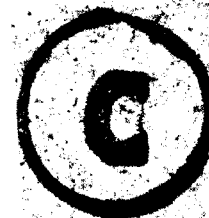


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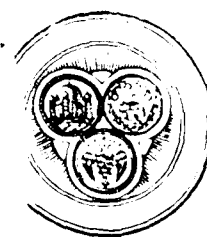
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A high-contrast, black and white photograph of a tropical landscape. In the foreground, there are several palm trees with large, fan-like fronds. The background shows a steep, rocky hillside covered in dense vegetation. A circular stamp is visible in the upper right corner, containing the text "OFFICE OF THE RESIDENT", "28 JUL 1956", and "MADRAS".

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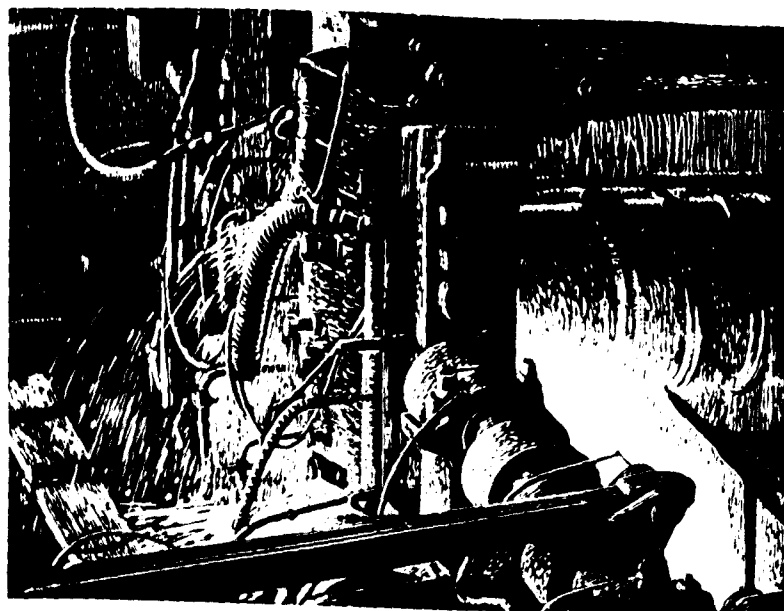
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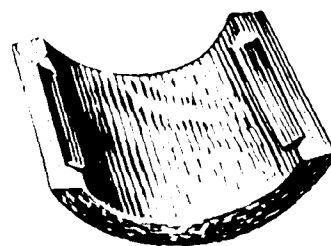


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EDITORIAL NOTICE

VOL. III

No. 3

Editor:

K. SRINIVASAN

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

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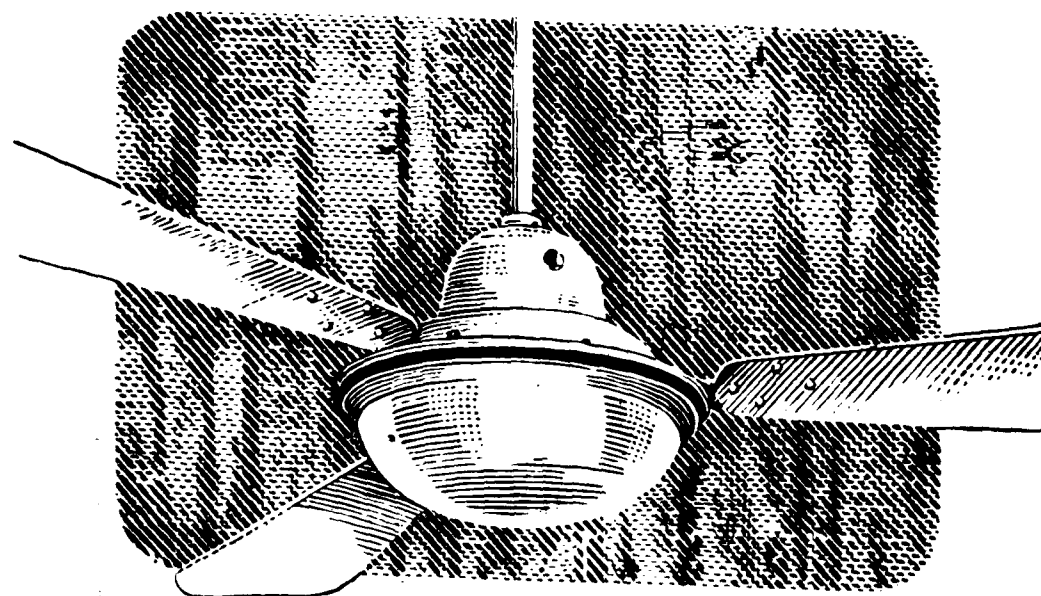
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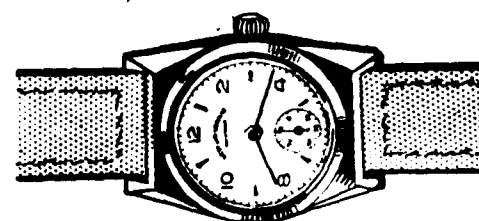


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CONTENTS

JUNE 1956

<i>Editorial</i>	...	7
<i>Notes and Comments</i>	...	9
<i>World of Railways</i>	...	17
<i>Development of Stores Organisation on the Railways</i>	...	21
<i>Simhachalam in Andhra State</i>	...	33
<i>Track Laying</i>	...	39
<i>Medical</i>	...	41
<i>Women's Page</i>	...	43
<i>Children's Corner</i>	...	45
<i>Sacred Places of Buddhism in India</i>	...	49
<i>Common Traits of Human Character</i>	...	51
<i>Hump Classification Yards</i>	...	53
<i>How the Difficulties facing Railways are Tackled</i>	...	61
<i>Integrity in Administration</i>	...	65
<i>Our Commercial Newsletter</i>	...	66
<i>S. R. News</i>	...	67

The Committee also recommends the introduction of uniform prices for basic raw materials in order to encourage equitable industrial development in the country. For this purpose it

suggests, atleast one centre in every state should be declared to be a 'port' for the purpose of a uniform price for steel, pig-iron, coal and coke.

Special Committee's Findings

Staggering of working hours of Railway offices with a large staff, reduction in the number of classes from three to two on the steam-operated sections as on electrified sections and reservation of some seats instead of compartments for women are some of the main recommendations made by the Suburban Train Overcrowding Committee. Season ticket-holders are held partly responsible for causing overcrowding on suburban trains in Bombay, Madras and Calcutta by the Special Committee which recently considered the question and submitted its report to the Government of India. Among the causes for serious overcrowding, according to the Committee, is absence of any restriction on the number of journeys performed by season ticket-holders.

The Committee has also referred in its report to malpractices under which unscrupulous season ticket-holders pass on their season tickets to other persons who undertake additional journeys on the same tickets. The Committee remarks that the actual number of journeys performed by a ticket-holder is much larger than 25 return

journeys per month to which he is entitled.

On the Southern Railway, it has been found that the number of season ticket-holders and those who undertook journeys on single tickets was equal—about 4.4 million on the Broad Gauge.

Inter alia the Committee found the crowds travelling on Madras suburban trains are docile and amenable.

The Committee stresses that the Railway administrations having a larger concentration of staff, might, with a view to setting an example, examine the implications of introducing staggering in working hours in their own offices and the effect of this step on the traffic.

Another important recommendation of the Committee is the creation of space for standing passengers. About half the space should be taken up by seats and the balance made available for standing, except on short runs on the Kurla-Mankhard branch of Bombay suburban system and the Santragachi-Shalimar branch of the Calcutta suburban system, where only standing room should be provided.



NEAR SELF-SUFFICIENCY IN RAILWAY EQUIPMENT BY 1960—EQUIPMENT COMMITTEE SUBMITS REPORT

The nine-member Railway Equipment Committee, which submitted its report to the Government of India recently has recommended that the development of additional capacity for the manufacture of Railway equipment within the country should be based on the original Railway Five-Year Plan of Rs. 1,480 crores, and not on the reduced Plan of Rs. 1,125 crores.

"Unless this is done," the Committee observes, "the development of capacity may fall short of the Railways' increasing requirements and result in avoidable imports."

"In view of the vital role which the Railways will have to play to meet the increasing demand for transport", says the Committee, "we have no doubt that adequate resources will be made available to them for providing the necessary carrying capacity."

Terms of Reference

The Committee was appointed in January 1955. It was asked (1) to locate idle capacity in India for the manufacture of Railway equipment and rolling stock which are at present imported; and (2) to suggest ways and means of expanding the existing plants and/or of setting up new industries in India for meeting existing and future requirements of Railway equipment which cannot be manufactured with the existing resources.

Besides the chairman, Sri G. B. Kotak, members of the Committee were: Sri Amar Nath Agarwal, M.P.; Sri G. R. Damodaran, M.P.; Sri L. P. Misra, General Manager, Hindustan Motors Ltd.; Sri D. M. Sen, Deputy General Manager, Burn & Co., Ltd.; Sri Murarji J. Vaidya of National Electrical Industries Ltd., and Chairman, All-India Manufacturers' Organization; Sri K. Ramachandran, Chief Mechanical Engineer, Eastern Railway; Sri P. C. Kapoor, Joint Director, Railway Board; and Dr. B. D. Kalelkar, Industrial Adviser (Engineering), Ministry of Commerce and Industry. Sri N. N. Tandon, Works Manager, Eastern Railway, was the Committee's Secretary. Sri K. L. Ghei, Joint Secretary, Ministry of Finance, was co-opted as a member of the Committee.

The Committee issued a questionnaire to which it received a large number of replies. It visited several important industrial units in different parts of the country and held discussions with chambers of commerce, trade associations, government officials etc., at Delhi, Bombay, Calcutta, Madras, Coimbatore, Bangalore, Kanour, etc. To facilitate its investigation work, the Committee divided itself into five panels dealing with different major groups of Railway equipment.

Goal of Self-sufficiency

The Committee points out that the expenditure on railway equipment and stores during the Second Five-Year Plan would be substantially higher than Rs. 100 crores per year, which

had been the average during the past few years.

The Committee feels that "near self-sufficiency" in regard to Railway requirements would be reached by 1960, if the actual requirements do not exceed the present estimates based on the financial provision made in the Second Plan. "We, however, apprehend that the increasing demand on the Railways as the Second Five-Year Plan progresses would appreciably enhance the requirements of Railway equipment in the later part of the Plan," the Committee observes. "If imports are to be avoided at that stage, a somewhat bold policy for developing indigenous manufacturing capacity, even in excess of the present estimates, should be followed from now onwards."

The possibilities of export in course of time should not be ruled out.

"The Railways, as the country's largest users of engineering stores and machinery, can play a vital role in setting the standard for the growth of the engineering industry", the Committee remarks. "To gain self-sufficiency, we will have to discard red-tapism and rigid adherence to old, cumbersome formalities and the Railways will have to act boldly."

Serious shortage of Materials

The Committee found that, with the exception of grey iron foundries, engineering capacity in the country was fully booked. Idle capacity as such does not exist, and whatever idle capacity occurs is mainly due to inadequate and irregular supply of raw materials like steel, pig-iron and hard coke.

"The biggest single factor which has prevented the rapid growth of engineering industry in recent years," observes the Committee, "is the serious shortage of steel and pig-iron, which has hampered the manufacturers in their production programmes."

The Committee goes on to recommend that substantial imports of steel and pig-iron for Railway requirements at ruling world prices should be accepted as inescapable, and suitable arrangements made for obtaining adequate and regular supplies from abroad after making an assessment of the shortfall expected during the next five years.

To ensure timely releases of materials in short supply, the Committee recommends that adequate quantities of controlled raw materials be stocked at "dumps" at suitable places in the country, from which these could be issued to manufacturers.

The Committee also recommends the introduction of uniform prices for basic raw materials in order to encourage equitable industrial development in the country. For this purpose, it suggests, at least one centre in every State should be declared to be a "port" for the purpose of a uniform price for steel, pig-iron, coal and coke.

Measures to achieve Self-Sufficiency

In achieving complete self-sufficiency in regard to various items, the Committee stresses that certain "unorthodox" methods would have to be employed. In this connection, the Committee makes the following observations:

Continuity of Orders

Prospective manufacturers, if they are to be attracted to invest capital in new ventures, must be assured, for a reasonable period, of utilization of the major portion of the capacity developed.

Equalization of prices for controlled Raw Materials

Many manufacturers located unfavourably in respect of sources of raw material find it difficult to compete in respect of cost of manufacture and this factor hampers creation of new capacity. It is, therefore, necessary to equalize the price of controlled raw materials on an all-India basis.

Purchase Procedure

With a view to facilitating the development of indigenous industry, the Stores Purchase Committee had made certain recommendations regarding price preference in favour of indigenous products, special preference to small-scale industries, uniform registration of suppliers, protection to industry against unfair competition and establishment of permanent exhibitions. The adoption of these recommendations by the Ministry of Railways is most desirable.

Standing Advisory Committee

For enlisting support of the private sector in the development of indigenous industry, the appointment of central and regional advisory committees of Railway equipment will be of great help.

Licensing of Capacity

With a view to safeguarding against the possibility of capacity offered by new-comers not materializing fully, licences for new capacity should be issued in excess of the present assessed requirements. This will also cater for any increase in requirements at a later stage.

Wagon self-sufficiency "Ensured"

Import of passenger coaches, the Committee says, will not be necessary during the Second Plan period, with the exception of electrical multiple unit stock, till indigenous capacity in this respect is established. This is already being developed.

In regard to goods wagons, the Committee received a large number of proposals from private manufacturers who exhibited "much enthusiasm." The Committee feels that complete self-sufficiency in regard to wagons is ensured, provided "educational" orders are placed by the Railways liberally.

Dealing with the requirements of locomotives during the Second Plan period, the Committee recommends the



Sri M. Ganapathy, GM, W. Ry., opening the new Marshalling Yard at Ratlam on 10th May 1956

immediate establishment of a diesel and electric locomotive plant to help in reducing imports to some extent during the Second Plan period, and to lead the Railways to self-sufficiency in the Third Plan period.

The Committee has also made a number of specific recommendations in regard to other major items of Railway equipment like coaching underframes, signalling equipment, permanent-way material, train lighting equipment, traction equipment, steel castings, wheels and axles, etc.

The extension of indigenous capacity for the manufacture of electric multiple unit stock is also recommended.

Pointing out that the construction of passenger coaches and repair work have suffered serious setbacks from

time to time through extreme shortage of steel panels and timber, the Committee stresses the need for increasing use of aluminium panels. The Committee also recommends increasing use of aluminium roof tanks in place of galvanized tanks which are in short supply.

Other Recommendations

The following are some of the other recommendations of the Committee.

The principle of booking capacity of indigenous manufacturers for periods extending upto five years should be applied to all items of Railway equipment in short supply.

To encourage development, "educational" orders for stores likely to be in short supply should be placed liberally.

When any equipment is imported, components of such equipment which can be manufactured within the country should as far as practicable not be imported.

A directory of imported stores in use on the Railways should be published periodically.

Government should permit to the private sector the use of testing facilities in Government laboratories, and institutions recognised by Government which have adequate testing facilities should be authorised to issue test certificates.

Railway equipment show rooms established last year at Calcutta, Bombay, Delhi and Madras should continue till they can be taken over as a part of bigger show rooms covering all Government departments.

A Development Co-ordination Section should be created in the Equipment Directorate of the Railway Board.

Role of small-scale Industries

The Committee recommends that suitable steps be taken to enable the small-scale industry to expand rapidly

and to meet in an increasing measure the Railway's needs of some of the manufactured components. With this end in view, the Committee makes several suggestions.

A general price preference upto 25 per cent to the products of cottage and small-scale industries should be made applicable to direct purchases by Railways on the lines recommended by the Stores Purchase Committee.

The small-scale producer should not be at a disadvantage in regard to the price of raw materials, particularly steel. The Committee suggests that steel should be made available to the small-scale industry at the same price as to the other industries.

Accident Relief Medical Car built at the Central Railway Carriage and Wagon Workshops, Matunga. Photo shows the Ward Room with three-tier arrangements for lying cases



ACCELERATING USE OF HINDI ON RAILWAYS

Railway Administrations throughout the country have been requested to take early steps to increase the available facilities for teaching Hindi to their staff.

Hindi classes are to be started for the benefit of non-Hindi knowing staff, and for this purpose the Railway Board has supplied a model scheme to the Railways.

The Railways have also been requested to undertake a census of non-Hindi knowing Railway employees, covering all categories of staff, including class IV staff who are required to know rules, read names, numerals, etc.

The Railways have been told that communications received at their headquarters or at divisional, regional and district levels should, as far as possible, be answered in Hindi. Hindi signboards, notices, etc., displayed on Railway premises and in trains should accord with the standardised terminology supplied some time ago by the Railway Board.

Among other important steps suggested to the Railways are the issue of Hindi versions of administrative instructions, booklets, circulars, etc. Hindi time-tables should also be published simultaneously with the English versions.

I.C.F. DOUBLES SCHEDULED PRODUCTION

During the first year of its production, the Integral Coach Factory at Perambur is expected to turn out twice as many passenger coaches as it was originally scheduled to do.

As the full target production of 350 coaches is now expected to be reached earlier than originally proposed, global tenders for additional machinery have been invited.

Out of 544 machines which were ordered abroad, 543 have already been received in the Factory, and a majority

of these have been erected. The very first machine was installed on January 20, 1955.

The fourth batch of 199 apprentices recruited in November last year for training in various trades has reached the end of its six-month training at the Factory's training school. Selection of the fifth batch has been completed, and training would commence shortly.

Last January, a further batch of 14 selected technicians left India for Switzerland to undergo six months' specialised training at the Schlieren firm.

As steel supply continues to cause difficulty, action has been taken to expedite the supply of about 5,000 tons of steel sections and plates from suppliers abroad.

NEW CLAIMS COMMISSIONER FOR RAIL ACCIDENT

The Central Government had, under Section 82-B of the Indian Railways Act 1890, appointed Sri S. B. Sen Gupta, Retired District and Sessions Judge, Bihar, as the Claims Commissioner for enquiring into and determining all claims for compensation arising out of the accident to 520 down passenger train on January 7, 1956 between Katihar West and Samapur stations on the N.-E. Railway resulting in death and injury to a number of passengers.

As Sri Sen Gupta could not take up the appointment, the Central Government have now appointed Sri Nasiruddin Khan, Retired District and Sessions Judge, as the Claims Commissioner for enquiring into the determining all claims for compensation arising out of this accident.

ANNUAL REPORT OF CHIEF INSPECTOR OF RAILWAYS

Government Inspectors of Railways, under the Union Ministry of Communications, held enquiries into 16 serious accidents on the Indian Railways during 1954-55, according to the annual report of the Chief Government Inspector of

Railways. The number of accidents enquired into during the previous year was 20.

Of the 16 accidents investigated, collisions accounted for five and derailments for eight. Of the remaining three, one was the result of fire, while the other two were collisions between trains and road vehicles at unmanned level-crossings. Four of the five collisions were attributed to mistakes on the part of the train crew and/or the station staff.

Of the eight cases of derailment, two were held to have been caused by negligence of the train crew, three by failure or defective condition of locomotive or rolling stock and two were attributed to failure of permanent-way and a bridge.

Remedial Measures

The report goes on to give a summary description of each accident into which a formal inquiry was made, its causes and the remedial measures suggested for the prevention of similar accidents in future.

The total number of accidents of various types, including very minor accidents, on the Indian Railways was 12,922 in 1954-55 as against 15,517 in the preceding year.

According to the rules, Government Inspectors are required to hold an enquiry into every accident to a passenger train which is attended with loss of human life or serious injury to any person in the train or any accident in which the estimated damage to railway property is Rs. 20,000 or more. He may, however, hold an enquiry into any accident if, in his opinion, the contingent circumstances were such as to render such enquiry desirable; for example, an accident which is attended with neither casualties nor any appreciable damage to property, but whose causes, if allowed to persist, may result in a serious accident to a passenger train, may form the subject of a formal enquiry by an Inspector.

Besides the investigation of accidents, the duties of the Inspectors include the inspection of railways to determine their fitness for being opened for the public carriage of passengers and such periodical or other inspection of railways or rolling stock used thereon as the Central Government may direct.

New Lines Opened

During the year under review, 79 miles of new railway lines were inspected before being opened to passenger traffic. In addition to this, 227 miles of railway lines dismantled during the last war and 11 miles involving realignment of existing lines were inspected before being thrown open to public traffic.

About 13,096 route miles of Government Railways, covering 38 per cent of the total route mileage, were inspected during the year. In addition, 12 company-managed railways were inspected in full by the Government Inspectors.

On the recommendation of the Inspectors, the Railway Board accorded sanction to the running of various types of new locomotives and rolling stock during the year.

During the period under review the Government Inspectors gave sanction for the opening of new crossing stations, conversion of flag stations to crossing station, remodelling of station yards and other such works connected with increasing the line capacity to cope with increased railway traffic. Similarly a large number of works connected with the installation of new bridges, signals, interlocking installations, etc. and for improving the existing strength and standards of track and bridges were sanctioned during the year.

Safe Carriage of Goods

During the year under review the railways had to carry mostly from sea-ports to inland stations various new

types of machinery and other oversized consignments which infringed the prescribed maximum dimensions of goods for carriage by railway wagons. The problem was carefully studied and detailed instructions for the safe carriage of such consignments were prepared and issued during the year.

The report, which is a priced publication, can be obtained from the Manager of Publications, Government of India, Delhi.

INTERNATIONAL RAILWAY CONGRESS ASSOCIATION MEETING

A three-member delegation of railway officers will represent India at the enlarged meeting of the Permanent Commission of the International Railway Congress Association, being held at The Hague from June 4 to 8, 1956.

The Association is the premier technical railway organisation of its kind in the world, and India is one of its permanent members.

The leader of the delegation is Shri P. C. Mukerjee, Member (Engineering), Railway Board, Government of India. The other two members are Indian railway officers working in London: Shri R. H. G. Da Costa, Railway Adviser to the Indian High Commissioner in U.K., and Shri M. Srinivasan, Senior Railway Inspector attached to the Indian Stores Department, London.

While abroad, Shri Mukerjee will also visit U.K. and some other European countries to finalise arrangements in connection with the inspection of rolling stock and other materials ordered by India.

TOURIST TRAFFIC

The number of foreign tourists who visited India during 1955 was 43,645. The amount of foreign exchange earned in 1953 and 1954, as assessed by the Reserve Bank of India, was Rs. 2.7 crores and Rs. 3.6 crores respectively. The corresponding provisional figure for January-June, 1955, was Rs. 1.8 crores.

"SPACE-TIME-SPEED" STUDIES

The Railways in the Bombay, Calcutta and Madras areas have been advised to undertake "space-time-speed" studies to obtain reliable data for ascertaining the requirements of suburban railway traffic, it is understood.

