

THE RAILWAY ACCOUNTANT

(with the I. C. F. Supplement)

A Monthly Journal devoted to
Railway Accounts, Audit & Finance

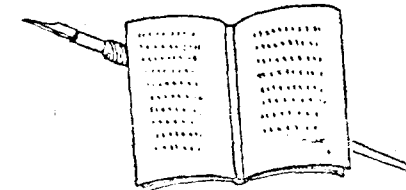
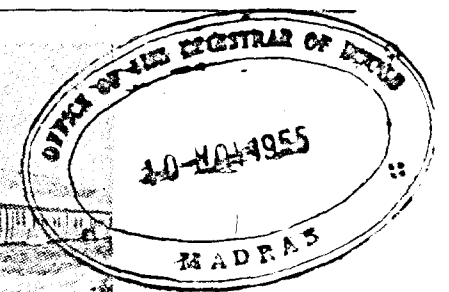
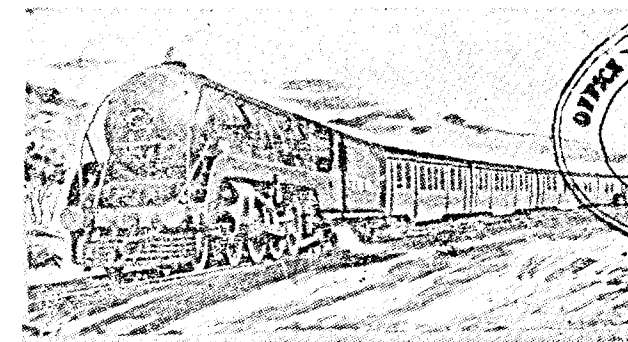
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EDITORIAL NOTICE

Contributions are invited to this Journal on matters pertaining to Accountancy, more particularly of Railways. Every such contribution must be signed as a guarantee of good faith, even if not intended for publication.

Manuscripts and photographs, if any, sent therewith, if not accepted for publication, will be returned only if the sender so desires and encloses the usual stamped and self-addressed envelope.

All contributions should be addressed to the undersigned so as to reach him not later than the 28th of a month for inclusion in the next month's Journal, which is published on the 15th of every month.

The Managing Editor does not hold himself responsible for the accuracy of the news supplied by correspondents or for opinions expressed by Contributors.

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All communications, contributions, subscriptions, advertisements etc., should be addressed to

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Central Railway Newsletter—September 1955	Indian Railway Gazette—October 1955
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Chartered Accountant—September 1955	Railway Herald—W. E. 3-10-1955
Southrailnews—September & October 1955	Monthly Railway Statistics —(Rly. Board)
	Educational Review—September 1955

App. III Exam. 1954. Answers for the papers on Books & Budget & General Expenditure are expected to be out by 25th October 1955.



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Control of Expenditure Against Allotment

The Public Accounts Committee, on an examination of the Appropriation Accounts of Posts and Telegraphs Department, have recently expressed themselves strongly against the incurrence of expenditure in excess of or in the absence of allotment. The expressions used by them apply equally to the Railways.

The Public Accounts Committee want the Government to impress upon the Executives the necessity of keeping expenditure within the budget provision made in that behalf and obtaining funds whenever required, in time, in the Constitutional manner to avoid excesses, as these are unauthorised. The Committee have pointed out that the incurring of expenditure without a grant to cover it is a grave irregularity which derogates from the efficiency of Parliamentary control over expenditure. Energetic action is required to be taken to impress upon all the Officers concerned the need for closer estimating. The practice of executing works without funds is most unsatisfactory, the Committee stated, as it whittles away parliamentary control. It is needless to emphasise the importance of accurate initial accounts and their expeditious compilation for proper exercises of budgetary control by the spending Departments.

In regard to the Railways, the Public Accounts Committee have recommended that the excesses over voted grants and charged appropriation should be regularised by Parliament in the manner prescribed in Article 115 of the Constitution of India, an extract of which is given below for ready reference.

"115 (1) The President shall—

(a) if the amount authorised by any law made in accordance with the provisions of Article 114 to be expended for a particular service for the current financial year is found to be insufficient for the purposes of that year or when a need has arisen during the current financial year for supplementary or additional expenditure upon some new service not contemplated in the annual financial statement for that year, or

(b) if any money has been spent on any service during a financial year in excess of the amount granted for that service and for that year,

cause to be laid before both the Houses of Parliament another statement showing the estimated amount of that expenditure or cause to be presented to the House of the People a demand for such excess, as the case may be.

(2) The provision of Articles 112, 113 and 114 shall have effect in relation to any such statement and expenditure or demand and also to any law to be made authorising the appropriation of moneys out of the Consolidated Fund of India to meet such expenditure or the grant in respect of such demand as they have effect in relation to the annual financial statement and the expenditure mentioned therein or to a demand for a grant and the law to be made for the authorisation of appropriation of moneys out of the Consolidated Fund of India to meet such expenditure or grant."

The desirability of introducing the cost accounting system is emphasised. No method of checking up of employees or of preventing waste in materials whether intentional or accidental can be carried out without an effective cost system providing for the comparison between the limits fixed in respect of labour and materials for each item of work with the actual performance. While the details of any cost accounting system may vary according to local requirements, the essential feature should be the estimating, in advance, of the time that should be spent and the materials that should be used, and a systematic comparison of the results of actual performance with such estimates.

STORES PROCEDURE ON RAILWAYS

A tribute to the Railway Stores accounting system has been paid by the Public Accounts Committee when they desired the Posts and Telegraphs Department to examine the desirability of adopting the stores system existing on the Railways with suitable modifications to suit their set-up.

CONTRACTS

Another recommendation of the Public Accounts Committee is that, while entering into contracts with any Company, in future, instead of giving any concession through letters, the Government should invariably make specific provision in this behalf either in the agreement itself or execute a supplemental agreement, if need be. It may be pointed out here that even in the general contract form it has been provided, as a result of a particular case that occurred some years ago, that no variation of the contract either verbal or otherwise shall be valid unless and until it is recorded in the original contract itself under the attestation of the parties concerned or through a supplemental agreement.

EX-POST FACTO SANCTIONS

An important question of principle was considered by the Public Accounts Committee pursuant to Para 18 of the Audit Report (Railways) 1954. The question of proper action to be taken when expenditure had been incurred without the sanction of the competent authority and ex-post-facto sanction thereof was refused by the Ministry of Finance was gone into by the Committee. The subject was subsequently discussed by the Comptroller and Audit-General with the Finance Secretary and the Financial Commissioner for Railways. The Committee have been assured that the matter is engaging the attention of Government and that in the case of the Ministries where the accounts functions have been separated from audit and arrangements exist for prior scrutiny of expenditure in accounts, such a situation viz., failure to obtain financial concurrence for the expenditure before it is incurred, would not arise, as the Accounts Officers have been definitely directed not to make any payment unless there is proper sanction.

So far as the Railways are concerned, even after the formation of the Finance Branch on Railways, in several cases, prior Finance concurrence is not being obtained. This may perhaps be due to the fact that the Executives have not yet been properly instructed in regard to the now well-recognised principle that all cases of fresh expenditure should be subjected to Finance scrutiny. While for practical needs some limits may be fixed for permitting the Executive to accord sanctions without Finance concurrence in cases of insubstantial magnitude, it should be clearly emphasised that prior Finance concurrence should be obtained by Executive Officers in all cases before the administrative sanction is accorded or expenditure incurred. For this purpose, it may be a good arrangement to accredit a Finance representative to each of the Executive Offices at different levels, so that the proposals may not be delayed. Whatever clarification is required by Finance may be obtained by discussions across the table with the Executive Officials concerned.

As has been pointed out on a previous occasion, the Executive have somehow taken a dislike to approach the Finance for prior concurrence and oftentimes do not take them into confidence. If for once the Executive realise that the Finance are there to help them by sound advice and protect them from possible trouble later on, they will also realise that to take an apathetic or even a defiant attitude is definitely wrong. After all, efficient administration is their common goal and every one has to play the part allotted to him well and truly.

On the way to self-sufficiency in Railway Equipment.

The 2nd October 1955 is an epoch making day for the Railways since on that day, which synchronises with the birthday of Mahatma Gandhi, the Father of the Indian Nation, Prime Minister Nehru launched the first all-steel Railway Coach assembled in the Integral Coach Factory, Perambur, by pressing an electrically devised button. Mr. Nehru emphasised the need for manufacturing machinery in India itself and said "there can be no real industrialisation in this country until the machine itself is made here and we cease to be dependent on other countries for setting up our factories. It is not with a feeling of isolation that I talk about depending and relying upon ourselves, but because no nation can ultimately progress until it has that solid foundation in the modern world. We cannot keep pace with the modern world unless we adopt the latest technique, whether it is for the big factory or for the small or village industry. We cannot keep pace with the modern world unless we utilise the sources of power that are available to the modern world. Today, we are in the threshold of the Atomic Age. What does that mean? Numerous new sources of power are placed at the disposal of man. Whether he uses it for good or for evil, it is for the future to say. But the power is there. You cannot ignore it. If you ignore it, others do not ignore but utilise it to advantage. At the same time everything ultimately has to be judged in terms of human welfare, in terms of millions of our countrymen and not of a few".

In this connection, we are glad to state that a supplement has been appended to this issue, furnishing some details of the coming into being of this factory, and various aspects connected with the construction and working of this giant factory. We hope that the readers will derive some useful knowledge therefrom.

Accountancy in India

Code of Rules for Practitioners

The Finance Minister, Mr. C. D. Deshmukh, while addressing the annual meeting of the Council of the Institute of Chartered Accountants of India on 16th September suggested that the Institute of Chartered Accountants in India should draw up a standard code of accounting rules generally acceptable to the best elements of the profession.

Such a code, if evolved, would go far to improve the quality and standard of company audit in the country.

Mr. Deshmukh said that the progress made by the Institute was "substantial" but much remained to be done. New horizons had opened up for the Accountancy profession by the increased participation of the State in economic affairs and the increased interest which the State was taking in the affairs of the private sector. Opportunities lay ahead of the members of the profession and demands on their services were likely to be increasingly made by the Central and State Governments, the Finance Minister said.

He suggested that the Institute should have a duly constituted committee or panel to give "authoritative views" at

short notice to Government on administrative problems involving accountancy principles or policies.

Mr. Deshmukh asked the Institute to give its urgent consideration to the question of research in Accountancy matters.

Mr. N. R. Mody, President of the Institute said that there should be scope for the employment of the members of the Institute in Government service, either in the nationalised corporations or those which were directly State-owned.

The Institute was very sensitive to the preservation of the highest standards of ethics and morality amongst its members, he said.

Mr. C. S. Sastri (Madras) and Mr. M. S. P. Chopra (New Delhi) were elected President and Vice-President respectively of the Council of the Institute.

Office-bearers to the Executive Committee, Examination Committee and Disciplinary Committee were also elected.

The President and the Vice-President will be ex-officio members of the above three Standing Committees.

Purchase of Stores

New Policy being Evolved to give a Fillip to Indigenous Products

A new stores purchase policy is being evolved by the Government of India with the double purpose of facilitating the development of manufacture in the country of stores at present imported and also to avoid delay in obtaining stores, wastage and loss.

The special purchase procedure will permit generally a price preference upto 15 percent for indigenous products over

imported stores. A higher price preference up to 25 per cent or even more may also be allowed in special cases.

These steps have been taken in pursuance of the recommendations of the Stores Purchase Committee. Fifty-seven recommendations have been accepted in principle for implementation. The other recommendations are under consideration.

Direct purchase will be permitted to indenting departments upto a certain limit or in emergencies. During the construction period, industrial and river valley projects may make direct purchases subject to certain conditions; for other major projects direct purchases may be authorised in suitable cases. Indents would now be classified under five categories and the indenting departments have been asked to reduce the number of special indents, *i.e.*, *ad hoc*, urgent, operational. The purchase procedure is being so devised as to meet such requirements with minimum delay.

Purchase of stores by negotiations will now be undertaken only in exceptional cases. Negotiations after opening of tenders will be discouraged.

A number of steps are being taken to have a common list of registered suppliers for all Government purchasing authorities making substantial purchases, for

registration of supplies and for quick inspection of stores. Greater facilities will be afforded for registration of cottage and small-scale industries. The Government "stores purchase rules" are being brought up-to-date and comprehensive manuals for 'purchase', 'inspection' and 'disposals' codifying all orders and instructions are being prepared.

Steps are also being taken to strengthen the central purchasing organisation by filling up a substantial number of posts by suitable officers from indenting departments and other services including the engineering services of the Central and State Governments. Ordinarily, not more than two purchasing officers will deal with a purchase case, with a view to reducing procedural delays. Arrangements are also being made to accelerate the pace of disposal to avoid deterioration of surplus stores and relieve congestion in covered accommodation for housing fresh arrivals.

Tasks Facing Railways during Second Plan Period

The Railway Minister, Sri Lal Bahadur Shastri, inaugurating the fourth meeting of the National Railway Users' Consultative Council in New Delhi on the 24th Sept. '55, declared: "The vastly increased traffic which will result from the all-round increase in production envisaged under the second Plan makes large-scale expansion of the Railways inevitable."

The Minister added: "The main problem before us is that of the funds required, but the availability of steel is in no way less important for the Railways. The question of technical personnel is equally important and the Railway Board have already started taking steps in this direction."

The Minister referred to steps being taken to ease overcrowding on passenger trains, and to the action taken on the recommendations made by the Railway Corruption Enquiry Committee. He announced that, besides many other steps, an important step which was proposed to be taken was the setting up in the Railway Board

of a central organisation to handle cases of corruption.

The text of the Minister's speech is as under:

Compared to the period from January to August last year, there has been in the corresponding period this year an increase of loadings to the extent of 7.3 per cent on broad gauge and 9.5 per cent on meter gauge. This increase, I must say, has come about as a result of several steps taken by the Railways during recent months.

But even this increase is not adequate in relation to the increased traffic of goods. There has been in the recent months a very marked rise in outstanding registrations both on the broad and metre gauge. This phenomenon of an increase in outstanding registrations,

despite higher loadings during what is normally our slack season, is a happy pointer to the improving economy of the country. At the same time, to railwaymen it constitutes a very definite challenge, emphasising the need to take more energetic steps in the future, so that the Railways can keep pace with the larger demands for transport which must arise from an expanding economy.

LIQUIDATING ARREARS

The problem of liquidation of these arrears of demands has been receiving our constant attention. Analysis shows that bulk of these arrears are for distinctions in the south reached *via* Bezwada, Raichur and Ghorpuri and some for the Saurashtra area. The movement of goods for North Bihar, West Bengal and Assam had somewhat eased but the breaches occasioned by the last floods caused a set-back. The position, however, is expected to be rectified within a fortnight or so.

You may be aware that as an immediate step, the Railway Board has launched upon an extensive drive to step up the capacity for movement from November 1, 1955, varying from 10 to 20 per cent on the different Railways. Reports received indicate that the development works in connection with this scheme are proceeding fairly satisfactorily. It will surely to some extent ease the present situation.

Any suggestions which you may like to make on this subject will, I may assure you, receive our most careful consideration.

CO-ORDINATION WITH ROADS AND SHIPPING

There will have to be better co-ordination between the railways and other means of transport and we are already giving careful thought to this subject, both in the Transport and the Railway Ministries. The road transport situation

is being carefully studied and an amended Motor Vehicles Bill is ready for introduction in Parliament.

Similarly, a Rail Sea co-ordination Committee has been appointed. An all-round plan for this kind of co-ordination and co-operation has, therefore, had to be devised to deal with our fast-growing traffic.

