

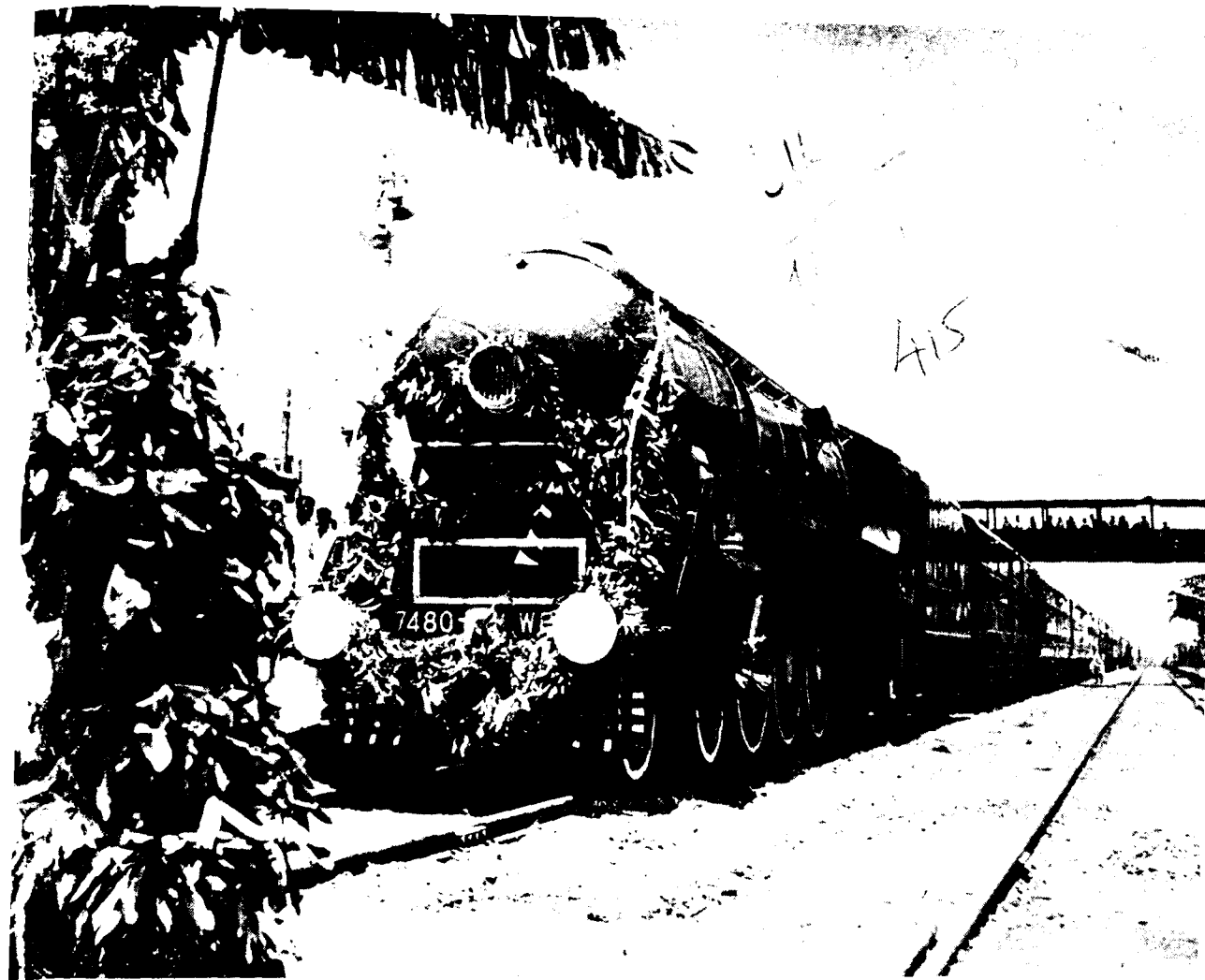


Southrailnews

1957- September

VOL. 4, NO-6

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VOL. IV

SEPTEMBER 1957

No. 6

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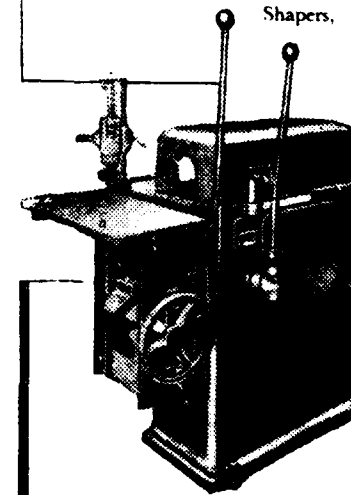
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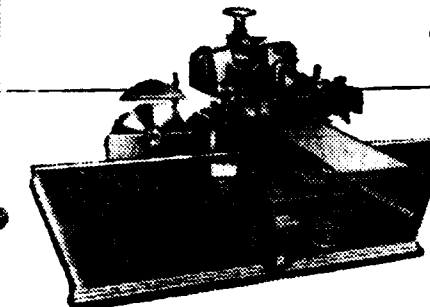
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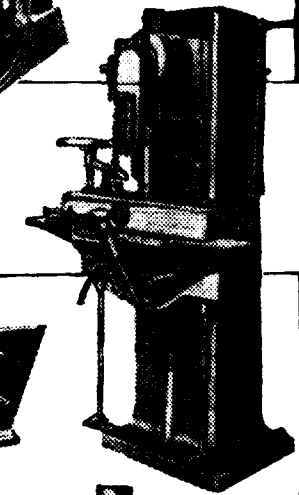
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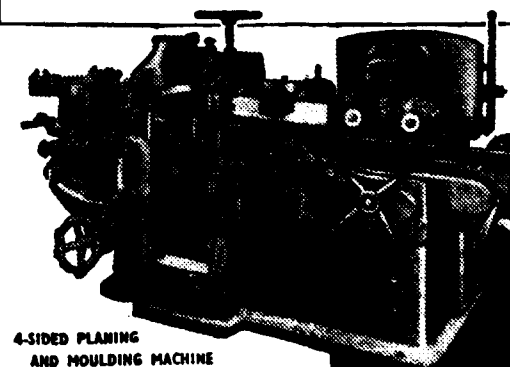
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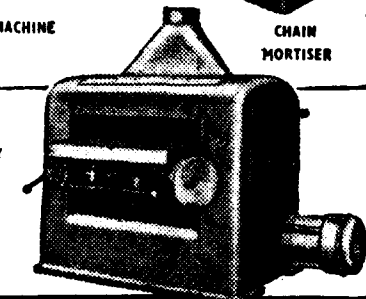


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(Official Organ of the Southern Railway)

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VOL. IV

No. 6

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K. SRINIVASAN

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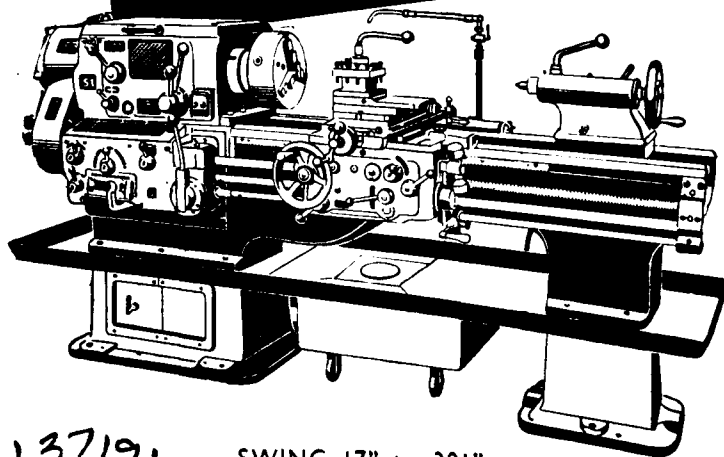
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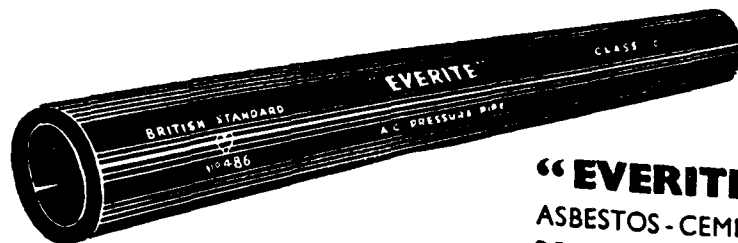
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talking of pipes...

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SOUTH RAIL NEWS

VOL. IV

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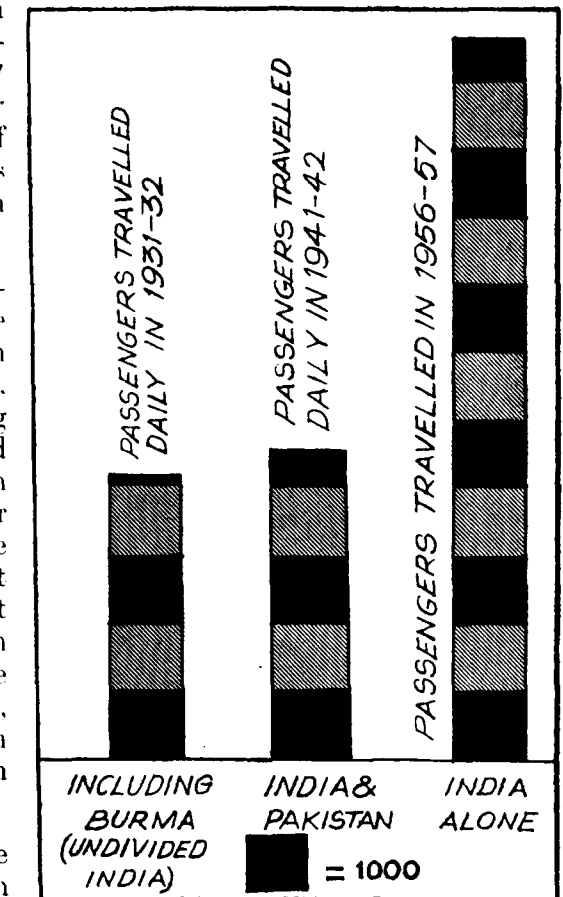
CORRECT APPRAISAL

IT is felt that little or no thought has been given to the myriad problems that the Railways and Railwaymen have to solve before a train can move. While thousands of good acts done by Railways will be conveniently forgotten, perhaps, somewhat disproportionate attention will be devoted to the failings of the Railway system and the shortcomings that are inevitable on the human side of a large organisation like the Indian Railways, which convey daily 36 to 37 lakhs of passengers, with close daily contact between the Railway staff scattered over six thousand stations throughout the length and breadth of the sub-continent of India.

Regarding Indian Railway's development, few, indeed, would have hazarded a guess that the first stretch of rail track from Bombay to Thana, a mere 21 miles would be the beginning of a network of rails which would eventually become the world's fourth largest. Compared to the earlier periods, the physical expansion of the Indian Railway system since the last war has been negligibly small; yet the increases in traffic have been phenomenal. Particularly since the attainment of Independence in 1947-48, the upward trend in traffic—both freight and passengers—has been striking.

Besides, during the years since the beginning of the last war, the Indian

people have demonstrably become more travel-minded. For every million of the population, the railways of undivided India carried an average of 4,100 passengers daily in 1931-32 (including Burma) and 4,390 in 1941-42. With partition in 1947-48, a proportion of passengers as well as passenger coaches went to Pakistan.



Yet, in 1956-57, in India alone, an estimated 10,650 persons per million of the population travelled daily by rail.

Remember the background for a moment. The severe strain of the last war, followed by the jolts of partition, coupled with an almost total lack of replacements of rolling-stock and other assets for well-nigh two decades, placed on the Railways' physical resources, and on Indian Railwaymen, burdens which might be considered very heavy.

After the attainment of Independence, free India found herself saddled with a railway system whose condition could be likened to a person panting for breath—battered, over-worked, ill-equipped, eager for respite. But there was no respite. A nation on the move could not wait. The burdens actually grew bigger.

A record volume of goods and passenger traffic had to be handled during the year 1955-56. Between 1953-54 and 1955-56 goods traffic expressed in net ton miles increased by 13.6 per cent. It is a special source of satisfaction to industry and trade that towards the end of the year 1955-56, wagon usage touched a new peak of intensity, breaking all previous records. This was achieved by

advance planning of movement over difficult routes and junctions, more economic choice of routes and ampler movements of certain commodities by block trains, the operation of the preferential traffic schedule. Detentions of wagons and engines were reduced through improvements in marshalling and other yards. For example, the goods traffic in the Southern Railway has been increasing phenomenally on the North-East line and a traffic jam has been created. By converting the short length of the existing metre gauge line from Renigunta to Gudur into Broad Gauge, all goods traffic for South would be diverted to Renigunta and thence to Arkonam and the congestion in Tondiarpet Marshalling Yard will be much eased and the bottle-neck will be eliminated.

The impressions of the World Bank team may be considered complimentary. Mr. J. E. Slater, its leader, is very much impressed with the effort and care taken by the Railway Board, the General Managers and their staff towards the problem of future development.

It is a matter for gratification that in the face of crippling handicaps, and mounting traffic, the Family of Railwaymen has continued to deliver the goods—thanks to the co-operation from the public.



The President, Dr. Rajendra Prasad about to detrain at Madras Central on his way to Travancore

The President with Sri A. J. John, Governor of Madras



RAILWAY SIGNALLING PRACTICES

(VIII)

T. S. PARTHASARATHY

Deputy Chief Operating Superintendent (Coaching)

Sri T. A. Joseph, G.M. and the Chief Minister of Madras, Sri Kamaraj Nadar at Egmore Station. The G.M. accompanied the President during his tour of Travancore



The Chief Minister of Mysore, Sri S. Nijalingappa (centre), watching the electrical testing of train-lighting batteries when he visited recently the Standard Batteries Factory, Bombay



IN this, my last article in the series "Railway Signalling Practices", I propose to deal with the signalling installations and appliances provided on the Railways in Japan.

JAPAN :

(a) Single Line—A little over 220 miles of single line is operated on the Automatic Block System on the Japanese National Railways. Home and Starting signals are provided at the block stations, while one or more intermediate block signals for either direction may be provided according to the length of the block section. Signals are so located that the aspect displayed by them must become visible from a distance of 600 yards (800 yards in special cases). Multiple-unit colour-light signals are used on Automatic Block sections and when the 'proceed' indication is displayed on one signal, then the signals for the opposing direction in the same section display the 'stop' indication.

At stations on a single track Automatic section, when a train starts or passes through, the traffic levers, provided on either side of the Station Master's control desk which also contains an illuminated diagram and signal switches, must be turned for the 'train-proceeding' direction after consulting the next Station Master over the telephone. However, when two or more trains are to be run one after another in the same direction, the traffic levers may be left as they

are. In such cases the 'caution' or 'proceed' indications will be given on the signal for the train proceeding direction, as the case may be. A route-indicating lamp is displayed on the Station Master's control desk to notify to him that the route protected by the Home and Starting signals is correctly set and is clear of any train in the section ahead. Similarly, an electric bell or buzzer or a block lamp is provided at the Station Master's control desk to indicate to him when a train has approached the station at a certain distance.

On certain sections, such as those on the Joetsu main line, where the block system in use may be considered as Semi-Automatic Block, several stations do not have track circuits on the running line and points are operated by hand levers at site, which are, however, only free to be operated if the signals protecting them are at danger. The point levers are further provided with an electric detector, so that the signal concerned can prove the proper setting of the points and the route. Where required, A.C. or D.C. track-circuits are used depending on whether electric or steam traction is employed.

(b) Double Line—On about 1,500 miles of double line, Automatic Block system is in use on the Japanese National Railways. In this system, the station yard lines and the lines between stations are track-circuited. Since D.C. 1,500 volts electric traction

is normally employed on such sections, A.C. track circuits with impedance bonds are used. Home and Starting signals (which are semi-automatic and serve as block signals as well) and intermediate block signals spaced at over 600 yards are in use. The signals are of the multiple-unit colour-light type. The same safety devices as for the single line are provided on the Station Master's control desk.

The signals in the automatic block sections, whether on the single or on the double line, must satisfy the following conditions through automatic devices :

(i) To display the 'stop' indication when a train or vehicle is in a block section :

(ii) To display the 'stop' indication when points concerned on the block section are not properly set :

(iii) To display the 'stop' indication when a train or vehicle on other tracks obstructs or fouls the block section at either the turn-out point or crossing point :

(iv) To display the 'stop' indication when a block instrument or train despatching device goes out of order.

POWER SIGNALLING :

Power signalling is provided at large and important stations with high density of traffic to facilitate consolidation of interlockings within the area. Multiple-aspect colour-light signals as well as position-light signals are used. Electrical interlocking machines of the lever type are used where each unit is separately operated but all-relay interlocking is provided at places where route-setting system is employed. All

points and signals are worked electrically and in some cases electro-pneumatically. The whole layout is invariably track-circuited and the signals are controlled by the relative track circuits. Time releases are also provided with a view to ensuring that the routes are not altered in the face of an approaching train.