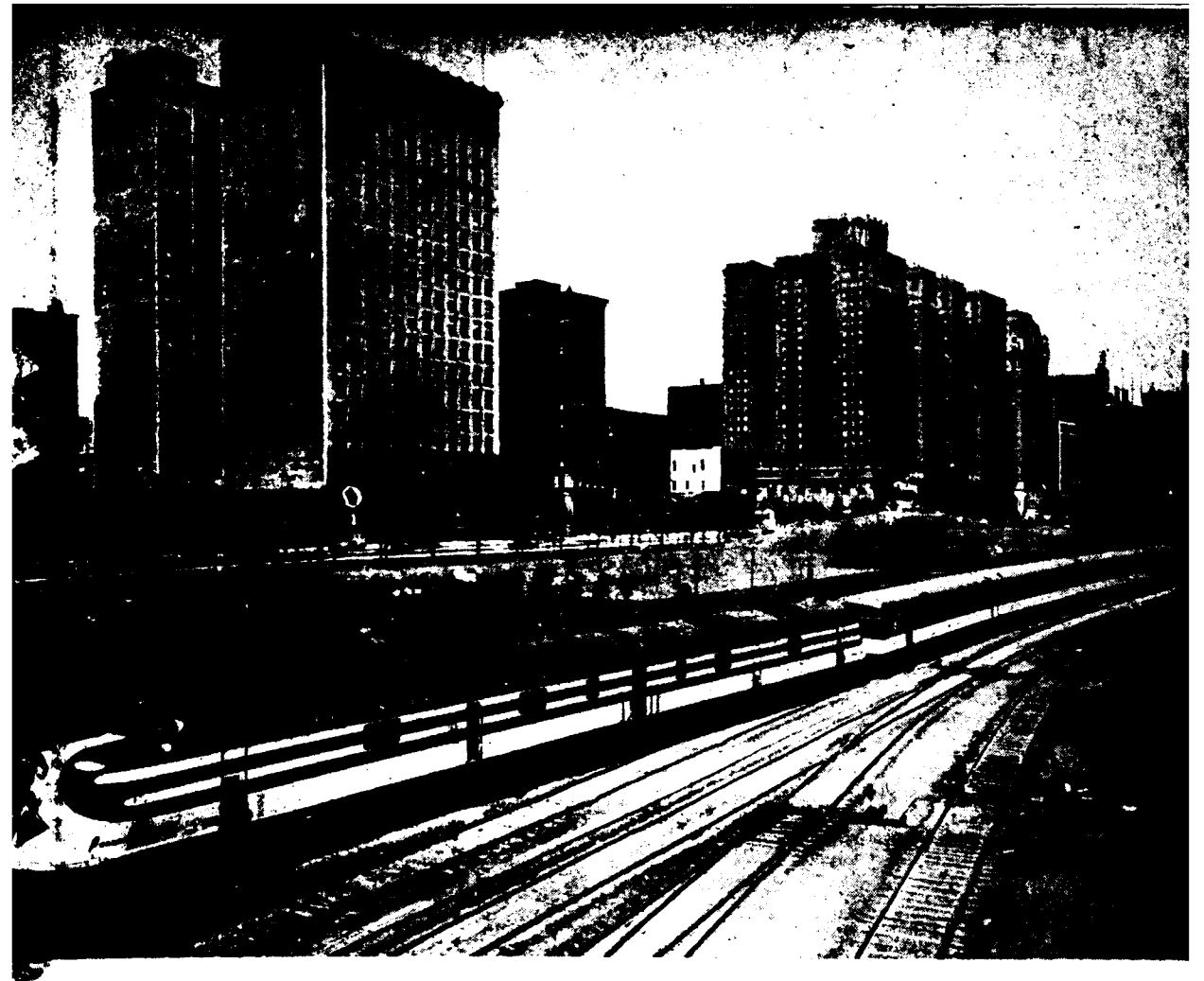
The suggestion has been made by the Suburban Overcrowding Committee which recently submitted its report to Government. The Committee points out that when large masses of people move simultaneously in the same direction at rush periods, the removal of little obstructions which would otherwise not be noticed would go a long way in speeding up movement of traffic and result in faster turn-round of suburban trains.

Studies on the subject have already been carried out in the United States and these have embraced points like the height of platforms where suburban trains stop, the width of platforms, the location of benches and vendors' stalls, facilities for faster entraining and detraining by passengers. The object of the studies has been to achieve the maximum free flow of incoming and outgoing suburban passengers.





Southern Railway Headquarters Offices, Madras



* The Illinois Central Railway's 'Panama Limited' diesel-hauled express between Chicago and New Orleans, seen outside the Central Station, Chicago

WORLD OF RAILWAYS

ARTHUR L. STEAD

Our London Correspondent

A little over a century-and-a-quarter ago, the historic steam locomotive, "Stourbridge Lion", was shipped from England to lay the foundations of the American railway system. The "Lion" was the very first practical steam engine to operate in the U.S.A., and it made history in trial runs conducted in Pennsylvania in 1829.

Early railway development in the U.S.A. mostly was centered on the

Eastern States, near to the Atlantic seaboard, but as the pioneers moved westwards the "Iron Way" followed hard on their heels, and in 1848 the first steam locomotive to reach Chicago—very appropriately itself named "Pioneer"—aroused tremendous enthusiasm and interest in the Mid-Western metropolis.

Today, the "Windy City" of Chicago, on beautiful Lake Michigan, is the hub of the vast U.S. rail network

and the busiest railway centre in the whole world. Chicago is served by no fewer than 22 distinct main-line railways; seven shunting (or "belt" lines, as they are called); and three electric systems. Within the city boundaries, there are approximately 7,700 track miles of railway, or 3,000 route miles—figures considerably in excess of those boasted by London Town itself.

Every day, there pass over the intricate arrangement of tracks in and out of Chicago more than 1,450 passenger trains and approximately 2,900 goods trains. Seven passenger stations and about 270 goods stations large and small are scattered in and around the city, and to and from Chicago there are operated through trains and through carriages linking up with practically every centre of importance in the United States, Canada and Mexico.

Chicago's passenger stations embrace structures both old and new and of the most varied designs. Actually, none of the Chicago stations can boast of having served the public for so long as many Indian or British terminals, but the Dearborn Station traces its history back to 1885. Like most Chicago stations, Dearborn is used by the trains of several railway companies, these including the Atchison, Topeka and Santa Fe; the Grand Trunk Western; the Chicago and Eastern Illinois; the Erie; and the Wabash. Daily passenger handlings at this point total about 7,000 and many of these travellers pass in and out from and to places as distant as 2,000 miles.

The concourse at Dearborn Station is modern, with marble walls and floors. In contrast, the train shed, reached from the concourse by double sliding doors, is of small architectural significance. This shed, however, houses "flyers" of world-wide fame, such as the Chicago-California "Super Chief" of the Santa Fe Railway, and the "International Limited" of the Grand Trunk Western Company.

Supplementing the Dearborn Station facilities is an annexe mainly given over to the handling of postal mails and parcels. On top of main-line business, Dearborn deals with a heavy suburban traffic.

In contrast to Chicago's oldest passenger station (Dearborn), there is the Union Station, newest of the city passenger depots. The term "union" station in America is the equivalent of our expression, "joint" station, indicating that the depot is utilised by the trains of more than one system. Union Station, Chicago, handles the trains of the Milwaukee; Gulf, Mobile and Ohio; Chicago, Burlington and Quincy; and Pennsylvania Railroads. Opened thirty-odd years ago, Union Station caters for such famous trains as the Pennsylvania's Chicago-New York "Broadway Limited", and the Burlington's vista-domed "Twin Zephyrs". About 50,000 passengers are handled daily at this point, and the station is a particularly imposing stone structure flanked by handsome 30-ft. high Doric columns, reminiscent of Euston Station, London.

Probably the most "pleasing to the eye" passenger station in Chicago is the Chicago and North-Western Terminal, built in the early Italian Renaissance style with a picturesque colonnaded entrance. This terminal is not a joint concern—like all the other Chicago passenger stations—but handles the trains of one line only, the Chicago and North-Western.

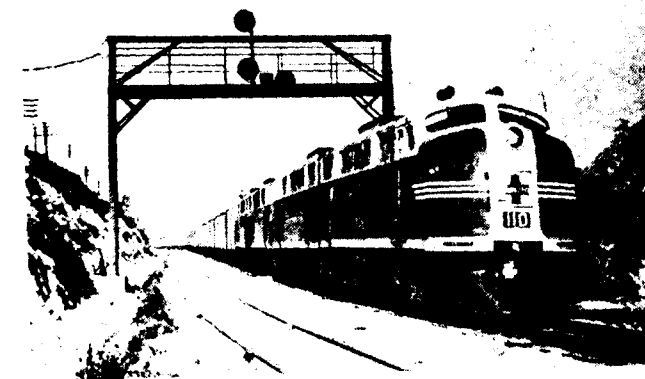
The North-Western Terminal has sixteen platform tracks, and among important trains handled are the Chicago-Pacific Coast "flyers" operated jointly with the Union Pacific and Southern Pacific Companies. Every day, this particular station deals with about 85,000 passengers, of which about two-thirds are suburban travellers. The sumptuous trains heading out of the North-Western Terminal for the Pacific Coast are operated in hot competition with the equally luxurious services of the Santa Fe Company out

of Dearborn Station, and these ultra-modern outfits moving between Chicago and California represent the very top-notch in carriage design and furnishing, being really first-class hotels on wheels rather than common or garden railway trains.

Central Station, Chicago, is another important terminal, a prominent feature of which is its high tower with a huge clock on top. This station is the headquarters of one of the most progressive American railways—the Illinois Central—which runs almost due south from Chicago to the Gulf of Mexico, in contrast to the majority of U.S. lines which operate in an east-west direction and vice versa, a feature which has led to the company adopting for itself the appropriate slogan: "Main Line of Mid-America".

The only through passenger station in Chicago, Central Station has eight tracks and handles about 5,000 passengers daily by main-line services, many of these patrons being moved to and from distant points like New Orleans and the Florida resort of Miami. In addition to Illinois Central trains, the Central Station also handles much New York Central business. Suburban traffic—dealt with by Illinois Central electric trains—is centered on a separate adjoining depot known as

The Chicago-California "City of Los Angeles" express travelling over the Chicago and North-Western Railway on the outskirts of the Mid-Western metropolis



Chicago-San Francisco express freight train of the Santa Fe Railway moving westwards to the Pacific Coast

Randolph Street. At this latter station there are handled approximately 1,000,000 suburban passengers weekly, and about 500 trains enter and depart daily.

Chicago's two remaining passenger stations are the Grand Central and the La Salle depots. The first-named is used by America's oldest railway—the Baltimore and Ohio—and by the Chesapeake and Ohio; Chicago Great Western; and Soo Line Railways. The La Salle Station accommodates trains of the New York Central; Rock Island; and Nickel Plate Railways.

Grand Central Terminus, Chicago (not to be confused with the important station of the same name in New York) has twelve tracks, eight of which accommodate passenger trains and the other four postal mail and parcel trains. This is the station upon which are based, at their western end, the modern "flyers" of the Baltimore and Ohio—beauties of the "Iron Way" like the all-blue "Capitol Limited" and the "Columbian".

La Salle Station, nearby, is a two-level terminus opened in 1909. About 200 trains are handled daily, carrying 50,000 passengers. There are sixteen tracks, and much of the traffic dealt with is suburban. Most famous of all long-distance trains using the station is the New York Central's wonderful palace on wheels, the "Twentieth Century Limited", linking Chicago with New York.

Chicago is a truly busy passenger centre, but it is an even busier goods traffic point, and to adequately describe the maze of freight facilities of all kinds within the Mid-Western capital would occupy a whole issue of SOUTHRAILNEWS. By far the majority of the U.S. railways work goods traffic in and out of Chicago, and wagons bearing on their sides the insignia of all the U.S. and Canadian railways are regularly met with. The city's 270 goods stations are supplemented by about 170 marshalling yards, while seven "Belt" (shunting) railways link most of the Chicago depots.

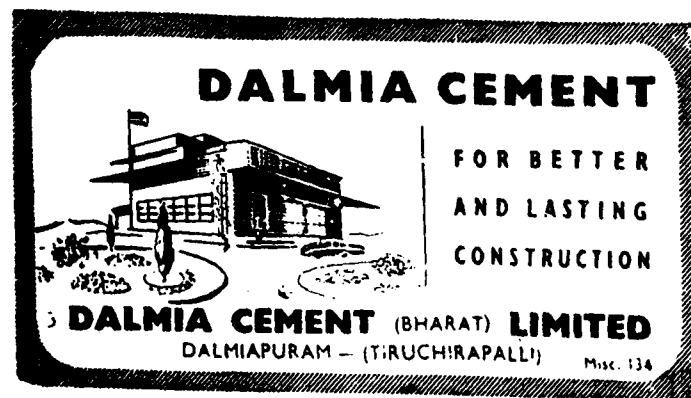
Normally, through goods trains in and out of Chicago are broken down and made up at gigantic marshalling yards equipped with every modern mechanical device, including radio communications, located on the city outskirts. These yards feed smaller yards within the city, connection between the two being provided by the "Belt" lines.

To handle the enormous livestock business of the Chicago Stockyards there are most elaborate rail facilities, but the largest of all the Chicago marshalling yards is the Chicago and North-Western's Proviso Yard, covering no less than 1,500 acres and of 26,000

wagon capacity, with a huge 21-acre goods warehouse.

Traffic among all the U.S. Railways is exchanged with the greatest freedom, and meticulous records are kept of all wagon moves throughout the country. To give a slight idea of the enormous freight traffic handled at Chicago and the work involved in keeping wagon records, it may be mentioned that at one typical Chicago goods station—that of the Baltimore and Ohio—wagon movements are recorded on huge 12-ft. sheets, details of which are abstracted so that each movement can be duly debited to the particular railway owning the wagon.

America is indeed the land of "big railroading", and in and around Chicago high-capacity goods wagons of every type, conveying mammoth loads of every conceivable commodity, present striking evidence of the magnitude of the U.S. Railway industry. Of course, arriving in Chicago from some relatively quiet spot like Madras, you might not—for a time at least—be attracted by this throbbing hive of industry. But Southern Railway folks would certainly quickly come to admire the manner in which their American colleagues and friends handle the enormous traffic of the city. Chicago undoubtedly has real cause for pride in being the world's busiest railway centre.



DEVELOPMENT OF STORES ORGANISATION ON THE RAILWAYS

M. K. KAUL

Introduction

THE history of the development of Railway Stores Organisation in India is closely associated with the development of the net-work of Indian Railways. Except for a few isolated Government enterprises, Railways in India started largely as guaranteed concessions to the British industrialists, who were encouraged to lay down Railway lines in parts of the virgin soil of this country, and also manage them. The Railways were of various gauges with suitable equipment procured entirely from Britain in earlier stages. The small Railway Workshops, with facilities for inescapable repairs were provided with the various Railway units as it was never the intention to manufacture anything on a large scale to make the Indian Railways self-sufficient in respect of raw materials or spares. With the growth of traffic, more and more rolling stock and locomotives had to be imported from Britain and put into use. This created problems for maintenance and overhauls; and the development of a repair and supply service to the extent of keeping the stock in a fit condition, so that the services were not interrupted, was the aim of the Administration at the time.

Even at this early stage, a Store-keeper was necessary. His duties were to look after whatever materials were purchased and to see that they were correctly issued against the requirements of the consuming department.

The procurement of the Railway technical stores was entirely a matter of indenting on the Home Board in London of the Railway concerned, who, in turn, had their Consulting Engineers to deal with these problems. The responsibility for preparing specifications, inviting tenders, progressing, inspection and the supplies from

Britain to India, were items in which the Home Board of a Railway and their Consulting Engineers were closely associated. It was only in isolated instances endeavours were made to procure technical stores from indigenous sources within the country.

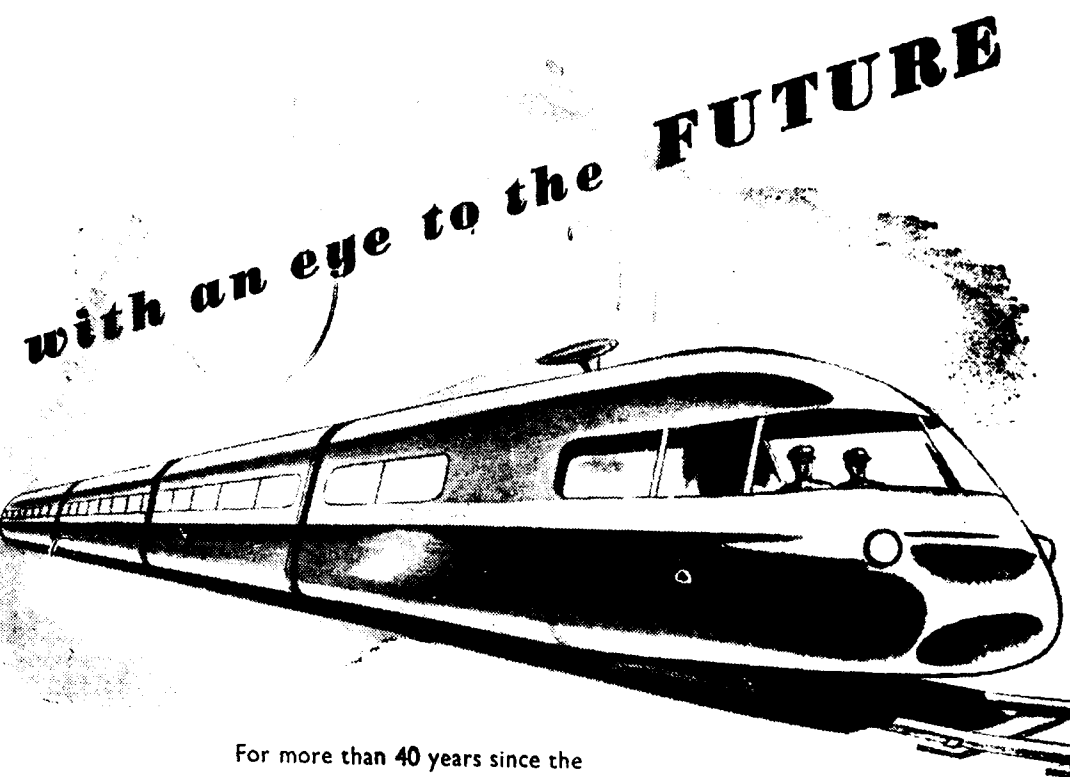
With the growth of the Railways and the Workshops, the greater need for a better Stores Organization was realized as compared to a mere Store-keeper, who was attached to a Senior Mechanical or Civil Engineering Officer. The status of the Store-keeper, developed into that of a Chief Store-keeper, and with the change of times and the growth of the department, a more uniform designation of Controller of Stores was adopted on Indian Railways, who became the Head of his own Department under the Agent or the General Manager of the Railway. The organisation undertook more responsibilities than before and greater importance is now attached to the Stores Department than in the past.

Present set-up

Prior to 1945, the Railways in India were broadly divided into the following categories:

- (a) Government-owned and Government-managed Railways.
- (b) Government-owned but Company-managed Railways.
- (c) Company-owned and Company-managed Railways.
- (d) The Durbar Railways owned and managed by Indian Princes and their Governments.

The stores required by the first two types of Railways were generally obtained by the respective Controller of Stores through the Indian Stores Department. Although the other two types of Railways could take advantage of the services of the Indian Stores



For more than 40 years since the introduction of the first electric lighting on Indian Railways, CHLORIDE 'LUX', and later EXIDE-IRONCLAD Batteries have been the first choice of Railway Engineers. Since air-conditioning was introduced, EXIDE-IRONCLAD Batteries have been fitted on air-conditioned coaches in service in India. EXIDE-IRONCLAD Batteries are fitted also on the new Swiss Lightweight coaches on the Indian Railways.



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Department, these Railways generally procured stores directly through their own organizations. Certain stores were obtained by the Controllers of Stores of these Railways from indigenous sources but the bulk of the requirements was ordered by the Boards of Directors of these Railways in U.K. In the matter of selection, inspection and drawing of specifications, etc., the Railway Boards of Directors were guided by their Consulting Engineers. Most of the designs of the rolling stocks were their own and procurement of spares for such rolling stocks was obviously easier for them through their Home Boards and Consulting Engineers than through the Indian Stores Department. The D.G., I.S.D., London, exercised no control in the matter of procurement of imported stores for these two types of Railways. This type of procurement continued till all the Company-managed Railways were taken over by the Government of India which was completed in the year 1947. With the taking over of the Company-managed Railways by the Government of India, there were no Boards of Directors and their Consulting Engineers and, therefore, procurement of imported stores rested with the D.G., I.S.D., London, which was a part of the Central Purchase Organization in India.

The four different types of Railway systems in India continued to function until 1945. It was in that year that the Company-managed Railway systems were taken over by the Government but the State-managed Railways continued to function as independent units. Soon after Independence, Princely States were taken over and integrated with the rest of the Union. It was, therefore, in the fitness of things that these small individual Railways should also have been integrated with the Indian Railways to function as a complete union in the New India. The integration was completed by 1952 and six zonal Railways, viz., Eastern, Northern, North-Eastern, Southern, Central and Western Railways were formed. In

1955, the Eastern Railway was divided into two zones, viz., Eastern and South-Eastern Railways, totalling seven zonal Railways. On each of these zonal Railways, a Stores Organization under the administrative control of a Controller of Stores exists but the procurement of Railway stores rests with the following main sources:—

- (a) D.G., S. & D. and allied organizations.
- (b) (i) Railway Board for Rolling Stocks, Rails and Fish-plates, C.I. and Steel Sleepers.
(ii) Sleeper pool for wooden sleepers as and when required.
(iii) Controllers of Stores of Railways under their powers.
- (c) Ministry of Communications for Telephones, Telegraphs and Train Control equipments from I.T.I., Bangalore.
- (d) Ministry of Health for certain classes of medical stores through the Government Medical Depot.

(a) **D. G., S. & D. and allied organization.**—All I.S.D. items, as appear in the D. G., S. & D.'s Time Table for submission of indents, are to be procured by the Indian Government Railways through the Central Purchase Organization, viz. D. G., S. & D. by submitting different types of indents. Till recently, indents for items valuing over Rs. 2,000 were placed by the Controller of Stores of Railways on the D. G., S. & D. and its allied organizations. Only recently orders have been revised and all I.S.D. items valuing over Rs. 10,000 are being obtained through the agency of D. G., S. & D. and its allied organizations.