AVOIDING LONG LEADS

There is another important aspect of this problem which will have to be attended to. I refer to the need for minimising unnecessary utilisation of wagons and locos on perhaps avoidably long leads. I have had some talks with some of my colleagues in the Government and they are gladly prepared to assist us in the matter. The State Governments will also have to give thought to this problem and I propose to write to them as soon as we are able to indicate some definite lines on which the traffic could thus be rationalised.

Our business community also will have to appreciate the difficulties we are faced with. Even short delays are resented, but then sometimes some commodities may have to be held up for a few weeks or even a month or two in order to move other categories of goods which should get higher priority. In this matter also the other Ministries of the Government of India and the State Governments will have to advise and give a lead, and thus help the Railways in the matter of quicker transport, keeping in view the overall requirements of the country for moving different types of goods traffic.

EASING OVER-CROWDING

In regard to passenger transport also, while notable progress is being made, I am keenly alive to the fact that the railways have still much leeway to make up. As I had suggested some time back, the Railways have now completed an examination of the extent of the prevail-

ing over-crowding, sectionwise on each Railway, and have now on hand the working out of priorities for providing relief systematically, as more and more resources by way of coaches, locomotives and line capacity gradually become available.

We have introduced 59 new trains during the period April 1 to August 15, 1955 and extended the runs of 37 trains but even then it is not going to serve the purpose. With all our desire, however, to still further increase the number of passenger trains, we do not find it feasible to do so at the present moment. Certain sections on different routes have reached their saturation point. More-over, it is also not possible to cut down a goods train in order to make room for a passenger train when we are so much hard-pressed for the movement of goods traffic. The provision of additional sectional capacity will necessarily take time, and in the meantime, to ease over-crowding, the Railways have been asked to operate longer trains, on sections where this is technically feasible.

We are trying to put on the line more railcars for short distance traffic where it is heavy. Twelve metre gauge new rail cars have arrived and twelve more are expected by the end of the year. Twenty-four broad gauge rail cars are expected during 1956-57.

The experiment of running a corridor train will, it is expected, help to some extent in the lessening of crowding together by the passengers in a few coaches only, either in the front or the rear. This train is to run once a week between Delhi and Howrah and will start its first journey on October 2, 1955.

As the problem of overcrowding over the suburban sections has its special features, a committee consisting of three senior retired officers has been constituted to examine that problem and to make recommendations.

FREIGHT ENQUIRY COMMITTEE

I have already referred to the setting up of the Rail-Sea Co-ordination Committee. Another very important Committee to examine the railway freight rate structure has also been appointed. For the first time non-officials have been associated with such a committee and it has, I am glad to say, already started its work in right earnest. This committee will also go into the question of whether any change in the working of the Railway Rates Tribunal is called for. And last, but not the least, it has been asked to examine our present provision relating to the liability of the railways as carriers of goods. I am sure this will be welcomed by those concerned.

DRIVE TOWARDS SELF-SUFFICIENCY

Within the next few days, on October 2, 1955, the Integral Coach Factory is going into production, and it is to be inaugurated by the Prime Minister. The Factory will in the course of time fill a wide gap in so far as our requirement of coaches is concerned.

Our programme of self-sufficiency in the matter of rolling stock is, on the whole, proceeding very satisfactorily. I would not like to elaborate that point here and now, but I might tell the Council that our third committee, the Equipment Committee, is doing a very useful job in regard to matters pertaining to this subject. They think that the indigenous capacity both in coaches and wagons could be expanded on a big scale. Our need of wagons is most pressing and most of the over-aged wagons which are now in use have to be discarded at the earliest. Sometimes they are the cause of serious mishaps.

CENTRAL ANTI-CORRUPTION ORGANISATION

I should also refer to the report of the Railway Corruption Enquiry Committee

which has been submitted to Government recently. Copies of the report have already been supplied to you and a summary has been published in the press. We have taken immediate action on this report, and orders on a large number of recommendations which have been accepted have already been issued to the Railways, while close consideration is being given to the remaining recommendations.

Stamping out corruption is a very tough job, but I say so in all seriousness that we would be failing in our duty if we do not tackle this problem seriously and with determination. A central organisation to be set up in the Board to handle cases of corruption is one of the important steps we propose to take besides, of course, many others.

I know fully well that the Railway Administration has to play its own part, but you would have seen from the report that the Committee has laid great stress on the important role which public men, the business community and trade unions can play in eradicating corruption from the railways. You are all men of influence in your respective fields, and I have no doubt that I can count on the assistance of all of you in stimulating the necessary public co-operation.

NEW REGIONAL COMMITTEES

I would like to mention two or three other matters. Complaints have often been made about the type of books and magazines sold at the railway stalls. I have decided to set up small regional committees who will advise and guide the railways in this matter. Similarly, regional committees for supervision of food supplied either by the department or the contractors would also be formed. I shall be glad if a good number of women members are found for serving on this committee.

The question of shifting the Dhanushkodi Pier to a safer place near Rameshwaram where there would be no danger

of erosion by the sea has also been raised. This matter was actually referred some time ago to a committee of experts appointed at the instance of the Railway Board, and the committee's report is awaited.

RAILWAY FIVE-YEAR PLAN

I shall now say a few words on our first and second Five Year Plans. I feel that discussion on the first Plan would be more fruitful at our next meeting, when we will be nearer the end of the Plan period. The picture is then likely to be more complete. However, even at this stage, it is clear that we will not only be able to fully spend the sum of Rs. 400 crores allotted to the Railways under the first Plan, but that this sum is likely to be exceeded by about Rs. 18 crores.

A little more than half of the total amount or a sum of about Rs. 250 crores is expected to be spent on rolling stock, about Rs. 70 crores on line capacity works and restoration of dismantled lines, 9.2 crores on the Chittaranjan Locomotive Shops and the Perambur Coach Factory, a sum of about Rs. 60 crores on track and bridges and Rs. 30 crores on passenger amenities, staff welfare and other miscellaneous items. Fuller details of the progress of the Plan will be brought out in a pamphlet which is proposed to be issued at the end of this year.

In the second Five Year Plan, the Railways are aiming not only at continuing with the rehabilitation of their assets—mobile and fixed—but also at creation of additional line capacity etc., to carry 50 per cent more goods traffic on main routes and to cater for 30 per cent more passenger train miles than on March 31, 1956.

To carry the additional traffic—goods and passenger—as also for rehabilitation of existing stock, provision has been made for procurement of the necessary rolling stock. Expansion of existing workshops and setting up of new work-

shops has also been programmed for the maintenance of such additional rolling stock.

Line capacity on the sections concerned, which is so essential, will be increased, by doubling of certain sections, provision of additional crossing stations, additional loops at stations and lengthening of loops etc. and in some cases by conversion from metre to broad gauge.

Provision is being made for overtaking heavy arrears of track renewals and modernising signalling equipment and for providing additional accommodation and storage capacity in goods sheds.

Passenger amenities and staff welfare measures, including staff quarters, are also being provided for.

AVAILABILITY OF STEEL

New lines required in connection with development of the steel and coal and other known projects are being included.

The plan is still very tentative and is under discussion between the Railway

Administrations and the Railway Board on the one hand and under the scrutiny of the Planning Commission on the other. It is, therefore, too early to say what its final shape would be. The vastly increased traffic which will result from the all-round increase in production envisaged under the second plan makes large-scale expansion of the Railways inevitable, and I hope that when the Council meets next, we will be in a position to give you a clear picture of the Railways' second Plan.

The main problem before us is that of the funds required, but the availability of steel is in no way less important for the Railways. Then the question of technical personnel is equally important and the Railway Board have already started taking steps in that direction.

The Railways will have to march along with the others and, therefore, in spite of their difficult and onerous task that lie ahead of them, the Railwaymen will have to show by their grit and hard work that they are able to make a full success of their job.

Mechanised Goods Accounting in L. M. R.

The Mechanised Goods Traffic Accounting Scheme now being introduced by the London Midland Region of British Railways applies to the centralised goods accounting offices of the Region and is split into several stages of development with the Manchester office developing the stages and the other offices following. Manchester has developed Stage 1, which is a check that all consignment notes have been accounted for. Stage 2 is the production of accounts for traders.

To traders, the most important changes are that accounts are sent out four times per month instead of bi-monthly or monthly, and that original consignment

notes and/or other supporting documents are sent with the account, thus facilitating the checking of the railway accounts and enabling the trader to place the charges when necessary on their own invoices. Traders are requested to return the original consignment note for items disputed or queried.

ACCOUNTS OFFICE PROCEDURE

The Accounts Office receives the consignment notes, rates and extends and places them into files. Each file contains an indicator card, punched with coded information of the account class, collector's number or transfer station number, and so on. These files are duplicated so

that sorting may be carried out daily, one file being in the sorting room whilst the other is in the Hollerith room. Daily, approximately one fifth of the documents are punched and verified and passed to tabulators to produce debit lists and summary cards and the totals. The summary cards are associated with name and address cards and detail cards to produce the accounts by tabulators. These machines are arranged to check automatically the total value of each account against the totals on the daily debit list. The contents of the files are microfilmed whilst these processes are in operation.

The original consignment notes and other documents are attached to the accounts for mailing to the trader. The accounts are divided broadly into two classes, the first being traffic charged at ordinary rates and the second where a contract exists for consignments to be rated at a flat rate based on either number of packages or weight. The tabulators are fitted with counters capable of adding avoirdupois or sterling. Copies are obtained by using a double

ribbon device to obviate the need for one-time-use carbon paper.

Tabulated lists are prepared daily of outstanding amounts and at the end of the month, the outstandings are put on to loose leaf ledger outstanding cards, these being prepared from the name and address and summary cards.

If a trader's account is held at another accounting office, the cards are sorted to accounting station and outward transfer summaries are tabulated for despatch to the transfer station.

The detail cards are sorted on class-of-charge code numbers and summary cards are punched so that monthly totals of the various classes of charge can be obtained. If a trader disputes a charge, the necessary detail card or cards are selected and listed for investigation. The detail cards are then sorted to station, date and serial number order for checking against master cards to ensure all documents have been accounted for. All detail cards are filed for a year and then reused, the card having been printed for use three times.

Ry. Gazette, London.

Disposal of Outstanding Audit Objections

Audit objections of various kinds are raised through Audit Inspection Reports as well as Test Audit Notes, both being prepared in two parts, Parts I and II. Part II is disposed of by the Department concerned in consultation with the Accounts Department which should verify if the objection has been satisfactorily made. These are generally comparatively minor objections and the disposal of these is watched by Statutory Audit by calling for the files from the Accounts Office. In the case of items included in Part I (Inspection Reports and Test Audit Notes), however, a specific reply has to be furnished to the Statutory Audit by the Accounts Depart-

ment after getting the requisite particulars where necessary from the Executive. It is well known that this process of triangular correspondence takes a long time and, in many cases, it is years before the old objections are finally settled and the Inspection Reports or Test Audit Notes finally closed. The delay in the disposal of audit objections has also formed the subject of comment in the Railway Audit Report, and the Public Accounts Committee have also cast severe remarks on such delays and emphasised the necessity and importance of dealing expeditiously with objections raised by Audit. The Auditor General has gone into the question of minimising

such delays and issued instructions that, for the future, all objections should be personally discussed by the Audit Officer first with the Executive and then with the Accounts Officers concerned, and only in those cases where either action has not been taken or adequate satisfaction is not given to the point raised, should be included in the Report. As for the past cases, a wholesome procedure has been introduced on several railways, by which, tripartite meetings are held periodically, in fact at frequent intervals, at which the items of objections and the proposed replies are discussed across the table between the Executive Officer, the Accounts Officer, and the Audit Officer, a record of the minutes of discussion being made on the spot. Even in cases where the items could not be settled by discussion for any reason, for example, for want of factual particulars of a particular case, a note is recorded indicating what precisely is the action required or what particulars are exactly required and from whom. In cases where adequate action has been taken on the objections raised, the paragraphs are closed on the understanding that the case is watched through special correspondence initiated on the particular subject. For example, when the audit requires Railway Board's sanction to a particular item, and the matter has been reported to the Administration for sanction, the para in the Inspection Report

or Test Audit Note is closed, but the receipt of the Railway Board's orders is watched through correspondence and, where necessary, by entering the item in the objection book. In several cases, it has been found in experience that the items themselves have lost both their importance and value by mere passage of time while in still others, the time factor has made the objection either exhaust itself or become null and void under the circumstances obtaining at the time of discussion, several years after the Inspection Report was issued.

An intelligent review of the crux of the objection and the reply given by the Executive should, of course, be made before the discussion is undertaken. In some cases, it is possible that a final reply could be given by the Accounts Office itself without making a reference to the Executive at all.

In any case, if the tripartite discussions are to be successful, it is obviously necessary that the Executive should have the material collected and reviewed beforehand, so that all the available data would be available for a proper consideration of the objection and its reply.

It is hoped that by the special methods now employed, the number of old objections still outstanding will be considerably reduced before the end of this financial year.

(Contributed)

Note :—Major objections raised through special letters and Draft Audit Paras are not covered by this article.

Mechanisation of Ticket Issues

An examination of the possibilities of mechanical ticket printing and issue was made in February of this year in a paper given by Mr. R. J. Eaton, Assistant Superintendent, Operational Research Division, British Railways Research Department, to the Operational Research Society. This paper, with a number of charts, has now been reprinted in slightly abridged form in the June

issue of Operational Research Quarterly. Mr. Eaton points out that there are three special features which distinguish the selling of tickets from other types of retail sales. There is a sense of urgency imposed by either the passenger or the undertaking, there is a very wide variety of items for sale and there must be frequent "balances" for accounting and statistical reasons. The balances in each

shift, together with those for the day, week, and month, occupy a great deal of time, and Mr. Eaton suggests that an individual clerk's balance may occupy up to one-eighth of a man-day.

There are 5600 ticket selling points on British Railways excluding those operated by agencies, and a recent sample investigation showed that a total stock of some 527,000,000 tickets is maintained. A detailed method chart was constructed at the first stage of research and this shows that of operations necessary with the present method of ticket issue 23 are carried out in the audit office, 15 in the ticket office and three in the printing department. In few of these operations is it possible to use mechanical aids. The non-main sequential operations in the flow chart are the balances and "provings" and many audit operations are designed merely to prove that these station balances are accurate.

No two stations, are alike from the point of view of the operator, but a rough classification based on common characteristics has been found to be possible. Three "scopes" of ticket office are recognised. The first scope carries out intensive bookings of a few types of tickets to a small number of destinations; the second carries out frequent, but not intensive, bookings of many types of tickets to wide-spread destinations; and the third makes infrequent or occasional bookings of certain types of tickets. The work of any given ticket office may extend to any or all of the three scopes.

Developments have already taken place in the mechanisation of offices in the first scope. These developments were pioneered by London Transport, which introduced a machine for the rapid issue of up to 10 types of tickets of demand by the pressure of an operating button. Such tickets are printed on plain card, cut to size, dated, and delivered almost instantaneously to the

passenger by an endless belt. Research by British Railways resulted in an increase in the capacity of these machines to 25 ticket-types. On the other hand, a simplified model was produced to provide a capacity of up to six types within a standardised casework. This smaller machine is often justified economically at stations where the larger model could not be employed. Collaboration between British Railways, London Transport and the makers of the rapid printing machine has brought development to a stage which can be considered complete. Some of these machines have been installed in particular in the London, Liverpool, Glasgow and Newcastle areas.

Machines to meet the requirements of offices in the second scope have been introduced by Continental manufacturers but some are unsuited to British conditions. One machine which is suitable, stores up to 1200 printing plates within itself. Any type of ticket selected can be printed, dated, progressively numbered and ejected in less than a second. At the same time, the machine prints details of the issue on an itemised record and also adds the value of the ticket to a totaliser. The totaliser will indicate the cash total of sales made in any given period. Another facility offered by the machine is a record of issue in respect of each type of ticket available. A further type of machine is suitable for offices in the third scope. It resembles in many respects the scope 2 machine, but does not contain its own printing plates. The matrices are inserted by hand for each type of ticket. This machine can print tickets of different sizes so that both ordinary and season tickets can be dealt with.