At Tokyo, two tracks are used alternately for departure and reception of trains to and from the Chou Electric Car line. An All-relay interlocking plant grouping the layout is operated automatically by the passage of trains but arrangements for switching over to manual operation as and when required have been provided.

A remote control system by means of coded currents at Kiyosu controls Gojogawa which is situated at a distance of about 1½ miles. Another type of remote control system exists at Higashi-Aoyama which is equipped with a relay interlocking panel. Apart from operating the layout at this station, the plant controls the Home, Starter and a set of points at each of the adjacent stations on either side of Higashi-Aoyama.

MECHANICAL SIGNALLING :

Interlocking installations on the Japanese National Railways are mainly of two classes, first and second. First class interlocking provides for the interlocking of all levers, signals, points and other units within the interlocking limits in such a way that levers can be moved or inlocked only in a certain sequence. In the second class interlocking, only the signal levers are concentrated in the frame, the points being worked at site.

The mechanical interlocking is of two classes. The first class employs interlocking machines which are mostly of the improved Saxby and Farmer type, while in the second class, the interlocking is effected by means of bolt locks.

The electro-mechanical interlocking is also classified into two classes, either class being divided into two types, A and B. The A type in the first class consists of both manually and electrically operated units and is of the improved Saxby and Farmer type. Usually the points are mechanically operated while the signals are power-operated. Points located too far for satisfactory operation by mechanical means may, however, be operated electrically. This type of interlocking combines the advantages of the flexibility of power signalling and the solidity of mechanical interlocking and can be used with advantage on sections with automatic signalling, as well in existing interlocking cabins too small for necessary enlargement of the mechanical plant.

SYSTEMS OF WORKING :

On the Japanese Railways

(i) Trains are operated by the scheduled time-table.

(ii) On double lines, trains run on the left hand track.

(iii) Running speeds of trains must not exceed those described below according to the class of the track section :

Special A line	..	70 M.P.H.
A line	..	62 "
B line	..	60 "

(iv) Japanese Railways use almost all the kinds of block systems known to railway working.

(a) Regular block systems on double lines.

Double Line Working.

Automatic Block System.

Two-way Communication Block System.

On single lines :

Automatic Block System.

Controlled Manual Block System.

Tablet Block System.

Train Staff and Ticket Block System.

The substitute block systems used are the Telephone Block System on the double line and Pilot and Telephone system, Tablet Block system and Pilot Block System on the single line.

SAFETY OF TRAIN OPERATION :

The safety of train operation is achieved by fixed signals which fall into the following three categories :

(i) Home—protects the station section.

(ii) Starter—controls the departure of a train from the station.

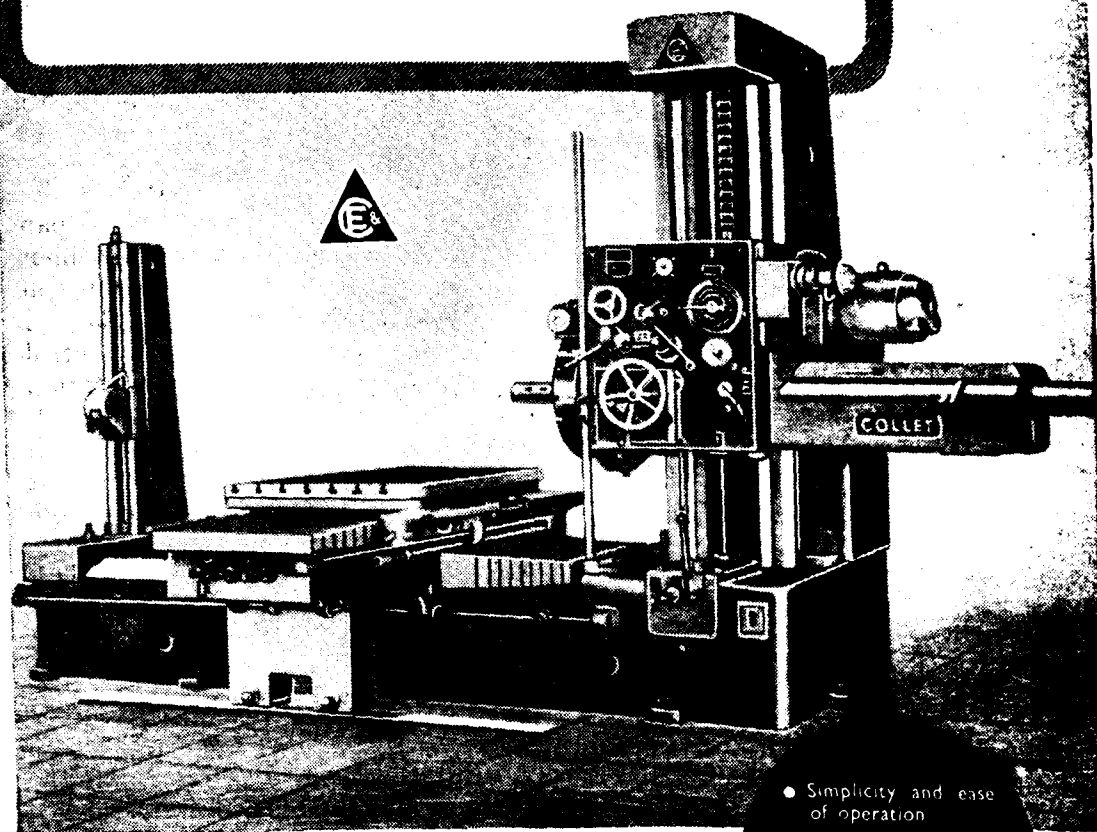
(iii) Block Signal—controls the entrance into the block section.

N.B.—Starting and Block signals may perform the same function.

Calling-on signals are used to permit a train to enter a station when the Home signal is at danger and the station section is not clear for the reception of a train.

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The subsidiary signals that are in use are :

(a) Distant Signal—Repeats the indication of the Home Signal: it is situated 1,500 to 3,000 feet or more in the rear of the Home signal.

(b) Advance Starting Signal—Repeats the indication of the Starting signal and unlike India, this signal in Japan is placed below the Home signal. This point is worthy of note as Signal Engineers of Indian Railways are now actively considering the introduction of this arrangement on our Railways.

Appendant signals on the Japanese signals include Route Indicators and Advanced Route Indicators which are attached to Home, Starting or Block signals as the case may be.

On sections dealing with heavy commuter traffic, single track Automatic Block system is employed to increase the capacity and to economise in staff which will be required for the transmission of tablets. The Japanese National Railways authorities hold the view that the Automatic Block system can increase the single line track capacity available under the Tablet system by 10 to 20 per cent.

On the Joetsu line, which is electrically-operated, severe winter conditions and the high speed of trains

render the exchange of tokens almost impossible. The problem has been solved by the introduction of Controlled Manual Block system. Under this system track circuit is installed between stations, each of a set of stations being equipped with two blocking levers to ensure that when a starting signal gives the 'proceed' indication at one station the signal at the other station cannot display similar indication for the same block section. The starting signal automatically displays 'stop' indication when the block section is occupied by a train or a vehicle or when there is an interruption in the circuit.

A form of remote control is also in use on the railways in Japan, whereby the control on the movement of trains on an entire section, instead of being centralized in one place, is split up so that one station controls the points and signals of the stations on either side of it governing the movement of trains to and from it. This system helps to extend the area of control over train movements thereby accelerating trains and at the same time effecting a substantial economy of train-working staff. It is considered that for sections where full C.T.C. cannot be justified for one reason or another, this form of remote control may be employed with benefit.

(Concluded)



STEEL RAILWAY BRIDGES

RAILWAY BRIDGE CENTRAL RAILWAY



WORLD OF RAILWAYS

ARTHUR L. STEAD

Our London Correspondent

THE station matron at the busy American terminal watched the young girl for a while, and then decided that something was seriously wrong. She had stumbled into the waiting room, walked unsteadily to a seat near the door, and sat down with a loud thump. Several minutes had gone by, with curious fellow-travellers looking at her rubbing her chest. Clearly, something hurt. When the matron enquired if she could help, the girl shook her head inarticulately.

The station matron, local representative of that great American institution, the National Travellers Aid Association, decided that here was certainly a case for her to get busy upon. Peggy had been compelled to interrupt a holiday because of news that her mother was ill. Headlong haste, an unlucky stumble, a fleeting car, and Peggy had found herself sitting on the pavement with an indescribable pain in her side. Anxious to complete the last leg of her trip home, she had made her way to the station. The effort had proved too much.

Travellers Aid arranged for Peggy to have X-Rays at the local hospital. Two cracked ribs were revealed. A few days later, with so much tape around her she could hardly bend at the waist, Peggy was on her way home. She would be met at her destination by another Travellers Aid worker. Even more important, her anxiety over her mother was relieved: Travellers Aid had investigated, learned that the illness, while serious, was not critical, and had helped the family

work out a sensible plan for the mother's care.

Like the 2,000,000 others who find their way every year to the blue-and-white lamp displayed by Travellers Aid in every American railway station of any size, Peggy had real reason to be thankful for the assistance rendered by this unique organisation. In India, Britain, and most other countries, station staffs always are glad to lend a helping hand to passengers young and old who find themselves in difficulties, but as we all know railway station employees are busy people and cannot be expected to spend much of their time on work other than that to which they are officially assigned.

The Travellers Aid organisation in the United States is really unique, and the plan is one which might perhaps very well be adapted to meet pressing needs elsewhere. All over the world, youngsters are straying from home: old people getting confused and bewildered while travelling: and travellers being taken suddenly ill, losing their tickets, missing connections and becoming panicky. What a boon to folks such as these to have Travellers Aid at their back!

Actually, Travellers Aid in America grew up with the development of the early railways heading for the West. The very earliest beginnings go back to St. Louis at the time of the California Gold Rush. In 1850, St. Louis was the eastern assembly point for the covered wagon parties taking gold-seekers and their families out to the

Pacific Coast. Every Mississippi River boat disgorged a new load of pioneers. Living in makeshift quarters while they waited for their wagon parties to assemble, these would-be gold miners and settlers were the victims of contagious diseases, confidence men and their own inexperience. Their food and money often gave out. Epidemics broke out in the migrants' camps, placing an impossible burden on the limited medical facilities then available.

The plight of these stranded travellers was especially painful to a wealthy Louisian named Bryan Mullanphy. This big-hearted American, once the mayor of the city, gave generously of his own funds and persuaded wealthy fellow citizens to contribute aid. Soon, this simple act of charity was transformed into a more permanent arrangement. When Mullanphy died, his will provided a considerable sum for assistance to needy settlers stranded in St. Louis, and noting the fine work performed in St. Louis, in 1866 the Young Women's Christian Association of Boston commenced Travellers Aid work in their city. Shortly afterwards, the idea was taken up in New York by the Society of Friends, and as the years proceeded Young Women's Christian Associations and other women's organisations in dozens of American cities were actively engaged in helping the railway traveller on his way.

In time, the National Travellers Aid Association was formed, linking together travel helpers all over America. Today, there are 103 permanently established Travellers Aid Societies in as many cities, and five Travellers Aid units specialising in work with Servicemen and their

families. The national picture is rounded off by 1,000 "Co-operating Representatives". These are organisations or individuals who do a limited kind of Travellers Aid work in nearly 3,000 communities in order to make possible a nation-wide chain of service to all away from home and in trouble.

Travellers Aid is not financed through a central national source. Each Society is an autonomous organisation whose funds come from local contributions. Because of the great importance and value of the work performed, the American railways assist Travellers Aid by financial contributions, and by providing free accommodation, light, etc., in their principal stations.

For the most part, no charge is made for assistance given travellers, but it is common for those who can afford it to offer a voluntary contribution, and in practice many who have been helped by Travellers Aid themselves later become enthusiastic supporters and helpers of the movement. In cases where a traveller is stranded without money, a loan is given, and most of the money is repaid. In other cases, where the Travellers Aid representative sees there is little or no possibility of the passenger ever being able to repay, the money given to tide a person over a difficulty is provided as an outright grant.

Each local Travellers Aid unit is governed by an elected Board of Directors representing a cross-section of the community, which sets policies and employs an executive to administer these policies. In most instances, directors rotate, so that "new blood" is constantly being brought in. All

Societies prepare annual reports which include financial statements, so that any wastage is at once spotted and things put right.

In most American cities, Travellers Aid has two distinct kinds of workers—paid staff and unpaid volunteers. The paid staff generally are caseworkers with professional qualifications for their jobs. They tackle the more difficult cases which come to hand, and it is under their supervision that most of the ordinary simple day-to-day



A representative of the Travellers Aid guides a young passenger

work of Travellers Aid is performed by the unpaid volunteer men and women.

The volunteer workers include men and women from all walks in life. Usually, they man the information booths of Travellers Aid in the railway stations, and handle simple enquiries



Lame passengers get the kindly assistance of Travellers Aid including loan of wheeled chairs

and perform simple services of help. They meet trains as they arrive, and help elderly and handicapped people or children travelling alone. They develop and maintain resource files, housing lists and other data needed to perform the Travellers Aid job. Volunteers usually serve for an agreed number of hours weekly, the length of the duty varying from one city to another, but in general averaging about four hours. Before serving, they take training and orientation courses to

Travel for the elderly is smoothed and eased by the Travellers Aid organisation



equip them for their task and to give them confidence.

Looking back over the decades of steady co-operation between American railways and Travellers Aid, it is easy to see their mutual interdependence. Without Travellers Aid, the U.S. railways would have many and expensive problems to cope with. By the same token, without the help of the railways, Travellers Aid could not possibly do its job.

Travellers Aid dependence on the railways goes all the way from the train guard who keeps his eye on the youngster travelling across the country under Travellers Aid auspices, to the railway executive who gives time and energy as a member of the Board of Directors of his local Travellers Aid society or of the National Association. It includes the generous availability of station space and facilities as well as the sizeable cash contributions made by railways to the movement.

Actually, on the Board of Directors of the National Travellers Aid Association there are numerous prominent American railway leaders, including several Vice-presidents. This is indicative of the great importance attached to the movement by the U.S. railways.

The entire field of social work has changed and grown in recent decades, and in America Travellers Aid has kept pace with these changes. Developments in American life have necessitated a constant movement of people, and it is perhaps natural that Travellers Aid has been an American innovation. However, the possibilities for establishing Travellers Aid in a land such as India certainly are such as to set many minds thinking, and it may be as the years proceed we shall see helpful service of this sort placed at the disposal of India's millions, to the mutual benefit of the railways and the communities they serve.