(b) (i) **Railway Board for Rolling Stocks.**—Rolling stock procurement is done on a programme basis divided between replacements and additions. The Railways submit their requirements in advance while they also indicate the probable increase in

anticipated traffic. Based on these consolidated requirements, orders for rolling stock are placed within the country to the extent possible by the Equipment Branch of the Railway Board, while handouts for global tendering is prepared for the balance of the rolling stock. The entire work of preparation of specification, putting of tenders and placement of orders is now handled in the Equipment Branch. For locomotives, inspection is controlled by the C.S.O., Chittaranjan and for wagons by the Director of Inspection at Calcutta. For foreign procurement, Railway Liaison cells are generally responsible and function in different countries as necessary.

(ii) **Sleeper pool for wooden sleepers.**—With the merging of the Sleeper Pool Organizations with the Engineering Branches of Railways, procurement of sleepers is now resting with the individual Railways, but the actual of wooden sleepers are arranged by the Conservators of Forests. Normally, no tenders are issued to the trade for these items. Each Railway has a Committee consisting of three officers, viz., the Chief Engineer, the Controller of Stores and the F.A. & C.A.O. and it is this Committee who decides the selection of the item and placing of orders on the Conservators of Forests.

(iii) **Controllers of Stores of Railways.**—Prior to the revision of purchase powers of Controllers of Stores of Railways, direct purchase of I.S.D. items was resorted to by the Railway Stores Organizations upto the limit of Rs. 2,000 per item in normal circumstances. In case of emergency, Controllers of Stores could buy I.S.D. items upto Rs. 5,000 per item and with the sanction of the General Managers, the Controllers of Stores could buy I.S.D. items without any limit. With the revision of powers, Controllers of Stores of Railways have been empowered to purchase all I.S.D. items upto a limit of Rs. 10,000 per item in normal circumstances and upto Rs. 30,000 per item in case of emer-

gency. In regard to non-I. S. D. items, the Controllers of Stores have powers upto Rs. 30,000 per item. The General Manager has unlimited powers for purchase of stores. Generally the following methods are adopted by the Controllers of Stores of Railways to procure stores :—

- (a) Advertised tenders.
- (b) Limited tenders.
- (c) Bulletins.

Advertised Tenders

When stores are required to be purchased valuing Rs. 10,000 and above, tenders are invited by the Controllers of Stores of Railways through the press. On the nominated day of opening the tenders, firms are invited to be present and then tenders are opened in their presence. The opening is done jointly by a Stores Officer and an officer of the Finance Branch of a Railway. The rates and other conditions of each tender are read out to the representatives of the firms who are present. Afterwards a Committee is formed of not less than three officers consisting of a Stores Officer, a Finance Officer and an officer of the main consuming department and recommendations to the purchase are made by this Committee which is to be accepted finally either by the Controller of Stores or the General Manager according to his vested powers.

Limited tenders

Each Railway Stores Organisation maintains a list of firms and it is known as the approved list. The system of registration of firms is an elaborate one as the Controller of Stores must satisfy himself regarding the reliability, capacity, financial status of the firms before the firms are registered on the approved list. Personal verifications of the above are first made before registration; and registration is done on the basis of groups of items which a firm is capable of handling. Registration of proper firms is one of the most important functions of the Controllers of Stores

as the success of the purchase organization of the Controller of stores' office depends on the correct selection of firms. Therefore great care is taken registering firms and watching their performances. The purchase officers are always vigilant and are in constant touch with the market. Immediately it is noticed that the performance of a firm has not come upto the expected standard and there are repeated failures on their part no time is lost to delete such firms from the approved list. Similarly, no time is also lost in adding new firms to the approved list when such firms approach the office of the Controllers of Stores and they fulfil all the terms and conditions of registration. All purchases below the value of Rs. 10,000 are made through limited tenders. In this method, tender notices are only sent to a nominated group of firms who are already registered for the item concerned. Generally one tender is issued for one item. In some cases, however, more than one item is included in the tender notice when it is found that the items are more or less of similar nature. The opening date of these tenders appear on each tender notice, and on the due date, the tenders are opened but not publicly. Such tenders are opened in the presence of a Gazetted officer of Stores Department of the Railway and then put up to the concerned Purchase Officer of the Stores Branch according to their powers of purchase for final decision.

Bulletins

Purchase through bulletins is more or less the same as limited tenders, but a bulletin contains a large number of items and are issued to the firms who are registered for that purpose. Similar to the limited tenders, the opening is done by a Stores Officer and then the batches are put up to the concerned Purchase Officer.

There is a special cell attached to the office of each Controller of Stores which is known as the Tender Section; and this cell is charged with the responsibility of handling the various

types of tenders. After opening the tenders, tabulation of rates, formation of tender batches are done by this special cell before they are put up either to the Tender Committee or to the purchase officers concerned for final decision.

Government policy for Rolling Stock and components manufacture

With the exception of Tata Engineering and Locomotive Company, the manufacture of locomotives and coaching stocks remains the responsibility of the public sector.

In regard to wagons and rolling stock components including signalling, it is the policy of the Government to foster and assist the private sector in establishing capacity to meet the requirements of Indian Railways. The Railway Equipment Committee formed under the chairmanship of Shri G. B. Kotak for this purpose is investigating available capacity for the manufacture of wagons, coaching stock underframes, locomotive, carriage and wagon components as well as signalling items. When they are able to locate this capacity or recommend the establishment of new industries capable of manufacturing these items, appropriate development action will be taken by the Railway Board so that in the course of a few years, these industries and the private sector are able to meet the requirements of the Indian Railways. Towards attaining this self-sufficiency and on the recommendation of the Railway Equipment Committee, Show Rooms depicting items of railways for locomotive components and carriage and wagon components, signalling and other items, have been opened at four centres to display the type of equipment required. Drawings for such components are also being made available to interested parties; and technical advice is available to enable industrialists to formulate firm plans for undertaking manufacture of these items.

The maintenance of Stores Catalogues and parts list of Railway Stores

is very necessary, as otherwise it will be impossible to know what items are being kept in stock as far as the Stores Department is concerned and also for the indentors as to what is available with the Stores Depots for the purpose of preparation of their demands. Each Railway Stores department has its own catalogue and parts list but in post-war periods when standardization of items has become an essential factor, it is very necessary to have one Stores catalogue and parts list for all Railways. The most important effect of this standard catalogue and parts list will be that each Railway will know what items are being kept by the other Railways so that if assistance is required by one Railway from another, it will be possible for the Railway requiring such assistance to know exactly what is the position on other Railways. Steps have already been taken by the Railway Board, to prepare a Stores catalogue applicable to all Indian Railway Stores.

While it is the responsibility of the Headquarters organization of the Stores Department of Railways to procure stores in time through various sources it is the responsibility of the Stores Depots to maintain stocks of standard stock items properly and also issue the stores to the various indenting Departments as and when required. Generally, the Stores Department of each zonal Railway handles roughly 40,000 items which are known as stock items varying from brooms, baskets, waste cotton to components of locomotives, carriages and wagons. For this purpose, each zonal Railway has several stocking Depots at suitable points and normally each Depot is in charge of a District Controller of Stores with other Assistant Controllers of Stores to assist him. The number of officers and staff vary according to the size of the Depot. The following figures will indicate the increase in the stores balances by the Indian Government Railways which has

thrown greater responsibilities on the Stores Depots of Railways both from the point of view of storage as well as distribution :—

1939—40	...	11.24	crores.
1941—42	...	12.90	..
1944—45	...	23.88	..
1947—48	...	28.40	..
1953—54	...	52.36	..
1954—55	...	54.95	..

Most of the Stores Depots were provided long prior to the last War : and their development to meet the present-day load has not been in the same proportion as that of the stores balances. The result is that the depot officers are constantly required to adopt scientific and modern methods in the matter of storage of materials. Considerable changes have taken place and advances have been made in the Western countries and the U.S.A. in improving methods of storage of stores as well as handling of stores. While the Stores Depots of Indian Railways cannot be compared with the Stores Depots on Railways of Western countries and the U.S.A., as far as possible, scientific methods are being constantly adopted by the Stores Depots in these directions within the resources available in the country.

The distribution of stores by the Railway Stores Depot to the various indentors on the Railway is mainly done through the following means :—

- (a) Stores van service.
- (b) Stores train service.

In a majority of the Railways, each Stores Depot has an adequate number of stores delivery vans with suitable equipment and staff. Generally, once a month these stores delivery vans along with auxiliary wagons carry materials from Stores Depots to the Divisional or District Headquarters of the Railway. The deliveries of material are effected by the Stores Van Clerks to the Store-keepers of the Division or the District. These Stores Vans and auxiliary wagons are moved by the fastest goods trains and care is

taken to see that no time is unnecessarily wasted in transit. In the case of certain articles like staff garments, etc., deliveries by the stores vans are made from station to station directly to the staff.

On some Railways, instead of running a number of stores vans service, train loads of materials are moved from Stores Depots to the Division or District. Each train generally contains not less than 60 wagons and often enough it has been found that some trains contain as many as 80 to 90 wagons. They are known as Stores Delivery trains containing railway stores only. Stores Delivery Clerks who move along with the trains are in charge of Stores and deliver the materials to the indentors on the line. Normally, two and sometimes three trains go out from a Stores Depot in a month. Apart from the above two recognized systems of delivery of stores from Depots to the indentors, materials are also despatched through special messengers and through traffic booking in cases of emergencies.

Inspection

One of the major responsibilities of Stores Depots is to correctly inspect new receipts when received from firms. Each Stores Depot has adequate number of trained staff for this purpose and the number of such staff varies according to the size of the Depot. Generally, an Assistant Officer is utilized for the purpose of inspection, but the final authority is the District Controller of Stores who is in charge of the Depot. Very great care is taken to check the new receipts along with the specifications and other stipulations on the purchase orders and it is only when the Inspecting Officer is satisfied regarding the correctness of materials, the supplies are accepted and final receipts are granted to the firms. It is on the strength of these final receipts that firms submit their bills to the Financial Adviser and Chief Accounts Officer of the Railway and payments are arranged accordingly.

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Scrap

The Controllers of Stores on Railways have not only to deal with new materials but also with the disposal of scrap which is released by the departments and the workshops; and there is a regular flow into the Stores scrap yards of thousands of tons of such material. Scrap may be broadly classified under 'ferrous' and 'non-ferrous'. As far as possible, non-ferrous scrap is utilized by the Railways by getting it reclaimed into ingots conforming to certain specifications to enable this scrap to be re-used by the Railways for their day-to-day requirements. A portion of the ferrous scrap is reclaimed by the small workshops attached to the scrap yards or under the advice of the Chief Mechanical Engineers for re-use on Railways. Due to the shortage of steel in the country, a system for better control was provided by the Government by issuing the Iron and Steel Scrap Control Order of 1943. The Railways are now sending returns to the Iron and Steel Controller of certain categories of scrap every month, and the Iron and Steel Controller in turn makes allotments at the controlled rates to different rolling mills, melting furnaces and other firms in the country. There is yet another category of scrap which is free of this control and the Controller of Stores of a Railway is expected to dispose this off to the best advantage by public auction, tenders or private sales.

Central Purchase Organization

As a result of the Couchman Committees' report, the year 1922 marked a stage in the development of the stores procurement for the Government Departments. A Central Stores Purchase Organization, known as the India Stores Department was set up and was charged with the responsibility of procuring all stores required by Provincial Governments and Branches of the Central Government, including the Government-managed Railways. The Government gradually

went a step further by creating a Branch of this Department in London, whose function was to receive and scrutinize indents, vet the specifications, invite tenders, make procurement arrangements from the firms in Britain or, if necessary, from other countries. For technical matters, this organization in its early stages had to largely depend upon the services of the Consulting Engineers. An Inspection Wing was also set up in India and the United Kingdom.

In the period prior to the Second World War, the work of this Department in India related mostly to stores as were procurable in the country. The bulk of the purchases in India was restricted to imported and indigenous articles available in the country, whilst most of the machinery tools were imported by the State-managed Railways through the agency of the I.S.D. London from Britain and by Company-managed Railways through their Home Boards and Consulting Engineers in London.

With the Second World War gradually working on the borders of India, an emergent state of affairs forced the hands of the Government to take very drastic action to deal with the problem of stores. Supplies from original sources, such as Britain, dwindled down to almost Nil, as the United Kingdom had to step up its production to meet its own war requirements. Therefore a new Directorate General of Munitions Production was set up in Calcutta which was responsible for the procurement of all technical and engineering stores. Simultaneously, a Director-General of Supplies was set up in Delhi with the responsibility of procuring most of the miscellaneous stores available in the country, or to be imported from such foreign countries who were in a position to meet the requirements. The Government was fully aware of the vital part the Railway had to play in winning the war and to provide the greatest efficiency in the procurement and planning of railway stores. The

technical officers of the Director-General of Munitions Production, with the co-operation of the leading businessmen in India succeeded in encouraging and guiding many firms, who, with the technical assistance of the experts and tools and machines placed at their disposal under a scheme to procure them from America, created a capacity which gradually developed to meet a fair proportion of the demands of the Government. The two branches did very useful work to tide over the extraordinary conditions created by the War and to help the Railways to run and provide the required services for the defence of the country.

With the termination of hostilities, it was not considered necessary to allow the expensive pattern of the re-modelled India Stores Department to function any longer, and once again the two Branches merged into one and were re-styled as the Directorate General of Industries and Supplies, at New Delhi. The Government, however, created Directorates in all important commercial cities of India. Side by side on the Indian Railways, considerable changes were made to strengthen the Railways Stores Organizations, as it was felt that they were not only Store-keepers and Agents of the Department to procure materials for them but it was the primary responsibility of the Stores Department to see that the Railway working did not suffer on account of non-supply of stores. Greater powers were given to the Controller of Stores and as a result of close liaison by holding meetings with the Director-General of Munitions Production in the earlier stages and later on with Director-General of Industries and Supplies, the supply position of stores on all Railways was maintained.

The present set-up of the Central Purchase Organization in India under the Ministry of Works, Housing and Supply is as follows:—

- (a) D. G., S. & D. and other allied organisations.

- (b) Mathematical instruments, Calcutta.
- (c) Director-General, I.S.D., London with both Inspection and Supply Wings.
- (d) Indian Supply Mission, Washington.
- (e) Controller of Printing and Stationery.

The Railways are required to submit their indents (programme, Ad hoc and Express) valuing Rs. 10,000 and above per item for I.S.D. items. On receipt of these indents, it is the responsibility of the D. G., S. & D. and its allied organizations to procure the stores and make them available to the Railways on the dates referred to in the indents.

Rates and running contracts are being entered into by the D.G., S. & D. for common-user items and items which are required regularly and in bulk. This is an extremely good arrangement as Controllers of Stores of Railways can operate against these contracts by placing direct orders for stores as and when required.

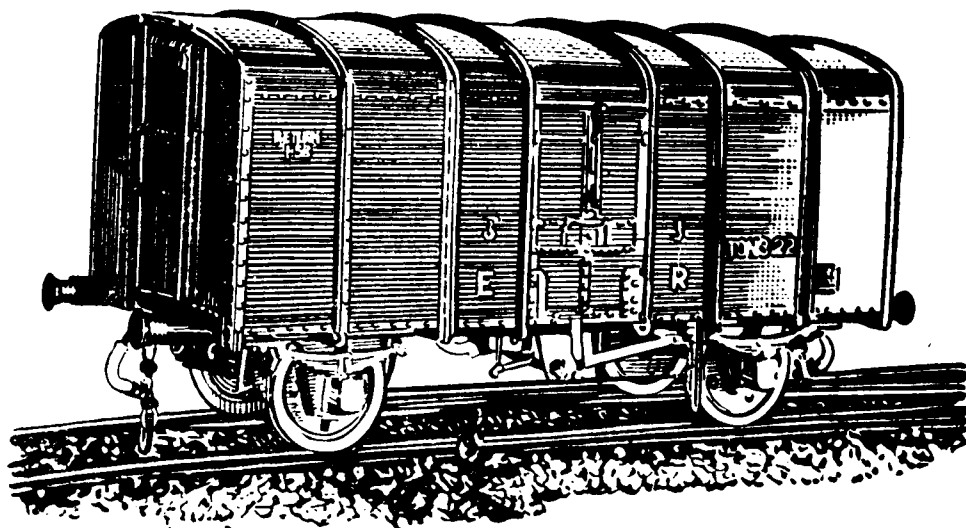
In September 1950, the Ministry of Railways set up a Committee, known as Shroff Committee, to review the work of the Stores Organization on Indian Railways. The Chairman of this Committee was an experienced and eminent businessman Shri A. D. Shroff, Director of Messrs. Tata Sons Ltd.

The Committee went round the various Railway centres in India and submitted their report in April 1951. In their report, the Committee made several suggestions with a view to bringing about procedural improvements on the working of the Railway Stores Organizations.

The Ministry of Works, Housing and Supply set up a Store Purchase Committee to examine and report on the working on the Central Purchase Organization on 11-3-1953, consisting of non-official members under the chairmanship of Shri S. N. Buragohain. Due to the sudden demise of the Chairman, Shri S. N. Buragohain, the Chairmanship of the Committee was

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DEVELOPMENT OF STORES

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taken over by Shri G. B. Kotak. This Committee submitted their report on 15-3-55. After considering the reports of these two Committees it was decided that the D. G., S. & D. should continue.

It was as a result of the examination carried out by the Shroff Committee and also the Stores Purchase Committee and their recommendations that the Controllers of Stores' powers of purchase were enhanced from Rs. 2,000 per item to Rs. 10,000 per item (I.S.D. items) under normal conditions and Rs. 30,000 per item in case of emergency.

Controller of Imported Railway Stores and Controller of Railway Supplies

When the Railway Board was reorganised in 1924, there was a combined Mechanical, Engineering and Stores Directorate working under the Member (Technical). This position continued till September 1939. In April 1943, an organization styled "Controller of Imported Railway Stores" was started charged with the duty of scrutinizing and bulking of indents of stores and indicating priority and essentiality. Initially this was purely a Railway Organization attached to the Director-General of Munitions Production, Calcutta, but later in June 1945, it was merged with the Supply Department Organization. Towards the end of April 1946, the Controller of Imported Railway Stores was transferred from Calcutta to Delhi and later on blossomed into the Controller of Railway Supplies charged with the duties of scrutinizing, bulking and progressing of all Railway indents. With effect from January 1947, the Controller of Railway Supplies was transferred to the Railway Department, the intention being that the separate Stores Directorate in the office of the Board would be ultimately abolished. In actual practice, however, both these organizations continued till October 1947. In August 1948, it was considered that the work done by the Controller of Railway Supplies was legitimately the function of the

Director-General (Industries and Supplies) and, therefore, it was decided to abolish that organisation and replace it by a Railway Liaison Officer who would be attached to the Director-General (Industries and Supplies) and act as Chief Chaser on behalf of the Railway.

With the increase in volume of purchases of rolling stocks including locomotives, carriages, coaching stock underframes and wagons and the evolution of modern type of motive power in carriages, it was felt that the Branch in Railway Board's Office handling procurement of these items should be strengthened. The work was accordingly reorganized by the Railway Board under a separate Directorate, known as the Equipment Directorate, which came into being in February 1952.

Conclusion

An appreciation of the total value of equipments and stores purchased for the Indian Railways is given below :—

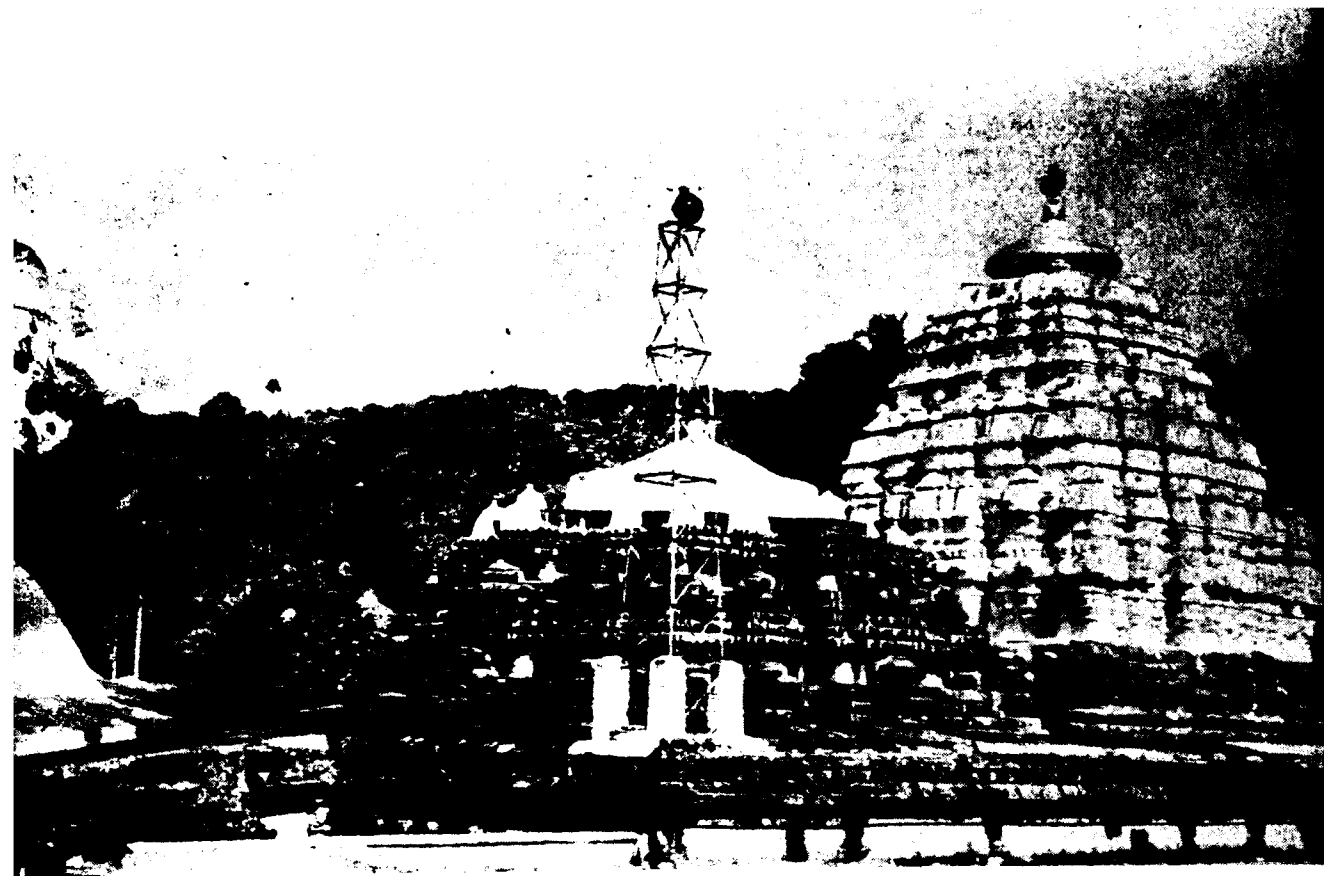
Year	Amount (in crores)
1921-22	38.61
1922-23	15.19
1923-24	30.86
1937-38	15.00
1941-42	15.6
1944-45	45.41
1947-48	81.59
1953-54	105.86
1954-55	139.97

From the figures of stores balances of Indian Railways as well as figures of purchase of equipments and stores, it will be seen that the Stores Department's responsibility in independent India has increased much more than what it was during the British rule in India.

