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NO. 11

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(Official Organ of the Southern Railway)

EDITORIAL NOTICE

VOL. III

No. 11

Editor :

K. SRINIVASAN

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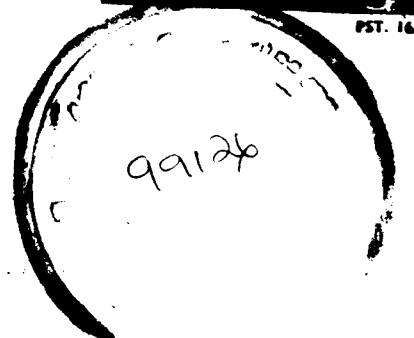
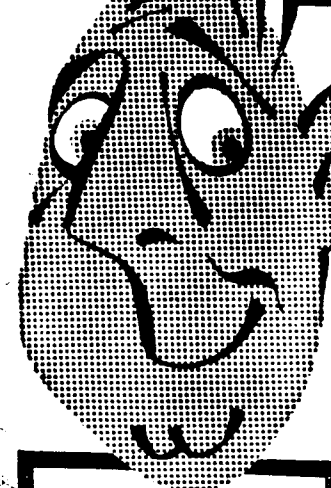
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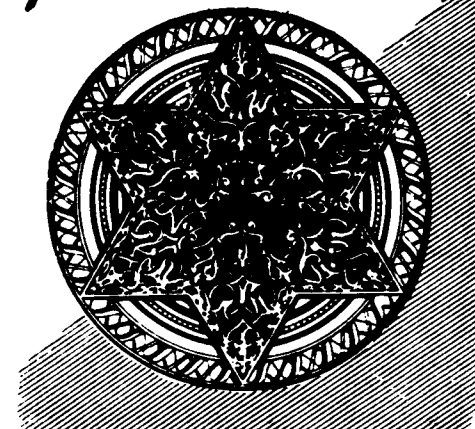
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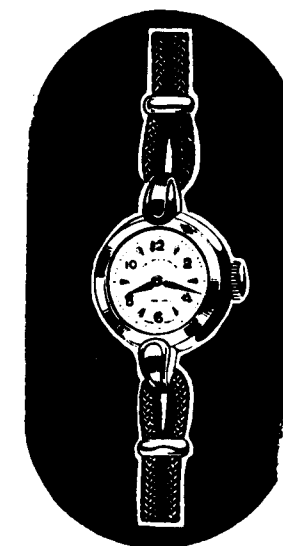
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SOUTH RAIL NEWS

VOL. III

FEBRUARY 1957. 3408

No. 11

GENERAL MANAGERS' CONFERENCE: CREATE PUBLIC CONFIDENCE PRIME MINISTER'S APPEAL

THE Prime Minister, Sri Jawaharlal Nehru, speaking at a meeting of the Railway General Managers with the Railway Board, which opened in New Delhi on 11th January 1957, said that the Indian Railways would be called upon to play an increasingly important role in the nation's development in the coming years, and this would place a very great responsibility on those in charge of the Railways.

The Prime Minister said that it was for the railways to decide what they would do with the limited funds available to them during the Second Plan period. But there should obviously be an order of priorities, and the general attitude should be to spend money more on productive work. For instance, he said, it was no good trying to run trains faster in order to save some time. It was important that more trains should be run and regularly.

The Prime Minister said the railways were the life blood of the nation and a very important distributive service. For their successful working, it was

necessary to give the Railway staff the psychological feeling that they were being engaged in a vast undertaking. A railway worker's individual job might be small, but he should be made to feel that he was helping to perform part of a huge job. If he got this feeling, he would work in a spirit of comradeship and the quality of his work would improve.

Need for Educative Propaganda

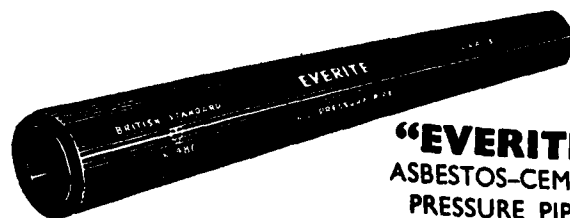
Since the railways dealt with large numbers of people daily, it was also important, the Prime Minister said, that steps should be taken to secure the co-operation of the travelling public. The Indian Railways should build up through proper training of staff a reputation for courtesy, co-operation and goodwill. This would go a long way in winning the public co-operation.

It was an anomaly that people in this country were personally very clean, but socially most unclean. This was evident in railway premises and in the



talking of pipes...

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trains. The railways should, therefore, undertake educative propaganda to create consciousness in the travelling public and thus raise the standard of cleanliness. The Prime Minister mentioned in this context the high standard of cleanliness prevalent on the Chinese Railways. It may be pointed out in this connection that social education on Railways, started more than one year back by the Railways, includes a regular programme of publicity through films, announcements, posters, leaflets, pamphlets, etc., emphasising the importance of less noise, cleanliness and orderliness at station premises and carriages. The meeting considered various steps which had already been taken to strengthen precautions against the occurrence of accidents on the railways, and discussed what further measures were necessary. It was very strongly stressed that safety of track must continue to be regarded as the most important function of the railways. The Conference undertook a detailed review of the transportation position on each railway. The review covered the progress so far made in various directions calculated to further improve operational efficiency, e.g., scientific loading of wagons to secure better load for wagon, utilisation of open wagons covered by tarpaulins, running of trains with maximum loads, strengthening of wagon chasing organisations, reduction in the percentage of rolling-stock under repairs, etc.

The Prime Minister, Sri Jawaharlal Nehru, addressing the meeting



Sri Jagjivan Ram, Union Railway Minister, addressing the meeting

N. R. U. C. C. MEETING

The Union Railway Minister, addressing the Sixth Meeting of the National Railway Users' Consultative Council on 11th January 1957, said that the Railway Ministry is contemplating the setting up of a Committee of experts to go into the question of protective measures against damage to railway track by rain or flood. This is consistent with the adherence of the Railway Ministry to "safety first" principle. The Minister further said that, if necessary, two or three such Committees will be appointed to cover quickly different regions where rainfall is heavy, so that the benefit of their recommendations may be available, early.

Standard of Safety

While it was not his intention to minimise the seriousness of these accidents or in any way to abate the action the Government proposed to take, the Minister wished to suggest that

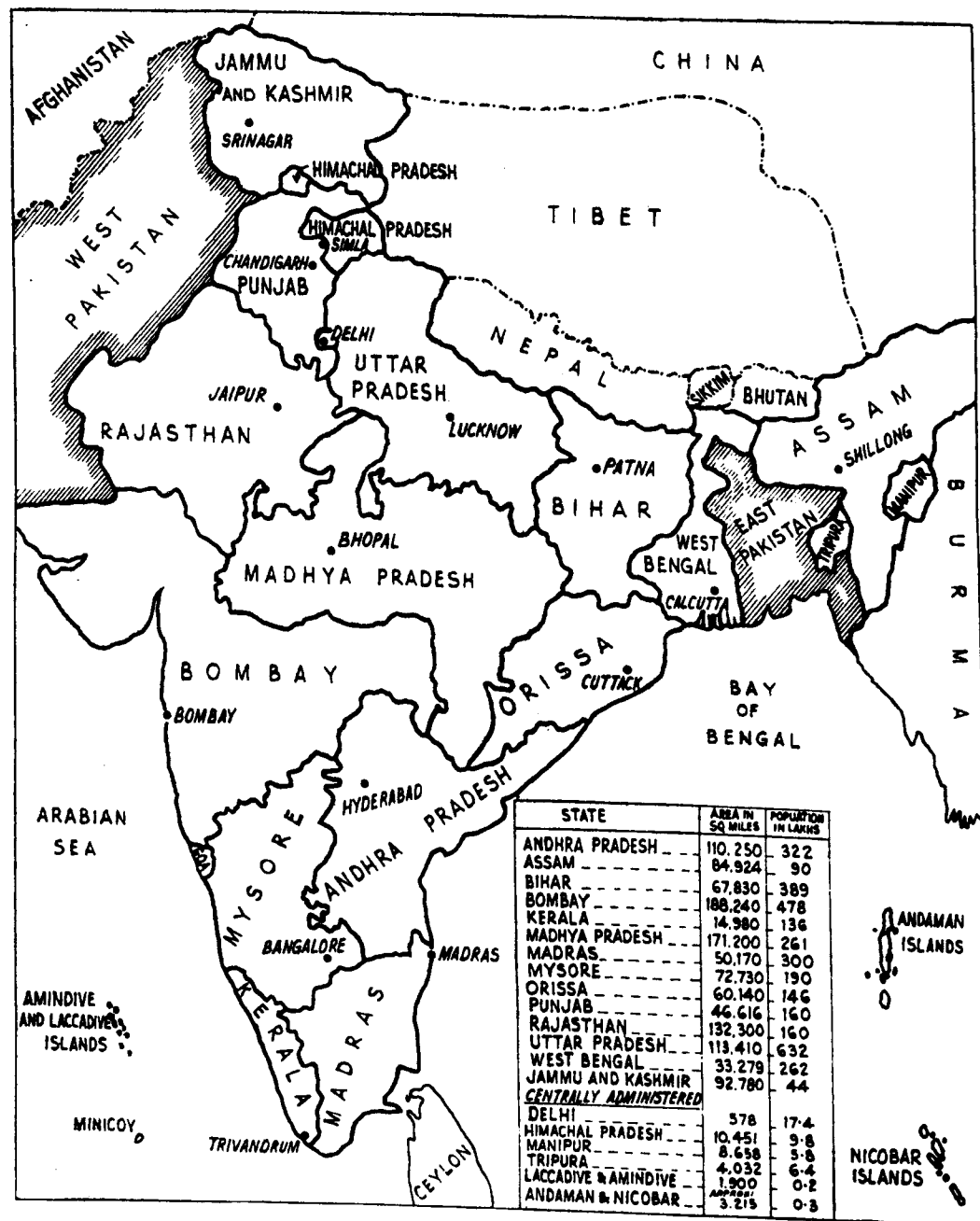
the matter should be viewed in its correct perspective. The ratio of fatalities and injuries per 10,00,000 originating passengers on the U.S. Railways during 1951-54, it is found, averaged to 156, on the British Railways it averaged to 48, and on the Indian Railways the figure was 32. The safety record on Indian Railways was better than that of Railways in other countries.

Operational Efficiency

As regards the operational efficiency of the railway system, he said on broad gauge the October 1956 index of 49.9 of "wagon miles per wagon day" was the highest to be achieved during the past 17 years, exceeding even the best war-time performance.

The Council recorded its appreciation of the contribution made to the all-round improvement of the railways by the former Minister, Mr. Lal Bahadur Shastri.

NEW MAP OF THE INDIAN UNION



RAILWAYS' IMPORTANT ROLE IN INDIA'S DEVELOPMENT PRIME MINISTER'S SPEECH AT GENERAL MANAGERS' MEETING

The Prime Minister, Sri Jawaharlal Nehru, said in New Delhi that the Indian Railways will be called upon to play an increasingly important role in the nation's development in the coming years, and this would place a very great responsibility on those in charge of the railways.

He was speaking at a meeting of Railway General Managers with the Railway Board, which opened in New Delhi on 11-1-57. Present at the meeting were the Union Railway Minister, Sri Jagjivan Ram, the Deputy Railway Minister, Sri O. V. Alagesan, Chairman and Members of the Railway Board and General Managers and Chief Engineers of the various Railways.

The Prime Minister said that it was for the railways to decide what they would do with the limited funds available to them during the Second Plan period. But there should obviously be an order of priorities, and the general attitude should be to spend money more on productive work. For instance, he said, it was no good trying to run trains faster in order to save some time: it was important that more trains should be run and regularly. India cannot afford now to copy very advanced ideas from countries like America, etc., merely to show off.

"We want our techniques to be better, but we cannot live in the air, in a big way, when the whole background is one of backwardness", the Prime Minister said. For the growth

of the railways, like that of any other sector of the country's economy, it was necessary to raise our standards of technical training and personnel and to build up a strong industrial background, so that we can ourselves manufacture the things we require and gradually build up our technical know-how and steadily advance in technical knowledge.

ACCIDENTS ON RAILWAYS

The Prime Minister said that it was unfortunate that serious and tragic accidents had occurred recently on the railways. Whether these could have been avoided by a little foresight he could not say. May be, only one or two persons were responsible for them, not the whole railway system. But the fact was that the accidents had occurred, and these had naturally upset the public mind. It was, therefore, necessary that the railways should take measures to create complete confidence in the minds of the travelling public.

The Prime Minister said: "The railways have a long history of over 100 years behind them. They are doing a fine job of work. These accidents are unfortunate. While you should take all possible precautions, you should not be downhearted."

The Prime Minister said that the railways were the life blood of the nation and a very important distributive service. It was necessary for their successful working to give the railway staff the psychological feeling of their being engaged in a vast undertaking. A railway worker's individual job may be small, but he should be made to feel that he is helping to perform part of a huge job. Once he gets this feeling he will work in a

spirit of comradeship and the quality of his work will improve.

Since the railways dealt with large numbers of people daily, it was also important, the Prime Minister said, that steps should be taken to secure the co-operation of the travelling public. The Indian Railways should build up through proper training of staff a reputation for courtesy, co-operation and goodwill. This would go a long way in winning the public co-operation.

The Prime Minister in this connection said that it was an anomaly that people in this country were personally very clean, but socially most unclean. This was evident on railway premises and in the trains. The railways should, therefore, undertake educative propaganda to create consciousness in the travelling public and thus raise the standard of cleanliness. The Prime Minister mentioned in this connection the high standard of cleanliness prevalent on the Chinese Railways.

SIXTH MEETING OF THE N.R.U.C.C.

The Railway Minister, Sri Jagjiwan Ram, disclosed that the Indian Railways' October 1956 index of "wagon miles per wagon day", a reliable guide to operational efficiency, was the highest to be achieved during the past 17 years, exceeding even the best war-time performance.

The Minister was addressing the sixth meeting of the National Railway Users' Consultative Council in New Delhi on 10th January 1957. He said that while the results so far achieved were not negligible, "the railways are only too well aware of the growing challenge of the Second Five-Year Plan". He said that the

railways would continue to meet the expanding demands to the best of their capacity, and expressed the hope that in this task they would obtain the fullest co-operation of organised trade and industry.

The Minister said that the Railway Ministry had accepted a number of recommendations made by the Estimates Committee regarding the provision of additional passenger amenities. Referring to overcrowding, the Minister said the overall picture of the provision in the Second Plan for the removal of overcrowding was "not bright".

In a reference to accidents, the Minister announced that the Railway Ministry was contemplating the setting up of a committee of experts to go into the question of protective measures against damage to railway track by rain or flood in different parts of the country.

The Council recorded its appreciation of the contribution made to the all-round improvement of the Indian Railways by the former Railway Minister, Sri Lal Bahadur Shastri. The Council also welcomed the appointment of the new Chairman, Railway Board, Sri P. C. Mukerjee. Sri Jagjiwan Ram said that he would try and continue the good work done by his predecessor in office.

TOURISTS FROM U.K.

A proposal for a familiarisation tour in India in March 1957, of a group of travel agents from Europe, including a few from the U.K. is now under consideration and their tour programme is being finalised.

The figures of tourist arrivals from the U.K. revealed that the visit of British tourists to India had been progressively on the increase during

the last few years. Reports received from the Government of India Tourist Office in London revealed that the number of enquiries, in person and by post, received by that office from the British public about tourist information regarding India had been on the increase during the last few months.

A Government of India Tourist Office had been set up in London since July 1955, and the office had been doing useful work in publicising the tourist attractions of India. A party consisting of the editor, photographer and two "models" from the influential "Vogue" magazine in London, visited India in August last and they published a special article on India in its November issue. This is expected to produce some good results in the development of tourist traffic from the United Kingdom as the magazine reaches the type of readers who have both money and inclination to travel abroad.

SRI L. T. MADNANI, NEW RAILWAY ADVISER IN U.K.

Sri L. T. Madnani has been appointed as the new Railway Adviser to the High Commissioner for India in the United Kingdom, in place of Sri R. H. Da Costa who is returning to India to take up another appointment.

Sri Madnani joined the railways more than 28 years ago. He spent over six years at the Chittaranjan Locomotive Works, where he was responsible for laying out and setting up the production of locomotives. He joined the Railway Board in 1955 as Joint Director, Mechanical Engineering, and was earlier this year promoted Director, Mechanical Engineering. Recently, he was placed on deputation with Messrs. Hindustan

Machine Tools Limited, Bangalore, to advise them on the designing and lay-out of a new grey iron foundry for high quality castings.

Sri Madnani served his apprenticeship at the Crewe Locomotive Works in United Kingdom. He visited the United Kingdom again in 1949 for official work in connection with the Chittaranjan Locomotive Works. In 1953, he went to Japan to assess the locomotive manufacturing capacity in that country and to initiate the Indian Railway inspection organisation.

DENTAL FACILITIES FOR RAILWAYMEN

A fully-equipped dental clinic is to be attached to the headquarters hospital of each of the seven zonal Railways and also the Chittaranjan Locomotive Works. The clinic will be in charge of a full-time dental surgeon.

At district railway hospitals, too, the minimum dental equipment necessary will be provided and the services of local and outside dentists will be secured.

Dental service at these clinics will be available to railway employees as well as their families.

No charges will be levied for normal cases of dental consultation, such as extraction, scaling, cleaning, etc. But for other cases a schedule of charges would be prepared by each Railway, and the recoveries made from the staff will be credited to the Staff Benefit Fund.

LITERACY DRIVE ON RAILWAYS

A vigorous drive to increase literacy among railway employees is now under way on railways throughout the country.

Instructions have been issued to all railway administrations that no person should, in future, be employed in any post, temporary or permanent, unless he is literate. The recruitment of illiterate persons has been made permissible only in categories like sweepers, and that too only when literates are not available for employment.

The Railways have also been advised that libraries attached to railway institutes throughout the country should be provided with simple, attractive and interesting literature for the benefit of neo-literates.

Only such of the railway employees who have adequate training in adult education are to be allowed to take adult literacy classes.

The Railway Board has also issued instruction that adult classes should be thrown open to adult members of the families of the railway employees also.

MODERNISING RAILWAY SIGNALLING

The Railway Board has sanctioned a Rs. 22 lakhs scheme for improving signalling facilities at the eight stations situated between Wardha and Balharshah on the Delhi-Madras section of the Central Railway. These stations will be provided with modern interlocked signalling.

At present, these stations have a signalling system worked by hand levers which severely restricts section capacity, besides perpetuating hazards inherent in non-interlocked working.

The interlocking of stations will ensure greater safety and speed in the operation of trains, and also help in stepping up line capacity.

RESEARCH ON INDIAN RAILWAYS LUCKNOW CENTRE'S ANNUAL REPORT

Details of the progress made in research work on the Indian Railways are given in its annual report for 1955-56 published by the Railway Testing and Research Centre at Lucknow.

The Centre functions directly under the Railway Board, in charge of a Director, at present Sri S. L. Kumar.

Among the important investigations carried out at the Centre during the year were trials in connection with the running of high speed vestibuled air-conditioned train services on some trunk routes; development of cycle trolleys; use of loco coal ash as building material; performance of different types of sleepers in the track; formulations for compounds to prevent corrosion of rails; design and construction of better instruments for measuring forces exerted by locomotives, riding quality and comfort of coaches, pressure exerted by soils and development of paints and varnishes.

Successful designs of broad gauge and metre gauge trolleys capable of being pedalled without fatigue by one man at a time at a speed of 8 miles per hour when carrying a load of about 1,200 lbs. were finalised. Only two trolley-men would be required in place of four for running these trolleys, which are light enough to be removed off the track by two men without any difficulty.

UTILISING LOCO ASH

Nearly 1.5 million tons of loco coal ash are annually produced by the Railways, and a large quantity out of

this goes to waste. This material has been successfully used by the Centre in building-materials and attempts are now being made to pulverise it when it can replace a portion of cement in concrete work without affecting strength. The economics of pulverisation are being studied.

An unusual complaint of bug nuisance was received frequently from passengers travelling by the Bombay-Poona Janata Express. Two samples of insecticidal varnish sent to the Central Railway by the Research Centre were found effective in destroying the bugs and also in preventing re-infestation for a period of two months.

Research is also being carried out on bridges and structures as well as on the effect of wind pressure on platform shelters.

The report says: "Our investigations have convinced us that there is a wide field of study in railway engineering, whether in the track work or in the design of locomotives and rolling stock. Indeed, almost the whole problem of track-in-relation-to-the vehicle remains unsolved."

The Centre publishes a quarterly journal called the "Indian Railway Technical Bulletin." Documentation Notes giving a survey of technical literature are issued every month to all the Indian Railways and to a number of Railways outside India, particularly those in the EC&AFE region.

DRAMA IN MOVING TRAIN WHO PAID THE FINE?

A mysterious sadhu was recently the chief actor in a ten-minute drama enacted in a moving train. The

"supporting cast" included two college students of Etawah, in Uttar Pradesh.

The scene was a second class compartment in a train going from Agra to Allahabad. As it stopped at the Etawah station, the two students got in, bound for Ekdil, six miles away, to appear for an examination.

As they were about to sit down their eyes fell on a fellow passenger—the travelling ticket examiner on duty. Kishan and Prem, the two collegians, carried no tickets.

They looked too upset to escape the T.T.E.'s trained eyes. The uniformed official asked them to pay up the fares *plus* the penalty—or to face the law at Ekdil station. But the boys were loathe to spend their good money this way. An altercation ensued, and hot words were exchanged.

Dramatically, a bearded sadhu who sat quietly in the same compartment rose from his seat and drew the irate T.T.E. away from the boys. He asked the official what the dues were—and paid up Rs. 12 towards fare *plus* penalty. With a smile he persuaded the incredulous and protesting T.T.E. to issue a receipt.

Speechless calm followed in the compartment. Kishan and Prem, confused and shamed, kept staring at the bearded gentleman, a complete stranger to them. The train pulled into Ekdil station. The sadhu walked out without a word to any one. The two collegians now bestirred themselves and ran after the sadhu, spluttering apologies, offering to make good the money and promising never again to travel without tickets.

The incident is recorded in official documents.

Copy of D.O. letter No. CRB/45/56, dated 1st January 1957, from Sri G. Pande, Chairman, Railway Board, to Sri T. A. Joseph, General Manager, Southern Railway.

I am writing this letter to you on the last day of my active Railway service. While bidding you good-bye, I must convey to you my grateful thanks for the help and co-operation that I have received from you in such a large measure and at all times. I should also like to express my appreciation of the excellent manner in which you have conducted the affairs of your Railway during my tenure as Chairman of the Railway Board. We have been companions in times of great stress and strain. I have watched with admiration, the courage and determination which you have brought to bear on the solution of difficult problems. Through you I would also like to thank all your Officers and the other categories of staff who have, regardless of personal inconvenience, carried on the great task of managing the Indian Railways and "delivering the goods".

Generally speaking, Indian Railwaymen are the perpetual target of criticism. The wonder, however, is not that we are criticised, but that the criticism is not more severe, considering that bottlenecks in the movement of traffic continue, and there is no abatement in the inconvenience resulting from overcrowding on certain sections. Perhaps the criticism is tempered by the realisation of the difficulties under which we are working and the sincerity of purpose which guides Railwaymen in their determination to remove the bottlenecks in order to create conditions of easier transport and more comfortable travel within as short a time as money, material and manpower would permit. With the great task that the Government and the people of the country have undertaken to accomplish during the Second Five-Year Plan, which of course will have to be continued with still greater vigour during subsequent Plans, the future is one of hard work and strenuous effort. This is inevitable if we are to strive for the goal of a brighter existence. And, I have full faith that—come storm, come rain, come sunshine—Railwaymen in India will do their duty to the best of their ability without any trace of timidity and with abundant courage. AND WILL NOT LET THE NATION DOWN.

Those of my colleagues who have recently returned from foreign countries and who have studied the working of foreign railways, have come back convinced that, by and large, in the hard work that they put in under difficult environmental and technological conditions, and in the efficient utilisation of the assets that we possess in the circumstances in which we are placed, the Indian Railwaymen are second to none in the world. This should be a source of great satisfaction to all of us.

I have the confidence that under the guidance of my successor, you will add to your laurels. In bidding you good-bye, I wish you, your staff and your officers good health and all prosperity in the next year and for the years to come.

Copy of D.O. letter, dated 7th December 1956, from Sri Lal Bahadur Shastri, Minister for Transport and Railways, New Delhi to Sri T. A. Joseph, General Manager, Southern Railway, Madras.

