PERSONNEL MANAGEMENT IN THE SOUTH AFRICAN RAILWAYS.

Thesis submitted to the University of Cape Town for admission to the degree of Master of Arts in Social Science.

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PURPOSE AND SCOPE OF REPORT.

This report has been written with three main objects in mind. These are (i) to attempt to present as fully as possible factual evidence relating to the principles and practice of personnel services in the South African Railways Administration; (ii) to evaluate present services in the light of Railway requirements; and (iii) to suggest ways and means of remediying any deficiencies in the functioning of these services.

The introductory section seeks to define personnel management and to outline the development and scope of personnel work in industrial undertakings generally. The first chapter contains a brief account of the organization and control of personnel services in the South African Railways and indicates the relationship between these services and the special staff needs of the South African Railways. In the succeeding chapters each type of personnel service provided by the South African Railways is dealt with separately and a critical analysis of each service is attempted. On the basis of these analyses the general conclusions drawn are summarized in the final chapter which contains suggestions for improving or extending personnel work in the South African Railways.

The scope of the subject is so wide that it has not been possible to cover every aspect of Railway personnel services in detail, and comparative work has been limited by the lack of recorded information relating to personnel management in other large industrial undertakings in South Africa.

Railway non-European employment policy has not been discussed in any detail. This subject is one which cannot be studied in regard to the Railways alone but requires to be related to conditions in the Union as a whole.
The complexity of the issues involved and the difficulties associated with obtaining accurate information at this time would have made this a major task. The personnel services provided for European and non-European railway servants have, however, as far as possible been dealt with on parallel lines.
CHAPTER I.

INTRODUCTION.

1. DEVELOPMENT OF PERSONNEL MANAGEMENT.

Since the beginning of the industrial revolution in the 18th century, industry has passed through many phases. It has advanced from simple domestic methods of production to the complexity of present-day factory production. Hand labour has been replaced by machine operation and haphazard individual effort has given way to large-scale planning and the adoption of standardized production techniques. Industrial expansion has been accompanied by many changes and has had far-reaching effects on human behaviour and human activities. Men and women who once laboured on the land or worked in their own homes are now concentrated in large numbers in industrial centres where social conditions are complex and they are exposed to industrial hazards and the increased economic risks associated with urban life.

During the last century when industrial undertakings were usually small, the employer wielded great power. He could hire and fire as he saw fit and the worker had little alternative but to do what he was told. There were, however, some compensations. Mass production was not yet in vogue and the worker was, therefore, in less danger of losing his individuality. There was room for the craftsman and there were better opportunities for creative and satisfying work. Moreover the employer was constantly in contact with his workers and could make allowance for their individual differences. It is possible that maximum efficiency was not achieved by these methods, but the employer could at least stimulate the interest of his workers by his presence and if he were adept at handling people he would have developed the sort of understanding which promotes co-operation.
In addition there were many employers who accepted a paternal responsibility for the welfare of their men — either because they realized this was in the interests of efficiency, or for some humane motive.

What the present-day worker has lost in individuality is to some extent balanced by the growth of group feeling and the possibility of group action. The establishment of trade unions and the development of industrial legislation have made him less willing to be managed and have added to the difficulties of management, but have not necessarily made the worker happier or more efficient.

In large industrial undertakings where personal contact between the employer and his workers is no longer feasible and where much of the work is necessarily of a routine or monotonous nature, the worker may tend to feel that he is an unidentifiable unit in a complex machine — this is particularly likely to happen where mass production techniques are adopted. Frustration, loss of interest and lowered efficiency are the inevitable results of such a system, unless ways and means of substituting for the personal contact and interest of the employer and of counteracting the boredom of monotonous work can be found.

In recent years much experimental work has been conducted in the field of human relationships in industry and as a result scientific methods of dealing with personal problems have been devised, which are commonly known as personnel management.

Although personnel services in a limited form have had a place in industrial undertakings for some time, personnel management as an integral part of business organization is a fairly recent concept. In consequence the scope and functions of personnel management have not been
very clearly laid down nor are standardized techniques and uniform methods of application in use.

Little recorded information is available on the general principles and practice of personnel work in South Africa, but in general there is a lack of conformity between the methods adopted in different organizations and within individual undertakings the services provided are often incomplete and unco-ordinated. This is largely because the services have grown up piecemeal without regard to a planned personnel management programme. Few organizations have adopted personnel management in its entirety and there is a tendency for different organizations to concentrate on specialized aspects of personnel work and to neglect others. It is common to find organizations in which health services or social security measures or some special aspects of personnel work such as motion and time study or scientific selection and placement, are well developed, but in which a well-balanced and properly integrated system of personnel services is lacking. At the one extreme there are a few undertakings where no attempt has been made to introduce personnel services of any kind and at the other extreme there are organizations in which comprehensive personnel services are operated. The latter are, however, in the minority in South Africa.

This somewhat unsystematic approach to personnel work may perhaps be attributable to lack of knowledge, for in South Africa there is still a good deal of confusion as to what is meant by personnel management.

2. DEFINITION OF PERSONNEL MANAGEMENT.

Put very simply personnel management is a specialized branch of the management function and is concerned with personnel. In other words it is that part of the management function which deals with the living structure of the business or industrial undertaking as distinct from the other specialized branches of management which may be responsible for the organization of machines, materials, finances or sales. Its scope extends as far as the relationships and activities of the entire personnel and its primary function is to promote the wellbeing of all those who are engaged in the undertaking. Wellbeing is used here in its widest sense and not in the restricted sense sometimes associated with the word in social work. Personnel management is also concerned with efficiency but regards efficiency as a by-product of wellbeing rather than as an end in itself.
It is difficult to draw a hard and fast distinction between industrial welfare services and personnel management and in some organizations personnel services are referred to as welfare services and in others as personnel management. Personnel management perhaps gives a clearer indication of the place of personnel work in the industrial organization since it implies that personnel work is a part of the management function.

The Industrial Welfare Society (London) defines industrial welfare work as "all that part of management concerned with working conditions affecting the security, health and well-being of workers beyond statutory requirements, and with developing understanding between employer and employed by the widening of their mutual responsibilities."

This definition is very similar to the definition adopted by the Institute of Labour Management (London) which defines labour management as "that part of the management function which is primarily concerned with the human relationships within an organization. Its objective is the maintenance of those relationships on a basis which, by consideration of the well-being of the individual, enables all those engaged in the undertaking to make their maximum personal contribution to the effective working of that undertaking."

In particular labour management is concerned with:

Methods of recruitment, selection, training and education and with the proper employment of personnel;
Terms of employment, methods and standards of remuneration, working conditions, amenities and employee services;
The maintenance and effective use of facilities for joint consultation between employers and employees and between their representatives, and of recognised procedures for the settlement of disputes."
In an article on the Development and Scope of Industrial Welfare Work, Robert R. Hyde, M.V.O., Director of the Industrial Welfare Society, draws attention to the use of the term personnel management by the Balfour Committee as long ago as 1929. The following is an extract from the relevant report:

"The recent tendency, which we are disposed to think is a healthy one, is to deal with welfare as an integral part of works administration, and not as a separate form of activity. This tendency has gone still further in the United States, where the word "welfare" is being discarded for such terms as "personnel work" which has been defined as the direction and co-ordination of the human relations of any organization with a view to getting the maximum necessary production with the minimum of effort and friction and with proper regard for the genuine welfare of the workers."

Dr. C. H. Northcott, Labour Manager, Howntree and Co., accounts for the change in terminology in the following way in his Preface to Personnel Management: "The wellbeing of the individual came to be regarded as an intrinsic business aim rather than a hobby of philanthropists, and methods designed to promote it won their place as sound business activities. The change is marked in the term "personnel management", by which the movement is now very generally known."

The term personnel administration is sometimes used as a substitute for personnel management and the following definition of personnel administration given by Tead and Metcalf in "Personnel Administration" corresponds with the definition of personnel management quoted by the Balfour Committee in 1929:

"Personnel administration is the direction and co-ordination of human relations of any organization..."
with a view to getting the maximum production with a minimum of effort and friction, and with proper regard for the genuine well-being of the workers."