The development of the history of the Stores Department on the Indian Railways reveals that whilst in the early stages, it was looked upon as an unimportant branch under the influence of more important departments, during the last few years, particularly during the period after

Independence, the importance of the Stores Department has increased considerably. The organization of the Controller of Stores on Railways can longer be called a minor department as the successful completion of plans and projects during the Five-Year Plan periods largely rests with the Controller of Stores, as timely procurement and supply of stores is the essence of the success of the First and Second Five-Year Plans. The Stores Department, therefore, is one of the important adjuncts to the Railway system. On it devolves the responsibility of procurement of everything from brooms, baskets to complicated rolling stock spares and heavy bridge girders. In the circumstances stores purchase is today a highly specialised and complicated process and officers responsible for stores purchase must be fully 'au fait' with market conditions, market levels and also the products that are available from different industries. The Stores Officers have also to be familiar with modern methods of store-keeping in utilizing the most efficient system of storage of different commodities and

also their distribution to the indentors throughout the line. It is gratifying to note that the Stores Organizations on Railways have been able to successfully discharge the heavy responsibilities of maintaining a very high standard of efficiency. The Stores Organizations of Railways are in constant touch with the trade and offer all possible assistance required by the trade in the matter of technical guidance, etc., as it is very necessary that excellent relationship should exist between the Stores Organizations on Railways and the trade to obtain the best results. The trade also has responded equally well and, therefore, the country has made great strides in the matter of self-sufficiency which is the ultimate object of the Government. The trade deserves all congratulations for the excellent response in setting up new industries all over the country and it is hoped that with the progress of the Second Five-Year Plan the trade will continue to improve the response so that the aim of the Government in the matter of self-sufficiency is achieved.



Panoramic view of the temple with the Simhadri Hills in the background

SIMHACHALAM IN ANDHRA STATE

T. N. SRINIVASAN

SIMHADRI or the lion-hill, the other name for Simhachalam—a picturesque hill of about an attitude of eight hundred feet just ten miles to the north of the famous town of Visakhapatnam, is considered as one of the four most important places of worship relating to the Narasimha avatar aspect of Lord Vishnu. This place is approachable both by the good motorable road from the town of Visakhapatnam (Vizag) or from Simhachalam Railway Station on the Eastern Railway, from which it is about two and a half miles distant.

The other three places held sacred for Lord Narasimha are *Ahobalam* where the Lord emerged out of the

pillar for destroying Hiranyakasipu, *Krutasaucham*, where Sri Narasimha cleared Himself of the impurities arising as a result of His destroying the Demon-king, and *Harampapam*, the sacred place where He settled Himself. But it was at Simhachalam that the Lord chose to settle permanently with His divine consort Sri Lakshmi.

The sacred hill—Simhachalam is a unique, pleasant place with a salubrious climate all through the year. At the foot of the hill, there are spacious choultries and open sheds for the stay of the pilgrims with all elementary facilities like water and lighting. The pilgrims after having rest

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S. INDIA

for a few minutes in the choultries have a dip in the Holy Pushkarini about one furlong from the foot of the hill and go up the hill to have Lord's darsan. Near the top of the north side of the hill, which is reached by a well-kept flight of nearly a thousand stone steps, there is a lovely wooded hallow space of the flat ground, surrounded by a wide circle of higher elevations, resembling a nice amphitheatre. Here stands the small but charming temple of Lord Narasimha—whom the local people call *Sri Varaha Narasimha*. The way up to the temple runs among a deep glen watered by a rivulet and clothed with fine trees of mango, jack, plantains, pineapples, etc., which afford shelter and refresh the weary pilgrims. The steps eventually reach the narrow mouth of the glen, where the path is barred by a bold portal—*Hanuman's Gate*, by the side of which the rivulet passes down the glen, where it is led into two pools for the pilgrims to take their purificatory bath. This gate appears to be part of the fortifications, which in former days, guarded the temple and the surrounding areas.

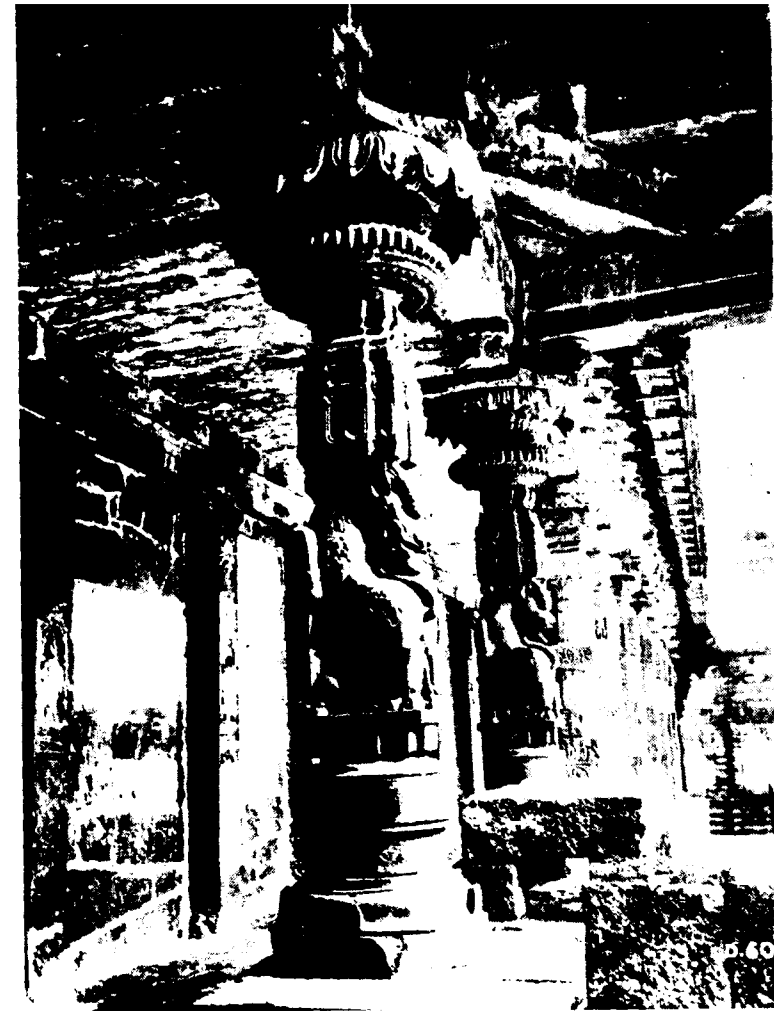
Passing through this gate, the pilgrim traverses a narrower part of the glen, where the rivulet is led through pipes and channels over cascades—and this is called *Gangadhara*, a bath in which is considered very holy and sacred.

Like all ancient temples in our country, the exact beginning of this sacred shrine is also shrouded in mystery and legends. The local *Sthalapuranam*, giving the puranic history of the appearance of Lord Vishnu in the form of Sri Narasimha here, is detailed in the *Skandapuranam* in thirty-two chapters, wherein the grandeur of this place is narrated by Maharishi Jamini.

The narrative closely follows the famous *Bhagavatapurana* story of the birth of the two *Dwarapalas* of Vaikunta—Jaya and Vijaya—as the demons Hiranyaksha and Hiranyakasipu, on account of the curse of the holy

sages—the Sanatkumaras. The former, Hiranyaksha, who stole Mother Earth—Bhudevi and had her hidden under the ocean, was killed by Lord Vishnu in his avatar of Varaha. Later Hiranyakasipu begat the devoted son—Prahlada—whose devout attachment to Sri Narayana, was the cause of a series of troubles to the devotee. The final appearance of Vishnu in the ferocious aspect of a man-lion—*Narahari*, to save the life of His devotee, saw the destruction of the demon. It is narrated in the *Kshetramahatmyam* of Simhachalam that Lord Narasimha first appeared here and at the fervent prayers of Prahlada, He chose to stay at Simhachalam to bless His devotees for ever. In particular the *Sthalapuranam* narrates how Prahlada was thrown into the sea and Simhachalam Hill was placed over him, when his father wanted to get rid of his unruly son and how Vishnu went to the youth's rescue, stood on one side of the hill and tilted it up so that the boy could crawl out from the other side. It was out of his gratitude to the All-merciful Lord that Prahlada first founded this shrine.

Later on, the shrine fell into disuse and decay and the image of the Lord was completely covered by huge ant-hills. The legend narrates that King Pururavas of the Lunar dynasty with his beloved, charming spouse Urvashi, visited this hill during their peregrinations. Urvashi recollecting the past, informed the king that she had come previously to this sacred place, to witness the brilliant avatar of Vishnu as Narasimha with other celestial beings and said that the Lord must be lying concealed somewhere in the thick forests. Pururavas was anxious to have darshan of the Lord and in answer to his fervent prayers, Sri Narasimha appeared to him in his dream, directing him to clear the ant-hill that had grown over His with *panchamritams* and pure water. He also directed him to cover his image with fragrant sandalwood paste quickly and worship him in that



A view of the inner prakaram of the temple, showing the beautifully carved pillars

manner all the year round. The divine order was immediately complied with and the king discovered a lovely image of the Lord with a brilliant body and face bright as the full moon, the neck gracefully covered with mane shining in Boar's form with two massive shoulders, one holding up his *peetambaram* and the other making Garuda drink the divine nectar—*Amrita* from a vessel held in the hand. The king could not find the feet of the Lord, and while feeling sorry for this, he was informed by a mysterious voice that the same would not be visible to anybody since they were hidden underneath.

This is in fact the real shape of the image at the temple and it is covered with a thick coat of sandalwood paste all round the year. This is removed only once in a year—on *Akshaya Tritaya* day, which falls on the third day of the bright fortnight in the month of Vaisakha—when the *Nijaswarupa* of the Lord can be worshipped during the *abhishekam*. The festival is called '*Chandana Yatra*' which attracts a lot of devotees who clamour to have this unique darshan. They try to take with them small bits of the dried sandalwood paste which covered the deity all the year round, as it is considered very sacred.

Architecturally, the temple may be considered as a fine piece of art and deserves close study and attention. The central shrine—the *garbagriha*—is a square structure with a finely carved *vimanam* built in three tiers of Orissan style of architecture. The front *Mukhamandapam* with a small circular tower over it, is ascribed to Narasimha I. Just in front of it is the *Natyamandapa*, a square sixteen-pillared mandapam all built in black granite with beautiful ornamentations and superb carvings. One of the pillars here is called the *Kappa Sthambam* (tribute pillar) held in great veneration as it is credited with great powers of curing cattle diseases and granting children. In the *prakaram*, there is a finely carved stone car with stone wheels and prancing stone horses. To the north of the shrine is the *Kalyana Mandapam* ascribed to the Vijayanagar rulers, with ninety-six exquisitely carved pillars with beautiful carvings and motifs. Here the marriage festival of the God is performed on the eleventh day of the bright fortnight in the month of the Chitra, which attracts a large crowd.

The temple at Simhachalam is one of the well-endowed shrines of the Northern Circars, and the temple properties consist mostly of rich cultivable lands and fruit gardens endowed by monarchs and earlier Rajahs of Vizianagaram. Epigraphically, the earliest record is a fragmentary inscription dated Saka 1021-1099 A.D. of the Chola King Kulottunga, who conquered

the Kalinga territories. The other important inscription relates to the queen of the Velanadu Chief—Gonka III (1137-56 A.D.), who was responsible for covering the image of the God with gold. A later inscription refers to the Eastern Ganga King, Narasimha I, who built the central shrine, with the *mukhamandapam* and *natyamandapam* in 1267-68 A.D.

Early in the 16th Century, the famous Sri Krishnadevaraya of the Vijayanagara Empire, halted at Simhachalam twice, in the course of his seven years' war against Gajapati Prataparudra of Orissa in 1516 and 1519 A.D. He had endowed many villages for the maintenance of worship. He had also presented several fine pieces of jewellery of which the most noteworthy is the famous *Patchala Pathakkam* which is still used for decorating the Lord, estimated to be worth nearly half a lakh of rupees now.

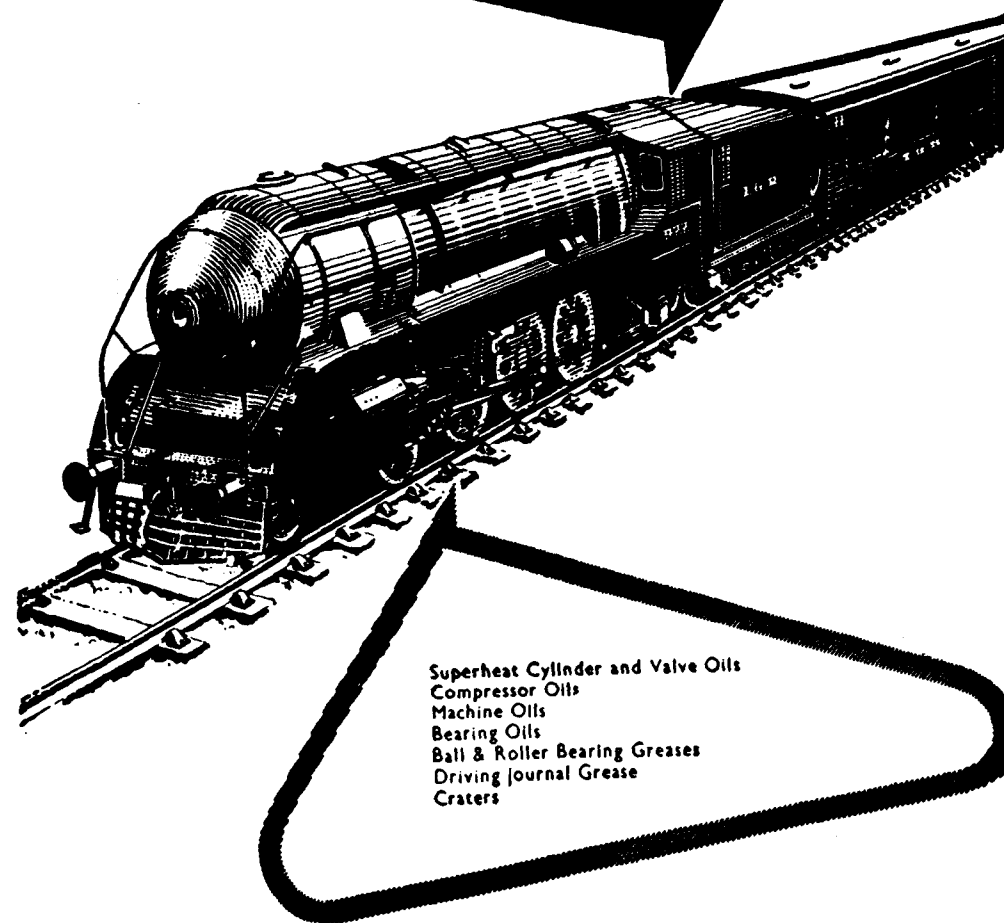
Later on, the place was raided by the Quth-Shahi rulers of Golkonda, who smashed the fortifications of the temple, destroyed the beautiful carvings and mutilated the architectural wealth of this shrine. The local rulers of Vizianagaram, who were the vassals of the Sultans of Golkonda, revived the glory of this ancient shrine, by endowing it very liberally with lands and money. The present value of the temple jewellery, including the historic *pathakkam* of Sri Krishnadevaraya and a gold *karucham*, is about six lakhs of rupees.

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जिने कदरियं दानेन सव्येन अलिकवादिनं ॥

Overcome anger by loving-kindness, evil by good;
Overcome the miser by generosity, and the liar by truth.

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“TRACK LAYING”

OPRAIL

AS we move from one destination to another in a fast train, we often hear the rhythmic clickety-click of the carriage wheels as they roll over the rails. This clickety-click sound is the impact of the wheels hitting each rail joint. Frequent journeys by rail may have also blunted our reaction to the smooth riding of the train, but let there be a slight lurch or jump, and immediately we wonder if something has gone wrong.

For fast trains to ride smoothly over the railway tracks, it is essential that every rail length used, should be put down with all the care, skill and thoroughness that modern railway engineering technique has at its command. If we have ever had the opportunity to spend a few days with a railway permanent way construction gang, while they were doing a job of laying a new track, then only could we get some idea of how expertly and with what thoroughness, this important job of track-laying is done. Supposing we did have such an opportunity to eye-witness a track-laying project: this is what we would see.

Before a new section of railway can be constructed a considerable amount of preliminary earth moving work has to be done so that the roadbed on which the rails are to be laid can be prepared. This preliminary work will entail clearing of jungle, felling of trees, building up embankments and levelling of the roadbed, cuts and fills, and other subgrade work. When all this earthwork has been completed and the roadbed has been appropriately conditioned, the next step is the actual job of putting down the rails and linking up.

Before the construction team of engineers, inspectors, mates and gang-men can tackle the actual track-laying, all the tools and material required for the job must be brought to the site from which the new section of railway is to be put down. This is done by material trains, which bring all that is

required to a point nearest the site. The tools and materials are then unloaded from the train and kept ready for use.

The linking-up operation is commenced by a formation gang with an overseer, who work ahead of the linking. Their job is to make up or cut down and level up the formation bed on which the sleepers and rails will eventually be laid. As the roadbed is got ready ahead by the formation gang, the sleeper gang keep following up.

What is the function of the sleeper gang? Their job is to lay down, spread and space the sleepers on which the rails will rest. If the track to be laid is of 36 feet rail lengths, from 14 to 15 sleepers will be required for each length. These sleepers are spaced to a prescribed standard, the space between the first two near the rail-joint at either end being 2' 5" and the others 2' 8" apart. The spacing between sleepers will vary according to the rail lengths, or the standard prescribed. The sleepers are first put down on the roadbed which has a surfacing of ash, and sufficient sleepers are placed to take about three rail lengths at a time.

Before any rails are placed on top of the sleepers, the men putting down the latter must space and roughly align them. The track-laying gang now comes up with three rail lengths already joined up, and puts these down on one side. The rails are not put down haphazardly, but almost in the correct spot, as the supervisors and the men who are doing the job are experts. When these are down, along come the carpenters with their augurs to bore holes into each sleeper on either side of the base of each rail, to be followed by the hammer men who drive in the dog spikes, which secure the rail base to the sleepers. The spikes are driven in both on the inner and outer edges of the rail base for the three rail lengths. On some tracks rail screws and not spikes may be used. The spikes are not driven into the head, but sufficient

place is left to allow for adjustments to be made when gauging and aligning is to be done.

When the rail lengths on the opposite sides of the sleeper bed are to be laid, more care has to be taken, as these have to be put down according to the prescribed width between the two rails—known as the gauge,—which in India is mainly 5' 6" for broad gauge tracks. To have the rails spaced correctly, an instrument known as a rail gauge is used. This is placed on the two parallel rails to give the correct gauge. As each pair of rails is correctly gauged, the opposing rail lengths are now secured to the sleeper bed with dog spikes or rail screws. This process is repeated for each pair of rail lengths along the whole section of the track to be laid.

As the operations of putting down and spacing sleepers, laying, joining and spiking the rails to the sleeper bed proceed, another gang is also following up over the newly-laid track. This gang tackles the job of ballasting and packing the track already put down. With crowbars, shovels and picks, the gangmen are packing the ballast under the sleepers to the required depth and hardness, because they know that before long that new section of track will be subjected to the strains and stresses of thousands of tons of steel pounding over it in the shape of huge locomotives, with fast mail and, fully loaded slower freight trains.

In favourable weather the team of engineers, inspectors, mates and gangmen on a rail construction job will complete about a quarter of mile of track-laying each day. If, of course, the track is to be put down more rapidly, then obviously more construction teams must be engaged for the job.

Before a newly-laid section of railway can be declared fit for normal traffic working, each quarter mile of track laid must be thoroughly and meticulously checked with regard to sleeper-spacing, rail-jointing—which allows for expansion and contrac-

tion between each pair of joined rails—gauging, levelling, packing, and a track that is firm and sufficiently strong enough to withstand the fast and heavy traffic that will move over it day in and day out, in all types of weather, and not for a week, or a month, or even a year, but for a period up to a quarter of a century, with only the care that will be given to it by the permanent way staff responsible for normal maintenance.

If the new section of railway to be constructed is over flat terrain of the plains, with perhaps only trees and bushes to clear, the engineering men will consider themselves fortunate. But rarely is mother earth so kind to the men who are bent on changing the shape and contour of her surface and building something on top. Even a short twenty-mile stretch of track may bristle with formidable obstacles like streams and rivers which must be spanned with culverts and bridges, cuttings around, or tunnels through hills of varying size, curves, gradients and geological strata.

But the track-laying engineers and their men do not scratch their heads over such of nature's impediments. They go ahead and do their steady quarter mile of track laying each day, over the roadbed that has been prepared by other engineers and construction teams, who specialise in these particular jobs.

The last rail is laid, the last fishbolts and nuts are tightened up, the gauge, the level, the packing, and everything is according to prescribed standards. The new section of railway is now ready to be opened for normal traffic. But before this is done, the Government Inspector of Railways, with a team of high-ranking Railway Engineers, will ride in a train over that section, and exhaustive tests will be conducted. Only when the Government Inspector of Railways is thoroughly satisfied that the newly-laid section of track is thoroughly fit in its entire length to take heavy traffic with complete safety, will he pass it, and allow the trains to start moving over it.

APPENDICITIS

MEDICAL

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

THERE is an organ in the shape of a worm situated at the junction of the small and large intestines on the right side of the abdomen. It is a part of the intestinal tract and called Vermiform Appendix. The appendix is a long, narrow tube about a quarter inch in diameter. Normally its length ranges from one to five inches, varying with individuals. An acute inflammation of the appendix is described as appendicitis—the appendix is swollen several times the normal size and in an inflamed condition.

A stomach pain is something that everyone has experienced. Most of such pains are caused on account of indiscretion in diet or just an 'overload' of the stomach. However, there is a particular kind of stomach ache which must be recognised as something different from the usual pains that may vanish in a short time. And this is the stomach ache that indicates the attack of appendicitis. Such a stomach ache begins as a generalised pain across the abdomen. After some time there is vomiting and a feeling of nausea. There is some slight fever also. Gradually, the pain tends to localise in the right lower portion of the abdomen. Even if some gentle pressure with the fingers is applied over this area, there is severe painful sensation. Usually there is also muscle spasm of varying degrees present over the affected area and the abdominal muscles become rigid. These are the symptoms of the disease now under discussion and the most significant of which are, as already stated:

- (i) application of a little pressure over the right lower part of the abdomen causing severe pain and
- (ii) the tendency of the abdominal muscles to become rigid.