A revised flow chart based on mechanisation reveals that the number of operations can be reduced from 52 to 27; audit office operations can be reduced from 23 to seven. The full saving in time possible is not yet known, but the "balancing" operation in a ticket office could

probably be reduced from the present 30-45 min. to some five minutes. Manual ledger calculations at the ends of weeks and months could be obviated by machine readings. The audit office would be obviated by machine readings. The audit office would be relieved of the task of controlling the ordering and supply of pre-printed tickets. Itemised returns from stations could be abolished. Some operations, such as checking that the closing numbers of tickets in one monthly return correspond with the opening numbers in the return for the following month, can be performed only by direct human agency.

A further saving in time could be achieved in the production of statistics. The printed machine record lends itself readily to the technique of punched-card analysis. A controlled test is to be undertaken to study the economies obtainable from full mechanisation.

In comparative studies already made at a station in the first scope, where in accordance with the usual practice, a number of the tickets in regular demand

had been pre-dated for more rapid issue, the average booking time in a test was six seconds. The time taken to extract a ticket from its tube was at least two seconds and the whole process of extracting the ticket, dating it, and passing it to the customer took 3.8 sec. To pick up and deliver a pre-dated ticket took 1.5 sec. A test at a station where a rapid-printing machine is installed showed that between 7 a.m. and 7.30 a.m. one morning 397 passengers were booked in an average time of 4.53 sec. During the "peak" minute before the issue of cheap tickets stopped at 7.30 a.m. 25 passengers were booked. As far as the operator is concerned, a booking headway of three seconds or less should be possible, but much depends on passenger behaviour in tendering exact fares and so on.

Tests at an office in the second scope with a trial machine and an unpractised operator, were inconclusive and it is hoped that the trials will be possible later under actual traffic conditions.

Ry., Gazette, London.

Demands Payable and Miscellaneous Advances - Revenue

Accounts are aware that, while in the case of Miscellaneous Advances Revenue, the grant is obtained for the gross amount, i.e., excluding credits, the position in the case of Demands Payable is different in that the grant is the *net* amount under Demands Payable (i.e. debits less credits or vice versa). In view of the Miscellaneous Advances Revenue Account and the manner in which it is operated, as compared with Demands Payable account, there does not appear to be any strong ground for treating these differently in the matter of provision of funds (by vote of the Parliament). In both the cases, the 'net' provision may, it is felt, be subjected to the vote of Parliament. On some Railways, it appears that the advance given to the Cashier for payment of paybills which are checked and sent a little later is debited to Miscellaneous Advances, while on others, it is allocated to Demands Payable, the difference between the actual amount payable on the paybills and the advance already given to the Cashier being adjusted against Demands Payable, (plus or minus, generally plus only) when the paybills are actually passed and included in CO7s. The latter seems to be the more correct procedure, particularly in view of the difference in treatment accorded to these two heads in the matter of provision of funds. The views of Accountants on other Railways are invited on this important matter.

Retirement of an Administrative Accounts Officer

On the 27th September 1955, Shri Jal J. Batliwala, Officiating Financial Adviser and Chief Accounts Officer, Southern Railway, proceeded on leave preparatory to retirement, on his attaining the age of 55 years.

Born on the 28th September 1900, he was educated at Bombay and passed his S.S.L.C. in 1919 and Intermediate in Arts Examination in 1921. While undergoing the course of B.Com., in the Bombay University, he was offered, by the M.&S.M. Railway, an appointment in the superior Cadre in the Accounts Department as a probationer, and he joined service in March 1922. After undergoing an intensive training on the Railway in the various sections of the Accounts Department, he was posted as Assistant Auditor in 1926 and thereafter held charge of various sections for varying periods. He secured an all-round knowledge in such process and was promoted as Senior Accounts Officer in 1940. After a few years, he was further promoted to the Administrative Grade in 1944 where he officiated for a

number of years and was later confirmed therein.

After integration of the M. S. M. Railway and the formation of the Southern Railway, he was appointed as the Regional Accounts Officer for the Madras Region and continued to work at Madras doing practically the Senior Deputy's work of the Head Quarters Office in addition to his Regional work. He was promoted to officiate as the Financial Adviser and Chief Accounts Officer from 13th August, 1955 to 27th September 1955, on which date he retired from active service.



SHRI JAL J. BATLIWALA

Mr. Jal was connected with a number of staff amenity institutions like Literary Societies, Urban Bank, etc. He was of genial temperament and always pleased his listeners with his sweet words. He had thousands of admirers, all of whom will miss him in official life.

We wish him long life, continued prosperity and good health to enable him to carry out his social activities to a much greater extent than ever before.

A pleasant "Dinner Party" was arranged on 30-9-'55 in the Officers' Club, Perambur, in honour of Mr. J. J. Batliwala. Many senior officers (including Mr. T. A. Joseph, G.M., S.Ry.) were present.

Speeches were made by Mr. J. Rama Rao, Dy. F.A.C.A.O., I.C.F., Mr. M. R. Swaminathan, the present F.A.C.A.O., S. Ry., Mr. T. N. Kuriakose, Dy. C.A.O. (Genl.), S. Ry., & Mr. C. J. Soans, A.A.O., S. Ry. Mr. Batliwala replied suitably.

Subjects of Moment

Interim Promotion of Accounts Clerks electing Stock Verifiers Posts

Clerks who have opted for promotion as Stock Verifiers but who have not been so far absorbed as such, may be promoted as officiating clerks, Class I, or officiating Sub heads in the normal course on their turn till they are absorbed as Stock Verifiers or are required to officiate as Stock Verifiers.

(R.B. No.E. 55 PA II/2/3 dated the 12th August 1955.)

Variation in Integration Seniority Rules to reduce anomalies.

The Railway Administrations have been permitted to adopt in consultation with organised labour unions such minor variations as may be necessary to ensure that any anomalous position arising from the application of the rules determining combined seniority of staff is reduced to a minimum in each area.

The decision taken by each Zonal Railway Administration in this manner will be final.

(R.B. No. E 55 SR 6/21/3 dated the 22nd August 1955.)

Passing of Language Examination by a Junior Scale Officer for Promotion to Senior Scale

Junior Scale Officers are not eligible for promotion to Senior Scale unless they pass in the examination prescribed for the purpose.

(R.B. No. E(S)/55 CPC/142 dated the 18th August 1955.)

Medical Attendance to Employees' Dependents.

Dependents of Railway employees who are eligible for passes under rule 94 (1) (ii) of I.R.C.A. Part II, Chapter VII, are

eligible for gratuitous medical attendance and treatment as out-patients and to the extent of accommodation available as in-patients at Railway Hospitals and dispensaries.

(R.B. E 54 ME 1/43/3 dated the 10th August 1955.)

Publication of App. II A Examination Results.

A list of successful candidates should be published in the first instance, but marks secured by such candidates need not be disclosed or published. Thereafter, a list of unsuccessful candidates should be published with the marks obtained by them in each subject.

(R.B. No. 54 ACII/20/37 dated the 8th August 1955.)

Note: The above is in conformity with the procedure now in force for App. IIIA Examination. It is also suggested that provision may be made for reassessment of answer papers by the Railway Board or anybody authorised by them in this behalf whenever complaints are made to them through proper channel about the correctness of the marking.

Ed., R.A.

Rest Homes for Staff.

The Board had, in their orders, of the 27th May 1955, suggested the opening of rest homes for staff. The intention is that holiday homes for staff to be set up on Railways should be fairly large buildings, so that each member of staff taking advantage of the scheme can be housed.

The Railway Administrations may ascertain the availability of any large buildings lying vacant in any of the stations where such houses may be fixed up.

(R.B. No. E 55. WE 1-1/PA dated the 8th August 1955.)

Circulation of Selection Lists.

The Railway Board have ordered that a list of the candidates selected by a Selection Board for any of the posts should be circulated treating the *proceedings only* as confidential.

Note: While giving effect to this order from the date of issue, it is suggested that the names already selected and on the waiting list under each category may also be notified to the staff concerned so as to make the information effective.

Ed., R.A.

Elimination of Credits or Recoveries from the scope of the Demands for Grants presented to the Parliament.

The Board, in consultation with the Director of Railway Audit, have decided that the receipts which are recorded against the *deduct* head "Receipts on Capital Account" in the capital classification should be excluded from the scope of the Demand and shown against the *deduct* head "Credits or recoveries". This will have effect from the Budget Estimates for 1956-57 on those Railways where such a procedure has not already been in vogue.

Rent for residential buildings let to employees of Railway Consumer Co-operative Societies

The Railway Board have decided that the recovery of rent for housing accommodation, wherever provided, from the employees of the Consumer Co-operative Societies should be made in accordance with para 1960-E which reads as under:

"Railway Buildings let out to outsiders.

1960. When railway buildings are let out to persons or bodies in the interest of the railway, like railway co-operative credit societies, etc., rent should be recovered at a rate that will be such as to cover interest charges on the cost (whether charged to Cap. DF or O.L.W.

R.) of the buildings including the cost of land and charges for depreciation, maintenance and repairs, vide rules in paragraph 1946.

As exceptions to the above rule, (i) welfare staff (employed by the Staff Benefit Committees and Child Welfare Associations on railways) may be allotted railway quarters, provided such quarters are not required for railway staff or for other main railway purposes, and charged nominal rent, (ii) railway dispensaries may be permitted to be used as local child welfare centre without charge; (iii) refreshment room accommodation may be let out to refreshment contractors at rents not dependent on the cost of accommodation provided; and (iv) Railwaymen's Consumer Co-operative Stores may be allotted accommodation at a nominal rent of rupee one per mensem. In regard to refreshment rooms: the rent charges should depend on the profits made by the refreshment room contractors and be based on the principle that if after charging reasonable rates, the contractors make more than a reasonable scale of profits, the Railway is entitled to a reasonable rent for the accommodation supplied. In applying this principle no elaborate investigation of the accounts of the contractors is necessary but the rent charged in each case should be reviewed periodically with a view to ensure that it is reasonable with reference to the profit likely to be made by the Contractor."

Booking and account of Railway materials and stores

It has been decided by the Railway Board that, as the booking of consignments, where either the consignor or the consignee is a non-railway party, is made as for public and transactions are also accounted for in the ordinary returns, the freight charges should also be credited to Earnings and not to Abstract G.

Adjustment of Compensation claims settled by one railway on behalf of another

The Railway Board have decided that with a view to avoid delay in acceptance of the liability of compensation claims by the Railways in inter-railway adjustments, the following procedure should be followed in the future:—

The Commercial Department of the Railway settling the claim, say Railway 'B' shall forward each individual claim as and when it arises, for acceptance to the Commercial Department of the Railway concerned, say Railway 'A'. The Commercial Department of Railway 'A' will accept the liability by a letter in duplicate. On receipt of the acceptance of Railway 'A', Railway 'B' will pass on the duplicate copies of such letters to their Accounts Department, who will thereupon raise debits monthly against the Accounts Office of Railway 'A', supported by the duplicate copies of letters of acceptance from the Commercial Department of that Railway.

Educational Assistance for residence in Private family

Rule No. 1104 R provides for admissibility of educational assistance to employee's children if he is compelled to board them at an institution unconnected with the school or even with a private family. For the purpose of this rule, the Railway Board has decided that the employee's father's establishment cannot be treated as a private family.

[R. B.'s No. E-54 D 2/11/3 dated 13th August 1955.]

Passes to complainants and witnesses to attend confronted enquiries

In their No. 1000-TG/54/3, the Railway Board has authorised the General

Managers to delegate their powers to Divisional Superintendents or Regional Administrative Officers to issue special passes permitted in Board's letter dated the 5th February 1950 for journeys of complainants and their witnesses in connection with confronted enquiries at outstations.

The Board add that these powers should not be further delegated, but should be exercised personally by the Administrative Officers.

Passes etc. for Railway employees interviewed or trade-tested at I. C. F.

The Board has decided, as a special case, that Railway employees who may be called for Interview or Trade test by the Chief Administrative Officer, I.C.F., Perambur, Madras, may be granted duty passes and T. A. as on tour and their absence treated as on duty.

[R. B. No. E-55 RR/1/7/3 dated 24th August 55.]

Motor Car advances to Officers

The Board have decided

(i) to increase the maximum monetary limit on account of advance for purchase of motor car by officers from Rs. 10,000 to Rs. 12,000.

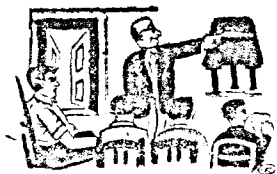
(ii) to increase the maximum limit of the number of months pay from 5 to 12, or

(iii) the anticipated cost of the motor car, whichever is the least.

(iv) to extending the period of repayment from 48 to 60 monthly instalments.

other conditions for grant of such an advance remaining unaltered.

[R. B. No. F(E)55/ADV-2(3) dated 9th August 1955.]



Readers Forum

Provident Fund Accounting

On pages 179 and 180 of THE RAILWAY ACCOUNTANT for September 1955, we published extracts from an article on the subject from Sri U. L. Kothari, B. Com., Ajmer, together with our comments on some of the suggestions made thereon. The writer has sent a rejoinder justifying his standpoints and detailed extracts therefrom are reproduced below for the information of such readers as are interested in the subject to enable them to offer their constructive comments. It is hoped that the Railway authorities who have to deal with the subject may also find some material for thought and action.

Ed., R. A.

"The first suggestion of maintaining skeleton P. F. accounts by District offices is restricted to only posting of recoveries each month in each subscribers account in a manuscript register direct from the accounts copy of the salary bill. Taking 1500 persons on an average under each district officer, it would take about 300 minutes or 5 hours in a month to post 1500 entries @ 5 entries per minute. Quarterly reconciliation of entries of 1500 subscribers with the Account Office P. F. Cards (if monthly is not favoured) to rectify all discrepancies of non-posting, incorrect posting etc. on the spot in initial stages will not take more than two days at the most in 3 months. Similarly, posting of figures of bonus, interest and closing balance will involve 2 man-days. In other words, each district will have extra work by about 5 to 7 man days at the most. This will be offset to a great extent by the time saved by the district office in dealing with voluminous and endless correspondence involved in disposing of hundreds of complaints made by the subscribers. At present considerable time is being wasted by District offices and A/cs. Offices in making reference and counter-references in

disposing of complaints of the subscribers. In almost every case, District Office has to refer to the office copy of the old Salary Bill of the months for which the subscription was not correctly posted by Accounts Office. However the extra work amounts to about half a clerk per district which can be entrusted to a leave Reserve or this may be adjusted while putting justification for extra posts for other categories of works. In any case, the main objective is that district offices which are to a great extent responsible for the present mess in P. F. Accounting due to incorrect preparation of deduction statements etc. should be associated with A/cs. office to enable rectification of all discrepancies in P. F. A/cs. of subscribers in the initial stages at the time of periodical reconciliations. Only then the District offices will also realize their responsibility in the matter. This will also assist subscribers in getting their complaints disposed of speedily as District offices will easily locate the errors and get them rectified at periodical reconciliations.