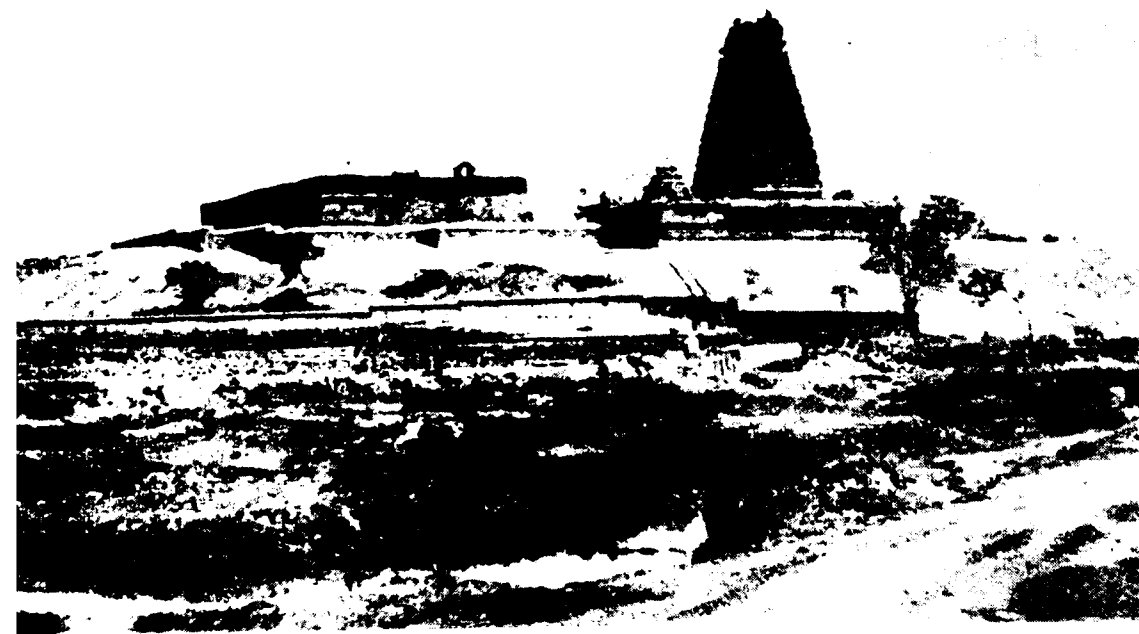
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Sri Veerateswarar temple on the 'Edacht-kal'—Tirukkoyilur

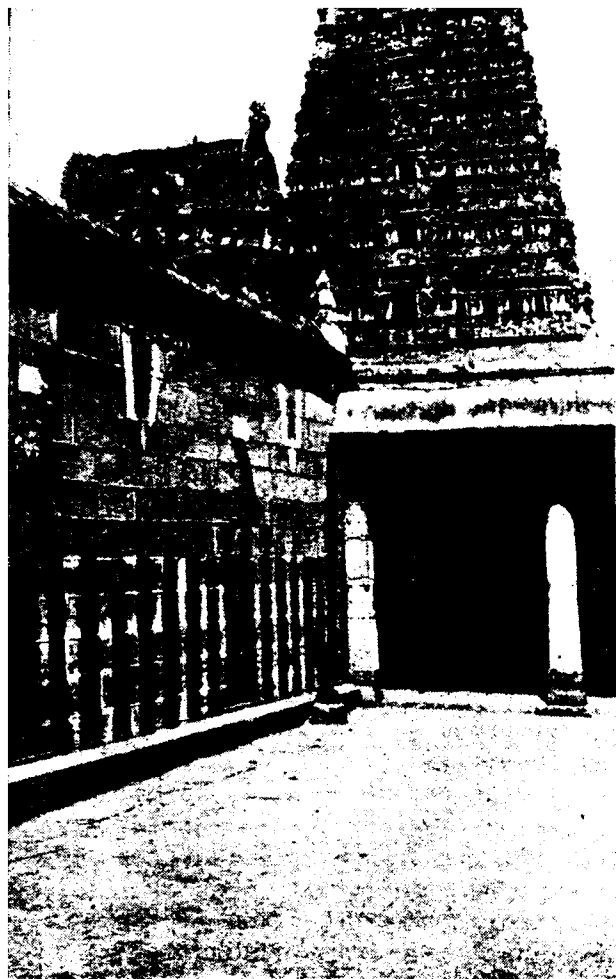
TIRUKKOYILUR

T. N. SRINIVASAN

IN the central tract of the Tamil-nadu known as the *Nadu-naadu* (நடுநாடு), where the *Then-Pennaiyar* flows, there are only a few places noted for ancient shrines of religious importance, while either sides of this piece of land, both on the South and the North—the *Chozhamandalam* and the *Tondaimandalam*, boast of a multitude of ancient temples and sacred sites, held in deep veneration by the several classes of the Hindus. But among the few places of importance in this *Nadu-naadu*, TIRUKKOYILUR ranks as one of the foremost places, for it is held in reverence by all the three sub-communities—the *Vaishnavites*, the *Saivites* and the *Madhwas*.

Today, Tirukkoyilur is a fairly big town, situated on the right bank of

the river, *Pennaiyar* and being the headquarters of the taluk of the same name in the South Arcot district, is a busy place both for the trade and the profession. It is a railway station on the metre-gauge line connecting Villipuram with Gudur and is about 21 miles off Villipuram junction. Moreover as this town is situated on the main branch-trunk route, which connects Tiruvannamalai and Cuddalore, it is well connected by bus services. From the point of view of the pilgrim, it is a place of pilgrimage, for it has an ancient Vishnu and an equally old Siva temple. The Vaishnavite temple is dedicated to the *Trivikrama* aspect of Vishnu and is one of the one hundred and eight *tirupathis*, that have been extolled by the Azhwars in their *Divya Prabhandam*.



The vimanam over the main Shrine with the Western Gopuram

golden hue possessing the brilliant *Azhi*—the *Chakra*—in one hand and the white *sankam*—the *Shanka*—in the other hand and all the three saints burst out in poetic ecstasy, for their having realised their Lord in company with the other pious souls also—the *Bhaghrwan* and the *Bhaghavatha*—at that holy spot. Each of them sang a hundred songs in beautiful rhythm, which form the beginning of the Tamil hymns of the Azhwars. By then the day broke, and the Azhwars now full of their divine contact, adored Sri Narayana

there and remained at Tirukkoyilur for some time, spending their time in narrating the greatness of the Lord.

So it is that this place is held in very great veneration by every devout Sri Vaishnavite and the later Acharyas have also extolled this Lord by their laudatory hymns. This ancient temple is of gigantic dimensions and is situated in the centre of the town and having two tall gopurams on the eastern and western sides, is visible from a considerable distance. It dates back to pre-historic days for the earliest inscriptions belonging to the Pallava period, indicate the antiquity of this temple. Hence within the precincts of this huge temple, one can see structures of the various epochs from the Pallava age, each possessing the characteristics of the several schools of architecture that were in vogue at each of these successive periods in the history of South India.

Approaching the temple from its eastern side along the Sannidhi street, the first thing to attract one, is the huge outer gopuram known as 'Raya-gopuram' which stands across the street. It is very huge with eleven tiers and was built by the Vijayanagar monarch, Sri Krishnadeva Raya the great. Though barren of the usual ornamentation of mythological images, it is an imposing tower graceful in its proportions. Passing through this, one will see on either side of the street, four small square tall mandapams, supported on four slender pillars, each being very daintily carved out. Nearing the temple, the entrance is crowned by another gopuram but smaller in size as compared with the other one. Passing inside, there are several mandapams and passages. On the way is the *dwajasthambam*—the flag staff—with the temple of *Garuda* in front of it.

September 1957

TIRUKKOYILUR

25

This *sthambam* is rather peculiar when compared with those that are ordinarily seen in the Vaishnavite temples in this part of the country for it resembles the *manasthambam* of the Jainas. No doubt, at one time, this place was under the sway of the Jainas of the South India, who, it is believed, have added some portions adjacent to the old temple for their shrines and this pillar may be a remnant of these accretions. When Hinduism overwhelmed the two insurgents—the Buddhists and the Jainas, the adherents of the two faiths, Vaishnavism and Saivism have obliterated the structural remains left by them suitably and erased all evidences of their faiths by successfully incorporating the remains into the framework of their own places of worship. Evidences of this kind abound in South India and this is one of such harmonious blendings.

In the innermost *prakaram* stands the ancient shrine of *Sri Trivikrama* representing *Vishnu* in the aspect of that gigantic form that He took from out of the dwarf *Vamana*, when He wanted to measure the worlds with His three strides that were given as gift by the demon king *Mahabali*, whom the Lord wanted to destroy. Having received the gift, the dwarf enlarged Himself into the *Trivikrama* and with one stride measured the whole of the earth and with the second step covered the entire Universe. He asked the King *Bali* to point out the place for the third step, which remained unmeasured. *Bali*, having no other space to offer, bowed down his head, which *Vishnu* pressed hard down to the nether world. It is this aspect that is presented here to the worshipper in the most enchanting form, for the image in this place is of huge proportions. *Sri Trivikrama* is shown as a

A view of the 'Then-Pennaiyar' near Tirukkoyilur



huge standing image, with one foot resting on the head of *Mahabali*, whose body had been driven down into the earth, while the other foot is raised upwards to the sky, where *Brahma* is represented as worshipping the Divine Foot with *Padhya upachara*—pouring water from his *gindi*. Near the lower foot, sages *Sukra*, the preceptor of the danavas, *Mrikandu*, who had his ashram on the banks of the Pennaiyar here and at whose prayers the Lord manifested Himself here first, and their consorts are set up as images. Unlike most of the Vishnu images, the Lord here possesses the *Shanka* or the conch in his right hand, perhaps He blew the same over His victory of the Danava king, since the other hand is represented with the last finger raised up in the pose of enquiring for the third space for measuring. On the left side of the deity, the images of the three Azhwars are installed to commemorate their connection with the Lord of this temple.

Coming outside and going round the inner-most *pradakshinam*, one sees in the south-eastern corner a small shrine in which the image of *Durga* is installed—a peculiar feature in a Vaishnavite temple. Here *Durga* is the guardian-deity of the temple and she had been there even from the days of the Azhwars for, Saint *Tirumangai-mannan* makes reference to Her existence, when he refers to Her as “the exalted Lady with Chandra kalai that lives in Tirukkoyilur, protecting Her brother” in his “*Tirumozhi*” *pasuram*. Because of this service, She is given the privilege of priority in worship and the offerings made for the Lord here are offered to Her

earlier than being presented as *Nivedyams* to the Lord Himself.

This deity is also known by the name “Ayanar”. Sri Ramanuja deputed one of his *simhasanathipathis*—direct apostles by name Ayanar to look after the interests of this ancient temple. His lineage still continue this service and in view of this association, the family name of these hereditary trustees was applied to the deity also.

In the outer prakaram, stands the shrine of the Goddess *Pushpavalli Thayar*, who is considered as a boon-giver. The vast mandapam that stands in front of this shrine contains exquisitely carved pillars and reflect the art-technique of the Chola artisans. Going round this prakaram, the pilgrim worships at the shrines of *Sri Andal* and other minor deities that are usually seen installed in Vishnu temples.

Besides references in the pasurams of the Azhwars, Tirukkoyilur is mentioned in still more older literary masterpieces of the Sangam age. It was here that one of the royal patrons of Tamil literature and art—*Malayanman* ruled and the ancient “*Agha-naanuru*” poems refers to this place in several places. Moreover, it was here that the famous Tamil poetess *Avvaiyar*—the grand old woman of Tamil literature—celebrated the marriage of the twin-maidens, *Angarai* and *Sangarai* because of whom their rich father had to incur the displeasure of the three chiefs of the Chola, Pandya and the Chera kingdoms. Each of the princes sought these beautiful maidens for themselves and consequently they devastated the estates of their father with their



Eastern Raya Gopuram with the four-pillared Mandapams

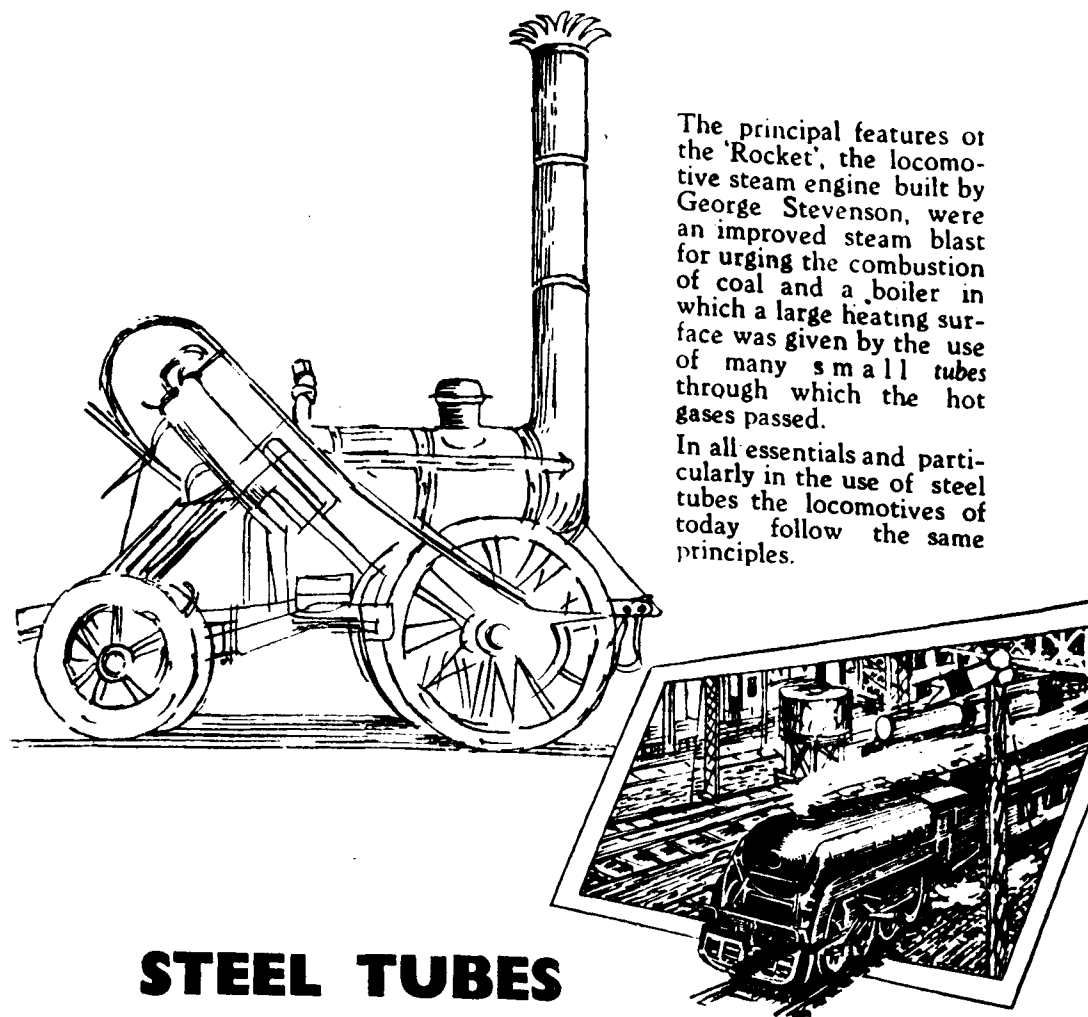
power and prowess. Being reduced to poverty, they were accidentally met by *Avvaiyar*, who got them married suitably, bringing the three chiefs to their wedding and amicably settling their feud.

Besides the Vishnu temple, there is a famous Siva temple known as *Sri Veerateswarar* Temple, which the Saivite saints, *Sri Gnanasambandar*, *Sri Tirumavukkarasar* have extolled in their *Teravam* songs. This is one of the eight *Veerathu sthalams*, where in each of which place Siva conquered a demon who was harassing the *devas*, and celebrated His victory. Here at Tirukkoyilur the demon *Anthakasaran* was slain by Siva. This temple, though small compared with the temple of Vishnu, is a nice one situated on a small hillock in

the river-bed of Pennaiyar called “*Edachi-kal*”. It is connected with the story of a shepherdess who was a great devotee of Siva. While crossing the river one day with her herd of cows, flood came in the river all of a sudden and the woman was about to be drowned and her cattle washed away in the waters of the turbulent river. Her prayers were met by the Lord, who made this hillock to come out of the waters of the river carrying the woman and her cattle and offered a safe place for them to stay till the waters subsided. There is a Tamil proverb which means that the water in the *pennai* will rise up and flood the river-bed even before the time that will take for butter to melt. To mark her gratitude to the Lord

(Continued on page 38)

The Rocket



The principal features of the 'Rocket', the locomotive steam engine built by George Stephenson, were an improved steam blast for urging the combustion of coal and a boiler in which a large heating surface was given by the use of many small tubes through which the hot gases passed.

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Departmental Functions in Brief

THE STORES DEPARTMENT

OPRAIL

A passenger is sitting on a platform bench waiting for his train to rumble in. The bench on which he is sitting may be made of cement-concrete, or smooth polished wood on an iron frame. Arched over his head is the roof of the platform shed, constructed of corrugated iron or asbestos sheeting, and supported on steel pillars. The whole structure is kept together by innumerable bolts, nuts, or rivets. Now, here comes the train consisting of the powerful locomotive, hauling about a dozen passenger coaches.

The passenger boards his carriage, and if he is interested, he may notice that there are a number of fittings in the compartment. Now all this material, fittings, components, bolts, nuts, rivets, nails, iron, etc., came from one of the stores depots of the railway concerned. These depots are parts of that vast organisation known as the Stores Department, which is responsible for keeping the whole railway system supplied with all the stores needed for its proper functioning.

The executive responsible for the administration, control and supply of all essential stores for a railway system is the Controller of Stores, who usually functions from the headquarters office of the railway system. Under him he may have one or more Deputy Controllers, a number of senior and junior Stores officers, and a large complement of staff, both supervisory and clerical. Situated at various points on the railway system will be a number of Stores depots, each under

the control of a District Controller of Stores, who again is assisted by the requisite number of staff.

In broad terms, the main function of the Controller of Stores is to ascertain the needs of his railway in the matter of materials and stores in the most efficient, economical and expeditious manner possible, and also to arrange for their receipt, inspection and distribution to the various depots, and for their safe custody while in charge of the Stores department, and finally, for the issue of all materials and stores on requisitions received from the various consuming departments of the railway.

This brief summary of the functions of the Controller of Stores may appear somewhat simple, but a glance at the 'code' of the Stores Department—a substantial volume of over 30 chapters, about a dozen appendices, etc., running to over 500 pages, will soon convince any curious reader of the intricacies and importance of the functions of this Department.

All materials and stores required for use and renewal on railways are stocked at suitable points on the line, and to facilitate work these are generally—(a) locomotive stores depot attached to and serving the main and/or subsidiary locomotive workshops; (b) a carriage and wagon stores depot attached to the main carriage and wagon workshops; (c) a signal stores depot serving the signal shops; (d) one or more permanent way material depot for storage of track and bridge materials and stores; (e) a

general stores depot or depots for stocking and supplying stores, other than engineering stores, and lastly one or more depots or yards for collecting all unserviceable and scrap materials and stores. The latter are usually located at or near the best market available for disposal of such scrap.