My resignation must have come as a surprise to you. The decision on my part was no doubt sudden but prompted by the best of motives. Accidents are a bad feature of the Railways and any complacency would be dangerous. In fact the problem has to be tackled vigorously and with determination. However I am writing this letter with another purpose altogether. I am happy that I came in direct contact with each and every head of the administration and got an opportunity to know their worth. During the last few years the Railways under your charge have shown drive and executed a large number of purposeful schemes and tackled the difficult problem of transportation with imagination and great perseverance. I know so well how heavy a burden you carry today and how fast it would be growing from day to day. The administration or the man at the head, is really tested in so many ways in the midst of strife and storms, but I have every hope that you will never be found wanting. You are men of parts and there is hardly any aspect of the administration you do not tackle. I wish others knew about it as I happen to do. I would humbly suggest that the spirit of service has to take the highest place in every activity of ours in spite of the occasional irksomeness which it might involve.

Relationship with the staff is of the utmost importance. A fair, just and sympathetic deal is so essential which I am sure would evoke the right response. But I do feel also that the Unions of workers have to change their outlook and approach altogether. Work and efficiency will have to be given priority over everything else, otherwise the whole edifice might one day crack. May I, through you, appeal to all the workers who are in charge of the biggest national undertaking to think over this coolly and take definite steps in this regard. Without their hard and efficient work and fullest co-operation no real progress would really be possible.

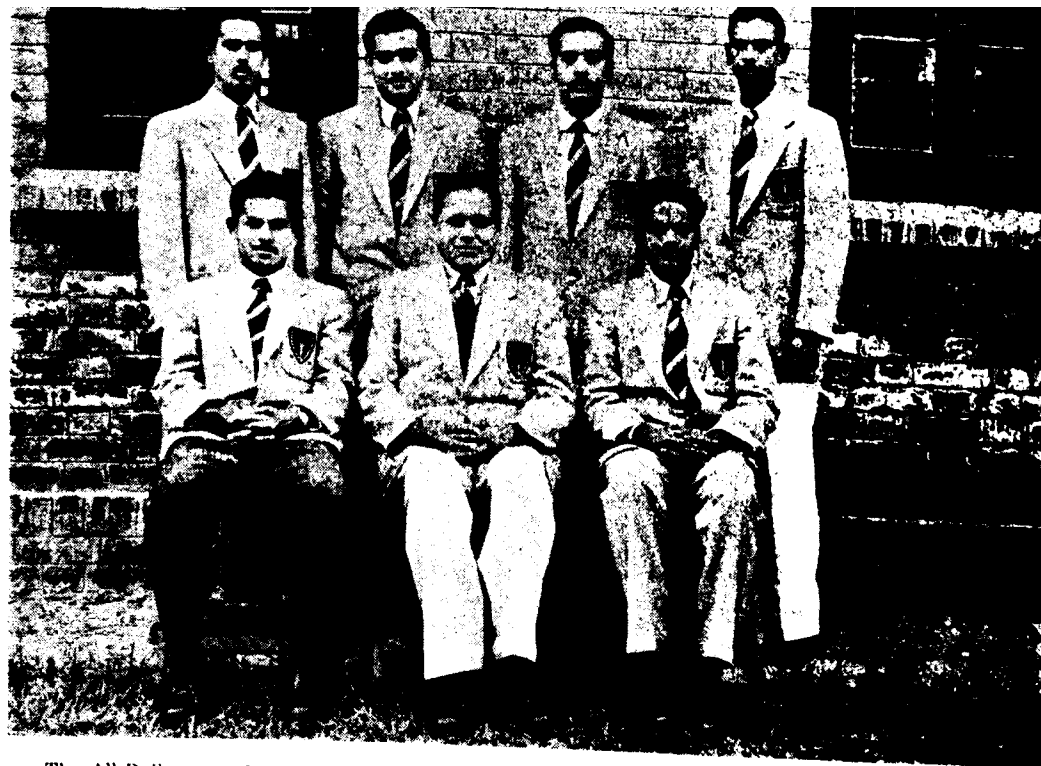
I have to thank you deeply and, through you, other officers for their co-operation which I valued most throughout the tenure of my office and I hope when I go out I carry with me all their good wishes. My sincere and warm greetings to you and all workers and staff!



Sri Lal Bahadur Shastri

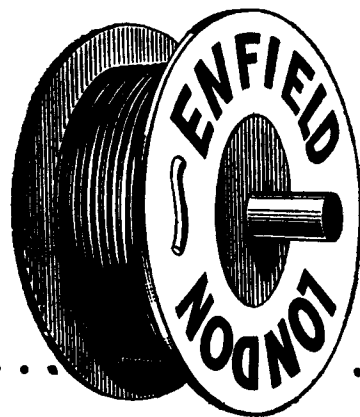


Sri G. Pande



The All-Railway combined team which took part in the 19th National and Inter-Association Table-Tennis Championship held at Saharanpur, U.P., in the last week of December 1956. The Railway team lost to Bombay in the finals. Photo shows Left to Right—Sitting: K. Nagaraj (S. Rly.); S. N. Gopal, Asst. Secy., R.S.C.B. (Manager); T. Thiruvengadam, Captain (S. Rly.). Standing: B. N. Lahiri (E. Rly.); S. Mukerjee (E. Rly.); M. S. Sabharwal (Rly. Board); T. G. Tirumalaiswami (S. Rly.).

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WORLD OF RAILWAYS

ARTHUR L. STEAD

Our London Correspondent

TWENTY miles east of Trondheim, on the sinuous main-line of the Norwegian Railways that pushes its way through the snow-capped mountains to the Swedish border, there is situated a little railway station rejoicing in the name, "Hell".

The name very aptly reflects working conditions for our Norwegian friends, battling with the elements on the world's most northerly rail system—actually an even "further north" undertaking than that of snowbound Alaska.

The Norwegian Railways celebrated their centenary a couple of years ago.

When the first Norwegian line was opened in 1854, between Oslo (then called Christiania) and Eidsvoll (42 miles), there were many who gloomily prophesied disaster for the "Iron Way", declaring that it would be madness to attempt to operate steam locomotives through such difficult country.

Dogged determination of the construction and operating forces combined to confound the pessimists. Mountain ranges, fiords, rivers, lakes and winter snow and ice, all were overcome and today the Norwegian Railways successfully operate, right "on top of the

world," as one might say, 2,737 miles of 4 feet 8½ inches gauge track serving all parts of the country.

Like so many other lands, Norway owed her first railways to the Stephensons. It was Robert Stephenson—son of the "Father of Railways" and the builder of India's first railway—who constructed the first Norwegian line; and Norway's pioneer steam locomotive, the English-built "Caroline", was shipped across the sea to handle the first train to run over the Christiania—Eidsvoll route.

"Caroline's" first driver—a Mr. Graham—left England to settle in Norway and raise a family. In September 1954, a Norwegian great-grandson of Driver Graham proudly occupied the cab of "Caroline" as, under her own steam, she headed the railway centenary procession out of Oslo.

Norway is approximately 1,100 miles long from north to south, narrowing at one point in the Arctic Circle to as little as 25 miles. The country forms the western portion of the Scandinavian Peninsula, and a feature is the complex combination of deep fiords running in from the Atlantic, and high mountain ranges traversing the land from north to south.

From the capital city of Oslo, there proceeds westwards to the Atlantic seaport of Bergen one of the most important and spectacular of Norwegian railway routes. Completed in 1909, the 307-mile long Oslo-Bergen line crosses Norway at its widest point, running for the most part through picturesque mountain territory. Its highest point, near Grjotrusti, lies 4,330 feet above sea-level. Its maximum gradient is 1 in

50, and its sharpest curve has a radius of just over 600 feet. While the St. Gothard and Brenner Railways, for example, in the Swiss Alps, climb as high, they never ascend above the tree-line, as does the Bergen Railway for a stretch of about 60 miles.

In some places on the Oslo-Bergen line, shelves had to be cut out of the sheer rock to take the track. 183 tunnels, totalling in length 45 miles, had to be built, the work proceeding non-stop, day and night, winter and summer. Snowdrifts, gales and blizzards, added to construction difficulties, and the granite rock formations meant that, in places, the route had to be literally ground out of the mountains inch by inch.

Out of a total network of 2,737 miles of track, no fewer than 117 miles of tunnel are found on the Norwegian Railways, varying in individual length from 5½ miles downwards. A special feature is the circular tunnel, which enables trains to climb spirally inside the mountains and emerge directly above the spot where they entered. Bridges on the Norwegian system number 3,000, with a total of 21 miles.

In addition to the Oslo-Bergen line, there operate from Oslo numerous trunk routes. One proceeds north to Trondheim and Lonsdal, just inside the Arctic Circle. This route is at present being extended as far as Bodo, 800 miles north of Oslo. A second main-line runs south to the seaport of Christiansand, proceeding westwards from there along Norway's picturesque southern seacoast to Stavanger. Two main-lines, running south and east respectively from Oslo, connect with the Swedish railways and the main European rail network.

Completing the Norwegian rail undertaking is a unique line right within the Arctic Circle. This route goes inland from the Atlantic seaport of Narvik to the Swedish border, where it connects with the Swedish Railways. Principal business handled over this—the world's most northerly railway—consists of electrically-operated iron ore trains from the Gallivare and Kiruna mines for shipment at Narvik.

Single track is the general rule on the Norwegian Railways, with passing places at the principal stations. Most main-line trains halt at the larger stations for periods of from five to fifteen minutes. As the train comes to a halt, passengers make a bee-line for the station restaurant, where a

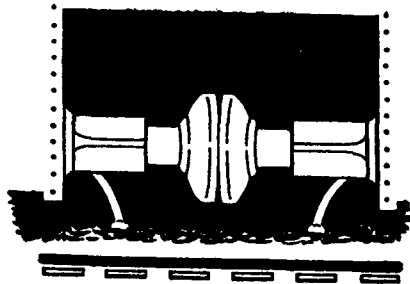
variety of delicious snacks and beverages are on sale. Dining cars on the principal trains mostly are patronized by foreign tourists. The Norwegians seem to prefer to share with their fellow passengers the cheery rough-and-tumble around the station eating-houses.

About 500 miles out of the total of 2,737 miles of Norwegian rail tracks are operated electrically, the remaining routes mostly featuring steam locomotives. Principal electric routes are those between Oslo-Stavanger and Oslo-Stockholm.

Electric locomotives haul many Norwegian goods trains, while in the Oslo region there are operated electric passenger trains formed of motor and trailer cars on the multipleunit plan.

Myrdal station, on the Oslo-Bergen main-line of the Norwegian Railways in the grip of the northern winter





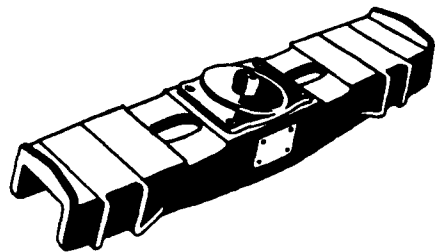
Probably not—unless, of course, you're building railway wagons! Bogie bolsters provide the pivot point and carry the load too. Naturally we, at Mukand, are interested in bogie bolsters because we manufacture them. But they are only one of the many items we cast for the railways. Among the others are:

buffer plungers and casings, axle boxes, cross heads, drag castings, bogie columns, steam elbows, brake hanger compensating beam brackets, etc.

The Second Five Year Plan calls for a total of 1,20,869 new locomotives, coaches and wagons. All this means that there will be a vast demand for railway parts. The Mukand steel foundry—one of the few casting these—is working round the clock to meet the needs of Indian Railways. By 1958 we plan to produce at least 7,800 tons of steel castings annually. And as our expansion programme gathers momentum we at Mukand will contribute more and more to India's industrial progress.



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The Central Passenger station of the Norwegian Railways at the Atlantic seaport of Bergen

The Narvik-Kiruna-Gallivare iron ore railway, in the Arctic, is electrified throughout on power secured from local waterfalls. Each iron ore train is composed of from 40 to 50 wagons, with a total weight of over 2,000 tons. That is truly modern railway working on top of the world !

An exceptionally high standard of passenger comfort prevails on the Norwegian Railways. On some main-line trains, cleaners are included in the regular crew. At frequent intervals, these employees go through the train, inspect carriage interiors, and keep everything spotless. Two classes of passenger accommodation are provided, and most modern Norwegian carriages are of all-metal construction.

Although there are direct steamship links between Norway and Britain, many travellers prefer to travel overland by through-rail service. A popular route from London is that *via* Dover and the Belgian port of Ostende. From Ostende, through carriages operate on the "Nord Express" to Oslo, *via* Cologne, Hamburg, Copenhagen and Gothenburg. Included in this international through run are ocean-going train-ferries linking Denmark with Sweden.

Norway has for long been known among discriminating globetrotters as

a sportsman's paradise, and the Norwegian Railways provide many special services for sports lovers of all types. An example is found at Lake Tauggeratn, 4,000 feet above sea-level, on the Oslo-Bergen route. This lake is frozen solid even at midsummer, and skiing is possible throughout the twenty-four hours during May and June because of the Arctic phenomenon known as the "Midnight Sun". The railways take ski-ers right up to the lake and operate a fine hotel for their benefit.

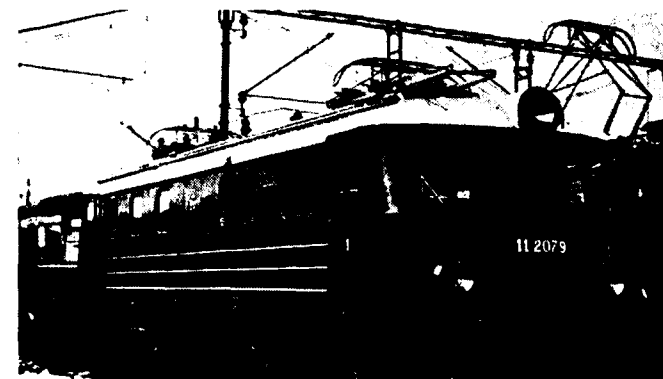
Winter railway working in Norway is normally one long battle with the elements. Summer visitors, admiring the mighty glaciers alongside the train tracks, the tumbling waterfalls, and the sheer precipices that send a thrill down the spine as you pop your head out of the carriage window, probably never give a thought to the hazards faced by the Norwegian railway family in maintaining winter communications.

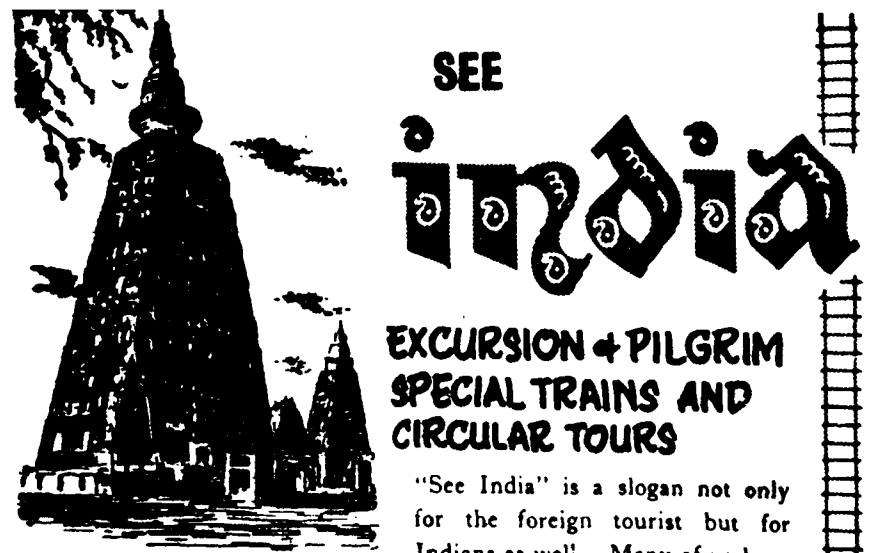
If ever railway employees faced grim conditions, it is surely in Norway's "Frozen North". There, temperatures remain far below freezing for months on end, and in the Arctic, sunshine is conspicuous by its absence from November to March.

On some routes, the Norwegian track is protected from snowdrifts by sheds of timber and metal, and

(Continued on page 31)

Latest type of light-weight electric locomotive used on the Norwegian Railways





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For detailed information, please apply to the
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THE PUBLIC RELATIONS OFFICER, NORTHERN RAILWAY



A panoramic view of the temple of Sri Veeraraghavaswami

VEEKSHARANYA KSHETHRAM TRIVELLORE

T. N. SRINIVASAN

ONE of the most important Sri Vaishnavite shrines, within the easy reach of those who live in the City of Madras, is *Trivellore*—a station about 26 miles, west of Madras (Central) on the Madras-Arkonam section of the Broad Gauge line. It is a nice, well-planned town with all the modern amenities like electricity and is considered a cheaper place than Madras. For this reason, many of the middle-class people, who, though employed in Madras, prefer to live in places like Trivellore and come daily to their office by one of very many convenient suburban railway trains. Besides this, this place is proud to possess an ancient shrine of Vishnu dedicated to the 'sayana' aspect of that deity, who is

adored by the name "*Sri Veeraraghavaswami*".

A mile to the north of the Railway station is the town proper of Trivellore and as one approaches it, the first object to attract one's attention is the huge tank with a nice little pavilion in the middle of the hexagonally shaped water-reservoir. At one time it boasted of crystal clear waters in which bathing was more a pleasure than piety. But now, it has dried up and presents a desolate appearance with weeds that grows on the tank-bed. It is customary to first take a purificatory bath in this sacred tank which has as its puranic name—'*Hrithapana-sam*'. The *sthala-puranam* of this place known as "*Veeksharanya-kshetra*

puranam” culled out of the famous “*Brahmanda puranam*” extols the efficacy of a bath in this tank, especially for those who pray for cure from diseases. Since the usual custom is to vow themselves that if they are cured they will dissolve jaggery in this tank, just in the same way as their malady disappears, it is common to see lot of people doing this quaint custom in the waters of this tank daily. The *puranic* authority is that *Siva* as *Veerabhadra* was relieved of the great sin of *Brahmahathi*—the sin of killing a brahmin, when he slew his own father-in-law, *Daksha* for the way in which the latter insulted the great god. *Siva* was directed by *Vishnu* to spend a year here in penance and to bathe daily in this sacred tank, by which the tank acquired the name. There is a small temple of *Siva* on the north-western bank of this tank, where He is worshipped with the special name “*Theertheswarar*.”

After taking the bath and finishing the daily ablutions, one goes to the ancient temple, which stands on the northern bank of this tank. Entering by a side path, the *Sannidhi* street in front of the temple is reached. Here are a few fine stone mandapams, one near the temple and two others further east of it, while at the eastern end of this street, stands a small shrine dedicated to *Sri Anjaneya*—the *sirithiruvadi*, as he is more endearingly called.

Puranic version has that when this place was an impregnable forest, when it got the name “*Veeksharanyam*,” one pious king named *Sakasranika raja* asked the great sage *Markandeya* to choose for him a worthy place for quick attainment of *yogic siddhi*. The sage selected this forest area, where the

Lord himself is in *yogic* aspect of cosmic slumber, after having slain the asura forces, that were led by the great demon *Mathukaidapa* by his all-powerful *Chakra*. This encounter and victory got for Him the name “*Veera*”—the valient.

When this place became a big city and was called *Dharmasenapuram*, it was ruled by the monarchs belonging to the family of the famous king *Dilepa* of the Solar dynasty. In this lineage came the ruler *Darmasena*, who was blessed with an only daughter by name *Vasumathi*, who was very beautiful and charming. She was no other than *Sita*, the consort of *Sri Ramachandra*, whom *Sri Raghava* abandoned at the time of his performing the great *aswamedha yagna*, when he had a golden image of *Sita* in the place of his beloved spouse, then living in the hermitage of the sage *Valmiki*. As both of them felt much for the separation, *Sita* was born again as the daughter of this king and longed for the divine union with the Lord. So much so, this lovely princess by instinct adored *Sri Veeraraghava* of this place and to satisfy her yearning, the Lord in the guise of a comely prince chanced to meet her in the glades of that forest. The princess was immediately struck with the beauty of this divine youth and she was given in marriage to the Lord, who was no other than *Lord Sri Veeraraghava*. To commemorate this marriage with the princess *Vasumathi*, who is now known by the more popular name, *Sri Kanakavalli Thayar*, a special *Brahmotsavam* is celebrated at this temple in the Tamil month of *Thai* (January-February) for nine days, when the deity is carried to a place nearly two miles away from the Temple—*Ekkadu*, as it is called



Entrance to the sanctum sanctorum of the deity with a fine replica of the main image over the threshold

where once stood the palace of the goddess.

Later after several ages, a great sage by name *Saliyahotra muni* was going round this *Bharathavarsha* on pilgrimage. When he came to this *Veeksharanyam*, he was struck with its calmness and so stayed there to do penance. Having taken the bath in the sacred tank, he went into meditation and a full year passed by. On a New Moon day, he rose up from the trance and was preparing to take a frugal meal of rice flour. Just at that moment, an old pious Brahmin came to him and asked for food. The great sage received Him with all respects and presented to Him the rice flour that he had made for his

food. The pious Brahmin ate all the food and asked the sage a good place for rest by putting a simple question “*evvul*” which in Tamil means “which place.” The sage pointed out the spot where they were and asked the guest to rest. The guest who laid Himself down was no other than the great Lord *Vishnu*, who then presented Himself in His real form to the rishi. The sage was immensely pleased and prayed that the Lord should stay there for ever to bless His devotees and asked Him to promise the same. The Lord extended His right hand over the head of the sage and patting it assured him of His promise to comply with his request. Hence the place came to be called “*Tiruevvul*” which later changed to the more easier name of *Trivellore*, by which name it is known today.

Entering the temple through the main gate, which is crowned by a nice elegant gopuram, built in the traditional Dravidian style of temple-architecture, a big open courtyard is reached. Just in front are the thin lofty golden *Dwajasthamba*—the flag-staff, with a gold-plated *balipeetam* in front and with a small shrine in which the image of *Garuda*, the sacred bird is installed. The entrance to the *mahamandapam*, which leads to the shrine of *Sri Veeraraghavaswami*, is guarded by two stone images of the

The main entrance to the temple with the mandapams in the Sannidhi Street



dwarapalas—the divine door-keepers. Over the entrance there is a very fine sculptural representation of the deity as He is represented in the *moola vigraha* inside. He is shown as lying on the coils of serpent *adishesha*, in yogic slumber and His right hand is shown as extended over the head of the sage *Saliyahotra* when He promised to stay here as prayed for by him. His left hand is raised in *upadesa mudra*—the attitude of initiating the sacred *pranava mantra* to *Brahma*, who is shown as seated on the lotus that comes out of the navel of the *sayana Lord*. Going inside, there is a *prakaram* round the main shrine and entering the *sanctum sanctorum*, one sees the great Lord, before Whom are installed the *utsava berams* on a golden *simhasana*.

Coming out of this shrine, we proceed to the shrine of the goddess, who is enshrined in a separate enclosure and is known as *Sri Kanakavalli*

Thayar. Beyond this there are the shrines of *Sri Andal*, *Sri Rama* and the other Sri Vaishnavite *Azhwars* and *Acharyas* round the outer *prakaram*.

Many devotees, especially those who are suffering from some form of bodily ailments or other, vow themselves to visit this place and pay their homage to this deity. As in Tirupati, they pledge to tonsure their head or to dissolve jaggery in the sacred tank. So the deity here is considered a Divine Healer, and it has earned for Him the name "*Vaidya Veeraraghavan*". The concourse of pilgrims is marked on New Moon days when it is considered very auspicious to worship this deity. The *ahandam* of camphor that is lit on this day is phenomenal and it burns throughout that day, being continuously fed by the offerings of camphor that the pilgrims voluntarily put into the burning plate that is kept near the *balipectam*.

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'Hrithapanasam' tank with the temple of Siva in the background

Since two of the *Azhwars*, *Tirumalazai azhwar* and *Tirumangai azhwar* have sung *pasurams* in praise of this Lord, this temple is one of the sacred 108 *tirupathis* that the Vaishnavites hold in very great reverence. This temple is well endowed and is managed by the *jeer-swamy* of the famous *Ahobila Madam*, whose stately building is just in front of the four-pillared *mandapam* in the *sannidhi* street.

Trivellore is a nice place and a healthy one too. About two miles from here is a small colony called *Ekkadu*, which is said to be the birth-place of the goddess, when She came as the daughter of the king *Darmasena* as *Vasumathi*. There is a fine Christian missionary hospital here and an industrial school, which gives vocational training to the depressed classes.

Very near Trivellore is the recently constructed water reservoir of the Madras Corporation known as *Satya-*

murti sagar, named after the renowned orator of this state, late Mr. S. Satyamurti. This reservoir which owes its origin to the enlightened Mayor, impounds the waters of the river Kortalar and maintains a capacity of 2,500 million cubic feet of water. This artificial lake supplements the Cholvaram and Red Hills lakes that form the sources of water supply to the city of Madras, in times of severe drought. A well laid-out park and a fine pathway adorn this place and it is worth visiting in the evenings, when the entire place is brilliantly lit by electricity.