In discussing the aims of personnel administration, Patterson in "Social Aspects of Industry" states:

"The triple concern of personnel administration is the improvement of relations between the worker and his work, between the worker and his fellow employees, and between the worker and his employer.

Personnel administration seeks to improve general working conditions of a plant so that the health, comfort, and safety of its workers can be advanced. It seeks to reduce excessive labour turnover by a more careful selection, placement, and education of workers. It also strives to eliminate friction between men and management and to promote better industrial relations. Finally, personnel departments usually administer welfare programs among employees."

Personnel management is an integral part of the management function and is the focal point from which various types of personnel services radiate. These usually consist of (i) employment services; (ii) welfare services; (iii) health services (iv) social security measures; (v) techniques of industrial psychology.

1) Employment Services:

Employment services are concerned with such matters as recruitment, selection, placement and training of employees, conditions of employment which include hours of work, rates of pay, holiday and promotion arrangements, motion and time study, and environmental conditions within the factory. Some aspects of employment services usually fall within the scope of industrial legislation, for example, hours of work, rates of pay, holiday and promotion arrangements,
and factory conditions. But industrial legislation lays down minimum standards in regard to the wellbeing of workers and personnel management seeks to provide optimum conditions in the interests of the worker himself and as a means of promoting efficiency.

(ii) **Industrial Welfare Services**

The present tendency is to regard industrial welfare services as a specialized branch of personnel management although, as already mentioned, some organizations use the term welfare services to denote all forms of personnel work. Some organizations regard social services as welfare work and some group health and social services together as welfare work. Other organizations substitute the word 'employee' for 'welfare' and refer to the types of services mentioned as employee services.

Patterson in "Social Aspects of Industry" describes industrial welfare work as follows:

"The extension of the functions of management beyond the factory walls into the leisure time of the workers has been termed 'welfare work'."

Under welfare work he includes social service, recreation schemes, housing projects, thrift programmes, and health, safety and educational services. In some large organizations welfare work is sub-divided so that there are separate branches for dealing with each specialized service. Many organizations do not conduct their own social services but refer cases to the appropriate social welfare agencies when necessary.

For the purposes of this report Patterson's definition of welfare work has been broadly adopted, but welfare services have been divided into two sections, (i) family welfare services; and (ii) general welfare services including housing and staff feeding schemes and recreational services, etc.
(iii) **Health Services:**

In general industrial health services consist of measures for the protection of the health and safety of workers by the supervision of working conditions and the elimination of factors which might give rise to industrial accidents and diseases; the provision of facilities for first aid treatment; health education and medical treatment and in some cases the latter service is extended to include workers' dependants.

(iv) **Social Security Measures:**

Social security measures were among the earliest personnel services to be adopted in industry and there are still many organizations which have not extended personnel work beyond the provision of some type of social security scheme such as superannuation or medical benefits. In countries where there is no general State social security programme, such schemes are common in industrial undertakings and although they are conducted under the supervision of the personnel management department they form only one aspect of personnel work.

(v) **Techniques of Industrial Psychology:**

Industrial psychology is also closely related to personnel management as is evident from Charles Myers' comments on the scope of this work. In "Industrial Psychology in Great Britain" he states:

"But we have always to bear in mind that industrial life occupies less than one-third of the worker's total hours and that conflict with industrial conditions may be a reflection of conflict with domestic ones, as well as being the outcome of inherited tendencies or of bygone experiences, especially in childhood or adolescence. Clearly, therefore, it becomes the function of the industrial psychologist not merely to investigate..."
methods of payment, the movements of the worker, and the length of hours of his work, but also to attempt to improve the mental make-up of the worker, to study his home conditions and to satisfy his native impulses, so far as they are satisfiable under modern industrial conditions where, despite longer education and increasing culture, industrial specialization tends to reduce him to the status of a small wheel working in a vast machine, of the nature of which he is too often kept in complete ignorance, and towards which consequently he is apt to develop apathy or actual antagonism."

Industrial psychology is, however, in general more concerned with the research and experimental aspects of personnel management and provides many of the necessary tools for the effective application of personnel management. As Patterson states, "personnel administration added industrial psychology to industrial engineering." In some large organizations, as for example Rowntree and Company, provision is made for industrial psychology as a special branch of personnel management.

For the purposes of this report the broadest definition of personnel management has been adopted so as to include employment services, health services, the application of industrial welfare services, the supervision of social security measures, and the techniques of industrial psychology.

3. FUNCTIONS OF PERSONNEL MANAGEMENT.

Many writers who are concerned with the human factor in industry have commented on the fact that it is common for industrialists to pay greater attention to machines and materials than to their employees. In industry every effort is made to prevent defective functioning and breakdown of plant by providing for regular scheduled servicing and overhaul. Machines
are not put into the hands of untrained operatives nor are they
overloaded or used for purposes for which they were not designed.
In the erection of structures allowance is made for a certain
margin between the maximum strain to which the structure will
be exposed and the strain which it could bear. In other words
the structure is not loaded to maximum capacity. Similar
provision is made in the case of locomotives. For example,
a locomotive with an 'availability' of 80% is available for
service 80% of its time and the remaining 20% of its time is
devoted to regular scheduled servicing and repairs.

This scientific treatment of machines and
materials has not generally been extended to the men and women
who use the materials and design, operate, service and overhaul
the machines.

If an employee is inefficient it is often assumed
that it is his own fault. Few employers trouble to find out
whether the employee is being mis-managed, used on work for
which he is not suited, or overloaded with work. Regular
servicing and overhaul in the form of periodical medical and
dental examinations are rare.

There are many employers who do not know whether
their employees are working efficiently or inefficiently and
who are ignorant of the multiplicity of factors which affect human
efficiency. Worker efficiency is sensitive to physiological,
psychological, sociological and economic factors. The worker's
health, his mental state, his relationships with other people
and his economic circumstances all influence the quality and
quantity of his work. Personnel management seeks to ensure
full efficiency by taking all these factors into consideration,
and broadly its functions fall into the following main categories
(a) Recruitment, selection, placement and training of
workers. If the job is too easy the worker tends to become
bored and discontented. If it is too difficult he becomes
discouraged and anxious. By using scientific methods of selection an attempt is made to fit him into his right niche in the industrial organization.

(b) Supervision of working conditions within the plant. Personnel management seeks to promote the health, safety and comfort of workers by providing suitable environmental conditions within the plant, by arranging rest pauses for workers engaged in strenuous or monotonous work, by establishing canteens and rest rooms and by planning recreational activities.

Personnel management is also concerned with the psychological factors which result in industrial strain and fatigue and attempts to reduce the mental stresses of industrial life.

In addition personnel management makes systematic studies of working conditions in order to determine the most favourable conditions from the point of view of the worker's output. For example investigations are conducted to ascertain optimum lighting and temperature conditions, the times when rest pauses are most beneficial and the number of working hours which will lead to greatest efficiency.

(c) Supervision of conditions of Employment. Conditions of employment require to be scientifically planned and clearly laid down to ensure uniformity and justice and to prevent prejudice, discrimination and misunderstanding. Personnel management is primarily concerned with promotions and dismissals, as conditions in regard to wages, number of working hours per week and overtime and holiday arrangements, are generally either laid down by legislation or in company regulations. It is, however, a function of personnel management to investigate representations from the staff in regard to these matters and to attempt to clear up mistakes.
and misunderstandings. It may also recommend changes in the number of working hours in the interest of greater efficiency. Such recommendations could be supported by output figures and would carry more weight than workers' demands.

(d) Planning Incentives. Personnel management includes research into the factors relating to worker motivation. To stimulate the worker's interest in output suitable incentives must be planned. Financial incentives are among those most commonly adopted in industry and they involve the conducting of systematic time studies.

(e) Conducting Motion Studies. Personnel management helps the worker to work as effectively as possible by undertaking motion studies with the object of eliminating unnecessary and wasteful movements and utilizing the worker's efforts to best advantage. Supervision of general factory organization and flow of work are also significant in this respect.

