe and, therefore, allowed himself to be disposed of as a slave and sold in Bidar to the minister of the Bahmani Sultan. In course of time, Yusuf Adil became the Governor of Bijapur and declared his independence in 1489, almost simultaneously with his colleagues in Berar and Ahmednagar and became the founder of the dynasty named after him.

Firishta refers to the dynasty as 'the illustrious monarchs who reigned over Beejapoor' but except for purposes of purely local study, it is not worthwhile to go into the details of the incessant wars and intrigues between the five kingdoms of the Deccan. Some of the rulers of the dynasty, especially the founder Yusuf Adil Shah and Ibrahim Adil Shah II, appear to have been enlightened rulers and reigned with justice and integrity.

Ibrahim II was called 'Jagadguru' by his Hindu subjects for his religious tolerance. But it is in their role as 'Builders of Bijapur' that we are now interested in the Sultans of this dynasty.

The Monuments of Bijapur

The works executed to the orders of the Adil Shahi kings of Bijapur are marked by a grandeur of conception and boldness in construction unequalled by any edifices erected in India. The gigantic walls of the city, begun by Yusuf, the first Sultan, and completed by Ali, the fifth sovereign, are six and a quarter miles in circumference and still perfect for the most part.

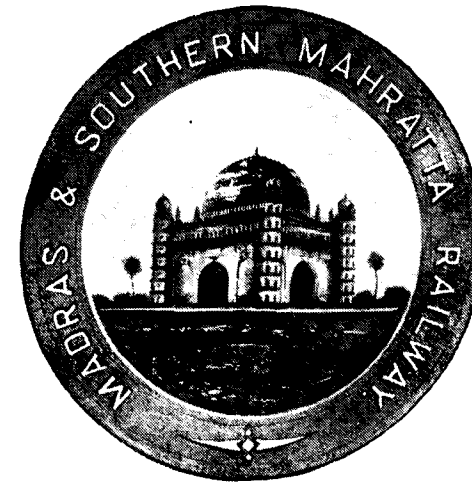
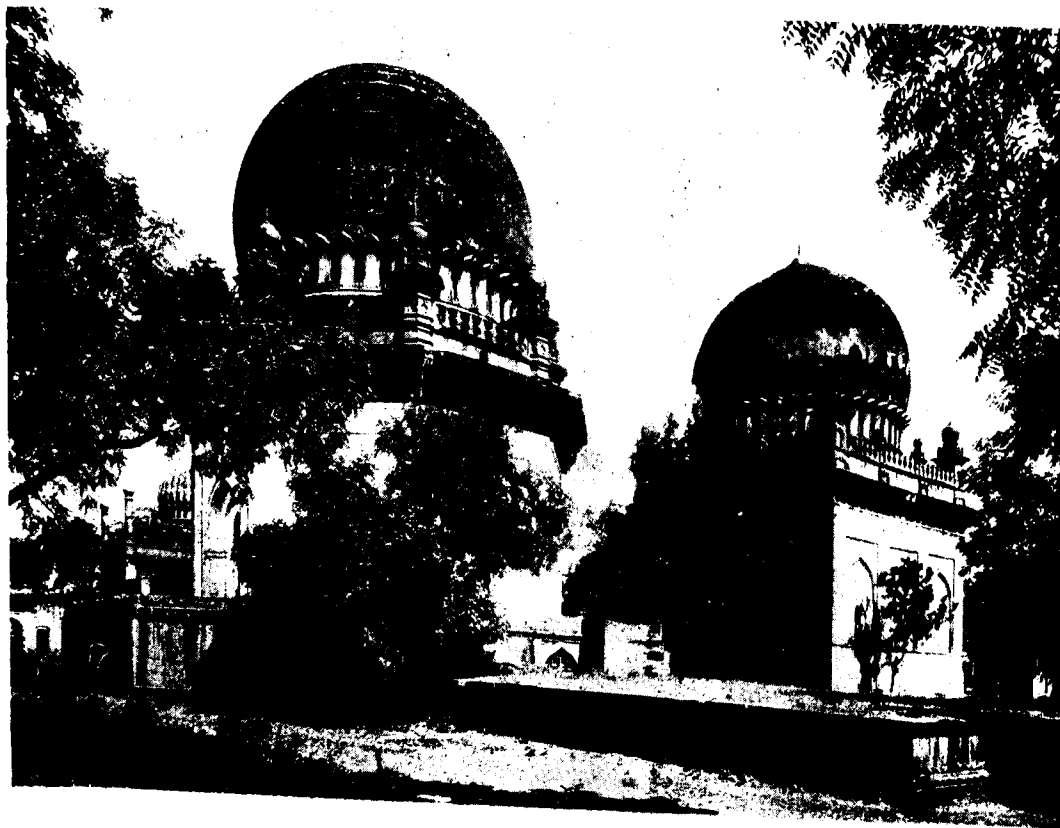
The four leading builders were the kings Yusuf, Ali, Ibrahim II and Muhammad Shah. The principal mosque, an admirably proportioned

building, erected by Ali is still perfect and would accommodate five thousand worshippers. The same sovereign constructed aqueducts for the supply of water to all parts of the city and also built the spacious audience hall, Gagan Mahal. The richly decorated tomb of Ibrahim II is an exquisite structure; and the mausoleum of his successor Muhammad Shah, built at the same time as the Taj, is a marvel of skilful construction.

The Unique Gol Gumbaz

The Gol Gumbaz (a picture of which appears on the front cover of this issue) is perhaps second only to the Taj Mahal for its importance as an object of architectural interest to be seen by every traveller in India and was considered so important by the ex-Madras and Southern Mahratta Railway that they used it for their crest.

The Sister Tombs, Bijapur



The crest of the Ex. M.S.M. Railway

The huge building has the shape of a great cube surmounted by a large hemispherical dome with an octagonal tower at each of the four corners of the cube. Bereft of the towers, the building consists of only one great compartment covered by a huge dome. The area of this spacious hall is 18,338 square feet being bigger than even that of the Pantheon at Rome which is 15,883 square feet.

The hall is square measuring 135 feet and the diameter of the dome is 125 feet. The height of the building excluding the vault where the tombs are situated is 207 feet. A unique feature of the dome is the whispering gallery running around its interior, on entering which one is struck with the loud echoes that resound the place in answer to the sound of one's footsteps. A sharp sound is answered by 20 repetitions and the slightest whisper, even the tick of a watch, is heard distinctly at the opposite side of the gallery, 124 feet away. Opinion is divided on the question whether the echo is the natural result of the size of the dome or a deliberate introduction by the architect by a secret process.

The Gol Gumbaz was constructed by Muhammad Shah (1627-1655) who utilized the last 20 years of his reign which was attended with peace and tranquillity to complete his own gigantic mausoleum and other buildings. An inscription over the south door-way reads as follows:—

"The end of Muhammad has become laudable

Muhammad Sultan whose abode is Paradise

The abode of peace became Muhammad Shah"

The Jumma Masjid

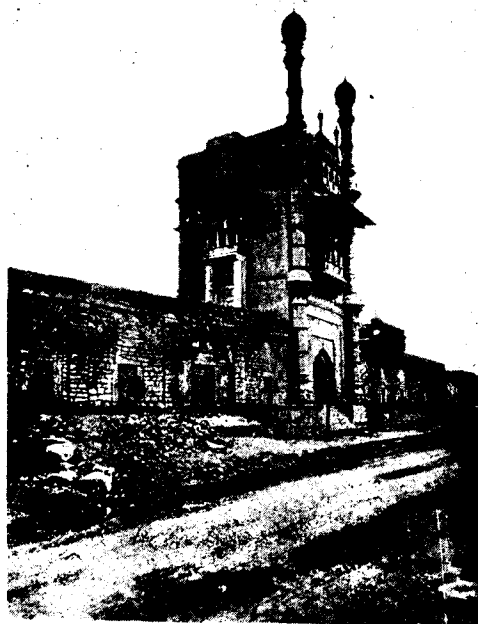
If only the vastness of the area covered by the buildings is taken into consideration, this principal mosque in the city is the biggest in Bijapur, the total area being 1,16,300 square feet. A great dome, supported on cross arches or built on the principle of pendants, rises in the middle of the building and its shape is segmental and not bulbous as the other domes in the city. The **niche** or **mehrub** of the mosque is screened by a thick curtain and when this is drawn aside, a sight of glorious splendour, in which the whole surface of the **mehrub** is covered with rich gilding upon a coloured background, is revealed. This masjid was begun by Ali I and completed by Muhammad Shah.

The Mehtar Mahal

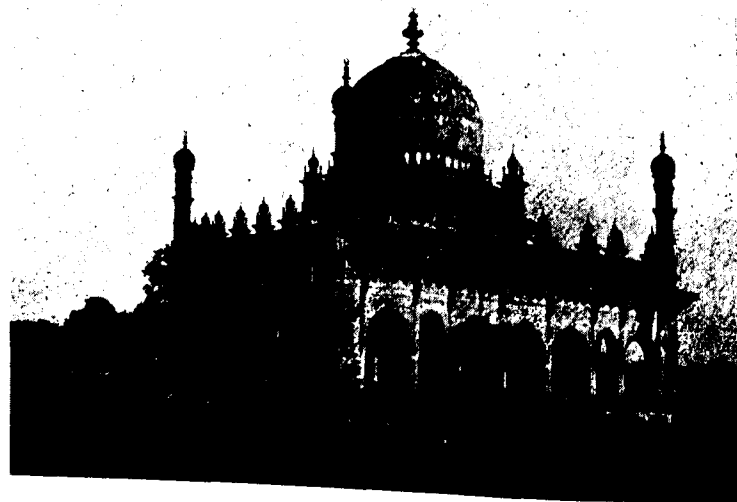
The building, the name of which is wrongly associated with that of a sweeper (mehtar), has a gateway with exquisite carvings and the stones used in its construction are not found in the quarries anywhere near Bijapur. The richly-wrought brackets supporting the windows, the surface ornament on the front wall and the thin slabs of the windows strike the visitors as magnificent. One has to see the finely perforated slabs and the exceedingly minute surface carving to believe that such delicate work was possible in stone.

Other Buildings

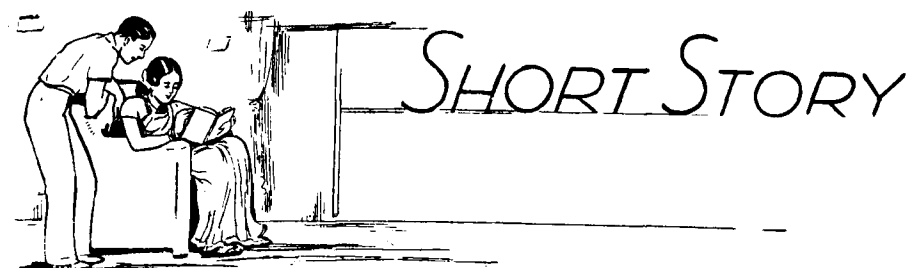
The other objects of interest in Bijapur are the Asar Mahal, the Taj Baudi tank (built by Malik Sandal, the great architect of Bijapur) the Haidar Buruz and the Ibrahim Roza. The last-named edifice is the tomb of Ibrahim II and contains beautiful specimens of perforated stonework interlaced with Arabic writing. The stone ceiling consists of one span 40 feet square, with slabs of stone set edge to edge with no apparent support. The mosque attached to the tomb is a remarkable piece of architecture, with deep rich cornices, graceful minarets and perforated parapets.



The Mehtar Mahal



The Ibrahim Roza which contains the tombs of Ibrahim II, his Queen Taj Sultana and four other members of the family



THE WAILING GHOST

MRS. SAGUNABAI MONSINGH

BLAKE, an ex-naval officer and scientist, had taken with him Abdullah, an old servant who had followed him through the ups and downs of his 7 years of travels, just as he had jogged on courageously and patiently a decade of his military career. "Old friends and old servants are the best like old wood and old wine." Blake used to tell everybody and Abdullah's merits were elaborately described with full colour and justice. Both went together throughout the world in search of plants, butterflies, mosquitoes and what not as the fancy took the scientist at the moment. They had seen many weird places and queerer people and specimens too.

At last one summer evening they reached a little hole of a place with no proper hotel or any sort of conveniences; least to say for an Englishman. Abdullah could converse in Hindi and that was the only consolation. Blake understood and talked a little when the occasion arose, in a ludicrous way. They found no place to keep their things. True, the landscape promised a vast range for scientific exploration but it seemed as though they were destined to die of starvation and cold.