From the headquarters office of the Stores Department Nomenclature-cum-Price Lists are issued. These include all items of stores stocked by the various depots. Each separate item of stores is assigned a number, and this number together with the description of each item must be quoted on all documents relating to the requisition, issue and receipt of materials and stores both by indenting and supplying officials. These lists have to be constantly checked, revised and kept up to date, as the prices of all

materials and stores are in a state of flux, depending upon the current market rates. An idea of the work involved in this aspect of work alone may be gauged by the fact that the Railway Stores department have to maintain Nomenclature-cum-Price Lists for over sixty thousand items.

There are two sources for the procurement of stores required by a railway system—those manufactured in the various railway workshops, and those purchased from the open market. Even in the case of the former, although the railway workshops can provide the finished article, the appropriate raw materials have to be obtained, and these must obviously be purchased from outside sources. So it devolves on the Controller of Stores to plan and prepare well in advance correct estimates of the

quantities of materials and stores to be purchased or manufactured in railway workshops each year.

In the case of outside purchases he must keep in view the factor of economy, coupled with quality, as anything cheap and nasty is always in the long run the most expensive, and no risks can be taken with railway stores, especially those that are essential for safety in train operation. All outside purchases are made according to a prescribed procedure known as the Purchase Policy and Contract Rules. There are also certain items of stores required for use on railways that can only be bought through the agency of the Indian Stores Department, and in such cases, the Controller of Stores must work in close co-operation with the Indian Stores Department, always bearing in mind the interests of the railway administration.

If you pay a visit to railway scrap depots or yards, you will be astonished



You will be astonished at the broken . . . articles stocked

at the collection of broken, worn or partly worn out and unserviceable articles stocked. Now these are not left in the depot until the vagaries of weather and time cause them to rust and crumble away, because even scrap is value in money up to a certain point. Periodical inspections and surveys are therefore made by what is known as a Survey Committee consisting of Stores and technical railway officers, to decide on what components from among the scrap material can be reclaimed or salvaged for further use. Then what is declared to be of no more use to the railway is usually sold in the open market by widely-publicised auction sales.

A locomotive is stabled and is idling in a running shed awaiting the supply of certain essential spare parts before it can be put back into traffic: the buffer gear of a wagon or coach has perhaps been damaged in an accident and needs replacement; the station waiting rooms or booking offices need new furniture or better lighting arrangements; a new signal cabin is under construction and has to be fully equipped so that it can control and manipulate all signals and points in the station yard; the paving of a station platform is being thoroughly overhauled and needs the required paving stones, cement, mortar, etc.; the lenses of signal lights are cracked or broken and must be replaced; or a large number of railway staff have to be supplied with new uniforms. Where does all this come from? None other than that wonderful and well-stocked railway treasure-house known as the Stores Department, which also helps in no small measure to 'keep the wheels moving'.

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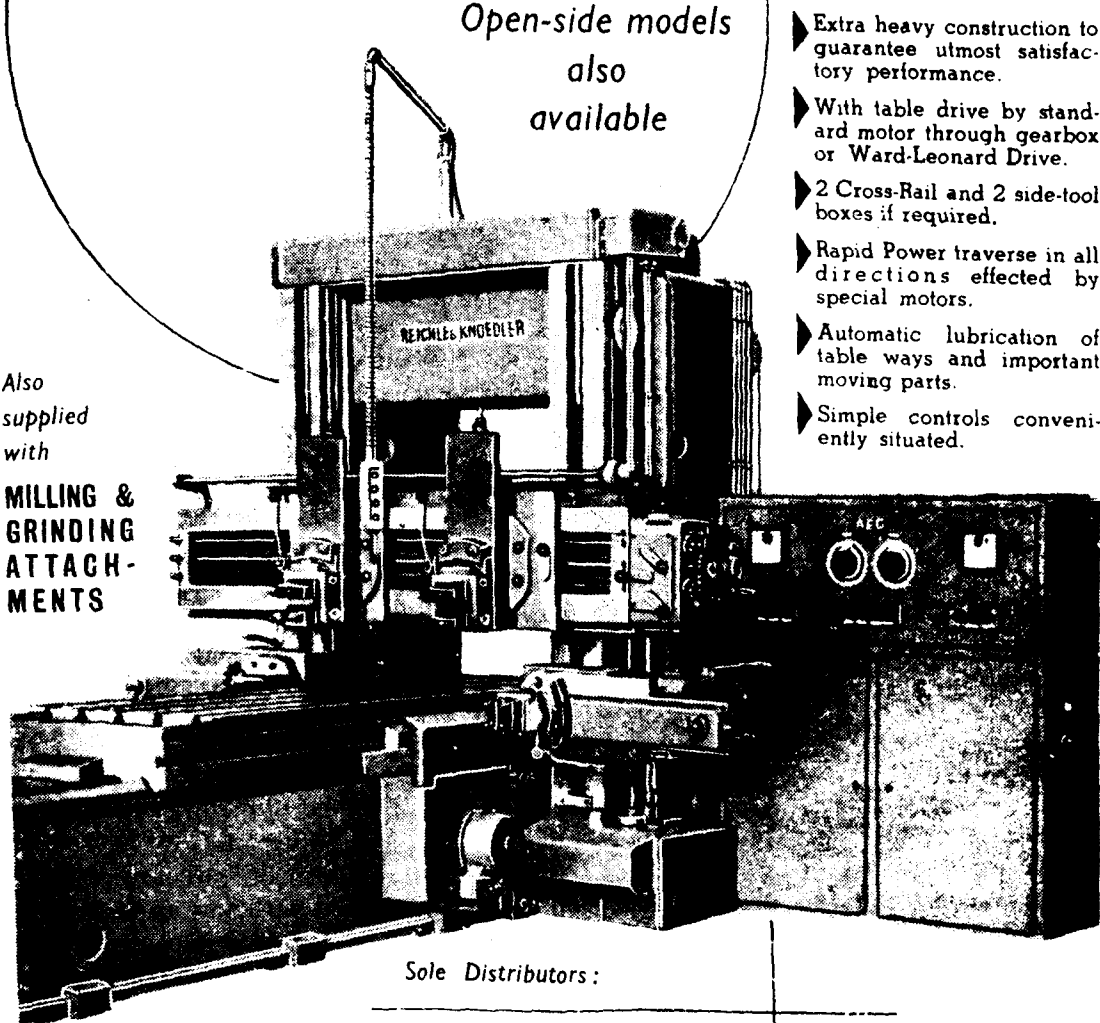
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NO REST

S. VIJAYAVALLI

THE pace of the pilgrim is leisured in general. On his way, he pauses here and there seeking rest and sight-seeing. We all recall - and with reverence - the figure of christian, the classic pilgrim. How he sauntered on, surmounting obstacles in his long journey to the land of God!

But here, we are to meet three uncommon pilgrims, pilgrims who conformed not to the common run and the classic type of pilgrims. They have, by hurrying on and halting not, reached a higher life. Who are they?

Pilgrims of love they were: by rushing on to their ruin, resting not awhile, they have won renown. Shakespeare's Mark Antony is the foremost of such pilgrims. With heavy hearts and brimming eyes, we remember: he stood all for love and lost the world. His love for Cleopatra, the Egyptian queen led to his ruin. He sacrificed power, position and his honour for her - never measuring their worth against her worthlessness. Yes, he saw Cleopatra through and through; knew all her viles and vices. But that made no difference to him.

At last, he lays down his life for her. He kills himself, believing the false news she sent of her death. Does he reproach her when the truth is known? No, even the thought of reproaching her does not cross his mind. On the contrary, he counsels her to make peace with Octavius Caesar and seek her safety therein. Mark, they had been his last words. Such selfless love, reader, is seldom seen on this earth.

He had been a great soldier and statesman in his life. But now, we

see him essentially as love's martyr: a grand figure that attains all the more grandeur with all its decline in fortunes.

Dicken's Sydney Carton steps up second. His usually indolent spirit springs into surprising activity when it is to clear things that cloud Lucy's happiness. Formerly he showed the way to set Darney free, seeing Lucy's interest in him at the trial. The strange resemblance he bore to the stranger (which he pointed out forcibly) alone stopped the English court from convicting Darney as a spy. The same means enable Carton later to take Darney's place at the guillotine. Indeed, it was a resurrection.

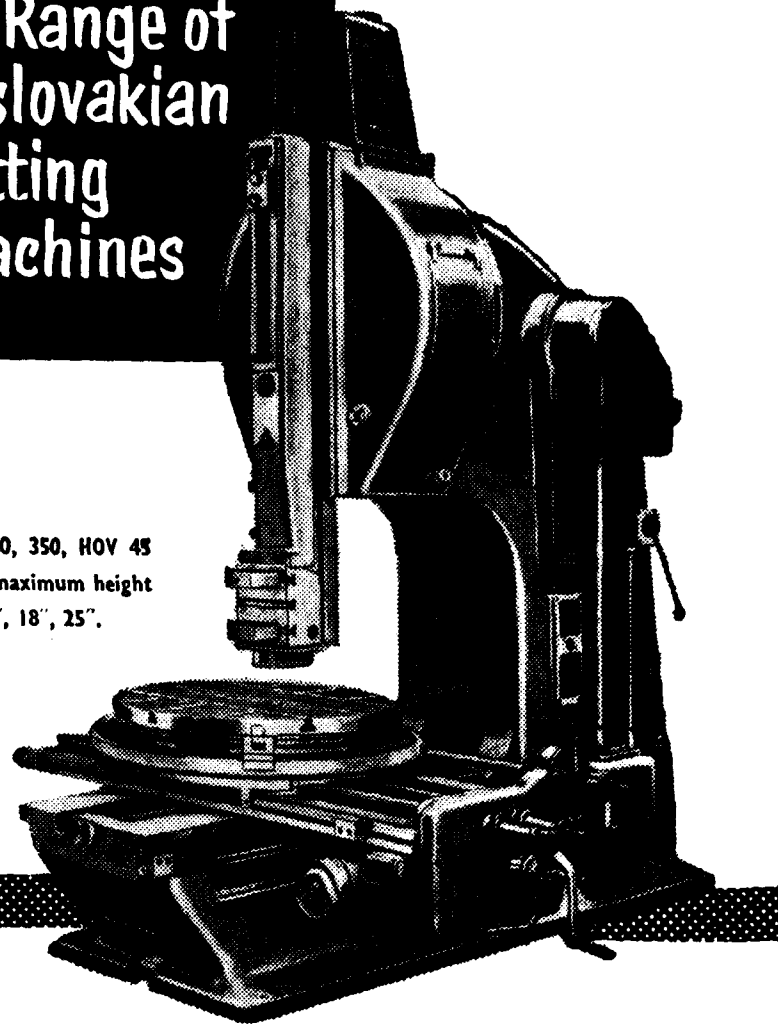
Hardy's Trumpet Major completes the trio. He sacrifices all his chances of success in his love affair; and the chances were not a few. He does not stop there, but goes further on. Simply because the foolish girl had a greater inclination for his younger brother. After supreme efforts, he succeeds in uniting them, for all his brother's genius for getting into scrapes and wounding the girl's susceptibility. Finally the Major sets out of his house, never to return, happy in the thought that he has provided for his love's happiness.

While other pilgrims sojourn as they sail through life, these three have hustled through it, as though they felt restless till they laid their lives on the altar of love. True it is that there is.

No rest but the grave
For the pilgrim of love.

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RAILWAYS DEVELOPMENT AND PLANS

B. NATARAJAN

ON the 16th April 1853, the first railway train in India steamed out of Bombay to Thana, 21 miles away. This event marked the humble but exciting beginning of the Indian Railways. Then followed the great era of railway expansion in India from which has evolved the extensive Railway System as we know it today. During the century of its growth it was, of course, inescapable that the railways' objectives and their attitude to the larger question of public service were mainly conditioned by the political and social climate of the time. The Railway policy in India was largely determined by the economic, administrative and strategic considerations of the Government of the day. Very soon, the Railways produced a tremendous social revolution in the country. They touched the heart of the people's economy, their ways and standards of life. The face of the country itself changed. But it was not until 1948 when the integration of the Princely States took place, that almost the entire fabric of Indian Railways came under the ownership and control of the Government of India. It was possible only then to achieve a certain measure of uniformity in working practices consistent with our national objectives.

With the dawn of Independence in 1947, the doings of the Railways attracted considerable public attention. While its achievements drew praise, their failings did not escape notice. The Railways, for their part, endeavoured to serve the business community and the travelling public as well as

they could, in the circumstances in which they were placed. Representatives of Railway Users came to be actively associated with the administrations in the evolution of the Railways' aims and policies. Soon there was increasing recognition of the besetting limitations and handicaps under which the Railways laboured. Efforts are made to focus public attention on the activities and the problems of the Indian Railways today and further to promote mutual understanding and fellow-feeling between the large family of Railwaymen and the wider family of Railway users.

It is common knowledge that the Indian Railways are grappling with the tremendous problem of meeting the increased demands of traffic with a fair measure of success. In order to appreciate the nature of this problem, it is necessary to recall the situation that obtained 10 years ago when the country became free. During the preceding 20 years—the years of economic depression of the thirties and the period of the Second World War—the railways' assets were put to intensive and extensive use and there was hardly any scope for rehabilitation of the assets. The emphasis was only on moving the traffic. The Partition of the country in 1947 brought in serious problems. The inadequacy of workshops and maintenance and repair facilities, the diversion of considerable port traffic to Bombay owing to the loss of the Karachi Port and similar adverse circumstances brought about by the Partition, rendered the problem of rehabilitation extremely difficult.

There were other aspects also—the question of replacing overaged rolling stock and track requirements and other problems of engineering. What is perhaps most significant was that, in spite of this unfavourable position, the Railways had to carry increasing traffic. There was a striking increase in passenger traffic—it was nearly 235 per cent more than what it was in 1938–39. There was similarly a substantial increase in goods traffic also.

It was against this background that the First Five-Year Plan of the Railways was conceived in 1951. It had limited objectives: rehabilitation of assets, procurement of rolling stock and augmentation of transportation capacity on those sections of the railways where saturation had been reached and where additional traffic could not be moved except by providing additional facilities.

The First Five-Year Plan was originally designed to meet an estimated increase of 10 per cent in traffic during the period of the Plan but the traffic that actually materialized with the execution of the Plan was even higher. And in order to provide the required transportation capacity both long-term and short-term measures were adopted. Crossing loops were lengthened to admit of longer goods trains and additional crossing-stations were provided on certain busy sections. Yard facilities and signalling methods were improved upon. Transshipment yards and transshipment facilities were extended. Steps were also taken to augment the indigenous capacity for the manufacture of rolling stock and to accelerate import of rolling stock. Production of locomotives

at the Chittaranjan Works and by Tatas was also stepped up. The Integral Coach Factory at Perambur went into production during the First Plan period.

So much for the First Five-Year Plan.

The Second Five-Year Plan is indeed another great step forward. As against 432 crores of rupees that was allotted to the railways in the First Plan, 900 crores of rupees have now been allotted under the Second Plan. The Second Plan envisages a tremendous industrial development in the country particularly in major industries like Steel, Coal and Cement, not to speak of other industries. The process of rehabilitation and modernisation of railway assets which commenced with the First Plan is being continued during the Second Plan. Apart from this purely negative aspect of outgrowing the legacy of the past, the railways have now planned out vigorously for the job of carrying the much heavier traffic that the economic activity in the country will create. In determining the allocation for the Railways under the Plan, we have been principally guided by the actual requirements of increased traffic; for admittedly efficient transportation is a vital factor in the successful execution of the Plan.

It has been estimated that the railways would carry 115 million tons of originating traffic in 1955–56 and taking into account the additional traffic of 60·8 million tons that we expect to move by the end of the Second Plan, the total traffic that would be handled by 1960–61 will be in the order of 180 million tons.

That considerable importance is attached to the extension of railway facilities in order to meet the requirements of the Second Plan will be evident from the fact that as against the total size of the plan of nearly 4,800 crores of rupees, the railway plan alone accounts for nearly 19 per cent in comparison with 11 per cent provided for in the First Plan. To meet the increased demand for rail transportation in the Second Plan period, it is necessary to increase the present line capacity by about 50 per cent particularly on busy sections. Along with measures for securing this additional line capacity, certain modern methods of working are also being adopted consistent with standards of safety in operation. The most important of these measures are:

- (1) interlocking standards being raised to permit of higher speeds on the main trunk routes;
- (2) interlocking of non-interlocked sections and important yards;
- (3) modern power signalling in busy yards and areas;
- (4) automatic signalling on busy sections;
- (5) modern signalling for hump yards including automatic operation of points and retarders for vehicles in the Moghalsarai yard; and
- (6) introduction of "Centralised Traffic Control" system of movement on two pilot sections—one on the Broad Gauge and the other on the Metre Gauge.