Your contention that Distt. Offices except Engineering Deptt. have nothing like A/cs is incorrect as since regrouping and regionalisation of the A/cs Offices, every distt. office including Mechanical, Traffic, Electric, Signal, Engineering, has been keeping almost all A/cs records like works registers, Rev. Allocation Registers, Grant Registers, Commitment Registers and submitting various accounts returns to the A/cs office like Financial Reviews, Revised Estimates, Budget Estimates, August Reviews, etc. etc. In fact at present, every Distt. Office has a separate accounts section manned by 2 to 3 Senior clerks and as such, reconciliation of P.F. A/cs of staff can be undertaken by Distt. Offices without any difficulty. This reconciliation should be given top-most

priority as it deals with staff who are very badly upset due to incorrect P. F. accounting. Even the Railway Board is very much perturbed at the present state of affairs. It is receiving hundreds of complaints direct from the staff, particularly retired, and the Board's time is being wasted in contacting FA & CAOs of various Railways on Trunk Call to expedite disposal of complaints. Unfortunately, the Board has not yet been able to find out any effective solution to stem the rot. To me it appears that it has not yet realised the magnitude of the problem. It has issued instructions to augment the strength of P.F. Section, Board has also issued another circular directing test check of P. F. deduction statements by Personnel Officers, to eliminate inaccuracies in the statements which form the main basis of posting of P. F. cards. But these half-hearted measures can't solve the problem. Discrepancies in deduction statements have increased to such an extent that reconciliation of not a single month can be effected without checking all entries of deduction statements with salary bills and checking totals of each deduction statement, which is wasting considerable time of P. F. posters. Similar is the position in other spheres. The number of unposted items and unposted ledger accounts is increasing due to absence of any information of persons transferred to other districts or other accounts circles. Recoveries effected in 1947-48 etc. are now being transferred to correct accounts circle in hundreds of cases. This has resulted in opening of duplicate and triplicate P. F. Account Nos.

As regards bonus to temporary staff even at present, district offices are showing recoveries from temporary staff sometimes in statements of permanent staff and sometimes in statements of temporary staff with the result that bonus has been credited to the accounts of a good number of temporary staff, as the Accounts Office does not have any information regarding the status of the

subscribers. The suggestion merely requires some accounting adjustments without any extra cost to the exchequer.

From the foregoing, you will kindly observe that at present there is great confusion in the P. F. accounting and the position is going from bad to worse. As such, if my suggestions are adopted as a trial measure, much of the difficulties will be resolved."

* * * *

Supply of Correction Slips to Railway Codes

A correspondent has pointed out that though under the existing rules Rs. 1/4/- is collected every year from such of those as require automatic supply of correction slips to the Code, during the year, the return value during the last few years has been practically negligible: for instance, last year, only about Re. 0-2-0 worth of correction slips to Stores Code were supplied and this year, so far no correction slips have been supplied. Obviously, this is due to the fact that final correction slips are intended to be supplied under this scheme and that unless the Railway Board issues such final correction slips there is no possibility of their supply to subscribers. It may incidentally be pointed out that even months after the issue of advance correction slips to the various Codes final slips are not printed and published. Consequently, public purchasers of the code are handicapped by not being in touch with the current authorised position. It is therefore suggested that the procedure may be reviewed so as to leave as little time-lag as possible between the issue of the advance correction slip and the final correction slip and that as far as possible, all corrections should be included in the final correction slips within a prescribed time-limit of their coming into effect.

While on this subject, it is also pointed out that the latest edition of the Indian Railway General Code,

Vol. I, does not include the revised Separation Convention. The difficulties of publication are recognised since the printing extends over a long period but if by the time the printing is concluded, several changes in the matter already included have already undergone a change or revision, it is necessary that a correction to the various portions should be printed simultaneously and issued along with the Code as part thereof. This procedure would obviate the necessity for the release of an out-of-date publication and is also in conformity with what is done by private publishers. The authorities concerned will, it is hoped, look into this aspect and remedy the present defects.

Ed., R. A.

Levy of Surcharge at 6½% on Small Goods Consignments Weighing less than 20 Mds.

This subject was dealt with on pages 168 and 169 of the Railway Accountant for August 1955. In reference to this,

one of our Reader Correspondents has sent the following.

"It is pointed out that unlike the class rates which vary with the commodity, the surcharge is levied on a uniform basis on all the packages comprising a consignment. Hence, the surcharge does not appear to be leviable where the total weight of a consignment exceeds 20 maunds even if the weights of the different commodities included therein are less than 20 maunds. In this connection, it is also pointed out that Rule No. 86 of the L.R.C.A., G.T. states that each group of commodities (forming part of a consignment) is charged as a separate consignment and is subject to a separate "minimum". It is not clear whether the word "minimum" denotes "minimum weight" or "minimum freight", or even both.

This aspect of such small consignments may be looked into and considered views given by interested readers".

We reserve our comment till we hear from other quarters. *Ed., R. A.*

STUDENTS' CORNER

(Continued from page 228)

Provision of Railway Sidings

Even in 1952, the Railway Board have emphasised that as a general policy, in view of the difficult ways and means position, they have been asking firms to have sidings under private siding terms even though sufficient traffic justification exists for the provision of such sidings on assisted siding terms; i.e., the applicant will have to bear the entire cost of construction of such sidings.

Leave Rules

A correspondent has asked for a concise answer to the following question:

"Describe briefly the different kinds of leave rules by which the Railway Servants are governed and examine their respective merits".

Though the question is concise, the answer has to deal with various kinds of rules in a comparative manner and it will take several pages even if only skeleton details are given. Collection of material for the answer is also one which involves some considerable time as the material has got to be completely verified before it can be pushed on to the press. Hence, every attempt will be made, if possible, to furnish an answer in the next issue. *Ed., R. A.*



NEWS, NOTES AND COMMENTS

Railway Concessions for Gift Consignments

The Railway Minister has decided to grant a concession of charging 1/4 of normal tariff rates for gift consignments of piece-goods intended for free distribution to flood affected areas in the U.P., Bihar, Assam, West Bengal and Orissa, when consigned to Government Officers, or private relief organisations or parties nominated by State Governments. These consignments may be booked by goods, parcels or passenger trains.

The Railways concerned have been asked to contact the State Governments of the above provinces and ascertain the designations of officers as also the names of private relief organisations or parties to whom the consignments should be booked.

Bhilai Steel Plant

Soviet Russia will supply two mammoth units for the Indian work—a blooming and a rail and structural steel mill. All operations in the Indian mill will be mechanised to the utmost and all machines are being substantially modernised. Even the inspection of the finished rails will be completely mechanised. Special devices are being provided for turning rails. Beams and other profiles are removed by magnetic cranes. The Indian crane is being provided with a mechanical stacker.

The lubrication system too is being perfected. The flow of lubricants to and removal from the various parts of the machines will be continuous. Automatic measure instruments will indicate the amount of lubricant in the machine at any given moment.

Another important feature of the Indian machine is that its design will

allow for its enlargement and increase of output.

Recruitment to Services

The ten-man committee constituted by the Government of India with Dr. A. Ramaswamy Mudaliar, as Chairman recently met in Madras and discussed matters connected with the qualifications for recruitment to Government Services.

The main object of the committee is to examine the question as to how far and at what levels the possession of a University degree is necessary for recruitment to public service; to consider the types of tests which should be instituted to assess relative merits of candidates in an objective manner in the absence of a University degree; to consider measures to ensure that the number of candidates for posting and services in Government are not wastefully large.

U. S. Experts for Developing Indian Railways

Attempts are being made by the Government of India to obtain the services of several American Railway experts to advise them on problems relating to the vast Railway expansion contemplated under the second Five-Year Plan. It is understood that India requires expert advice on all aspects of Railway expansion like Traffic, Engineering, Signalling, Yard Practices etc. The object of looking for experts from U.S. is obviously due to that country of long distances having had similar difficulties as India which were surmounted by considering remedies in the recent past.

Two groups of experts are being looked for: one to go out immediately and take a quick look at the present Railway

system and advise the Government on what problems are likely to arise in future; and the second group would go later to India on contract and stay there for sometime and study those problems in detail and advise on how they should be overcome.

* * *

SURVEYS FOR NEW RAILWAY LINES

(1)

Two Rail Lines to Cape Comorin

A *traffic survey* for a metre gauge railway line connecting Cape Comorin with Tinnevely and Trivandrum is to be carried out by the Southern Railway. The total length is expected to be about 105 miles. The Railway Board has sanctioned a sum of nearly Rs. 54,000 for this. Apart from providing traffic facilities to passengers in this thickly populated area, these rail lines, when constructed, will provide a short outlet for the export of goods produced in this region through the Cochin Harbour.

A metre gauge line is under construction between Quilon and Ernakulam, while metre gauge lines already exist between Tinnevely and Quilon and Trivandrum and Quilon.

Due to the necessity of transshipment in sending goods by rail to Cochin, all freight from the Tinnevely district of Madras is at present exported through Tuticorin Harbour, inspite of the extra shipping cost involved. Once the railway connection is opened upto Cochin by the construction of the Trivandrum—Tinnevely rail link, all such exports will be canalised through this line.

x x x

(2)

New Rail Surveys in Rajasthan

Engineering and traffic surveys for a broad gauge or metre gauge railway line between Udaipur and Himmatnagar (or Talod), a distance of about 140 miles (151 miles to Talod), has been sanctioned by the Railway Board.

The Udaipur Division, in Rajasthan, is practically closed in the interior for want of proper railway communication. The proposed line, if constructed, would fill the missing gap between North Gujrat and South Rajasthan, and will also bring Udaipur in direct contact with Ahmedabad bringing down at the same time the distance by rail between these two places from 336 miles to 178 miles. This alignment will also benefit the backward and undeveloped Adivasi tracts of Rajasthan and Gujrat. The line passes through land rich in minerals and natural resources and through famous pilgrimage centres.

The Railway Board has also sanctioned an investigation for the purpose of conversion of the Ahmedabad—Khedbrahma line, a distance of 88 miles, from metre gauge to broad gauge.

Both the surveys will be carried out by the Western Railway.

x x x

(3)

104-Mile Rail Line in Rajasthan

Preliminary engineering and traffic surveys for a broad gauge or a metre gauge line between Chittorgarh and Kotah on the Western Railway, in Rajasthan, have been sanctioned by the Railway Board.

This rail link of about 104 miles would, when completed, provide the shortest rail connection between the Kotah and Udaipur Divisions of Rajasthan State. Besides improving traffic facilities for the general public, the new line is expected to help in the development of trade, commerce and industry in the region.

The surveys which will be carried out by the Western Railway are estimated to cost over Rs. 2,00,000.

x x x

(4)

Rail Line in Madhya Bharat

A *traffic survey* for a broad gauge railway line between Gwalior-Shivpuri-

Guna - Agar - Ujjain and also for the alternative alignment *via* Shahjapur and Maksi, on the Central Railway, has been sanctioned by the Railway Board.

The line, when constructed, will provide a direct link from Gwalior to Ujjain and to Indore, when the Indore-Ujjain line is constructed. This is expected to bring about rapid commercial, agricultural and industrial development of the central parts of Madhya Bharat.

x x x

(5)

38 Mile Railway Line from Rampur to Lalkua

The Railway Board has sanctioned a *traffic survey* for a 38-mile railway line from Rampur to Lalkua on the North Eastern Railway, in Uttar Pradesh. The Central Government and the State Government have spent large sums of money on the colonisation of certain tracts in the Naini Tal Tarai area, and it is felt that the further development of this area depends upon the availability of railway facilities. The line, if constructed, will also provide a shorter link to Moradabad and open up the Haldwani and Naini Tal area.

The survey, which is to be carried out by the North Eastern Railway, is expected to cost nearly Rs. 18,000.

* * *

Proposed Rail Links in Madras State

Mr. M. Bhaktavatsalam, Minister for Industries, told Pressmen that the Union Government appeared to be keen on having the Metre Gauge railway link between Vellore and Kancheepuram.

The Minister explained that such a link had certain technical and commercial advantages and these probably had created an interest in the scheme.

Mr. Bhaktavatsalam believed that among the several schemes proposed by the Madras Government for development of railway during the Second Five-Year Plan period in this State, the Salem-Bangalore line, might receive high

priority and similar priorities might also be accorded for the proposed Theni-Gudalur line and also improvement to the Cuddalore-Vridhachalam line of the Southern Railway. These two schemes would be of importance in the development of the Periar Hydro-electric project and the Neiveli Lignite project respectively.

* * *

Railway Targets

Members of the Standing Committee of the Congress Parliamentary Party on railways are understood to have strongly urged the Railway Minister that the proposed expenditure of Rs. 1,480 crores on railways during the Second Five-Year Plan should in no case be scaled down.

They feel that failure to ensure this expenditure would mean that the estimated addition of 3,000 miles of railway would not be achieved. This in turn, would have an adverse effect on industrial progress.

Some members said that Rs. 1,480 crores was actually a "modest target" and, if possible, the total outlay in the public sector might be increased beyond Rs. 4,300 crores to provide for more expenditure on railways.

Mr. Lal Bahadur Sastri, Minister for Railways, is understood to have said that he appreciated the members' point of view but he could not say anything more at the present juncture as the subject was under discussion between the Ministry and the Planning Commission.

* * *

Special Trains For "Smalls" Traffic NEW SCHEME ON SOUTH EASTERN RAILWAY

The South Eastern Railway is running special goods trains loaded with "smalls" traffic from the Calcutta area to stations in the four delivery zones corresponding roughly to the boundaries of Orissa, Madhya Pradesh, Bihar and Andhra. One such train for each direction leaves

Shalimar every week on a nominated day.

The "smalls" carried by the special trains usually reach the stations in the delivery zones within two or three days according to the distance from Calcutta.

This new method of transporting the "smalls" traffic has several advantages for the Railway, the consignors and the consignees. These are the greatly reduced transit time, minimum handling of the consignments, regularity of transit time, minimum shuntings *en route* thus reducing risk of damage to consignments, and maximum movement of the "smalls". This also results in quicker turn-round of wagons and in higher average load per wagon.

At present confined to traffic originating from Shalimar, the scheme will later be extended to other important places on the Railway.

Extension Programme for Hospital Facilities for Railwaymen

A number of schemes to extend hospital facilities for railway workers in India are being implemented by the various Railway administrations during the current financial year.

The Railways are at present running 74 hospitals for their staff in different parts of the country.

Three new dispensaries have already been opened at Sadulpur, Ratangarh and Dhuri on the Northern Railway.

On the Central Railway, work on providing an additional 40 beds at the Byculla Hospital has already been taken in hand.

A new hospital building is under construction at Madura on the Southern Railway. This is expected to be completed this year and will have 54 beds as against only 18 beds in the present hospital. The new hospital will be fitted with an X-ray unit, a laboratory and a labour ward.

A new dispensary has been opened at Srirangam, while 20 beds for the treatment of railway employees suffering from T. B. are being reserved at the Government T.B. Hospital, Tambaram.

In the eastern region, 27 beds have been added in the B. R. Singh Hospital, at Sealdah and four beds have been added in the Lillooah Hospital.

On the Eastern Railway, a dispensary has also been opened at Dakhineswar, and additional funds to the extent of Rs. 1,80,000 have been provided for the purchase of drugs.

The South Eastern Railway has sanctioned 22 additional posts of Assistant Surgeons of Grade II to augment the existing strength of medical staff at wayside stations.

Several improvements have also been taken in hand in railway hospitals on the North Eastern Railway.

Railway Equipment Committee's Ten-Day Tour

The Railway Equipment Committee toured centres in Hyderabad, Mysore, Bombay and Saurashtra commencing from September 27, to have meetings with representatives of firms and commercial bodies and visited several workshops and factories, like the Central Railway Signal Workshop at Hyderabad, the Bhadravati Steel Plant and Steel Foundry in Mysore and several factories at Bombay, Rajkot and Morvi. They had also discussions with several prospective manufacturers of railway equipment during their tour.

Railway Weights and Measures Committee

The Railway Board has appointed an *ad hoc* committee to co-ordinate and deal with all matters arising out of the proposed introduction of the metric system of weights and measures on the Indian Railways.