Telling Abdullah to fix up some hut for their week's stay and to get ready a meal with their tinned foodstuffs, he proceeded to the hillside admiring

the rich vegetation and beautiful scenery. Butterflies and insects abounded in plenty and in varieties and he was full of joy and hope when he returned after an hour or two to meet Abdullah at the street corner.

Abdullah's naturally woe-be-gone face wore a hopeful look and he was not long in explaining his master about the new abode he had procured for no rent at all. Praising the villagers for their hospitality in letting them a house rent-free, they reached the house in good spirits.

It was an old disused double-storeyed house, most parts inhabited by rats, bats, owls and other unhappy beings. For the first one hour, both were engaged in driving out the old inhabitants to make way for themselves. Fortunately there was a well in a corner of the compound covered with lichen and rubbish. Once the house might have been grand with a well-designed wooden staircase running to the upstairs room from the verandah. Now the steps creaked and another hour was spent by Abdullah in washing the floor of the front room where they had kept their things and had decided to occupy during their stay. They did not care about the other rooms.

Abdullah served a simple meal with bread, butter, jam, ovaltine and tinned

fish. He had a bunch of fresh plantains also from the bazaar. After finishing his meal, Abdullah trudged on to the village to learn more about the people and the place. Meanwhile Blake settled down to read something. It was about five in the evening. Abdullah returned with his usual woe-be-gone look, all his newfound cheerfulness gone away. Blake scented that something was amiss.

'What now Abdullah? What makes you so glum and unhappy?' queried Blake trying to cheer his old servant.

The latter sat down heavily with a sigh. 'I think Sahib we must quit this dirty place before night,' he said abruptly and looked about him in a strange way. Blake could not understand the old man.

'Why Abdullah? After all the time we spent in cleaning and tidying it and considering the rent-free idea, do you think it wise to leave this house for another one?'

'Sahib, the villagers say that this house is haunted and every night between twelve and two, a female ghost visits this house and the whole village could hear her wailing and lamentation. Do you think we could stay on in such a house?' Abdullah asked miserably.

Blake considered for a while. 'Well, of all the devilish things on earth, I'd love most to meet a ghost and that too a woman ghost. Old man, don't be afraid. We will have company today. I shall tell you what we should do. Keep my old gun ready, and also the torchlight. Then we will meet the female visitor. It will be good fun and great adventure. Just think of it comrade!' said Blake cheerfully.

Abdullah knew well that any amount of reasoning would not change his master's mind, when once he made up his mind to do a thing.

'Do you know anything about the people who once lived in this house Abdullah?'

'Yes' replied the servant. 'People say that some murders or deaths happened in this house some thirty years back.'

'Anyway let us have a short rest after our night meal. Be ready by 12' went on the master cheerfully.

Abdullah dozed off in his corner but Blake was alert. The gun was ready and the torch too was on the bed. After half an hour of tense waiting, the thing happened. At first there were footsteps from the little gate to the house and then the stairs creaked. Abdullah sat up as if electrified. Blake was calm. He got up and signed Abdullah to follow him with the gun. He took the torch and started walking gently to the verandah and then up the staircase. By then a ghoulis lamentation pierced into the silent night, so dreadful to hear. The lamentation slowly increased in sound and Blake tried his best to make out the words. He turned back and found Abdullah shaking like a leaf in a storm. Blake caught hold of his hand and led him up the creaking staircase. At the landing he left old Abdullah and stepped slowly to the door and peered inside. Fortunately there was a bright round moon that shed silver rays upon a kneeling figure. There was nothing devilish about it but only the vague outlines of a veiled woman, so feeble and old. So Abdullah was right. It was a woman ghost. Blake stood still for a while and the wailing continued. 'My son, my son' Blake heard the ghost lament in Hindi. 'So the ghost knew Hindi after all,' mused Blake cheerfully and listened intently. 'Can't you not show yourself to me once at least? Oh, I've lamented and wept for you these thirty years,' she was crying. Blake was now sure of his surmise. He went near the figure boldly and to his amusement it shuffled to its feet awkwardly. The full moon revealed to him the face of a shrunken old woman with long lean bony hands and shrivelled brown skin wrapped in

an old dark cloth. The shrunken deep-set eyes blinked wildly and fearfully, so strange of a ghost no doubt and Blake laughed outright. At that sound Abdullah peeped in taking more courage to follow his master, now that he saw he was in no danger.

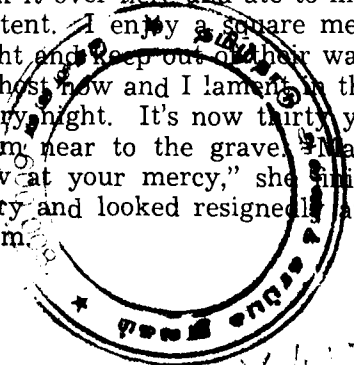
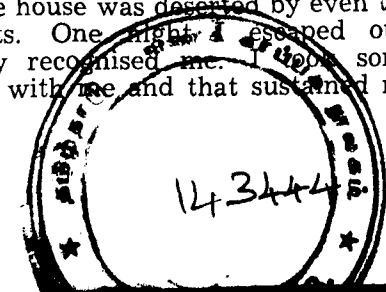
The withered woman suddenly fell prostrate at the feet of Blake and spoke incoherently. Abdullah getting bolder joined Blake. The latter stooped down and made the old woman stand up. 'Don't be afraid, ghost woman' laughed Blake once again. Abdullah took the matter in his hand. For he was not satisfied with his master's smattering of Hindi.

'Who are you, woman, and tell us your story. We will not harm you. My master will only help you,' began Abdullah and Blake nodded encouragingly. The woman heaved a weak broken sigh and continued, 'It's like this. I lived in this house thirty years back. I came here to live with my husband as a young bride of sixteen and spent twenty happy years in this house. I had a handsome son, my poor strong Iqbal. When he was nineteen, my husband died and his three brothers murdered my only son, the heir, in their lust for wealth and hanged him here, right over my head from the beam. Everybody said that he had hanged himself. The wicked uncles lived on to enjoy the cursed wealth but not for long. I was treated like a slave but God's anger descended on their heads. In six months they had fallen victims to cholera overnight and I was left alone in this accursed house. Nobody came to the house and I was forgotten to the world. I came from a neighbouring place, an orphan, and have no kind relatives. I brought with me my beauty alone as my dowry and my husband looked after me like the apple of his eye. But that was long, long ago. Well, I starved in this house, for I had never been outside the house and the house was deserted by even the servants. One night I escaped out. Nobody recognised me. I took some money with me and that sustained me

for sometime. I went out only in the nights to get food, and lived in a hovel. I was passed on as a poor old widow.

After a year of such obscurity, I decided to visit the house one night, chiefly to see the spot where my son died—this very spot where I stand. The longing so obsessed me that one night I crept out and traced my steps to this room upstairs. Nobody ever lived in this accursed house after the deaths and it stood like a ghost against wind and storm and sun without much damage. Yes, I came to this room and wept to my heart's content. It did good to my yearning, agonised heart. Thenceforth I made it my habit to visit the house every night after the people retired to their beds, when the bells in the temple chimed the midnight hour.

One night, while I stepped out of the house to the road, I met a night prowler who screamed, 'The ghost, the ghost, the wailing ghost' on seeing me and fled shivering and screaming. Then I knew that I was considered to be the wailing ghost of the house, for the people around had been hearing my lamentations for sometime. They were sure there was a ghost knowing the past history of the house. I made up my mind to hoodwink the villagers. I screamed at the top of my voice and said 'Unless you villagers keep me in supply of water and food every night at the gate, I'll enter every house and start my lamentations, sparing none to my anger.' So I cried out. I had found a way of getting food free. Next night when I reached the house, smell of good food greeted me and to my joy, a vessel full of food and water in a jug stood inside a basket by the gate. I took it over here and ate to my heart's content. I enjoy a square meal every night and keep out of their way. I am a ghost now and I lament in this house every night. It's now thirty years and I am near to the grave. Master, I'm now at your mercy,' she finished her story and looked resignedly at both of them.



Then taking notice of the gun, she said suddenly, "If you shoot me right now, I'll be the happiest woman and bless you with my last breath. I am so tired," she said stretching the poor stick-like hands upwards wearily. Blake was touched to the heart.

"Dear old woman, you had seen good days once and you had suffered worse than the lowest being. Your role as a wailing ghost is finished and from tomorrow onwards, you are my house-keeper, to assist Abdullah. You are to accompany us out of this dirty place." Blake spoke out kindly and when Abdullah told her that in Hindi, she caught hold of the Englishman's feet.

"Master, what help could I give you at this stage, as already I am partly standing on the grave? I am glad to accompany you, but the irony of it is, that I'll be a burden and won't be of much use to you," she said sadly.

"Never mind, woman, it's enough if you come with us. Tomorrow evening you should come here and join us. We leave this place by night and tomorrow the villagers will be wondering what had happened to the wailing ghost. But I have a story ready for them. You will wait and see." Blake laughed and they all descended the creaking stairs. The old woman stooped pathetically, a picture of sorrow and suffering. Blake caught hold of her hand and led her as far as the gate.

"Your name old girl?" he asked her before she left them. She looked at him and laughed feebly, her eyes brightening up at the word 'Old girl'.

"Fatima," she said with a sigh. It is years that anybody called me by that name. Yes, Fatima Begum," she murmured and passed out of the gate.

Knots of people gathered round the house in the morning to see whether the strangers were alive; for the superstitious villagers strongly believed that the ghost might have strangled

them to death. Blake knew why they were there. Ostensibly he stepped on to the verandah and walked about with a pipe in his mouth. They looked at him in awe and Abdullah went out to the gaping villagers.

"The wailing ghost?" was all that they could enquire.

"What of that? We had seen not only wailing ghost but dancing and jumping ghosts in our time. Master is an Englishman and he just commanded the dirty ghost to quit the house. That's that. You will not have a wailing ghost tonight or ever after." Abdullah spoke to them and the villagers wondered.

That evening Fatima appeared in her old rags by the back door. Blake had already bought a decent dress for her and also another change of clothes. Abdullah took her to a back room and placed hot water, towel and a cake of soap. It was the first time after so many years that she had a real bath with soap. When she appeared in her new dress, Blake could not believe his eyes. So changed was she. The lacklustre eyes and dull grey hair had taken on to a brighter shade. After a square meal, she looked a little strong. Fatima went on telling them what she did in each room and showed them an inner room, where her husband kept his Koran and valuables under the ground in a chest. There was some truth in that. The old moth-eaten chest really contained some valuable jewels, which Blake took along with him. The villagers were so afraid of the ghost that they had no thought of robbing anything from the house.

By that night, the village ghost had retired to a safe and comfortable life. Blake treated Fatima with respect.

"No doubt English people have power even over ghosts," the villagers whispered the next day when no ghost wailed that night.



ON SLIMMING

II

V. S. SHANTHALAKSHMI

LET us now discuss as we planned last time, about the other half of slimming, i.e., exercises. Exercises, as I told you before, have this advantage over dieting—that with them you can slim your hips, give yourself a slender waist and long sinuous arms and a well-balanced, graceful figure, without undergoing the ordeal of semi-starvation. If you are going to be really strenuous and want to get back that oh-so-slim stream-lined figure of your youth, here is a set of exercises which will honestly do the trick.

First, I want to tell you something, you probably don't know about your inside! The most important section of you is your tummy, because it has to support most of the internal viscera—intestines, liver, and so on—in addition to the food you eat. And its muscles are not particularly very strong. Therefore as you grow older and all your muscles become weaker and worn out, your tummy sags, gets larger. Hence if it is allowed to spread, it harms you internally as well as spoiling your silhouette. But exercises help the tummy muscles to grow strong and hold the abdomen firm and flat. Some

of the simple exercises for the tummy are:—

(a) Stand feet apart. Bend forward with a swinging motion, rotating the trunk from left backwards to right. Reverse. Repeat three times.

(b) Stand with hands on the hips and feet together. Bend forward from waist, keeping knee straight. Rotate your trunk to right, back, to left and forward. Repeat five to ten times.

(c) Lie flat on the floor with your knees drawn up so that the soles of your feet are on the floor. Raise the right arm and left knee, until the arm stretches straight above your head and the knee is pressed as near the chest as possible. Bring the right arm and left foot down again to the original position and alternate, pulling the right knee and the left arm. Repeat at least ten times.