Although it may be said that the above is the typical picture of acute appendicitis, there are many cases which are not typical and some of the

above symptoms may either be absent or even exaggerated.

Many other conditions may produce appendicitis, such as bowel disease, obstruction, gas, disease of the gall bladder and kidneys, ovary disturbances, pelvic abscess and a host of similar conditions.

Once the condition is diagnosed as appendicitis, it must be decided whether it is acute or chronic and what steps should be taken. There is only one treatment for an acute appendicitis and that is an operation to remove the appendix. Here experience and commonsense is of the utmost importance. There are instances of appendicitis having been removed needlessly and also cases in which they were not removed when they really should have been removed. It must be said that it is always dangerous to wait for the inflammation to quiet down.

Under no circumstances should a laxative be taken when there is abdominal pain. It is dangerous to take a laxative for stomach ache, when it is due to an acutely inflamed appendix, for it may rupture when a laxative is taken, and peritonitis, a serious complication, may develop. If an appendix has ruptured immediate operation is absolutely essential to prevent the spread of peritonitis.

All I wish to stress is that if anybody experiences any symptoms of difficulty, especially pain in the abdominal area associated with nausea and fever, let him not try to treat it himself by taking laxatives, diets or ignoring it. The situation must be faced as it exists and the physician must be consulted at once as time is a great and valuable factor in the diagnosis and treatment of this disease also, as many other diseases discussed in these columns. Only after a careful investigation, a few laboratory tests, X-rays and blood counts, etc., necessary steps are to be taken for the treatment of the appendicitis.



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HANDSOME NAILS

V. S. SHANTHALAKSHMI

VENI has a flat foot. But nobody knew it, not even me, her dearest friend, until one day she herself confided in me. Well, she wears nice fully covered and specially-made shoes and her flowing saree also goes a long way in concealing things. But defects and blemishes on the hands and fingers are not that easy to hide. For one thing, we do not, like the westerners, wear gloves, nor dresses with pockets where you can shove your hand like a school-girl. Well, even if you hid your fingers in your palms and bury your nails in your hankie, you can't manage it that way the whole time. But just imagine! how much easier it is to give a little attention to your fingers and nails and maintain them properly. For, one manicuring a week is all it takes to keep a neat pair of hands.

Nail problems are as many and as complicated as any other beauty problem. Before proceeding further let us first have an idea as to the composition of the nail. The most important part of the nail is the horny material known as Keratin which has a high sulphur content in addition to fatty substance which gives it the shine and keeps it flexible, plus calcium, phosphates, carbonate, a tiny amount of arsenic and about 14 per cent of water.

Lack of sulphur content makes the nails weak, bend easily and also split sometimes. But if meat, fish, milk,

cheese and eggs which have sulphur-containing amino-acids, are taken, then the condition will improve a lot. Insufficient intake of either calcium or phosphate results in flaking or split nails. Nervous disorders leave you with ridged or fluted nails. Rheumatism sometimes produce yellow streaks across the nails. White spots on the nails, some authorities think, are connected only with health conditions. These white spots have also been known to run in families. But many opine that they are definitely caused by rough manicure which produces small fractures in the nail and permits air to collect between the cells.

Many of the above conditions can of course be remedied by proper and healthy diet. But at the same time manicuring should never be neglected. It is a 'must' in finger and nail hygiene. A weekly manicure is essential to a well-groomed hand.

Now, what do you need and what do you do for a first-class manicure at home. You will need a varnish-remover, a long flexible emery board, orange sticks, some cotton-wool, cuticle cream or oil, a nail brush, warm soapy water and of course the shade of varnish you prefer. You should never have scissors, clippers or any metal instruments.

For really efficient manicure, try the following routine. Remove old varnish with a varnish-remover and cotton-wool. Then gently file the

nails to a blunt oval shape with emery board and be careful not to shape the nails too sharply at the corners. Always leave the sides of the nail level with the finger-tip. Wash the hands in warm soapy water using a real bristle nail brush which is easier on nails than a nylon one. Soak the finger-tips a little while in the soapy water to soften the dead skin. Now twist a wisp of cotton-wool round your orange stick and clean under the nail tips. Next smear cuticle cream or oil on the nails and work gently around the sides and base of the nails. This softens the old, lifeless cuticle and loosens them.

Now rinse finger-tips in warm soapy water to remove all traces of grease from the nail surface. Varnish will not cling to greasy nails. Dry nails with a soft towel and smooth the nail tips finally with a nice file or a fine blade of emery board. You should never cut or bite your nails. You run the danger of hang nails if you cut your nails too sharply down the corners, or treat your cuticles roughly

during manicure or if you bite your nails. The cuticle becomes ragged and jagged and a bit of nearby skin gets detached and catches on everything in a most tiresome manner. Sometimes it also leads to septic nails. Inflammation and sepsis forms around the nail and results in wittow.

Having finished all preliminaries, your fingers are ready now for varnishing. Paint on colourless varnish base. This gives the best possible foundation to your varnish and prevents it from staining the nails. Two thin coats of varnish are less trouble to apply than a single thick sticky one. With the side of the thumb remove a hairline of varnish from the nail tips—this aids longer wear. Twist a wisp of cotton-wool round the end of your orange stick, dip in varnish-remover and trim off any spots or smudges of varnish which may have overlapped from your nails.

Now, there you are! What lovely nails—so graceful and so beautifully manicured. Aren't you proud of them?



Children's CORNER



Hullo Children!

MOST human beings are born with some talent, or should we say some gift for doing something well and worthwhile. Sometimes our mother and father know that we have some gift, even when we are still children, and sometimes we do not know about it, until we grow older. But although we may be born with a talent, quite often we do not make use of it, and so by the time we grow up, our gift dies out.

For example, a boy or girl may have been born with the gift of drawing and painting well, or to play some musical instrument like the piano or violin, or a gift to be swift and skilful with the hands in making models or likenesses of things. There is no end to the gifts that may be in us from very young. But for many reasons we may not be able to help this particular gift to grow.

We may have in our family a child who loves to draw. From very young this child if given a pencil will draw on odd bits of paper and even on the walls if no paper is near at hand. Quite often, mother or father gets upset when they see the child's scrawling over walls and pieces of paper, and instead of helping the child, they will do all they can to stop that child from what they may think is a bad habit. In time, the child loses that gift it had, and the parents, although they may never know, have lost an artist, a real artist.

Then again, although we have a gift, and our parents may have helped us to make it grow, when we are grown up, we may use the gift only so as to make a lot of money, or to get people to say how wonderful we are. We may even use a natural gift to do evil things. Now, our natural gifts can be used in many ways when we grow up, and even though we can make money out of it so as to give us ease and comfort, we can also use our gift in the best way possible, to help others and give them some joy and happiness. And here is one way in which this was done, as you will see in the story of "The Magic Violin".

'The Magic Violin'

Olaf, the old violin-player, was slowly going blind. He could still see a little, but as if he were looking at the world through a thick mist. Old age had also made him somewhat stiff in the joints, so he often found it difficult to play his beloved violin on the cold winter days and evenings. It was on these days that his stiff old fingers would almost freeze, and he could barely hold his violin and let his fingers move over the strings to give out his melodies.

All through his life Olaf had been a violin-player. He was not a great and famous violinist, but he was good enough to be one of a band; one violin-player amongst a few more in the band. But even this gave him joy, for he loved music, and especially the

music that would come out of his violin as he played it.

The years went by. Olaf got married, had children, and when he was old, even a grandchild, but he was happiest to be a violin-player in a band. When he saw people dancing to the lovely music of the band, he would beam with joy, and his blue eyes would twinkle. Sometimes, when his band played in a public park in his town, he would see the children skipping and dancing around the bandstand, to the lilt of the music. And this was when he felt as if he were floating up into the blue skies with joy. The music from his violin seemed to fly gently through the air, and go right into the hearts of the boys and girls who danced around. The bright happy faces, the twinkling, dancing little feet, was the finest reward for the music he made.

Then, as he grew older and older Olaf found he was playing wrong notes because his fingers would suddenly get a cramp and press down the wrong note. His fine, sensitive musical heart would almost make him cry out with pain, when he heard those queer squeals from his beloved violin. But it was not only he who heard those terrible wrong notes. His bandmaster also heard them. The time came one day, when the kindly bandmaster sent for Olaf and told him that he must leave the band, as he could not have any bandsmen playing bad music. Olaf did not plead, but quietly nodded his head. He too had realised that he must leave the band, as he could not spoil the lovely music of the whole band.

So Olaf took his trusty old violin and went home. But he did not give up playing. Every day he would play just to keep his fingers from getting too stiff. He had saved some money and managed to live on that. Also, he would sometimes be asked to play for a wedding, or a house party, or some children's dance. From the money he earned he managed to feed and clothe

SOUTHERN RAILWAY

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Tenders should be submitted only on the prescribed form obtainable from the Office of the Controller of Stores, Southern Railway, Madras-23 on payment of Rs. 5 per copy in cash or by Money Order with full name and address of the remitter. Remittance by any other means will not be accepted. Tender forms are not transferable.

Tender forms will not be issued after 12-00 hours on 11-6-1956.

Office of the
Controller of Stores,
Southern Railway,
Ayyanavaram P.O.
Madras-23. } P. N. TALATI
for
General Manager
(Stores).

himself, and his little grand-daughter Greta, who stayed with him.

By the time Greta was twelve years old, Grandfather Olaf was almost seventy. With his old fingers getting more and more stiff, and his eyes becoming dim, old Olaf was not asked to play for weddings and parties any more; so he had to go out in the evenings on street corners and play his violin as best he could, hoping that the people who passed by had kind hearts to drop an odd coin into the hat which Greta would hold out.

Time went on, and one cold winter's night old Olaf was feeling rather weary after playing some hours. There were not many coins in the hat, so he said to his grandchild, "Greta, we'll play this last tune and then off we go home to warm ourselves near the fire."

With his beloved violin cuddled under his chin, Grandpa Olaf drew the bow across the strings. Soon his violin began to sing the lovely melody, but suddenly the fingers of his left hand stiffened, and when he placed a finger on the strings, there was a false note. Olaf was about to give up and take the violin from under his chin, when he heard a voice out of the fog swirling around say, "Here, give me that violin, and let me show you how to play that lovely melody."

Olaf handed over the violin and bow to the stranger and stepped aside. The stranger took the violin and bow and tucked it under his chin and began to play. Suddenly that violin really began to sing with such beauty and loveliness that Olaf and Greta stood by as if in a lovely dream. But the stranger went on playing one lovely tune after another, some gay, some sad, some like marching songs, and some that made people feel good in their hearts. And in the gloom of the fog

more and more people gathered around. When they saw little Greta with the battered hat held out, they dropped in coin after coin. Suddenly the music stopped. The stranger then gently placed the violin and bow back into Olaf's keeping, and suddenly strode away into the darkness.

Olaf shook his head. He would never be able to play like that stranger, who was a master violinist. Then taking Greta by the hand he and she returned to their little home. Greta lit the lamp, and then suddenly remembered the battered hat. She turned it over on the table and gasped with amazement. She had never seen so much money in her life. After she had counted it out and told Grandpa Olaf, he only smiled. Yes, it was quite a lot of money, more than he, an old broken-down violin-player, ever deserved. But that stranger, that wizard music-maker had given him more than money. He had given old Olaf the pleasure of hearing real music, one would almost say, heaven-sent music. And that was what he wanted to give thanks to God for.

A few months later Grandpa Olaf died, and some years later, when Greta was a young married woman, her husband, who was also very fond of good music, took her to a concert to hear a great violinist play. At the concert hall Greta heard the great and world-famous musician play the same lovely little melody which was her grandfather's favourite, and which he had stumbled over on that last cold and foggy night. Then Greta knew that the stranger who played that night for her grandfather, when the battered old hat was almost stuffed to the brim with money, was none other than this world-famous violinist playing on the concert hall stage.

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Lord Buddha *From a Painting by Sri S. N. Chakrav.*

SACRED PLACES OF BUDDHISM IN INDIA

In the Buddhist Tradition four places have been regarded as 'sacred' centres of pilgrimage: Lumbini near Kapilavastu (now in Nepalese territory) where Gautama Siddhartha was born, Bodhi Gaya (in Bihar) where he reached Enlightenment under the Bodhi Tree after six years of

meditation, Sarnath (a suburb of Banares), then called Isipatana, where he delivered his first Sermon in the famous Deer Park, now to be reconstructed by the Government of India and Kusinagara, where he died entering the supreme state of Mahaparinirvana. These four centres of pilgrimage which the Master himself recommended to his disciples, have been excavated by archæologists and are considered to be the first historic evidence of the existence of Gautama Siddharta as a human being, so long doubted by the philologists misled by the miraculous legends which have grown around him.

Even in South India there are places of Buddhist interest. For instance in Andhra at Amaravati and Nagarjunakonda in Guntur District and Bhattiprolu and Gudivada in Krishna District, there are stupas. These stupas were built between the 2nd Century B.C. and the 3rd Century A.D. Amaravati, which is 16 miles west of Guntur, is the most important site of Buddhist Centre in Andhra. Amaravati stupa could well vie in artistic beauty and grandeur with the Sanchi.

In Tamil Nad, Nagapattanam near Madras on the east coast had a Buddhist settlement at the time of the Cholas. Kanchi was a famous

stronghold of Buddhism in the South with 100 monasteries.

In Karnataka Buddhism began to exercise its influence from the days of Asoka, whose edicts at Siddhapur and its neighbourhood are found in the province. The Buddhist missionaries constructed monasteries at Banavasi at the time of the Satavahanas.

The reason why Buddha is regarded as a divine person is because he laid stress on absolute purity of conduct. It is said in the Thaithreya Upanishad that a man of perfect conduct, who has no desires, has got various degrees of bliss such as that of Manushya Gandharva, Deva Gandharva, Pithrus, Ajanadevas, Karma Devas, Indra, Brahaspati and Brahma. The happiness of the person, whose conduct is perfect and who is free from desires, is equivalent to the happiness of Brahma. In so many words Buddha may be said to have advocated this philosophy.

It is said Buddha was of a meditative mind. This implies that he surrendered himself to the Almighty. He felt the controversy over the creation and the creator was not beneficial. Purity of action was what he stressed as a path which would lead to salvation; that is liberation from birth, disease and death.

RAILWAY MEN!

Keep in touch with what is going on by reading your staff magazine. If you have gifts in that direction, you may even be able to contribute to it. If so, the Editor will be glad to consider your "copy".

Reports of activities of Railway Associations and Clubs are also welcome.

Common Traits of Human Character

13. OFFENSIVENESS

S. R. SRINIVASARAGHAVAN

Integral Coach Factory

OFFENSIVENESS was defined as a "disgusting neglect of the person," by Theophrastos. To enlarge upon the definition, one looks offensive when one draws the attention of others to one's crudities. If one is observant in life one will find that a disappointed man tries to be offensive. He always harps upon his fate and imposes on himself a neglect other than that foisted by providence on him.

I remember to have read a celebrated essay by Macaulay on Dr. Johnson in which he defended with all his vigour the attitude of Lord Chesterfield towards the author of the first English Dictionary. He opined that the act of Chesterfield in turning out Dr. Johnson prior to the publication of the Dictionary was fully justified because he feared that the physical crudities of Dr. Johnson would be offensive. Macaulay, in fact, delves into some more details in putting up this defence. He avers that if Dr. Johnson had been permitted into the precincts of the house of the noble Lord, he would have made the Persian Carpets dirty by pouring mouthfuls of wine over them in a series of guffaws. Of course, the wealth of the literature that Dr. Johnson produced and Boswell's hero-worship of the famous writer in his celebrated biography have left a dignified impression about the literary Doctor in our minds. But poverty was the greatest drawback of Dr. Johnson, and Macaulay was a thorough aristocrat.

To offend unknowingly is one thing, but intentional offensiveness is definitely a detestable quality. There

are two extremes in life which, for a casual observer, look like being identical. One is renunciation (an admirable quality) and the other is a detestation of all the good things in life simply because they are not within your reach. The individual in whom the latter quality abounds is generally offensive to a great degree. He decries everything and neglects his person to the very extreme. From personal appearance to the mode of his talk he suggests the worst features of life which any cultured man abhors.

It is a common sight in lower middle class families to see a poor boy's mother beating him for no offence simply because she is not in a position to afford a better dress for him as compared to the one worn by the rich man's son opposite. Many family quarrels result from such squeamishness. In such cases a state of contentment is the best remedy for such offensive attitudes.

In a very short essay on this trait Theophrastos gives us a clear picture of the offensive man. He says:—

"The offensive man goes about with a leprous or scrofulous complaint or with black nails, and says these are diseases he got by heredity. His father had them and his grandfather, so it is not easy to be supposititiously introduced in his family. He is always having ulcers on his shins and sores on his toes. He never takes any care of them but lets them fester. His teeth are dirty and decaying."

21

YEARS



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HUMP CLASSIFICATION YARDS

T. S. PARTHASARATHY

Deputy Chief Operating Supdt. (Coaching)

General Principles

THE capacity of flat marshalling yards, however efficiently they are worked, is limited as the shunting engine has to reverse at least once every few shunts and thus be moving forwards and backwards constantly. Coupling up of wagons shunted on to the various lines also occupies considerable time. It has, therefore, been the modern practice to provide a hump or gravity yard whenever the wagons to be dealt with exceed, say, 2,000 a day so that formations could be broken up more expeditiously. There are, however, still flat yards, like the Colehour yard of the Pennsylvania Railroads in South Chicago, which handle from 4,000 to 5,000 wagons each day and sort a 120-wagon train in around 45 minutes.

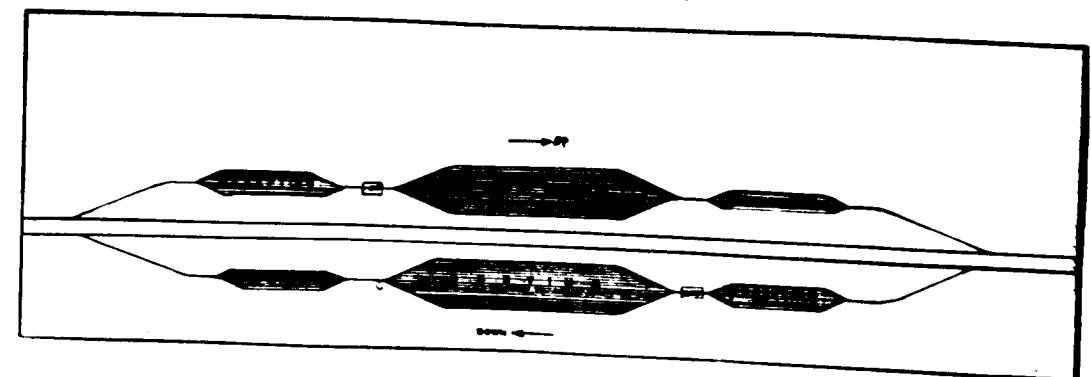
Traffic patterns influence the lay-out of yards in general. Yards in coal-mining areas, for example, will form many long distance direct trains and the formation of local trains in such yards will be unimportant. Although yards should normally have reception, sorting, formation and despatch

bundles separately, sometimes departure bundles are combined with formation bundles. For the traffic pattern of Netherlands Railways, no departure bundle is needed while for the French traffic pattern of a number of trains leaving at short intervals, extensive reception and departure bundles are required. Harbour guards may have an almost purely two directional traffic. Yards should therefore be provided to suit peculiarities of traffic patterns.

Single Yards versus Double Yards

Double yards had their use in times when humps were slow and one hump could not handle more than 2,000—2,500 wagons per day. In India, where the British practice was followed when Railways were originally built, double yards were provided for hump yards as well as for flat yards. So we have an Up yard and a Down yard not only at Tondiarpet Marshalling Yard but also at Bezwada, Arkonam, Jalarpet, etc. The following is the typical lay-out of a Double yard in other countries:

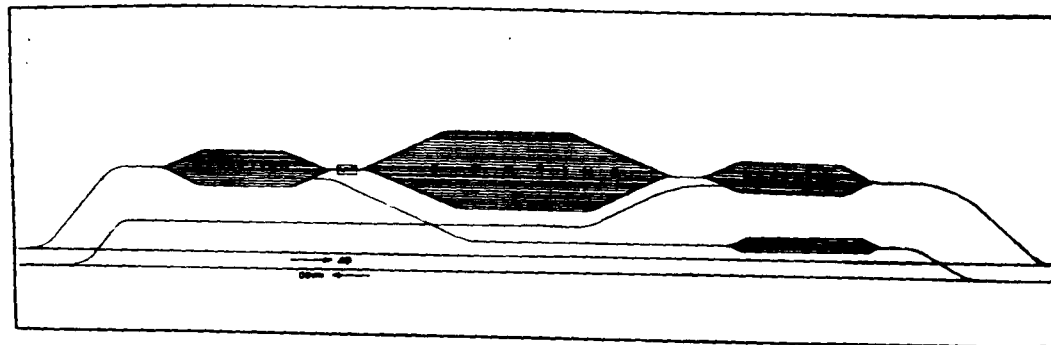
Typical lay-out of double yard



Formerly many yards were built in this way, but the present tendency is to go in for large single yards with one hump and modern facilities for braking, etc. The double yard shown above will probably be constructed to the following lay-out in modern times :

German Railways think that double yards can only be justified if the traffic to be handled exceeds 6,500 wagons a day. Single yards with one hump are now able to handle 4,000 wagons a day. In Continental Europe a few double direction yards still exist but during the

Lay-out of modern single yard



SOUTHERN RAILWAY

TENDER NOTICE

TENDER FOR LOADING AND UNLOADING OF COAL, COKE AND CINDER WITHIN THE WORKSHOPS AREA AT GOLDEN ROCK DURING THE PERIOD FROM 1-7-1956 TO 31-3-1957

Tenders are invited for the above work to be done within Golden Rock workshops from 1st July 1956 to 31st March 1957. 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 21st June 1956** in sealed covers enfaced conspicuously with the words 'Tender for loading and unloading of coal, coke and cinder in Golden Rock workshops' and 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 a.m. on 18-6-1956 a sum of Rs. 500 (Rupees Five hundred only) as tender deposit to the Regional Accounts Officer, Southern Railway, Trichinopoly and enclose the receipt thereof with the tender.

CHIEF MECHANICAL ENGINEER.

last 25 years none was constructed. As a matter of fact, double yards are often replaced by single yards in America and Europe. The following advantages are claimed in favour of single yards :

- (1) Saving in engine hours, staff and capital.
- (2) Avoidance of transfers of wagons from one yard to another.
- (3) Less costly to build.
- (4) Larger capacity in same space.