Of late, Trivellore has also become an industrial area as some factories have been started round this town. Its good location near the main railway line along with its natural resources must have attracted businessman to make the ancient sacred place commercially minded.

THE OPERATING DEPARTMENT

(I)

OPRAIL

WHAT is the Operating Department of a railway system, and what is its main function? Obviously, this department is that which controls the transport facilities available on the railway system, and its main line of action is to move all traffic offering, both passengers and goods, from point of origin to point of destination.

The transport facilities available for movement are motive power, which may be steam, electric or diesel locomotives, coaches for carrying passengers, and wagons, and other special types of rolling stock vehicles for carrying goods and merchandise of all descriptions. The executive responsible for the entire functioning of this department is commonly known as the Chief Operating Superintendent.

The Operating Department is again split up into two main sections, one known as the Goods, and the other as the Coaching. Each of these subdivisions functions under the control of a Deputy Chief Operating Superintendent, and both are answerable to the Chief. These sub-divisions are not water-tight entities on their own, as there is bound to be some overlapping of function, as will be seen later in this brief review: but both subdivisions must work in close co-ordination to achieve the most efficient results.

We can now take each part of the Operating Department and get an idea how they work.

GOODS :

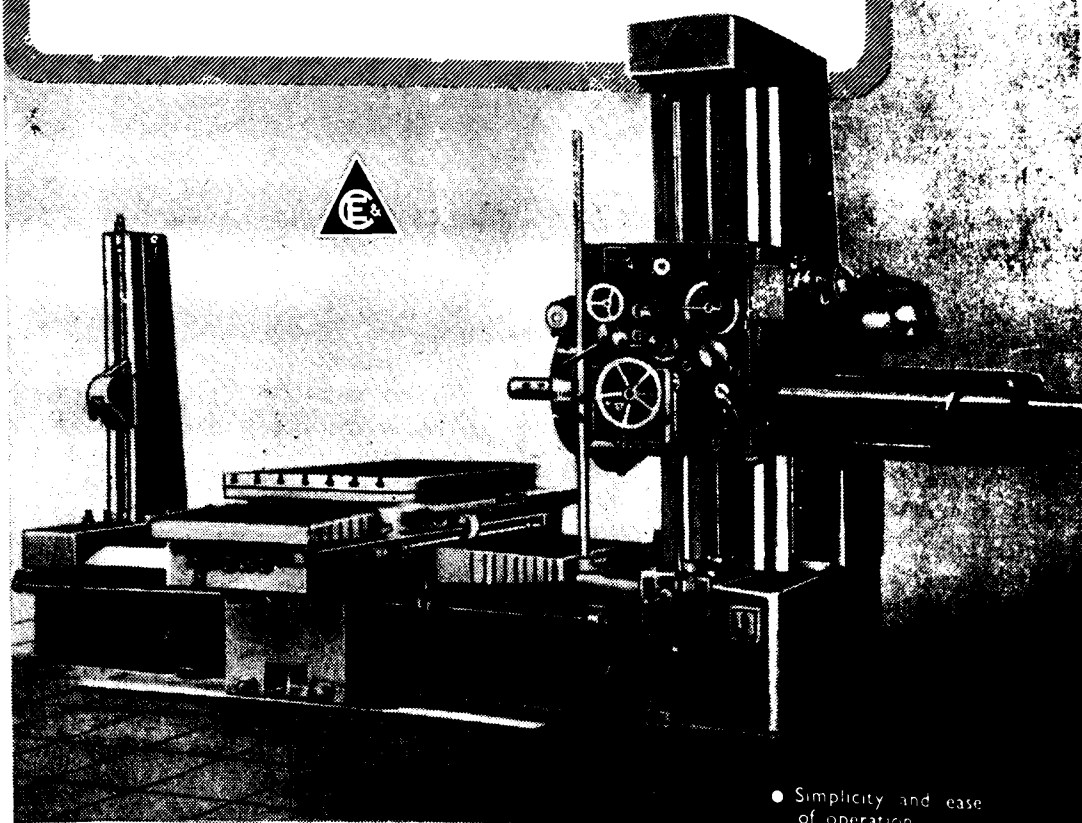
On a railway system there may be anything up to about 50,000 wagons owned by that railway, and more or less available for the transport of the thousands of tons of all types of freight and merchandise offered during the course of each year. This large number of wagons has to be made up into trains consisting of a locomotive and from 50 to 70 wagons. The trains originate from various terminals, junctions, or other specified points on each system, and have to be moved to other terminals, junction points, etc., on its home line, or to connecting points on continuous railways. On the way a number of these trains have to be broken up, regrouped, marshalled, etc., usually at points where there are large sorting and marshalling yards.

From nearly every station on the line, through the divisional and district control offices, information of the movement of every goods train, and every wagon, keeps pouring in *via* the telegraph wires or telephone to the headquarters office of the Operating department, where a large number of goods vehicles, both loaded and empty, is available.

All this information is collected and tabulated by trained personnel at headquarters, and every morning by about 10-30 A.M. this vital information is on the desk of the Chief. By scrutinising all this information with an

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expert eye, the Chief and his Deputy Goods, know the exact position of goods operation over the entire system. The Chief, knowing what and where traffic has to be moved, now issues his orders for day-by-day movements.

These orders are then passed on by the Deputy Chief and his subordinate officers at headquarters, by telephone and wire to divisional and district headquarters. From thence the District Operating Officers, pass on their orders through the control offices to individual junctions, stations, and large marshalling yards.

All this may appear rather simple when stated so briefly, but the complexity and wide range of problems arising in day-by-day operation are immense. For instance, large-scale movement of foodgrains sponsored by a State Government have to be arranged expeditiously. This requires expert planning and co-ordination, as a number of special goods trains over the course of a specified period has to be provided.

Then again, for some reason or other, a large yard responsible for regrouping and marshalling trains to foreign railways, may suddenly become clogged with both loaded and empty stock, causing a temporary bottleneck. This bottleneck has to be cleared quickly, as the repercussions of such a situation are felt not only on the home line, but on contiguous systems also. An accident causing obstruction and damage to a particular important section of the line suddenly upsets the smooth flow of trains. Until this is restored to normal, masterly planning by means of diversions, etc., must be resorted to and trains kept moving with as little interruption as possible. The examples cited are typical, but

there are hundreds of such which every Operating Officer, with the Chief as the final authority, has to tackle in the normal course of their work.

COACHING :

The Coaching side is responsible mainly for the movement of passengers and light traffic only. Here too the unit of operation is the train, consisting of the locomotive and from 12 to 14 passenger coaches. Given the locomotive and coaching stock available, the estimated number of passengers to be carried, the Chief, assisted by his Deputy Coaching, has to provide an adequate number of trains mail, express and passenger through-trains, as well as branch and sectional trains, over the whole system. Each one of these trains is planned to run to a strict time-table schedule.

The efficiency of the coaching department is judged on its ability to run every train provided 'on time,' i.e., according to the timings published in the time table. The day-to-day running of all important mail and express trains is watched closely by the Deputy Coaching and his Officers at headquarters, by means of information that is received from all over the line and tabulated at headquarters. This information gives an indication on the train running each day, with special emphasis on punctuality. Where trains are not running to schedule, the causes are analysed at headquarters, and action taken to eliminate time-losing causes.

An important part of the Coaching side is the Time Table section, which functions under a Time Table Officer. This section is responsible for framing the time table of the whole railway system. Several months before a new

issue of a time table is to be published, the time table staff are working out on charts the movement of every train to be run over the line, taking into account such factors as the type of locomotive, the speeds permissible over the various sections of the track, capacity of sections, yard and passing loop facilities, density of traffic to be moved and so on. The time schedule of each train must be so meticulously planned, that no error is allowed to creep in. A glance at a railway time table will soon convince anyone of the complexity of the problems that are overcome and the careful planning that is done.

The Coaching section also has a number of other problems to solve : mainly to satisfy the insistent demands of a vast travelling public. More and faster trains are wanted, extra coaches on existing trains, facilities for reservations of berths and seats and so on. All such requests have to be given careful consideration and provided within available resources.

The Coaching side also deals with the subject of accidents, whether these be of a minor or major type. In most cases an accident, from a simple wagon derailment to a train smash-up, is almost sure to cause an interruption to the smooth flow of train movements.

WORLD OF RAILWAYS

(Continued from page 21)

snow-ploughs are in almost daily use in the winter. Tunnel mouths have special extensions to keep out the snow, and miles of fence protect the tracks from drifting. On the northern rail routes, trains and stations have to be kept lit continuously in winter. Conversely, in summer, artificial light-

It is for the Operating Department to plan and arrange for alternative movement of trains, and with the aid of the Engineering Department to get the obstructed section of the line cleared in the shortest possible time, so that through communication is restored. This brief digest of what the Operating Department has to do in dealing with accidents does not do it justice, but any Operating man will be able to say what it involves, and this would require several pages by itself.

This rapid review of the functions of the Operating Department can only pin-point certain aspects of its working, and it would require a complete book to cover the many and varied details. The Operating Department rarely looks into the past, but is concerned mainly with the present and immediate future. For every man in this department, from the Chief and right down to the guard in his brake-van, the gunner in the yards, the signalman in his cabin, the maxim always before him must be 'Efficient unto the minute be my work thereof,' as well as 'take very careful thought for the morrow.' Today, tomorrow and years in the future, the mail, the express, the passenger and the goods trains must get through, and on time, come what may.

ing of any kind is practically unnecessary.

Norwegian railway men and women certainly have real cause for pride in their accomplishments. There, on top of the world, a truly fine monument has been erected to engineering and operating genius.

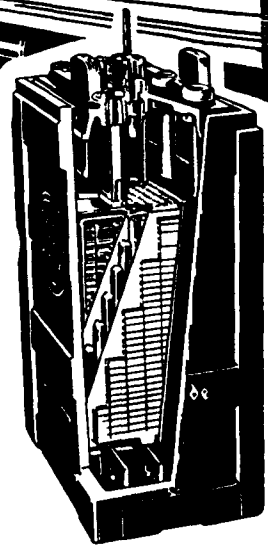
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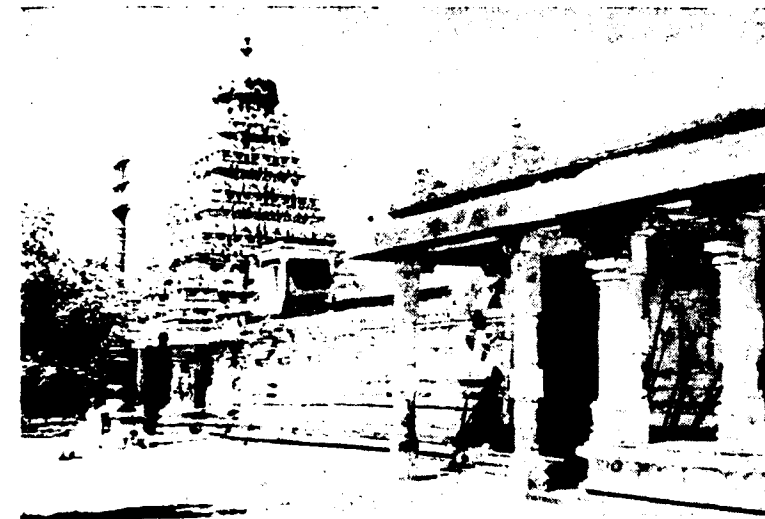
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A GATEWAY TO ADI TEVARAM—TIRUVATHIGAI

P. S. VEDHACHALAM

Publicity Inspector



Tower over the Sanctum Sanctorum and Pavilion at Tiruvathigai, built on the model of the Tanjore and Darasuram Temples

THERE are yet many places in South India which have not gained sufficient publicity, though they have been sanctified by saints and sages offering worship to the deities consecrated in them. One such place is TIRUVATHIGAI. It lies at a distance of about 2 miles from Panruti, a station 111 miles from Madras, on the Madras Egmore-Cuddalore section. Its sanctity is traced to the very origin of Creation. Religion has played a vital part in the life of the people of South India. There was a time when Hinduism and Jainism contended for supremacy in South India, about 1,000 years ago and it was the *TEVARAM* hymns composed and sung by Saint Tirunavukkarasu and Saint Gnanasambandar that contributed in a large measure to the decline of Jainism in South India. It was at Tiruvathigai

that *Adi Tevaram* was sung. The divine garland string of Tevaram hymns of Saints Tirunavukkarasar, Gnanasambandar and Sundarar is a priceless treasure to the cult of Saivism in Hinduism.

Contrary to the traditions of his family, Tirunavukkarasar became a convert to Jainism. This conversion made his sister Tilakavati, a devotee of God Siva, very sad and she prayed devoutly in the temple at Tiruvathigai for her brother's restoration to their family cult of Saivism. Her prayers were heard and the moment came. Tirunavukkarasar suffered from a bodily ailment which became incurable. He came to Tiruvathigai to his sister's abode. Tilakavati's joy knew no bounds. She attended on her brother. She bade him bathe in the temple well and led him to the

Sanctum Sanctorum. There she offered him the sacred ash, a portion of which he wore on his forehead and swallowed the rest. This had a miraculous effect and in an instant the incurable stomach pain which would not yield to medicine disappeared. Prayer works miracles. "Are not more things wrought by prayer than this world dreams?" This was a divine call to the saint Tirunavukkarasar and the *Adi Tevaram* came forth spontaneously from his lips. He was given the name TIRUNAVUKKARASAR, meaning the monarch of speech, while singing the devotional songs.

Tilakavati Ammaiyar, who had dedicated her life to the service of God at the shrine in Tiruvathigai, and Tirunavukkarasar, her brother, came to be chronicled in the list of saints in Siva temples in South India.

The shrine at Tiruvathigai and the sacred river Kedilam close by have hoary traditions, in common with the mythology and folklore of many a Hindu temple.

TIRUVATHIGAI is one of the eight sacred places in India, known as VIR-ATTANAMS in Tamil, where God Siva of the Hindu Triad has manifested Himself for the protection of the righteous and the establishment of His supreme power in the Universe. It was from Tiruvathigai that God Siva is stated to have issued a command and reduced to ashes three *Asuras* who proved a menace to the world and this mythological event is known as TIRIPURADAHANAM.

The legend about the deity and the temple at Tiruvathigai is very interesting. God Vishnu, the protecting Aspect of the Hindu Trinity, is

Sri O. P. Ramaswamy Reddiar, Sri Ilavazhaganar, Srimathi Jayalakshmi Ammal and others worshipping before the shrine dedicated to Tilakavati Ammaiyar, at Tiruvathigai, on 10-1-1957



stated to have assumed the form of *Mohini* and remained as such, doing *Tapas*. God Siva revealed Himself as *Siva Linga* at Tiruvathigai. The manifestation of *Vishnu Sakti* and *Siva Sakti* resulted, it is mentioned in *Puranas*, in the birth of the sacred river Kedilam and the river owes its sacredness to the mythology attached to it so much so it came to be known as the Ganges of the South. There is an

publicised, with a view to writing articles in this magazine. Accordingly, I have photographed the front and the interior towers of this temple at Tiruvathigai, which, as will be seen from the pictures published here, were built on the model of the Tanjore and Darasuram temples constructed by the Chola Kings. While I was at Tiruvathigai on January 10, 1957, I happened to witness a function

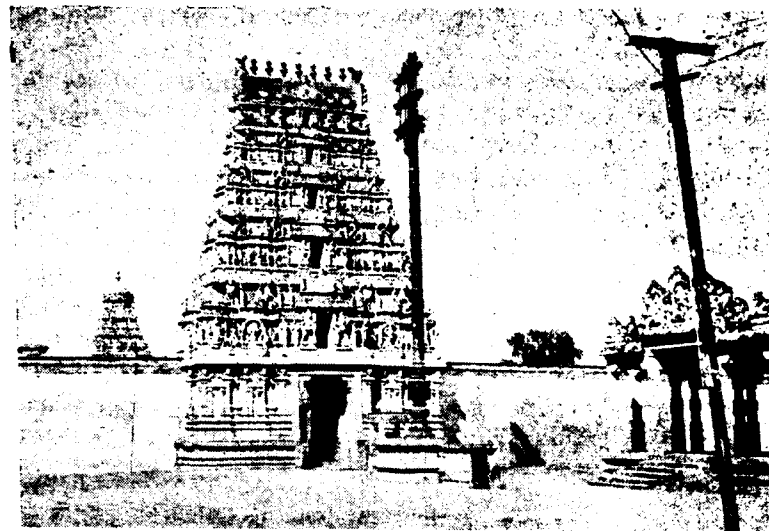


Sri N. Sankaran (Dy. Commissioner of the Madras Corporation), President, Mambakkam Gurukulam, presenting certificates to Srimati Jayalakshmi Ammal for her devotion, and her service to the shrine at Tiruvathigai

esoteric meaning to such references and to the *Siva Linga* worship, which could be explained only in a detailed article.

As one of my main duties is concerned in the preparation of notes on important and fairly well-known places of interest, the Public Relations Officer bade me turn my attention to some of the places which require to be

which was presided over by the Ex-Chief Minister of Madras, Sri O. P. Ramaswami Reddiar. The function was got up to honour a pious lady Srimati Jayalakshmi Ammal who, in the company of her husband, worshipped at the sacred shrine at Tiruvathigai and rendered service to the temple for 51 days when she spent more than three thousand rupees there. Honours were bestowed and certificates



Front Tower—Tiruvathigai

granted to her by Sri N. Sankaran, Deputy Commissioner of the Corporation of Madras, on behalf of the Gurukulam at Mambakkam near Madurantakam, organised by its preceptor Sri Ilavazhaganar. She was hailed as the modern 'Tilakavati' out of regard for her devotion and the pictures taken by me on this occasion are commended to the readers' notice.

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WHAT IS A UNIVERSITY AND WHAT IS ITS USEFULNESS

UNIVERSITY Centenary Celebrations took place in Madras from 28th January. This was a great event for the Madras University which is a venerable domicile of learning. Elaborate arrangements were made to celebrate the occasion in a fitting manner. The Southern Railway is taking part in the Madras University Centenary Exhibition.

The University is a Corporation which, in addition to the usual powers of Corporations such as the ownership of property, possesses the rights of exercising disciplinary authority over its members and conferring degrees. A University is a Corporation or Society which devotes itself to a search after Knowledge for the sake of its intrinsic value.

What ought the term University to mean but a place where every science is taught which is liberal and at the same time useful to mankind.

As pointed out by H. G. Wells, the first duty of life is to seek to comprehend clearly what our strength will let us accomplish and then to do it with all our might. The noblest of souls can find full satisfaction for his best aspirations in the sustained effort to do his duty in the work that lies at hand to the utmost that is in him. It is the function of education to teach him that there are latent in him possibilities beyond what he has dreamed of and to develop in him capacities, of which without contact with the highest learning, he had never become aware.

Investigators may be divided into two main classes: those who strive for enlightenment and those who grub for facts. The first are the searchers to

whom we are indebted for basic discoveries of new methods, fresh valuations and alternative interpretations. The second are researchers who churn over old ground. Two things are essential to research, time and tranquillity of spirit. 'He who learns from one occupied in learning drinks of a running stream. He who learns from one who has learned all he is to teach, drinks the green mantle of the stagnant pool.'

As for lecturers who are successful in the University, they limit their lecture to a known and exact time. The principles they observe are instructive not only to University students but to men in all walks of life. They are the following as enunciated by Bruce Truscot in Red Brick University pertaining to education:—

(1) Limit your lecture to a known and exact time and practice keeping to it till you can round it off to the precise minute;

(2) Divide and plan it carefully that any intelligent hearer after it is over can write down the outline of it;

(3) Speak not merely in front of your audience but to it both literally through the control and pitch of your voice and metaphorically by studying them beforehand and putting yourself in their place;

(4) Aim at making your language concise, picturesque, vivid but especially concise; and

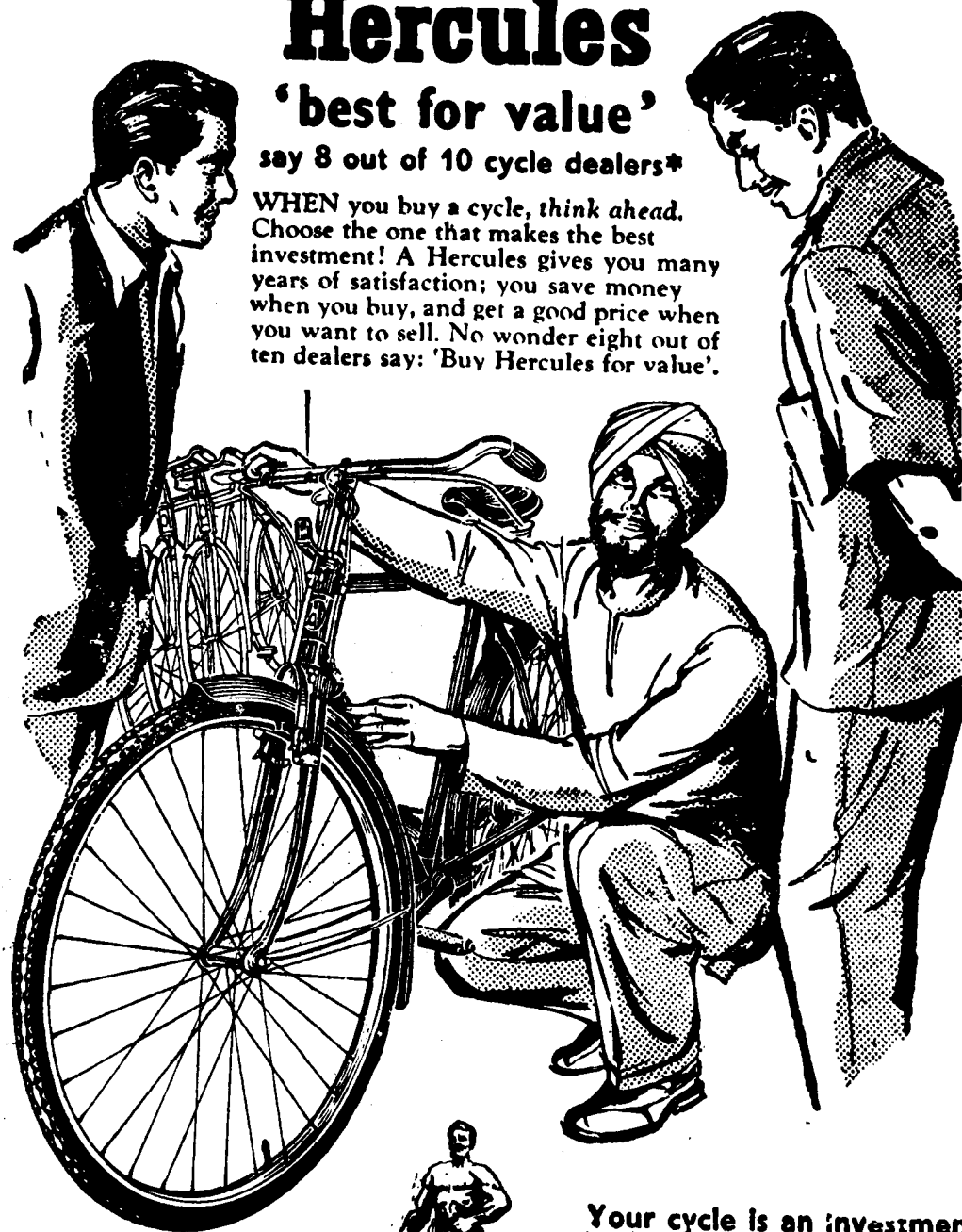
(5) Decide beforehand what impressions you are chiefly aiming at leaving and what effects you want to produce and lay your plans carefully to the end.

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PUBLICITY AND CLAIMS PREVENTION

T. A. KURUVILLA

C.C.S. Office, Madras

THE Indian Railways are paying a good deal of money as compensation claims every year. The Southern Railway alone paid Rs. 25 lacs roughly for the year 1955-56. As claims are, generally speaking, the result of bad or improper working, much of this amount paid can be regarded as wastage which could have been avoided by proper care at the proper time. Thus, claims in addition to being a drain on the Railway's resources also contribute to general discontentment among the Railway users with the result that the reputation of the Railway as reliable carriers is at stake and the Railway loses the goodwill of its customers.

It is to reduce this heavy claims bill by stricter supervision and corrective and educative measures that the Railway Administration is trying vigorously since some years and it is with this object in view that separate claims prevention organisations have been constituted on each Railway. The claims prevention organisation tries to find out factors which lead to claims and sets them right. It does this by educating the staff in the correct method of handling goods from the time it is tendered for despatch till it is taken delivery of by the consignee. For preventing claims, the co-operation of the staff as well as the consignors is required and it is here that Publicity steps in to play its useful role.