The committee will function under the chairmanship of the Director of Railway Testing and Research Centre at Lucknow, which will also be the headquarters of the Committee.

Statistics of Indian Railways

1. *Gross Earnings*: The approximate gross earnings of Indian Railways during July '55 amounted to Rs. 25.06 crores, while the actuals for July 1954 were Rs. 23 crores. The total approximate gross earnings from 1st Apr. 1955 to 31st July 1955 were Rs. 101.61 crores against the actuals for the corresponding period of 54-55 of Rs. 93.16 crores, i.e., an increase of Rs. 8.45 crores or 9.07%.

2. *Good Tonnage*: The number of tons of merchandise lifted during the month of July 1955 was 6370000 and 1675000 for BG and MG respectively, which showed an increase of 1.19% and 3.20% over the June 1955 figures for BG and MG respectively.

The number of tons lifted from 1-4-1955 to 31-7-'55 was 24977000 and 6351000 for BG and MG respectively, which showed an increase of 9.75% and 16.8% respectively over the corresponding figures for 1954-55.

Wagon Loadings. During July 1955, the number of wagons loaded with goods traffic was 391674 and 217126 respectively for BG and MG, which showed an increase of 6.13 and 4.72% over the figures for June 1955.

The total number of wagons loaded from 1-4-'55 to 31-7-'55 was 1548220 and 876757 respectively for BG and MG showing an increase of 5.83% and 8.99% respectively over the figures of the corresponding period in 1954-55.

These loadings, for the first four months of the year 1955-56 were attributable to greater loadings of Coal for non-Government Railways, oil-seeds, raw cotton, Jute manufactured, Pig iron and other metallic ores, over the Broad gauge; and oil seeds, cotton manufactured, jute manufactured, and pig iron and miscel-

4-A

laneous wagon loads over the metre gauge. These were set off to a certain extent by short loadings in Cotton manufactured, jute raw, cement and miscellaneous smalls traffic over the Broad Gauge; and non-Government Railways Coal, Jute raw, sugar and tea over the metre gauge.

LOCOMOTIVES

(1)

Chittaranjan sets up Record Production

A new production record has been set up by the Chittaranjan Locomotive Works, which turned out 11 locomotives each during July and August this year.

The production of boilers has also attained a new record, with nine complete boilers turned out during each of the last two months.

The original production target of 120 W.G. locomotives was achieved long time ahead of schedule in May 1954. The outturn has increased from six locomotives per month in the early part of 1954 to eight locomotives per month towards the end of that year, 10 per month from January to June this year, and 11 per month at present. The present rate of 11 W.G. locomotives per month is equivalent to the production of 165 average-sized locomotives. Till the end of the first week of September, Chittaranjan had turned out a total of 275 locomotives.

With the increase in production, the cost per locomotive had come down from Rs. 7.5 lakhs per locomotive in the beginning to less than Rs. 5 lakhs at present. As against this, the cost of an imported engine of the same type, as manufactured by Chittaranjan, is about Rs. 5.39 lakhs.

The Railway Board has approved a new target of 200 locomotives plus 100 spare boilers per year and the details of the scheme are at present being worked out.

Out of 5,335 components, which go to make a Chittaranjan locomotive, only 90

items are at present being imported. Another 769 items are purchased from sources within the country, while all the remaining 4,476 items are manufactured at the Chittaranjan Locomotive Works. The imported items need specialised machinery for mass production and their manufacture at Chittaranjan is not considered to be good business.

There are about a dozen foreign experts, brought under the Colombo Plan, working at Chittaranjan. Their expert assistance is necessary in demonstrating the working of certain modern machines.

(2)

Foreign Imports

The first of 120 locomotives, at an estimated cost of 25 million Canadian dollars given to India under the Colombo Plan, was to-day formally handed over by the First Secretary of the Canadian High Commission in India to Mr. S. Sarangapani, General Manager of Eastern Ry.

The locomotives are being received in "knocked down" condition.

The W.P. locomotive, with axle load of 18.5 tons, is one of the heavy standard locomotives now in extensive use on Indian railways for hauling mail, express and passenger trains.

WAGONS

(1)

From Poland

Orders for 2,600 covered wagons have been placed with a firm in Poland, the Deputy Railway Minister, Mr. O. V. Alagesan, informed Mr. Raghunath Singh in the Lok Sabha to-day.

In a written reply, Mr. Alagesan said the delivery of these wagons would start in April next year and would finish by the end of October at the rate of 350 to 400 wagons a month.

(2)

From U.S.

India received the first consignment of 450 out of 5,000 railway wagons supplied by the U.S.A. under the American Technical Co-operation Point-four Aid Programme.

These wagons, in "knock down" condition, were unloaded from an American freighter early this week at the port of Okha in Saurashtra. A further consignment of 100 wagons arrived in India in September.

Under this aid programme, the U.S.A. has so far allocated to India 38,875,000 dollars for railway rehabilitation and expansion.

Enquiry into Railway Freight Structure

The Railway Freight Structure Enquiry Committee of which Dr. A. Ramaswami Mudaliar is the Chairman, has commenced to do preliminary work at its headquarters in Calcutta.

Mr. Saldhana, Secretary to the Committee, visited Madras in connection with the opening of a skeleton office, here for collecting details on the Southern Railway.

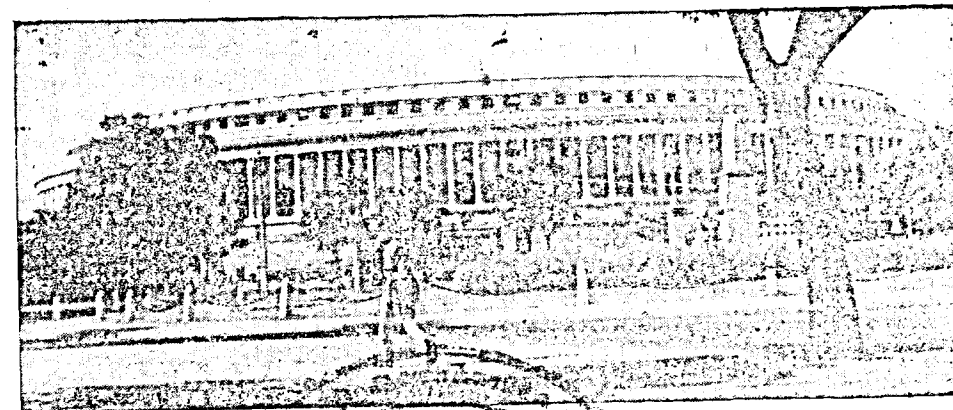
Estimates Committee

Col. B. H. Zaidi, M.P., Mr. Lalit Narayan Mishra, Mr. V. P. Nair, M.P., and Mr. Bavani Singh, M.P., Members of the sub-committee appointed by the Government of India to go into estimates of the Ministry of Railways, accompanied by Mr. C. S. Swaminathan, Officer in charge of the Committee, arrived in Madras on the 16th Sept. from Delhi.

Training Facilities for Accounts Staff

A training Institution has been opened by the Southern Railway Accounts Department at Tiruchirapalli for training of new recruits to the Accounts Department of the Railway. The appointees are required to undergo a course of training in the several subjects relating to Railway Accounting etc., and pass the prescribed examination before being appointed to working posts. Failure to pass the examination renders the person ineligible for appointment. Sri V. Mahadevan, Senior Accountant, is in charge of the classes.

[Please see also page 54 of THE RAILWAY ACCOUNTANT (May '55)].

Railways in Parliament

(Photo : P. S. V.)

LOK SABHA :**Drive against Corruption**

The Dy. Minister told the Lok Sabha, on the 14th September 1955 that Government had till then accepted 59 out of the 152 recommendations made by the Railway Corruption Enquiry Committee; and that important among the accepted recommendations were as under :

(1) procedure for the booking of goods should be made more uniform on all railways; (2) ambiguities in the classification of goods should be eliminated; (3) Brokers who transacted business at stations should be licensed by the railways; (4) a systematic review should be made of goods shed facilities available at each important goods booking station and steps taken to augment these facilities; (5) monthly suburban tickets should have a photograph and signature of the owner of the tickets to facilitate check and avoid misuse (subject to clarification of legal validity); (6) ticket checking on trains must be enforced as a regular measure, so that no traveller normally goes unchecked; (7) strength of Ticket Collectors should be increased at rush periods; (8) refreshments and meals on trains should be provided at popular prices by the department and its

catering should provide a wide range of food snacks; (9) for settlement of claims there should be a time limit of three months for a claim relating to local traffic and six months for a claim relating to traffic moving on more than one railway; and (10) at stations where large claims usually arise, when the assessment of damages made by the Railway Officials was not acceptable to the consignee, suitable machinery for arbitration should be evolved.

Suburban Advisory Committee: In reply to Sri Gidwani, the Dy. Minister said that it was proposed to set up suburban passenger amenities Committees at Calcutta, Bombay and Madras. Matters relating to their constitution, function and personnel were being finalised.

Rolling stock from Australia: The Parliamentary Secretary to the Railway Minister, Sri Shah Nawaz Khan confirmed that Australia would supply 2000 MG Wagons and 24 BG Diesel Rail Cars to India under the Colombo Plan.

Promotion of Tourist Traffic: Shri Shah Nawaz Khan stated in the Lok Sabha on the 22nd September that a modern tourist reception centre was

being constructed in Sri Nagar by the Government of Jammu and Kashmir at an estimated cost of 7.39 lakhs. The extent of the Central Government's contribution thereto has not yet been finally settled. He also informed that a survey has been conducted to determine the preferences of foreign tourists in respect of various goods services available to them in the country.

Sale of Food Packets on Railways: The Dy. Railway Minister stated on the 14th September 1955 that cheap food packets were already being sold on the South Eastern, Eastern, Central and Southern Railways, and that the sale of such packets was proposed to be extended shortly to other stations and Railways as well.

Air Conditioned Coaches: The income from passengers travelling in air-conditioned coaches on Indian Railways in 1954-55 was approximately Rs. 59,18,262; while the approximate expenditure on the maintenance of these coaches for the year was Rs. 17,35,110 (which comes to about 29%).

Janatha Trains on the Broad Gauge

Mr. O. V. Algaesan, told Mr. P. Ramaswamy, on the 9th September that the proposal for running a bi-weekly Janatha Express between Bombay and Bezwada via Hyderabad had been noted and would be considered when the position regarding the availability of coaching stock and locomotives and line capacity permitted. There was no proposal, however, to run direct trains between Hyderabad and Madras and Hyderabad and Delhi. He further said that the Government would think of having a daily Janatha Express between Delhi and Madras as soon as the Engine and Coach position improved. To relieve congestion on the G T Express, it was proposed to attach a third class coach between Madras and Hyderabad in the tri-weekly Delhi-Madras Janatha Express.

New Steel Plants

The three new steel plants to be set up by the Government of India during the Second Five Year Plan would require 120 experienced engineers who would be entrusted with higher technical direction, the Minister for Iron and Steel, Mr. T. T. Krishnamachari, said in the Lok Sabha on 12th September 1955.

The Minister, who was replying to Mr. G. L. Bansal, added that, in addition, 1,200 qualified engineers, 10,000 skilled workers of different categories, had to be trained in India, and 7,000 semi-skilled workers would also be necessary. It was proposed to set up a central organisation under the Ministry of Iron and Steel to recruit the technical staff and to train them further. The organisation would co-ordinate the demands of the three projects and make use of the existing training facilities to the common advantage of all the plants. Similarly, new facilities would be developed jointly.

Mr. Krishnamachari told Mr. Raghunath Singh that under the Indo-Soviet agreement for the Bhilai steel plant, the Soviet organisations were required to prepare a scheme for the training of Indian nationals. The scheme had not yet been received. The number of trainees to be sent to the USSR could be decided only after the scheme had been examined.

RAJYA SABHA :

Goods Train Derailments: Mr. Algaesan stated that between January 1st and July 31st, 1955, there were 475 derailments of goods trains and 48 derailments of mixed trains, involving 737 wagons. He also said that an enquiry was held into every accident. Failure of the Railway Staff and failure of mechanical equipment were the two main causes of these derailments. Exact information regarding the value of goods damaged in these derailments was

not available, but the approximate cost of damage to Railway property was Rs. 490317/-.

Passenger Trains: The Dy. Minister stated that Indian Railways are at present running 4684 passenger trains daily, and that 86 new trains were introduced between January 1st and July 31st 1955.

Bhilai Steel Plant

In a written reply to a question by Mr. Nawab Singh Chauhan in the Rajya Sabha on 15th September, the Minister for Iron and Steel, Mr. T. T. Krishnamachari, gave details of the progress so far made on the Steel Project at Bhilai.

He said that preparatory work was being done at Bhilai where the plant sites had been broadly laid out. A detailed contour survey of the area was going on. The buildings required for the technical staff were under construction. The final project report on the plant was expected to be submitted by the Soviet organisations by the middle of December 1955.

Asked about the estimated cost of the plant, Mr. Krishnamachari said that more precise estimates will be possible only after the receipt of the final project report. About the sources from which important raw materials would be obtained for the plant the Minister gave the following details:

Iron Ore: From Dhalli-Rajhara deposits nearly 55 miles away from the plant site; **Coal:** From the Korba, Jharia and Kurasla coalfields. Part of the requirements of coal may also be obtained from other coalfields of the State of Madhya Pradesh; **Limestone:** From Bhanpuri deposits, about 22 miles from the plant site; **Dolomite:** From the Bhatapara deposits about 60 miles from the plant site; **Manganese:** From the deposits in the Nagpur or Balaghat district about a hundred miles from the plant site.

Investigations of these ore deposits, Mr. Krishnamachari added, were being made and the sources would be finally decided when the investigations were complete.

Personnel

Shri P. N. Saxena, General Manager, Western Railway was transferred as Development Commissioner, Kandla Port.

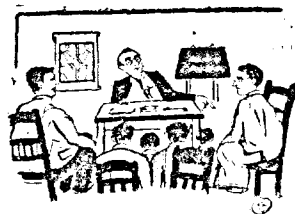
Shri Padma Vibhushana (Dusra Varg) M. Ganapathi Iyer, Development Commissioner, Kandla Port, was transferred as General Manager, Western Railway.

Shri M. R. Swaminathan, Financial Adviser and Chief Accounts Officer, Southern Railway, joined duty on the 27th September 1955, after availing himself of leave for over six weeks.

Shri Jal J. Batliwala, officiating FA & CAO proceeded on leave, preparatory to retirement, from the 27th September 1955.

Mr. A. J. Cunningham, Dy. Director, Finance (Accounts) Railway Board, has been appointed as Dy. F.A. & C.A.O., South Eastern Rly., Calcutta.

Mr. K. P. Taimini, S.A.O., Eastern Rly., has been appointed as Dy. Director, Finance (Accounts), Railway Board.



STUDENTS' CORNER

Payments from Station Earnings

One of the student-subscribers has sent us a small article on "payments from station earnings in which after pointing out the two kinds of vouchers that form part of the Cash (1) those that require to be adjusted with the parties concerned and (2) those relating to the expenses in the Railway or refund, goes on to argue that the procedure adopted by the station in regard to their accountal should be made uniform. For example, he states "Refund orders for refund of overcharges in freight etc., are treated as items of special credits, while pay orders for compensation claims are treated as cash vouchers." In his opinion all vouchers for payment out of station earnings should be treated as cash vouchers and shown as such in the Cash Remittance Note sent daily to the Cashier.

We feel that the writer has omitted to take cognizance of the fact that while some of the vouchers really represent reductions of earnings, others are not reductions but vouchers in lieu of cash, to be recouped as part of earnings. Consequently, treating reductions of earnings on the same par as additions to cash earnings, is obviously not correct. The existing procedure, therefore, of dealing with these two aspects separately right from the station accounts is correct.