If the line of your hips seems a little blurred and bulgy it is due to the extra fat which accumulates. The exercises designed for reducing hips are for breaking down the fatty tissue as much as for strengthening the muscles. The same applies to your arms and shoulder blades.

Exercises for the hips

(a) Lie flat on the floor, place your hands palm downwards under the lowest part of your back and bicycle towards the ceiling, drawing the knees alternatively up towards your tummy and stretching each foot up as high as possible. One minute's bicycling will be quite enough and probably half a minute to begin with will be sufficient to make your muscles ache.

(b) Stand left hand on the hip and right hand on the back of a chair. Kick forward as high as possible with the left leg, keeping the trunk erect and the knee straight. Repeat ten times forward and ten times to the side with each leg. Rest the left hand on the chair when kicking with the right leg.

Exercises for the arms and shoulders

(a) Stand erect, head up, shoulders back, heels together, arms at the sides and fists clenched. Take a deep slow breath, raise your arms outward, above your head, slowly as though you were lifting dumb-bells.

(b) Stand erect, arms stretched at shoulder level. Throw arms backwards so that shoulder blades touch, inhaling. Exhale on return to first position.

The human bustle silhouette is not admired these days, although a completely flattened posterior, in my opinion, is just as unattractive. If however, you

feel that your silhouette tends towards the bustle line, do the following exercise:—(a) Lie on the floor and while keeping the shoulders flat on the floor, roll the lower part of the body to the left then back and as far as possible to the right. Do this five times each way.

Exercises by themselves are not difficult to do. The hardest thing about them is making up your mind to do them. Exercises, just as letterwriting, is to most people somewhat uncongenial that they practise a great deal of dilatoriness whenever the very thought of it comes. All sorts of excuses come along to justify your laziness: you'll start tomorrow when you feel less tired; you'll be disturbing the people in the next room; you'll begin when Bittu, your son, starts going to school so that you'll have some leisure, etc. Take a firm grip on yourself and start right away. Another important thing is that you must have faith in the exercises you are doing.

The best slimming aid in the world is fresh air, which helps to burn up stock-piles of fat after they have been desaturated by exercises. A brisk, cross-country or cross-park walk each day is just as efficient and far more pleasant than the daily dozen. A ten-minutes walk last thing at night before you go to bed will air your lungs and help you to sleep soundly.

**A RAILWAY DINNER****A RAILWAYMAN'S WIFE**

A few sheets of paper peeping out of my husband's shirt pocket attracted my attention and I asked him what they were.

"Make a guess," said he.

"Some office matter?" I enquired.

He shook his head. "No. They are of interest to you also. I will give you one more guess."

I thought for a while and then suddenly felt worried. "You are not being transferred, are you?"

"You do have an imagination! Well, nothing so terrible has happened. They are just the Officers' Association subscription notice and the advice about the annual dinner, which is to take place next Saturday at half-past seven, in Perambur."

"Oh, really! Isn't this the dinner which, according to an earlier notice, should have taken place towards the end of April. Your parties seem to run as much to schedule as your trains."

The great Saturday arrived. My husband who usually returns home by about half-past two on Saturdays, turned up only at a quarter to five, when I had almost come to the conclusion that he, with his colleagues, had gone to cook for the night's dinner, to take revenge on the wives. He gave some explanation about a meeting of the Officers' Association, and how he had forgotten all about it, till a slip came to remind him.

We picked up a couple of friends on our way to Perambur, and were a match to the Count of Monte Cristo in punctuality (unlike our trains) when we arrived at the Perambur institute on the stroke of 7-30 p.m. Apparently

some function has just concluded and people were pouring out of the hall. We made for the grounds where I beheld just what one expects to behold at such parties.

The men had, as usual, collected together to talk shop, leaving the ladies to fend for themselves and I could see a forlorn group of three seated in a vast circle of chairs, looking as lonely as ship-wrecked sailors stranded on a desert island. As may be expected, the men in our group shot off to join the flock with not a word of apology or excuse, abandoning us to our own devices, and we did the inevitable, moving down to the circle to join the forsaken three.

The place was in semi-darkness, the reason for which I cannot surmise. Probably it was to economise electricity! or perhaps it was a device to test if women could see as well as cats do in the dark. The half-shadows caused by the lights from the hall and the lamp posts that lined the drive did not improve matters. For me, with my myopic eyes, the place might as well have been in stygian darkness. It was only after my eyes got somewhat used to the darkness that I realised, to my consternation, that I knew well the ladies who had already arrived. Fortunately for me, the non-recognition had been mutual.

More guests started arriving and I was glad to discover that I was not the only person to have been unwittingly rude. All the newcomers appeared to be in the same difficulties of being unable to distinguish or identify the others. There were many like me, who safely sat down on the nearest empty chair and then looked around. Any one who wanted to test the visual

power of the ladies present would have discovered that far from being able to see like cats in the dark, some could see little better than new born puppies!

The conversation that took place was quite desultory, for the circle of acquaintance of most of the ladies present seemed to be limited, and the darkness precluded discussion even on the ever-fascinating, never-failing topic of dresses and ornaments.

"Since the men prefer to flock together and talk shop and since nobody bothers to introduce the ladies to one another, I don't see why we need have a mixed party. We might as well have an Association of Officers' Wives and hold our own functions, where we could at least be uninhibitedly feminine," muttered my friend to me, which sentiment had my hearty approval.

It now started drizzling and we all got up with a sigh of relief at having something to do. We crowded on to the lighted verandah and for the first time recognised all our friends. We went about exchanging greetings and getting in the way of the bearers who were scuttling about busily, taking round trays with drinks, collecting empty glasses, bringing the chairs in to the hall from outside and setting the tables for dinner.

We drifted in to the brilliantly lit hall and sat down again. I know few people in this Railway, but now I found some who were worse off. I noticed particularly one lady looking quite lonely and lost in the crowd, like a student on her first day at college. We saw each other, exchanged a comradely look, introduced ourselves, and had another desultory conversation. The party had automatically fallen into groups of threes and fours.

A group of young officers passed by, and I could hear one of them expounding vigorously on the steps he would take if he could, to clear the block in his department, while the others were

trying to get in a word edgewise about their own ideas on the same subject. Here was a group of people who were controlling the destinies of an immense national undertaking, who had been selected for their wisdom and knowledge, intelligence and initiative, who were supposed to be among the elite of the country, but alas! who could find no topic to discuss in a general social function except their petty prospects of promotion. This too at a time when the world is facing the possibility of total annihilation; when India, free after centuries of alien domination, untrammelled by foreign exploitation, is experiencing a great Renaissance, and is grappling with problems which should be of general concern to all of us, and which can be solved only with the intelligent, whole-hearted co-operation of every Indian; when nearer home, in the very Railways, new changes, new developments are taking place which should be of general interest to all. Could not these officers, the cream of the country, find anything to talk about except their departmental haggings and official matters directly affecting them? In all fairness I must say that this is true of practically all similar functions of officialdom, Railways or otherwise. It is depressing to note the narrow limitations within which the human mind functions, even among the so-called intelligentsia. It is only one man in a thousand that rises above this banal level of bureaucracy.

The bearers buzzed about busily, laying the tables for the buffet. At about quarter to nine we got up for dinner.

A sumptuous fare had been laid on two tables, one for the vegetarians and another for non-vegetarians, the latter having the benefit of both. The gentlemen gallantly let the ladies have the first go at the dinner. We were all quite prepared to do full justice to it. But before doing so, we took a sample helping of each dish, to decide what

should receive our maximum attention. Even as we moved away from the tables, the gentlemen surrounded them like bees round a honey pot. When we turned round for the second helping, we found that the men had done a good job of polishing off the contents of the dishes, which goes to show the excellence of the catering and the care the organisers had taken in drawing up a menu to suit all palates. Fortunately for us, the bearers came round with a few other equally delicious dishes, and we had our fill.

After dinner, as the tables were being cleared, we sat down to a game of Housie. But in the clatter of the cutlery being removed, and the buzz of

the post-prandial conversation, many could hear little of the announcer's instructions. But with the contented feeling that results from a satisfying repast, this was of little moment. We were enjoying ourselves and cheered the winners heartily. We had a couple of other games as well, and we were all childishly gratified when the Big Boss, our General Manager won a prize, went up to his wife to receive it, bowed, gave it back to her and came away.

The half hour after ten had struck. So after votes of thanks we dispersed, to meet again next year. We returned home sleepy, tired, but pleased at having had a good time, that could have been better.



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RAILWAY'S CONTRIBUTION TO THE PROSPERITY OF BEZWADA

P. S. VEDHACHALAM

Publicity Inspector

FROM a humble beginning the town of Bezwada has grown to its present size and the chief factors that have contributed towards its development are its trade, commerce and agriculture. Need it be said that the Railway system which has brought together distant parts of the country has played a vital role in establishing business relations and social contacts here? For, Bezwada at one time was a rural and an agricultural town. Now, with the advent of the Railway, it has been industrialised. Two cement factories, the Steel Rolling Mills and the cotton and oil mills established in recent years at Bezwada are evidence of the progress achieved in this direction.

Bezwada owes its growth to its geographical situation too, in that the fertility and the extent of its hinterland which have done much to increase its importance and usefulness have been brought within easy reach of the people by the Railway system.

The broad gauge line accords direct communication to Madras, Calcutta, Secunderabad and Delhi. By means of the metre gauge section, Bezwada is connected with the Port of Masulipatam on the Bay of Bengal, and with the Port of Mormugao, on the Arabian Sea, the Railway line thus crossing the Indian Peninsula from the east to the west.

The noteworthy additions the Railway has made to the building and structural features of the town of Bezwada are the Kistna Bridge, the remodelled Bezwada yard, the Railway Offices, the residential quarters for Railway Officers and their staff, and

the sub-way in lieu of the erstwhile level-crossing at the north end of Kistna Eastern Canal Bridge.

Kistna Bridge

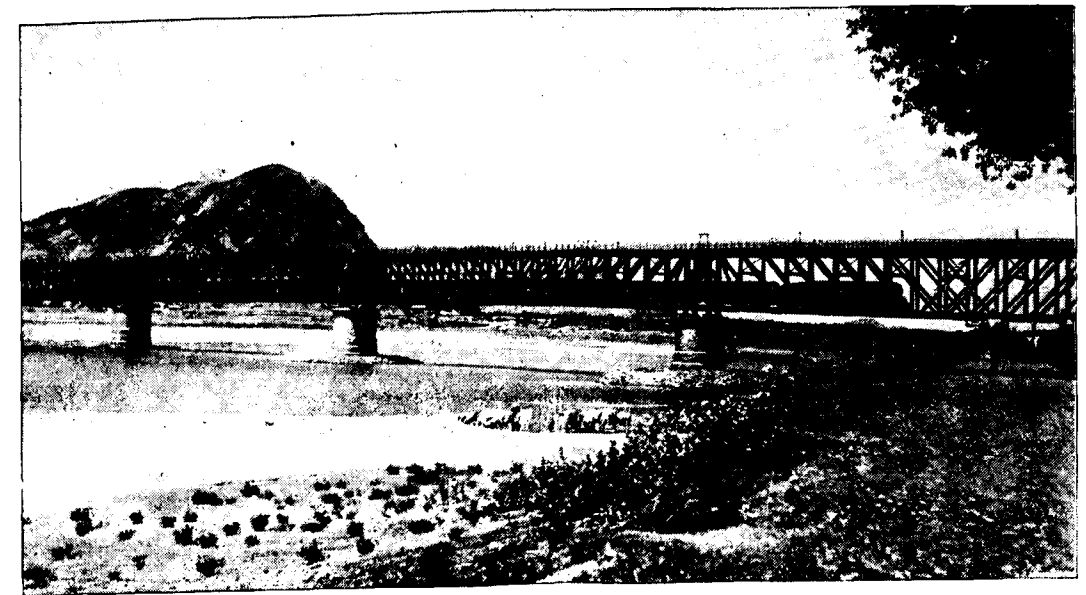
The Railway bridge on the River Kistna, at Bezwada, is an engineering feat of no mean magnitude. The bridge was designed and built by the Engineer, Francis J. E. Spring, C.I.E. The construction was commenced in December, 1890, and completed by March, 1893, at a cost of Rs. 35,18,000. The first train was run over the bridge on 17th March 1893, and thus it took two years and three months to erect the bridge.

The bridge consists of 12 spans of 300 feet each or a total length close on three-fourths of a mile.