(f) Promoting the Health and Welfare of Workers. It is the business of personnel management to see that working conditions are not detrimental to the health of workers and that individual workers are not placed on work which would affect their health adversely. Supervision of medical services for the treatment of sickness and injury also fall within the scope of personnel management. In addition personnel management is concerned with the establishment and supervision of any services relating to the welfare of workers and their families. Such services may include any or all of the following: social services, feeding services, health and welfare educational services, thrift schemes, housing projects, services for workers' children such as creches and girls' and boys' clubs.
(g) Safety of Workers. Personnel management is responsible for the prevention of accidents and the promotion of safety. This work usually includes instruction in safety first measures and in first aid, and the elimination as far as possible of conditions within the factory which might lead to accidents. Testing for accident proneness and the suitable placement of accident-prone persons so that they are removed from hazardous types of work are other branches of safety work which fall within the scope of personnel management.

(h) Security of Workers. The worker cannot be at his best if he is anxious about possible interruption of earnings through sickness, accident, unemployment or old age. Personnel management, therefore, endeavours to provide for the social security of workers by the introduction of social security measures such as sickness, accident, unemployment and old age insurance - where State provision against such contingencies is inadequate or incomplete.

(i) Education of Workers. Personnel management is primarily concerned with the training of new employees and of supervisors and foremen. General educative measures such as lectures in health and hygiene, nutrition, safety first, physical training, are, however, also undertaken.

(j) Recreational Services. Without recreational activities the life of the worker is unbalanced. He cannot work with maximum efficiency if he has no interests outside his job. Recreational services may provide physical or mental relaxation in the form of sports and entertainment or hobbies. In the case of the worker who is engaged in dull monotonous work they may provide an outlet for creative energy and compensate for boredom on the job.

(k) Keeping Records. Personnel management is interested in maintaining records of workers relating to their abilities,
performance, personality, etc. which are useful guides to placement and promotion. Records of absenteeism, accidents and labour turnover are indispensable for the purpose of adopting preventive and remedial measures.

(1) Morale of Workers. One of the main functions of personnel management is the promotion of good morale by encouraging and arranging for staff representation in the form of works and production committees and by generally seeking to attain the full co-operation of workers.

Personnel management is in short concerned with the conservation of human resources and seeks to reduce wear and tear on the human machine and to provide industrial conditions which promote the health, wellbeing and efficiency of workers.

Human efficiency is obviously far more difficult to achieve than mechanical efficiency. A significant point which is often overlooked is that full human efficiency is not possible without co-operation. If the worker does not willingly work with his working group, with his supervisor and with management, his efficiency is impaired.

In this connection, Dr. Northcott states, "Business has two main aspects, the technical and the human, and these cannot be divorced. The technical is that of organizing materials, machines and men with a view to the production of goods or services which is the end-result sought. The human aspect is that of discovering how to achieve the fullest degree of collaboration on the part of men and women. Except in a slave society full efficiency, the measuring rod by which success on the technical side is gauged is not attained without co-operation of the men and women concerned."

Quite apart from the efficiency aspect of personnel management, there is something to be said for regarding the wellbeing of workers as an end in itself.
The purpose of industry is to provide goods and services for the community, but if it does so at the expense of some members of the community it is not fulfilling its highest function - that is service to the whole community.
In South Africa many of the larger industrial organizations, State enterprises, public utility companies, local authorities and a few of the smaller industrial undertakings have introduced personnel services in various forms. These services are not usually known as personnel management, for the term is new in South Africa, and in many cases they are not conducted in accordance with the present concept of personnel management as an intrinsic part of the management functions.

The S.A.R. Administration, which is the largest employer of labour in S. Africa, has perhaps the most extensive system of personnel services in the Union. These services include employment services, health services, family and general welfare services, and social security measures. They would all fall within the scope of personnel management if this term were used in the S. A. Railways.

In a private functional organization the direction of policy in regard to personnel services is usually controlled by a personnel director, while the execution of policy is the responsibility of the personnel manager. The S.A.R. Administration is a functional organization and the Chief Staff Manager corresponds with the personnel director in a private industrial undertaking. There is, however, no single officer comparable with the personnel manager and authority for the execution of policy concerning personnel services is vested in a number of independent departmental heads.

Railway personnel and welfare services have developed separately and were introduced at different times. Social security measures were in existence in the Railways of S. Africa before the amalgamation of the several Railway systems by the Act of Union in 1910. The earliest
security measures provided some form of insurance against sickness and old age. Soon after Union the Staff Regulations which differed in the various railway systems and even within one system were codified on a uniform basis. In 1930 a Departmental Committee was appointed to enquire into the high incidence of malaria among railway employees in the lowveld of the Transvaal and in Natal and as a result of the recommendations of this Committee the Administration began to take active steps for the control of malaria. From this beginning the health organization has grown. Between 1934 and 1935 limited welfare services were inaugurated in a railway model village and in 1938 general family welfare services were introduced.

Personnel services in the S.A. Railways have, therefore, developed over a considerable period of time. Although most of them were introduced before personnel management was heard of in S. Africa, the general structure of these services is in accordance with the present concept of personnel management in a functional organization.

Although the S.A. Railways Administration is a State enterprise it is in most respects comparable with any large industrial undertaking, the main difference being that it is not operated on a profit-making basis. The South Africa Act, however, lays down that, "the railways, ports and harbours of the Union shall be administered on business principles."

The S.A.R. Administration operates a number of different types of transportation services, namely, railways, harbours, and shipping, road motor services and airways, and the necessary auxiliary services such as catering, publicity, etc. These services cover a wide area in South Africa and South West Africa, where the Administration has a virtual monopoly in the field of transportation. Air
services extend beyond the boundaries of the Union of S. Africa and South West Africa.

The main function of the S.A.R. Administration is obviously to provide transportation services, and to do so as efficiently and economically as possible. Efficiency and economy depend to a large degree upon personnel factors, and the larger the staff the greater are the costs of inefficiency. Since the S.A.R. Administration is the largest employer of labour in S. Africa and employs roughly 160,000 persons the need for adequate personnel services is apparent.

Before dealing with the personnel services provided by the S.A. Railways in relation to their special staff needs, it is necessary to consider briefly the railway framework in which they operate.

1. ORGANIZATION AND CONTROL:

Ministerial responsibility for the general policy of the railways rests with the Minister of Transport, Pretoria, who is assisted by a Railway Board consisting of three Commissioners appointed in terms of Section 126 of the S.A. Act.

The S.A.R. Headquarters is at Johannesburg where the general control of the Railways is centralized. Managerial control is vested in the General Manager, assisted by the following officers:

Deputy General Manager;
Chief Staff Manager;
Chief Commercial and Industrial Manager;
Chief Technical Manager;
Chief Operating Manager;
Chief Harbours, Shipping and Development Manager;
Chief Airways Manager;
Chief Financial Manager;
Chief Mechanical Engineer;
Chief Civil Engineer;
Chief Electrical Engineer.

The large number of employees and the wide territory over which the railways operate have made some measure of decentralization of control necessary and authority
is, therefore, delegated to a number of controlling officers.

As long ago as 1910 the need for decentralization was felt and in the General Manager's report for that year, the following statement was made:

"The first essential in a country like South Africa is decentralization and the arrangement of the personnel in such a way as to provide a certain degree of local autonomy. Any organization which does not take into account local needs must be unsatisfactory and tend to retard rather than stimulate the promotion of the general welfare."