An analysis of the claims statistics reveals that a good number of claims are on account of Pilferage or extraction of contents of packages. Roughly

they constitute 40% of the total number of claims. Next in importance comes loss of packages, damage due to wet, by oil, breakage, etc. To prevent claims or in other words to remove the causes which give rise to these discrepancies the Railway Staff who handle the consignments from start to finish have to observe certain precautions to ensure that the packages accepted for carriage reach their destinations not only in time but also in sound condition. To start with the staff at the Booking station must satisfy themselves that the packages are soundly packed to withstand the vicissitudes of transport generally and if special packing conditions are applicable to certain commodities, such commodities, if any, are packed according to specifications. Then again, they have to ensure that the packages are clearly and legibly marked with the private marks of the sender to prevent misdespatch or misdelivery. As for Railway marking they have to observe the Rules laid down to the very letter. For packages which cannot readily be marked they should insist that tie-on-labels are affixed to them. They should also ensure that the weight of the packages as correctly entered in the Forwarding Note with remarks as to the condition of the packages if conditions warrant it. Then, when it comes to the next stage of loading, the staff should ensure that sound wagons are used, the wagon floors are cleaned well before loading and loading is done as per the accepted standards without submitting the packages to rough handling. Similarly,



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there are clear instructions to the staff at transshipping points, unloading stations and also for delivery of the packages eventually at destination. Or again, when perishable traffic, or C.P. bales are tendered for despatch or during monsoon season, they have to observe certain special precautions to ensure safe and speedy transit.

It is often not out of ignorance of these instructions that the staff handling consignments fail to observe them. It is an accepted fact that if the staff observe the instructions rigidly claims can be reduced substantially. Very often, as it happens, they take things for granted and as a matter of routine and are liable to overlook the fact that they may not be discharging their duties to the standard expected of them. They fail to observe any fault in what they do or fail to do because the work has become a routine for them. Hence it is absolutely essential that their pointed attention is drawn to the correct methods of working and they are constantly reminded of it. This reminder should come not in an official fault-finding way, but as a friendly approach soliciting their co-operation in rigidly observing the rules. They should be made to realize that failure or slackness on their part to observe certain rules result in mistransit or damage to consignments and causes loss to the Administration which they are privileged to serve. It is to this end that Publicity should be directed. Let us suppose that the staff are exhorted to pay particular attention in avoiding Rough handling. This message should reach them in the form of attractive Pictorial Posters displayed prominently in places where they work so that each day it can serve as a reminder to them. Or again, say, it is to

ensure the correct method of Loading. There should be displayed beautiful Posters depicting the correct method of Loading. These Posters should be changed periodically and fresh Posters with fresh designs should be substituted so that they may not lose their value by becoming stale. Whether it be proper marking or locking of vans or rivetting of wagons or avoidance of rough shunting that the Administration wants to emphasise, it can be done through the media of fine Posters produced with a view to driving home the point intended.

Publicity is not to stop with the display of Posters alone. Periodically, attractive Brochures should be brought out dealing with a particular aspect of work and distributed to staff to serve as a guidance as well as a reminder to them in the proper discharge of their work. Going one step further, the Administration can educate the staff through Documentaries dealing with causes leading to claims and the methods to eradicate them. These films should be shown to all staff connected with handling Goods and in due course, they will have a proper appreciation of the consequences of default, if any, on their part. The Southern Railway is at present screening a Film on the subject of 'Rough handling'. Our Railways may as well produce or acquire similar films for other themes also like 'Rivetting of wagons', 'Locking of Brake-vans', 'Cleaning of wagons before loading', etc., etc. Now that each Railway has two or three Cinema Projectors and special staff to operate them at its disposal, the task is made much easier.

Over and above this, there should be periodical lectures and discussions

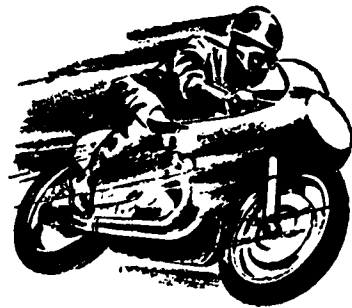
about better methods of working and staff should also be encouraged to offer suggestions for doing the job better. These measures are bound to give the staff a new enthusiasm and consciousness of their responsibility and also instil in them a desire to pay more attention to the work they are doing. This will in turn reduce the causes which lead to claims.

Apart from the Railway staff, the mercantile community who tender the packages have also a certain responsibility to satisfy themselves that the packages intended for transit by rail are properly secured, correctly marked, etc. They should also provide some identification slip inside each package and indicate the nature of contents like 'Glassware', 'Fragile', etc. or some indication as 'This Side Up', etc. The senders should also assist the staff by executing the required documents correctly and truthfully.

To make the Public discharge their part of the job promptly the Railways have not only to educate them what they should do in this respect but also induce them to do it in their own interests. For this, an extensive Publicity Campaign has to be launched through Press Notices in the various Newspapers and Periodicals. Apart from publicity in the press, there should be propaganda through the Cinema, and the Radio. Cinema slides are a very effective and economical media of publicity capable of reaching a large audience. The Radio, as it is, is a publicity vehicle which the Railways have yet to make use of for soliciting the co-operation of the Public.

The Public should be told of the correct method of marking, labelling,

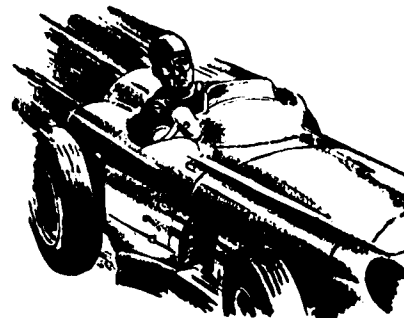
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packing, etc. The packing conditions prescribed being the minimum required, the Traders should be encouraged to pack their goods even above the required standard. There should be frequent discussions with the various Trade Associations and Chambers of Commerce and they should be asked to evolve better packing methods for specific commodities that will serve better. Instead of asking the merchant to pack his Goods as per P/31 or P/27 it would be desirable to show him what it is by exhibiting a properly packed package and a defective one side by side: so also in regard to labelling, marking, Documentation, etc. In fact, every major station or Goods-shed should have on display some model packages which satisfy the requirements of packing, labelling, etc., to serve as a guide to the consignors. Such packages may also be sent through a mobile van to the various out-stations on the line for the benefit of the merchants there.

Of course, the Railways are doing a good deal of publicity on these points at present. The Claims Prevention Organisation on the Railways have done much in reducing the causes that lead to claims by Publicity both among staff and the Traders. The P. L. M. Campaigns and other 'Drives' regarding 'Stop Rough handling and rough shunting', 'Locking of Parcel Vans', etc., have effected an all-round improvement besides creating claims Prevention consciousness in the Staff. But much has to be done still. For this, the Railways should intensify their Publicity Programme. Publicity to be effective should not be sporadic but regular and consistent.

Some may, doubtless, question the wisdom of spending money on Posters and other publicity materials and may refuse to believe in their effectiveness. But if visual publicity has any value in any other context, it will definitely have a marked effect in this respect also; and publicity has been found effective right from changing the buying habits of people to shaping the ideology of a nation. During the first P.L.M. week organised in 1951 it was observed that as many as 40% packages were defective according to P.L.M. standards. But during the sixth P.L.M. week conducted in 1954, the percentage of defective packages had been reduced to 15. The percentage of packages defectively packed, labelled or marked by Railway staff themselves, had during this period been brought down from 28 in 1951 to just over 9 in 1954. These facts are concrete proof of the immense potentialities of publicity in reducing claims. Other campaigns also would have definitely 'delivered the goods' though we are unable to assess the results readily. The results of the Publicity drives should not be judged by the cost involved, nor should any sudden and miraculous effect be expected. For, only sustained and regular publicity can yield the desired results and it will be tangible only after a period.

Publicity can and will definitely reduce the causes giving rise to claims and by a proper and vigorous use of publicity the Railways can, in addition to reducing their claims Bill substantially, win the confidence and goodwill of its customers—an essential factor for the successful functioning of any Nationalised industry in a democratic set up.

"Where now the city stands,
there was once naught but the city's site." OVID

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Bombay Street scene
— 18th Century



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THE BLESSEDNESS OF NIGHT

S. R. SRINIVASA RAGHAVAN

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ONE of my close friends who is a premier contemporary poet in Tamil composed a lyric on the occasion of the Pongal celebrations some years ago. It was for the purpose of an assembly of Tamil poets who were expected to sing about the grandeur of the various facets of pongal. Pongal is an essentially Tamil celebration, intended to praise the ways of God in having given a good harvest in the land. The sun attains great importance on Pongal day. The Tamil month of *Thai*, after a cold and austere *Margazhi*, is welcomed by the dawn on the day of Pongal. The sun is hailed on the day, being an essential element helping the farmers.

Naturally a Tamil poet who sticks to the conventional path ought to invite the rising sun with whom happiness in the land has its ascendancy. But my friend, the poet, on that particular occasion, did not invite the sun. On the contrary, he prayed for an eternal night, when the senses of man would be softened down into inactivity and when the mind alone could have any dominance. He expressed his opinion that the universe was too large for man's limbs to cover and that during day time all man's energies and time were wasted over the petty routines of life. He longed for a never-ending night in which he could lie down awake contemplating the universe in one sweep and living a mental life.

I was all admiration for the novel turn given by the poet against conventions.

Day time is in fact a duration in which we are somehow compelled to commit all the prohibited vices loathed by a saintly mind and the arrival of night, in my opinion, brings in a sort of interlude and interruption during which one is given an opportunity to take stock of the quality of his actions during the preceding day. Moreover I have a soulful feeling that the most precious time left to man to contemplate on God is night. God is nearer to the earth during night time, perhaps!

The beauties of the night are variegated. During summer, for an individual that has the habit of lying down in the open, the panorama presented by the skies is sufficient cud to chew. In remote villages where the modern age has not stepped in with its electric lights, the pleasant smell of greenery, wafted by the breeze during night, is a veritable boon. The distant barking of a street dog and the sound of the bells carried by a nocturnal beggar are essentially things belonging to a village by night.

Even a city gets a wholesome view during night, having shed all its ugly appearances with the passage of day. A city during night reminds one of the last days of an individual who, if he is wise, should utilise time left on earth in the contemplation of the high and the mighty Lord.

Readers might know the celebrated essay entitled "A City Night-piece" by Oliver Goldsmith. The essential

* * *

lesson drawn by the essayist in this piece given in his own words is:—

“The sorrowful traveller wanders over the awful ruins of others and, as he beholds, he learns wisdom and feels the transience of every sublunary possession.”

* * *

Night has its own charms. It is a time when very small sounds are audible, rendered musical as it were with the juxtaposition of the silence all around. It is also a time when the softest of sweet smells is carried to your nostrils, driven by a sober breeze. More than all this, night is the duration in which the animal in

man subsides and his sixth sense has opportunities to flourish.

Shelley has written a fine lyric “To Night,” the second stanza of which runs thus:—

“Wrap thy form in a mantle gray,
Star—inwrought!

Blind with thine hair the eyes of
Day;

Kiss her until she be wearied out

Then wander O'er city, and sea,
and land,

Touching all with thine opiate
wand—

Come, long-sought!”

PHOTOGRAPHY—ITS ASPECTS

G. S. RAJU

Photography as an Art.—As an art, photography offers immense scope to those who are artistically minded and have an artistic eye. Beautiful studies of child and animal life, of still life such as flowers and fruits and of natural scenery can be obtained through photography. The photographer catches all the human expressions and emotions on his film from the actual life. The art of photographic studies holds a highest place in the world today.

Photography as a Hobby.—But it is as a hobby and pastime that photography is perhaps even more valuable. While everyone may not be fortunate to have an artistic eye and become an expert photographer, it is possible for any one with ordinary intelligence to turn photography into a hobby. And the usefulness of such a hobby is manifold. There is nothing better to preserve the memory and recollections of persons, places and things than photography. Photographs of brothers and sisters at different stages of their lives will give you immense pleasure. Photographs of your parents and your relatives will be a priceless treasure to you when they are no more. It is such photographs more than anything else that can keep alive the memory of the departed. Supposing some V.I.P. (very important person) visits your place how great would be your delight if you can photograph him and add his picture to your collection! Then, suppose, you go on a tour visiting historical places, places famous for their natural scenery and other places of interest, you come back from the tour and in course of time you forget all about the places you visited or retain

only a vague recollection of them. But if you can bring back with you photographs of the places seen by you they would not only give you joy and delight in after life but would be a source of inspiration to the younger members of your family and would have great educative value for them.

Photography as a Medium of Instruction and Source of Knowledge.—As a medium of instruction and a source of knowledge, photography is invaluable. Conception of things can be formed easily and in a better and permanent manner if they are graphically represented than if they are merely described in words. The graphical representation may be by means of pictures drawn by the hand. This may not always be accurate and may not possess all the details. These drawbacks are not present in a photographic representation. For the purpose of imparting instruction, therefore, particularly to young minds, photographs are very useful. Further, it is not possible for people in one part of the world to form a very vivid idea of stirring events happening in other parts of the world or of the outstanding personalities in those parts. It is photography which by supplying pictures of all such things adds to human knowledge. Lastly, photography is the easiest means of preserving to future generations correct representations of historical events, buildings and sites and of great personages historical, political and social. But for photography would it be possible five hundred years hence to have a correct idea of what Hitler was like or how the Tajmahal looked supposing it to have been destroyed by that time?

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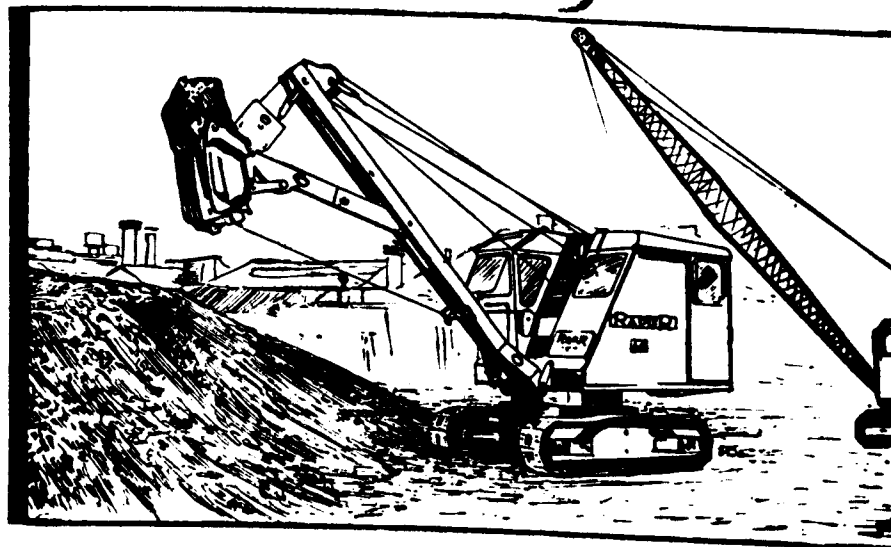
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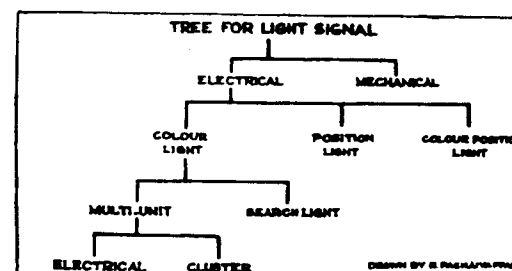
RAILWAY SIGNALLING PRACTICES

(II)

T. S. PARTHASARATHY

Deputy Chief Operating Supdt. (Coaching)

THE diagram reproduced below shows a "tree for light signals" and illustrations of the various types of light signals have also been furnished. In colour light signalling, the aspects are given by different colours such as green for "clear," yellow for "caution" and red, of course, for "danger." The principle is that the most restrictive aspect of a signal should be at a driver's eye level and hence red is always placed at that level. In a searchlight type, there is only one unit for a three-position signalling and all aspects are at the driver's eye level. If the "attention" aspect is also required, there will be another yellow at the top. In position light signalling, all lights are white lights and vertical means "clear," oblique means "caution" and horizontal means "danger." The advantages and disadvantages of colour light signalling are summarized below :



Advantages :

1. There are no moving parts except in the searchlight type.
2. Painting of arms eliminated.
3. Greater visibility and range under adverse weather and back-ground conditions.

4. Uniform indication day and night.
5. Quick operation of signal.
6. If light signal is of the position type, it eliminates the use of various colour lights and thereby difficulties of colour blindness of the running staff are relieved to a certain extent.
7. Fixation possible at driver's eye level.
8. No risk of false-clear failure due to elimination of semaphore mechanism.

Disadvantages :

1. Close up view difficult.
2. Glare at night (can be obviated by reducing voltage).
3. Phantom indication by sun's rays.
4. Limited visibility on curves (can be minimised by using wide-angle lens affording greater spread. This decreases the range but increases visibility on curves).
5. Lamp failures (obviated by (i) double lamps and (ii) standby lamps—caution in rear changes to red if lamp ahead fails).

The same colours are to be used if day and night. The day and night aspects of a position light signal should be such that the position on row of lights corresponds with the position of the arm of the semaphore signal giving the same indication.

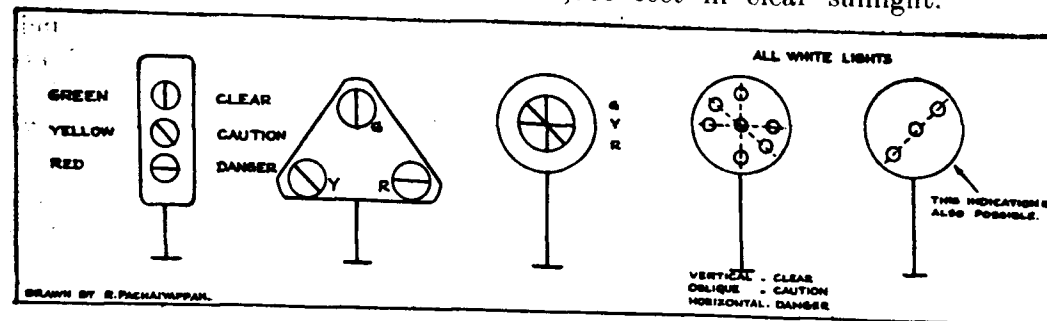
The day and night aspects of a colour-position light signal should be such that the colours are the same as

the night aspects and the position of the row of lights corresponds with the position of the arm of the semaphore signal giving the same indication.

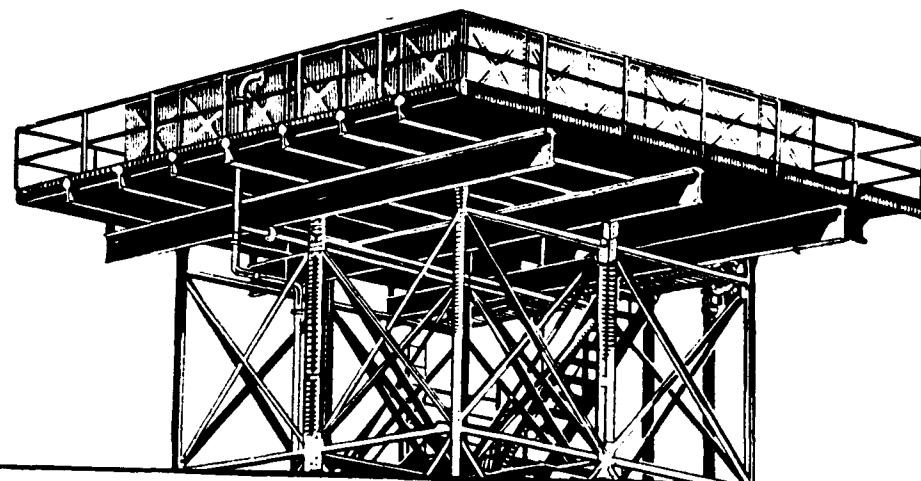
The greatest bugbear with colour light signalling is the phantom indication. A phantom indication is produced when light from an extraneous source enters the lamp compartment and is reflected back from the

interior through the lens combination, thus giving the impression to the observer of an illuminated aspect. When the sun's rays enter the lens, they give an indication that the particular unit is lit.

There are many methods of eliminating a phantom indication and a clear view can be given for 3,000 to 3,500 feet in clear sunlight.



TYPES OF LIGHT SIGNALS



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ROUTE AND SPEED SIGNALLING :

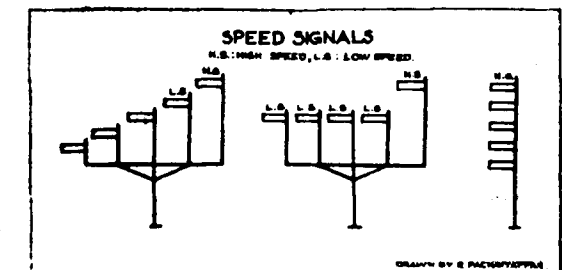
With semaphore signals, unless speeds are low, it is necessary to provide a separate arm for each route. These arms are placed horizontally in relation to the route to which they apply and their relative height indicates the importance of the route. Where speeds are low (less than 30 m.p.h.) a single arm with an indicator displaying a number or letter to identify the route can be used. Earlier installations of colour light signals followed the semaphore plan for routing but this is now superseded by the use of the junction indicator which employs only the one colour light unit with arms consisting of 3, 4 or 5 lunar white lamps to give the route indication. The use of this type of signal has the advantage of requiring less space and provides the very desirable feature that the driver does not have to pass a red aspect (with separate routing signals, there could always be red lights showing in the signals applying to the other routes). For low speed movements, the character type route indicator can still be associated with a colour light signal).

SPEED SIGNALLING :

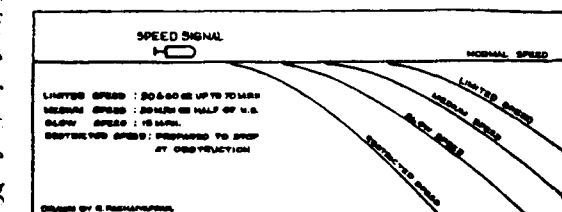
A route signal is interpreted by a driver as an indication applying to a particular line so that he can control his speed and enter the line at the speed fixed by the rules. On the Southern Railway, the entire lower quadrant signalling with bracket Homes is route signalling.

A speed signal is interpreted by a driver as direct information as to the SPEED at which he can safely operate

his train in accordance with the route set. A few types of speed signals are shown below :



In turn out of the type shown below, it is advisable to give the driver an indication of the speed at which he can proceed on the route set for him. From this standpoint, the speed signals are more useful than route signals.



As speeds are high in countries like Germany, France and U.S.A., the following are usually considered as limited speed, medium speed, slow speed, etc.

Limited speed ... 50 or 60 and upto 70 m.p.h.

Medium speed ... 30 m.p.h. or half the normal speed.

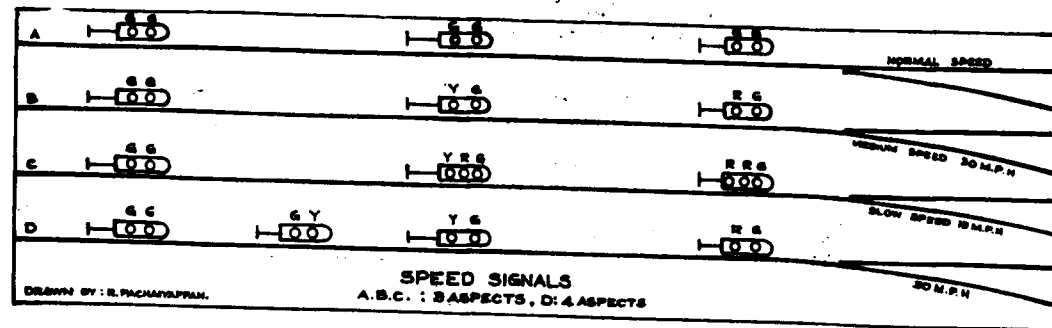
Slow speed ... 15 m.p.h.

Restricted speed ... Be prepared to stop at obstruction.

72
11/11/57, NSR NSR.3.2

The following diagram shows how 3 aspects and 4 aspects speed signals (colour light) are provided for the various speeds:

The American Railroads use so many combinations of aspects that they may be found bewildering by railwaymen of other countries. The



Two more aspects can also be made available, viz., Medium-approach and Medium-approach-slow.