Ed., R. A.

App. III Examination 1954—Station Accounts With Books

On page 171 of the August 1955 issue of the RAILWAY ACCOUNTANT, certain points had been furnished for the information of the future candidates. One of the readers has offered the following remarks in this connection.

In connection with (xii) error sheets not received and shown in the last advice of internal check it is stated that in addition to being shown on the debit side, this amount is also to be added to the closing balance on the credit side since it is not stated that the error sheets have been received since receipt of the advice of internal check.

Item (xiii) amount of warrants and credits notes Rs. 300, is also doubtful. It is not clear whether the warrants are Military Warrants (which are accounted for in the Government Traffic Return) or Civil Warrants, (Police, Jail etc.,) which are exchanged for ordinary tickets. Since no mention is made of any Government Traffic, the entire amount may be treated as representing vouchers in connection with both passenger and parcel traffic. The Examiner's commentary is silent on this point.

We agree that the terms used in an examination paper should as far as possible, be expetitive and not tax the examinees' intelligence and time and create a nervous tension while in the examination hall.

Ed., R. A.

Diverted Parcels

One of the subscribers has asked for clarification in respect of the accountal at stations of a To Pay Parcel Way Bill delivered short of destination. The main difficulty has been the difference in procedure in regard to the issue of invoices and P. W. Bills and also of the transport of the relative consignments. This question will also be answered in the next issue.

Ed., R.A.

(Continued on page 218)

THE RAILWAY ACCOUNTANT

OCTOBER 1955

Special I. C. F. Supplement

Perambur Coach Factory Takes Shape —

Towards Self-sufficiency in Railway Coaches

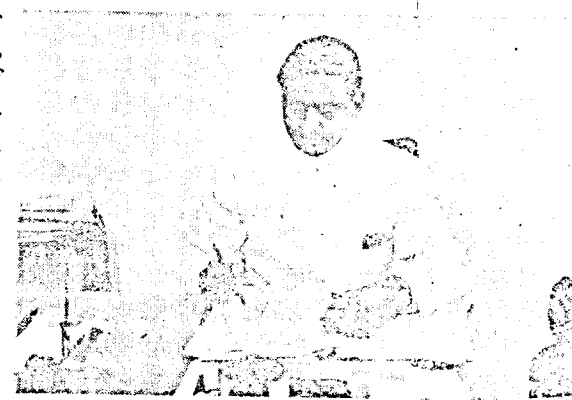
Since the attainment of independence, the Railway Ministry have been following a vigorous policy of attaining self-sufficiency at the earliest possible date in the matter of railway equipment, with a view to cutting out dependence on foreign countries.

So far as locomotives are concerned, the establishment of the Chittaranjan Locomotive Works and the Tata Locomotive Engineering Co., will enable us almost fully to meet requirements of locomotives not only for replacing old and worn-out locomotives, but also for providing the Indian Railways with additional locomotives, so that, with the increasing economic development of the country, in all spheres of production and distribution, the railway transport system may fulfil its role and efficiently discharge its responsibilities.

So far as goods wagons are concerned, Government's policy has been that the development of the requisite production capacity

Sup. 1

should be planned in the private sector. The present capacity in the private sector for the manufacture of wagons is about 12,000 to 15,000 wagons a year. Government are constantly exploring sources in the private sector to build up a higher wagon building capacity.



SRI K. SADAGOPAN,
Chief Administrative Officer, Integral Coach
Factory, Perambur.

As regards the various other items of railway equipment which at present are being imported, Government have constituted a high-power committee to suggest the steps to be taken to achieve self-sufficiency to the maximum extent possible.

So far as passenger coaches are concerned, the position at the time of independence was

that, while on the one hand we were left with a badly depleted and deteriorated coaching stock as compared with the position in 1939, on the other, we had taken on the responsibility for moving passenger traffic which, during the war and post-war periods, had registered an enormous increase of over the 1939 level of traffic, with the inevitable consequences of poor

performance and overcrowding on an unprecedented scale.

With a view to meeting this serious situation and affording the maximum relief possible, Government had to follow a policy of large-scale import of passenger coaches from abroad. It also became absolutely manifest that, taking into account all available sources of indigenous capacity for the manufacture of coaches, a large separate manufacturing unit similar to Chittaranjan Locomotive Works, for meeting our requirements of coaches, was inescapable. Accordingly, in 1948, a decision was taken by the late Shri N. Gopalaswami Ayyangar, the then Minister for Transport and Railways, that a separate factory for the production of broad gauge coaches should be established in the country.

B.G. Standard Coach of Future

The next question was the type of passenger coach that should be adopted as the standard. Several types of coaches were examined by the railway technical chiefs and the decision was taken that the light weight, all metal integral and tubular design would be the best, and should be adopted as the standard. This design, which was offered by a Swiss Coach-building firm, Messrs. Swiss Car & Elevator Manufacturing Corporation, Ltd., Schlieren, Zurich, Switzerland, was accordingly accepted by Government.

Advantages of Integral Coach

The advantages of the type of coach to be built in the factory at Perambur are;

(i) The design incorporates the principles of integral tubular construction which enables the forces sustained by the coach to be borne by the entire body including the skin. This design therefore, results in the maximum economy of material for a desired strength and is therefore about seven tons lighter than the conventional design, weighing only 35 tons as against 42 tons of the present all-steel coach of the conventional type.

(ii) The design incorporates anti-telescopic end construction. This design, combined with the fact that the carriage will be of all steel-welded construction, would reduce the possibility of the carriages telescoping in the event of an accident.

(iii) The carriage is designed for improved riding by the provision of shock absorbers and coiled spring axle box suspension. The bogie trucks are of the latest all-welded Swiss design. The axle boxes are fitted with S.K.F. roller bearings, making for smoother movement.

(iv) The coach will be sprayed with Limpet asbestos as an insulation against heat and noise.

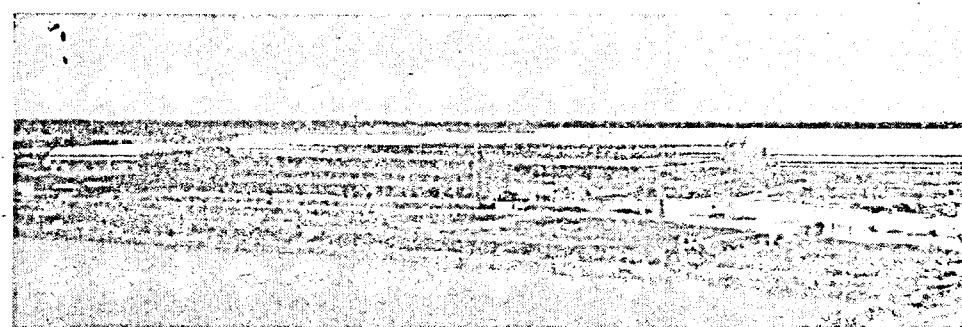
Location of Factory

As regards the location of this large manufacturing unit, several alternative sites including Bangalore were considered, and it was eventually decided that this factory should be located at Perambur, Madras. Perambur is already a big railway workshop centre, and sufficient railway land was readily available for going ahead with the construction of the factory. Railway facilities for the transport of material, etc., were available on the spot. With the location of the factory in Madras, there was also no compelling need for establishing immediately a large colony for housing every worker, and consequently it was felt that the finances made available to the Railway Ministry could be put to the maximum productive use by way of the establishment of the factory proper.

The factory consists of ten shops with a total covered area of 8,48,600 sq.ft. and has been laid out on the most modern lines. The planning of the factory has been such that the raw material is received at one end of the shop and processed through the factory in a unidirectional flow and the finished coach shell rolls out at the other end.

Plant and Machinery

The question of equipping the factory with the most modern plant and machinery was



A panoramic view of the Integral Coach Factory standing on nearly 52 acres of ground.

taken up in time so that there might be no time-lag between the completion of the civil engineering works and the installation of plant and machinery.

As far as possible, machines of indigenous manufacture were ordered. But the machine tool manufacturing capacity in the country not yet having fully developed, it became inevitable to import the vast bulk of our machinery requirements from abroad. Accordingly, global tenders were called for in November 1953, and the tenders were received and finalised by March-April 1954.

It is indeed a matter for special gratification that it has been possible to obtain very competitive and favourable prices and very early deliveries. The following figures give the rough break-up of the orders in West Germany, U.K., Switzerland and other countries:

Country	No. of contracts	No. of machines
Germany	78	152
Switzerland	31	312 (includes 260 welding sets)
England	23	68 (includes 26 welding outfits).
Sweden	3	3
Czechoslovakia	3	6
France	1	1
Belgium	1	1
Italy	1	1
Total	141	544

Raw Material Procurement

Simultaneously with the procurement of plant and machinery, action was initiated for the procurement of numerous items of raw material required for the production of the coach, both from abroad and from indigenous sources. The bulk of our steel requirements has had to be imported in the first instance, but care has been taken to ensure that with the new steel plants coming into production, our entire requirements of steel are obtained from these steel rolling mills.

Technical Training

The most urgent problem calling for attention in the context of the second Five Year Plan, is one of making nation wide arrangements for the training of technical personnel at all levels, so that we may have technical man power on a scale sufficient to meet the demands for the implementation of the Plan. The need for properly trained skilled workers in the various technical categories was foreseen at the very early stages of this project.

In March 1954, a Technical Training School was started, and the inauguration of this School was performed by Shri O. V. Alagesan, Deputy Minister for Transport and Railways. Boys who have already received basic industrial training have been recruited and given an extensive course in the particular trade for which they are most suitable, both in the school and on the shop floor. Thus, the timely

starting of the technical training school has enabled us to find the nucleus of skilled craftsmen to help in the starting of production in the factory, as originally planned. No pains have been spared to make the training school a model institution and to give the boys the best possible technical education.

The training methods have been planned with the utmost care, and due emphasis has been given to the correct practical training of the boys. For each department of training, viz., welding, fitting and machining, a special Swiss instructor is attached to give his whole-time attention to the training of the apprentices in his charge. It is a matter for gratification that our Swiss collaborators are very satisfied with the willingness and the capacity of the boys to pick up technical knowledge and skill, and there is every reason to hope that in so far as technical skill is concerned, the boys turned out of this school will compare favourably with craftsmen in the industrially advanced countries.

In establishing production of this new type of railway passenger coach, the importance of having a sufficient number of experienced men trained abroad in the detailed processes of production need hardly be stressed. Accordingly, action was taken at an early enough stage of the project for the selection of suitable men in the rank of supervisors and also in the rank of skilled workers from the workshops of the Indian Railways, and for their deputation to Switzerland for practical training, for periods varying from six to twelve months in the works of our collaborators, Messrs. Swiss Car and Elevator Manufacturing Corporation Ltd., Schlieren, Zurich. So far, 40 such men have received their training and returned to India, and have assumed their respective positions in the production organisation. Another 19 men are at the moment undergoing training in Switzerland.

Technical Collaboration.

The integral coach being a new design of coach in the manufacture of which our Indian mechanical engineers have no previous

experience, it was essential that for the successful establishment of the production we should acquire the 'know-how' from engineering firms who have considerable experience and have built up a reputation for the production of this type of coach. Accordingly, a technical aid agreement was entered into with a Swiss engineering firm—Messrs. Swiss Car and Elevator Manufacturing Corporation Ltd., Schlieren, Zurich.

The main provisions of this agreement are: (i) The firm accept their full share of technical and executive responsibility for establishing the manufacture of the integral type of coach in the factory; (ii) The firm agree to supply workshop drawings and specifications for machinery and plant in connection with the construction and equipping of this factory for the manufacture of coaches upto the agreed production targets; (iii) The firm agree to supply technical assistance to Government by receiving in their factory in Switzerland such technicians and engineers as may be mutually agreed between the firm and the Government for the purpose of training them in the offices, laboratories, workshops, inspection and other departments of the firm; and (iv) The firm agree to supply whole-time technical personnel for employment in the factory for such period or periods as may be agreed between Government and the firm.

The payment of basic fees by Government to the firm for their technical collaboration has been made contingent on the firm establishing production and achieving the production targets, from year to year, as embodied in the Agreement.

Production Targets

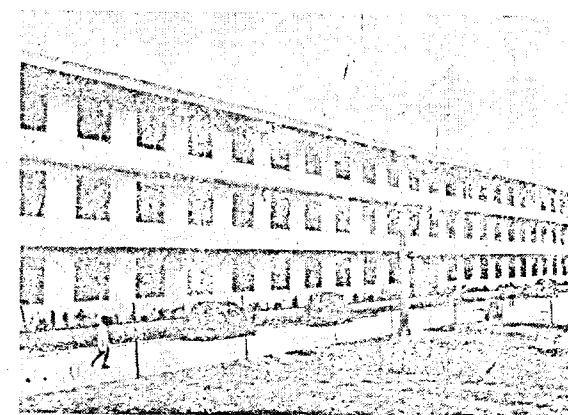
The following production targets have been agreed between Government and the firm:

Target	No. of unfinished coaches
1st year of production	20
2nd year of production	100
3rd year of production	200
4th year of production	300
5th year of production	350

PERAMBUR COACH FACTORY TAKES SHAPE

Of the above numbers, the Agreement contemplates a progressive increase, vide details below, in the number of coaches to be turned out by using indigenously made parts excepting for wheels and axles and proprietary items.

Target	No. of indigenously manufactured coaches.
2nd year of production	20
3rd year of production	120
4th year of production	280
5th year of production	350



Administrative Office of the Integral Coach Factory (fully air-conditioned)

The writer has had the rare opportunity of having been associated in the conclusion of the present technical aid agreement with Messrs. Swiss Car and Elevator Manufacturing Corporation Ltd., and on the conclusion of this agreement of being entrusted with the responsibility of working the technical collaboration smoothly and successfully.

Salient Data

Given below are the salient facts pertaining to this project:

(i) Covered area in the shops	.. 8,48,600 S. ft.
(ii) No. of sheds	.. 10
(iii) Tonnage of steel for the project	.. 9,500 tons
(iv) Length of railway lines	.. 12 miles
(v) Roads inside shops	.. 3.4 miles

(vi) Roads in colony	.. 3 miles
(vii) Houses	.. 400 unit
(viii) Water supply pipes	.. 16 miles
(ix) Consumption of cement	.. 19,500 tons
(x) No. of machines in the Factory including welding sets:	
(a) General purposes	.. 549
(b) Special purposes	.. 60
(xi) Jigs and fixtures	.. 750
(xii) Pipe lines (Cooling water; Oil; compressed air)	.. 8.4 miles
(xiii) Compressors	.. 8,250 Cft/M in.
(xiv) No. of cranes/traversers:	
(a) 20-ton overhead cranes	4
(b) 5-ton overhead cranes	26
(c) 75-ton traversers	.. 2
(xv) No. of workmen to be employed	.. 4,000
(xvi) Annual output in single shift.	350 (unfurnished coaches)
(xvii) Total consumption of electrical units per annum	.. 6 million units.
(xviii) Total cost of the project	.. Rs. 7.35 crores.

Team Spirit

The successful and timely execution of a major project of national significance is possible only when there is the most cordial team spirit, and a missionary zeal to accomplish the allotted task on the part of all concerned; viz., the officers and staff of the project at all levels, the steel producers, the raw material suppliers, the fabricating and building contractors, and the plant and machinery suppliers. If, on this project, it has been possible to inaugurate production according to Schedule, this is due entirely to the effective contribution made by all the parties concerned in building up this project and their cheerful and enthusiastic co-operation.