From Railway Headquarters radii of control spread out to the nine railway systems, each under the control of a System Manager, and to a number of different specialized departments, each under the control of a departmental head. For Railway purposes the Union is divided into the following systems:

<table>
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<tr>
<th>System</th>
<th>Headquarters at</th>
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<tbody>
<tr>
<td>Cape Western</td>
<td>Cape Town</td>
</tr>
<tr>
<td>Cape Northern</td>
<td>Kimberley</td>
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<tr>
<td>Cape Eastern</td>
<td>East London</td>
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<td>Cape Midland</td>
<td>Port Elizabeth</td>
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<td>Natal</td>
<td>Durban</td>
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<td>Orange Free State</td>
<td>Bloemfontein</td>
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<tr>
<td>Western Transvaal</td>
<td>Johannesburg</td>
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<tr>
<td>Eastern Transvaal</td>
<td>Pretoria</td>
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<tr>
<td>South West Africa</td>
<td>Windhoek</td>
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In addition there are the following specialized departments:

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<th>Department</th>
<th>Under the control of:</th>
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<tr>
<td>Chief Civil Engineer's</td>
<td>Chief Civil Engineer</td>
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<tr>
<td>Chief Mechanical Engineer's</td>
<td>Chief Mechanical Engineer</td>
</tr>
<tr>
<td>Chief Electrical Engineer's</td>
<td>Chief Electrical Engineer</td>
</tr>
<tr>
<td>Airways</td>
<td>Airways Manager</td>
</tr>
<tr>
<td>Harbours and Shipping</td>
<td>Harbours, Shipping &amp; Development Manager</td>
</tr>
<tr>
<td>Stores</td>
<td>Chief Stores Superintendent</td>
</tr>
<tr>
<td>Accounting</td>
<td>Chief Accountant</td>
</tr>
<tr>
<td>Catering</td>
<td>Catering Manager</td>
</tr>
<tr>
<td>Publicity</td>
<td>Publicity Manager</td>
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<tr>
<td>Sick Fund</td>
<td>General Secretary.</td>
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</table>

From each System Headquarters the process of decentralization is extended to the various railway
Stations throughout the Service and the decentralization of control from the other departments follows similar lines.

Staff control is vested in the Chief Staff Manager at Railway Headquarters and decentralization follows the same pattern as managerial control. Each system and each department has a staff section with staff officers who deal with all staff matters.

2. STAFF COMPOSITION:

The staff of the S.A.R. Administration, which at the end of March, 1946, totalled 164,877, is made up as follows:

- Europeans - Graded .......... 72,783
- Railworkers .......... 18,749
Non-Europeans .............. 72,345
TOTAL 164,877

Railway Staff are made up of regular and casual employees. Graded staff are all regular employees, but a certain percentage of both railworkers and non-Europeans are casual.

Graded employees at the end of March, 1946, and of the total staff in April 1946, were 73,345 non-Europeans and 43,068 Europeans.

REGULAR staff include staff on both the temporary and permanent establishments. CASUAL staff consist of two groups: (a) Persons who are intermittently employed on work which varies considerably in intensity or which is seasonal - the number of employees in this group is small in relation to the total staff; (b) Persons engaged in work of a more or less regular nature, who are ineligible for appointment to the temporary staff on the ground of lack of requisite educational qualifications, physical unfitness, or age. The conditions applicable to the appointment to the casual, temporary and permanent staffs are set out in the Railways and Harbours Service Act (Act No. 23 of 1925), and are as follows:

(a) CASUAL: A person may be appointed in a casual capacity without medical examination or other formality and shall be subject to such conditions as may be agreed upon at the time of his employment.
(b) **TEMPORARY**: No person shall after the commencement of this Act be appointed in a permanent capacity or on probation or in a temporary capacity to any office or post in the service unless such person is a British subject and is of good character and free from any mental or physical defect, disease or infirmity which would be likely to interfere with the proper performance of his duty or to render necessary his retirement therefrom earlier than the prescribed age of retirement.

(c) **PERMANENT**: No certificate of permanent employment shall be issued to any servant who has had less than two years' continuous employment.

No such certificate shall be issued to any person unless he -

(i) produces evidence that he has attained the age of 18 years, and in the case of an apprentice, has completed his apprenticeship; and

(ii) has passed a prescribed medical examination of fitness; and

(iii) possesses such educational and other qualifications as prescribed; and

(iv) is an efficient servant of good character and has conducted himself in such a manner as to justify his permanent appointment; and

(v) is in receipt of pensionable emoluments of not less than 5/- per diem.

The regular staff is divided into two categories:

(a) Officers - salaried staff, paid on a yearly basis - and

(b) Employees - paid on a daily, weekly or monthly basis.

Regular and casual non-European staff fall into two additional categories.

Conditions governing appointment to the

Salaried and Employees Establishments are set out in the Officers' and Employees' Staff Regulations Chapter 2.

The various categories of staff employed by the South African Railways are shown in annexure "A".

In a sense, the S.A.R. Administration is comparable with an Army. In an Army there is room for only a limited number of Officers and for only a few Commanding Officers. The greater part of the 'strength' of any Army must consist of other ranks. Such a variety of tasks is
Undertaken by an Army that a place can be found for almost every type of person. Officers-in-command plan and accept the responsibility for their planning. The rank and file are neither expected to plan nor are they held responsible for the execution of plans. Authority is decentralized and delegated, but planning is left to the few. For the successful execution of plans, it is necessary that the rank and file should be subjected to discipline. The private must do as he is told and must perform whatever tasks are set for him, without question, no matter how meaningless they may seem to him. Each man above the rank of private in whom authority is vested is held responsible for those below him and is responsible to those above him. The Army as a whole cannot function efficiently unless due attention is paid to the health, welfare and security of its individual members. Health, welfare and security services, therefore, form an integral part of the Army organization.

The work undertaken by the S.A.R. Administration is of so diverse a character that it is possible to employ a cross section of the population and, provided a vacancy exists, employment can be found for almost any type of worker.

In the Army there is room for only a very limited number of General Officers Commanding, so in the Railways there is room for only a few planners. The General Manager may or less corresponds with the Army Commander and the advisory group consisting of Chief Managers, the Chief Mechanical Engineer and the Chief Civil Engineer, etc., corresponds with the General Officers at General Headquarters. The nine System Managers and the nine Departmental Heads correspond with Divisional Commanders. Superintendents, Chief Clerks, Foremen, Inspectors, Supervisors, Stationmasters and Senior Clerks are the counterpart of the Army hierarchy.
of officers. Other less elevated members of the staff who wield some authority over the civil equivalents of Army privates, are comparable with non-commissioned officers.

The main staff requirements of the S.A.R. Administration and the measures adopted in attempting to meet these requirements are given below.

3. STAFF REQUIREMENTS IN THE S.A.R:

(a) Diversity of Types of Personnel:

A diversity of types of staff ranging from unskilled labourers to professionally trained persons is required by the S.A.R. Administration. In addition, a large proportion of the staff must be trained for specialized railway work. By the provision of personnel services and various staff privileges the Administration is able to attract into the Service the variety of types of staff required. Clearly defined staff policy aims at placing new entrants into the service according to merit. Entry into the various positions is determined by specific educational qualifications and promotion procedure is laid down in statutory regulations.

(1) Methods of Selection: The conditions of entry into the service are regulated in relation to the different categories of work available in the Railways. For example, applicants for engineering posts must hold a recognised degree in engineering - with the exception of some mechanical positions.

Applicants who wish to be appointed to the clerical staff must have passed the Junior Certificate Examination and in addition they are required to sit for a competitive Railway examination.

Applicants who wish to enter the service
as apprentices must hold a standard 6 Certificate and are also required to sit for a competitive examination. The final selection is made after applicants have been interviewed by a Selection Committee.

Trainees, who must have passed the 6th standard are selected for appointment on much the same lines as clerks and apprentices, except that there is no competitive examination. Trainees are prepared for such positions as Station Foreman, Shunter, Signalman, Checker, etc.

At present the Administration relies mainly upon educational qualifications, competitive examinations and, in some cases, interviews, for assessing a candidate's ability and potentiality. The question of the introduction of psycho-technical tests is, however, under consideration.

(ii) Training: With the exception of the professionally trained group, which is relatively small, it is the general policy of the Railway Administration to provide for the training of its own personnel. For this reason, the age of entry into the Service is of special importance and the regulations stipulate that no one over the age of 45 years may be appointed to the Regular Staff. In addition no applicant over the age of 22 years may be appointed to the position of clerk and no applicant over the age of 18 years may be appointed to the position of apprentice - exceptions are made in the case of ex-servicemen.

A temporary training school was established at Kroonstad about two years ago. When the temporary college was established, the permanent training college is fully developed. Training will be available in all branches of Railway work.
(iii) Female Labour: The appointment of women is limited to certain grades and the greatest number of women are concentrated in such grades as clerk, typist and welfare officer. Lady clerks are not eligible for appointment to the same clerical grades as men and are for the most part engaged in the more mechanical tasks such as Hollerith machine operation. On the whole it is not the policy to appoint women to responsible positions, although exceptions are made in one or two grades. The reasons for this attitude to women employees are said to be as follows:

Wastages: The wastage among female employees is considered to be too great to warrant the long training required for most railway occupations.