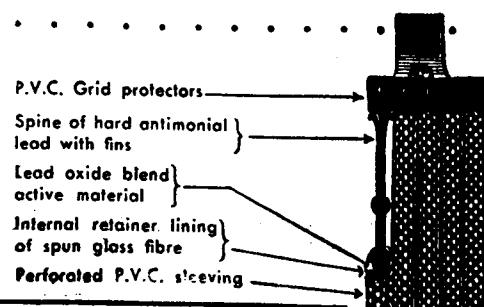
following are some of the combinations provided for in the "Standard Code of Operating Rules" published

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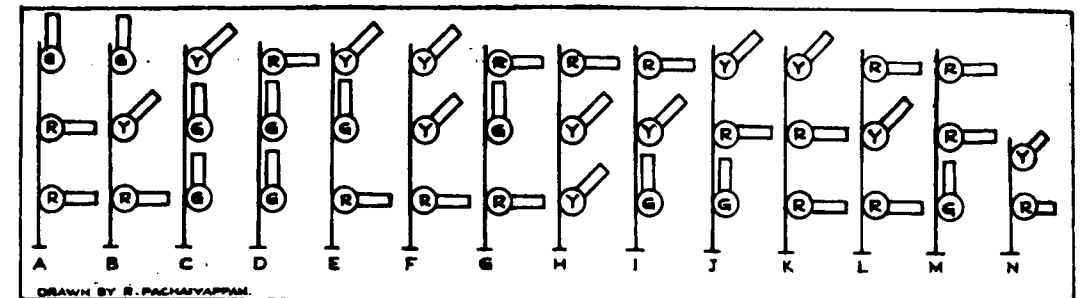
STB. 3774 (A)

by the Association of American Railroads. (See diagram below).

- A. —Clear.
- B. —Advance Approach Medium.
- C. —Approach Limited.
- D. —Limited—Clear.
- E. —Approach Medium.
- F. —Advance Approach.
- G. —Medium Clear.
- H. —Medium Advance Approach.
- I. —Medium—Approach Slow.
- J. —Approach Slow.
- K. —Approach.
- L. —Medium Approach.
- M. —Slow Clear.
- N. —Slow Approach.

(preliminary warning) aspect was given by two yellow lamps. More recently cases have arisen when even the two signal section warning given by the four aspect system was insufficient for braking and in this case, rather than introduce a fifth aspect, the double yellow indication is repeated back a further signal section (or more if necessary).

Speed signalling involves the use of 2 and sometimes 3 separate three-aspect units (semaphore or light type) on the same mast. In order to provide adequate spacing (minimum 5 ft.) between the units, the top unit of a three unit assembly has to be some 23 feet above rail level or 10 feet above



SIGNAL ASPECTS IN U.S.A.

MULTIPLE ASPECT SIGNALS:

This means the employment of signals capable of giving a number of different messages to the driver. The first multiple aspect signal was a combination of the stop and distant arms on the same post. The three aspect signal sufficed for many years but with the development of fast running and close headway suburban services, the spacing of the signals for headway reasons became too close to give an adequate braking distance between yellow and red of successive signals and it became necessary to introduce a fourth aspect. No other suitable colour was available, so the fourth

the driver's head. At this height, a great deal of the effectiveness and efficiency of a light type signal is lost. On first introduction, the speed signal system appears very complex, there being 15 different aspects listed in the rule books of most U.S.A. Railways. Even after some study, the system appears to lack the simple logic of multiple aspect signalling with route indications. While speed signalling does not rely on the driver to adjust his speed for the route being followed according to his knowledge of the road, it does mean that the driver has no means of checking that the route on which he is being sent is the correct

one. In the U.S.A. with speed signalling there are known to be 140 different colour light aspects in use and even the Standard Code shows 41 aspects. Compare this with four aspects for multiple aspect working *plus* a small number of variations on the routing signals!

LOCATION AND SPACING SIGNALS:

Signals were originally employed for the purpose of stopping trains at the approach to junctions, inter-sections, etc., and these were followed by the introduction of signals giving permission to enter the block section. The latter coincided approximately with the introduction of space interval working. As centralization of the operation of points became the practice, it was possible to interlock the levers working points and signals so that no signals could be cleared for movements which would conflict with each other. In addition, it is now the practice to provide devices to ensure that facing points over which a train has to pass are proved to be in their correct position before the appropriate signal can be cleared. The simplest signal layout, *i.e.*, for an intermediate block post, consists of a Home signal (acting also as a section starting signal) and distant (or Warner) signal. When there are connections operated from the cabin, it becomes necessary to separate the Home and Starting signals and to add such intermediate signals as may be necessary for efficient traffic operation.

When a line carries mainly through short headway traffic, such as a suburban train service, it is necessary to space the signals to obtain even head-

way rather than for station and siding operation purposes. The simplest case of a purely headway signal is the intermediate block Home signal, which is provided to split an excessively long block section. Ideally, this signal is located so that the headway (in time) of trains is equal for the two sections thus formed. This does not mean that the signal will be placed midway between the existing block posts since its location will be affected by an incidence of gradients, stations, etc. If the section is level or of even gradient throughout and trains do not stop at a station, then headway time is proportional to distance and the location of the intermediate signal can be worked out on distance only. In a section where a change of gradient occurs, the intermediate signal has to be located in respect of headway time and not distance. If there is a station stop in the section, the decision whether or not to take the station stop into consideration will depend on whether the closest headway required concerns stopping or non-stopping trains.

When a whole section of line is to be signalled for close headway working, the signal locations are best determined from a graph representing the running performance of a typical train through the section.

In all the above examples, it has been assumed that overlap clearance (adequate distance) is required ahead of each Home Signal. The need for this provision is one which must be made individually by each administration and the decision will be governed by the experience regarding the incidence of over-running and also whether or not trains are fitted with continuous

brakes. It is generally accepted that with four aspect signalling, it is permissible to reduce the length of the overlap since drivers always pass two warning signals, *i.e.*, YY and then Y, before coming to the stop signal. In countries where the Absolute Block System with the compulsory provision of an Adequate Distance is in force, the overlap is decided in the light of the rules framed.

AUTOMATIC SIGNALLING:

In general, the equipment of an automatic section must be so arranged as to meet the requirements laid down for manual block. Since there are no signalmen to ensure that the first train has cleared the section and is complete before a second train can enter the section, continuous detection of the section must be provided either in the form of track circuits or axle counters. Where overlaps or "adequate distance ahead" are called for, the controlling track circuits must be arranged accordingly. Warners must be provided at braking distance from the stop signals (multiple aspect working). Steps must be taken to ensure that each stop signal goes to the danger position after the passage of each train before a second train is permitted to enter the section. Since the signals are usually remote from signal cabins, special steps have to be taken against the failure of lamps. This can be done by proving the lamp to be all right before a train allowed to approach or by the use of auxiliary light units which are switched into operation should the normal lamp fail. In either case, it is advisable for a warning device to be operated in the nearest station or cabin in the event

of lamp failure so that it may be immediately rectified and so minimise the possibility of delays to traffic.

On single lines again, the requirements for automatic working follow the manual block requirements. Instead of there being a token to establish the direction of working, electrical direction setting equipment is employed the reversal of which is only possible when the whole section is clear. For the established direction, the intermediate block signals work as for a double line, those for the opposing direction being held at danger. Where non-attended passing loops are provided, it is possible to establish the direction of working automatically by the approach of a train to the signal giving entrance to the section. The first train to approach the signal at either end establishes the direction, provided the section is clear and this directional control remains set until the whole section is clear again. This form of control is often referred to as Absolute—Permissive Block System.

(To be continued.)

The number of public traffic wagons left in India after the partition was 1,54,232 B.G. and 51,612 M.G.

Since then, approximately 38,000 B.G. and 11,000 M.G. had been constructed in the country. The total addition to the holding during this period, including the imported stock, is 41,957 B.G. and 35,516 M.G.

ANÆSTHESIA

Dr. L. R. PARTHASARATHY, M.B.B.S., D.M.R.

Asst. Surgeon I, Railway Hospital, Madras

LESS than hundred years ago a true anæsthetic was unknown. The surgical operations in olden days had to be performed with the utmost rapidity on patients whose sensation of pains was limited by narcotic drugs and a merciful syncope. An anæsthetic is one of "God's best gifts to His suffering children". If we look back at the history of anæsthesia, Nitro oxide, Ether and Chloroform were discovered and put to medical use as anæsthetics between 1844-47 by pioneers like Simpson, Morton and Wells in England.

The object of anæsthetic is to enable various painful and unpleasant procedures to be performed on a patient without pain or distress. This can be effected either by rendering the patient unconscious by the administration of a suitable agent, by inhalation or otherwise, i.e., by true anæsthesia or by injection of various drugs which temporarily destroy the sensation of the part operated upon either by acting on the nerve-endings affected or by blocking the conductivity of the Larger Nerve Trunks which supply the part.

Now if one looks at the modern ways and means of administering anæsthesia it is bewildering what rapid strides have been made in this speciality. Certainly specialisation in branches of Medical Science is essential and it is gratifying to note that Indian Government Railways Administration has introduced appointment of Specialists in Railway Hospitals under the Five-Year Plan. It is pleasing to note that the Southern Railway is training Doctors in Government General Hospital

in this branch and the technique and standard of anæsthesia in the Headquarters Hospital, Perambur now is worth-mentioning.

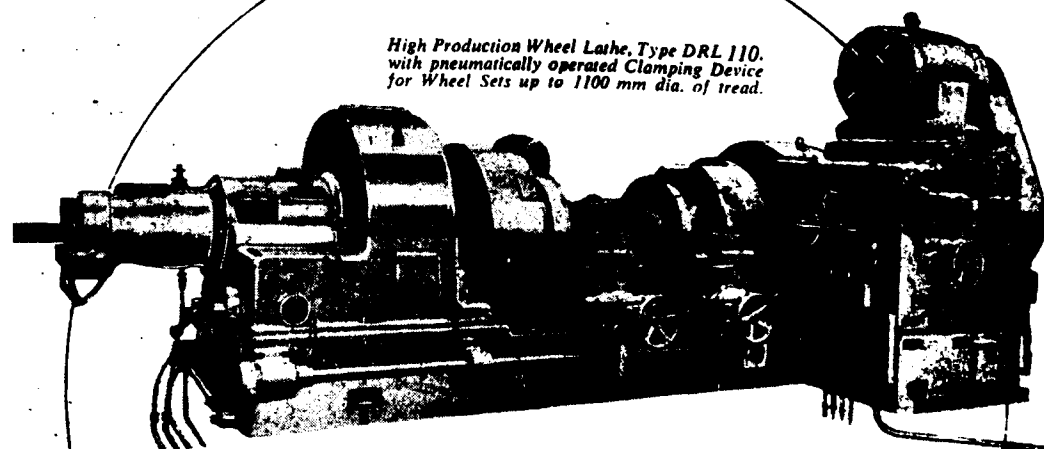
As all of you know, though doctors trained in scientific medicine are few, the number of those who practise the healing art including giving anæsthesia (a great responsibility) is enormous. Some of them have a resemblance of the requisite knowledge and training, but most have no qualification whatsoever, like the Compounders turning Amateur Doctors, the retired Government Servants who set up as Homeopaths, and the genuine or self-styled Vaidis, Hakims, Naturopaths. I wish to impress on the readers that if any one has to undergo an operation, he should get admitted in a modern hospital where a qualified Surgeon and anæsthetist are available and get the operation successfully done with uneventful recovery.

The duty of the anæsthetist abolishing the pain is obvious towards the patient. He must induce the anæsthesia free from discomfort and he must select and manage his agents so that the patients' recovery shall be as little unpleasant and as free from disturbing sequelæ as he can contrive. He should watch the patient carefully throughout the operation and this is a serious responsibility bestowed on the anæsthetist. He occupies an equal, if not a bigger, position in the hospital as the Surgeon. He is the one who advises the Surgeon which patient is a good risk and which a bad risk. He never hesitates to tell the Surgeon not



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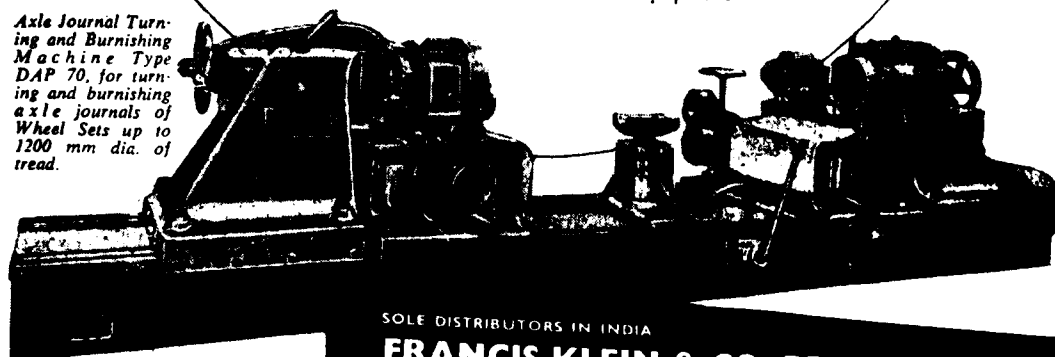
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to operate on a patient even if it is considered necessary, if he thinks his general condition does not warrant.

In modern anæsthesia, chloroform is completely tabooed as the dangers are too many. Many accidents have happened in the past due to slight over-dosage of chloroform. Nitrous oxide is undoubtedly the safest anæsthetic and it is non-toxic and widely used. Ether may be considered generally the most useful anæsthetic that we possess. But it has a tendency to irritate oral and respiratory mucous membranes. Its vapour is highly inflammable and should not be used in the proximity of any open flame.

In thoracic surgery it has long been usual, for certain operations, to administer the anæsthetic vapour directly into the trachea under pressure so as to prevent completely or in part the collapse of the lungs. This is called Endotracheal anæsthesia. Special anæsthesia is produced by introducing a specialised needle into the spinal columns and injecting an anæsthetic fluid into the spinal canal. It blocks the nerves and painful sensations are blocked and operations can be done inside the abdomen and lower extremities. Even though the patient is conscious, he does not feel the pain in this anæsthesia. Intravenous anæsthesia by which we introduce a particular anæsthetic (Pentothal Sodium) into the blood stream by ordinary injection makes the patient slowly go to sleep and finally become unconscious. Twenty years have elapsed since the introduction of this type of anæsthesia and it is now used for induction or maintenance in the majority of anæsthetics given in Britain.

Now Surgery is greatly advanced and operations are done on the Heart itself by stopping the heart for a short time. They have a type of anæsthesia called Hypothermia. Lowering the body temperature and producing a state of "Suspended animation" during which the reduced "cellular metabolism" would enable the vital organs to withstand prolonged periods of arroxæmia. When it is necessary to interrupt the circulation to specialised tissues for a short time, this anæsthesia is used and operation can be performed.

Let me end by saying that an anæsthetist is an indispensable specialist attached to any modern hospital and the safety of the patient is in his experienced hands.



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RAILROAD CONTROVERSY

K. SRINIVASAN

THE railroad controversy has had a long history in India. It is truism to say that modern industrial civilization is based upon the ability to move factors of production over long distances at a cheap rate. However, in actual practice this is often relegated to the background with consequent losses to the community. A great deal of the present controversy over rail and road transport is due to paucity of factual data and liberal use of guess-estimates. However, even with the available data, it is possible to establish the broad features of different modes of transport, by a detailed analysis. Leaving aside bullock carts which can operate within narrow ranges, we can take up discussing the railroad controversy.

Today the subject that is uppermost in our minds is the cost of transport—the cost to the country, the cost to the operator and the cost to the passenger. Wages are continually increasing and at a much more rapid rate since the end of the 1939-45 war than during it.

Goods Traffic: Considering the loading characteristics of commodities, there are large differences in weight for wagon loads of various commodities. The railways consider a classification into three categories for conveyance purposes, (a) heavy merchandise, (b) light merchandise, (c) miscellaneous and smalls. A wagon load of heavy merchandise may be about 18 tons, while for light merchandise it would be about 10 tons and for miscellaneous about 5 tons. However, though the net wagon loads are different for the purpose of railway operation, it makes little difference since the gross weight does not change correspondingly.

This shows that the railways have inherent advantages in moving heavy merchandise and coal.

The sphere of road transport should be limited to short haul traffic and light traffic, while the railways should be limited to long haul and heavy traffic. This would be a natural way of division of the spheres for two modes of transportation and a proper co-ordination should aim at achieving this.

During 1955-56, the Railways carried 115 million tons of traffic as against 120 million tons offered for carriage. This shortage of 5 million tons in the railway capacity and the consequent slowing down of production led to ceaseless and country-wide complaints against transport bottlenecks throughout the period of the First Plan and particularly in the last two years. With a gap of 35 million tons estimated towards the end of the Second Plan, the transport shortage threatens to be at least six times more acute by 1961. Water transport if expanded to its optimum capacity may meet 10 to 15 per cent of this deficiency. The remaining 85 to 90 per cent of the gap can be met by road transport—and by no other means. Government have now clearly laid down that there will be no nationalisation of goods transport services during the next five years.

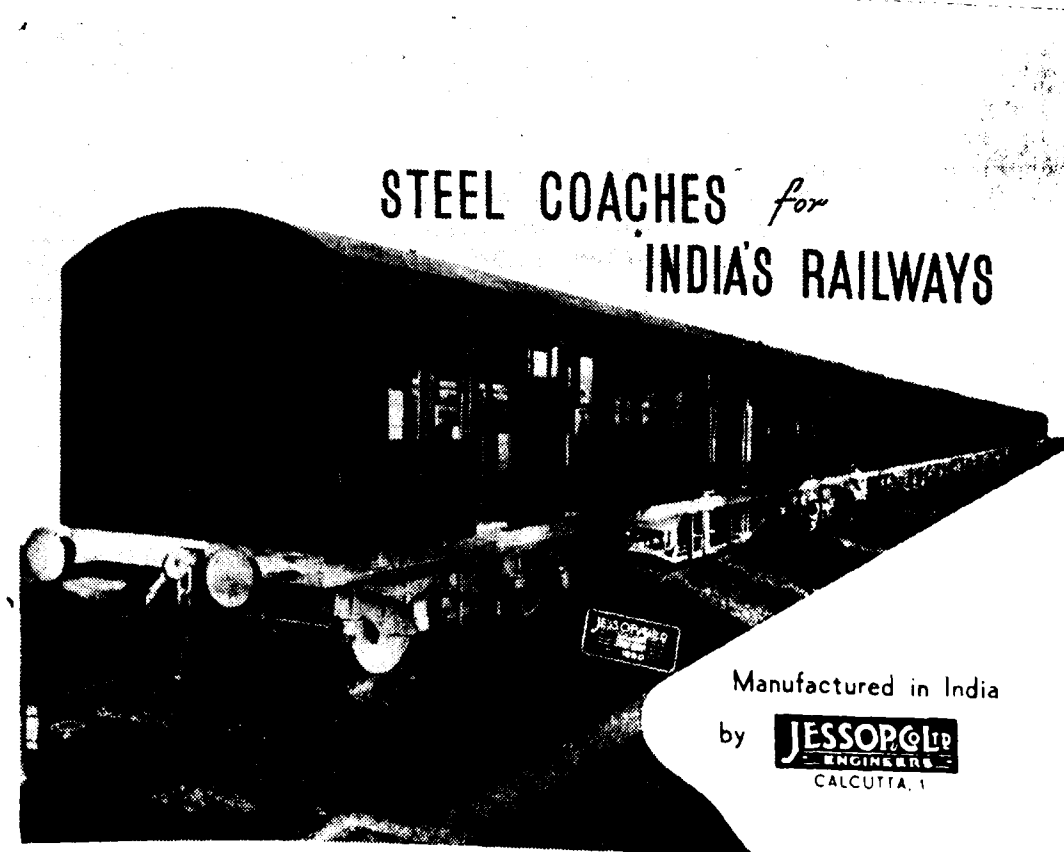
Passenger Traffic.—The co-ordination of different modes of transportation is also very important from the point of view of investment for transportation. The type of co-ordination should be to secure this end by using less capital-intensive methods whenever the operational costs are of the same order, e.g., diverting a part of

short distance passenger traffic (except suburban traffic in the neighbourhood of large cities which cannot be served by roads), and by diverting short haul and light goods traffic to trucks, wherever good roads exist or where the capacity of railway track is being fully utilised and any further increase in traffic would need heavy investments in line capacity work.

It is argued that under the present conditions in India the railways have no surplus capacity in the track and in fact the railways plan has allocated very large sums during the Second Five-Year Plan for increasing line capacity whereas it is still possible to increase the density of vehicles on the highways without affecting

the utilisation of vehicles. The argument often advanced is that Road transport is more suitable for passenger service under the present conditions specially for short distance passengers, though for long distance traffic railways offer better amenities. But a large majority of passengers in the Indian Railways make short journeys so that the average distance travelled by a passenger is only about 30 miles. Hence it is argued that it would be economical to divert short distance passengers to road traffic wherever good roads exist to relieve pressure on the railways.

Railways Interest in Road Transport.—The Railways have so far invested about Rs. 5 crores in the



share capital of various road transport corporations and other undertakings sponsored by the State Governments. About Rs. 27 crores has also been provided in the Second Plan for expansion of road transport services and 5,000 vehicles will be added to the present fleet of nationalised road transport undertakings. Further expansion in the public sector is not possible due to lack of funds.

Mr. Shah Nawaz Khan, Union Deputy Minister for Railways and Transport, inaugurating the Delhi branch of the Institute of Road Transport, said on November 8, 1956 that the Government would give private road transport operators the necessary facilities, including relaxation in long-distance restrictions and assistance in obtaining permits for inter-State operation, with a view to enabling them to cope with the increased demand for transport during the Second Five-Year period.

The investment of private owners is far larger and will continue to be far larger than the investment of the States in the road transport industry. In the nationalised sector, the investment stood at Rs. 30 crores as against Rs. 200 crores in the non-nationalised sector in April 1954. It is estimated that by April 1961, it will be about 50 crores as against 475 crores in the private sector. Therefore, the investment in the nationalised sector is not going to be more than one-ninth of that in the private sector.

Role of Road Transport.—Road transport would play a very important role in the Plan period as evidenced by the allotment of Rs. 265 crores by the Planning Commission for its development. During the period an additional 60,000 vehicles would be

put on the road to carry another 12 to 15 million tons of surplus products. Road transport today employs nearly 100,000 vehicles carrying 18 million tons.

In a growing economy there is scope for both the public and the private sectors to expand simultaneously, it is inevitable, if development is to proceed at the pace envisaged and to contribute effectively to the attainment of the larger social ends in view, that the public sector must grow considerably.

In his report to the Session of the Avadi Congress in 1955, Sri Jawaharlal Nehru stated that it is obvious in a socialised economy there will be social control of the means of production and distribution. It is equally obvious that in any planned approach to socialised economy the public sector must grow and become the dominant feature of the landscape. The strategy of Indian socialism therefore is to get to possess the commanding heights of the economy. This inevitably brings the conclusion that the public sector must not only grow, but outgrow the private sector at as rapid a pace as possible. On these grounds it is argued that Railways in which about 960 crores of rupees have been invested should as the largest single national undertaking receive protection against unfair competition from other means of transport. According to Industrial policy resolution of the Government of India of April 30, 1956 Railway is a public sector Industry. Public sector should get preference over private sector and become the dominant feature of the landscape.

(To be continued.)

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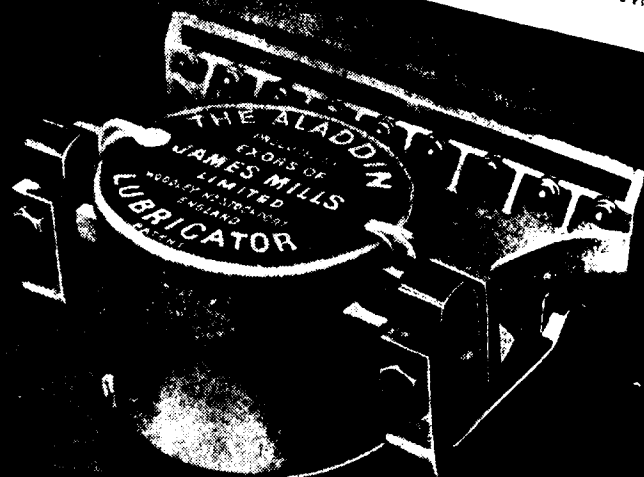
After some experience it was estimated that the average life of high rails on electrified lines had been increased from 4 to 15 years, and on main steam lines from 6 to 20 years.

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To sum up, the Aladdin Lubricator is a simple device which performs in an efficient manner.

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THE present age holds up many complicated problems for the coming generation, as well as for the parents. One of them is the moulding of the girl's life. A woman is like a creeper—always wants to cling to another for her existence from the age she can understand, and assimilate all that is around her: and tradition nurses this quality instead of teaching her to be independent. How often have we seen our grannies when trying to mediate a quarrel between her grand-daughter and grandson saying 'after all he is a boy and so you must give way'.

The time has come when women have to face the good and evil when circumstances require that they should plod along the weary path of life and fight their own battle. Women are by nature shy, dependent, and delicate and these qualities are perilous to those who are not able to keep themselves within the four walls of their household. The time has come when a mother must realise that her child has to be brought up in such a way that she can face the storms of life. This storm does not rage only outside home but many a time within. The parents of the present day must never want their daughters to feel that they have always to lean on their brother, or uncle, or their sons.