Remodelling of the Yard at Bezwada

It is probably no exaggeration to say that there is no other yard in South India where traffic has increased to the same extent to which it has at Bezwada in recent years. In 1932-33 the number of wagons dealt with in the yard was 163,452. In 1952-53 the figure increased to 304,026 wagons, that is, by no less than 86 per cent and the effect of this increase on the movement of trains in and out of Bezwada is too well known to need any explanation.

The yard at Bezwada, remodelled soon after the Great War at a cost of Rs. 31,55,720, was found to be insufficient, as the facilities available at this station for handling traffic had not kept pace with the increase in traffic. Pressed by the necessity to handle the volume of increasing traffic without restriction, a further remodelling of the Bezwada station yard was undertaken in the year 1940 at a cost of Rs. 4,60,000



The picturesque bridge on the Krishna River

Photo by Author

Apart from the many advantages accruing to the Railway from increased operating capacity, the remodelling of the station yard has provided extra facilities to the public in the matter of quick transport of goods.

Combined District Offices, Officers' bungalows and quarters for staff.

Consequent on the transfer of Gopalapatnam - Waltair - Vizagapatam Section to the Ex-Bengal Nagpur Railway portion of the present Eastern Railway, on the 1st January, 1922, Waltair fell outside the jurisdiction of the Ex-M. & S. M. Railway and thus ceased to be a suitable station for the District Headquarters.

Bezwada is a junction with the Ex.-N. S. Railway and of the Broad and Metre Gauge systems of this Railway, as well as an important traffic centre. The place being centrally situated, the District could be more efficiently controlled from Bezwada. For these reasons, Bezwada was considered the most convenient centre both from the

point of view of the Railway and the Public and the headquarters of the Ex.-M. & S. M. Railway's District Offices on the North-East line at Waltair were, therefore, shifted to it.

As accommodation was required at Bezwada for the District Offices and quarters for Officers, acquisition of land became necessary. Accordingly on the 1st April, 1922, 7.20 acres of land were acquired at Mogalrajpuram at a cost of Rs. 29,534 from the Revenue Authorities.

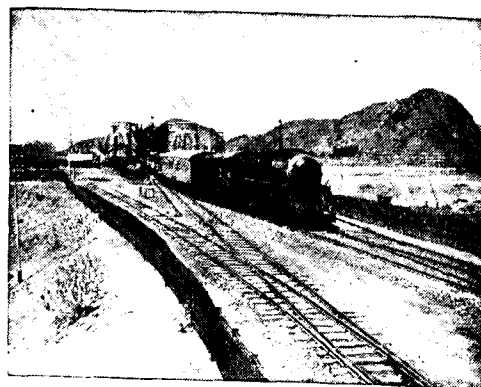
The housing of a portion of the subordinate staff employed in District Offices, which is a distinct advantage, was not lost sight of, for it had been included too in the scheme of the removal of the District Headquarters from Waltair to Bezwada.

Combined District Offices for Traffic, Locomotive and Engineering Departments, bungalows for officers and quarters for subordinate staff were built at a cost of Rs. 3,41,933.

This scheme was commenced in the year 1924 and completed by 1927.

It may be mentioned in this connection that the Railway Colony (Officers and Subordinate staff), built at a cost of Rs. 2,22,047 is self-contained in the matter of water-supply, sanitation, drainage and medical facilities. Thus has the Railway eased considerably the strain on the resources of Bezwada in the matter of its social services.

It is no small contribution that the Railway has made towards the prosperity of the town of Bezwada. The Railway Administration furnishes the means of livelihood for a very large number of people in and around the town.



Grand Trunk Express approaching Bezwada

Sub-way at the North End

As the traffic at the level-crossing at the south end of Bezwada yard was heavy and caused congestion on the road when the gates were closed, thereby inconveniencing the public, the Railway Administration undertook to bear the cost of a sub-way proper being built in accordance with a scheme decided on by a committee constituted by the Government to replace the level-crossing. For the execution of this scheme, the Government bore the cost of the reconstruction of the bridges over the Nellore and Ryve's canals and the Bezwada Municipality, the cost of providing the necessary approaches.

The entire scheme as originally estimated involved a total cost of Rs. 3,15,000 of which the Railway's share was Rs. 84,000.

The sub-way is a distinct advantage to the traffic requirements at Bezwada and this is another contribution that the Railway, as a recognised harbinger of civilisation and commercial prosperity, has made to the convenience of the public of the town of Bezwada.

Any account of trade and commerce in Bezwada will be incomplete without a reference to the transport facilities afforded to goods and passengers by the Railway and the part the Railway has played in these respects the following figures for the year 1950-51 will testify :—

Year.	Passengers.	Local and foreign.
1950-51	Outwards	2,877,626
	Goods.	
1950-51	Outwards	2,435,722 mds.
	Inwards	5,254,159 „

It may not be out of place to mention in this connection that the Railway's contribution towards Municipal taxes on Railway buildings and lands at Bezwada is Rs. 54,300 per annum.

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EDITOR
SOUTHERNRAILNEWS
18-A Mount Road - Madras-2

MONOLITHS OF MAHABALIPURAM

A. B. NAIDU

Station Master

PICTURESQUELY situated close to the sea, the famous Pallava seaport town of Mahabalipuram with its monuments rich in artistic wealth, ranking among the classical ones of the world to-day, lies in the Coromandel Coast, about 35 miles south of Madras.

Reference to it as a flourishing port of Southern India in the early works, particularly **Periplus of the Erythraean Sea** by an unknown Roman navigator of the 1st century A.D., and **Ptolemy**, a Roman Geographer of the next century, testify to its existence as an important trade centre and outlet right from the beginning of the Christian Era.

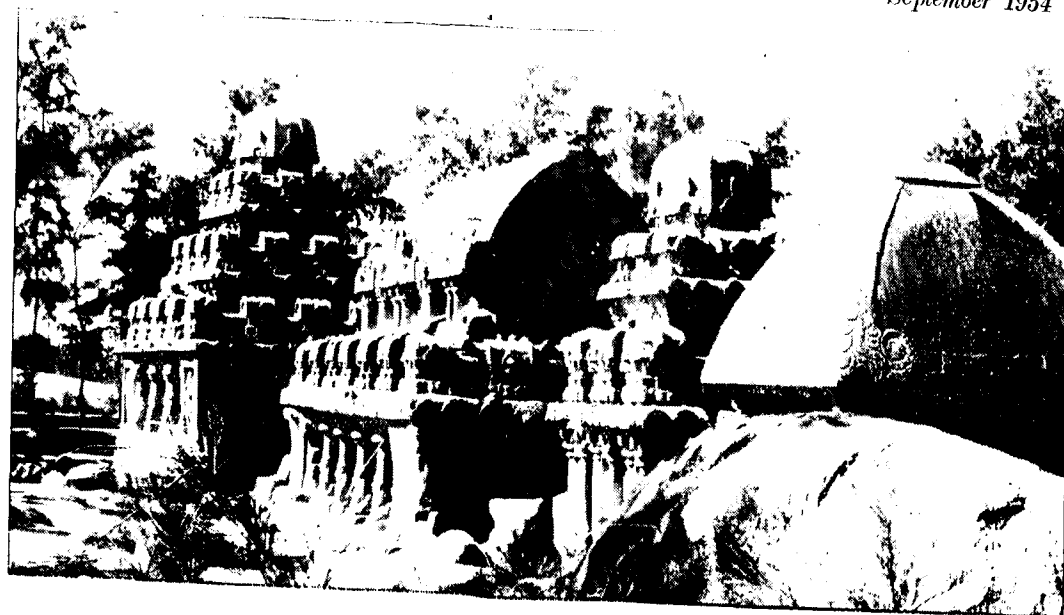
Known to the European tourist as "the Seven Pagodas," the ancient town is locally known as Mahabalipuram.

—a corrupt form of "Mamallapuram" (the city of Mamalla)—named after the great Pallava ruler, Mamalla (Narasimha Varman I 630-70 A.D.) a contemporary of Pulakesin II of Western India and Harshavardhana of the North. The name, however, bears no relationship to the Mahabali Dynasty of the 10th century nor to the mythical demon being of that name.

The magnificent monuments of artistic and archæological interest are the creation of the Pallavas who, from the 4th century onwards, ruled over South India, their territory extending over the Districts of Tanjore, Trichinopoly, North and South Arcot, Chingleput, Salem, Chittoor and parts of certain Telugu districts. Possessing an artistic skill of a high order—

Monolithic Temples termed as 'Rathas'





Another view of the chariots

particularly in sculpture, architecture and brushwork—they also displayed rare military prowess in the defeats inflicted over the powerful Chalukyas of Western India, the kings of Ceylon and other neighbouring kingdoms. Otherwise peaceful and stable, their rule lasted till the 9th century, when they were finally overthrown by the Cholas.

The monuments at Mahabalipuram to-day consist of the shore temple, the monolithic temples (also termed as rathas or chariots), caves excavated in hill-scrapes, and sculptural scenes carved on the edges of hills.

The five monolithic temples together with the life-sized elephant nearby are all carved out of a single continuous solid rock. They are, without any historical basis, named after the five Pandava brothers. Representing a happy blend of Dravidian and Mamalla styles of architecture, these monoliths which were completed during the period of Narasimha Varman I are probably the earliest of their kind in India. The different types of super-structures illustrate the varieties of contemporary roofing. The sculptured

panels in the various rathas on the four outer blocks as well as those inside have been carved out in a remarkable manner, the figures possessing fine proportions with elaborate details.

The shore temple, a masonry structure built up of richly-carved blocks, overlooking the sea, presents a magnificent sight to the visitor. Having been through centuries exposed to the corrosive action of the salt spray from

The life-sized elephant



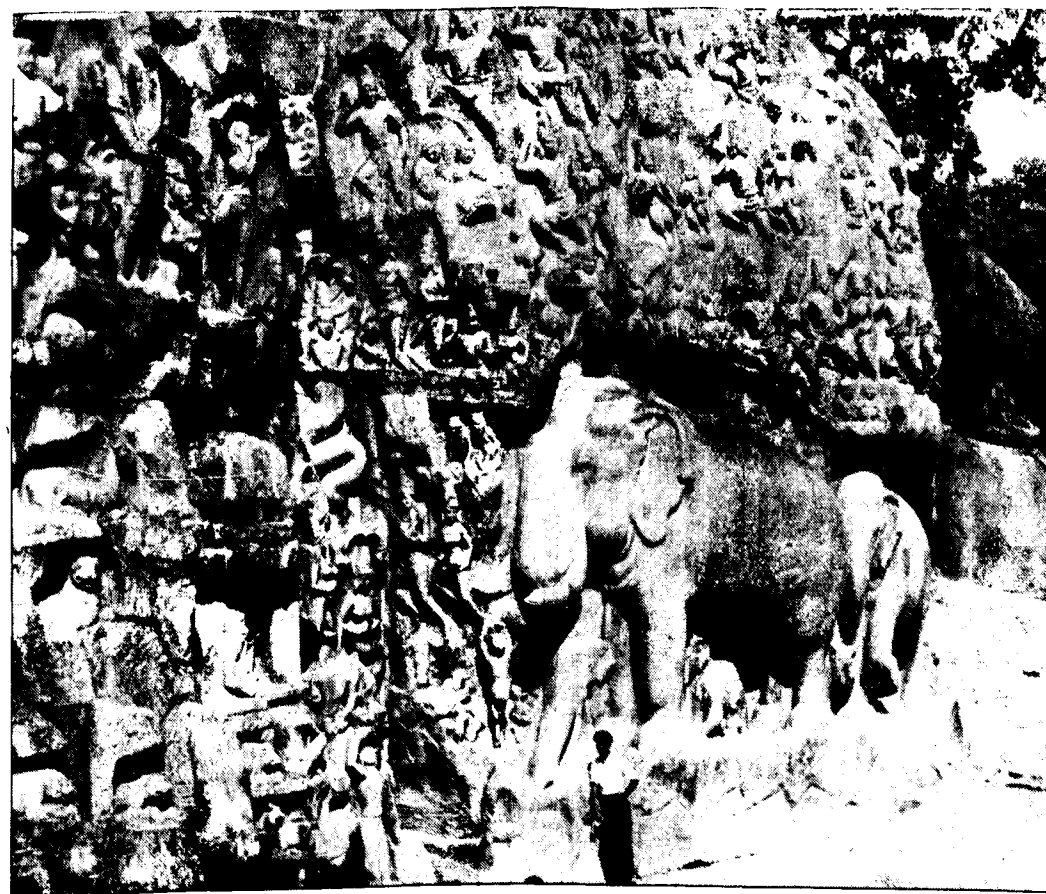
the dashing waves, most of the carvings have lost their delicate details. The sacred bulls mounted on the boundary wall, for instance, appear to be a crude mass of stones. The effect however gives an artistic touch to the general appearance of this 1,300-year old structure.