Lack of Mobility: Women are considered to be less mobile than men and as mobility within the Service is essential, there are difficulties in the way of the extensive employment of women.

Supervisory Difficulties: There is a prejudice against the idea of men being under the control of women supervisory officers.

(iv) Non-European Labour: In the past, it has been the policy to restrict non-Europeans to certain categories of work and in general educational and other qualifications have precluded Native labour from entering skilled and clerical grades. There are, however, also trade union and other sanctions. Railway employment policy in regard to non-Europeans is closely related to conditions generally in the Union and is likely to reflect only such changes as are brought about in the country as a whole. Sex and race prejudices are strong in the Union and to break them down will necessarily take time.

(b) Mobility within the Service:

Staff must be available all over the Service and it is essential that the more able and highly qualified members
of the staff should not all be concentrated in one or more of the larger centres, but should be spread throughout the Service. For training purposes, it is also desirable that staff should be mobile.

Mobility within the Service is, therefore, essential, but mobility from the Service to other industries is discouraged. On entering the service of the Administration every employee is bound by the Staff Regulations, and in these Regulations it is laid down that he, "will be required to serve at such place and in such capacity as a head or sub-head of Department may determine." This Regulation alone would probably not produce satisfactory results. Certain other measures which place mobility in a more attractive light are, however, in operation. For example, promotions in the Service as distinct from incremental progression are on a Union basis and as nominations for the filling of vacancies come from all over the Union, promotion frequently involves transfer. A nominee may refuse promotion in order to avoid moving from one centre to another, but this might prejudice his advancement in the Service.

At certain centres where there are marked disabilities special allowances - either Territorial or Climatic - are paid. In uncongenial areas transfers are facilitated after a certain time limit.

(c) Stability of Staff:

A large labour turnover in an organization as large as the S.A.R. Administration would have chaotic results. In addition, considerable expenditure would be incurred in the repeated training of personnel, and all the other costs which labour turnover involves, such as wear and tear of machines, spoiled work, higher accident rate, etc. Stability of Staff is, therefore, considered to be essential.

There are a great many measures which, although perhaps not deliberately designed for the purpose of achieving stability of staff, nevertheless have this effect.
All the social security measures adopted by the Railway Administration tend to promote continuity of Service. These measures include insurance against sickness, accidents and old age. After a certain period of service the benefits derived from these schemes are enhanced.

Statutory Regulations govern all staff procedure including conditions of appointment, promotion, retirement, disciplinary action and dismissal. Uniformity of treatment is, therefore, ensured and the possibility of injustice or discrimination largely removed.

Security of tenure is another factor likely to weigh strongly with members of the staff who might contemplate leaving the Service. Once appointed to the Fixed Establishment, dismissal is unlikely, except in cases of grave misconduct.

Privileges increase with length of service. Leave conditions, for example, become more favourable as service increases. All these factors tend to reduce labour turnover and promote continuity of service.

(d) Healthy Staff:

Like any other large organization the Railway Administration is concerned with the problem of absenteeism and, since illness is one of the major causes of absence from duty, the physical fitness of workers is of vital importance.

The health measures adopted by the S.A.R. Administration may be classified as follows:-

(1) General Preventive Measures which include specific methods for the control of malaria and plague and the prevention of spread of other diseases; the inspection of railway premises, workshops, water supplies, etc., by the Administration's Health Staff, and such services as diphtheria immunization and vaccination against smallpox.

(11) Specific Measures directed at maintaining the health of the individual:-

1. All candidates for employment are subject to a medical examination
and eyesight test. A standard questionnaire is completed by the Railway Medical Officer. Persons who are found to be unfit are not eligible for appointment to the regular staff, but they are not debarred from employment and the medical examination is a safeguard against appointment to unsuitable occupations.

11. One of the conditions of appointment to the Service is compulsory membership of the Railway Sick Fund. All employees are entitled to benefits under this scheme - including casual servants after one year's service. Benefits include medical attention, medicines, hospitalization, specialist treatment, etc. Members of the Sick Fund are entitled to sick leave in accordance with the conditions laid down in the staff regulations.

(iii) General Promotive Measures include the organization of Railway Nutrition Clubs for the provision of vegetables, fruit and other nutritious foodstuffs at reduced prices. The physical education clubs which have been inaugurated in many parts of the Service are also directed at improving the health of the staff and health educational measures, such as St. John's Ambulance Classes, etc., serve the same purpose.

The introduction of a system of recording sickness absence throughout the Service is being investigated. This would provide a means of detecting the most prevalent forms of disease and illness resulting in absence from duty and analysis of the results would no doubt suggest preventive measures.

(e) Accident-free Staff:

Apart from the desirability of avoiding accidents in the interests of the individual worker who is liable to suffer permanent disability or death, the Administration is responsible for the lives of members of the public travelling by road, rail and air and for the safe transit of freight. Compensation alone is costly and if rolling stock, motor vehicles or aircraft are involved, replacement costs have to be added. It is, therefore, essential that every precaution should be taken to reduce accidents to a minimum.
The policy of the Railway Administration is to avoid accidents, mainly by the provision of a safe system of working, and adequate training of personnel. There are comprehensive Safety Regulations relating to the various services operated by the Administration with which members of the staff have to be conversant before they are appointed to operating positions. The Administration regards adequate training of personnel as one of the most effective factors in the prevention of accidents. Training for operating positions is, therefore, long and thorough. One of the main functions of the Railway Training School will be the provision of special training facilities for operating personnel with a view to reducing accidents.

Other measures which have been adopted are:

1. Safety first propaganda.
2. First aid training.
3. Awarding of commendations to members of the staff who avert accidents.
4. Payment of bonuses in some cases where a defect which might lead to an accident is detected.

As yet no attempt has been made to investigate the question of accident proneness among railway servants. Aptitude testing is, however, under consideration and it is possible that if it is adopted special tests will be devised for the detection of accident-prone persons.

(f) Control and Morale:

Partly because of the size of its staff and partly because of the nature of its work, the Railway Administration requires that its staff shall be well disciplined. The co-operation of the staff is obviously also necessary in the interests of efficiency and disciplinary measures must, therefore, be enforced in
There is also a consultative committee representative of all the Railway staff associations, and this committee is consulted by the Administration when matters of general concern are under review.

Welfare services such as the investigation of domestic difficulties, health services for workers and their families, recreational and educational services, housing and rent rebate schemes, nutrition clubs, etc. are all aimed at improving morale and, therefore, efficiency.

(g) Productivity and Efficiency of Staff:

Productivity cannot really be separated from efficiency. All the factors related to general human efficiency also affect productivity. Maximum productivity of staff implies the use of human material to the best possible advantage. This means that the worker must be seen as a complete entity and that every aspect of his make-up must be taken into consideration. His physical and mental health, the conditions under which he works, his domestic life, his social relationships, his qualifications and training, his suitability for the work he is engaged in, his relationship to his supervisor, his contentment and co-operation, the rewards he receives for his efforts, all react on his efficiency; therefore, his productivity. In the S.A.R. comprehensive personnel services are aimed at achieving high productivity and efficiency. The extent to which these services are successful in achieving the needs of the S.A.R. cannot be very accurately gauged, but it is certain that without them the efficiency of the Service would be lowered.

For the fulfilment of its particular staff needs the Railway Administration, therefore, relies upon various types of personnel services, including employment services, health services, welfare services and social
security measures. Although there may be certain deficiencies in these Services, they represent a serious attempt to promote human wellbeing in industry and an acceptance of the principles upon which sound personnel relations are built.

Details of the individual Services and comments on their adequacy or otherwise are given in the succeeding chapters.
In this chapter the term "employment services" is used to denote what is known as staff work in the South African Railways. This work is concerned with any matters arising out of an employee's contract of service and with employee relations generally.

1. DEVELOPMENT OF ORGANIZATION AND CONTROL OF THE RAILWAYS:

The beginnings of centralization of control were evident in the Central South African Railways before the amalgamation of the railways of S. Africa in terms of the Act of Union in 1910, but the Cape and Natal Railways were operated on a 'departmental' system. After the amalgamation of the railways of S. Africa a 'transportation' or 'divisional' system was introduced.