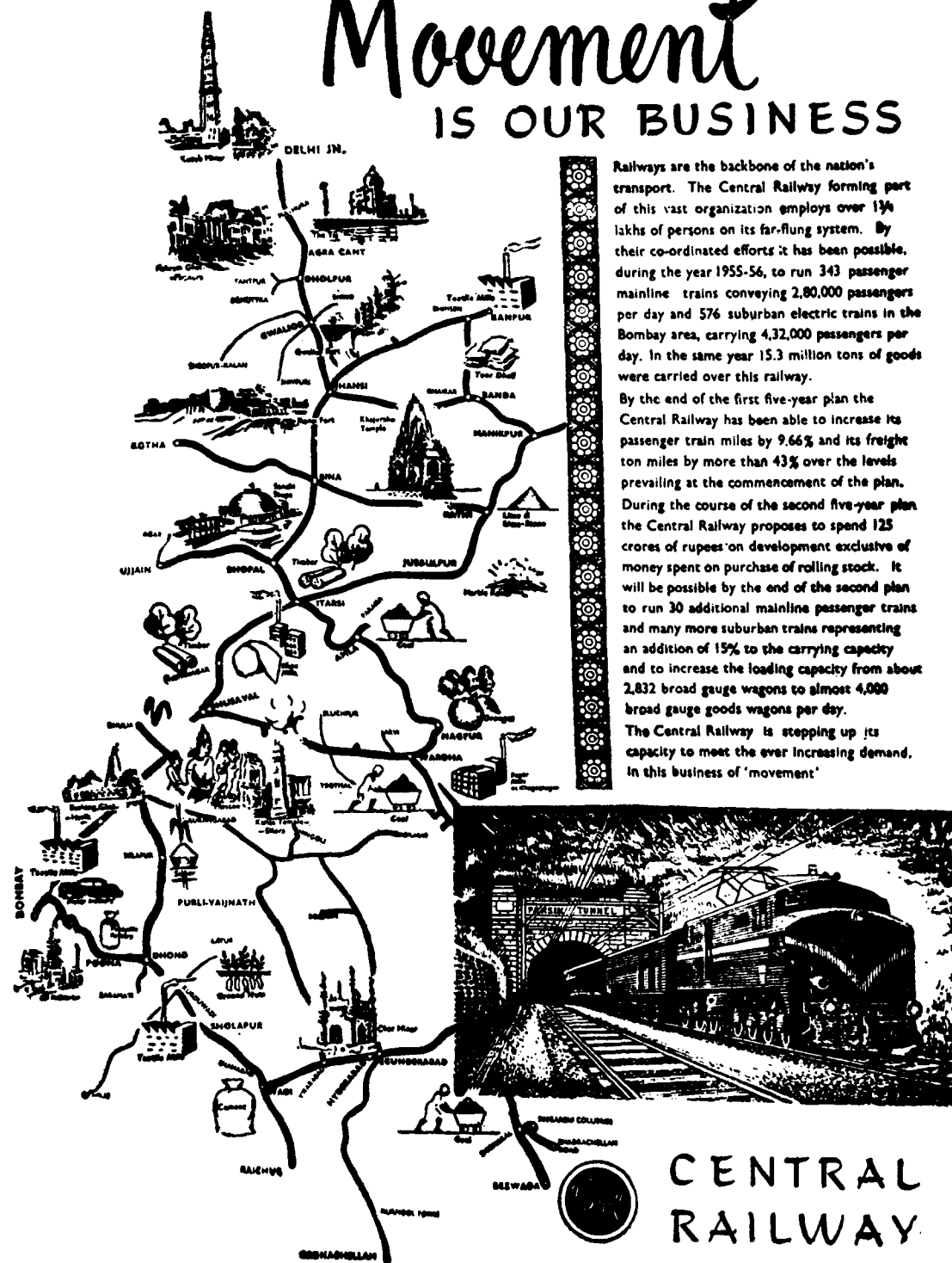
This idea of lifelong slavery—be the shackles made of gold—can never be the making of a great nation. On the other hand, if one of the parents of the girl adores this form of slavery, then he or she can never bring up the

child to be the pride of the people. It is not the idea to make a masculine woman but on the contrary when bringing up a girl some of the main points—modesty, generosity and patience which are the characteristics of woman—must be developed in her from her childhood in such a way that she retains them to the end of her life.

It is here that she excels over man. In order to do this, the parents, principally the mother must be her guide, philosopher, and adviser. If born with a silver-spoon, she must never be told that she is above those that are less fortunate. This weakness on the part of those taking care of the little one will completely crush the spirit of modesty and she will learn to look down on others, be they young or old and sneer at those who are not as well-off as herself. This poor child would never know what an asset this particular quality of modesty will be to her in her later life. The mother must fully realise that whether her girl goes out into the world, or is lucky enough not to do so, she will be, as years go by, thrown into different spheres of life when she will be submitted to a lot of humility if she is conceited. She will be respected and looked up only by her sycophants and all the rest of the world would deplore her words and actions.

Unless a woman starts from a very young age to understand the joys of giving to others, what a terrible blow it will be to her when she is called upon to forego her own pleasure for another. This selfish girl as she grows

Movement IS OUR BUSINESS



up, will never cease complaining to others of her miserable lot and have a feeling that she is one of the most miserable and unfortunate creature living and her life is one long sacrifice! There are so many cases of girl-wives giving up their lives even, and in most cases the husbands relations are blamed. There may be instances when the girl has felt no justification for the sacrifices she has to make of her comforts for others. Hence this terrible end of her life.

good qualities. Then the child will realise that she is his comrade and not to pander to his wants. This feeling of comradeship will slowly bring out the best in a child; otherwise she will always blame Providence for not making her a man, who to her ideas seem to be the chosen child of God. She will grow up into a discontented young woman with a wrong idea of the world and her people.

BEAUTY HINTS

The mother should always teach her child that there is a reward for those who are generous and once this quality is thoroughly cultivated, it will be a source of eternal happiness. In order to cultivate unselfishness and patience, the mother has to start from the very beginning of the little one's life. When the child gets impatient for her food or over some trivial matter that concerns her, the mother must never just scold her and tell her to stop asking again and again but tell her of some reason which will appeal to her good sense and she will become patient and amiable to reason. It is well to remember that a child should always be praised for any good deed she does—not to take it as a matter of course.

There is a great failing in our country when the mother or other ladies of the household tell a girl that she must give her all, when requested by a brother or another male relative, as she is only a woman. This is instilling into the child that she is merely a slave, because it is her misfortune to be born a woman. It should be explained to her that the superiority of a woman over the man lies in her

Now that the wintry season is on, I am sure everyone of you would appreciate a tip on keeping the skin smooth and soft. The cold of course makes your lovely skin chafe and stretch. It becomes dry and cracks in places and starts even peeling off. You can't take your powder or make-up gear anywhere near the face, for the max-factor, even a small pinch of it, shows off in patches. So here is a prescription, which if you adhere to regularly would give a velvety sheen and smoothness to it. When you boil milk in the morning, collect all the cream that forms on the top and with it add a pinch or two of 'Haldi' (மஞ்சள் பொடி), half a teaspoon of 'Maida', and half a teaspoon of a very smooth powder made from மொச்சை கொட்டை. Rub all this together and make them into a very smooth paste and apply them liberally on your face and throat like a mask. As the paste dries, keep on applying more and allow it to soak into the skin for at least two hours. Afterwards wash your face in hot water with சலவை மூலம் and not soap. See what a glowing and radiant complexion you have even in winter!

THE SPOTTED MANEATER

MAURICE RODRIGUES

GM's Office, Madras

*Runners came and runners went,
The place was full of panther scent.
On deer and goats she had her fill --
Now man had become her common kill.
Like lightning she struck at men and boys,
And played with them like childish toys.
She loved their flesh, their blood and bones
And she took them from their very homes.
This dreadful beast was a 'Maneater'
With all the blood of a hundred deer.
But the only cause of this evil,
Was a man who thought it easy to kill.
The wounded panther had her prey--
She took them in a dreadful way,
Powder and smoke and traps they brought
But she was too clever to be caught.
She was seven-foot-six from peg to peg--
And three feet high was her hind leg
Her face I loved, her eyes I adored
But the time she took made me bored.
At dogs and goats she came and went,
Each time she smelt my sweaty scent
She smelt me sitting on the ground,
And growled to say that I was found.
Three days I tried, three days she spied--
She knew if she struck, she would have died.
But to attack would have been her glee
Unless she saw the panther breed in me.
Two days, two nights she had me walking,
Two long days she had me stalking
Till at last I planned a 'beat'
And even this she tried to cheat.
The noise, the men, she hated them all
She knew these men would mean her "full"
She dashed, she dodged, she growled, she crouched,
And when she saw me, her attack she launched.
Her eyes she screwed, her teeth she bared--
No man on earth could make her scared.
She snarled and crouched ten feet near,
She peeled her lips and showed no fear.
The 'thirty-o-six' spoke with sound,
She sprang five yards and hit the ground.
She lay there motionless and still
I loved her much, but I had to kill.
My memory can never find,
A beast like you of any kind.
An ounce of lead had brought you down,
But I'll remember the days you made me frown*

CHILDREN'S CORNER

“ONE good turn deserves another.” We have all heard this saying and perhaps some of us have done a good turn to some unfortunate person. Perhaps you have seen a poor boy or girl shivering in the cold and have run to your Mummy and asked her to give the poor child an old warm shirt or pull-over to keep her warm. Then some time later, this same child may remember your good turn, and may be in a position to do you a good turn, when you may not be so fortunate. But in real life, it does not always happen like this. In fact, quite often, to those to whom a good turn has been done, may forget about it, and do others a bad turn. Well, our story this month, called “The Monkey and Mother Crab,” will give you something to think about.

“The Monkey and Mother Crab.”

Once upon a time a Mother Crab had her home in a hole on the shady side of a hill. She was a home-loving crab, and kept her little house neat and clean, and was awfully proud of it. One day, while she was waddling down the hill she found some cooked rice on a piece of leaf nearby, that had been left by some person after eating his food. Now, here was something special for Mother Crab and her baby crabs, so she decided to take home the cooked rice.

But Mother Crab was not the only one who had spotted the cooked rice. Perched on the branch of a tree nearby was Muncher the Monkey. As Muncher watched Mother Crab dragging away the rice to her home, his mouth watered: for he did want to taste and eat that lovely cooked rice. He could easily have jumped down

from his perch and snatch away the tasty rice, but he knew the strength and sharpness of a crab's claws. Once these terrible claws got a grip on you, well, it was as if a giant pair of iron pincers had been clamped hard on your flesh. No, he would have to try some other cunning way to get the rice from Mother Crab. After a little head scratching, he found a way.

Hopping down from off the tree he loped across to Mother Crab. In one hand he had a fat and juicy, ripe mango.

“Mother Crab,” he said sweetly. “Give me that rice and I'll give you this big mango.”

Mother Crab looked up sideways at Muncher the Monkey and thought a while. She did so much want to taste the rice, but she also loved the sweet and pulpy taste of a fat, ripe mango. It was not often that she could taste mango, as she could not climb the mango trees, and had to wait until one fell to the ground before she could have a bite at one. So, she agreed and gave Muncher the rice, and took the mango away to her home to have a tasty feed.

Some days later Mother Crab was sitting under the mango tree hoping that a ripe mango would fall so that she could have it to eat. While she was waiting who should come hopping along, but Muncher the Monkey. Now Muncher wanted to climb up the mango tree, but was afraid that Mother Crab would make a grab at him with her large steel-like claws. So, again he used cunning.

“Feeling like eating some ripe mango today, Mother Crab?” he

asked nicely. Mother Crab smiled in the way crabs do, and replied, "Yes, I would love to have one." Muncher then said, "Well, if you will just move away from the tree, I'll soon be up there and shake down some fat, juicy mangoes for you."

Mother Crab moved away from the tree, and as soon as she was a safe distance away, Muncher, with a hop, step and a jump was shinning his way up the tree. Hopping from branch to branch Muncher was snipping off the ripe and fattest mangoes for himself. Some of these he kept eating, and some he stuffed away. Now and again, he would throw down a mango to Mother Crab. But poor Mother Crab was being cheated. Every mango that Muncher threw down was hard and sour. Soon Mother Crab was angry. So, she called out to the Monkey, "I know you're a good climber and can do all sorts of fancy tricks up there, but now that you have eaten so much, I'm sure you will never be able to turn one of your famous somersaults."

Muncher always liked to show off his tricks, so he called out, "Who says I can't? Here goes!" Taking a swing off a branch the Monkey sailed through the air, turned over and grabbed on to another branch. But as he was turning over all the nice, ripe mangoes he had stuffed away, tumbled to the ground. Mother Crab soon had them collected near her, and quickly took some away to her home.

Now, Muncher the Monkey, found he had been tricked by Mother Crab. He was mad angry and chattered with rage. Watching Mother Crab waddling from her home to take away some

SOUTHERN RAILWAY TENDER NOTICE

Tender for unloading Coke and Coal, and stacking on stacking grounds in Hubli Workshops during the period from 1-4-1957 to 31-3-1958.

Tenders are invited for the above work to be done within Hubli Workshops from 1st April 1957 to 31st March 1958. The tender form containing terms and conditions of contract can be obtained from the Chief Mechanical Engineer's Office, Southern Railway, Ayanavaram, Madras-23, on payment of Rs. 3 (Rupees Three only) not refundable. Tenders should reach the Chief Mechanical Engineer, Southern Railway, Ayanavaram, Madras-23, on or before 12 Noon on Thursday the 28th February 1957 in sealed covers enlaced conspicuously with the words "Tender for unloading of Coal and Coke and stacking on stacking grounds and dressing up in Hubli Workshops". The tenders will be opened by him or his duly appointed representative and the quotations read at 3 p.m. on the same day in the presence of such of the tenderers, as may be present at that time. The tenderer should remit on or before 12 Noon on 23-2-1957 a sum of Rs. 250 (Rupees Two hundred and fifty only) as tender deposit in either of the following methods:

- (1) In Cash or by Money Order to the Divisional Accounts Officer, Southern Railway, Hubli.
- (2) In Cash in any of the branches of State Bank of India and receipt thereof to be submitted to the Divisional Accounts Officer, Southern Railway, Hubli, on or before 23-2-1957.

Chief Mechanical Engineer.

more mangoes, Muncher sprang on to the ground and jumped on top of Mother Crab and hammered her unmercifully. He only stopped when his arms ached and were tired, and he could beat no more.

Mother Crab had been beaten so much by Muncher that she nearly died; and she would have if it had not been for some bees who had been flying over. These bees were friends of Mother Crab, so when they saw her lying there on the ground still and helpless, they flew down and carried her home.

The bees were very angry with Muncher the Monkey when Mother Crab told them what had happened. They told her not to worry but to get well first, and then they would teach Muncher a lesson he would never forget.

About a month passed. Mother Crab was strong and well again. Muncher hopped and played about and thought Mother Crab had forgotten all about the beating she had been given. But he did not know what was in store for him. The bees, in the meanwhile, had been building a new hive in the mango tree where Muncher liked to sit. And Muncher did not like the bees at all.

One day Mother Crab was watching from her hole and could see the bees clustering around their new hive. Muncher the Monkey was also watching the hive, waiting for a chance to shake it off. Suddenly, he jumped,

grabbed one end of the branch on which the hive hung, and started swinging and shaking. Ha, he thought, that would teach these meddlesome bees not to build their hive on his favourite mango tree. But Muncher forgot that bees could fly fast and had terrible stings. Within a few seconds after his shaking, about a thousand bees swarmed and buzzed around Muncher, smacked against him and stabbed him with a thousand stings.

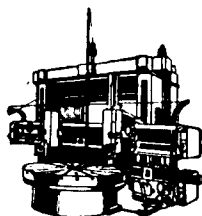
Muncher screamed with pain, but the bees kept coming at him and stabbing at him with their fiery stings. Before long, Muncher had to let go of the branch and down he dropped to the ground, screaming and moaning. And down below, as Muncher fell, Mother Crab was waiting for him. Swiftly, she moved up to him and dug her powerful claws into Muncher's body and held on. What with a thousand odd, burning bee-stings and the deep, iron grip of Mother Crab's claws, Muncher the Monkey soon had no screams and moans left in him. The bees and Mother Crab could easily have killed Muncher, but they had already given him a terrible punishment. So they now eased up and let him alone. Muncher had learnt his lesson. Never again did he bother Mother Crab or the bees. In fact, when he was better, he decided it was better to find another favourite mango tree, very far away from Mother Crab's claws.

UNCLE TELLATALE.

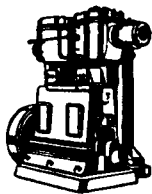


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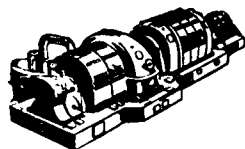
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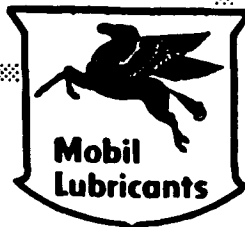
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BOOK REVIEW

**I.A.S. & OTHER CENTRAL
SERVICES EXAMINATIONS—
“MODEL INTERVIEWS”**

*Sri V. S. Krishna Iyer, B.A., L.T.,
Principal, Sri Rohini Tutorial College,
104-B, Lloyds Road, Madras-6.
Price Rs. 3.*

“Which is more weightier? A pound of iron or sponge?” is a question said to have been asked for an Ex-I.C.S. Candidate. This means, that the candidate besides his academic qualifications, is expected to possess some general knowledge and a real intelligence. We find from the Newspaper reports the way in which some of the Union Public Service Commission Candidates answer even the very simple questions. Many of them fail to answer correctly, if asked for instance, the names of the Ministers, the capitals of the States, and such other familiar things. With a view to make the candidates familiar with the general topics, that could not have been learnt by the candidate by his mere book-reading, the learned Principal of the reputed Sri Rohini Tutorial College of Madras, has brought out a handy book on ‘Model Interviews’ which is an unique opportunity for the candidates appearing for the I.A.S. and other Central Services Examination.

The model interviews have been prepared by the learned author, based on an intimate knowledge of interviews for the I.C.S., I.A.S. and other Central Services Examinations got from several candidates who have actually appeared at these interviews and come out successfully. These model interviews will therefore give the candidates a very good idea of the nature of questions that are being asked by the Interview Board.

This sumptuously got-up book though mainly intended for the candidates who appear for the I.A.S. and other Central Services Examination is worth to be in the hands of everybody, particularly students of today, for its value of informative material and general knowledge. It is pleasing to find that general topics, covering a wide variety of subjects, apart from Science, Politics, Economics, Sports, Geography, History, etc., are dealt with at length. Particular mention can be made to the talented Writer's up-to-date coverage of Suez and Hungary problems.

The learned Professor has tried to make these model interviews as comprehensive as possible. The reader will notice that very often the type of questions that are put depends on the particulars given by the candidates for the I.A.S. Examination in their application forms. The Writer in his preface explains how a student should be present at the interview, which is a very useful guidance to not only the Examination Candidates but also to those applicants for jobs in general. Candidates should present thereof punctually for the interview and should be neatly and smartly dressed up. Oversophistication is not desirable. On entering the interview room, they should walk along smartly and boldly. The gait and demeanour are likely to be watched by the examiners. The candidate should wish the Examiners saying either ‘Good morning Sirs’ or saying ‘Namasthe’. Only on their offering a seat should the candidate sit down and say ‘thank you’. While answering questions the candidate should keep his poise and be at ease. He should not exhibit any signs of fear or nervousness. Questions



**YOU
CAN
DO
IT !**

OWN A HOUSE 

BUY A FARM 

EDUCATE YOUR CHILDREN 

PROVIDE FOR ILLNESS 

HAVE SOMETHING FOR OLD AGE 

**YOUR MONEY IN NATIONAL SAVINGS
IS SAFE AND EARNS GOOD INTEREST
AND ABOVE ALL HELPS THE NATION
IN FINANCING THE NATIONAL PLAN**

**PUT YOUR SAVINGS TO WORK FOR
YOUR & THE NATION'S PROSPERITY**

DR. 54/160

should be answered slowly and clearly in conversational style. Answers should be to the point and one should be careful not to mention anything of which one is not quite sure or thorough. It will be seen from the book under review that one question follows from the answers to the previous one. A clever candidate should be able to lead the examiners from subject to subject of which he has a thorough or adequate knowledge.

These model interviews cover a wide range of subjects and will be useful to students for their general knowledge. Candidates for the I.A.S. Examination will therefore do well to study these interviews well before their 'general knowledge' paper. One may not single out any one page of this book as against others for its value of informative material or worth of the narration of enlightening the qualified and the unqualified alike in the field of general knowledge.

To single out any subject or a bunch of such subjects containing in this handy book would be to belittle, though indirectly, the rest which have not been mentioned. But a reviewer cannot be interesting if he does not point out to the stars that please him best, if only to arouse an interest.

The learned writer deserves all compliments particularly for his opinion about the propagation of the study of Sanskrit in the country. "While it may be difficult to make Sanskrit the 'lingua franca' of the country, the study of Sanskrit requires better emphasis in the curriculum of studies in schools and colleges. Sanskrit apart from its having the greatest literature in the country is the mother of all Indian languages. All other literatures in the country have

drawn deeply from this fountain. The appointment of a Sanskrit Commission is a move in the right direction. Only one wishes that this had been done earlier".

Another question on Economics is worth mentioning, which deals with 'inflation' and the inflationary tendency in India now.

Inflation is a condition of economic affairs when there is more currency in the country than would be required to buy all the goods available. In consequence, goods become more valuable in terms of money and money less valuable in terms of goods. In other words, there is inflation when the purchasing power of the people increases without a corresponding increase in the availability of goods. The Five-Year Plan (First) entailing an investment of nearly 2,000 crores of rupees has led to a lot of development in the country on all fronts, and has, to some extent, increased the purchasing power of the people. The Second Five-Year Plan envisages a much bigger outlay to the tune of 4,800 crores of rupees. Some of this outlay is to be by deficit financing. Deficit Financing means spending more than the resources (which is in vogue in most families now!). At Governmental level the gap between expenditure and resources is left uncovered in the budget and is met by increased note circulation. This big outlay has led to an increase in the purchasing power of the people while the production of commodities has not kept pace. For example, the demand for food, for cloth, for steel, and for cement has been increasing very rapidly. In a sense the creation of new demands all over the country is of the very essence of developmental

planning. There is the danger of inflation if in the process of giving effect to the plans, demands grow more rapidly than supplies. Counter-acting inflationary tendencies is by two methods, one is to increase production especially of articles of general consumption like food and cloth. The second step is to have an appropriate tax policy aimed at regulating power so as to ensure that development proceeds under conditions of economic stability. There is another vital element also, namely, to promote savings on all fronts and in this the large body of people have to play their part. This is an excellent observation made by the author.

Schools and Colleges might well obtain a copy of this Book for their libraries, for this may form a suitable supplementary reading to replace the topical newsprint supplements presented by periodicals and dailies, at least as a present for gaining general knowledge.

'Nothing succeeds like success' and the learned Professor leaves it to the readers to judge for themselves how far these model interviews have been of help to them.

A GUIDE TO GENERAL RULES AND PROCEDURE OF ACCOUNTS DEPARTMENT OF RAILWAYS

Published by the Kalpana Publishers, Tiruchirapalli-3 - Price Rs. 4.

The Railwaymen must take pride in the fact that the Railway is the largest nationalised commercial undertaking. Today, the total mileage of railways in the world exceeds 800,000 miles, approximately 30 times the circumference of the globe. The total route mileage of railways in our country is over 34,000. The total capital

SOUTHERN RAILWAY

TENDER NOTICE

Contract for removing ashes and cleaning the Yard in the Central Workshops, Mysore South, picking up and delivering to the Railway, Cinders $\frac{1}{2}$ " and above and purchasing and removing of all cinders below $\frac{1}{2}$ " from 1-4-1957 to 31-3-1958.

Tenders are invited for the above by the Chief Mechanical Engineer, Southern Railway Ayanavaram, Madras-23. The tender form containing terms and conditions of contract may be obtained from the Office of the Chief Mechanical Engineer, Southern Railway, Ayanavaram, Madras-23, on payment of Rs. 3 (Rupees Three only) not refundable. Tenders should be submitted to the Chief Mechanical Engineer in sealed covers superscribed as above **so as to reach him before 12 Noon on Thursday the 28th February 1957.** The tenders will be opened by him or his duly appointed representative and the quotation read at 3 p.m. on the same day in the presence of such of the tenderers, as may be present at that time. The tenderers should remit **on or before 11 a.m. on 23-2 1957** a sum of Rs. 200 (Rupees Two hundred only) as earnest money to the Divisional Accounts Officer, Southern Railway, Mysore and enclose the receipt thereof with the tender.