Housing most of the massive sculptured panels considered to be "the delight of the Pallavas"—the caves are excavated from out of living rocks. The ornamental pillars at the façade are generally octagonal in shape, and are supported by squatting lions. Mahishamardini portraying a dramatic battle scene with the eight-armed Mahishamardini avenging a bull-headed demon; a striking bathing scene in Varaha Cave in which

Gaja-lakshmi attended by four nymphs is bathed by Her favourite elephants; and Arjuna's penance, a thrilling massive scene perfect with delicate details and full of animation, done on the edge of a living rock—among the finest of that kind in the country—are probably the masterpieces of Pallava plastic art.

The monuments immortalizing the memory of a golden era of art, architecture and military triumphs have been through centuries left at the mercy of the destructive process of nature. It was only quite recently that the Government have taken up in right earnest the task of preserving these archaeological treasures, and completed a good motorable road connecting with the State's capital.

Massive sculptured panels



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NATIONAL PLAN LOAN

CONTRIBUTIONS BY MYSORE WORKSHOPS STAFF

NATIONAL Plan Loan Bonds and National Savings Certificates to the value of Rs. 1,982 were distributed at a ceremonial function held in the Railway Workshops at Mysore on 20th July, 1954. There was a large gathering of over 1,000 employees present on the occasion.

Sri G. Krishnamurthy, Assistant Personnel Officer, inaugurated the function by explaining in Tamil the purpose, importance and the benefit of the National Savings Scheme and appealed to the workshop employees to contribute more liberally towards the purchase of Savings Certificates and stamps in the coming months. He also explained that the Government of India had started vast schemes like construction of big projects, factories, hydro-electric schemes, etc., in their two successive Five Year Plans for raising the standard of living and increasing the volume of employment for the millions of the country.

The President of the local branch of the Southern Railway Employees'

Union, Sri Parthasarathy, Maistry, Wagon Shop, appealed to the workers enthusiastically to support the National Savings Scheme and liberally to contribute to the Loan. As workers, they could contribute a day's valuable labour free to the Nation by agreeing to work without payment on a normal holiday and thus increase the national wealth, for skilled labour alone constituted the real wealth of a country.

Sri D. Venkataswami, Works Manager, speaking in Kannada, underlined the importance of liberal financial contributions towards the fulfilment of the two mighty Five Year Plans of the Government. He appealed to the employees to allow their savings deposit to continue to remain with the Government for the maximum stipulated period so that their contribution could be of real help to the Government in financing the schemes which they have embarked. Such continuance would also benefit the employees as certificates will increase in their value by 5 per cent. He was glad to announce that the Railway Board had issued orders to enable class III and IV employees of the Railways to draw

advances from their Provident Fund to an extent of a month's salary with the object of financing the National Plan Loan and Savings schemes. Such advances were recoverable in 24 easy monthly instalments. He, therefore, appealed to every one in the workshops who is a member of the Railway Provident Fund, to grasp this opportunity of helping the country and national advancement. He then distributed the National Plan and Savings Certificates. Janab Mohamed Ali Khan, Foreman, Erection Shop, was the first recipient of Rs. 50 National Plan Certificate. 143 other employees were presented with Savings Certificates of various denominations ranging from Rs. 5 to Rs. 20.

BELLARY

A meeting was held on July 19th at the Railway Institute premises at Bellary under the presidentship of Sri K. R. Thangasamy, District Engineer, Bellary. After the presidential address, Sri K. Srikantiah and Sri P. B. Mutalik spoke in Kannada, Sri S. Krishnaswamy Iyengar and Sri V. Kuppuswamy in Tamil and Sri P. V. Narayana Rao and Sri M. Narayana and Sri C. S. Venkataraman in Telugu exhorting all staff to subscribe to the 'NATIONAL LOAN' explaining the necessity for doing so in the interests of the country. Mr. Venkataraman explaining the need to help the Nation for the betterment of the people, requested those present, especially the Class IV staff to come forward and subscribe to the Loan from their Provident Fund assets. The president announced his further subscription of Rs. 600 in addition to the Rs. 400 already deposited by him. The number of subscribers steadily rose to 40 and the amount so far promised to be subscribed from the Provident Fund is about Rs. 3,000.

INAUGURATION OF RAILWAY EMPLOYEES' CULTURAL ASSOCIATION AT MADRAS

The Railway Employees' Cultural Association, which is a body devoted to the purpose of fostering cultural activities among railway employees, was inaugurated on 17th July, by Sri S. Ramayya, F.A. & C.A.O., Southern Railway, at the Museum Theatre. Presiding over the occasion, Sri Ramayya remarked during the course of his address that such Associations were very necessary, as there were few opportunities for cultural development available to railwaymen. He exhorted every railwayman to make the fullest use of the opportunities provided by the Association in this direction. He then traced the history of the growth of Art in this country, particularly in South India, and showed how Indian Art and specially South Indian Art had the distinctive flavour of the country of its birth. Though the external forms of artistic expression had to change during the process of adjustment to extraneous circumstances like foreign invasions, its essential character did not change, but on the other hand, had a wonderful continuity. As examples, he cited the development of temple architecture, Bharatha Natyam and Carnatic Music. In conclusion, he stated that our cultural heritage was very great and we should foster and nourish this great and distinctive cultural tradition.

The Railway Employees' Cultural Association then put on boards a drama entitled "Only Letter". The drama was written and directed by Sri Ma. Ra. and had a social theme. The story traced the break up of a poor weaver's family and showed how idealism triumphs over obstacles set up by scheming selfishness. The drama was well enjoyed by the large audience. The President then gave away prizes to the Director, Sri Ma. Ra., and the Music Director Sri R. Parthasarathy and other distinguished artistes.

SOUTHERN RAILWAY N. G. O. EMPLOYEES' CO-OPERATIVE STORES

G. SRINIVASULU

Director of the above Stores, G.M.'s Office

IN these days of high degree of specialisation in production, the number of middlemen between the producers and the consumers has considerably increased. Consumers are handicapped in purchases because they generally do not know wherefrom a particular commodity can best be purchased and even if they do, the requirements of a single consumer are too meagre that it is uneconomical to purchase from the best market. In these circumstances, not only a high price is to be paid for the articles but the nature of goods purchased may sometimes be of a doubtful quality. Some traders do not hesitate to employ unfair methods for exploiting the consumers. These can be avoided if the consumers as a class organise their own Stores and run it on co-operative lines.

With this object in view and also with a view to improving the economic lot of the railway employees by selling goods at comparatively cheap prices and offering a cash rebate at the end of each year, the Southern Railway N.G.O. Employees' Co-operative Stores has been organised with the assistance of both the Southern Railway Administration and the Railway Board. It was inaugurated on 16th August, 1952 by Shri N. Kamalakara Rao, the then Deputy General Manager (Personnel). The present membership of the Stores is 510, the value of each share being Rs. 10. With a view to facilitating the intending members, a system by which

the share amount is recovered in instalments through pay bills, has been recently introduced.

At present, the Stores is dealing in dhalls, chillies, sugar, gripewater, milk foods, coffee seeds, toilet goods, biscuits, textiles, both handloom as well as mill-made, footwear, etc. It is proposed to introduce shortly the sale of rice. Thus, the Stores provides the employees stationed in Madras area their daily requirements without having to go from shop to shop and also protects them from exploitation by the private trader.

In order that the Stores does not run out by competition from private trade, the Administration is assisting it—

- (i) by paying 50 per cent of the administrative and establishment charges, for the first three years,
- (ii) by giving shop accommodation on a very nominal rent of Re. 1 per mensem,
- (iii) by electrifying the Stores.

From the foregoing it will be quite evident that the Stores is an organisation for the welfare of Railway employees and therefore deserves encouragement from all railwaymen, officers and subordinates. The organisers have every hope that this encouragement will be forthcoming in ample measure and their efforts suitably rewarded by an ever-increasing membership.



PRESIDENT'S INDEPENDENCE DAY MESSAGE

New Delhi, August 14, 1954

ON this memorable day, the Seventh Anniversary of India's Independence, I send my greetings and best wishes to all my countrymen. Today we have completed seven years of the new regime which the dawn of freedom ushered in. Full of significance as this event is in the history of our Nation, it is but natural that we should celebrate it year after year amid rejoicings. It is equally natural that we should take this occasion in the spirit of thanksgiving and renew our pledge of dedication to the cause of the country. Let us not forget that every favourable turn in fortune's wheel brings with it added responsibility to conquer want, poverty and ignorance and to improve the lot of the backward and less fortunate amongst us.

Let us therefore dedicate ourselves not only to the happiness and prosperity of our country but also to peace and mutual understanding among nations and happiness of mankind. As we make this solemn resolve, we can derive satisfaction from the fact that as years roll on the Government of our country continues its unremitting efforts in the interest of world peace. Recently our efforts have been crowned with success and good many countries have recognized the value of our effort. Our own faith in the promotion of International peace has inspired us to undertake an arduous assignment in Indo-China. Let us hope the deliberations of the Commission, which is going to start its work soon, will bring about the settlement of an International dispute which was fraught with danger to world peace.

We have sufficient reason to believe that our fight against food shortages has borne fruit. Withdrawal of controls of every kind is unmistakable proof of improvement in the food situation.

Our first Five-Year Plan has been forging ahead and some of the mighty projects in hand have already started yielding good results, while others are in the process of execution according to schedule. Consideration of the Second Five-Year Plan has also been taken in hand and all the necessary details with regard to it are being worked out in consultation with State Governments.

Even though the progress we have made is not inconsiderable, we cannot afford to relax. The rainy season year after year reminds us of the rivers whose waters work havoc in Assam, West Bengal and Bihar. These rivers have to be tamed so that through planned control their destructive power is turned into a valuable asset for the areas which are now flooded and have to face wide-spread damage. Plans to harness the waters of some of these rivers are already under consideration. I have no doubt that with the co-operation of everyone in this country, things will continue to improve as the Second Five-Year Plan nears completion and is put into operation.

Once again I extend my hearty greetings to all of you and wish that the eighth year of Independence brings you greater joy, happiness and prosperity.

Rajendra Prasad

INDEPENDENCE DAY CELEBRATIONS

MYSORE

Independence Day was celebrated at Mysore on the morning of the 15th August, 1954, at the premises of the Railway Institute.

Officers and staff at Mysore gathered in large numbers, and Sri M. Cheluve Urs, Chairman of the Institute, hoisted the Union Flag. He also addressed the gathering, recounting the major achievements of the country since 1947, and exhorted the staff to give of their best in their sphere of work in building up the country.

Opportunity was also taken on this occasion to distribute cups and trophies to winners and runners up in the games conducted by the Railway Institute, Mysore, the prizes being given away by Mrs. Cheluve Urs.

After the singing of the National Anthem, sweets were distributed to the children who had turned up in very large numbers to witness the Flag Hoisting Ceremony.

ERNAKULAM

The 7th year of Independence was celebrated in a fitting manner at Ernakulam North Station.

At 9-15 a.m. Sri M. Damodara Menon, Assistant Engineer, Southern Railway, Trichur, hoisted the National Flag in the small but beautiful gardens at the entrance of the North Station before a large and distinguished gathering. Mr. Nawab sang the flag song when the flag went up.

As soon as the flag went up, a contingent of the Watch and Ward Staff saluted the flag and there was a March Past by them when the Assistant Engineer took the salute.

With the singing of 'Jana Gana Mana' by Nawab, the flag salutation ceremony came to a close.

Immediately after the ceremony, people gathered in the third class waiting hall to participate in the **Cleanliness Campaign**.

Sri M. Damodara Menon, Assistant Engineer, Southern Railway, Trichur, presided over the function. After an introductory speech from the chair, Mr. P. O. Markose, one of the conveners of the campaign, read the following report :

"Indeed, it gives me great pleasure to welcome Sri M. Damodara Menon, who has kindly agreed to preside over today's function, Sri. P. M. Mani, who, in spite of various preoccupations, has generously agreed to inaugurate the campaign of Cleanliness and all those who have graced this occasion by their presence.