EXTRACTS FROM OTHER ARTICLES**Railway Coaches Through A Century : Progress made on Indian Railways**

By B. S. SINDHU, B.Sc., (Engineering) A.M.I. E., (India), A.M.I., (Loco) E.,
Chief Design Engineer, Central Standards Office

Many changes have taken place in the design, construction, and furnishing of railway carriages since the commencement of rail transport. Advancing technology and changing conceptions of rail travel have combined to produce progressively greater comfort and safety. The process of evolution continues.

While the Indian Railways have already made great strides, revolutionary changes in the standards of comfort may be expected in the near future—as plans for the construction of the all-metal light-weight carriage materialise.

x x x

The first Indian carriage, (constructed after 1850) embodied the progress that had been made in other countries up to that time. Notwithstanding these improvements, the design was still primitive compared with the modern carriage.

The typical third class broad gauge carriage of 1857-1885 had timber underframe and superstructure, four wheels, outward opening doors, longitudinal seats with restricted dimensions for hip, depth and knee-room, and provided seating accommodation for 40 to 60 passengers. The length varied from 20 to 30 feet and the tare from eight to 15 tons.

There were no lavatories in the compartments of these carriages.

x x x

Double - Decker Third Class

About 1863, the B. B. & C. I. Railway and the E. I. Railway introduced double-decker third class carriages of unusual construction. There were no benches on the upper deck and, due to dimensional limitations, the passengers had to squat on the floor.

x x x

At the beginning of this century, increasing weight and speed of trains necessitated the introduction of bogie carriages; inward opening doors were introduced, but the longitudinal seating arrangement was retained. The standard of amenities was improved and a lavatory was attached to each third class compartment.

Carriages with Hand Brakes

Not all the carriages in early trains had brakes. The system of providing a hand brake on the first and the last carriage seems to have continued for many years.

x x x

Not till about 1900 was adopted the continuous vacuum brake which utilized atmospheric pressure as source of power and made possible higher speeds and operational safety. This type of brake is extremely flexible in operation both during the application and release, and is automatic in action in the event of parting of the train.

x x x

Train Lighting by Candle

By 1900 gas lighting was in wide use in India and this innovation added much to passenger comfort. Gas lighting remained in use till about 1920 although the process of its substitution by electric lighting started some years earlier. Gas lighting suffered from many disadvantages of which the most serious was the fire hazard. Among the other disadvantages may be mentioned the high cost of maintenance at charging stations, upkeep and the inconvenience of ignition.

x x x

In recent years, fluorescent lights have been used with great success for illumination of railway carriages. Fluorescent tubes give more

light and consume less current, also their life is three times more than that of the ordinary lamp.

The electric suburban coaches recently placed in service in the Bombay area are fitted with fluorescent lights throughout, which seem to have been well received by the railway patrons.

Coach Manufacture in India

The construction of timber body carriages was inaugurated in a few railway workshops in the early sixties of the last century. By 1880 the manufacturing technique had attained a degree of specialization. About 1885 the steel underframe had replaced the wooden frame work.

x x x

The present day cost of a timber body third class bogie carriage is about Rs. 1,25,000 of which the steel underframe and bogies account for about Rs. 25,000 and lighting equipment about Rs. 20,000.

The effective life of a timber body carriage in tropical climates is about 25 years and thereafter timber components tend to show signs of decay and maintenance costs rise sharply.

The steel underframe, however, with proper protective coat of paint can give an efficient service for 50 years or more.

x x x

The next stage was the adoption of composite carriage bodies of timber-cum-steel construction.

x x x

Steel Coach Popular

The next evolutionary stage was the development of the all-steel carriage of integral construction in which the underframe, body, sides and the roof shared the load.

Two hundred and fifty all-steel carriages built in England were placed in service in 1925 on the Indian Railways, more in the nature of

x x x

an experiment than as a general practice. These carriages are still in service, but corrosion has been experienced on the body sheets of thin gauges where there is poor circulation of air and interior surfaces are not accessible for examination and repainting. The modern designs aim at eliminating dead pockets and providing free air space to combat condensation and corrosion that is associated with it.

During World War II, Railway workshops were pressed to produce urgently needed war materials and coach building was virtually at a standstill. Meanwhile, thousands of carriages had completed their normal span of 30 years' life and had become uneconomical to maintain. With the cessation of hostilities, Indian Railways were faced with an extreme shortage of carriages. About this time, the Hindustan Aircraft Limited, established during the war to maintain fighters and bombers of the allied air forces, were in difficulties due to lack of work. It was then decided to protect this infant industry of national importance by absorbing the surplus capacity of these works for the production of urgently needed carriages. These works are now regularly producing passenger carriages for railways at a rate of over 150 per year.

Air - Conditioned Travel

A small number of air-conditioned carriages built in Indian Railway workshops, using either ice-activated or electro-mechanical systems, were placed on main line services on some important through trains about 20 years ago. Unfortunately, the war intervened and the plans for the extension of air-conditioned services received a setback, and slow economic recovery during the post-war period has delayed progress in this direction.

The Indian Railways are gradually introducing air-conditioned carriages on the main routes. Air-conditioned coaches are now being built in railway workshops on a scale hitherto not attempted.

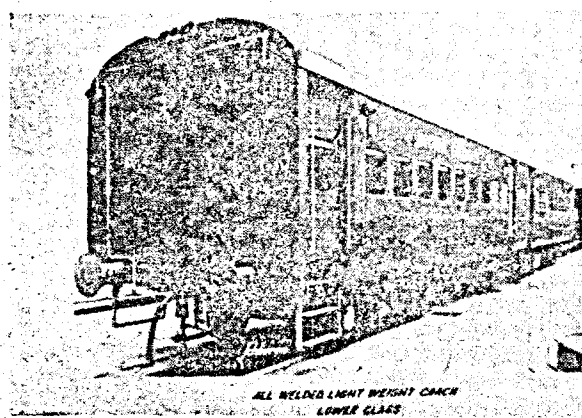
Lightweight Coach Adopted

The annual fuel bill of the Indian Railways is of the tune of Rs. 30 crores and the fuel resources of India are by no means unlimited. The question of weight reduction of locomotives and passenger carriages on a long term basis is, therefore, one of great economic importance and deserves serious study.

The lightweight movement gained considerable momentum in the early thirties and the development of carriages of lightweight designs started simultaneously in Europe and America.

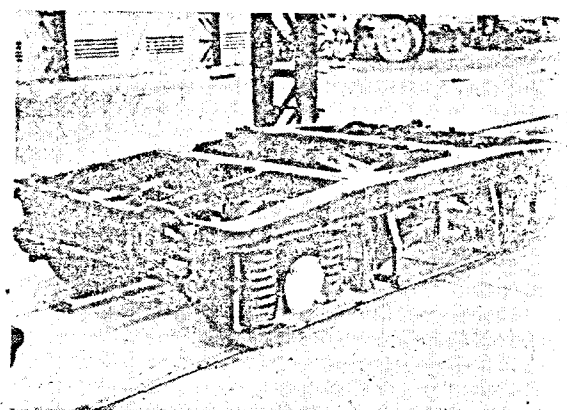
Soon after the close of World War II, the Indian Railways decided to adopt all-metal lightweight construction for passenger carriages with improved amenity standards in third class compartments. In preparing new designs, advantage was taken of the progress that had been made in this field in the more advanced countries and our own experience within all-metal carriages.

One basic shell was designed in collaboration with a Swiss carriage building firm which has long experience in the construction of lightweight all-metal carriages, for furnishing the four classes of passenger compartments with a view to achieving production economies and standardization. It took us over one year to complete about 1,000 drawings that were required for the guidance of manufacturers.



The modern all-steel coach to be manufactured in I. C. F.

The all-metal body of our new carriage constitutes six main units, namely, a roof, two body sides, two body ends, and the underframe which are joined together rigidly to form one integral structure, in which all the members share stresses. These units are produced in jigs to ensure interchangeability.



A bogie of the Schlieren Coach.

The conventional third class carriage with timber or steel body weighs about 42 tons on rails. To save even one ton of weight in a carriage had presented many design problems. In the new carriage, however, a reduction of seven tons has been achieved and the tare weight reduced to 35 tons. In a train of 10 bogies, it means 70 tons of less dead weight, or two additional carriages can be hauled for no extra cost in fuel. This saving would have been impossible had we not adopted the skin stressed tubular construction.

Safe and Relaxed Travel

The amenity standards in the new carriage for third class passengers by far surpass those in the older carriages. The lavatories in this class are similar to those in upper classes. The appointments in the lavatory include a mirror, wash-basin in China or stainless steel with spring loaded push cock, flushing type pan of improved design in stainless steel, spring loaded lotah filler cock, and attractive interior finish.

In the compartment, we have provided seats with curved profile to minimise fatigue, 10" ceiling fans on a liberal scale, balanced window

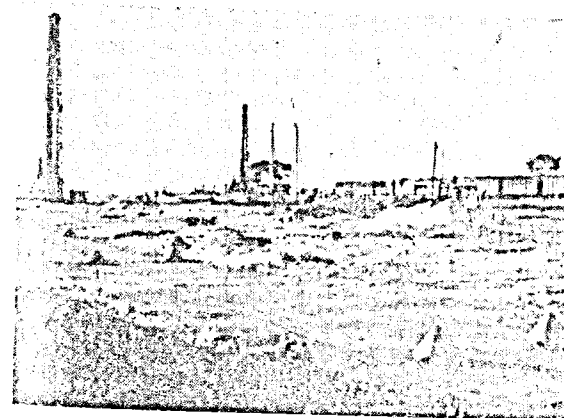
shutters in light alloy, window runners also in light alloy, interior finish in attractive colour scheme and blue night lamps to keep the insects out which are attracted towards ordinary lights. The minimum intensity of lighting has been increased from one to about two foot candles.

In short, the third class carriage that we are now placing in service is expected to meet in full measure the hopes and expectations of our people. This carriage offers safe and relaxed travel, and not the least feature of the progress made is that the Railways are offering so much for so little.

Construction of a Giant Factory

BY SRI O. S. MURTHY, B.A., B.E., (Hons.), A. M. I. Struct. E.,

Indian Railway Service of Engineers, Engineer-in-charge, Integral Coach Factory, Perambur.



A view of the Factory Site in September 1952
Over 2,500 piles have been driven to support the Factory's structure

* * *

Ten Shops

The general arrangement of the shops follows the work-flow. Designs had to be made for 10 shops, and before under-taking the work, the requirements of the mechanical engineers were ascertained in respect of several details, such as width of bays, heights of crane operation, sizes of openings, etc. In the rational design of a factory, the civil engineer can contribute towards the efficiency of production. With bad planning and unsatisfactory detailing, the civil engineers' work can be a great hindrance and impediment to the flow of production.

Sup. 2

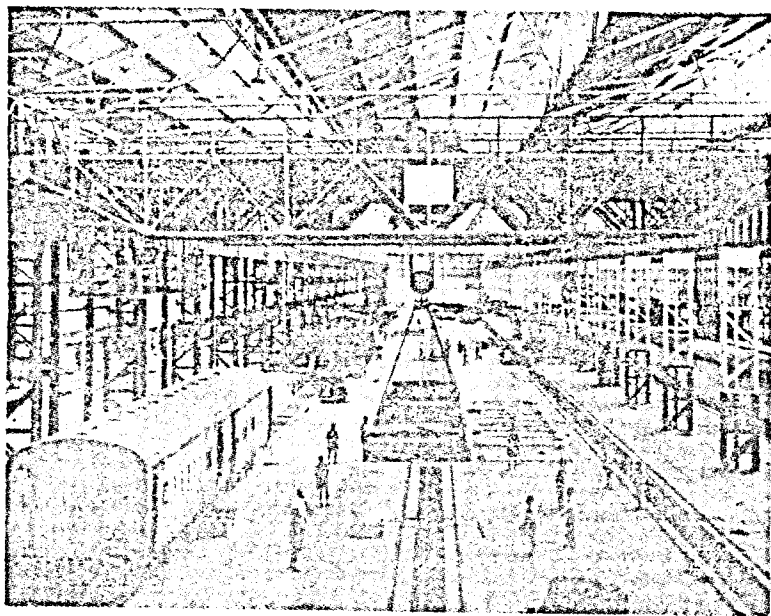
tion in the years to come, while by forethought and good planning, he can directly assist in increasing the efficiency of production.

The lighting and ventilation of the shops were carefully planned, and after careful consideration, the percentage of glass in the roof was decided at 30 per cent. In deciding the width of bays, the experience gained at Chittaranjan, where the bays are 40 ft. in width, was of great assistance. It was found that with a 40 ft. wide bay, it was difficult to arrange three rows of machines, while it was too wide for two rows of machines. Therefore, a 50 ft. wide bay has been standardised for the Integral Coach Factory in order that a third row of machines could be installed if future demand arises.

One noteworthy feature of the general layout is that there are three overhead gantry cranes 80 ft. nominal span, covering the space between the shops. The handling of the raw material stored under these gantries as also the movement of components and sub-assemblies from one shop to another, is made easy, thus minimising manual effort.

Standardisation in Shops

In the design of the shops, standardisation has been kept prominently in view. All units, such as the roof girders, glazing girders, side



Assembly Shop — I. C. F.

framing and other details, are common to all shops. This has meant lower fabrication costs. The crane spans have also been standardised.

* * *

Under-Ground Services

All the services, such as compressed air, water supply, electrical and telephone cables, etc., are carried in trenches laid in the floor and covered over with steel chequered plates. This feature, as compared with the practice of carrying the pipes and services above the ground, has contributed towards general cleanliness and neat appearance of the shops.

Ancillary Buildings

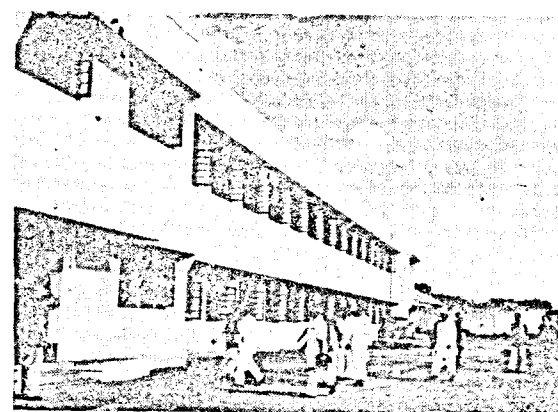
The most important of the ancillary buildings connected with the workshops is the administrative office building. This is a four-storeyed steel-framed structure founded on piles, and is completely air-conditioned. The estimated cost of the structure including air-conditioning is Rs. 14.93 lakhs. The building has a floor area of 59,252 sq.ft.

A large double-storeyed structure outside the compound of the factory serves as a workers' canteen. It is proposed to run the canteen as a cafeteria. Under the roof of each shop, one or more foreman's offices have been constructed on R.C.C. platforms supported on heavy R.C.C. cantilevers. The offices will be fully glazed on the sides so that from a height, the foremen can have a good view of the shops.

Staff Colony

While the factory was thus taking shape, work on the staff colony proceeded rapidly, and it was possible to house most of the construction staff in these buildings, thereby avoiding unnecessary expenditure on temporary structures for housing the essential staff on the construction.

The colony is planned on a 33-acre estate close to the factory and has been completed at a cost of Rs. 26.8 lakhs. This colony is well served by the transport system of the city of Madras. The smallest type of flat has a plinth



Canteen Building—I.C.F.

grounds for adults and a children's park add to its amenities. Keeping of cattle has been prohibited in the colony and to serve the needs of those who wish to own cattle, community cow sheds have been built at a convenient distance from the residential flats.

Protected water supply for the factory and the staff quarters has been arranged by bringing water from Ennore, a distance of 11 miles from Perambur. The scheme is a joint venture of the Southern Railway and the Integral Coach Factory administration and costs Rs. 11.5 lakhs.

* * *

area of 325 sq. ft. and is electrified and fitted with a tap. Lavatory and bathing facilities are provided at the scale of one closet and one bathing place for two families. All the other types have individual sanitary and bathing facilities.