Chief Mechanical Engineer.

expenditure of Indian Railways is Rs. 974 crores. This does not of course include the capital of ex-Indian State Railways (Nizam's, Baroda, Bikaner, Mysore, etc.), all of which became the property of the Central Government with the fiscal federal integration of the ex-Indian States. That will probably amount to another Rs. 100 crores. However, this sum of Rs. 974 crores is the capital invested in railways for the last 100 years. In the early stages railways were sponsored by British Companies founded with British capital: later Government provided the capital and guaranteed them a fixed return. Later still, Government acquired the Companies and invested further capital on railways for extensions and development. To find the Capital, Government had from time to time to raise loans. Recent loans floated are the 3% 1957 Loan, 3% 1966-69 Loans, etc. If you refer to the financial columns of any newspaper you will see the current market price of Government loans. So the Capital at Charge is the capital on which railways have to pay General Revenues a dividend at 4% per annum. The policy followed therefore is to try and avoid over-capitalisation and to the maximum extent to meet railway needs from Revenue. There are Revenue receipts and Revenue expenditure. Revenue receipts and earnings—passengers, goods and miscellaneous. Revenue expenditure is the expenditure for operating the assets, or running the railway. It includes expenditure on administration, wages of staff, operating fuel, repairs and maintenance. The difference between revenue receipts and revenue expenditure represents the net, or surplus earnings.

The Railways' Accounts Departments play an important part not only in correctly compiling and maintaining the accounts of the railway, but in tendering constructive advice also. All could have heard of two expressions commonly associated with the Accounts Department. The first is the Canons of Financial Propriety and the second Financial Concurrence. The Canons of Financial Propriety are not exclusive property of the Accounts Department, but are merely a statement of guiding principles which every public servant vested with authority must observe. It states (a) that every Government Servant should exercise the same vigilance in incurring expenditure from public funds as a man of ordinary prudence would in spending his own money: (b) that no Government Servant when sanctioning expenditure should pass an order which will be to his own financial advantage: and (c) no public money should be used to benefit a particular person or community, unless of course it is in pursuance of a recognised policy or custom. As the Chief Accounts Officer's function is to look after the financial interests of the railway, it is his duty to see that these principles are not violated. The General Manager is the head of the Railway Administration and the various Executive Officers who are subordinate to him are responsible for the construction, maintenance and operation of the railway. In the proper and legitimate discharge of their responsibilities they are authorised to incur expenditure within the limits of their financial powers. The Chief Accounts Officer is responsible for (a) internal check of transactions affecting the receipts and expenditure of the railway: (b) prompt settlement

of claims; (c) keeping the accounts of the railway; (d) seeing that no financial irregularities occur, and giving advice to the executive. In functioning thus, the Accounts Officer acts solely in the interests of the Executive Officers and his relation with them should be that of a friendly critic. The second Canon or function of the Accounts Department—Financial Concurrence. As a general rule, no expenditure should be considered as justified financially unless it can be shown that the earnings or savings in working expenses expected to be realised are such that after meeting the average annual cost of service of the asset it will yield a return of 5%. This rule for justification will not apply to (a) expenditure incurred on a statutory obligation, e.g., fencing of a machine; (b) when the expenditure is unavoidable on considerations of safety; (c) on passenger amenity or staff welfare works. It should also be seen whether an alternative scheme which is less costly cannot be adopted,

or when replacing or condemning a machine or item of rolling-stock, whether it would not be more profitable to recondition it.

Every Railwayman irrespective of their cadre must be thorough with the State Railway General Codes and Establishment Codes which contain a wealth of information that will be useful for his day-to-day dealings.

The book under review is a Guide to the General Rules and Procedure of Accounts Department of Railways. To meet the demands of the Accounts Staff of various Railways this edition has been got out, duly including the latest orders wherever necessary and also some more new subjects of importance. Further, the rules of allocation of expenditure as well as the latest corrections thereto, and important powers of sanction, have been incorporated in this Edition. In short the book is a reliable guide to the examinees and the staff.

S. VEDANTAM.

SOUTHERN RAILWAY

TENDER NOTICE

1. The Chief Engineer, Southern Railway, Madras-3, invites Sealed Percentage Tenders for collection and training out of stone ballast including loading and unloading of permanent way materials for complete track renewals for 10 miles from mile 6 to 9½ and 12½ to 14 up and down lines, Madras-Arkonam, Madras Division, to reach him not later than 12-00 hours on Thursday the 28th February 1957.
2. The tender should be submitted in the prescribed form obtainable from the Chief Engineer's Office on production of a receipt for the amount of Rs. 10 paid to the Chief Cashier, Southern Railway, Madras-3, or the Divisional Accounts Officer, Trichinopoly or any Station Master on the Southern Railway towards the cost of the tender form. In no circumstances will the amount paid for the tender form be refunded.
3. The tender form is not transferable.
4. The tenderer should submit along with the tender the Income-tax Clearance Certificate in original or an authorised copy, or if he has no taxable income, a sworn affidavit duly countersigned by the Income-tax Officer to that effect.
5. Tender forms will not be issued after 15-00 hours on Thursday the 21st February 1957.
6. The total approximate value of the contract is Rs. 1,59,500.
7. The earnest money of Rs. 8,000 should be paid in advance to the Chief Cashier, Southern Railway, Madras-3, or to the Divisional Accounts Officer, Trichinopoly and the receipt issued by him should be attached to the tender.
8. The earnest money will not be accepted after 15-00 hours on Friday the 22nd February 1957.
9. The tenders will be opened at 12-00 hours on Friday the 1st March 1957 in the Chief Engineer's Office at Madras.
10. The Chief Engineer reserves to himself the right to reject, without assigning reasons, any or every tender or part thereof and does not bind himself to accept the lowest or any tender or part thereof.

SOUTHERN RAILWAY CONTINGENT AT THE NORTHERN RAILWAY SCOUT RALLY: LUCKNOW

The Northern Railway planned their Annual Scouts and Guides Rally at Lucknow and invited a Contingent from our Railway to participate in their functions. Acceptance of this was not very easy as it meant staff had to be away for a comparatively longer period. However, there was an opportunity for the furtherance of the movement in the shape of exchange of ideas and extension of the feeling of oneness of the Railways and the country. It was therefore decided to send a representative of Rovers with a Scouter and accompanied by Sri A. K. Rao, District Commissioner (Rovers). The Vivekananda Group who had taken the honours during our last Rally were chosen with Scouter Sri T. Natarajan as our Contingent Scouter.

The Contingent left Madras on the 19th of November. Mr. & Mrs. Hoskote, our Secretary Mr. Krishnappa, Mr. Ambrose and others were at the station to see us off. We reached Lucknow on the 21st and moved on to the Camp, a distance of four miles from Lucknow, along with the Contingents of Eastern, Central and Western Railways and the Divisional Contingents of the Northern Railway in a "Special" arranged for the purpose.

The Camp Site was an exceedingly pleasant spot with the famous river Gumti on one side and a beautiful lake on the other. It was the Campus of the La Martiniere College and was a green grassy stretch of land with trees providing us shade and shelter.

There were in all 600 persons representing the Rovers, Scouters and Guiders of the Railways assembled in the bright sunny morning in an impressive parade. After the Opening Prayer and the Flag Hoisting, the Camp was inaugurated by the Chief Commissioner of the Northern Railway Scouts, Mr. M. A. Rao, who welcomed us and impressed 'cheerfulness at all times' as the keynote in the Camp in addition to the rigid observance of Camp Rules and Programmes.

The activities then began with the full tempo of competitions in the different fields—Scout Craft, Pioneering Works, Games and *Viva voce*. Training is obviously the essential prerequisite if the movement is to effectively handle citizenship with emphasis on service and competitions become necessary to encourage and establish a high standard of knowledge to be acquired through training. The Rallies and Assemblies therefore provide opportunities to improve our knowledge in addition to the cultivation of happy relationship through living together in the open.

Our Contingent took part in all the competitions provided for the Rovers. On the first Day there were competitions in "Scout Craft" which comprised setting up a Camp, fixing of improvised gadgets and cooking of food. I had the opportunity of going round with the Judges to see the ingenuities exhibited. The Contingents displayed a good knowledge of Camp Craft and improvisation and in the field of cooking there were real

February 1957

varieties from the Jodhpur-Bikaner style to our own, who provided the "Appam". The results of the Scout Craft gave us the first place.

There was also a round of "ko-ko" arranged for the Rovers. This game is not so popular down here but all the same with our usual enthusiasm we took part in this.

There were two other competitions—one for Pioneering Crafts and the other in *Viva voce* tests. The Pioneering Craft is an exhibition of team work. The "Lofted Bridge" was set up as a problem. In the *Viva voce* it was an individual effort and each person had to answer all the questions separately. Our boys put up a reasonably good show in the Pioneering Craft and in the *Viva voce*

they had the honour of scoring the first three places.

The exhibition was laid down for displaying handicrafts and practical gadgets of the contingents. This was well received and was popular with the campus and encouraged ideas for the useful hobbies and helped the study of Scout Craft.

Camp Fire. There were Camp Fires arranged for all the 3 days we were there. The enthusiasm displayed by one and all was exhilarating. On the last night the Camp Fire was inaugurated by the General Manager and President of the Northern Railway Association Mr. M. K. Kaul. Four Torch Lights, representing as it were the four Spirits from the Four Corners were laid on for lighting the



Pioneering by our Rovers

fire and we were aptly chosen for the "Southern Spirit." It was a quick moving group entertainment and lasted for two hours. Our Team put up a display of "Johny Joker Baja" a Hindusthani Song, which, I was glad to notice, got ample appreciation from the large gathering.

Visits.—The Chief Organising Commissioner of the Railways Mr. L. Kumar addressed us during the Rally and impressed on us the need for quality, maintaining the standards and acquiring the requisite knowledge through proper training and guidance, as these were really the foundations on which the movement was built.

The General Manager of the Northern Railway, Mr. M. K. Kaul took an active part in our functions by

going round the Camps, witnessing the various competitions, examining the Camp techniques, taking part in the Camp Fire, and also sharing the food served to the Campers.

After these rounds of activities, the Rally came to a close on the 25th with a final assembly and Prize Distribution, presided over by the General Manager, Northern Railway. The General Manager addressed the Campers and appreciated the general spirit of the camp and was pleased with the



GM, N. Railway Sri M. K. Kaul, presenting trophy to our contingent leader

ideas of Rallies. He was glad that other Railways also took part. We had the satisfaction of being the recipients of four prizes.

The Northern Railway was glad to have us amidst them and we on our part are thankful for the opportunities given and for the arrangements made. The Rallies are intended to serve the purpose of instilling greater knowledge to qualify us for rendering effective service and to be good citizens.

(Continued on page 91)

**DESOUTTER
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SOUTHERN RAILWAY

TENDER NOTICE

The Engineering-in-Chief, Southern Railway, Egmore, Madras-8, invites SEPARATE SEALED PERCENTAGE SCHEDULE TENDERS for the following works :—

Name of work	Total approximate value of the work	Earnest money	Cost of tender form
	Rs.	Rs.	Rs.
DOUBLING OF TRACK BETWEEN BEZWADA AND GUDUR IN NORTH-EAST LINE EARTHWORK FOR FORMATION BETWEEN (1) Surareddipalem and Ongole stations ..	72,550	3,600	10
(2) Bapatla and Appikatla stations ..	1,34,400	6,700	10
(3) Appikatla and Nidubrolu stations ..	1,42,850	7,100	10
(4) Nidubrolu and Tsundur stations ..	95,400	4,800	10
(5) Tsundur and Tenali stations ..	1,05,000	5,250	10

The above tenders are to be sent to the Engineer-in-Chief, Southern Railway, Egmore, Madras-8, so as to reach him not later than 13-00 hours on Monday, the 25th February 1957.

Tenders should be submitted in the prescribed form obtainable from the Office of the Engineer-in-Chief, Southern Railway, Egmore, Madras-8, on production of a receipt for the sum of Rs. 10 (Rupees ten only) paid to the Chief Cashier, Southern Railway, Park Town, Madras-3, or any Station Master on the Southern Railway, towards the cost of each set of tender forms. In no circumstances will the cost of tender forms be refunded. The tender forms are not transferable.

Tender forms will be issued upto 12 hours on Friday, the 22nd February 1957.

Earnest money as detailed above should be paid in advance to the Chief Cashier, Southern Railway, Park Town, Madras-3, not later than 12-00 hours on Friday, the 22nd February 1957 and the receipt submitted along with the tender. No cheque or demand draft should be attached to the tender.

Tenderers are required to submit Income-tax Clearance Certificate, in original, along with the tender. If previously sent and is current, reference to the particular tender with which it was sent should be furnished without fail.

Earnest money is fixed at 5% of the value of the contract and the successful tenderer will be required to furnish 10% of the value as per his accepted tender towards the security deposit.

Tenders will be opened at 12-00 hours on Tuesday, the 26th February 1957, at the Office of the Engineer-in-Chief, Southern Railway, Egmore, Madras-8.

The Engineer-in-Chief reserves to himself the right to reject without assigning reasons, any or every tender or part thereof and does not bind himself to accept the lowest or any tender or part thereof.



Sri D. P. Patel, our new S.D.G.M.

Sri Desaibhai Bagawandas Patel, who has been appointed Senior Deputy General Manager of the Southern Railway, was born on June 15, 1907 in Bombay State.

Sri Patel joined the Madras and Southern Mahratta Railway as a Traffic Probationer in February 1930. On completion of the probationary period, he was posted as Assistant Transportation Superintendent (Traffic) on the Rayapuram District. After working in various capacities as an Assistant Officer in several Districts and Headquarters Office of the former Madras and Southern Mahratta Railway, he was promoted as District Transportation Superintendent (Traffic) on the Bezwada District in 1946. He was then transferred to the Commercial Department in the Headquarters Office. Within a short time after joining the Commercial Department, he was selected to work as Deputy Secretary, Railway Board, in July 1947.

When working as Deputy Secretary for a few months, Sri Patel was promoted as Joint Director, Establishment, Railway Board, in April 1948 and as Joint Director, Adjudication, Railway Board, in June 1948.

In September 1948, Sri Patel's services were placed at the disposal of the Defence Ministry in connection with the 'Police Action' in Hyderabad State. On completion of the 'Police Action', he was appointed Secretary to the Departments of Railways and Communications of Hyderabad State. On the bifurcation of the Communication and Railway Departments, he was appointed Deputy General Manager of the former Nizam's State Railway.

In October 1949, Sri Patel's services were lent to the Ministry of Transport of the Union Government and he was appointed General Manager, Delhi Transport Service.

In April 1951, Sri Patel was again posted as Deputy General Manager of the former Nizam's State Railway and he continued to work in that capacity till the completion of the initial stage of the integration of the Nizam's State Railway with the Central Railway.

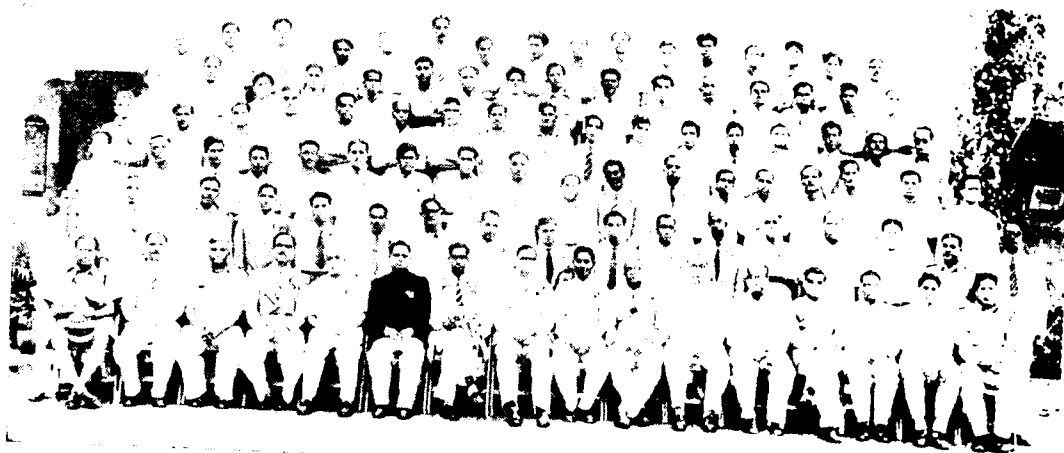
In April 1952, Sri Patel was transferred as Deputy Chief Operating Superintendent, Northern Railway, which post he held up to the end of February 1953. He was then posted as Deputy Chief Commercial Superintendent (Rates and Development) of the Southern Railway and subsequently as Regional Traffic Superintendent, Madras Region. With the introduction of the Divisional System on the Southern Railway, he held charge as the Divisional Superintendent of the Madras Division up to the time of his promotion as Senior Deputy General Manager on 17-12-56.

February 1957

FAREWELL PARTY TO SRI C. V. GOPAUL

In connection with the transfer on promotion of Sri C. V. Gopaul, Personal Assistant to the Chief Security Officer, Southern Railway, Madras, as D.T.S./Amenities/Madras Central, the Ministerial and Executive Staff of

the Chief Security Office and allied units at Egmore gave a Tea-party at Hotel Dasaprakash, Poonamallee High Road, Madras, on Wednesday, 2nd January 1957. The farewell function was well attended and the officers and staff representatives spoke in high appreciation of the services rendered by Sri C. V. Gopaul.



SOUTHERN RAILWAY TENDER NOTICE

Tender No. S/236/I/GB4/2587/PER/3.

Sealed tenders are invited for the supply of the following materials:

10 Tons of tin ingots (Tin contents 99.75) to specn. G. Metals 55 C. or I.S. 26 of 50.

Tenders will be received by the Controller of Stores, Southern Railway, Ayanavaram P.O., Madras-23, before 12 hours on 1-3-1957.

The prescribed form is obtainable on payment of Rs. 5 per copy in cash or by Money Order. Remittance by any other means will NOT be accepted.

Tender forms will not be issued after 25-2-1957.

P. N. TALATI
Controller of Stores

February 1957

S. R. NEWS

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RETIREMENT

Sri A. Balakrishnan Nair, 'B' Grade Guard, Coonoor, proceeded on leave in December last, to finally retire on 23rd April 1957 under superannuation after a service of nearly 33 years. Joining the Railway on 16th July 1924, he made his way up from the lowest rung of the ladder, claiming his attainments to silent and sincere devotion to duty. His very pleasing manners and accommodating ways have always stood him in good stead with the wide range of well-wishers wherever he worked. One can hardly recollect an instance where he lost his balance in facing difficulties of life and work. Thus he leaves an exceptional example to others that "worry and annoyance in arduous tasks are but one's own making". He carries with him an abundance of goodwill to lighten the fatigue of his toils which he wishes to continue even after retirement.

The simple and pleasant farewell function got up by his colleagues at Coonoor on the evening of 26th December 1956 was presided over by Sri N. Ramamirtham Iyer, Station Master, Coonoor. Messrs. K. N. Narayanan Nair, E. F. Pell and P. N. Gopalakrishna Menon spoke in appreciation of

his qualities. Staff of all categories, without exception, joined in presenting tokens of affection.

EMPLOYEES' CO-OPERATIVE CANTEEN, ARKONAM

The General Body Meeting of the E.W.S. Employees' Co-operative Canteen was held on 8th January 1957. Sri M. U. Hattikudur, Works Manager, who presided on the occasion exhorted the employees to take keen interest in the co-operative movement and make the canteen more prosperous. Sri C. K. Padmanabhan, Co-operative Sub-Registrar, Vellore, was also present on invitation and addressed the gathering. The meeting concluded with distribution of sweets to shareholders.

RAILWAY INSTITUTE, BEZWADA

The Fifth Annual General Body Meeting of the amalgamated Railway Institute, Bezwada, was held on Wednesday the 26th December 1956. Sri K. S. Charyulu, Chairman and Divisional Operating Superintendent, Bezwada, presided. There was a record attendance of members. The office-bearers for the year 1957 was elected during the meeting.

Sri A. Balakrishnan Nair and his colleagues



RAILWAY SCHOOL AT JHARIPANI

The Railway School at Jharipani near Mussorie has a staff of 30 teachers, including 24 women and full facilities for training candidates up to Senior Cambridge Standard. Co-education exists up to third standard after which boys and girls are put in separate classes. Boarding and Lodging arrangements are also separate for boys and girls. Tuition and Boarding fees are moderate.

Railway employees who are desirous of educating their children in a well-equipped residential school, may well choose this ideal institution.

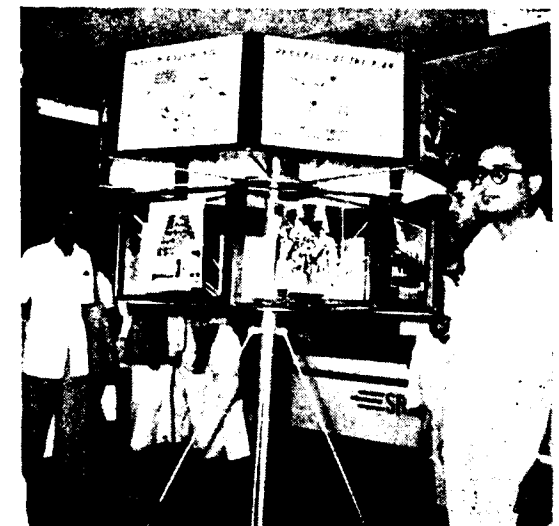
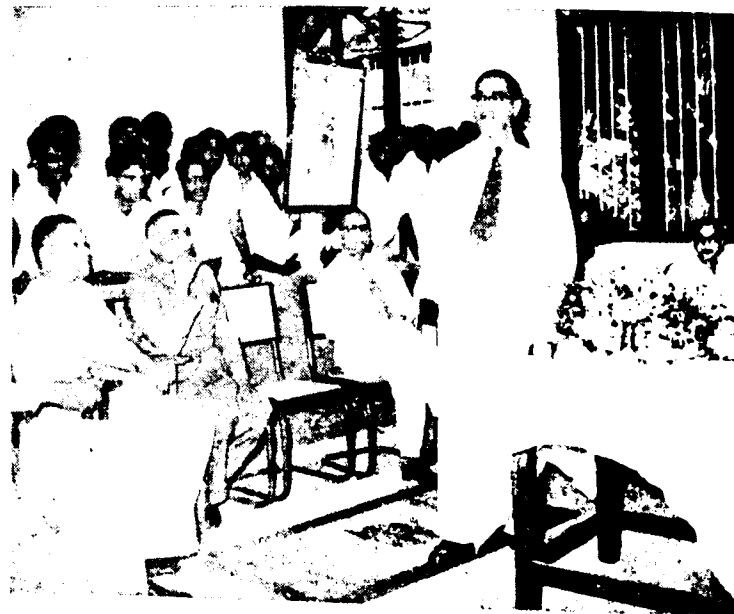
NOTICE

Staff are notified that complaints regarding Bribery and Corruption could be made to the Vigilance Officer direct whose name and address are furnished below :—

Sri S. Mantharam,
Vigilance Officer,
Southern Railway,
Madras-8.

Complaints will be treated as 'CONFIDENTIAL' if so desired by the complainants.

The Stores Department welcomed the New Year at a function held on 2-1-57. Photo shows Sri P. N. Talati, Controller of Stores, addressing the staff. Also in the photo are, seated left to right: Sri N. V. Chinnappa, DCOS/Plr., Sri A. Vasudevan, Dy. COS/G and Sri B. P. Bhagat, Dy. COS/Plg.



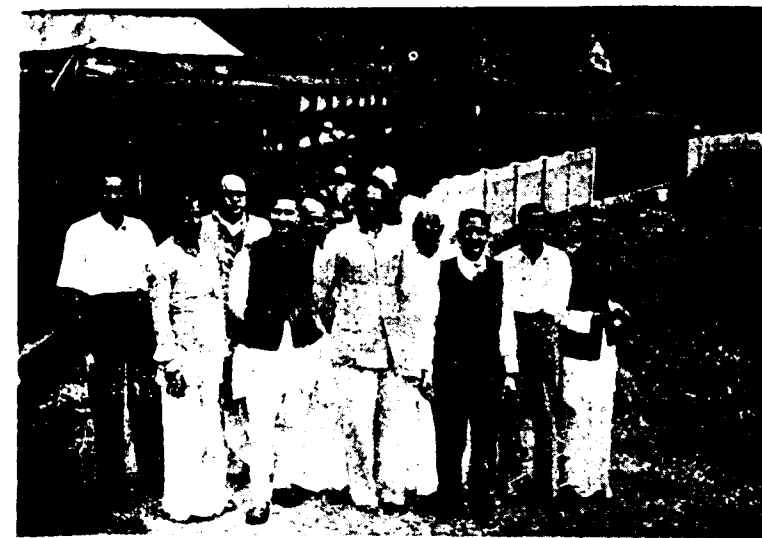
OUR STALL AT THE INDUSTRIAL AND AGRICULTURAL EXHIBITION HELD AT TEYNAMPET, MADRAS, LAST MONTH.