It was about 14 years ago that the new line from Idappalli to Cochin Harbour was laid and Ernakulam North sprang up as a small station with all its imperfections. As a result of the strenuous efforts of the public, the station is developing and let us hope that ere long, the essentials of the station required to meet the unavoidable demands of the travelling public will be taken into consideration.

Now, very shortly the distinguished guest will be inaugurating a **Cleanliness Campaign**. By this campaign, we wish that the message of keeping the premises neat, tidy and, above all, beautiful will go to all the nooks and corners of not only the railway station premises, but all public offices in the land."

The following message received from Sri P. K. Kunju, Minister for Health, T. G. State, was read out:

"YOUR INVITATION STOP APPRECIATE ENTERPRISE, STOP. WISH CAMPAIGN SUCCESS."

Sri P. M. Mani, Member, Bhooan Mobile Works Squad, then inaugurated the campaign. In his impressive speech in Malayalam, he laid stress on the unique nature of the campaign initiated voluntarily by the station authorities. He appealed to the public in general and to the licensed porters and rickshaw-wallas in particular to co-operate with the authorities in making the enterprise successful. He emphatically appealed to them not to spit anywhere and everywhere, but in the spittoons only, not to throw waste paper as they liked, but in the waste paper baskets only thereby keeping the place not only neat, but also beautiful.

Next some members from the gathering also spoke on the campaign. Thereafter, the president delivered his concluding speech.

In his vote of thanks, Sri A. M. Achuthan Nair thanked one and all for the hearty co-operation extended in making the function a success.

Thereafter, the Maharaja's College Social Service Society Squad consisting of about 50 College students under the leadership of Sri Krishnan Kutty Menon, Professor of History, demonstrated the practical side of the campaign by cleaning an area in the Railway premises. Sri M. Damodara Menon, Assistant Engineer, Mr. P. B. Fernandez, P.W. Inspector and others took part in that demonstration.

The function came to a close at about 10-30 a.m.

A unique feature of the campaign was the attractive posters pertaining

to cleanliness drawn by Mr. K. A. Mohamad, Sepoy, Watch and Ward, Cochin Harbour Terminus, and hung up at various places in the station premises.

GUNTAKAL

The seventh Independence Day was celebrated by the Indian Railway School, Guntakal, with great eclat.

The National Flag was unfurled at 8 a.m., on Sunday, the 15th August, 1954, by Sri K. K. Prabhakaran, District Mechanical Engineer and Manager, Railway School, Guntakal, in the presence of other district officers and 600 school children who stood in a beautiful sunrise alignment.

Sri M. Narasimhan, Telugu Pandit of the school, explained the significance of the day and the national flag; further he stressed that this great country was in the hands of every subject of India and every one must assist in its advancement towards a prosperous and happy future.

The grand function came to an end with the vote of thanks by Sri A. V. Raghavendra Rao, Headmaster, Indian Railway School, Guntakal and singing of the National Anthem "JANA GANA."

Sweets were distributed to the school children.

GHORPURI

Independence Day was celebrated with much eclat when Rev. Father Rajan hoisted the National Flag. Sports were conducted for the children of employees. A Badminton Tournament was also conducted for the occasion. In the evening prizes were distributed to the winners and runners-up of all events by the Chairman of the Institute. There was also a variety entertainment by the children of the employees.



THE STORY OF POWER

WHAT is power? You may have seen a man walk up to a heavy bag of grain, grab hold of it by both hands, heave it on to his back and walk away. Now everything that man has done, the walking, the grabbing and lifting, are actions which he could only do with the power he has in him. Now take a look around you. People are walking, carrying loads, riding cycles. On the road you will see motor cars and trucks moving swiftly, and if you happen to be near a railway station, you will see trains rolling in and out. Thinking a little more you will suddenly find that nothing can move even an inch from side to side, or up and down, unless there is some power behind it. So now let us learn a little more about power.

Long, long ago, and long before man had even made a wheel, the only power he had and could use, was from his own body, the strength of his hands, arms and legs. If a man wanted to go somewhere, he would walk or use the power of his legs. If he had to lift anything, he would bend over, hold the object with his hands, and using the power of his body, lift. Then man found that the power in his hands and arms helped him to make rough tools.

As time went on he was able to tame certain animals like the horse, the bull, the goat, the camel and so on. These animals had power in their bodies, and man found that their power was very much stronger than his, so he used tame animals to carry him and his loads from place to place.

When man learnt how to make a wheel, he found that the wheels could be attached to a cart, and on this he could load more of his goods and either push the cart himself, or have it pulled by his cow, donkey or horse.

But this was not all. The Creator of this wonderful world we live in had given man other means of power, and all man had to do was to find out how best to use them. There was the wind that could cool, and refresh him when he was tired and hot, but make him shiver with terror when tearing over the earth in a howling storm, and trees were torn up from the roots and sailed through air. When the storm had passed over, some wise man must have thought how best he could use the terrific power of the wind.

Then there was the water he would drink and wash with. If he lived near a lake, or the sea, or near a wide, gently-flowing river, he may never

have known what power was hidden in the gentle water. But if he was a mountain dweller, or climbed mountains for the thrill of adventure, he must have seen the streams that gushed out of the mountain and gathered force as it rolled down the mountain, especially over a waterfall.

Man used fire to cook his food and warm himself on cold nights. Perhaps when out on a hunting trip, he may have left a few smouldering ashes, and when a wind came rushing past, these ashes were fanned into a flame, which in turn caught some dry bushes, and started a great forest fire. Everything went down before the mighty power of that roaring fire.

There they were—wind, water and fire. Man did not make these, but using his brain learnt how to use these to his benefit. First the wind. By making sails and fixing them on boats and ships, man was able to move over the oceans and seas and rivers to all parts of the world. The power of wind was also used in some countries for windmills, which helped turn various kinds of machinery, for grinding corn and other foodgrains.

The power of water was also used by man for turning mill machinery, by making waterwheels and placing them in swiftly moving streams and rivers, or by trapping the water, and then forcing it out through small openings on to waterwheels.

Ages and ages go by, and we come nearer to our own times. Man now makes one of the most wonderful discoveries known. He has wood or coal, lights a fire, and puts a kettle of water on the fire to boil, for his cup of tea perhaps. When the water comes to the boiling point, it is bubbling and dancing about inside the kettle, and the joyful vapour is doing its best to push the kettle cover right off. This vapour is known as steam. Due to his little kettle of water a wise man found what immense power could be had from coal, or wood, fire and water, when the three joined forces. Today we all know the

power of steam, when we travel in trains drawn by giant engines overland, or in big steamships.

But wait, there were still other hidden sources of power. One day man found oil, that thick, dirty, sticky stuff. This dirty oil is now a great rival of steam, and from this oil we get our kerosene, our diesel oil and our aviation spirit. Because of the power in this oil, every motor car, truck, motor cycle, every kind of machine that flies in the air, from the little helicopter to the huge jet airliner, can move at terrific speeds.

Next we think of electricity, another source of immense power. Oil, water, steam, coal, fire—all these you can see, but not so with electricity. All that can be seen of electricity is what it can do—the light in a bulb, the heat in an electric stove, the whirring motion of an electric dynamo, the blue-white flame that jumps between two ends of an arc light, the sounds of beautiful music, the talking, laughing, singing, that comes from a radio, the wonder of the pictures that we see and hear in the cinema, the X-Ray, the telephone, television, the electric flashlight, the whirring machinery in factories.

Has man found all sources of power, or are there more on this amazing earth? Perhaps, there is no end to what man may find to use as a means of power, and we know that man has discovered a power that is at present the terror of every living being on earth. The power of the atom and hydrogen bomb, a power so awful that the explosion of just one of these bombs would utterly destroy cities like Calcutta, Madras or Bombay, including every living being within.

The story of power is like a tale that will perhaps never end, as man has not yet discovered all the wonders of this created world, and in the centuries to come when you and I and even our great grandchildren will have passed away, we can only imagine what sources of power man will discover and use.

UNCLE TELLATALE,

THIRD MADRAS REGIONAL FOOTBALL TOURNAMENT

The Third Madras Regional Football Tournament, 1954, was held at the Railway Institute grounds, Perambur. As many as 13 teams participated as against 15 teams in 1953.

The Finals on 23rd July, 1954 between 'A' and 'B' teams of the Indian Railway Institute, Perambur, was keenly contested. The Indian Railway Institute, Perambur 'A' the holders of 1952 and runners up in 1953 won by a solitary goal scored by Om Prakash by a penalty kick just 5 minutes before the close of the first half. Although there was no score in the second half, the Perambur 'A' team on the run of play being the superior side, could have increased the margin but failed to take chance of the good openings.

Sri B. Venkatramani, Regional Officer, Rayapuram, presided and Mrs. Venkatramani distributed the trophies and the 'Colam' Rolling Cup.

MANGALORE RAILWAY INSTITUTE TENNIS TOURNAMENT

An open Table Tennis Tournament (Singles) was conducted under the auspices of the Southern Railway Institute, Mangalore. Altogether there were thirty entries. The final was held on 31st July, 1954. In the final Antony Goveas beat Harold Joshua in straight games, 21-13; 21-14; 21-10. K. Kunhambo (Railway Institute) qualified for the third prize beating Damodara Pai, 20-22; 21-15; 23-21; 22-20.

Sree K. Suryanarayana Adiga, Chairman, Mangalore Municipal Council, presided over the function and distributed the prizes. In his presidential address he commended the activities of the Railway Institutes and especially the part that was being played by Railways in the field of sports. He wished that in the years to come the Institute authorities would invite All-India players for the tournaments and thus give an impetus to the game in the Town.

RAILWAY JARGON

P. SREENIVASA RAO

D.T.S.'s Office, Bezwada

I plead ignorance of prosody ;

Nor am I good at writing verse.

My prose is probably worse.

It's a double tragedy !

Hence my adoption, with your sanction

Of a form, which defies scansion.

Pardon my temerity,

In a spirit of fraternity !

Through the columns of this official org

I shall lay bare the Railway jargon.

Don't get into jitters ;

Take it between titters.

'Enclose' followed by 'herewith'

Drives one into a fit of wrath !

We find the word 'advise'

Largely put to misuse.

'Will be viewed severely',

Shows up quite liberally.

The record of 'notwithstanding'

Is verily outstanding.

'As you are aware'

Is seen not too rare.

Be it to a beau, or a dignitary,

Rarely does the tone vary !

Trite words and phrases

My venerable friend chases !

Ain't we a legion, petty clerks,

With careers comprising mighty jerks ?

Amid the encircling red-tape,

Is there no hope of escape ?

SOUTHERN RAILWAY.

Tenders for the supply of Milk to Railway Canteens on the former S. I. Railway Region

Sealed tenders are invited by the undersigned for the supply of Milk to the Canteens at the following stations for the period 1-10-1954 to 31-3-1955 :—

- (1) Villupuram Junction
(Located near Loco-shed)
- (2) Trichinopoly Junction
(Located in the General Offices' compound)
- (3) Madura Junction
(Located near Loco-shed adjacent to Railway Colony) and
- (4) Erode Junction
(Located near Loco-shed)

2. Tender forms and schedules specifying the quantity and quality of milk to be delivered and conditions of contract, etc., can be obtained from the Controller of Grainshops, Southern Railway, Trichinopoly, on payment of **Re. 1** per set. Separate tenders should be submitted for each canteen and will be received upto **15 hours on 8th September, 1954**. The earnest money required in each case as specified in the tender conditions should be remitted to the Regional Accounts Officer, Southern Railway, Trichinopoly, before **15 hours on 7th September, 1954**.

3. Production of Income-tax Clearance Certificate in the prescribed pro forma in 'Original' is an essential condition for consideration of tenders. Pro forma of Income-tax Clearance Certificate can be obtained free of cost from the Office of the undersigned.

4. Tenderers who have no taxable income and who are therefore unable to produce a tax clearance certificate in the prescribed pro forma must submit a duly sworn affidavit to that effect countersigned by the Income-tax Officer concerned as to its correctness.

Trichinopoly,
Dated 19-8-1954. Controller of Grainshops.

THE LATE SRI V. GOPAL RAO

We deeply regret to record the sudden demise due to heart attack of Sri V. Gopal Rao, Assistant Controller of Grainshops, on the morning of the 20th August, 1954 at his residence in Madras. He had just returned from Bombay where he had gone to attend a meeting of the Joint Purchase Board.