In order to economise on capital investment, it has been decided that over certain sections where additional transportation capacity is needed, the programme of electrification should be substituted by dieselisation and over certain sections instead of doubling the entire length partial doubling is being resorted to.

A stage has been reached in the history of the Indian Railways where in the interests of our growing economy we have to try out modern methods of railway working in the light of the experience gained in the more advanced countries of the World. We have not been shy of asking for advice of experts from abroad.

This picture gives us some idea of the task that faces the Railways in the Second Plan period. This is only the fore-runner of many more plans that will yet unfold themselves in the years ahead. The task before railwaymen is formidable enough and calls for the highest level of patriotism and a keen sense of public service and organisational and administrative efficiency. Railwaymen are participants in the greatest national undertaking and the Second Five-Year Plan is at once an opportunity and a challenge. Experience of the past and promise of the future justify the hope that railwaymen of all ranks could be depended upon to display single-minded devotion to duty. But this is only one side of the medal. Our labours will not be fully rewarded unless we receive, in a fair measure, the goodwill, the co-operation and the ungrudging support of the travelling public and the business community which we, railwaymen, value greatly.

Tirukkoyilur*(Continued from page 27)*

for saving her and her wealth, this shepherdess had the temple built on the rock itself and hence the name of the temple. The *Linga* here is also known by the name "*Sri Kapiles-warar*", for Kapilar, one of the famous Sangham poets worshipped the Lord here and lived here for sometime. The temple has a small gopuram in front and is picturesquely situated on the rock and commands a panoramic view of the river, which is usually dry all the year round.

Tirukkoyilur is important for the Madhwa community also, for here is the *Brindavanam* of one of their *Tirthaswamis* and is visited by the members of this community, especially during the Tamil month of *Karthigai*.

**Further Technical Assistance and
World Bank Loan for Indian Railways**
(Continued from page 44)

forward work already undertaken by American counterparts; three, the procurement of demonstration equipment not available within India for pilot projects; four, the payment of costs for contracted services; and five, substantial assistance in the form of foodstuffs, steel and capital equipment.

The latest TCM figures on U.S. aid to India, brought up-to-date as of June 30, 1957, show that there are now 72 agreements, that total aid amounts to \$392 million, and that total aid to Indian Railway rehabilitation now stands at \$77.5 million (loans apart).

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"WHAT abominable spelling and writing!" I exclaimed on reading my uncle's letter.

"Shut up" cried my mother. "You are too pig-headed to understand the good grace and deep affection with which it has been written. He has sound common-sense in store and holds an enviable position in life. He is rich and his only daughter will be yours if you know how to approach and behave."

I had just finished my studies and my uncle's letter was an invitation to go over to his place where he was a Station Master. My town was nearly 100 miles away from any railway line and I, not having met my uncle for more than a decade, had little knowledge of what he was or how he became rich. Perhaps the "good old-days" which my mother eulogised often were responsible for this.

Having nothing else to do, I prepared for the journey. When I proposed buying a new leather suit-case to carry my clothes and toilet articles, my mother insisted upon my taking a huge old-fashioned steel trunk, which, she said, had brought her luck in all her undertakings in life. "There are many big offers for her" said my mother, "but this box you take with you, will bring you all the luck in securing the hand of my brother's daughter."

Somehow I consented and took the bus with the "lucky trunk" on an auspicious day and reached the nearest

railway station. Not being a frequent traveller, I had little knowledge of the present day developments and the station with its cemented approach roads and platforms and the waiting-rooms with modern furniture dazzled me. As my mother had counselled me to travel in a very decent way, I thought of purchasing an upper class ticket. I bought a II class ticket and entered the waiting-room. Having seen a board with the notice that the train was running 50 minutes late, I decided to kill time by walking up and down the platform. A series of words and arrows painted in blue and red colours caught my eyes. When I was wondering why some were in blue and some in red, I read the words "Telegraph Office" with an arrow in blue, painted on the wall near the door-way of one of the rooms. My mother's advice to send a telegram to my uncle intimating him of my arrival flashed in my mind and I at once popped into the room to which the arrow indicated and demanded a telegraph form from the man sitting at a table with a heap of papers.

"Get out" the man bellowed and screamed, "Hey! 441, what are you doing! Get this fellow out." The next instant I was bundled out of the room unceremoniously by half-a-dozen policemen. I was flabbergasted. I lost my speech and could do nothing beyond mutely pointing out my finger to the arrow painted outside the door-way. The constables at once understood my plight and directed me to a

man in white uniform with a badge "Ticket Collector" pinned to his coat. The latter explained that the paintings in red indicated places where staff connected with railway working were engaged and that the blue letters and arrows indicated places where the travelling public could enter, such as "waiting-rooms, lavatory", etc. "Then what purpose does the blasted arrow opposite to the Police Inspector's office indicate?" I asked. The official explained that the arrow was intended to show the direction in which the passengers should move to reach the place required and that I was wrong in not following the direction of the arrow.

"These indications", he said proudly, "are put up for the guidance of the common man in the street and yet you have blundered." "The deuce take his impudence" I muttered and I took revenge on the railway by not sending the telegram to my uncle thereby depriving it of the money that it would have otherwise earned from me.

The train rolled in and I jumped into a II class compartment that was vacant. The porter pushed in my trunk with some difficulty and when I blamed the door-way being too narrow, the fellow had the cheek to say "but these boxes are a century old, sir." My mother would have spat at his face had she been present. This was the second experience for me and I felt sick at heart to find that I was not even equal to the man in the street in point of intelligence.

The train was in motion and I just looked around the compartment of which I was the sole occupant. A notice "Beware of pick-pockets"

caught my eye. A cold shiver ran down my spine. Surely I hadn't bargained for this when I purchased a II class ticket. I hastily searched under the seats and the lavatory and luckily found no one lurking anywhere. Having composed myself, I turned towards the door-way and realised that I had not closed the door when the train started. When I closed the door, I read the words: "Shutter fixed". Having "shut" the door why should I, the shutter (the person who shuts) get "fixed"? I felt more vexed rather than amused. It was sufficiently dark by this time and I switched on the lights and sat near the window. A label "RAISE UP AT NIGHT AND BOLT" was there. Was it an indication for the pickpockets or the travellers to bolt away, and why? Before I could worry my mind further, the train came to a stop. A lady, who, from the mode of her dress and bearing appeared a refined person, opened the door and entered my compartment and sat down. When the train started, she first spoke and said that she was getting down at the next halt. Therefore without losing time, I asked her, pointing out to the label "RAISE UP AT NIGHT AND BOLT", if it was unsafe to travel alone. She looked daggers at me but the next moment my "lucky" trunk box caught her fancy and she smilingly asked if I was an infrequent traveller. On my nodding "yes", she raised the window on her side and demonstrated what the indication implied. Thanking her, I tried to raise the window on my side, but did not succeed. The lady explained that the shutter had got stuck due to garbage such as match-sticks, plantain peels and even mango

fruit seeds being thrown by careless passengers into the crevices.

"Yes," I said, "but can't somebody remove them and make the shutters slide up and down easily when required?"

"Of course it is possible perhaps," she said, "Though not always, unless the carriage is broken up in any accident or when scrapped from further use, all the muck may remain for ever."

"Oh!, please don't wish for such things", I pleaded nervously. The kind lady then left me at the next stop wishing me "Good night".

The train raced onwards, stopping at very few stations. Nearing midnight, on the train coming to a stop, I saw several lights on the platform and heard a man shouting at the top of his voice the name of the station. Nothing of the kind had happened at the previous stops. Soon after, three men entered my compartment and three big black boxes were pushed in by some porters before the train started. I read the painted addresses on the boxes: "TRAFFIC INSPECTOR", "LOCO INSPECTOR" and "SIGNAL INSPECTOR", and glancing at my co-travellers, I tried to connect the relationship between the boxes and the bosses who owned them. One was in long khaki pants with some paint and grease dabbed here and there: another was in spotless white and the third was wearing a dark grey suit, which did not hide the soot and coal dust it carried with it. He appeared to be more approachable than the rest and so I made bold to ask him if the station where they entrained was in anyway more important than the other stops

for so many lights to burn on the platform with a man posted to shout the station name so loud?

"Ahah! it struck you also as somewhat strange, did it?" said the man in grey.

"No wonder, it is all due to the presence of this important person" he said pointing out to the man in white. The man in khaki said that it was gratifying that the regulations were at least observed when the Traffic Inspector was present.

"So you look after the regulations whenever and wherever you are present", I said turning to the Traffic Inspector, "And they go to the winds when you are not present."

"No, No! my friend," said the Traffic Inspector.

"Don't jump to conclusions! The regulations are no doubt there and their observance is strictly enforced."

The man looked serious and I did not wish to cross words with him. The Inspectorate had their own fight by now. The man in khaki shouted "What if the signals were drooping, why did the Driver pass them? I will not accept." The man in grey shouted "Drooping means, misleading signal and my poor Driver was deceived; it is the fault of the Traffic in not keeping the signal in proper position." The man in white smiled triumphantly and said: "Yes, there is some sense in what you say. The signal would not be drooping if it was not defective and the rules are that the Driver should not pass a Defective Signal. While the Traffic failed to secure the signal in proper position, you two cannot get scot-free.

Ours is "TEAM-WORK remember" and each man has a distinct part to play."

I could not sleep with such babblings going on. So I piped in saying: "You all say that something went wrong on each side and each blames the other's folly. If you three form a team, which is the opposing force that disrupts you?"

"My dear sir," said the man in white, "You can't understand these things."

The train came to a stop again. The semaphore arm showed "Red".

Several minutes passed before the colour showed "Green". When the train arrived at the station, the Station Master explained to the gentleman in white, "Pointsman sleeping". "Give him T. 20" was the reply. The train was already late and I was annoyed, to know why the Pointsman was asleep and how this could hold up the train and why he should be given something in return. "To what kind of a team does the sleeping pointsman belong?", I questioned. "Is he paid to oppose your team-work by sleeping on duty."

(To be continued)

Further Technical Assistance and World Bank Loan for Indian Railways

K. SRINIVASAN

TECHNICAL ASSISTANCE:

THE American team of railway experts which went into the question of speedy movement of goods wagons on the Indian Railways has suggested that a new standard steam locomotive should be designed for goods train service with a tractive effort of between 70,000 and 80,000 lbs. The services of the team were made available to India by the United States Technical Co-operation Mission. In its interim report to the Government of India, the team has also suggested that steam locomotives should continue to be the main type of traction for the present. In order to permit the operation of longer and heavier trains the team has recommended that all new open top wagons should be of 40 and 50 tons capacity.

As regards the construction of additional lines on certain sections in order to cope with the increased traffic, the team has suggested that a study be made to determine whether signalling change would provide the required capacity to handle the additional traffic at reduced capital cost. For the speedy transportation of coal from the pitheads, the team has recommended that a study be made to determine the advisability of changing the present coal allotment system from a daily to at least a weekly basis. Such a step, the team feels, may help in block allotments of wagons to collieries

for loading and running of block specials.

WORLD BANK LOAN:

The World Bank is favourably disposed towards the railway programme even though as a banking institution it cannot commit itself about future lending. It is understood that the Bank is completely satisfied as to the soundness of the Indian Railways plan and its efficiency of working.

The orders placed so far are mainly for rolling stock and track materials, as also for wheels and axles. No deliveries have yet been made. The next series of orders to be placed will carry the Railways' development programme till April 1959. The total value of these orders is expected to be about Rs. 55 crores. A member of the Railway Board, Mr. K. P. Mushran, is at present in Europe to place the orders. To meet their foreign exchange requirements, the World Bank would be approached again next year. A small part of the payments for them may be made out of aid received from the United States under the Technical Assistance Programme. Giving the impressions of the expert team's study of American, Canadian and European railway systems, Mr. Mathur, Member (Transportation), Railway Board, said recently

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in a Press Conference that the Indian Railways were examining the question of technical improvements in the future design of goods wagons to permit running of longer trains. (This has been already referred to in para 1 of this article in relation to the recommendation of the American team of Railway experts.) India would seek the next railway loan from the World Bank in order to meet the payments for the orders now being placed, particularly by the mission led by Mr. K. P. Mushran which is procuring track material abroad. Mr. Mathur's inference seems to be that a supplementary loan may be negotiated this year itself to meet the gap between 90 million dollars and the outstanding payments amounting to 110 million dollars to countries which are members of the World Bank.

Out of the foreign exchange component of Rs. 425 crores, in the Railway Plan, a sum of between Rs. 100 and Rs. 125 crores should be counted out since an annual outlay of Rs. 20 to Rs. 25 crores would be on account of maintenance and other heads chargeable to revenue which will not in any case qualify for World Bank assistance. Of the capital outlay of Rs. 300 crores in foreign exchange, an amount of the order of Rs. 100 crores has already been paid out. The initial World Bank loan of Rs. 45 crores, which has come in the second year of the Plan, is thus nearly equal to one-quarter of the foreign exchange expenditure to be incurred on capital account in the current and the next three years of the Plan.

All the loans are for a term of 15 years, at 5-5/8 per cent: they will

suffice for about one-half of the cost of buying from abroad equipment on which payment falls due this year and next. It is understood that amortisation will begin in 1961.

U. S. contribution to Indo-American project costs for the period from January 1952 to June 30, 1956, totals \$326.8 million. India's contribution to Indo-American project costs for the same period totals Rs. 3.7 billion or the equivalent of \$775 million.

The Indo-American Technical Co-operation Agreement provides that programmes be mutually developed and projects established for which costs are shared by the U. S. Government and the Government of India. U. S. dollar financing normally covers foreign exchange costs whereas GOI rupee financing covers within India project costs; such as for buildings, and structures, salaries of Indian technical and clerical personnel, inland transportation charges for imported commodities, cost of materials purchased within India, etc.

As with the Colombo Plan and the United Nations Technical Assistance programme the basic intent of the Indo-American Technical Co-operation Programme is to help to raise standards of living. The assistance given to India is mainly technical and developmental, and comprises a five-pronged approach: one, the use of American technicians or experts who demonstrate new techniques or methodology under the various projects; two, the additional training of Indian technicians abroad, who upon their return to India carry

(Continued on page 38)

A LOVER OF DETAILS

S. R. SRINIVASA RAGHAVAN

Integral Coach Factory

DURING the twenties of this century I had occasion to come into contact with Ramu who, I later found, was a veritable lover of details. In conversation he loved to do all the talking and was impatient of hearing the other man's point of view. People around him called him a bore and tried to avoid him, but, somehow, I have always loved him ever since, exactly for the quality in his character that made other people loathe him. The meticulousness with which he questioned you and the analytical mind he applied to all problems posed before him made you sit aghast. Perhaps I loved him as a study academically.

I have known individuals who did all arguments and counter-arguments in their minds and only spoke a word with great restraint. They do not like much talking, they being men of action. But this quality is simply one face of the coin of which Ramu's is the other face. He was a man who talked out things and I feel that this mode is the desideratum under many circumstances in life.

I would like to narrate what would seem a trivial occasion in which Ramu showed his character in great brilliance. In our village which he occasioned to visit once, two or three of us decided to go to the neighbouring river one evening late after night-fall. We had our towels and soap-boxes. Ramu came into the company with the query, "Where is the vessel? Where is the tamarind seed to wash it with? Have any of you taken a stick as a

means of protection against odd insects and snakes which are legion on the route to the river? Are all of you going to wet your dhoties? Where is the caste-mark casket? Without looking into any of these you are starting to the river."—he concluded with an exclamation. At least as a mode of pleasing Ramu all of us armed ourselves with the things he mentioned. "I will lead the group", he said and marched ahead with great bravado.

Ten years ago I became the proud owner of a Radio set and I invited Ramu to have a look at it. He came in with a critical face and enquired whether I had installed an aerial. I said I would be doing it shortly. "Is it a set that takes two stations only (Madras and Trichinopoly) or do London, Berlin, Tokyo, Honkong and Colombo accede through the set?", he asked. I said I had been told by the broker that the set was a perfect instrument and all stations under the sun could be heard clearly through it. He did not like being told that the broker was of such an opinion. It would have been better if I had tested myself.

At a marriage function we attended together, the couple were undergoing a particular portion of the rites in a pandal at the door-step of the house. On entering the pandal, Ramu began surveying the roof and to his disgust found that in one corner the cloth spread over was hanging loose and waved to and fro in the wind. Ramu hastened to call the father of the girl and questioned him as to his suaveness

in having started a marriage without attending to the pandal roof. The gentleman in question felt shy all over his body and Ramu had a victorious smile on his lips to look at things getting mended on his advice.

Long ago he narrated the incidents of an interview he had before entering government service. Four retired officers were on the committee examining him. Ramu told me that they loved his impertinence and selected him perhaps for that quality! With apologies, he had audacity to question the examiners as for their respective qualifications and experience. Two of the examiners did not like being questioned themselves but the other two went through it with a smile.