Under the 'departmental' system there were three separate and distinct departments - the Traffic Department, the Locomotive Department and the Engineering Department. Each of these departments was under the supervision of a controlling officer and these officers reported to the General Manager as the Chief Executive Officer.

In a "Memorandum Regarding Railway Organization" published in 1913, the following comments appear:

"With 'departmental' organization each separate department endeavours to obtain the results best suited to its own interests rather than the interests of the Railways as a whole, and while this may not be done deliberately or intentionally, it is the inevitable outcome of a system under which the efficiency of the Railways as a public carrier is subordinated to departmental exigencies."

The conclusion arrived at is that the only means of securing united effort on the part of responsible officers and of avoiding friction caused through the clashing of departmental interests, is to make one officer the supreme head of the division and to place the other officers under his jurisdiction."

Under the 'Transportation' system centralization
of control was affected. The Railways were divided into three territorial systems each under the direct control of an Assistant General Manager responsible to the General Manager. Decentralization of control was achieved by dividing each system into divisions with each 'Division' functioning as an independent unit under the charge of a Divisional Officer.

Staff Departments, therefore, instead of function under each of the three separate Departments, which in all probability maintained separate policies in regard to staff matters, were centralized under the control of the General Manager and decentralized under the control of the Assistant General Managers and Divisional Officers.

2. CONDITIONS OF EMPLOYMENT:

Conditions of employment which are now clearly set out in Statutory Regulations, were extremely vague before the amalgamation of the various railway organizations. For example, the remuneration of the salaried staff employed in the different colonial systems before 1910 was not governed by any common practice or principle.

In the Cape apparently no attempt had ever been made to classify the staff according to the value of the work they were required to perform, "and for all practical purposes an officer with a good record obtained an increase when the state of the finances so permitted, quite irrespective of any grade or maximum."

After Union the first step towards regulating and improving service conditions was taken. A Committee known as the 'Grading Committee' consisting of responsible departmental officers representing every department and province was appointed. The terms of reference of this Committee were, "to determine how the pay and conditions of service prevailing in the respective provinces
could be assimilated into uniform standards for the new service."

As a result of the Grading Committee's investigations the Railway Administration on 1st January, 1913, published every condition of service and every rate of pay in a code of Staff Regulations. These Regulations represented the first attempt to codify the varied conditions of service in the Railways at that time and formed the basis of the present Staff Regulations.

On 1st January, 1917, revised Staff Regulations were promulgated and staff conditions were again improved. Two of the most important changes were (i) the introduction of a minimum wage of 7/- per day to all adult white employees (other than white labourers), and (ii) the provision of relief scales to the salaried staff.

The present Staff Regulations were framed under Section 31 of the Railways & Harbours Service Act (Act No. 23 of 1925) and came into operation on 1st August, 1937.

In September, 1944, significant improvements in the payment and conditions of service of railwaymen were introduced. These revised conditions commonly referred to as the "Railwaymen's Charter" were published in Special Notice No. 2574 of 20th September, 1944. In January, 1946, further improvements in salaries and wages were introduced to bring Railway conditions in line with the Public Service.

3. RECRUITMENT:

The General Manager in his report for the year 1914, stated:-

"A matter which is causing me some concern and to which reference was made in my last report is the lack of young men in South Africa who should be fitting themselves to fill positions in the Railway service and this is particularly the case in the grades of Engine Drivers, Firemen and Permanent-way men."
The Railway Administration apparently attempted to remove this deficiency by improving service conditions generally and by the provision of training facilities and the introduction of educational qualifications as a basis for selection. No definite plan of recruitment was, however, formulated.

In 1939 the imperfections of the system of recruitment were again brought to notice and the Staff Training Committee (a Departmental Committee appointed to investigate the question of the training of railway staff generally) recommended that principals of schools be contacted with a view to disseminating information in regard to careers in the Railways. The war years intervened and no further progress was made until 1946/47 when in cooperation with the Education Departments a more active recruitment policy was introduced and a Special Staff Officer was appointed in each system to act as a liaison officer between the Railway Administration and the schools.

4. SELECTION:

Before the amalgamation of the railways of South Africa, staff practice was incompletely recorded and apart from the disparity which must have existed between the different railways, there could hardly have been uniformity in the methods of selection in one railway system.

The Staff Regulations of 1913 marked the beginning of a definite selection policy. The educational standards laid down for white labourers, from whose ranks appointments to higher positions were recruited, were, however, apparently inadequate for in 1914 the General Manager reported:

"The men (white labourers) who have been promoted in the past have given general satisfaction but their educational qualifications have been very defective and whilst the lack of education may not
necessarily debar them from promotion to the lower grades of the service, such as cleaners, porters, shunters, and the like, if the efficiency of the Service is to be maintained, they must be precluded from further advancement to the grades of drivers, firemen, guards, etc."

As a means of improving the above position, the "educational test" was revised and in 1915, the General Manager commented as follows: "In the previous issue of my Annual Report it was stated that while the white labourers were giving every satisfaction in the grades to which they were promoted, the majority were unsuitable for employment in certain grades in which there is considerable scope for advancement for men with reasonable educational qualifications. The remedy suggested was a revision of the educational test, which has since taken place, and, although fewer passes will be recorded in future, more competent men will be obtained and they will be able to make better progress. It is thereby hoped to remove the difficulty now experienced as a result of the lower grades being filled largely by men unsuited for promotion to other ranks."

The general methods of selecting staff still caused concern in 1920 when the General Manager in commenting on the results of improved rates of pay and working conditions stated, inter alia:-

"Responsible officers all complain of a noticeable disinterestedness and disinclination, particularly amongst the younger men, to acquire a wider knowledge of Railway work and to develop their capacity for future responsibility. If this tendency continues there will soon be a scarcity of qualified men for the more responsible positions."

In an attempt to improve selection methods further educational tests were devised and the first step was taken in the direction of determining special abilities, namely clerical ability and aptitude for apprenticeship.
In terms of Special Notice No. 2234 of 9th October, 1934, a competitive examination was instituted for the purpose of selecting candidates for appointment to the position of probationer clerk.

The conditions in regard to the appointment of apprentices are laid down in Regulation 53 of the Employees' Staff Regulations (Section 31 of the Railways and Harbours Service Act [No. 23 of 1925]). The educational requirements stipulated in this Regulation are (a) the sixth standard, and (b) the departmental entrance examination - a competitive examination. The final selection of apprentices is now made by a Selection Committee.

The selection of candidates to fill vacancies among rail workers was considered to be unsatisfactory by the Staff Training Committee, which in 1938, reported as follows:-

"To sum up, it may be stated that there is no real selective process to secure the services of the best of the available applicants. The senior applicants, or, as is very often the case, the youths whose services are most readily available, usually secure appointment and they are engaged, not because they are the best of the available applicants, but because there are no visible defects in their make-up which would justify their rejection."

The defects in these methods were to some extent remedied by the introduction of a "Trainee" scheme in 1944.

5. TRAINING:

Training facilities were introduced soon after the amalgamation of the railways in 1910, but the classes provided for white labourers, who were considered to be most in need of educational assistance were apparently unsatisfactory for in 1914 the General Manager reported:
The Administration has established night classes where white labourers may improve their education and an officer has been appointed as locomotive instructor to deliver lectures at the various locomotive depots on the use of the locomotive. I regret to state that the attendance at the classes has dwindled year by year and at some centres the night schools have had to be closed down.

In spite of this initial setback, the staff training facilities were gradually extended and some 20 years later training was available at the larger centres in such specialized railway subjects as Station Accounts, the various phases of trains working, telegraphy, checking duties, etc. The classes established fell into three categories:

(a) Whole-time classes conducted by instructors appointed by the Department;

(b) Part-time classes conducted by instructors appointed by the Department; and

(c) Part-time classes conducted privately by self-appointed instructors.

In addition, the Witwatersrand Technical College has for a number of years provided correspondence courses in railway subjects.

In 1938 it was estimated that the Railway Administration was paying approximately £10,000 per annum to instructors and an additional amount of approximately £225 for hiring accommodation at centres where no suitable Railway accommodation was available. It was, therefore, recommended that the Administration should establish a Central Training School which would absorb the existing classes and provide others.