Dust-proof roads and water-borne sewage have been laid for the colony. Ample play-

A mighty industrial unit has been constructed and brought into production exactly three years from the date the first pile was driven at site. Judged even by standards set by countries more industrially advanced and possessing unlimited resources of building material and mechanical equipment, the team may well be proud of a fine job.

Training Worker Citizens for Integral Coach Factory Role of Technical Training School

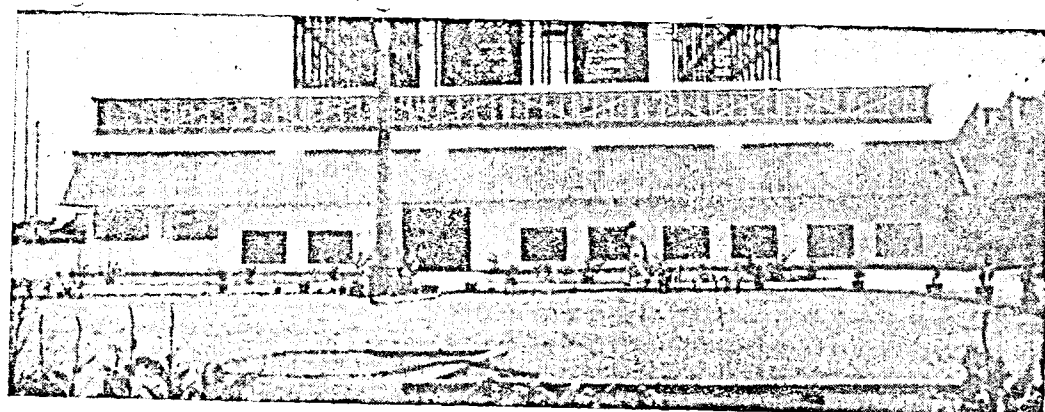
BY SRI U. A. KAMATH, *Principal, Technical Training School, Integral Coach Factory*

The Technical Training School of the Integral Coach Factory was inaugurated on March 20, 1954 by the Deputy Minister for Railways, Sri O. V. Alagesan.

To meet the Production targets laid down, the labour force in the factory was scheduled to be increased from 110 in July, 1955, to 3,800 in July, 1959. Skilled workers were to total 2,850 or 75 per cent. of the number. Of these a total of 2,545 would be required in three main trades, fitter, machinist and welder. The School was, therefore, designed to provide training capacity for 200 fitters, 200 welders and

120 machinist apprentices, every year, recruitment being half-yearly. By 1959, it was planned that the school would turn out 1300 fitters, 520 welders and 725 machinists, thereby meeting a major portion of the demand for skilled workers in the factory.

The task of training worker-citizens for the Integral Coach Factory involves training for proficiency in work, instruction for encouraging a sense of belonging within the firm and non-vocational education for life. These are the goals which the school has set before itself.



Exterior view of the Technical Training School of I. C. F.

Training System without Precedent

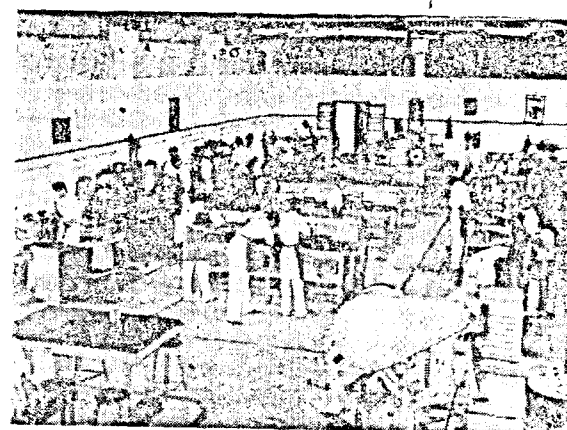
The system of training skilled craftsmen adopted at the school is without any precedent in India where apprenticeship of three and a half years to five years is accepted as standard. With a view to meet urgently the factory production targets, the Railway Board agreed, as a special case, to reduction of the period of apprenticeship to one and a half years. This reduction is achieved by the twin method of recruiting apprentices who before enrolment have undergone a minimum of one and half years training in their particular trade and by adopting more improved, intensive and efficient methods of training.

In view of the lack of precedent for this type of training in India, the syllabi of training had to be developed from scratch. The apprenticeship is made of six months' basic training in the training workshops attached to the school followed by 12 months specialised training in the factory. This initial basic training is an important part of the training scheme. The main emphasis is on practical work on which the apprentice spends 27 hours a week, the theoretical and citizenship training consuming 21 hours, making a total of 48 hours a week. The training centre is like an enclosed swimming pool in which apprentices learn to swim, the factory being the open sea with some quite large waves.

Swiss Instructors

Practical training in the training workshop is given under the expert guidance of Swiss instructors, one for each of the three departments, fitter, machinist and welder, assisted by Indian instructors, working under a senior Swiss instructor. Control is intensive to ensure that all apprentices attain a minimum basic level of skill by concentrated attention and provision of adequate raw materials, tools and other facilities, so that when they go to the factory floor for further training, they are in a position to handle independently under close supervision, jobs which naturally fall to the lot of skilled workers. This satisfactory result is obtained by systematic graded exercises which have been specially developed.

One of the highlights of the training workshops is its welding department. The integral coach is an all welded design and this throws a heavy responsibility on the school for training the high grade welders whose work will always be dependable and who can be relied upon to turn out modern all-welded passenger coaches under conditions of mass production. The lack of partially trained welders offering for recruitment places an additional burden on the school which has to be made up by relaxing standards of admission, by stricter control during training and by increased supervision.



Machine Department of the Training Workshops at I. C. F.

While the main emphasis is on the practical training, theoretical training is a valuable adjunct, keeps in step with it and assists the apprentices to grasp their practical work more clearly.

Inculcating Discipline

It is made compulsory for all apprentices to join the Auxiliary Cadet Corps which was inaugurated in August, 1954. Training in this Corps has many facets such as parades, physical training, citizenship training, community work and sports, covering a total of five hours per week. In addition, an hour has been set apart for an "individual expression" class to develop qualities of clear and coherent expression. Opportunities have thus been made available for displaying inherent qualities of leadership and developing traits of good citizenship.

Even more important than the training place itself are the instructors. The number of instructors has been increased to provide one for every 10 apprentices and a full time principal is employed. Starting from four Indian and two Swiss instructors in March 1954, the School has now on its rolls 22 Indian and 4 Swiss instructors.

A separate organisation deals with the transfers of the apprentices to the factory, after the basic training and follows up their progress on the factory floor.

In-plant training for 12 months is an integral part of the apprenticeship scheme. During this period, the apprentice, who is already accustomed to independent work in the training workshop and possesses a versatile training, is given tasks which otherwise fall to a qualified worker. During this period, they are put in small batches to work under Swiss technicians and Indian technicians who had training at Schlieren. His abilities and attention to duties are recorded and a final trade test is given before his entry into the skilled grade.

Social Life

Since the School was inaugurated in March, 1954 with two wings of the workshop, a third wing has been built and brought into commission in October, 1954. A new school building to cost Rs. 3 lakhs is planned to be built and brought into use early next year.

To assist the apprentices in gaining valuable social experience in community living, a hostel to house 250 apprentices has been planned and is now being built. The hostel will, when completed, cost Rs. 8,43,000 and will become the centre of the social life of the apprentices after working hours.

These new and impressive buildings for the school and hostel are expected to be ready before March next year and therefore it can be claimed that when the School completes its second year of existence in March, 1956, it would be well set to fulfil its functions laid before it in a satisfactory and efficient manner. The total capital costs would then total about Rs. 20 lakhs in all. Plans are also on the anvil for increasing the floor space and equipment provided for the training workshop to further improve the standard of practical training.

The aim of the Integral Coach Factory Technical Training School is, in short, to harness the ability and intelligence of the trainees, to impart suitable training through methodical practical work, to inculcate a sense of discipline and enthusiasm by widening the outlook through class room lectures, visual aids, opportunities for individual expression, etc. and thus to mould them into craftsmen in the correct sense of the word.

A Family of Four Thousand

By K. SUBRAMONIAM, Personnel Officer, Integral Coach Factory.

The Integral Coach Factory authorities have been devoting considerable attention towards developing and building up an organisation for personnel management which will on the one hand ensure that the workers enjoy the rights due to them and at the same time realise and act up to the obligations devolving on them.

The function of providing the worker with the facilities to enjoy his rights will vest in a Welfare Officer who will be assisted by a number of Welfare Inspectors.

Work Environment.

The entire factory construction has been so planned that the interior of any shop presents a pleasing appearance and the machinery layout so drawn up that machines are arranged in regular order. There are no belts to mar the scene, all the machines being fitted with individual motors, in keeping with the latest practice. Plenty of moving space has been provided between and around the machines and the entire floor space is unobstructed. All the electric leads for the machines, compressed air, water etc. are brought along trenches, which are covered with checkered plates, flush with the floor. The rails in the factory too have been laid flush with the floor so that the risk of anyone tripping and falling down is eliminated.

A pleasing colour scheme is proposed to be painted on the shop walls. The roads inside

the factory are all dust proof cement roads. Ice-cold water will be available at hand for all workmen from water-coolers which will be provided at the rate of about one for every 200 workmen, each water cooler costing over Rs. 3,000 and with a capacity of 80 gallons. So much for the worker while at work.

Canteen and Rest House.

A spacious double-storeyed building has been constructed at a cost of over Rs. 1,50,000 to house a canteen and rest shed. The canteen will be housed on the ground floor with an area of about 9,600 sq. ft. and provided with two washing rooms of 750 sq. ft. and 112 sq. ft. A spacious kitchen, store room and pantry have been provided and the kitchen is being fitted up with the latest electrical cooking ovens. Equipment, all in stainless steel, and steel furniture at a cost of over Rs. 40,000 are being supplied by the Administration.

The canteen will be run by a committee consisting of equal numbers of representatives of workmen and the Administration. Arrangements are also being made for the supply of snacks and coffee or tea for the workmen at the work-spot both during the forenoon and afternoon sessions and for this purpose orders have been placed for stream-lined stainless steel canteen trolleys.

The first floor of the canteen building will have a spacious lunch room for the benefit of

workmen who bring their own meals and also a lounge to serve as a rest-room where it is hoped to provide newspapers and other light reading matter. The rest room and lounge will also be furnished with steel furniture. The entire building is well-ventilated and amply provided with electric fans.

Thrift Encouraged.

Encouragement is given to workmen to practice thrift and develop self-reliance through co-operation. A consumer co-operative society is being formed with the active assistance of the Administration.

Next comes recreation and amusement. The Administration has provided a furnished building to be used as an institute (or a club house) by workmen. In addition there is also an I.C.F. sports club which is actively encouraged. As active steps towards encouragement of sports, employees taking part in inter-shop, inter-Railway or recognised outside tournaments are given free passes and special casual leave.

Eliminating The R's.

It has been well-said that "the position of the average worker in much of modern industry may be summed up as dominated by four R's: repetition, routine, red-tape and risk and the aim should be to reduce, by the largest extent possible, the dominance of these R's."

The repetitive nature of the work in a manufacturing shop like the I.C.F. based on the production-line idea, creates feelings of monotony resulting in boredom and a certain amount of feeling of apathy to the work and to the undertaking. Routine, in the matter of working to regular hours, under regular conditions and according to regular practices, with the same people about and above, might similarly blunt one's keenness and enthusiasm for work. Red-tape is such a well-known

expression that it needs no explanation. But here it is used in a special sense, to indicate the feeling of being just one cog in a huge plant, resulting in frustration. The risk element refers to the risk of accidents, of losing one's job, resulting in a feeling of insecurity.

These R's must be eliminated and a positive feeling of security and confidence created in the workmen. The effect of the repetition element will be minimised by the introduction in due course of a bonus system of payment for production over specified norms. To do away with the ravages of routine, it is necessary that every workman must have a quick and effective outlet to ventilate his grievances without let or hindrance. It is proposed to ensure this through a team of Welfare Inspectors and a Welfare Officer.

The Welfare Officer and his staff will maintain the closest personal contact with the workmen and endeavour to inspire confidence and a feeling of security in them, at the same time impressing on them the need to realise and act up to their responsibilities. Each individual worker will have to be made to feel that he counts and that his contribution is as important as the contribution of any one in authority over him.

The team spirit displayed by officers and men in this Project has attracted the admiration of many a visitor and drawn eloquent tributes from Sri Lal Bahadur Shastri.

"The Railway system can only be run with the fullest co-operation of all those engaged in it, keeping in view always the good of the public as well as the good of those engaged in serving the public through this vast organisation", said Sri Jawaharlal Nehru. This inspiring message will be constantly before all those employed in the I.C.F. and it will be their earnest endeavour to make it, in the truest sense of the word, a family of four thousand.

Messages

(1)

Sri Rajendra Prasad, President of India, in a message says :

I am glad to know that the Integral Coach Factory Project, Perambur, Madras, which was initiated by the late Shri N. Gopalaswamy Ayyangar in 1952 is now about to go into production. On this happy occasion I congratulate all the workers who have helped in the successful completion of the Project within the stipulated period. I hope this creditable achievement will be an incentive to greater success when the Factory which I understand is equipped with the latest machinery goes into full production. It is a matter of pride that the Coaching Factory will be one of the largest in the world. I wish all success to it.

* * *

(2)

Dr. S. Radhakrishnan, Vice-President of India, in a message says :

I am delighted to know that the Integral Coach Factory will start production on the 2nd of October, 1955, and that the Prime Minister will inaugurate it. The inauguration takes place on the birthday of Mahatmaji whose life has been one of unceasing and dedicated work for our country. This occasion marks another step in the onward progress of our country. I hope that all those connected with the organisation whether in the superior or the subordinate grades will regard themselves as workers in a common cause.

* * *

(3)

Mr. Lal Bahadur Shastri, Minister, Transport and Railways, Government of India, says :

The 2nd of Oct., this year will have a special significance for the Indian Railways. On that day will come the 2nd of the Perambur Integral

Coach Factory the first "integral" type of coach to be manufactured in the country. Among the many achievements to the credit of Indian Railways since Independence, the Perambur Coach Factory has an assured place, while Chittaranjan is progressively taking care of our loco requirements; we shall look to Perambur for meeting our increased needs in the matter of passenger coaches, and I am glad to note the progress this Factory is making under the guidance of its Chief Administrative Officer and with the help and co-operation of his officers and men. It is a happy thing that the Prime Minister will be inaugurating the production and I send my best wishes for the success of this important enterprise of the Indian Railways.

* * *

(4)

Mr. K. Santhanam, Lt. Governor of Vindhya Pradesh, in a message says :

"The inauguration by the Prime Minister of India of the Integral Coach Factory at Perambur is the second great mile stone in the achievement of freedom for Indian Railways from their dependence on foreign imports and local private interests. While it is true that it is not possible for a big undertaking by the Railways to be entirely self-sufficient it is essential that they should be so in such vital equipment as locomotives, coaches and wagons.

"The Integral Coach Factory at Perambur will also promote the development of new techniques and the training of technicians which will be useful not only for the building of coaches but in all other engineering industries. Perambur was chosen for the site of the factory on merits but incidentally it will help to increase the industrial importance of the City of Madras. I have no doubt that the Government and people of the State will co-operate in the successful working of the factory. I wish it all success."

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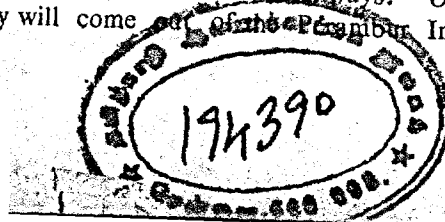
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