There are occasions when details become unimportant and personalities come in. On such occasions Ramu was a thorough failure and invariably subjected himself to odd criticism. But he did not care for any kind of criticism against him. Like a snail in its shell he lived his own life and had his own thoughts. He had no delicacies and was plainly blunt. Sometimes I have felt that, after all, his bluntness was more lovable than detestable.

There are many people like Ramu who are attracted by details about everything. But I don't think they can long be happy because they go too deep to have any romance left behind for the morrow.

WOMEN'S PAGE

MAKE-UP

V. S. SHANTHALAKSHMI

RECENTLY I saw in one of the American papers, that the women of U.S.A. spend more on beauty treatments and cosmetics than even on food. And statisticians have worked out the distribution of this vast sum between lip-sticks, rouges, powders, skin-foods, vanishing and other creams, hair-tonics and so forth. The corresponding figures in India are less imposing, but it is probably true to say that the amount spent annually on beauty aids is enormous.

In ancient Egyptian tombs, as well as on Greek vases, in Babylonian carvings and in Roman mosaics, proofs have been found of an extensive use of cosmetics, to such an extent as to suggest a range, hardly smaller than that of our own day. Dozens and dozens of little pots and jars, once containing creams, colours and ointments of all sorts have been recovered from the dust heaps of antiquity.

The Roman ladies used shell-purple as rouge for their cheeks and lip-sticks for their mouths. The Egyptians and Indians had the same 'kohl'—burnt antimony powder—which today is extensively used in the East for blacking the eye-lashes, accentuating the eye-brows, and elongating the eyes. The Bible tells us that fragrant oils were rubbed into the hair and many 'mummies' bear traces of an elaborate system of curling the coiffure.

Ovid was probably the first known beauty columnist, but as cosmetics were widely used by the ancient

Egyptians 4,000 years before Christ, it is probable that contemporary writers engraved their hints on the care of the complexion on blocks of stone. It is unlikely that the incomparable Nefertiti with her pencilled brows and painted lips was the first to use these artifices, even though she lived some 3,500 years ago.

This was Ovid's advice, in the year 10 B.C. to the maidens of Rome: 'Learn girls, what attentions improve the face, and by what means your beauty may be kept up. What is cultivated, pleases. Do not trust for inspiration to herbs, or to mixed juices, nor try the noxious poison of an enamoured mare'.

Women having been interested in beauty culture from time immemorial, many such ancient recipes have been handed down to us. Some are the legacies of famous beauties, others have been left by our great great-grand mothers who practised them. No doubt, some of these are herbal, and it is interesting to find how many beautifying qualities were attributed to the denizens of the vegetable garden.

The juice of carrots, for instance is a 15th century recipe for improving the complexion and bringing colour to the cheeks, and according to many, it is a beauty secret which is not to be ignored. Onions and leeks stood high in favour with our ancestors for their youth-preserving powers, and were not only eaten raw by seekers



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after longevity, but were used in the preparation of creams and lotions.

The famous ointment with which it is said Ninon de Lenclos preserved her beauty even when she was over seventy, was made with the juice of leeks mixed with almond oil, and hog's lard. A very good recipe which has been much spoken of by our elderly women is homely parsley. It is used even today for beautifying a swallow skin and other skin ailments.

Similarly, barley water was much in favour with our ancestors for bathing the face and body. Besides, herbal waters such as rose, elder-flower water and other extracts are still employed, though some have passed into disuse. The myrtle water was said to have been used in the toilet of Venus, and was also considered as a love potion.

Alabaster vases, containing unguents dating back as far as 3500 B.C. and mirrors of the Sixth Dynasty of Egypt, around 2600 B.C. are still kept in the various museums. Thyme and marjoram, myrrh, frankincense and spikenard, sesame oil, almonds and olive oils were the main materials composing the other 'old-known' cosmetics. And so were the milk-baths which are still very popular among almost all Hollywood beauties.

The fashionable ladies of classical antiquity used tooth-powder made of pulverised pumice-stone, depilatories and beauty-creams made with barley flour and butter, and they bleached their hair in a way which seems to have resembled the procedure by which 'platinum blondes' are created today. Their dressing-tables contained three categories of cosmetics in precious containers: 'hedysmata'—solid unguents, 'stymmata'—liquids and 'diapas-

mata'—powders, very much in use as we have them today.

The Elizabethan age was the heyday of beauty preparations in European lands, for almost all women of fashion applied these recipes and used a wide variety of lotions and scents. As today, the captious critic was well to the fore and we find in one of the Elizabethan writings, 'She hath a fair hair, if it be her own; a rare face, if it be not painted; a white skin, if it be not plastered; etc.'

Although the Western mode of make-up is fast gaining ground in India, it is strange that the prejudice against it is still very strong. Often we hear dictators say to the bright young things of today: 'Why do you colour your lips with that awful lip-stick? If you want to make them red, can you not eat pan?' In vain does she try to understand why lip-stick should be tabooed, and pan encouraged.

To eat pan for the sake of eating it, and because one really likes to do so, is one thing; but to become a pan addict whether one likes it or not, for the vanity purpose of making one's lips red seem as artificial a process as to use lip-stick. And yet, so great is the prejudice against Western mode of make-up, that girls in orthodox homes often eat pan merely indirectly to colour their lips. To use lip-stick would at once bring down the wrath of all their elderly relations upon their innocent heads.

There is no denying the fact that Eastern make-up suits the Indian women better than the Western. The charm of a girl dressed in merely

(Continued on page 55)

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THE STORY OF ROPE :

THE family is off for a holiday, and packing of boxes and beddings are being done. While father or big brother is strapping up the bedding hold-all, the leather strap suddenly snaps. There is no time to buy another bedding strap, so the next best thing to use is a stout piece of rope. If this is not found in the house, one can soon get a piece much easier than a bedding strap. So the bedding is lashed up with the rope and everything is ready for the journey. Now, you can see how useful a piece of rope can be, and we can also learn a little more about the story of rope.

Nobody seems to know who made the first piece of rope, but it has been said that the Chinese were the earliest rope-makers. Rope made from papyrus was also found in Egyptian tombs, which leads us to believe that the ancient Egyptians used rope over three thousand years ago.

What led man long, long ago, to think out a way of making rope? Perhaps he was collecting faggots of dry wood in the forest to take home for his cooking fire: or he may have killed some animal, which he wanted to drag back to his cave-home. So he stripped pieces of bark from nearby trees, tied these together in lengths, and made what looked to be a piece of rope. With this he could tie up his bundle of firewood, or the dead

animal he had killed to drag away to his home.

This could have been the starting point, and when man wanted rope that was stronger than the thin pieces of stripped bark, he would take several pieces and twist them together. Eventually, he must have used strips of animal skin, or the hairs of animals, which he twisted or plaited together to give him the rope he wanted.

As time went by and man became more and more inventive, he found that certain plants and trees could be stripped into long pieces of fibre. These fibres were then plaited or twisted together to make good strong lengths of rope. Today the best kinds of rope are made from hemp, flax and Manila fibre.

Hemp comes from the fibrous, or stringy parts of the stems of plants. If a fine quality of fibre is required, the plant is pulled up as soon as it has blossomed. If a coarse fibre is wanted, the hemp plant is allowed to grow for a very much longer time, before it is pulled up. The hemp plant grown for fibre has a straight stalk and reaches a height of five to eight feet. While true hemp comes only from this plant, the fibres of many other kinds of plants are commonly known by the same name.

The names of the various kinds of hemp are usually known according to the country where it is grown.

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Thus we have Russian hemp, Italian hemp, Manila hemp and so on. Each of these types seems to have some special quality according to the conditions of the climate and soil in which it is grown. Manila hemp is the most widely used for the various types of rope-making.

How Rope is made :

The hemp is cut, spread out to dry, and then gathered and stacked in bundles. After a time these stacks are opened and the hemp is again spread out and exposed to dew frost and sunlight. During this time of rotting, the gums holding the fine strips together rot away, and the dry, inner woody part of the stems break and fall off, leaving the stringy strips or bents in such a condition that they can readily be cleaned, bunched and pressed into bales. These

are now more or less ready for the final stages of being turned into rope.

Before the invention of modern rope-making machines, all rope was made by hand. This required a large number of men or women to twist and plait the bundles of hemp fibre into pieces of rope. But now, with science on our side, large rope-making factories have been set up in all parts of the world, and the process of making rope is rapid. With the various types of machines in these factories, the rope which started as hemp strips, goes through the machines, each doing a particular stage in the making of rope, until the finished rope in lengths up to hundreds of feet, and of all qualities and thicknesses, are made.

Rope is not only made from hemp, but also from other kinds of raw materials. There is the familiar coir

rope, made from the fibrous bark of the coconut. There is also sisal, which we get from the thick leaves of the Mexican cactus. We all know, or should know, the cactus plant, because if you ever happen to fall on to one of these, you will soon jump up with a yell, as there are thick spiky thorns all over the cactus leaves, which will give you some rather nasty pricks and scratches. Sisal is also widely used for rope-making, but it is of a coarser kind than that made from Manila hemp.

Uses of Rope :

Let us now sit back for a few moments and think of some of the uses for which man requires rope. What we think of most readily is something to tie up a bundle, but this is not all. If you can take a walk to the docks where great ships come, you will find an enormously thick and long rope starting from the ship and wrapped around a thick iron post on the pier. In fact, men on ships have to use all kinds of ropes for quite a number of purposes, and in the old sailing ship days, no ship would have been able to sail, without the rope that was used to lash the sails to the masts and rigging.

Then there is the well in the country fields where a lot of our food is grown. You will see a long pole to the top of which is tied a piece of rope, and at the other end a large bucket, which goes down into the well to draw up water for the thirsty fields. Next, take a look at that 'khuttia' on which some tired and humble labouring

man spends his nights in well-earned sleep. There is quite a lot of rope used for the rope bed that provides sleep for thousands and thousands of human beings.

Have you ever watched a tall building going up? Well, as the structures and walls go higher and higher you will notice a sort of bamboo scaffolding also going up. Look closely, and you will see that all those long bamboos are tied and secured together with good strong rope. Have you ever seen a parachute? If you have you will find long silken cords attached to it. These cords are also rope of a very fine, but very tough quality, because parachutes are used to save the lives of those who may meet disaster when travelling by air.

And don't think that rope is only of the thick kind. Your plain and simple 'suthli' or country twine, is made from the same substance that makes the thicker ropes, and we all know how useful this country twine is to the shop-keeper who hands you a package of tea, or whatever you may buy, deftly tied up with twine.

So now you know something of the story of rope: how it started, from what it is made, how it is made, and for what purposes it is used, whether it be the great thick ropes—known as hawsers—which tie down large ocean-going ships, or the thin country twine, that is wrapped around your packet of tea. It all comes from the same thing.

UNCLE TELLATALE.



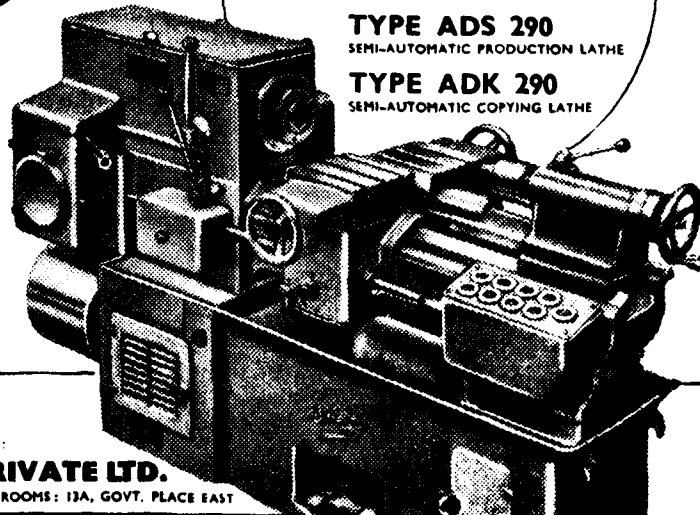


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Builders of Modern India—Gandhi and Nehru

Dr. E. K. SWAMY

THE INDIVIDUALS IN HISTORY :

FROM the concentrated endeavours of a few individuals emerges the story of a Nation. So is the case of India, though young in nationhood yet old in many profound aspects of civilization. The World is aware of the two Great Indian Leaders, — Mahatma Gandhi and Pandit Jawaharlal Nehru, the builders of Modern India. With the former, we associate the moral and spiritual aspect of India's struggle to nationhood and with the latter, we are concerned with his practical leadership. In Nehru we see a man who, while drawing much inspiration from the teachings of Gandhi, has interpreted his own contribution to fit India to take its pride of place in the comity of nations. On one hand Nehru attempts to the physical reconstruction of the country and struggles to educate and industrialize, to bring medical relief and grow more food. On the other hand, he endeavours to relate his ambitions for the country and its advancement to the outside world.

Gandhi and Nehru, the great sons of India, are often thought of as men whose methods were in complete opposition. The truth is they were wholly complementary. If Nehru hastened, then Gandhi applied the brake. Where Gandhi hesitated, Nehru pressed for action and between the two, the Indian National Congress caught the imagination of the masses and managed to steer a bold and skilful course of revolt without ever jeopardizing its existence. If Nehru was the practical planner it was Gandhi who carried

the message of the Congress to the masses.

FATHER OF INDIA :

Mahatma Gandhi, born on 2nd October 1869 at Porbandar, Kathiawar, educated both in India and England, was our leader, friend and father. It is hard to analyse or interpret the unique personality, who had conducted many campaigns against the British Rule for the liberation of India. The mind and spirit of this unrivalled being is rare in the country or elsewhere in the world. It is difficult to portray the exquisite courtesy and compassion, courage, wisdom, humour and humanity of this unique man. He has taught us the gospel of Love, Truth and Peace for the salvation of humanity. Our country remembers him well as the giver of solace to the sorrowful, the oppressed and the fallen. He gave counsel to statesman responsible for the policies and programmes of Political India, the very spirit of renascent India demanding her equal place among the world nations. But perhaps the most poignant and memorable of all is the last picture of him walking to his prayers at the sunset hour on 30th January 1948, translated in a tragic instant of martyrdom from mortality to immortality.

MY LEGAL HEIR :

As to Gandhi's judgment of Nehru, we have record of the Mahatma's nomination of him as his successor in January 1942. "Pandit Nehru is my legal heir. I am sure, when I pass he will take up all the work

September 1957

BUILDERS OF MODERN INDIA

55

I do," he told the Congress; and for the Indian Princes in the same year his advice was to come to terms immediately with Nehru. "When I am gone, Pandit Jawaharlal Nehru will have no patience with you" was his comment. It is clear that while conscious enough of the more impetuous nature of Nehru's approach to great problems, Gandhi yet regarded him as more qualified to wield authority than any other competitor for Indian leadership.

Pandit Nehru was born on 14th November 1889 at Allahabad and was educated at Harrow, Trinity College, Cambridge and called to the bar at the Inner Temple. Fastidious, eloquent, capable of exerting and extraordinary hold over huge masses of people and of influencing the thoughts and actions of more ordinary men Nehru's personal humanity, unembittered by years of harsh struggle, gives him pre-eminence among the world leaders.

Nehru's policy may perhaps be defined as one of unity within India, of security around her borders, of moral leadership in Asia, and of cautious balance between eastern and western blocs in the world at large. The Russian system was repugnant to his liberal instincts, but full accord with the west would tacitly approve of the relics of colonialism in Asia and make an understanding between the two great blocs more difficult.

DEVOTION OF NEHRU :

Nehru's devotion to his master, — Mahatma Gandhi, — was so great that his first thoughts were directed when India rejoiced in its new freedom on 15th August 1947. "On this day our

first thoughts go to the father of our nation who, embodying the spirit of India, held aloft the torch of freedom and lighted up the darkness that surrounded us. We have often been unworthy followers of his and have strayed from his message, but not only we, but succeeding generations will remember this message and bear the imprint in their hearts of a great son of India, magnificent in his faith and strength and courage and humility....."

INTERNATIONAL STATUS :

India today is proud of her newly won international status. She is proud too of her prime minister's personal share in the achievement. The pride is manifested in many ways and the world watches international conferences and gatherings in Delhi which meet and disperse in a manner which astonish other nations. Nehru's great joy and privilege is to build national and international bridges that lead to peace and prosperity. No wonder, then, the world applauds him as one who has shown humanity the path of "Brotherhood".

Women's Page

(Continued from page 49)

Indian-made sari, her beautiful wheaten-coloured complexion unspoilt with the ravages of powder or rouge, her dark eyes made darker and larger with the use of kohl, her broad forehead adorned with the beautiful caste-mark and her jet black hair coiled on the nape of her neck—she is indeed an embodiment of all that is graceful, chaste and womanly.