Economies effected by the conversion of Villeneuve-St. Georges Yard from Double to Single are shown below :

	Old Double Yard	New Single Yard
Reception bundles ..	5	1
Reception tracks ..	25 (550-600 metres)	18 (850 metres)
Sorting bundles ..	4	1
Sorting tracks ..	108 (500-650 m.)	48 (900 m.)
Formation bundles ..	2	5
Formation tracks ..	40 (500-600 m.)	32 (700-800 m.)
Wagons per day ..	2400	3800
Trains arriving daily ..	50	72
Trains dispatched daily ..	54	74
Length of track ..	102 k.m. (about 64 miles)	82 k.m. (about 41 miles)

Other principles

Each terminal has its individual operating problems resulting from differences in character and flow of traffic, requiring a variation in the arrangement of receiving and departure yards in relation to a hump classification yard. One arrangement may be well adapted to one pattern of traffic and not to another ; therefore, it cannot be considered that any one arrangement is ideal for all locations. However, a careful study of the traffic pattern will indicate an arrangement which will serve best to satisfy the requirements from both an operating and economic standpoint.

The object should be to provide an arrangement whereby the function of receiving, humping (or ordinary marshalling as the case may be)

assembling and despatching can be performed with minimum delay to the movement of traffic and with the most efficient use of facilities and personnel.

After an arrangement has been selected for any given pattern of traffic, it must be adapted to the available space, whether owned or to be purchased. Physical conditions, such as size and shape of property, grading within the yard area and grades of approaches must be considered. Modification may have to be made in the arrangement in order to build the facility in the selected location, perhaps at the expense of maximum operating efficiency, but care should be taken to insure that the required operating capacity both for the present and the future can be attained ; otherwise a different location may be needed.

In general, the following major factors are to be considered :—

1. If the volume of traffic exceeds that which can be handled over one hump, two hump classification yards will be required.

2. If trains consist of wagons which move through the yard continuing in the same direction, a hump in each general direction of movement is practical. If they consist of wagons which are likely to move out of the yard in any direction, a single classification yard is preferable.

3. Type of terminal: Whether intermediate or at the end of the line and whether all wagons are humped or part of each train is 'blocked' through.

Types of Track and Ballast

The general practice of using second hand track equipment in yards should not be followed in hump yards. It is essential that heads of bundles are of first class quality. Used rails may be laid in straight stretches of bundles but in sorting bundles, a well-maintained track is essential preferably with long welded rails. The yard should be well drained with special

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June 1955

HUMP CLASSIFICATION YARDS

57

drainage system but many railways use however cinder ballast in hump yards.

Heads of all bundles should be as short as possible. French Railways have developed a special 1 in 6 switch (tangent 0.167) which has a radius of 200 metres (670 feet) and is 18.36 m. (61 feet) long. All switches are laid symmetrically resulting in equal distance between the top of the hump and the fouling points of all tracks. Shortening can also be done by use of three-way switches as is done in America and Belgium. but three-way switches cost much in maintenance and cannot be so systematically arranged on the switch operating table. The French lay-out seems the better method.

Wagon Retarders

In hump or gravity yards, some method of controlling the speed of wagons rolling down has to be provided. In most yards, this is done

by skidmen applying a skid or brake-shoe under the wheels at suitable points which are determined by the speed of the wagons. Pointsmen operate the points leading to the various sorting lines. The next move for effecting economies was the application of power-operated points whereby one operator replaced a number of pointsmen. The latest improvement at hump yards permits a few operators, controlling wagon retarders, to do the work formerly requiring a large number of skidmen.

The wagon retarder is a braking device, usually power-operated, built into a railway track to reduce the speed of wagons by means of brake shoes which, when set in the braking position, press against the sides of the lower portion of the wheels. The wagon retarder system includes the retarders, the power-operated points, control machines, etc. The number and location of wagon retarders and operating stations depends upon the

A shunter in U.S. Railways judging the speed of a shunt from the control tower



track lay-out and profile at each yard. In general, however, the first retarder is near the summit of the hump; others are at intervals along the leads. The operators also operate the points of the sorting lines, judge the speed of the wagons and retard them when necessary by means of the retarders.

The economies effected by the installation of wagon retarders depend upon the capacity of the yard, the number of wagons handled and the distribution of wagons throughout the day. The operating advantages are:—

1. Possibility of keeping a yard in operating under severe weather condition (like heavy rain or intense heat).
2. Increase in the capacity of the hump as all delays caused by the skidmen in bringing wagons to a stand are removed.
3. Reduction in damages to equipment.
4. Practically eliminates personal injury.
5. Economy by reduction of staff.

Kinds of Hump Yard Brakes

The hydraulic hump brakes were the original type, now largely outmoded by electro-pneumatic and electric types. These need a special pit under the track for maintenance. No track circuiting is possible and the brakes must be on a straight track. The weight of the vehicle is used to produce the braking effect.

The electric hump brakes are the most recently developed and have an electric motor drive through cranks. No track circuit is possible through the retarders. Eddy current brake has also been used but this needed excessive power.

Electro-pneumatic hump brakes are probably the most flexible and use air pressure which can also profitably be used for the points. They need no special foundation, possess nut-cracker action and very fast response to control and can be used with track circuits.

The control over retardation may be manual or automatic and the variable factors which affect retarder

operation are the weight and speed of vehicles, the weather, the condition of the axle boxes and the available length of the siding.

Electro-Dynamic Brake

In June 1954 two Swiss engineers Huber and Briner won the first prize in a German competition for improved hump-yard brakes. Their invention was based on the principle of the most elementary electro-motor whereby the axle and the wheels act as the anchor of the motor. A strong current of very low voltage is sent through the wheels and axle from one rail to another as soon as the wagon enters the braking area. A strong permanent magnet at both sides of the wheel forms a magnetic field and the axle is submitted to a momentum, which according to the direction of the current can either brake or accelerate the wagon.

The inventors propose two uses:

(1) At the beginning of the downward grade, which function is to brake good runners and to accelerate bad runners, in other words, to space the wagons on the downward run. The hump can thus be considerably lower.

('Good runners' and 'bad runners' refer to wagons which run easily down the hump and which do not, depending on their being empty or heavily loaded and the type of axle boxes).

(2) An apparatus in each sorting track which can either brake or accelerate the wagons so that they will arrive at the right spot in the track.

The installation will have practically no wear and will need little maintenance and all brakes in 48 sorting tracks can be manipulated by one handle, because the apparatus only works when an axle is passing it. The cost of the installations will be low.

Communications in Marshalling Yards

The conduct of operations in marshalling yards necessitates communication between various individuals and it is obvious that efficiency and

speed of working depend partly upon the character of appliances provided to transmit and receive instructions locally or to engage in essential conversation where the distance is beyond normal vocal range. Such instructions may take the form of visual signalling or they may be oral by the use of telephones; in later years the development of loudspeakers has resulted in this means of efficient communication being introduced at many marshalling yards.

Loudspeakers are very useful for giving orders quickly in case of emergencies or wrong direction of wagons liable to occur during braking operation of a train. They increase the efficiency of the marshalling yard by speeding operations, reducing damages by shock and increasing the yardman's safety. All these advantages are emphasized during night work and in adverse weather conditions when accidents are more likely to occur to yardmen. Furthermore, loudspeaker installations make such outstanding savings in operating expenses that they pay for themselves in a very short period.

In a marshalling yard, loudspeakers are used to provide either a one or two-way communication between the men who stand in certain fixed points and those who are working along the fans. Loudspeaker communication is also provided between cabins where employees have to exchange many messages during their work and this makes it unnecessary for them to use the telephone and hold the receiver in their hands.

Formerly, long distance conversation between cabin and the men out in the yard was generally carried out by telephone and when orders had to be given from the cabin to more than one person, they were called to the respective phones by powerful bells or klaxon-horns. The installation of loudspeakers has eliminated these arrangements.

Generally only one amplifier, fed by a power line is used in a marshalling

yard so that only one order can be given at a time. This system prevents two communications to be held simultaneously by different loudspeakers and heard simultaneously by the yardmen thus rendering the speech non-understandable in some areas. Owing to this peculiarity, priorities are to be given for the announcement over the microphones standing in the different zones. In areas where strong winds are prevailing, loudspeakers are to be fixed so as to project sound in the direction of the wind.

Two-way Communication

Talk-back loudspeakers, which provide a two-way communication between the Yardmaster and the men in the yard, are an improvement over loudspeakers which give only a one-way communication. Talk-back speakers are ordinarily located on pipe posts, about 8 feet high, along the leads down the hump where men work. In addition, similar loudspeakers should be located at various other places where the crews may stop, such as outlying points in the yard area, etc., so that calls can be made at any time. They can also be provided at points where incoming trains enter the yard so that the Yardmaster can give direction for trains to be received on a designated track. In some yards, talk-back speakers, located near the spots where locomotives and brake-vans stand when trains are made up, are used effectively to check up the time, load of the train, vacuum, etc., thus saving several minutes.

To talk to any employee from his tower, the Yardmaster presses the key which connects his talking equipment to the talk-back loudspeaker at the latter's location. By pressing a foot-switch, the Yardmaster's voice is reproduced at loudspeaker volume at the employee-location and may be heard within a range of 100 feet or more at each talk-back speaker. When the Yardmaster releases the foot-switch, the loudspeaker is turned into a microphone and the employee may

talk-back to the Yardmaster in his tower, thereby establishing direct calling and answering.

Calls may be originated at the remote talk-back location by pressing on a push button which actuates an indication lamp on the console associated with the key related to the corresponding remote location. A buzzer operates in conjunction with the lamp circuit but may be switched off, if desired.

Paging Loudspeakers

If the Yardmaster does not know the whereabouts of the staff, he then puts out a call on the Paging speakers. The employee called uses the nearest talk-back speaker and by pressing the push button on the pipe, can communicate quickly with the Yardmaster's Office.

Paging speakers are mounted on buildings and towers so that they have a range of several hundred feet. They are essential for issuing emergency (fire, accident) and general instructions and locating personnel quickly. That installation will keep the yard staff always 'on call' and discourage their being away from their posts of duty for long spells.

Radio-Communication in Yards

Radio telephony is already being employed extensively in the U.S.A. and to a lesser extent in European countries as a supplementary aid to establish communication with drivers of locomotives or individuals whose duties require them to be mobile. In the case of new yards, it is possible that by the use of radio, the number of shunting signals and loudspeakers may be curtailed and initial and maintenance costs reduced.

In U.S.A. radio-communication is usually provided between the engine driver and some central supervisory point such as a Yardmaster's Office and in Europe, between the driver and the person in charge of propelling movements over a hump.

In hump yards in U.S.A., a string of wagons being propelled over the

hump may, and often does, number 100 or more and the speed of the shunting engine is varied by the driver in accordance with instructions received by him from the person in charge at the hump. The use of the radio greatly facilitates the transmission of instructions and makes possible the continuance of humping under condition of poor visibility, thus reducing delays.

In flat yards where, during shunting, the speed of individual vehicles or cuts of wagons is dependent upon the momentum imparted by the shunting engine, the person in charge of the operations has to issue instructions to engine crews about changing the routing of vehicles and the break-up of trains. Such instructions can be advantageously given by radio.



A driver, by the radio in the cab of his diesel shunting engine (U.S. Railways)

The quicker passage of wagons through a yard increases its capacity and may in some circumstances obviate the necessity for additional sidings or extension of signalling.

(To be Continued)

HOW THE DIFFICULTIES FACING THE RAILWAYS ARE TACKLED

K. SRINIVASAN

OF the million Indian Railwaymen, more than two lakhs toil at machines in workshops; lakhs more are spread along the track, packing ballast, driving spikes and watching the safety of trains; many thousands are levermen, cabinmen and controllers with a large force working in offices, to carry 36 lakhs of passengers and 411,000 tons freight daily. Let not the occasional lapses of a few, distort public assessment of the service rendered by railwaymen as a whole.

Principal Objectives before us during the Second Plan

The principal objective before us is to augment Railway capacity to meet the increasing demands for both passenger and goods traffic. In the course of the coming five years, passenger traffic is expected to go up by 15 per cent. Above this limit, further capacity is required to eliminate overcrowding. Freight traffic during the Second Plan will increase by about 51 per cent.

Such rapid increase in the volume of traffic calls for accelerated expansion of the Railways' resources, principally in the direction of new rolling stock, line capacity works, including large scale doublings, larger maintenance facilities and new lines. There will also be big schemes of electrification, dieselisation of certain sections and installation of improved signalling. We are also expected to raise steadily and on an extended scale the standard of passenger amenities and also pursue labour welfare schemes.

Metre Gauge Bottleneck being broken on Southern Railway

The Southern Railway received on 23rd May 1956, the (token) consignment of a dozen of the 2,950 United

States-aided Metre Gauge goods wagons. These form part of the 53 million dollar Railroad assistance under which 8,700 wagons and 100 locomotives are to be made available to the Government of India by the United States through the Technical Co-operation Mission. The component parts of the wagons and shell frames are obtained from the United Kingdom and wheels from Japan, and are being assembled in the new workshops of Messrs. Binny's Engineering Works in Meenambakkam.

The T.C.M.'s first Railway wagons, representing the larger amount of rollingstock to be delivered later, were formally handed over by the American Consul-in-charge, American Consulate-General in Madras, Mr. Robert M. Winfree, on behalf of the Government of the United States to Mr. T. A. Joseph, General Manager of the Southern Railway, at an informal ceremony held in the Binny's Workshop premises in Meenambakkam.

This timely aid of U.S. is going to mean a lot to the Indian people and they should feel highly grateful for this generous help. This American help is exceedingly timely in more than one respect. The Southern Railway is rather far-flung with a heterogeneous combination of Broad Gauge and Metre Gauge lines. The Metre Gauge on Southern Railway represents nearly two-thirds of the total length and the rest Broad Gauge track, though the latter generally meets the eye. The traffic position here in Broad Gauge was as bad as in any other Railway sometime back but in the last couple of years, considerable improvement has been made.

Metre Gauge in Southern Railway

On Broad Gauge they had been able to borrow freely whenever they were

short of stock but this was not possible in regard to Metre Gauge stock because Metre Gauge section in Southern Railway is not connected with the rest of the Metre Gauge systems of India. On Southern Railway the Metre Gauge line is a sort of secluded pocket with nearly 4,500 miles of track in this part of the country. Hence, when it came to a question of looking for additional stock in busy season, there were no means of getting it from outside. Southern Railway had been pressing for additional stock in the past and more than once they had been promised and allotted a fairly liberal supply from the new stock expected, or arriving, or manufactured in this country. But they actually never got any of these wagons owing to the difficulty in moving them over the enormous length.

All the 2,950 wagons which were to be assembled here have been allotted to the Southern Railway. By this, reasonable adequacy would be ensured in the busy season in the matter of wagon supply. This will enable Southern Railway to break the Metre Gauge bottleneck.

Drive towards Self-sufficiency

Of no less urgency has been the task of developing economic self-sufficiency in regard to certain vital requirements. Our dependence on imported motive power equipment caught us twice in a bad way during the first and the second world wars. The setting up of the Chittaranjan Locomotive Works, the Integral Coach Factory at Perambur and the building of metre gauge locomotives at TELCO, are efforts at self-sufficiency in the matter of imported items of rolling stock.

Equipment for Railways

The nine-member Railway Equipment Committee which was appointed in January 1955 has submitted its report to the Government of India. Its terms of reference included locating of

idle capacity in the country for the manufacture of railway equipment and rolling stock which are at present imported. It was also asked to suggest ways and means of expanding the existing plants and/or of setting up new industries in India for meeting existing and future requirements of railway equipment which cannot be manufactured with the existing resources.

The Committee points out that the expenditure on Railway equipment and stores during the Second Five-Year Plan would be substantially higher than Rs. 100 crores per year which had been the average during the past few years. The Committee feels that "near self-sufficiency" in regard to Railway requirements would be reached by 1960, if the actual requirements do not exceed the present estimates based on the financial provision made in the Second Plan.

The Committee has recommended that substantial imports of steel and pig-iron for Railway requirements at ruling world prices should be accepted as inescapable and suitable arrangements should be made for obtaining adequate and regular supplies from abroad after making an assessment of the shortfall expected during the next five years.

The Committee also recommends the introduction of uniform prices for basic raw materials in order to encourage equitable industrial development in the country. For this purpose it suggests, at least one centre in every State should be declared to be a 'port' for the purpose of a uniform price for steel, pig-iron, coal and coke.

Overcrowding on Suburban Trains

Season ticket-holders are held partly responsible for causing overcrowding on suburban trains in Bombay, Madras and Calcutta by the special Committee which recently considered the question and submitted its report to the

Government of India. Staggering of working hours of Railway offices with a large staff reduction in the number of classes from three to two on the steam-operated sections as on electrified sections and reservation of some seats instead of compartments for women are some of the main recommendations made by the Suburban Train Overcrowding Committee. Among the causes for serious overcrowding, according to the Committee, is absence of any restriction on the number of journeys performed by season ticket-holders.

The Committee has also referred in its report to malpractices under which unscrupulous season ticket-holders pass on their season tickets to other persons who undertake additional journeys on the same tickets.

The Committee remarks that the actual number of journeys performed by a ticket-holder is much larger than 25 return journeys per month to which he is entitled.

On the Southern Railway, it has been found that the number of season ticket-holders and those who undertook journeys on single tickets was equal—about 4.4 million on the Broad Gauge.

The Committee stresses that the Railway Administrations having a larger concentration of staff, might, with a view to setting an example, examine the implications of introducing staggering in working hours in their own offices and the effect of this step on the traffic.

Another important recommendation of the Committee is the creation of space for standing passengers. About half the space should be taken up by seats and the balance made available for standing, except on short runs on the Kurla-Mankhard branch of the Bombay suburban system and the Santragachi-Shalimar branch of the Calcutta suburban system, where only standing room should be provided.

Works during Current Year and Schemes during Second Plan on Southern Railway

The surveys proposed to be undertaken during 1956-57 by the Southern Railway are:

The Nellore-Maidukur link, the Kottur-Harihar link, the Manamadurai-Aruppukottai-Virudhunagar, the Chinnasalem-Chingleput (via Kallakurichi, Tiruvannamalai and Wandiwash) and the Katpadi-Vellore-Conjeevaram links.

A few other major works, which are proposed to be taken up during the Second Plan can be indicated. It is gathered that about Rs. 15 crores will be spent on track renewals. Improvement and expansion of the existing workshops will involve an expenditure of Rs. 7 crores. The Hubli Workshop will be completely remodelled, a new broad gauge wagon shop will be constructed at Perambur and expansion of the Mysore and Golden Rock Mechanical Shops and the Arkonam Engineering Workshops will be undertaken.

A sum of Rs. 3 crores will be spent on rehabilitation of bridges. Goods sheds on the Southern Railway will be improved and expanded involving an expenditure of Rs. 2 crores.

The proposed electrification of Tambaram-Villupuram section will be carried out at a cost of Rs. 3.68 crores. Construction of overbridges and underbridges in place of the existing level-crossings, about 38 in number will be undertaken at a cost of Rs. 60 lakhs.

The plan includes a provision of Rs. 5 crores for quarters for Railway staff and an additional sum of Rs. 2 crores for other Railway facilities.

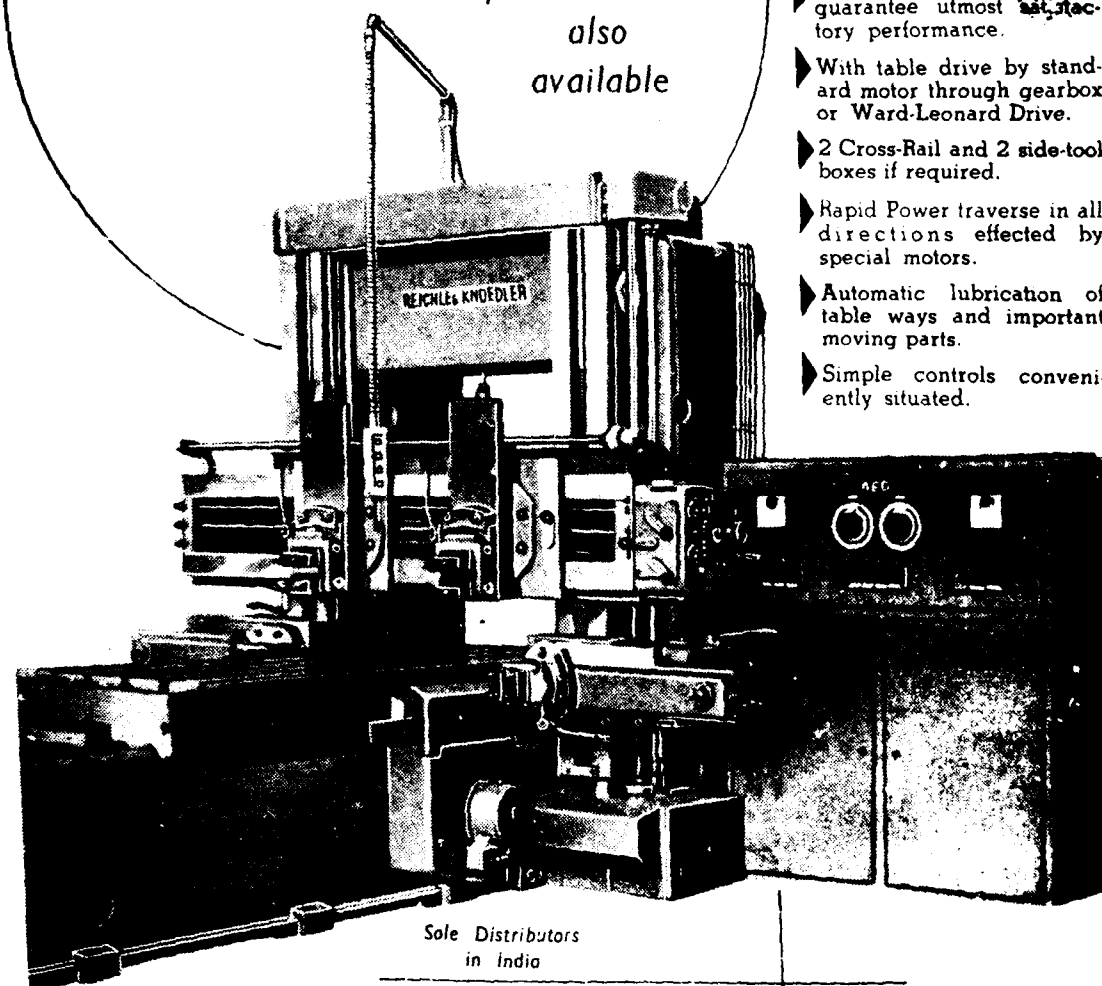
It may be mentioned that out of 10 lakhs of Railway employees, 1.53 lakhs work on the Southern Railway alone.