**MEMBERS OF THE NATIONAL RAILWAY USERS' CONSULTATIVE
COMMITTEE VISIT SOUTHERN RAILWAY**



Inspecting G. O. C. Workshops

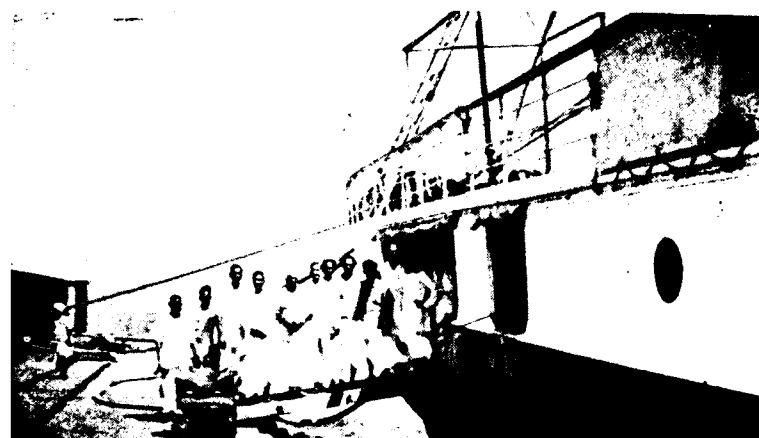


The members at Coonoor

Discussing Railway problems with Madurai
Railway Passengers' Association



Inspecting Rack-Rail at Kallar



Seeing the Ferry service at Danushkodi



They also saw the conversion of the Rallayeroo
bridge on the Renigunta-Gudur section

SOUTHERN RAILWAY

TENDER NOTICE

THE CHIEF ENGINEER, SOUTHERN RAILWAY, MADRAS-3, invites SEPARATE LUMP SUM-CUM-PERCENTAGE TENDERS for the CONSTRUCTION OF STAFF QUARTERS AT BANGALORE as per particulars below, up to 12-00 hours on Monday, the 25th February 1957.

Serial No.	Station	Type of quarters	No. of units	Total approximate value	Earnest money
				Rs.	Rs.
1	Bangalore	Type I	56	1,39,384	7,000
2	"	" II	28	1,76,968	8,850
		" III	4		

2. The tenders should be submitted in the prescribed form obtainable from the Chief Engineer's Office, on production of a receipt for the amount of Rs. 10 paid to the Chief Cashier, Southern Railway, Madras-3 or the Divisional Accounts Officer, Mysore or to any Station Master on the Southern Railway towards the cost of each tender form (including cost of plans and drawings). In no circumstances will the amount paid for the tender form be refunded.

3. The tender form is not transferable.

4. The tenderer should submit along with the tender the Income-tax Clearance Certificate in original or an authorised copy or if he has no taxable income a sworn affidavit duly countersigned by the Income-tax Officer to that effect.

5. Tender forms will not be issued after 15-00 hours on Tuesday, the 19th February 1957.

6. The earnest money for the tenders mentioned above should be paid in advance to the Chief Cashier, Southern Railway, Madras-3, or to the Divisional Accounts Officer, Mysore and the receipt issued by him should be attached to the tender. No demand draft or cheque is to be attached to the tender.

7. The earnest money will not be accepted after 15-00 hours on Wednesday, the 20th February 1957.

8. The tenders will be opened at 12-00 hours on Tuesday, the 26th February 1957 in the Chief Engineer's Office at Madras.

9. The Chief Engineer reserves to himself the right to reject without assigning reason any or every tender or part thereof and does not bind himself to accept the lowest or any tender or part thereof.

FIFTH INTER-REGIONAL
ATHLETIC MEET—1957

A. Ramachandran, Guard, Tanjore, who represented Trichinopoly Region, breaking the All-India record in Pole Vault. He cleared 12' 3½"



Sri Ratan Lall, Chief Operating Supdt. and Chairman of the SRAA, addressing the gathering

A very high standard of athletics was witnessed at the 5th Inter-Regional Athletic Meet held at Perambur grounds on 10th, 11th and 12th January 1957. The Captain Botman Challenge Cup (ARI) for Individual Championship was won by C. M. Muthiah of Mysore Region who scored 17 points, while Vincent Mortin from Trichy Region was a close second with 15 points. The team championship was annexed by Madras Region who claimed 78 points. Trichy with 67 points and Mysore with 55 points finished in that order.

At the conclusion of the items on the programme on the final day Sri N. Seshachalam, Honorary Secretary, Southern Railway Athletic Association, welcomed the gathering. Sri Ratan Lall, who presided on the occasion, addressing the gathering, said:

LADIES AND GENTLEMEN,

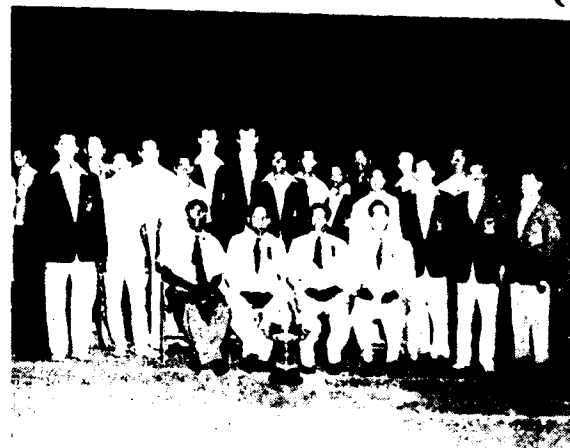
It has given me great pleasure to preside today over this function of the Fifth Inter-Regional Athletic Meet, held from the 10th to 12th January 1957. We, however, greatly miss the presence of Mr. T. A. Joseph, our General Manager and President of the Southern Railway Athletic Association. He had to go to Delhi on 9th January 1957 to attend the General Managers' Conference there. Owing to the Madras State Athletic Meet being held next week closely followed by the Inter-Railway Athletic Meet, it was not possible to postpone our Meet. As you are aware, our General Manager has been evincing very keen interest in Sports activities and has been watching personally the individual performance of players. We are indeed very sorry that he is unable to be present here today to witness and preside over the Sports.



Tug-of-war between officers and selected athletes from three regions

We are all very glad to have witnessed the performances of our athletes today at the Fifth Inter-Regional Athletic Meet. It may perhaps sound a bit odd to call this an Inter-Regional Meet even after the division of the Railway into 8 Divisions. As the divisionalisation of the Railway was completed only a few months ago, it was decided not to disturb for the present, the practice of holding tournaments on an Inter-Regional basis. The credit for the performances at today's Meet, therefore, goes to a group of Divisions. By next year, we hope to be able to organise the Meet on an Inter-Divisional basis.

I heartily congratulate the winners and runners-up of the various items of this Meet. Those who are amongst neither winners nor runners-up should not feel dismayed. They should work for success next year. If you read the Sportsman's objective and Sportsman's Code of Honour printed in the Programme, you will find that the most important thing is not to win but to take part and fight well. I would commend this to all the athletes and request them to continue to take part



Madras Regional Athletic Team—Winners of the Team Championship. Seated left to right: Sri A. B. Krishnaswamy, SLWT/Sports, Sri R. Gopalakrishnan, Chairman, Madras Region and DS/RPM, Sri M. A. Uthappa and Sri N. Seshachalam, Secy., SRAA and Efficiency Officer

in such Meets and to the best of their ability. I specially congratulate those who have created new records and hope they will be able to better them still further in future. Sri Ramachandran of Trichy Division deserves special mention for having beaten the All-India Record in Pole Vault and created a New Record of 12 feet and 3½ inches. This is all to the credit of the Southern Railway. I need not dwell on the value of sports. All I would like to say is that the *esprit de corps* that is so necessary and which has been evinced in a great measure by our athletes should reflect also in our day-to-day Railway work. The Railway is a huge undertaking and the success in different spheres depends on the combined effort of everyone, however high or low he may be.

Our Athletic Team will be taking part in the Inter-Railway Athletic Meet to be held in February at Delhi. Our Railway holds the honour of winning the Inter-Railway Athletic



Sri M. A. Uthappa, Hon. Secy., Madras Region and DO(S) RPM, receiving the Bangalore Cup for Team Championship from Smt. V. T. Naidu



Smt. V. T. Naidu presenting the Individual Championship Trophy to C. M. Muthiah, APWT/SBC—Mysore Region

Championship from 1949 onwards except for a break in 1954. It also holds the distinction of having in its team in 1956 the individual Athletic Champion, C. D. Cleur, and the winner of the Marshall Tito Gold Medal for best performance, M. Gabriel. The standard of athletics on Indian Railways is very high and it will not be possible to retain these distinctions unless you athletes continue the vigorous training and practice and keep yourselves in perfect form. This year there is a very coveted trophy to be competed for at the Inter-Railway Athletic Championship, viz., the Gold Cup presented by the King of Saudi

Arabia. It is the hope of our General Manager and all of us that our athletes will and must endeavour their best to retain this year also the Inter-Railway Athletic Championship and be the first Railway to win the new championship gold cup. I must acknowledge here the keen interest with which Sri A. B. Krishnaswamy, Senior Labour Welfare Inspector, Sports and Athletic Coach, has been training our athletes. His training has been in no small measure responsible for the good performances of our athletes and I am confident that under his continued training, our athletes will do still better. As Chairman of the Southern

Southern Railway Contingent at the Northern Railway Scout Rally : Lucknow (Continued from page 79)

In addition, it gives us all a sense of oneness and unity in the country and creates a sense of affection amongst the Campers gathered as they are from the different parts of the country. These feelings were, to my mind, fully realised and in this respect our Contin-

gent as well as those who took part, have benefited in addition to improving their knowledge.

The Contingent left Lucknow on 25th and was warmly received at Madras on 28th night by District and State Officials.

February 1957

Railway Athletic Association, I would take this opportunity to express my gratitude to Sri N. Seshachalam for taking special interest in the management of the work connected with the Association as its Hony. Secretary. He has been of great help to me. I also thank all those who have helped us in organising and conducting this Meet to a successful conclusion. As stated earlier, the Inter-Railway Athletic Meet will be held at Delhi some time next month. I feel sure you all join me in wishing our Athletic Team complete success there. The members of the Southern Railway Athletic Association and I are very grateful to Mrs. V. T. Naidu, wife of our Chief Medical Officer, for having very kindly consented to distribute the prizes. In conclusion, I wish to thank all those present here who have taken the trouble of joining this function.

JAI HIND



A section of the audience

After distribution of prizes by Mrs. V. T. Naidu, Sri Ratan Lall declared the meet closed.

Meeting of the Commercial Committee of the IRCA under the chairmanship of Sri S. K. Mukerji, C.C.S., S. Rly., at Calcutta on 28-12-56. On his left is Sri S. R. Kalyanaraman, Additional Member (Commercial), Railway Board



February 1957

SPORT

ANNUAL SPORTS—1956-57— S.R.A.A. TRICHINOPOLY REGION

The Fifth Annual Sports Meet of the Southern Railway Athletic Association, Trichinopoly Region, was conducted on 3rd, 4th and 5th January 1957 at the Bell Recreation Ground, Trichy Goods Yard. The final day of the Meet was presided over by Sri M. Ganapathi, Chief Engineer, Southern Railway, Madras. Welcoming the gathering the Honorary Secretary, Sri K. Viswanathan, Mechanical Engineer, Progress, Golden Rock, enumerated the activities of the Regional Association and associated himself with pride at the records set up at the Meet. Smt. Madhava Menon, wife of Sri P. K. Madhava Menon, Divisional Superintendent, Southern Railway, Trichinopoly, distributed the prizes to the winners and runners-up. The function came to a happy and successful conclusion with a word of encouragement from the President of the day's function and Secretary, for bettering the records in the Inter-regional and Inter-Railway Athletic Meets.



Smt. Madhava Menon distributing the trophies

An item for officers—choosing their partner's shoes after a race. (More pictures overleaf.)





Fancy dress competition

FIFTH MYSORE REGIONAL ATHLETIC MEET OF THE S.R.A.A. 29th November to 1st December 1956



March-past of Athletes

Officers at tea. Sri M. Ganapathi is seated facing the camera and on his left is Sri P. K. Madhava Menon



Sri M. C. Madappa proposing a vote of thanks



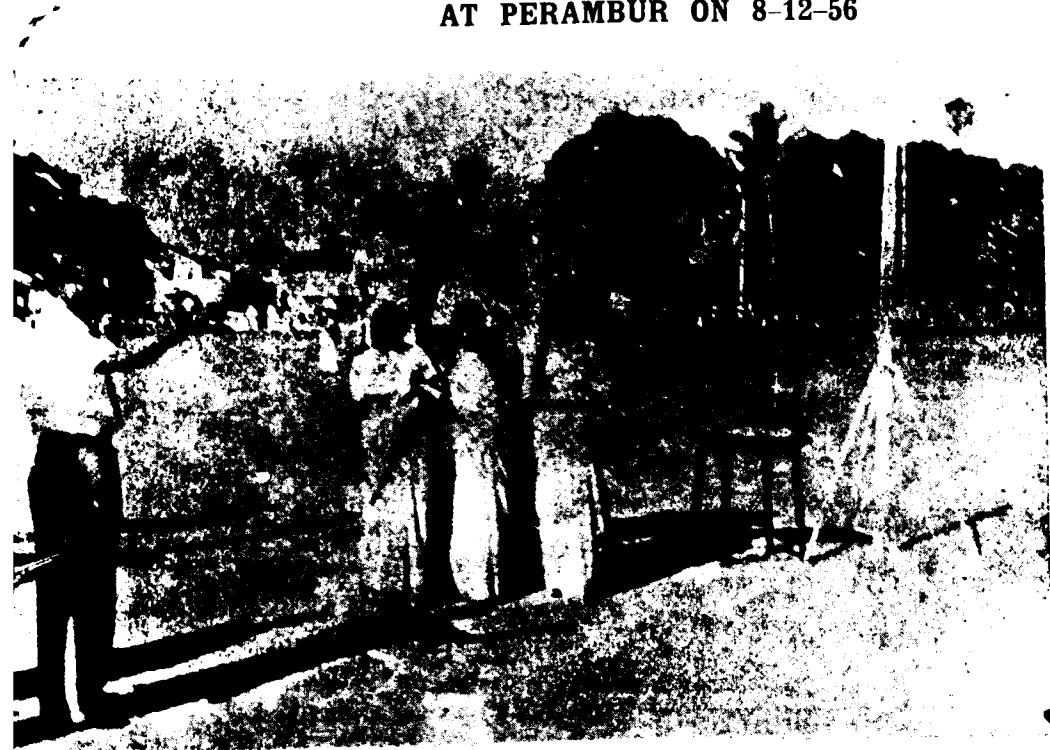
The combined offices team annexed the Inter-shop Hockey Trophy at the Madras Regional Athletic Meet last month. Sri Trevor Dique, Captain of the winners, is seen here receiving the trophy from Sri P. H. Sreekantiah, Dy. CME (M)





Southern Railway Volley-Ball Team—Winners of the South India Championship and Inter-Railway Championship at Gorakhpur in December 56. Sri T. M. Rangachari, (Law Officer) Members-in-charge and Coach, is standing, fourth from left

FIFTH MADRAS REGIONAL ATHLETIC MEET AT PERAMBUR ON 8-12-56



Winners of the Ladies' race

Sri N. Kamalakara Rao who presided speaking on the occasion

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SOUTHERN RAILWAY

TENDER NOTICE

The Engineer-in-Chief, Southern Railway, Egmore, Madras-8, invites SEALED TENDERS for the following work :

Description of work	Approximate value of the contract	Earnest money	Cost of tender form
	Rs.	Rs.	Rs.
RENIGUNTA - GUDUR RAILWAY CONVERSION OF METRE GAUGE TO BROAD GAUGE			
Junction arrangements at Gudur:			
Additions and alterations to the existing Station Building and raising and extending the existing Broad Gauge passenger platform ..	69,800	3,500	10

The above tenders are to be sent to the Engineer-in-Chief, Southern Railway, Madras Egmore, Madras-8, so as to reach him not later than 13 00 hours on Monday the 4th March 1957.

Tenders should be submitted in the prescribed form obtainable from the Office of the Engineer-in-Chief, Southern Railway, Madras Egmore, on production of a receipt for the sum of Rs. 10 (Rupees Ten only) paid to the Chief Cashier, Southern Railway, Park Town, Madras-3, or any Station Master on the Southern Railway towards the cost of tender form. In no circumstances will the cost of tender forms be refunded. Tender forms are not transferable.

Tender forms will be issued up to 12 hours on Friday the 1st March 1957.

Earnest money as detailed above should be paid in advance to the Chief Cashier, Southern Railway, Park Town, Madras-3, not later than 12 hours on Friday the 1st March 1957 and the receipt submitted along with the tender. No Cheque or Demand Draft should be attached to the tender.

Tenderers are required to submit Income-tax Clearance Certificate in original along with the tender. If previously sent and is current, reference to the particular tender with which it was sent should be furnished without fail.

Earnest money is fixed at 5% of the value of the contract and the successful tenderer will be required to furnish 10% of the value as per his accepted tender towards the Security Deposit.

Tenders will be opened at 15-00 hours on Monday the 4th March 1957 at the Office of the Engineer-in-Chief, Southern Railway, Madras Egmore.

The Engineer-in-Chief reserves to himself the right to reject, without assigning reasons, any or every tender or part thereof and does not bind himself to accept the lowest or any tender or part thereof.

SOUTHERN RAILWAY

TENDER NOTICE

The Divisional Superintendent, Southern Railway, Olavakkot, invites separate sealed Lump-Sum-Cum-Percentage Schedule Tenders for the following works to reach him not later than 12 hours on Friday the 22nd February 1957 :

S. No.	Name of work.	Total approximate value of contract	Earnest money to be paid
		Rs.	Rs.
1	OLAVAKKOT—Construction of Staff Quarters—Type I—39 Units	74,000	3,700
2	OLAVAKKOT—Construction of Staff Quarters—Type II—18 Units and Type III—3 Units ..	80,000	4,000
3	JALLARPET-ERODE SECTION—Complete track renewal of existing 80 lbs. B.H. Rails on C. I. Pot Sleepers with 90 lbs. RFF Rails on CST/9 Sleepers (N + 3) for 5 miles from B. 171/13½ to 176/13½	90,000	4,500

Tenders should be submitted in the prescribed form obtainable from the Office of the **Divisional Superintendent (Works), Olavakkot**, on production of a receipt for the sum of Rs. 10 (Rupees Ten only) paid to the **Chief Cashier, Southern Railway, Madras-3** or the **Divisional Accounts Officer, Trichinopoly**, or to any **Station Master, Southern Railway**, towards the cost of each form. Extra copies can be had, if available, on payment of Rs. 2 (Rupees Two only). In no circumstances will the cost of the tender form be refunded. The tender form is not transferable.

Tender forms will be issued up to 14 hours on Monday the 18th February 1957.

Earnest money as above said should be paid in advance to the **Chief Cashier, Madras 3**, or **Divisional Accounts Officer, Trichinopoly**, not later than 15 hours on Tuesday the 19th February 1957.

Tenderers are required to submit Income-tax Clearance Certificate along with the tender.

Earnest money is fixed at 5% of the value of the contract and the successful tenderer will be required to furnish 10% of the value as per his accepted tender towards the security deposit.

The tenders will be opened at 15 hours on Friday the 22nd February 1957 at the Office of the **Divisional Superintendent (Works), Olavakkot**.

The **Divisional Superintendent** reserves to himself the right to reject without assigning reasons any or every tender or part thereof and does not bind himself to accept the lowest or any tender or part thereof.

SOUTHERN RAILWAY

TENDER NOTICE

The Engineer-in-Chief, Southern Railway, Egmore, Madras-8, invites separate sealed tenders for the following works upto 12-00 hours on Friday, the 8th March 1957

Serial No.	Description of work	Approximate value of the work	Earnest Money	Cost of Tender forms
	Quilon-Ernakulam Railway Construction	Rs.	Rs.	Rs.
1	Section III —Ernakulam South to Kottayam Junction arrangements at Ernakulam South—Construction of Railway Mail Service Office at Ernakulam South.	20,600	1,030	10
2	Section II —Kottayam towards Mavelikara Forming level-crossing approaches.	55,000	2,750	10
3	Section II —Kottayam towards Mavelikara Construction of passenger platforms, passenger and goods approach roads, goods loading bank and Motor loading bank at Stations.	2,03,000	10,150	10

Tenders should be submitted in the prescribed forms obtainable from the Office of the Engineer-in-Chief, Southern Railway, Egmore, Madras-8 or from the Executive Engineer's Office, Quilon-Ernakulam Railway Construction, Ernakulam South on production of a receipt for the sum of Rs. 10 (Rupees Ten only) paid to the Chief Cashier, Southern Railway, Madras-3 or the Station Masters, Ernakulam South or Quilon towards the cost of **each Tender Form**. In no circumstances will the cost of tender forms be refunded. Tender forms are not transferable.

Tender forms will be issued upto 12-00 hours on Tuesday, the 5th March 1957.

Earnest Money as mentioned above should be paid in advance to the Chief Cashier, Southern Railway, Madras-3 not later than 12-00 hours on 5-3-1957 and the receipt submitted along with the tender. No cheque or demand draft should be attached to the tender.

Tenderers are required to submit Income-tax Clearance Certificate, in original, along with the tender. If previously sent and is current, reference to the particular tender with which it was sent should be furnished.

Earnest Money is fixed at 5% of the value of the contract and the successful tenderer will be required to furnish 10% of the value as per his accepted tender towards Security Deposit.

Tenders will be opened at 15-00 hours on Friday, the 8th March, 1957, at the Office of the Engineer-in-Chief, Egmore, Madras-8.

The Engineer-in-Chief reserves to himself the right to reject without assigning reasons, any or every tender or part thereof and does not bind himself to accept the lowest or any tender or part thereof.

THE SOUTHERN RAILWAY

has many attractions for the Tourist, Pilgrim and the Student of History

BIJAPUR is the ancient city of the famous Adil Shahi dynasty. It is now in ruins and the gigantic structure called the Gol Gumbaz contains a perfect whispering gallery.

CAPE COMORIN or KANYA KUMARI is the land's end of India where the waters of Arabian Sea, the Bay of Bengal and the Indian Ocean meet. It has a famous temple dedicated to the Goddess Kanya Kumari.

CHIDAMBARAM has a famous temple of great antiquity dedicated to Nataraja or Siva in His aspect as The Cosmic Dancer. Within a mile of Chidambaram Railway Station is the Annamalai University Campus.

CHINGLEPUT is the Railway Station for Tirukkalukunram or the 'Hill of the Sacred Kites' and Mahabalipuram with its famous sculptured rock-cut temples.

CONJEEVERAM is famous for its Siva and Vishnu temples.

HASSAN is the best place from which the famous temples of Belur and Halebid can be visited.

HUMPI (Vijayanagar)—The capital of the Never-to-be-forgotten Hindu Empire where the marvellous ruins of the old city spread over several square miles.

KALAHASTI one of the greatest shrines of Southern India where the element of 'Vayu' or Air is worshipped.

MADRAS the third largest city in India, is the metropolis of the State of Madras and the headquarters of the Southern Railway. The city covers about 50 sq. miles and has a population of nearly 1½ millions.

MADURA the famous capital of the Ancient Pandya Kings is the second largest city in the Madras State. The chief attraction in Madura is its massive temples dedicated to God Siva and Meenakshi the fish-eyed Goddess.

MYSORE is the city of lights. The enchanting **BRINDAVAN GARDENS** are only ten miles from Mysore.

RAMESWARAM contains one of the most venerated Hindu shrines and one of the finest examples of South Indian architecture.

SRIRANGAM (via Trichinopoly) is the most important Vaishnava shrine in South India.

TANJORE has the famous Brihadeeswara temple and Saraswati Mahal Library which contains a rare collection of ancient books, manuscripts and palm leaves.

TIRUCHENDUR is famous for its sea-side temple dedicated to Lord Subramanya which is 1,000 years old.

TIRUPATI is held in the highest reverence by Hindus and has a perennial flow of pilgrims. The hill temple is an example of early Dravidian architecture and is one of the richest in South India.

TIRUVANNAMALAI—The large Siva temple at the foot of the hill is one of the largest in South India. The famous Ramanashram is about two miles from the Railway Station.

TRICHINOPOLY is noted for its shrines at Srirangam and Tiruvanaikoil. It is a flourishing city on the right bank of the river Cauvery.

TRIVANDRUM is now the capital of Kerala State. It has a lovely beach, a famous art gallery and museum and is well-known for its ivory work.