Born in 1904, Sri V. Gopal Rao had a brilliant academic career, having won the "Caithness Scholarship" (Christian College) in 1923 for proficiency in English. He took the M.A. degree and Dip. in Economics of the Madras University and also studied Law. He entered service in the ex-M. & S. M. Railway in 1935 in the subordinate cadre as a Traffic Canvasser. By dint of merit and hard work, he rose to the position of a Gazetted Officer in 1944 in the Grainshops Department. Since then he continued to work as an Assistant Officer in the Grainshops Department till his death.

Sri Gopal Rao was very popular with his staff. He was a gifted conversationalist and had numerous friends in the Railway and outside. He was a good sportsman during his College days and continued his sporting activities even after he joined Railway service. He was also a member of the Madras United Club and the Madras Cricket Association.

He leaves behind his wife, five sons and two daughters and a host of other relatives and friends to mourn his loss.

FIRST METRE GAUGE AIR-CONDITIONED COACH BUILT BY SOUTHERN RAILWAY

A PREVIEW of the first Metre Gauge Air-conditioned coach wholly constructed by the Southern Railway at the Golden Rock Workshops was arranged at Madras Egmore station on the 24th August, 1954. Representatives of the press who were present during the preview were taken round and shown the various parts of the new coach.

The Metre Gauge air-conditioned coach is built on standard I.R.S. under-frame with 9 feet wide body. The coach has five compartments, the two end ones being II class and the middle two coupes air-conditioned and the middle four berth compartment is built to run as II class now with provision to be converted as air-conditioned with slight modifications if traffic warrants. The compartments have been provided with the latest amenity standards such as, berth lights, ash trays, tumbler holders, shower bath, etc. The seats of all the compartments are upholstered with springs and Dunlopillo cushions. The II class end compartments have been finished with French polish and have beige upholstery to suit the French polish on the inside of the compartment. The middle three compartments have been painted with shades blue grey and finished with blue upholstery. Most of the fittings have been manufactured in the Golden Rock Shops and many of the materials used are indigenous. The outside of the coach has been provided with embarkation lights, long ascending handles, double foot-steps for the convenience of the passengers. The main lights in the middle compartments are worked by a door switch, i.e., when the door is opened the light in the compartment comes on automatically so that the passenger may not get into the compartment in

darkness. Blue lights have been provided in each compartment for the use of passengers during night. There are two dynamos mounted on the underframe and the bogies have been suitably modified to permit this arrangement. The coach body has a flush on the inside and outside to avoid hoarding of dust and has a good appearance. The coach was built in about five months' time during which period the design had to be developed for most of the details as there were no detailed drawings available at the time of commencing the work.

The air-conditioning system was designed and manufactured by Messrs. J. Stone & Co. Ltd., London, especially

Interior view of the air-conditioned coupe



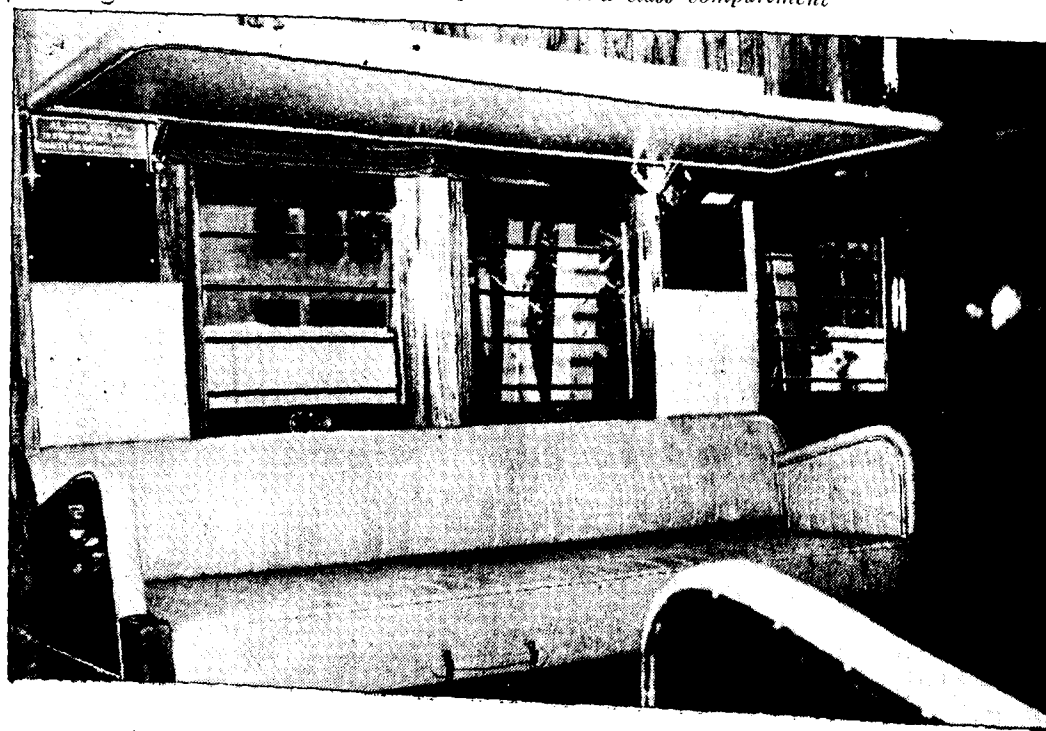
to suit applications where one or more compartments are to be air-conditioned. As in all conventional air-conditioning systems, the plant consists of a compressor and condenser mounted on a single frame, driven by an A.C. motor which feeds one, two or three air-conditioning cabinets which can be mounted in the coach to serve the compartments. The refrigerant gas used is Freon-12 which is very commonly used for air-conditioning, being entirely safe and efficient for the job. The air-conditioning cabinet contains an evaporator for cooling and dehumidifying the air in the compartment as also the fresh air introduced. There are filters for removing the dust and thermostats for controlling the temperature automatically. Heating elements are also provided when outside temperatures are low. The electrical system is very similar to the standard 24 volts train lighting equipment, but modified to suit the extra load of the air-conditioning plant. There are two 120 amps. generators, one

on each bogie, driven by endless V-belts from the axles. The batteries are of 540 A.H. Exide iron clad cells connected in parallel to form a 24 volts battery of 1,080 A.H. capacity which is sufficient to run the plant without generation for several hours.

All paints used on this coach, both for interior and exterior work, are products manufactured by Addisons Paints and Chemicals Ltd., Madras, one of the most modern paint works in India. This Company is equipped for and produces the full range of synthetic finishes suitable for all industrial and household purposes and has a well-equipped service laboratory and staff. It also manufactures a wide range of other products like Automobile Lacquers, Ready Mixed Paints, Hydraulic Brake Fluid and Wax Polish.

Sri K. Raman, Production Engineer, Golden Rock, who was in overall charge of the construction, and the technicians and other shop staff who built the coach, have done a really fine job and deserve our congratulation.

Interior of the improved second class compartment



SPARTAN *Quality* PAINTS

We are proud of the fact that the paints used on the first Metre Gauge Air-Conditioned Coach built by the Golden Rock Workshops, Southern Railway, have been manufactured at our modern factory at Sembiam, Madras under strict laboratory control.

Addisons Paints & Chemicals Ltd.

HUZUR GARDENS

SEMBIAM

MADRAS-11

Phone: 55256 & 55128

Grams: "ADCOLAC"

OUR COMMERCIAL News Letter

EARNINGS

The approximate earnings on originating traffic for July, 1954, showed a steady trend as compared with those of July, 1953. The continuous and heavy rain during the second and third weeks of the month on the Bezwada and Hubli Districts had an adverse effect on passenger traffic, but the occurrence of the Adi Krithigai and Adi Amavasai festivals during this month helped to arrest the fall in passenger earnings which would otherwise have been steeper:—

(Figures in thousands of Rupees)		
July		
	1953 Rs.	1954 Rs.
Passengers ...	1,42,13	1,38,28
Other Coaching ...	29,96	30,87
Goods ...	1,58,34	1,61,51
Sundries ...	5,64	6,10
Total ...	3,36,07	3,36,76

TICKET CHECKING

There was a slight increase in the number of passengers detected travelling without proper authority during the month of June, 1954. 1,08,366 persons were detected travelling without tickets and an amount of Rs. 2,11,410 was recovered from them as excess fare. The number of beggars and mendicants turned away from stations and trains alone totalled 89,982.

The usual special drives against ticketless travel were conducted on four sections of the railway during the month of June and ticketless travel was found rampant on the Madras-Bezwada section. No less than 2,712 passengers were detected travelling without tickets during the special check. The amount realised from them by way of excess fare was Rs. 5,703.

ISSUE OF CONCESSION TICKETS

Cheap Return Tickets at 1½ single journey fares were issued for all important festivals during July and August for the convenience of passengers attending the festivals.

(1) **Adi Krithigai Float Festival at Tiruttani.**—Cheap Return Tickets were issued from 22nd July, 1954 to 24th July, 1954 available for the return journey by midnight of the 4th day from and including the date of issue. This festival attracted a large number of passengers this year as compared with the previous year.

		No. of passengers	
		Entrained	Detained
1953	...	31,152	29,928
1954	...	51,612	56,990

(2) **Adi Thapas Festival at Sankaranayarkoil.**—Tickets were issued at concession fares from 8th August, 1954 to 12th August, 1954 with the same availability for return journey.

(3) **Sri Raghavendraswami Aradhana Festival at Mantralaya.**—Tickets were issued from important stations to Manthralayam Road from 11th August, 1954 to 18th August, 1954 available for the return journey upto 22nd August, 1954.

CHEAP SINGLE JOURNEY TICKETS

With effect from 1st August, 1954, III Class cheap single journey tickets were introduced as an experimental measure for one year between the following stations on the Mettupalaiyam-Ootacamund section:

Mettupalaiyam—Coonoor.	
Do. —Ootacamund.	
Ootacamund—Coonoor.	
Do. —Wellington.	
Do. —Aravankadu.	
Coonoor—Aravankadu.	

HOUSES FOR RAILWAYMEN

ONE out of every four railwaymen in India lives in a house built for him by the railways. In the last five years over 30,900 houses have been added to more than 2,00,000 quarters already in existence at the beginning of 1949. In the remaining two years of the Five Year Plan the railways expect to build another 20,000 houses so that at the end of the first Five Year Plan, nearly 43,000 new residential quarters will have been built.

In terms of money this represents an estimated outlay of over 17 crores by the end of this financial year. In 1955-56, the expenditure on housing is expected to be of the order of four to five crores of rupees. The tempo of construction is expected to be maintained at the rate of 10,000 houses a year throughout the second Five Year Plan.

The Railway Administrations believe that as large a proportion of their employees as is practicable should be housed in their own buildings. This belief springs from the fact that better housing conduces both to contentment

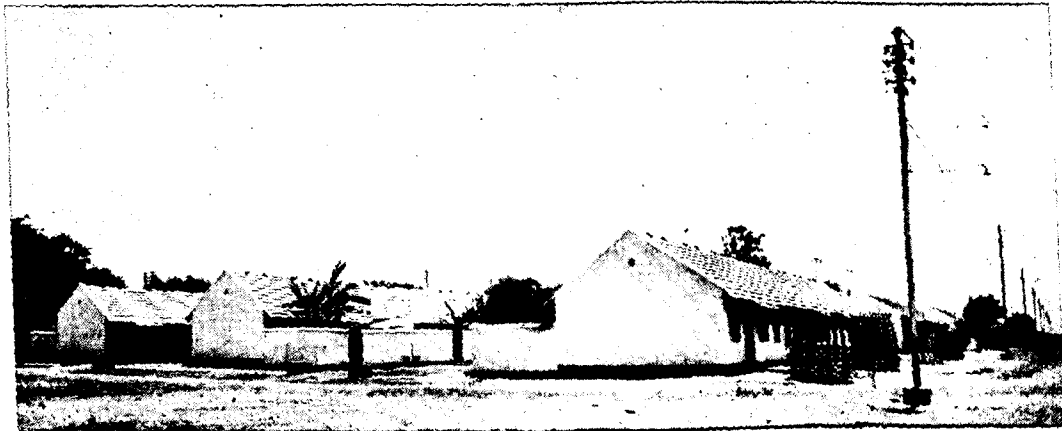
among the staff and efficient working. Therefore, quarters have been provided not only for such employees like guards, drivers, firemen, station masters and permanent-way workers, who are called to duty at odd hours, but also for a large number of other employees who do not fall into any of these "essential" categories. This has been particularly noticeable in the last few years when the housing problem in the country became acute and was further aggravated by partition and the consequent displacement of a large number of people, including railwaymen. The railways can be said to have made their own contribution towards easing the general shortage of accommodation.