(To be Continued)

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INTEGRITY IN ADMINISTRATION

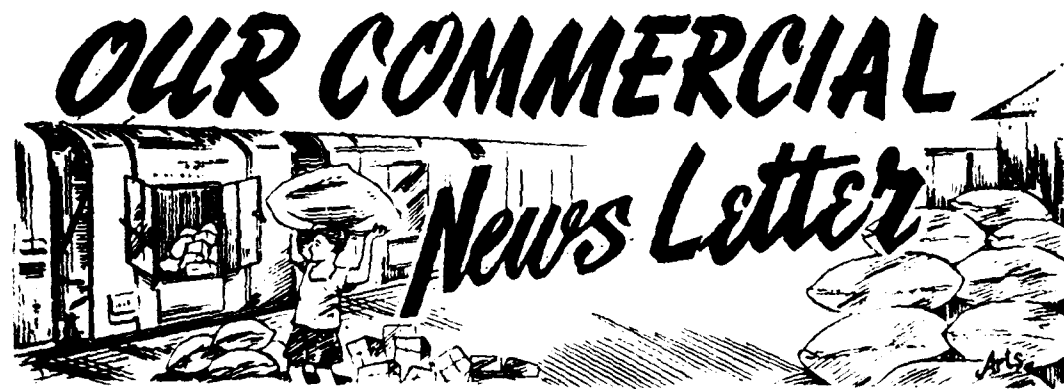
Corruption leads to wrong which is difficult to redress and undermines the confidence of the people in the Administration. There has to be a continuous war against every species of corruption. In recent years, number of positive steps have been taken on the Railways such as the organisation of the Anti-Corruption branch, submission of returns regarding movable and immovable properties acquired by public servants. The main attack on corruption must be through ensuring efficiency in every branch of the Railway. Speedy action is proposed, where corruption has come to notice and to tackle the factors which make corruption possible. It is not becoming on the part of Railway servants to expect favours from the public for doing the duties for which the Railway servants are paid for. If

a Railway servant expects an unfair gain by rendering unauthorised service to the public, such a Railway servant will interfere with the sacredness of the service and also impair the efficiency of the railway. If one seeks illegal gains in the course of his doing his duties, the public motive will be impaired and corruption will result. It is not in the national interest for a railway servant to entertain hopes of illegal gratification.

Let us remember that Mahatma Gandhi advised us to cleanse our hearts of pettiness, meanness and deceit. Let us also remember that the Prime Minister, Sri Jawaharlal Nehru, has stressed on the integrity and reputation of public servants and rise above malpractices and corruption.

Chi. V. Sivaramakrishnan, GM's Office, Madras and Sow. Savithri,
who were married on 7th May 1956





EARNINGS

The approximate earnings on originating traffic for March 1956 compare as under with those for the corresponding period of the previous year :

	(Figures in thousands of Rupees)	
	March	
	1955	1956
Passengers	1,48.38	1,69.01
Other Coaching	32.72	32.19
Goods	1,86.35	1,99.97
Sundries	10.46	11.68
Total	3,77.91	4,12.85

COMPENSATION CLAIMS

The following is an analysis of the position regarding compensation claims for the month of March 1956 :

1. Number of compensation claims received during the month of March, 1956	3,103
2. Number of claims disposed of and the amount paid during the month of March 1956	3,553 (Rs. 2,00,097-5-5)
3. Number of claims outstanding at the end of the month	3,319
4. Number of days taken to settle a claim	39 days

" You will find engineers who don't see why you can't build society on the analogy of a steam engine ; you find lawyers, like Taft, who see in the courts, an imitation of heaven ; sanitation experts who wish to treat the world as one vast sanatorium ; lovers who wish to treat it as one happy family ; education enthusiasts who wish to treat it as one vast nursery."

—WALTER LIPPMAN
(Drift and Mastery)



INTRODUCTION OF DIVISIONAL SYSTEM

BEZWADA

Sri T. A. Joseph, our General Manager, inaugurated the Bezwada division on 16th May 1956. The eight divisions being formed, of which, Bezwada is one, will take the place of the regional system of administration. The Divisional Superintendent will be in complete charge of the division and he will be assisted by a number of divisional officers, who will, in turn, be in charge of various branches of working like Engineering, Operating, Commercial, Mechanical, Electrical, Signal and Tele-Communication. Photo shows Sri M. S. Murthi, the new Divisional Superintendent, garlanding Sri T. A. Joseph





Sri M. S. Murthi speaking on the occasion

Sri T. A. Joseph inaugurating the function



A view of the gathering including the officers of the newly formed BZA division sitting in the front row

Officers' wives taking tea during the occasion



SOUTHERN RAILWAY TENDER NOTICE

1. The Regional Mechanical Engineer District Mechanical Engineer, Southern Railway, Rayapuram, invites sealed tenders upto 1 p.m. on 12th June 1956 for collection from, conveyance, washing and delivery of linen and clothing of air-conditioned coaches and inspection carriages or saloons at Madras Central Station to the Chief Train Examiner and Head Train Conductor, Madras Central thrice a week for the period commencing from 20th June 1956 to the 31st March 1957. The details of linen and clothing referred to are broadly speaking as :

	Approximate No. Monthly
(i) Big size—(Woollen blankets, serge suits, bed covers, canvas, carpet covers, canvas and woollen carpets)	150
(ii) Medium size—(window blinds, compartment curtains (silk imitation), table cloth (other than cotton), furniture covers and cotswool blankets)	300
(iii) Miscellaneous small articles : (Bed sheets, bath towels, face towels, pillow slips, pillow covers, pillow cases, table cloth cotton, suits cotton, dusters, napkins, polishing dusters and antimacassars)	5,000

2. The numbers under each size shown above are only approximate and no guarantee can be given to deliver for washing any maximum, minimum or specified number of articles of any or all descriptions or sizes of clothing and linen referred to.

3. Previous experience essential.

4. Tender documents are obtainable from the District Mechanical Engineer, Southern Railway, Rayapuram, Madras-13, till 12 noon on 7th June 1956 on payment of Rs. 2 per set which amount will not be refunded under any circumstances. The tender form is not transferable.

5. All tenders must be addressed to the Regional Mechanical Engineer, Southern Railway, Rayapuram, Madras-13, and must reach him by 1 p.m. on 12th June, 1956 in sealed covers conspicuously enfaced "Tender for washing linen and clothing at Madras Central" and will be opened by him or his representative at 3 p.m. on the same day. Any tender received after 1 p.m. on 12th June, 1956 will not be considered.

6. Each tenderer is required to remit to the Chief Cashier, Southern Railway, Park Town, Madras-3, so as to reach him on or before 2 p.m. on 8th June, 1956 a sum of Rs. 500 in cash towards tender deposit or in any of the following forms:—

- (i) Deposit receipts, pay orders, demand drafts or guarantee bonds of the State Bank of India ;
- (ii) Guarantee bond executed by a Scheduled Bank ; provided (a) the bond in question is countersigned by the State Bank of India, whereby the State Bank of India undertakes full responsibility to indemnify the Railway in case of default or (b) the Bank concerned lodges with the Reserve Bank of India requisite securities, namely, cash deposits or Government Securities in respect of the guarantees executed by it and the Reserve Bank advises the Railway that the bond may be accepted ;

and the official receipt therefor should accompany the tender. Government securities (stock certificates, bearer bonds, promissory notes, cash certificates, etc.) will not be accepted. The tender deposit will be returned to the unsuccessful tenderers as soon as possible after the tenders have been disposed of.

7. The Regional Mechanical Engineer reserves to himself the right to reject without assigning reasons any or every tender and does not bind himself to accept the lowest or any tender.

REGIONAL MECHANICAL ENGINEER
DISTRICT MECHANICAL ENGINEER SOUTHERN RAILWAY, RAYAPURAM



A film show was held at the Railway Institute, Bezwada, on May 16th.
Photo shows GM, DS and others witnessing the show

MADURA

The Madura division was inaugurated by Sri A. R. Rao, our SDGM, on 16th May, 1956
Sri R. Gopalakrishnan is the new DS





Sri R. Gopalakrishnan, DS and Sri A. R. Rao, SDGM

The first meeting of the new Zonal Committee was held in the GM's Office, Madras



CELEBRATION OF RAILWAY WEEK RENIGUNTA-GUDUR SECTION

Kalahasti

On the evening of the 14th April, 1956 a largely attended meeting was held behind the station building when Sri K. R. Thangaswamy, Executive Engineer presided and Sri A. Balarama Reddy, M.P. spoke.

Just before the meeting Sri A. Balarama Reddy, M.P., inaugurated the linking of BG rails at a little distance from Kalahasti station towards Gudur at a specially decorated improvised gantry.

The entire station area and residential colony were a festive and gala appearance and from the top of every building fluttered smiling coloured festoons. People from the town began to arrive long before the meeting commenced. The guests were served with light refreshments and tea. A welcome address on behalf of Railway Staff was presented to Sri A. Balarama Reddy, M.P., by Sri K. S. Srinivasaraghavan, P.W. Inspector.

Sri K. R. Thangaswamy said that they were all assembled there to celebrate the Railway Week. Introducing the chief guest Sri A. Balarama Reddy, Sri Thangaswamy said that he did not require any introduction. The object of 'Railway Week' was to enable the public and Railway staff to come in contact with each other with a view to improve relationship. The public should know what the Railways were doing for them and the Railways should know the points of the public. He said that the Railway Week would be celebrated every year in future and explained that the object of converting Renigunta-Gudur section into Broad Gauge was to relieve the pressure on Gudur-Madras section by diverting the traffic for South-West and North-West Lines via Renigunta. Continuing Sri Thangaswamy gave a lucid account of various amenities provided and contemplated.

Sri A. Balarama Reddy, M.P., thanked the organisers for presenting him with

an address of welcome. He referred to the various improvements effected in travel facility in the First Five-Year Plan. He appealed to the public to co-operate with the travelling ticket examiners to put down ticketless travel.

Sri Gopalaiah, Sri Prasad, Sri A. K. Murti, Sri G. N. Seshadri and Sri Thomas also spoke.

Cash prizes for 'best kept station' to the staff of Kalahasti station were distributed by Sri Thomas, D.S.P. After termination of meeting at 8-30 p.m. the Venkatagiri artists staged a 'One Act Play'.

Sri Babji Naidu proposed a vote of thanks.

Messrs. S. A. Babji Naidu and K. S. Srinivasaraghavan and other station staff deserve to be congratulated for organising this meeting.

Venkatagiri

A largely attended meeting was held at Venkatagiri Railway station at 6 p.m. in the tastefully decorated pandal on the 16th April 1956 when Sri K. R. Thangaswamy presided and Sri Venkataswamy Reddy, M.L.A., addressed the gathering.

Before the meeting had commenced Sri Venkataswamy Reddy, M.L.A., inaugurated linking of BG rails at the Renigunta end of the yard.

Sports were held in which all workers took part with great enthusiasm. Guests were served with light refreshments and tea.

Sri Thangaswamy explained the progress of conversion work and the object of Railway Week. He invited the members of public to come forward and share their views with the Railway.

Sri Venkataswamy Reddy thanked the Railway at the outset for inviting him to inaugurate linking of BG rails. He said that they should treat the work as their own and help the Railways in all ways.

Messrs. Kotiah Achari, Kalappa, Subbaramiah and others also spoke.

The meeting came to a close after distribution of prizes to Railway staff for 'best kept station' by Sri Venkataswamy Reddy, M.L.A.

Messrs. P. A. Menon and J. W. Zacharias and others have nicely organised the meeting and they are to be congratulated. Sri G. P. Ramachandran proposed a vote of thanks.

RAILWAY WEEK CELEBRATION, BANGALORE—1956

The "Railway Week" was observed with due éclat in the Railway Institute at Bangalore from 10-4-56 to 16-4-1956.

The station entrances and the platform and the Railway Institute were gaily decorated with festoons, bunting and flower pots. Big banners reading "Railway Week, 1956" and educative slogans such as:

"Railways are the Nation's Property. Help Railwaymen to serve you better;"

"Keep Stations and Trains clean. Help Railwaymen to serve you better;"

"Keep Stations and Trains clean. Make travel a pleasure;"

"Courtesy secures better service. Let Gentle words add joy to Railway travel;"

"Footboard travel is a dangerous practice. Help towards safer travel;"

"Queue up for convenience and speed. Help Railwaymen to serve you better;"

promptly drew the attention of the public and staff alike as they approached the station premises or detrained. The approach road, the entrances and the Institute Hall had been tastefully decorated with leaves, flowers and flags on the final day, 16-4-1956. The Garden Departmental staff had done a good job indeed.

Events commenced with a debate on 12-4-56 'Telugu New Year's Day'. The subject was "Women should not be employed on the Railways."

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13-4-56, Tamil New Year's Day, was the 'Lucky Dip' day. Children, 12 years and under, participated in hundreds and carried away about 400 prizes.

The same day a Harikatha performance was given by Sri K. V. Thammanachar, ASM/AJP and his party.

On 14-4-56 about 100 children between 7 and 16 years of age participated in sports events.

On 15-4-56 was a day of two events. In the morning, at 9-30 hours sweets were distributed to about 500 children. In the evening from 17 hours to 20 hours a musical competition was held for Railway employees, their families and children. There were 25 contestants in all and of these, 19 participated in the "Devaranamas and Keerthanas" event and the rest in the singing of film hits. 13 prizes were awarded. Of these 13 prizes, 9 went to lady contestants and 4 to others. Three professional musicians from the Vani Institute of Music and elsewhere were pleased to act as Judges.

The District Traffic Superintendent, Bangalore, Sri R. V. Subramanyam, gave a talk in the AIR Bangalore at 8-30 p.m. in connection with the Railway Week.

The celebrations concluded on 16-4-56 with the public function held in the Railway Institute at 18-30 hrs. Sri D. N. Hosali, President, Mysore Chamber of Commerce, Bangalore presided. Among prominent guests were the two ex-General Managers of ex-M. S. Railway, Sri R. N. Mirza and H. Rangachar, Capt. of the Sub-area, the President of the Mine Owners' Association, many businessmen and journalists. All the Railway Officers at Bangalore City attended the function. The District Traffic Superintendent, Bangalore, Sri R. V. Subramanyam, in his report pointed out the progress made by the Railways during the year, the efforts made to improve the travel conditions and the plans for further

improvement in the services in the coming years. He also touched upon the schemes for better Labour and Management collaboration.

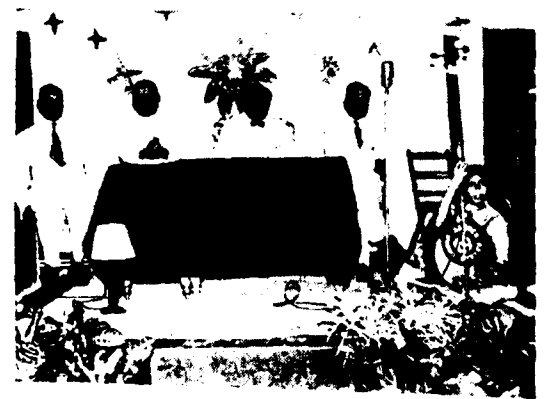
Sri Hosali while pointing out certain shortcomings in the Railway work acknowledged that the Railways had made substantial progress, particularly with regard to third class passenger traffic and the progress was in tune with changing needs and times.

Earlier, prizes were distributed to individual winners in the debating competition, the sports, and the music competitions. Winners in sports items numbered about Sixty in all.

A special feature of the items relating to the distribution of prizes was the award of trophies and cash to the 'Best Kept' stations on SBC District in the drive for cleanliness of stations. Bangalore City station won the Silver Rolling Trophy for the 'Best Kept' larger station.

A list of Class III and Class IV staff of the prize winning stations was handed to those Station Masters of the prize winning stations with clear instructions to distribute the prize amounts noted against their names and to forward the vouchers to RAO/MYS direct.

The District Engineer and President of the Southern Railway Institute Sri V. S. Murthy preferred a vote of thanks. The function ended with the singing of the National Anthem.



SOUTHERN RAILWAY

TENDER NOTICE

The Regional Engineer, Southern Railway, Rayapuram, Madras-13 invites SEPARATE SEALED PERCENTAGE SCHEDULE TENDERS for each of the following works to reach him not later than 12 noon on Friday the 15th June 1956:

Serial No.	District	Name of Work	Total approximate value of Contract	Earnest money to be paid
			Rs.	Rs.
1	MADRAS	MADRAS Additional accommodation in the NEW GENERAL OFFICES III Floor, East and West Wings	62,000	3,100
2	"	Provision of a Crossing Station at Mile 136/19-20 between JALARPET and PATCHUR S. W. Line	34,500	1,500
3	"	VANIYAMBADI Cement Concreting of the approach road and Circulating area	16,300	800
4	"	BRIDGE No. 804 at Mile 196/5.6 between MALUR and DEVANGONTHI Proposed 2 x 10' Girder bridge in lieu of existing 7 x 4' 6" slab top	9,200	500

2. Tenders should be submitted in the prescribed forms, obtainable from the Office of the Regional Engineer, Southern Railway, Rayapuram, Madras-13, on production of a receipt for the sum of Rs. 10 (Rupees Ten only) paid to the Chief Cashier, Southern Railway, Madras-3, or Regional Accounts Officer, Trichinopoly or Mysore or to any Station Master on the Southern Railway towards the cost of each form. Extra copies can be had, if available, on payment of Rs. 2 (Rupees Two only) each. In no circumstances will the cost of the tender forms be refunded. The tender form is not transferable.

3. Tender forms will be issued up to 15 hours on Monday the 11th June 1956.

4. Earnest money as above should be paid in advance to the Chief Cashier, Madras-3, or the Regional Accounts Officer, Trichinopoly or Mysore, not later than 12 hours on Tuesday the 12th June 1956 and the receipt submitted along with the tender.

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

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

7. The tenders will be opened at 14 hours on Friday the 15th June 1956 at the Office of the Regional Engineer, Rayapuram, Madras-13.

8. The Regional 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.

June 1956

S. R. NEWS

77

RAILWAY INSTITUTE, GOOTY

Under the auspices of the above Institute an Open Tennikoit Tournament was conducted at the Railway Institute grounds, Gooty. The tournament was well contested and sixteen singles teams and ten doubles teams participated.

Sri Guruswamy won the singles, and doubles with Sri Ponnuswamy as partner.

A pleasant function was got up on the evening of 13-5-1956 for distribution of prizes. While Sri W. G. French, LF/GY presided over the function, Sri S. Anantanarayanan, AEN/GY gave away the prizes. The president exhorted the youths to take an active part in sports which was the key for the well-being of masses and advised the runners-up not to be disheartened at their failures but to make up the loss next time with strenuous practice which alone counts for success in sports.

The function came to a close with a vote of thanks by the Tournament Secretary.

RAILWAY DISPENSARY, GUDUR

The Medical Officer and staff of the Gudur Railway Dispensary were 'At Home' on the evening of 13th May to bid farewell to Mr. Sundararaj, Sanitary Inspector on the eve of his transfer to Katpadi. The speakers at the function referred to the hard work and services rendered by Mr. Sundararaj for the last 8 years at Gudur and wishing him more success, hoped that his successor Mr. Sambasivam would also emulate his example. While Mr. Sambasivam thanked for the sound advice, Mr. Sundararaj replied that it was only the hearty co-operation of the staff that made him popular.

Sri B. Ramakrishna Rao, Medical Officer, winding up the function said that such gatherings of medical and health employees were private forums for evaluation and assessment of one's services and for the maintenance of 'Healthy' relationship with the staff of other departments.



Sri V. K. Sthanunathan, DCS (Rates), celebrated the Upanayanam of his son S. Krishnan on 30th May 1956

SOUTHERN RAILWAY

TENDER NOTICE

The Chief Engineer, Southern Railway, Madras-3, invites SEPARATE LUMP SUM-CUM-PERCENTAGE SEALED TENDERS for the Construction of Quarters for the following items up to 12 hours on Monday the 25th June, 1956 :

Serial No.	Station	Type of Quarters	No. of units	Total approximate value	Earnest money
				Rs.	Rs.
1	BEZWADA	IV (Special)	5	80,000	4,000
2	"	V	2	12,000	2,100

The tenders should be submitted in the prescribed forms 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 Regional Accounts Officer, Trichinopoly or Mysore or to any Station Master on the Southern Railway, towards the cost of each tender form (including cost of plans and drawings). The tender form is not transferable and no refund of its cost will be made under any circumstances.

The last date for the issue of tender forms is Thursday the 21st June, 1956 upto 15 hours.

The earnest money for each tender mentioned above should be paid in advance to the Chief Cashier, Southern Railway, Madras-3 or to the Regional Accounts Officer, Trichinopoly or Mysore on or before 12 hours on Friday, the 22nd June, 1956 and the receipt issued by him should be attached to the tender. No demand draft or cheque is to be attached to the tender.

The tenderers are required to submit Income-tax Clearance Certificate (in original) with the tender.

The tenders will be opened by the Chief Engineer or his representative at 12 hours on Tuesday, the 26th June, 1956.

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

RAILWAY WEEK AT PERAMBUR



Sri T. A. Joseph, GM
inaugurating the Railway
Week at Perambur
Sri B. Venkatraman, CME
is seated to his right



Daughters of
Sri V. S. Ramaswami, LWM
Perambur, gave a dance
performance during the
occasion

SOUTHERN RAILWAY

TENDER NOTICE

The Regional Engineer, Southern Railway, Mysore invites separate sealed lump sum-cum-percentage schedule tenders for item No. 1 and percentage schedule tenders in respect of items Nos. 2 and 3 to reach him not later than 16-00 hours on Friday the 6th July 1956.

Serial No.	District	Name of Work	Total approximate value of the contract	Earnest money to be paid
			Rs.	Rs.
1	Mysore	Mysore Construction of 16 Units Type I Quarters (3 Blocks of 4 Units each and 2 Blocks of 2 Units each)	33,650	1,680
2	Mysore	Bhadravati Proposed extension to 3rd Class waiting hall and surfacing of platform with cement concrete at	13,500	675
3	Guntakal	Guntur Proposed new Station building at	1,48,800	7,440

2. The tender should be submitted in the prescribed form, obtainable from the Office of the Regional Engineer, Southern Railway, Mysore on production of a receipt for the sum of Rs. 10 (Rupees ten only) for each tender paid to the Regional Accounts Officer, Southern Railway, Mysore or Trichinopoly or Chief Cashier, Madras or to any Station Master on the Southern Railway towards the cost of each form. In no circumstances will the cost of the tender forms be refunded. The tender form is not transferable.