In October, 1945, a temporary training school was established at Kroonstad. Considerable progress has been made with the permanent school and when it is completed railway training will be further extended.

6. STAFF REPRESENTATION AND CONSULTATIVE MACHINERY;

The need for staff representation and
consultative machinery was apparent long before any such measures were provided. There was no satisfactory way of dealing with grievances and senior officers must have spent a good deal of time settling individual difficulties.

In his report for 1913, the General Manager stated, "I am always willing to give consideration to representations by the staff regarding legitimate grievances, but I should not be expected, nor am I prepared, to conciliate the threats of extremists who advocate policies which must bring disaster upon the public service."

Writing on the same subject in 1915, the General Manager stated, "In a large concern such as the S.A.R. & H. with 32,269 white employees spread over a vast area with varying conditions of life and costs of living, individual grievances are almost inevitable. Experience has shown that many of the complaints made are due to misunderstandings and that interviews with responsible officers have removed many grievances, real and alleged."

In 1918, periodical meetings were arranged between various grades of the staff and administrative and executive officers. According to the General Manager's report of that year, considerable practical results were attained by these meetings, which it was considered had been helpful in promoting a better understanding between the Administration and the staff.

Formal recognition of certain unions of Railway and Harbours servants on specified conditions was also granted in that year. The terms of recognition provided that the Unions should be non-political and that representations on behalf of individual servants or grades should be made with due regard to the procedure laid down in the Railways and Harbours Service Act.
Applications from other staff associations were received and recognition was granted to a large number of different associations.

In 1941, the whole system of Staff Representation was found to be unsatisfactory. There was wide-spread overlapping of interests. Rivalry between the different associations was noticeable both in securing new members and in retaining existing members.

The following statement is quoted from a Special Notice No. 56-1941:

"Rival associations were outbidding each other for popularity by superficial emphasis of minor and sectional claims for improved conditions of service, the legitimate interests of the staff as a whole being over-shadowed by the narrower aspirations of the Association itself.

Sound staff administration was virtually impossible with several associations in the field simultaneously each claiming to represent the same grade of staff and each with an entirely different conception of the matters that should be presented for consideration."

It was, therefore, decided to limit recognition to staff associations grouped according to identity of interest. [(The non-European Staff Associations form a separate group)]

Each staff association was given the right of direct negotiation with the Administration upon matters affecting the group of servants it represented.

 Provision was also made for a joint body known as the Consultative Committee consisting of representatives from the Staff Associations representing each of the different groups of staff. Each association was given the right to nominate three members of the Committee.

There is also a complete system of representation for non-European servants. The non-European staff associations function on a territorial basis and there is one in each railway system. Membership is open to all grades and groups of non-European servants, and these two joint committees, with headquarters at Johannesburg, which is responsible for coordinating the activities of the various associations.
7. ARBITRATION MACHINERY:

In 1919 a Conciliation Board was established on the "Whitley Council" principle of equal representation. The General Manager in his report for 1919 stated, "It is, of course, in the nature of an experiment and its future success will depend largely upon the Board itself. As established it is certainly a great advance on anything previously attempted in this direction in South Africa."

Under the provisions of the Railways and Harbours Service Act of 1925 statutory status was conferred upon the board and the functions of the Board were defined.
The S.A.R. Administration is a functional organization and the control of staff work is centralized at railway headquarters under the Chief Staff Manager. Decentralization is effected by the delegation of authority to staff officers throughout the service. In addition to the direct line of control in staff matters, the staff function permeates the whole railway organization for in every system and specialized department in the railways the staff function takes its place among the other specialized activities.

Appendix "A" shows the place of staff control in the general administrative scheme in the railways and Appendix "B" shows how staff work is related to the other activities in the system organization.

1. HEADQUARTERS CONTROL:

The General Manager's Staff Section is part of the railway headquarters organization and functions directly under the Chief Staff Manager, who is responsible to the General Manager.

Among the main functions of the General Manager's Staff Section are the following:—

1. Control and co-ordination of staff policy for the whole of the Service.

2. Consultation with Staff Associations. Consideration of recommendations made by Staff Associations. Maintenance of arbitration machinery in the form of a Conciliation Board.

3. Recommendations to the General Manager in regard to proposed changes in staff policy, procedure or regulations.

4. Investigation of grievances submitted through Heads of Departments in accordance with recognized procedure - Officers and Employees Staff Regulations.

5. Consideration of disciplinary and promotions appeals.
(1) Diagram showing staff control in relation to the general Railway Organization.

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<td>General Manager.</td>
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<td>Deputy General Manager</td>
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<th>Chief Railway Harbour, Shipping and Development Manager</th>
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(2) Diagram showing staff control in relation to System Organization.

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<tr>
<th>System Manager</th>
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<th>Supt. System Engineer</th>
<th>Supt. Locomotive Engineer</th>
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vi. Co-ordination of promotions procedure in the case of promotions to positions graded above £460 per annum, which are open to the whole service. Preparation of lists of nominees for promotion to positions in excess of £460 per annum for transmission to the Railway Service Commission, which is responsible for the final selection. (The Railway Service Commission consists of 3 members appointed by the Governor General. One of these members is the Chairman of the Union Public Service Commission, who is also Chairman of the Railway Service Commission. The other two members are appointed from members of the Railway Service.)

The members of the Service Commission hold office for 5 years, but are eligible for reappointment on expiry of this period.

To enable the commission to make a recommendation a list of the servants nominated for promotion to a particular position is sent to the Commission, with schedules setting out full details of their qualifications, their service records, and a list of persons (if any) who are senior to the servants nominated for promotion with full reasons for passing them over.

If a recommendation made by the Commission is not accepted by the General Manager, it is referred to the Minister of Transport, who in consultation with the General Manager decides. If a Head of Department or other responsible officer is unable to accept the recommendation of the Commission, he must forward the papers and the Commission's recommendation to the General Manager. If the General Manager is unable to accept the Commission's recommendation, it is referred to the Minister who, in consultation with the General Manager, decides.)

vii. Consultation with Heads of relevant departments in regard to the appointment of candidates to professional positions.

viii. Compilation of lists of candidates for appointment to positions in excess of £460 per annum for transmission to the Railway Service Commission, which is responsible for the selection of candidates for appointment to these high-graded posts.

ix. Exercise of certain reserve powers in cases where System authority is limited, for example - extension of sick leave where the employee has exhausted all sick leave and vacation leave standing to his credit, and the extension of paid sick leave beyond six months in the case of persons injured on duty.

x. Interpretation of regulations and legislation in doubtful cases referred by System offices, for example - terms of the Workmen's Compensation Act, Railway Service Act, etc.

xi. Control of general policy and procedure in connection with the following matters:

Security and welfare of railway servants.
Staff amenities and employees services.
2. SYSTEM STAFF ORGANIZATION:

Staff work is included among the specialized activities undertaken in each system. The various systems of staff offices are responsible for the execution of staff policy laid down by the headquarters Staff Section, and are mainly concerned with the following matters:

1. Recruitment
2. Selection
3. Placement
4. Training
5. Conditions of employment
6. Working conditions
7. Staff amenities
8. Security and welfare

Recruitment:

Recruitment into the Railway Service falls into 5 main categories:

(a) Trainees
(b) Clerical staff
(c) Apprentices
(d) Professional staff
(e) Manual labourers.

The Railway Administration encourages the recruitment of young entrants into the Service. The reasons for this are:

(a) Most types of railway work are highly specialized and it is considered that adequate training facilities can best be provided by the Railway Administration.

(b) It is the policy of the Administration to effect promotions to higher positions from the ranks. It is, therefore, essential that there should be a reservoir of suitable material in the lowest ranks.

The Railways consider that the "Trainee" scheme meets both these requirements. Trainees, who must be over 15 years of age and have passed the sixth standard, are appointed directly to graded positions - i.e. the grade of "Trainee". They are then trained for learner positions in a specific parent grade. For example a trainee who is to be prepared for the position of Station Foreman, will pass through
the grades of "Trainee" and "Learner Station Foreman"
before being appointed to the grade of Station Foreman.
Appointment to a specific learner grade is arranged
within a reasonable period - normally before the age
of 21 years is passed.