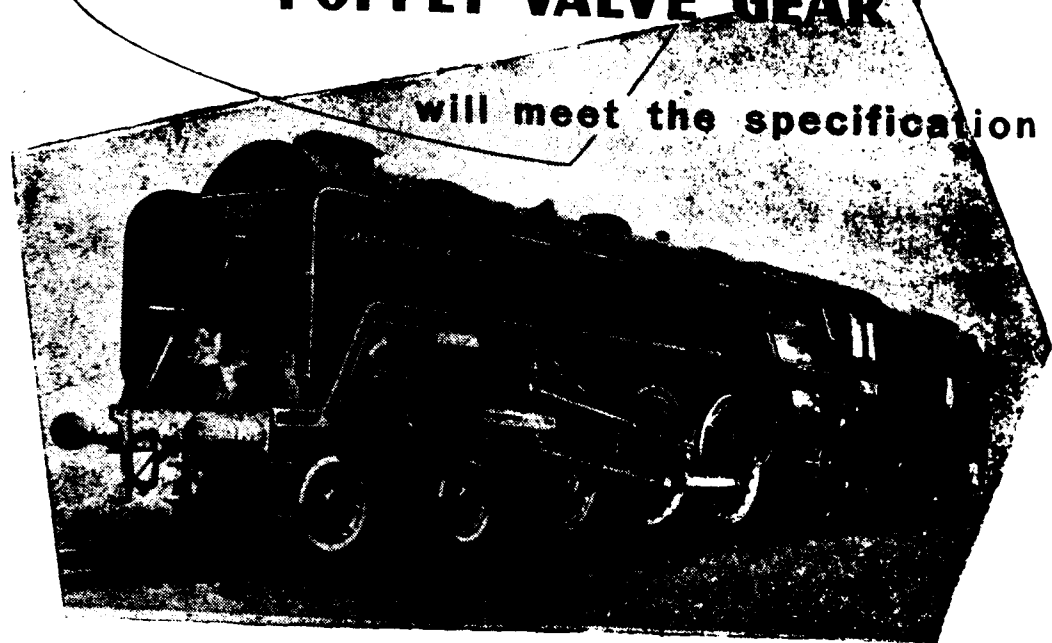
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SOME FACTS AND FIGURES
1956-57

Published by the Central Railway

The booklet under review contains some concrete information of general interest showing the progress of the Central Railway in the first year of the Second Plan, and a birds-eye view of the Central Railway's broad frame of the Second Plan.

Although the achievements of the first Five-Year Plan have been significant in the various spheres of the National economy, they are to be regarded as no more than a beginning. An efficient transport and communications system is vital to the success of a Plan of economic development which lays stress on rapid industrialisation. Nationalised transport has to be economically more effective and efficient because an uneconomic operation is ultimately a national loss, irrespective of how it is met. This loss is more serious than the loss of an individual or the loss borne by groups of people as in joint stock companies. Any loss in the present context that may be caused to public adds to forces holding up our progress. In the case of a nationalised undertaking, we have to apply a much higher standard of vigilance and strive our best to live up to that standard. So, it is an imperative need that the

progress of the nationalised undertakings should be carefully watched with facts and figures, as contained in this booklet under review, from time to time.

The Central Railway, the Pioneer Line of the East, which throws its lines from the great terminal of Bombay into the Central, Northern, North-Eastern and Southern regions of India through the States of Bombay, Madhya Pradesh, Uttar Pradesh, Andhra and Mysore, has a total length of 5,296 miles, of which 876 miles consist of double and quadruple lines. It provides a vital link for the transportation of passengers and goods from the North to the South and from the East to the West. In terms of statistics, the Central Railway Broad Gauge accounts for almost a quarter of the passenger miles and freight ton miles carried on the Broad Gauge system of the Indian Railways.

It is stated in the booklet, the year ending March 31, 1957, has been an outstanding one in the field of goods transport over the Central Railway, for it was in this year that the bottleneck in rail transport which developed in 1940-41 may be said to have truly been broken.

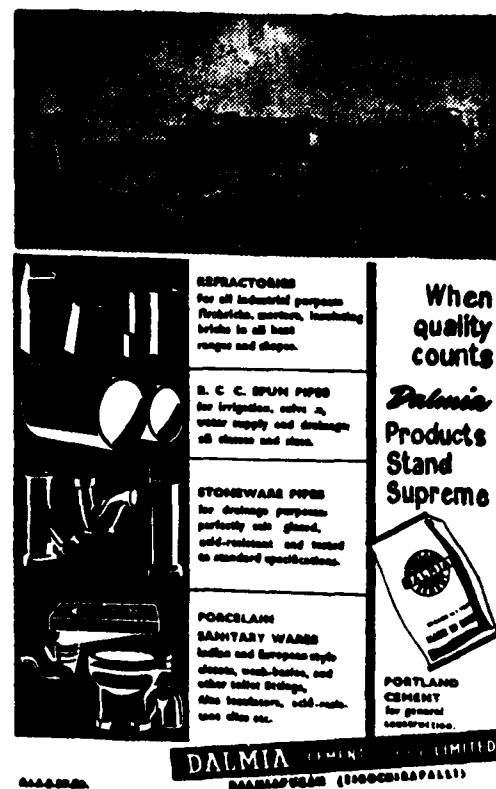
In the second Five-Year Plan, a sum of Rs. 124.914 crores is proposed to be spent by the Central Railway, excluding the cost of rolling-stock.

The total commitment of the Railway during the first two years, namely 1956-57 and 1957-58 years of the Second Plan period is of the order of Rs. 55 crores which includes the carry-over from the first Five-Year Plan. The capital at charge of the Central Railway stood at Rs. 199.66 crores on 31st March 1957, an increase of Rs. 16.56 crores over the previous year. The total gross earnings for the year ending 31st March 1957 have risen to the record level of Rs. 68.78 crores against Rs. 63.45 crores in the previous financial year. Increases have been recorded in goods, passenger and other coaching and miscellaneous earnings which stand respectively at Rs. 41.1 crores, Rs. 20.36 crores and Rs. 7.32 crores. The total working expenses, including the appropriation to depreciation reserve fund, were Rs. 48.91 crores. In the final analysis the net revenues have gained, standing at Rs. 19.87 crores against Rs. 17.93 crores in the previous year.

From the booklet it is seen that the Central Railway has ended the first year of the Second Plan with an excellent record of achievements. New records have been set up in operational efficiency. The managerial organisation has been revised so that the administrative machinery will be able to take care of the development and expansion programmes of the Central Railway under the Second Plan.

The booklet with the help of several charts tables and graphs effectively conveys to the reader the Central Railway's record of achievements in the year 1956-57 in relation to financial results, passenger and goods traffic,

efficiency and punctuality, important works, etc. The charts that have been introduced in the stream of narration enable the reader to grasp the position at a glance. It is indeed a fine and impressive effort. There is no doubt, with the progressive adoption, in the coming years of refinement in several directions, the efficiency of Central Railway will increase further.



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S. R. NEWS

INDEPENDENCE DAY CELEBRATIONS

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achievements made by our country since the attainment of Independence under the leadership of our beloved Prime Minister. He said that further development and progress depended on the successful implementation of the Second Five-Year Plan in which the Railways have a special responsibility. Posing the question how we Railwaymen could contribute to the success of the Plan, he stated our contribution would be in the diligent discharge of our duties whether big or small, each in his own way, so that the Railways can move the traffic without any hold-up anywhere. With the singing of "Janaganamana" by school children, the morning programme concluded.

Actors in the Telugu One Act play,
"Venkanna Kapuram"



The 10th Anniversary of Indian Independence was celebrated with great enthusiasm by the members of the Railway Institute, Guntakal. The function commenced with "Vande Matharam" sung by Indian Railway School girls and unfurling of the National Flag at 8.30 A.M. by Sri V. P. Ribeiro, Divisional Superintendent, Guntakal.

Sri V. P. Ribeiro, in his speech, traced briefly the history of the Indian Independence Movement and paid his homage to the main architects of our freedom. In this connection, he referred to the services and sacrifices rendered by Mahatma Gandhi, Sardar Patel, our President and Prime Minister. He briefly touched on the

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Actors of "Veera Pandiya Kattabomman"

The function in the evening commenced with the distribution of prizes by Smt. V. P. Ribeiro, to the winners and runners-up in athletic events conducted earlier for staff, officers and ladies. Later, the "Kalasamithi" of the Railway institute staged two one act plays in Telugu and Kanarese - "Venkanna Kapuram" and "Aliya Devaru" respectively.

With a vote of thanks proposed by Sri J. Chandriah, Hony. Secretary, the function came to a close.

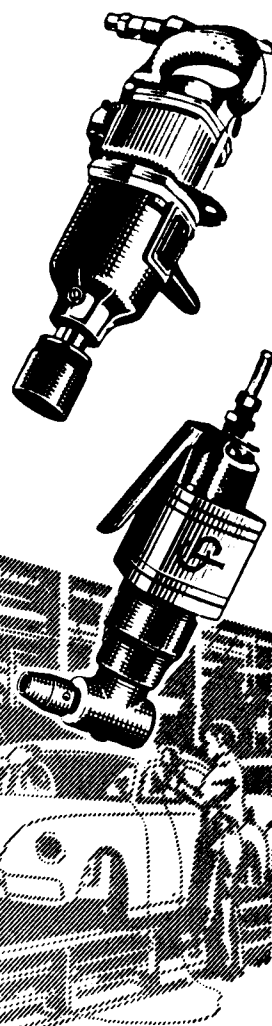
On 16th August 1957, the "Kalasamithi" staged "Veera Pandiya Kattabomman" in Tamil, a fitting drama to commemorate the Centenary Year of Indian War of Independence.

Artistes of the Kannada Play "Aliya Devaru"



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September 1957

S. R. NEWS

63

INAUGURATION OF PASTIME PARADISE

The Fine Arts Section of the Pastime Paradise, a new association sponsored mostly by the employees of the Southern Railway, was declared open by Sri M. Bhaktavatsalam, Minister for Home Affairs, at an inauguration ceremony held at Hotel Dasaprakash, on July 15, 1957. After the singing of prayer song by Sri Palghat Subramania Iyer, Sri T. S. Parthasarathy, Deputy Chief Operating Superintendent of the Southern Railway and President of the new association, explained in his welcome speech that the Association had been formed by the staff of the Southern Railway and a few others to foster among themselves an interest in Fine Arts such as music, dancing and the drama. He said that there were thousands of Railway and Government employees working in Madras and if they only joined such associations, not one but many institutions can be run successfully for encouraging Fine Arts.

There was a large and distinguished gathering which included many prominent musicians of the city and others.

Sri Bhaktavatsalam congratulated the organisers for forming such an association and said that workers in every branch of activity required such institutions to relax themselves after a hard day's work and to develop their knowledge of fine arts such as music. He wished the institution all success and hoped that more Railway and Government employees would join it as members to enable the organizers to arrange for performances of high quality.



Sri T. S. Parthasarathy delivering the welcome speech



Sri M. Bhaktavatsalam addressing the gathering

A section of the gathering



Sri P. M. Natarajan, Senior Officer (General), Southern Railway and one of the Vice-Presidents of the Association, proposed a vote of thanks. After the inauguration, there was a music concert by Sri Madurai Mani Iyer, accompanied by Sri Lalgudi Jayaraman on the Violin, Sri Palani Subramania Pillai on the Mridangam and Sri Alangudi Ramachandran on the Ghatam.

The second performance of the Pastime Paradise was a music concert by Srimathi M. L. Vasanthakumari and party held at Gokhale Hall on 16th August 1957. There was a large gathering of members of the Pastime Paradise and their families.

CORRECTION

Sri T. N. Srinivasan who wrote the article on Sholingur in our August issue (pages 23 to 30) writes:

"Dear Sir,

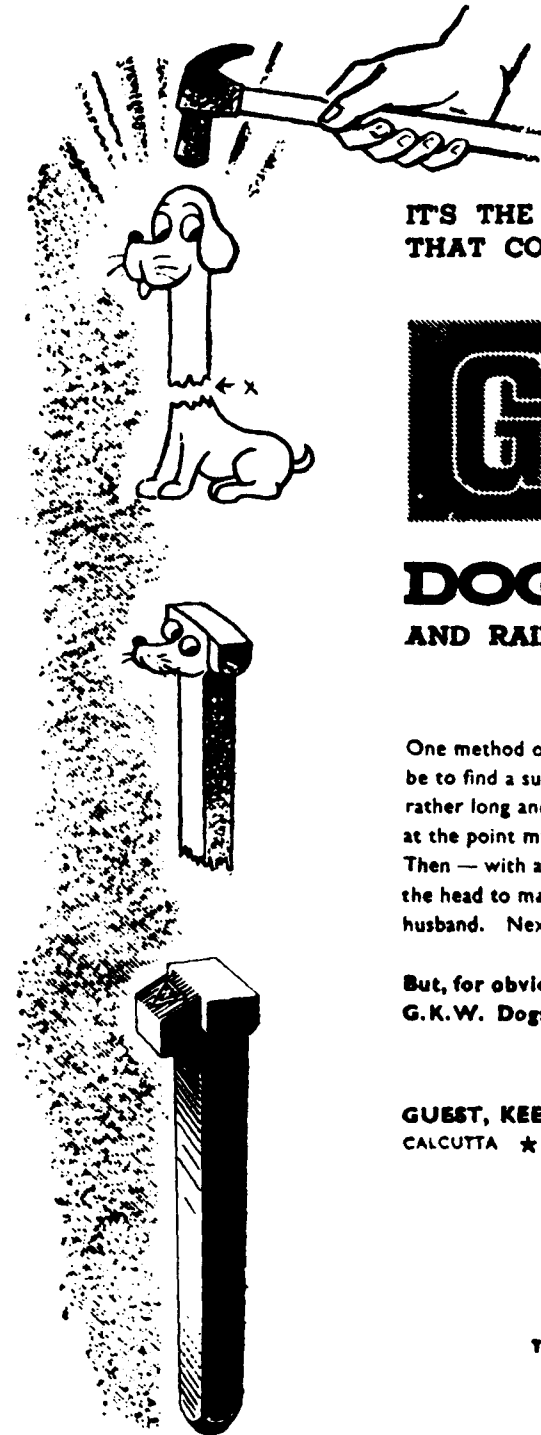
In my article on Sholingur a small error has crept in on pp. 29 and 30. The name of the devotee who had vision of the Garudaseva of Sri Varadaraja of Kanchi is not Sri Thozhappachar as stated but Sri Doddaiyachariar, a contemporary of Sri Vedantha Desika. Otherwise the legendary narration is alright and readers of your valuable journal are requested to forbear this miscreation."

ANDHRA KALA MANDALI—MADRAS



Under the auspices of the Andhra Kala Mandali (New General Offices, Park Town), a Children's Treat for the children of the members was got up in the New General Offices on 11-8-57. Dr. V. T. Naidu, Chief Medical Officer, presided on the occasion.

Photos above show: (left) Sri T. S. Parthasarathy, Dy. COPS (Coaching), addressing the gathering, Sri V. T. Naidu is seated on his right; and (right) Sri T. S. Parthasarathy distributing the prizes.



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DOGSPIKES

AND RAILWAY TRACK FITTINGS

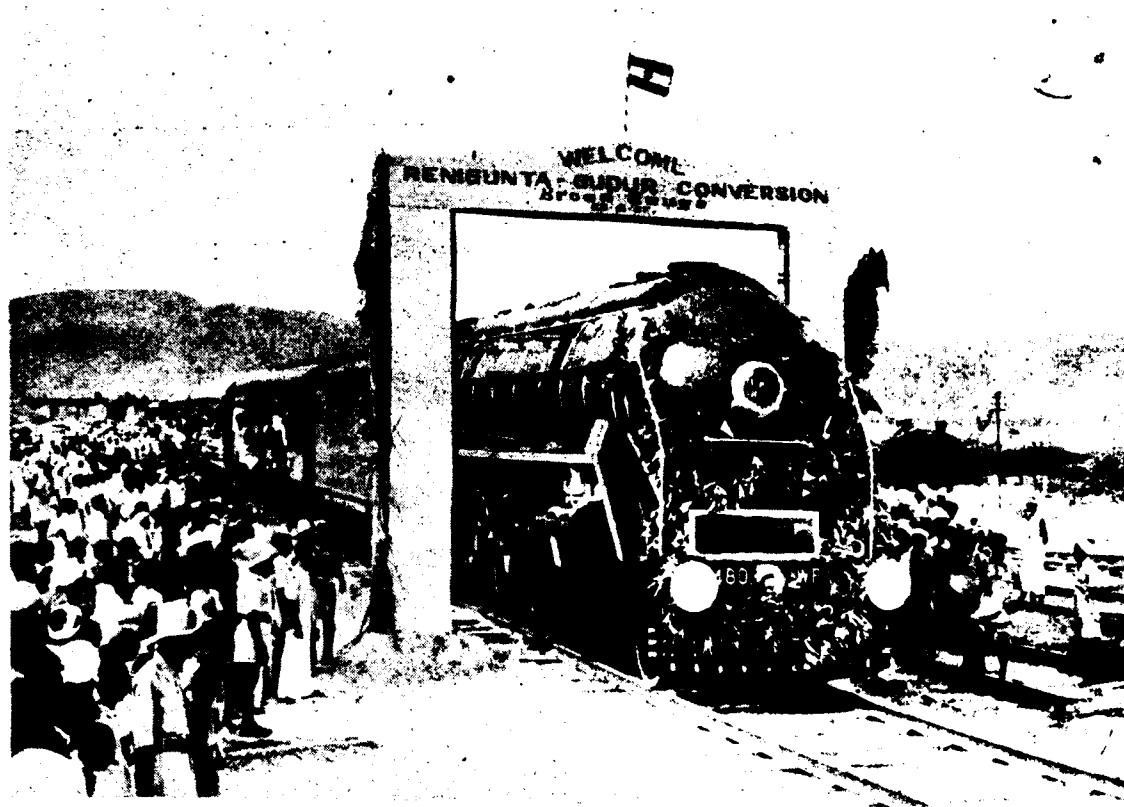
One method of making a Dogspike would be to find a suitable dog, preferably one with a rather long and slender neck. Sever the head at the point marked X and scrap the body. Then — with a fairly hefty hammer — hit him over the head to make him look like a henpecked husband. Next, trim his face and whiskers...