3. Tender forms will be issued upto 12-00 hours on Saturday the 30th June, 1956 only.

4. In the case of item 1 (Construction of Quarters), the tenderer shall submit a lump sum quotation for the construction of the quarters separately in the main schedule attached to the tender form. He will also submit a quotation as a percentage above or below the rates shown in the printed schedule of rates for Mysore District Mysore Region, 1955 for the detailed Schedule and the supplementary schedule of items and rates annexed thereto.

5. The earnest money shown above should be paid in advance to the Regional Accounts Officer, Southern Railway, Mysore or Trichinopoly or Chief Cashier, Madras not later than 15-00 hours on Monday the 2nd July, 1956 and the receipt submitted along with the tender. No demand draft, or cheque, etc., should be attached to the tender.

6. The amount of earnest money is based on 5 per cent of the approximate value of the contract and the successful tenderer will be required to furnish a further sum which, together with the earnest money, will represent 10 per cent of the value of the contract, as per his accepted tender towards the Security deposit.

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

8. The tenders will be opened at 12-00 hours on Saturday the 7th July, 1956 at the Office of the Regional Engineer, Mysore.

9. The Regional 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.

June 1956

S. R. NEWS

81



An item by the Railway School children



Sri A. R. Rao, SDGM and Sri C. H. Concan, CWM PER, who has since retired attended the concluding day's function

ROVERS' CAMP AT TIRUNEERMALAI

Thirty-one Rovers belonging to the Ravi and Subhash Rover Crews, New General Offices, Madras, and Tagore Rover Crew, Rayapuram, went for an over-night camp for Tiruneermalai, 16 miles from Madras on 28th and 29th April 1956. Sri M. Ranganathan, Assistant District Commissioner (Rovers) was the Camp Chief assisted by the Rover Scout Leaders. The camp site was located among natural surroundings with a hillock by its side.

On the 28th evening, in improvised shelters in the mango grove, the Rovers went through a scout programme terminating in the camp fire. The scout activities attracted a number of village folk. As this period coincided with Garudotsavam festival of Lord Sri Ranganatha of Tiruneermalai, the pilgrims who had gathered there also witnessed these activities and appeared impressed with the benefits of Scouting.

On the 29th morning, there was cyclonic weather which the Rovers faced cheerfully holding on to their posts. The weather cleared in the late afternoon when the camp was broken up and participants returned to their respective headquarters.

The occasion served as an endurance test to the Rovers who acquitted themselves creditably under arduous weather conditions.

ANDHRA GOVERNOR'S STAY AT GUDUR

Sri C. M. Trivedi, Andhra Governor in the course of his one-day programme at Gudur in connection with the inspection of the Government Glass and Ceramic Factories and Ceramic Institute stayed in the Gudur Railway premises on the 14th May.

The Governor stayed in his saloon which was conveniently kept at the north siding and a special platform with staircase was specially arranged for this. A theatre-like pandal with cocoanut leaves to avoid overheating was erected over the entire siding in which the Governor's saloon was stabled and a finely erected shamiana in front of the saloon with colourful festoon presented a picturesque panorama. From here a small nice roadway for few yards was laid connecting the Municipal road opposite to Block Glass Factory. The Gudur north siding which was centrally situated in the curving and enlarging point in between the B.G. and M.G. main line tracks became a beauty spot. An additional beauty was that one could see on either side of this

small park trains running from Gudur as usual in 'V' shape. The arrangements were simple but excellent.

The success of the Governor's stay at Gudur was in a large measure due to active co-operation among the District and Divisional Officials of the several departments of both the State and Central Governments and special mention must be made to Mr. A. N. Raju, Ceramic Expert, Mr. T. Krishnamurthi, Tahsildar, Gudur, Mr. T. Basappa, Municipal Commissioner, Mr. O. Bhaskara Reddy, Dy. Superintendent of Police, Gudur, Mr. Kaparde, A.P.W.I., S.Ry. and Mr. Sundararajan, Traffic Inspector, S.Ry., Nellore, who worked hard taking special interest and pains for making the Governor's stay comfortable.

DOUBLING OF TRACK IN THE NORTH-EAST LINE OF THE SOUTHERN RAILWAY (MADRAS-BEZWADA SECTION)

The Bezwada-Bitragunta section is the heaviest single line section on the Southern Railway so far as density of traffic is concerned. The line is the main artery through which north to south traffic, including Railway and public coal from Bengal, Bihar and Singareni Collieries, moves to Madras and places beyond in South India.

The line also passes through thickly populated places in the Andhra State and consequently the passenger traffic also is very heavy.

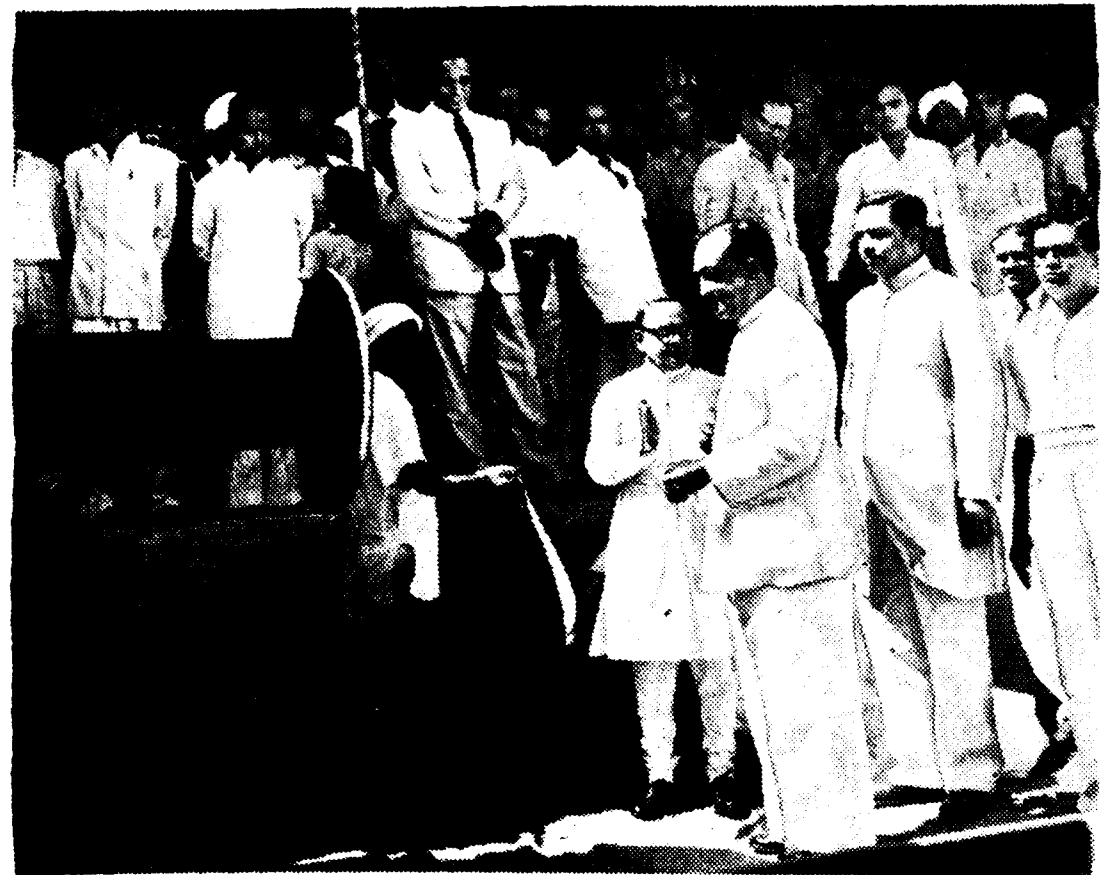
In 1950, we were accepting 150 loads from the N. S. Railway via Bezwada and 205 loads from the B.-N. Railway at Waltair. At present we are accepting 250 loads from the Central Railway at Bezwada and 270 loads from South-Eastern Railway at Waltair. It is estimated that we may have to take about 300 loads from the Central Railway and 400 loads from the South-Eastern Railway at the end of the Second Five-Year Plan period. In addition to the above 700 wagons we have also to clear the rice traffic offering at stations north of Bezwada to places in South India. This traffic now is about 60 to 65 wagons and

it is expected to go up. Taking all these things into consideration it is expected that it will be necessary to run 13 goods trains and 10 passenger trains each way at the end of the Second Five-Year Plan period.

To enable this Railway to do this, it has been decided to double the track between Gudur and Bezwada, a distance of 182 miles at a cost of about Rs. 14.2 crores.

As a first stage of this doubling, it was proposed to take up the length between Ulavapadu and Surareddipalem and Kadavakuduru and Bapatla, a length of 17 miles and 19½ miles respectively. The earthwork in these two reaches is about 10 million c.ft.; 22 minor and 16 major bridges to be reconstructed and 9 stations at which signalling arrangements are to be revised. Sanction was received from the Railway Board for the Urgency Certificate for this work in February 1956. The work on formation of banks was commenced on 20th March 1956. The section from Chirala and Vetapalem has been completed and inspected by the Government Inspector of Railways on 31st May 1956 and was opened for traffic on the 4th of June, 1956. The track in this section has been laid on a bank of height varying from 4 to 5 feet with 90 lbs. Tata's rails partly with steel sleepers and partly with CST-9 sleepers. Signalling arrangements at Vetapalem and Chirala section, it is proposed to follow up by opening the Chirala—Stuartpuram and also Chinnaganjam—Kadavakuduru section in about four months' time.

This project is under the control of an Executive Engineer, who works under the direction of an Engineer-in-Chief, the latter being responsible for all the new major constructions in this Railway, viz., proposed doubling of the South-West Line, Bezwada Remodelling of Yard, Quilon—Ernakulam Railway Construction, Renigunta—Gudur Railway Conversion and certain other special works and surveys.



[Courtesy: The Hindu]

Sri M. S. Murthi, DS BZA, cutting the ribbon to inaugurate the double railway line at Chirala Station on 4th June 1956. Sri B. K. Kuppuswamy, Engineer-in-Chief, is standing to his right



Sri G. Kannaiah, Station Superintendent Madras Central

SOUTHERN RAILWAY

TENDER NOTICE

The Chief Engineer, Southern Railway, Madras-3, invites **SEPARATE SEALED PERCENTAGE TENDERS** upto 12 hours on Monday the 2nd July, 1956 for the following :

- (i) Execution of works, supply of materials and labour, and
- (ii) Collection and training out of ballast, in the various zones of the following Divisions :

- | | |
|---------------|----------------------|
| (1) Bezwada | (5) Hubli |
| (2) Madras | (6) Mysore |
| (3) Olavakkot | (7) Trichinopoly and |
| (4) Guntakal | (8) Madura |

2. Separate tenders should be submitted for each division and separately for items (i) and (ii) mentioned above. A tenderer may quote for one or more zones in each division.

3. Tenders should be submitted in the prescribed form, obtainable from the Office of the Chief Engineer, Southern Railway on production of the receipt for the amount of Rs. 5 (Rupees five only) paid to the Chief Cashier, Southern Railway, Madras, Regional Accounts Officer, Trichinopoly or Mysore or to any Station Master on the Southern Railway towards the cost of the tender form for each of the items (i) and (ii) above and for each division. In no circumstances will the amount paid for the tender form be refunded.

4. The tender form is not transferable.

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

6. The tender forms will not be issued after 15 hours on Tuesday the 26th June, 1956.

7. Earnest money of Rs. 1,000 (Rs. One thousand only) in respect of each tender should be paid in advance to the Chief Cashier, Madras, or Regional Accounts Officer, Trichinopoly or Mysore and the receipt submitted along with the tender. No demand draft, or cheque should be attached to the tender.

8. The earnest money will not be accepted after 15 hours on Wednesday the 27th June, 1956.

9. Tenders received for items (i) and (ii) above will be opened at 12 hours on the following dates noted against the divisions in the Chief Engineer's Office at Madras.

- (1) Madras and Bezwada on 3-7-1956.
- (2) Trichinopoly and Madura on 4-7-1956.
- (3) Olavakkot and Guntakal on 5-7-1956.
- (4) Mysore and Hubli on 6-7-1956.

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

TENDER NOTICE

The Regional Engineer, Southern Railway, Mysore invites separate sealed lump sum-cum-percentage schedule tenders for the following works, to reach him not later than 16-00 hours on Tuesday, the 3rd July, 1956.

Serial No.	District	Name of Work	Total approximate value of the contract	Earnest money to be paid
			Rs.	Rs.
1	Guntakal	Guntakal — Construction of 54 units Type I Quarters (12 blocks of 4 units and 2 blocks of 3 units each)	87,230	4,360
2	Guntakal	Guntakal — Construction of 12 units Type II (5 blocks of 2 units each and 2 blocks of 1 unit each) and 3 units Type III Quarters (1 block of 2 units and 1 block of 1 unit)	56,330	2,820
3	Guntakal	Donakonda — Construction of 7 units Type II (3 blocks of 2 units each and 1 block of 1 unit) and 1 block of 1 unit Type III Quarters	35,340	1,770
4	Bellary	Pakala do	24,290	1,215

2. The tender should be submitted in the prescribed form obtainable from the Office of the Regional Engineer, Southern Railway, Mysore on production of a receipt for the sum of Rs. 10 (Rupees ten) only for each tender paid to the Regional Accounts Officer, Southern Railway, Mysore or Trichinopoly or Chief Cashier, Madras or to any Station Master on the Southern Railway towards the cost of each form. In no circumstances will the cost of the tender forms be refunded. The tender form is not transferable.

3. Tender forms will be issued upto 15-00 hours on Wednesday the 27th June, 1956 only.

4. The tenderer shall submit a lump-sum quotation for the construction of the quarters separately in the main schedule attached to the tender form. He will also submit a quotation as a percentage above or below the rates shown in the printed schedule of rates for Guntakal District, Mysore Region 1955 for the detailed schedule and the supplementary schedule of items and rates annexed thereto.

5. The earnest money shown above should be paid in advance to the Regional Accounts Officer, Southern Railway, Mysore or Trichinopoly or Chief Cashier, Madras not later than 15-00 hours on Thursday, the 28th June 1956 and the receipt submitted along with the tender. No demand draft or cheque, etc., should be attached to the tender.

6. The amount of earnest money is based on 5 per cent of the approximate value of the contract and the successful tenderer will be required to furnish a further sum which, together with the earnest money, will represent 10 per cent of the value of the contract, as per his accepted tender towards the security deposit.

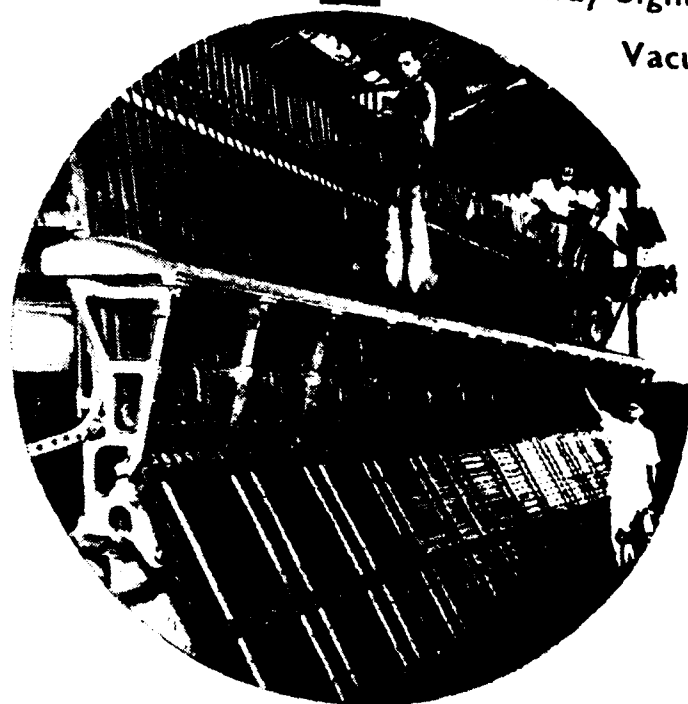
7. Tenderers are required to submit Income-tax Clearance Certificate along with the tender.

8. The tenders will be opened at 12-00 hours on Wednesday, the 4th July 1956 at the Office of the Regional Engineer, Mysore.

9. The Regional 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.

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SOUTHERN RAILWAY

TENDER NOTICE

SUPPLY OF TILES, HOURDIS BLOCKS ETC. FOR MYSORE REGION

(For the period from 1-7-1956 to 30-6-1957)

The Regional Engineer, Southern Railway, Mysore invites **Scaled Tenders** upto 12-00 hours on Tuesday, the 10th July 1956 for the 'Supply of Tiles, Hourdis, Blocks, etc.', for this Region (Mysore, Bangalore, Guntakal, Bellary, Hubli and Belgaum Districts).

2. The tender should be in the prescribed form obtainable from the Office of the Regional Engineer, Southern Railway, Mysore on production of a receipt for the amount of Rs. 5 (Rupees five only) towards the cost of the Tender form paid to the Chief Cashier, Madras or the Regional Accounts Officer, Trichinopoly or Mysore or to any Station Master on the Southern Railway. In no circumstances will the amount paid for the Tender form be refunded.

3. The Tender form is not transferable.

4. The Tender forms will not be issued after 12-00 hours on Thursday, the 5th July 1956.

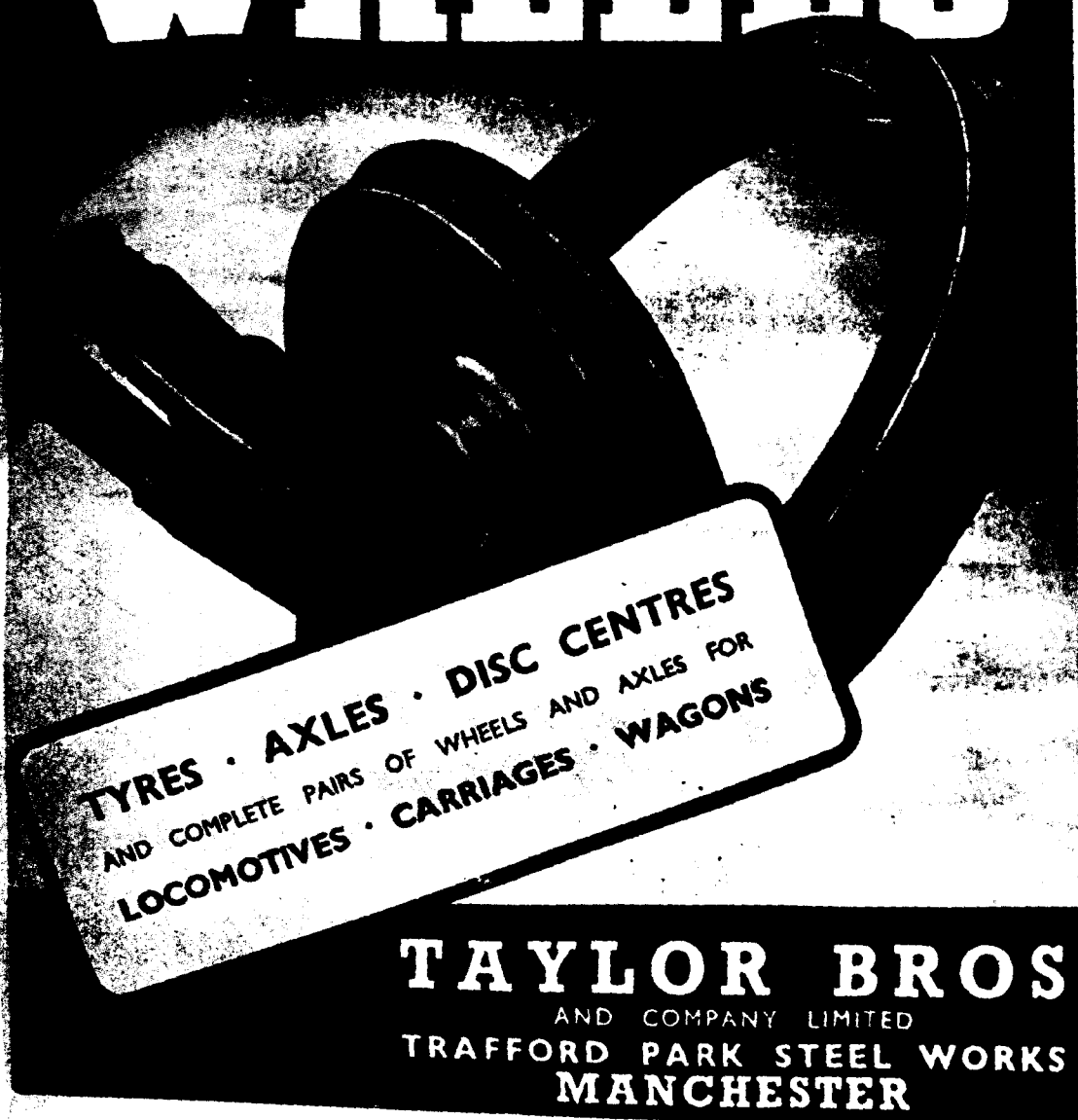
5. The Tenderer should submit along with the tender the Income-tax Clearance Certificate in original or an authorised copy thereof or if he has no taxable income, a sworn affidavit duly countersigned by the Income-tax Officer to that effect.

6. Earnest Money of Rs. 500 is to be paid in advance to the Chief Cashier, Southern Railway, Madras or the Regional Accounts Officer, Southern Railway, Trichinopoly or Mysore, not later than 12-00 hours on Friday, the 6th July 1956 and the receipt issued therefor should be attached to the tender. No demand draft or cheque should be attached to the tender.

7. Tenders will be opened at 12-00 hours on Wednesday, the 11th July 1956 in the Office of the Regional Engineer, Mysore.

8. The Regional 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.

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Standard Circular Tours

The Northern Railway is issuing at a concessional fare of 3/4ths of the tariff fare, second, inter and third class tickets for a number of standard tours. These tours cover a number of specific itineraries, details of which are available from station masters on this Railway. In addition, if any itineraries are proposed by the public to the Chief Commercial Superintendent (Rates) of this Railway, they will be examined and concessional fares granted provided certain conditions are fulfilled.

Special Trains

Requests for special pilgrim or excursion trains on the broad gauge will be considered and the following concessions will be permissible :—

- (i) Kitchen arrangement— One bogie vehicle will be attached free with each train.
- (ii) One conductor and four cooks, servants will be allowed to be carried free.
- (iii) For tours exceeding 1,500 miles and over, a concessional fare equivalent to 3/4th of tariff fare will be permissible under certain conditions.

For detailed information, please apply to the Chief Commercial Superintendent (Rates), Northern Railway, Kashmere Gate, Delhi.

THE PUBLIC RELATIONS OFFICER, NORTHERN RAILWAY