TYPES OF HOUSES

The railways' housing policy is to provide maximum amenities and a certain minimum standard of accommodation consistent with the need to use the available funds to build as many houses as possible. Although under a programme of "austerity" accommodation adopted in 1952, the policy has been to build more houses rather than more spacious houses,

Railway Colony at Tambaram





there has been no lowering of the standard of amenities. Take, for example, the most modest of railway quarters—those for class IV employees. Each house has a living room, one or two verandahs, a cooking place, a washing place, a latrine and a courtyard as well as a water tap. Although under the austerity standard of accommodation, the number of rooms in such quarters had to be reduced from two to one, the amenities have not been affected.

The areas where railway quarters are built are first levelled, cleared and drained, before construction work starts. All-weather approach and service roads are built and drains to carry away sullage and storm water are provided. Wherever electric supply is available, quarters are electrified

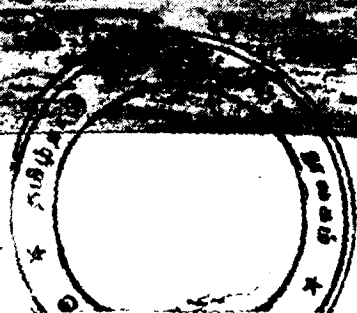
and street-lighting is provided in the residential areas.

While more and more new houses are being built, improvements in existing quarters and colonies are also being made. Good roads, street-lighting and drainage facilities are being provided in colonies which did not enjoy these amenities before.

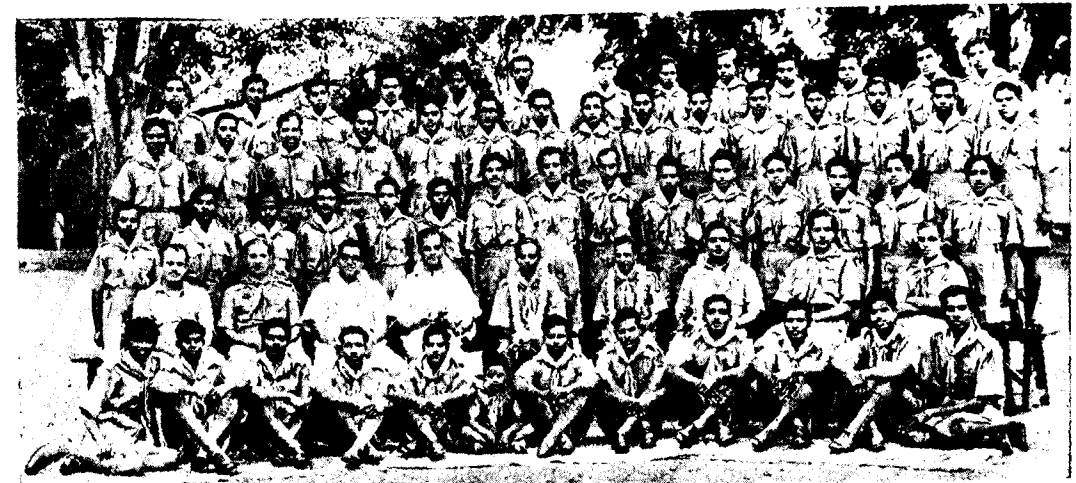
RAILWAY COLONIES

There are several small and big railway colonies all over the country at stations where railwaymen are concentrated in large numbers. These colonies have all modern amenities and are more or less self-sufficient in such matters as sanitation, electric and water supply, and hospitals. In many railway colonies educational facilities also exist.

Quarters nestling close to the hills at Tambaram



SOUTHERN RAILWAY BHARAT SCOUTS



Shivaji Rover Crew, Golden Rock, who did yeoman service at the recent Audi Krithigai Festival at Tiruttani

a name

to remember ...

AMIRUDIN SHALEBHOY TYEBJEE & SONS

Agents for:

Beldam Patent High Grade Packings & Jointings • Bruntons' High Grade Steel Wire & Wire Rope • Newman-Milliken Patent Lubricated Plug Valves • "Norusto" Metal Preservative Paints • Ansell Jones Shipchandlery Fittings • Gandy's Antifriction Railway Brake Liners • Badger Car & Wagon Movers • The Derbyshire Carriage & Wagon Co., Ltd.



For all your industrial needs covering the abovementioned items, please contact:

AMIRUDIN SHALEBHOY TYEBJEE & SONS
SHALE BUILDING, BANK STREET, BOMBAY I.



In business for over a hundred years

Winners of the Southern Railway Inter-institute Football Tournament
 Elevens (Trichy Region) together with the Managing Committee
 of the Southern Railway Institute, Golden Rock



Photo taken on the occasion of the celebration of the completion of ten years service
 of the Fire Brigade of the Golden Rock Workshops



SOUTHERN RAILWAY

TENDER NOTICE

**Quilon-Ernakulam Railway Construction—Section I—Quilon to
 Mavelikara—Earthwork in Formation, Service Roads, etc.,
 from mile 12 to 18 from Quilon End.**

The Chief Engineer, Southern Railway, Park Town, Madras-3, invites sealed tenders for "Earthwork in Formation, Service Roads, etc." for the six miles from mile 12 to 18 from Quilon End towards Mavelikara upto 12-00 hours on 14th October, 1954.

Tenders should be in the prescribed form obtainable from the Chief Engineer's Office or from the Executive Engineer's Office, Quilon-Ernakulam Rly. Construction, Ernakulam South, or from the Assistant Engineer's Office, Quilon-Ernakulam Railway, Quilon, upto 12-00 hours on 12th October, 1954, on production of a receipt from the Financial Adviser and Chief Accounts Officer, Southern Railway, Park Town, Madras-3 or from the Station Masters/Ernakulam South or Quilon for payment made towards the cost of Tender forms at the rate of Rs. 10 per each set of tender forms and Rs. 2 per spare schedule, only if available, which amounts will not be refunded.

An earnest money of Rs. 7,100 is to be paid to the Financial Adviser and Chief Accounts Officer, Southern Railway, Park Town, Madras-3, before 15-00 hours on the 13th October, 1954.

Income-tax clearance certificate, in original, should be attached to the tender.

Tenders will be opened at 11-00 hours on 15th October, 1954.

The Chief Engineer does not bind himself to accept the lowest or any tender.

SOUTHERN RAILWAY.

TENDER NOTICE

Renigunta-Gudur Section—Conversion to Broad Gauge

The Chief Engineer, Southern Railway, Park Town, Madras-3, invites sealed tenders upto 12-00 hours on 9th October, 1954 for "Earthwork in Formation for widening existing or forming new banks and cuttings and forming side drains on the existing Metre Gauge Renigunta-Gudur Section."

Tenders should be in the prescribed forms obtainable from the Chief Engineer's Office, Southern Railway, Park Town, Madras-3 upto 12-00 hours on 8th October, 1954, on production of a receipt from the Financial Adviser and Chief Accounts Officer, Southern Railway, Park Town, Madras-3, for payment made towards the cost of tender forms at the rate of Rs. 10 per each set of tender forms and Rs. 2 per spare schedule only, if available, which amounts will not be refunded.

Earnest money as under is to be paid to the Financial Adviser and Chief Accounts Officer, Southern Railway, Park Town, Madras-3, before 15-00 hours on 8th October, 1954.

For the reach from mile M. 173/6-7 to mile M. 186	Rs. 3,400
" " M. 186 " M. 199	4,000
" " M. 199 " M. 212	7,000
" " M. 212 " M. 225	5,600

Income-tax clearance certificate, in original, should be attached to the tender.

Tenders will be opened at 11-00 hours on 11th October, 1954.

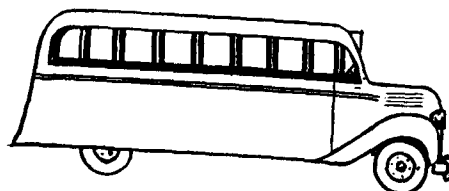
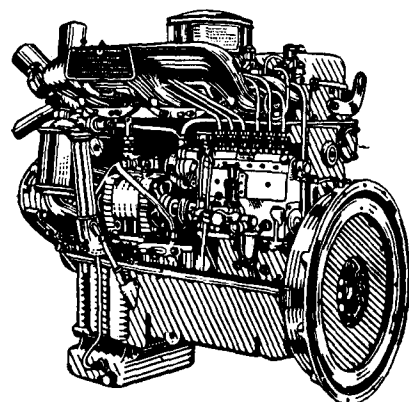
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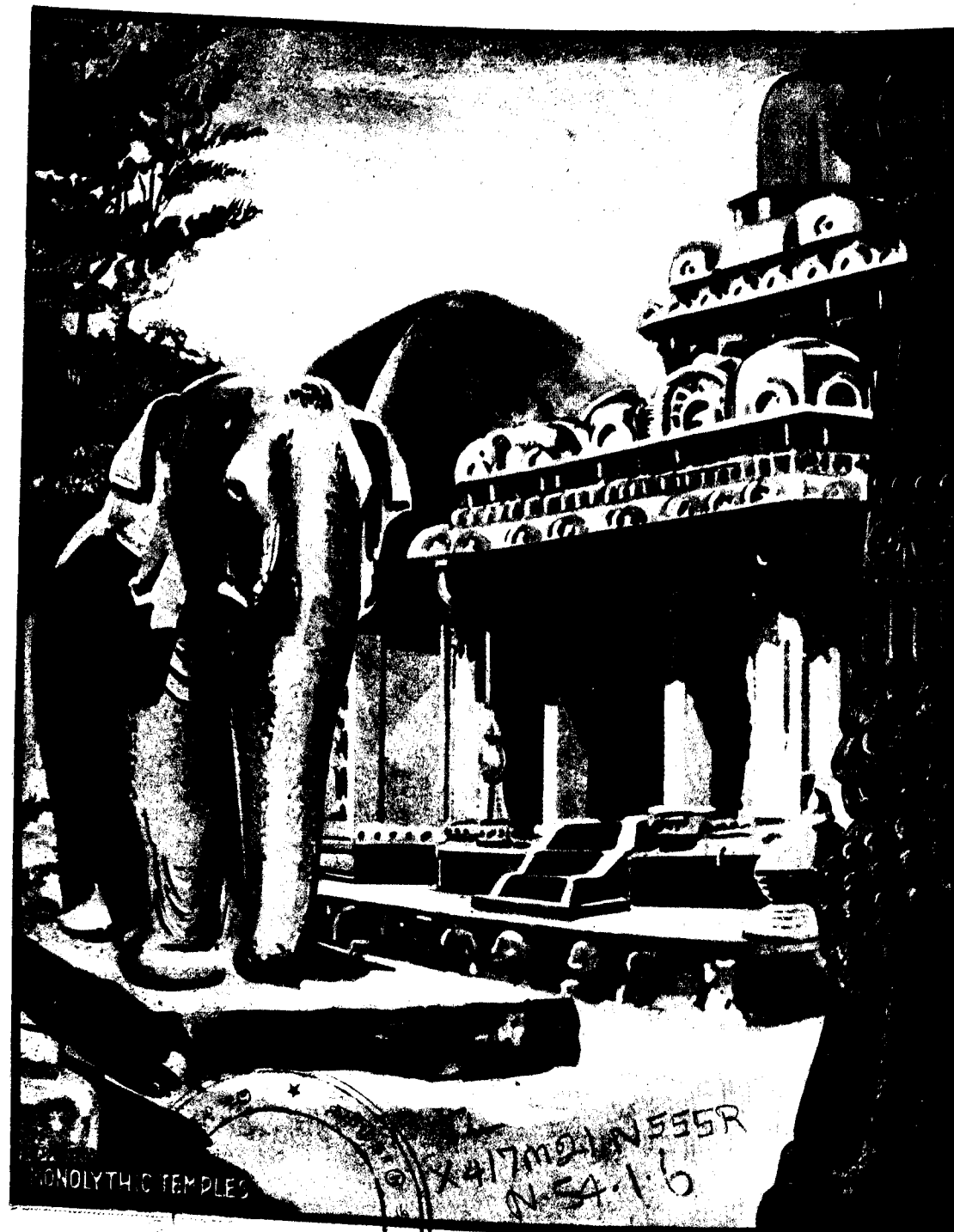
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