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A view of the gathering



*Sri T. A. Joseph addressing the gathering ; Sri B. K.
Kuppuswamy, Engineer-in-Chief, is seated on his left*



*Sri D. R. Kohli, Chief Engineer and
Sri T. A. Joseph seated on the dias*



REGIONAL FOOTBALL TOURNAMENT—1957-58 (MYSORE REGION)

The Southern Railway Athletic Association, Mysore Region, conducted the Regional Football Tournament from 12th to 18th July 1957, at Sri Jayachamarajendra Football Stadium, Mysore. Nine Institutes of the ex-Mysore Region participated in the Tournament, and Finals was played on the 18th July 1957 between the Railway Sports Club, Hubli and the Southern Railway Institute, Bangalore.

Sri P. T. Padmanabhan, Chairman, S.R.A.A., Mysore Region and D.S. Mysore, presided on the Finals day and distributed the Rolling Trophy to the Southern Railway Institute,

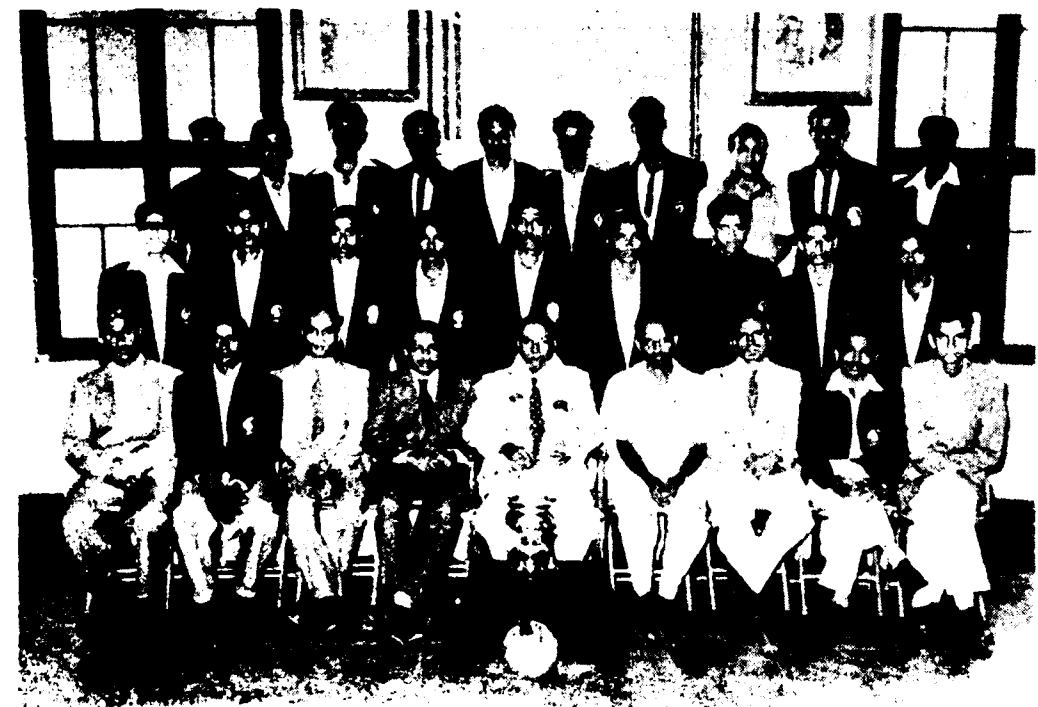
Bangalore, Winners of the Tournament. Individual Trophies were also distributed to both the Winners and Runners-up.

Sri M. M. Nathaniel, Honv. Secretary, S.R.A.A. and DPO/MYS, proposed a vote of thanks.

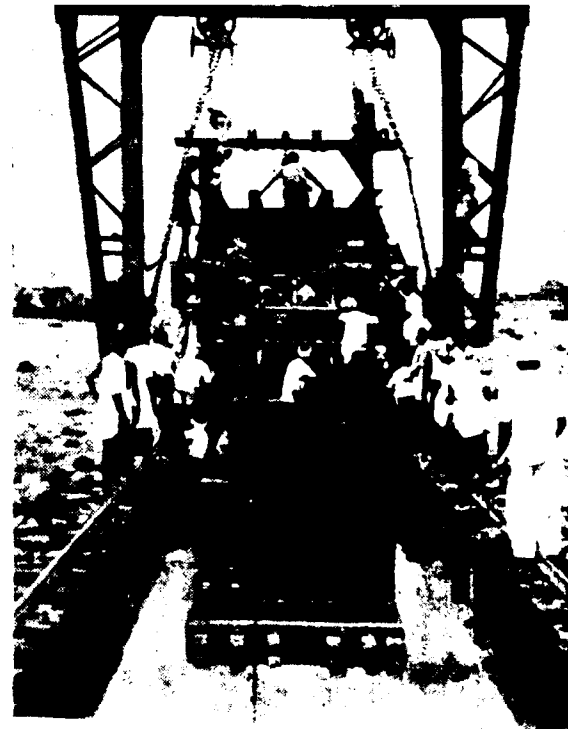
Earlier, Sri M. C. Madappa, Member, S.R.A.A. Regional Committee and APO/MYS, introduced the players of both the Teams to the Chairman.

Railway employees and Soccer fans of Mysore witnessed the matches in large numbers on all the days.

The players with the chairman SRAA, Mysore Region (DS/Mysore) and office-bearers



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A scene on the section during conversion

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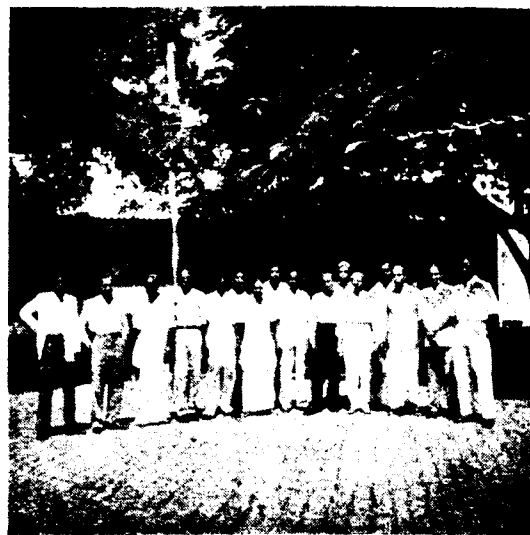
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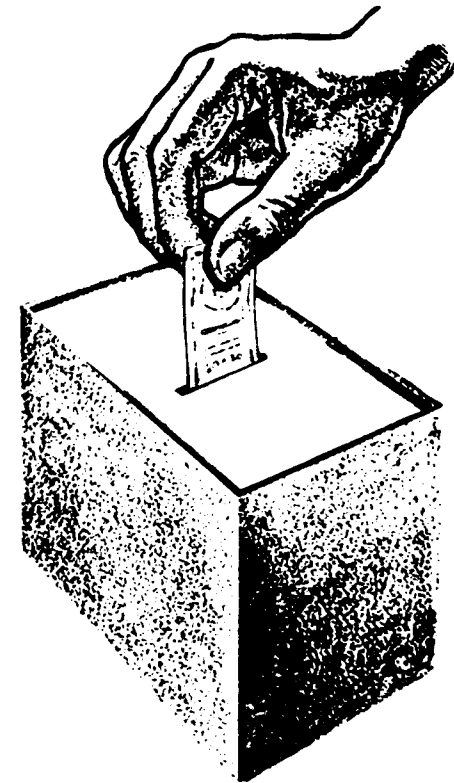
Railway officials and refinery employees photographed on the occasion of the filling of the first tank wagons at the terminal of the new Caltex Oil Refinery which went into full production in July 1957



The Station Committee at Salt Cotaurs held its Second Annual Conference on 3rd August



Sri T. D. Vasudevan, Enquiry-cum-Reservation Clerk, Southern Railway, Mount Road Booking Office, who grappled with a pick-pocket at Madras Central on 21-7-57, was responsible for his arrest by the Police



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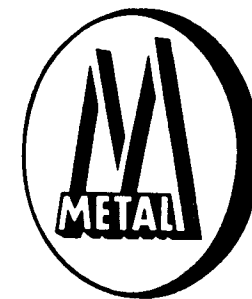
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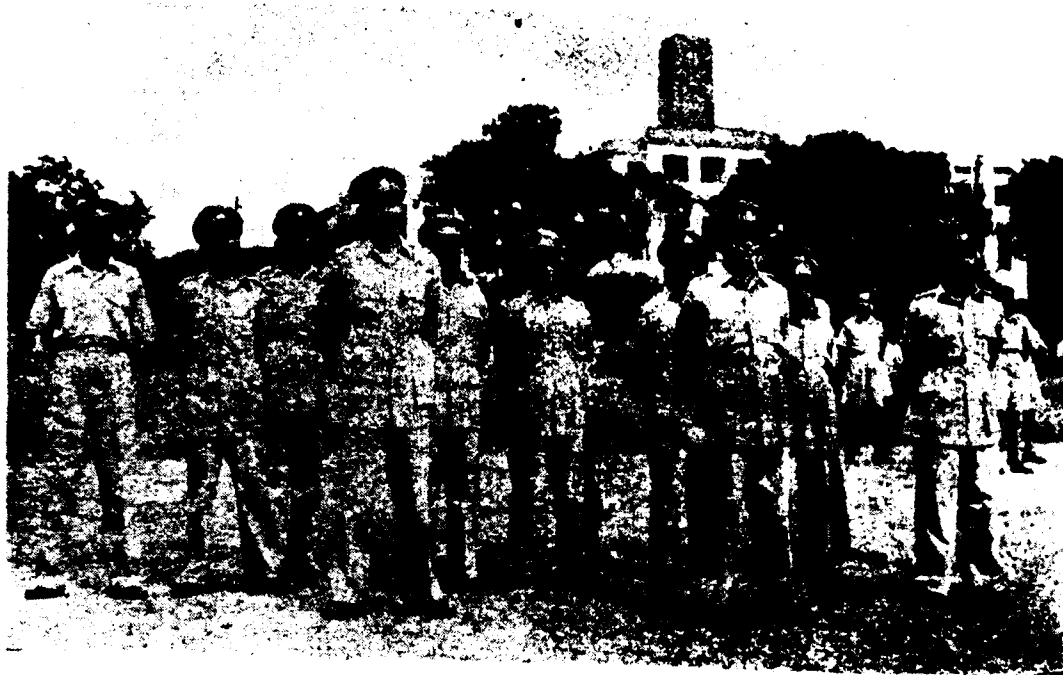


For details please write to:

**THE MEEHANITE METAL DIVISION OF
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ST. JOHN'S AMBULANCE BRIGADE No. XX SOUTHERN RLY. DISTRICT INDEPENDENCE DAY CELEBRATIONS

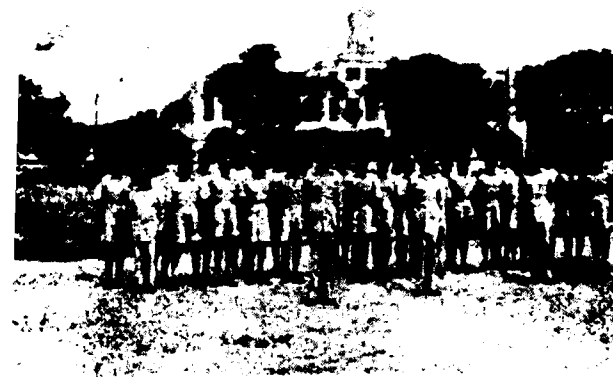


Officers of the St. John's Ambulance Brigade No. XX Southern Rly. District

It was with the aim of providing relief during times of Accidents, Fairs and Festivals through a band of workers, well disciplined and trained in First Aid that a District of St. John Ambulance Brigade was organised on the Southern Railway through the ceaseless and untiring efforts of Dr. V. T. Naidu, Chief Medical Officer. The Madras Corps of the Southern Railway District No. XX celebrated the Independence Day at 8-30 hours in the Southern Rly. Hospital Grounds, Perambur. The Perambur, Royapuram and Madras Divisions, commanded by Sri C. Masilamani, Corps Officer and APO/RPM, participated in the parade. In the unavoidable absence of Dr. V. T. Naidu, the District Surgeon, S.J.A.B.

and our Chief Medical Officer, Sri A. K. Rao, Corps Superintendent and Dist. Controller of Stores, Perambur, conducted the Inspection. The Inspecting Officer was received and conducted to the saluting base by Corps Surgeon, Dr. Govindarajulu. The National Flag was then hoisted. After inspection of the three divisions, the Corps Superintendent took the salute at the march past.

In his address to the members after the march past, Sri A. K. Rao explained the importance of Independence Day Celebrations and the necessity for the Brigade personnel to be precise in their movement and sure of their knowledge in First Aid. He traced the



Members of the Madras Ambulance Division



Members of the Rayapuram Ambulance Division

growth of the Organisation on the Railways and said, though much was still to be done, a good beginning had been made. He complimented the men

on their fine turnout and good performance.

The function came to a close with the singing of the National Anthem.

Members of the Perambur Ambulance Division



Invitees for the function



(Photos : N. M. Hussain)

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The Northern Railway is issuing at a concessional fare of
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from station masters on this Railway. In addition, if any
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cial Superintendent (Rates) of this Railway, they will be examined and
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Requests for special pilgrim or excursion trains on the broad
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be permissible :—

- (i) Kitchen arrangement— One bogie vehicle will be
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- (ii) One conductor and four cooks/servants will be
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- (iii) For tours exceeding 1,500 miles and over, a con-
cessional 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

SOUTHERN RAILWAY

Tender Notice (No. 9)

- (i) Execution of works, supply of materials and labour in Zones 'J' and 'M' on Guntakal Division.
- (ii) Collection and Training out of ballast in Zones P, Q, V, W, X and Z on Guntakal Division.

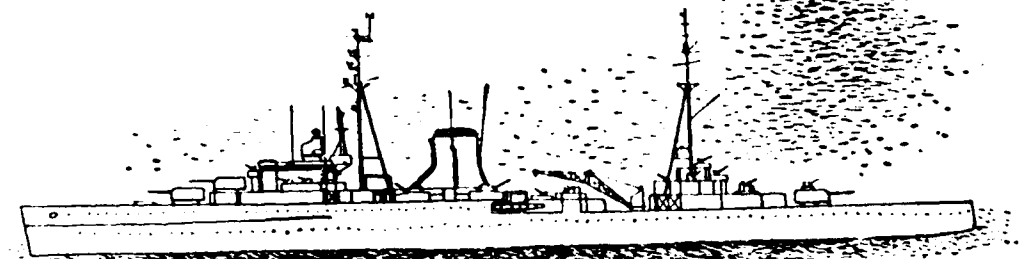
Tenders in the prescribed forms, separately for items (i) and (ii) above, will be received by the Divisional Superintendent (Works), Guntakal, upto 12-00 hours on 27-9-1957 and opened in his Office at 15-00 hours on 28-9-1957.

Tender forms (not transferable) can be obtained from the Divisional Superintendent (Works), Guntakal, on production of a receipt for Rs. 5 each (not refundable) paid to the Divisional Pay Master, Guntakal or to any Station Master on this Railway.

Last date for issue of Tender Forms is 15-00 hours on 25-9-1957 and for paying the Earnest Money of Rs. 1,000 for each tender, to the Divisional Pay Master, Guntakal, is 12-00 hours on 24-9-1957.

Further particulars can be had from the Divisional Superintendent (Works), Guntakal.

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