Before the adoption of the Trainee scheme
in 1944, recruitment to drill-paid graded positions was
through the labouring or "railworker" ranks. The arrangement
was open to improvement for the following reasons:

(a) Many better qualified young men would not
have been prepared to enter the service
of the Administration in a "railworker" or
labouring capacity.

(b) Specific training along definite lines was
not commenced immediately on entry into the
Service as is the case with Trainees, who
are interviewed by a Selection Committee
and are placed on the type of work for
which they are considered to be most suitable.

(c) Promotion to a specific grade was somewhat
haphazard and was not determined by a
particular aptitude for a specific type of
work.

In normal times only professional and
special appointees are advertised and these positions are
usually dealt with by the General Manager's Staff Section.

Recruitment to the higher ranks is generally
from the lower ranks. In the past there was no specially
organized method of recruitment for the filling of
clerical and apprenticeship vacancies and the number of
applicants was usually in excess of the number of
vacancies. On certain specified dates competitive
examinations are held and suitably-qualified applicants
are required to sit for the examinations.

Recently a more active recruitment policy
has been adopted and with the co-operation of the
Education Department information in regard to railway
careers is being disseminated in the schools. In
addition a special Staff Officer has been appointed in
each system for the purpose of maintaining contact with all schools and colleges in connection with the recruitment of suitable candidates for employment.

The recruitment methods described above are applicable only to European servants. There is no special method of recruiting non-Europeans. Non-European labour is recruited from centres where it is available and arrangements for placement at centres where labour is required, but not available, are made with individual applicants at the time of appointment.

2. SELECTION:

For every station, depot and office in the South African Railways there is an establishment in respect of the staff load, and this establishment must in normal circumstances be rigidly adhered to. Immediately a wastage occurs the System Manager concerned is authority to appoint a replacement. In special circumstances, for example when there is a rush of traffic or when seasonal work occurs, heads of departments have authority to engage casual labour to meet the increased staff requirements.

The filling of vacancies in professional grades is normally dealt with in the General Manager's Office. All other applications for employment are expected to be made to the System Staff Sections.

Selection of staff is carried out in accordance with the Railway Service Act and the Staff Regulations, and definite conditions are laid down in respect of entry into the various grades.

The System Staff Sections act as employment registry offices for all departments and work in co-operation with the various departments. Applications for employment are accepted in the System Staff Sections where
they are sorted into various categories according to the type of work for which application is made. The names of applicants are placed on record in date order and applicants are advised when vacancies occur, consideration being given to priority of application. In selecting candidates, due regard is paid to educational qualifications, physique and place of residence in relation to the type of work offering and the points at which vacancies exist. In the case of applicants for the position of clerk or apprentice, vacancies are filled at certain specified times when competitive examinations are held. In the case of apprentices the final selection is made by a Selection Committee consisting of senior officers.

The competitive examination set for apprentices tests the applicant in subjects which have formed part of his school education and in general knowledge. The clerical examination includes tests in both official languages, arithmetical knowledge and general knowledge. The examinations are arranged in collaboration with the Union Education Department.

The selection of trainees follows similar lines except that there is no competitive examination. Trainees are interviewed by local Selection Committees who determine the direction in which the Trainee is to progress. The Selection Committee consists of the System Superintendent (Commercial and Staff), the Staff Clerk and a representative from the branch in which it is proposed to employ the applicant. In the case of a Trainee who wishes to train for the position of Probationer Fireman for example, the representative would be the System Locomotive Superintendent. Trainees are usually prepared for such positions as Station Master, Station Foreman, Ticket Examiner, Guard, Signalman, Carriage and Luggage Examiner and Repairer, Checker, Shunter, etc.
During the year ended 31st March, 1946, applicants for entry into the Service as probationer clerks, apprentices and trainees were as follows:

Probationer Clerks ............. 1,441
Apprentices ........................................
Trainees ...........................................

Of this number 945 clerical candidates, 637 apprentices, and trainees were admitted to the Service.

There is no attempt at scientific selection of non-European workers, who are generally interviewed and engaged by the Compound Managers. The majority of non-Europeans employed in the South African Railways are not engaged in work for which special educational qualifications are required, and there is no entrance examination. There are a limited number of special positions such as - commissioners at stations, native passenger train attendants, interpreters, policemen, watchmen, sorters, bossmen boys, saloon attendants, attendants to inspectors of non-European labour, etc., for which "literate" non-Europeans are selected.

The two main qualifications for the entry of non-Europeans into the Railway service are: (1) health - the applicant should be in good health, and (2) age - the applicant should be over 18 years of age and under 45.

Although non-European workers are badly selected, once they are in the Service their position is generally much better than that of other employees in industrial concerns. They are provided with a well-balanced diet. There are barriers against summary dismissal and there is a complete system of representation of individual and collective grievances. In addition, the Railway non-European staff policy stresses stabilization of the labour force.
4. TRAINING:

The General Manager's Staff Section is responsible for the general planning and control of training facilities. The detailed arrangements in connection with the methods of training personnel are, however, made by the various System Staff Sections.

In addition a Training Officer is attached to each System and he is responsible for keeping in close touch with every trainee and for ensuring that he is being afforded proper training. In some grades, for example Fireman and Station Foreman, part-time instructors conduct special intensive courses when necessary. This work will now be conducted in the Railway Training College.

A temporary railway training school has been in operation at Kroonstad for the past two years. When the permanent railway training school is completed, most railway training will be centralized and special courses will be available in almost every branch of railway activity.

5. CONDITIONS OF EMPLOYMENT:

In general conditions of employment are determined by Statutory Regulations. The detailed administrative work in connection with the following matters is, however, undertaken by the various Staff Sections:

(a) Methods of Payment and Rates of Pay:

Rates of pay for all classes of workers are laid down in the Staff Regulations.

General principles in regard to methods of payment and rates of pay are dealt with by the General Manager's Staff Section. For example representations from Staff Associations are considered and the need for
changes and adjustments is constantly under observation. Difficulties and adjustments affecting staff in a particular System are dealt with in the relevant System Staff Section.

Non-European Servants: The payment of non-Europeans is broadly arranged in Urban areas in such a way that after 18 months' service the employee receives the wage determination minimum wage for unskilled work in that particular area. He starts working at 9d. per day less than the rate laid down for outside labour governed by the wage determination, but after 5 years' service he earns as much more than the outside employee. In actual practice even the new entrant now earns as much as the outside employee because of the higher Government cost of living allowance. The general staff practice in regard to methods of payment and rates of pay is the same for non-Europeans as for Europeans.

(b) Promotions Procedure:
Promotions to positions under £460 per annum which are on a System basis are dealt with by System or Departmental Staff Sections. Nominations for promotions to higher graded positions are submitted to the General Manager's Staff Section for transmission to the Railway Service Commission.

(c) Vacation Leave:
Leave conditions and the periods applicable to different categories of servants are laid down in the Staff Regulations and are as follows:-

Leave of absence of two weeks per annum is regarded as a right in the case of both officers and employees. (Officers are entitled to 14 days leave inclusive of Sundays and employees 12 days exclusive of Sundays.)
Leave Scale: Officers (Permanent)

<table>
<thead>
<tr>
<th>Salary</th>
<th>Non-accumulative Leave per Annum</th>
<th>Accumulative Leave per Annum</th>
<th>Total</th>
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<tbody>
<tr>
<td>£</td>
<td>days</td>
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<tr>
<td>120</td>
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<td>240</td>
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<td>11</td>
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<td>400</td>
<td>14</td>
<td>16</td>
<td>30</td>
</tr>
<tr>
<td>Over</td>
<td>14</td>
<td>21</td>
<td>35</td>
</tr>
</tbody>
</table>

Long Service Leave: For each period of six years' continuous service as an officer (excluding any period served at a salary of £120 or less) additional long service leave of 30 days on full pay, or 60 days on half-pay, may be granted.

Temporary Officers:

A temporary officer who has had continuous service as an officer for three years or who has had continuous service in any capacity for five years may, for subsequent continuous service, be allowed the scale of leave laid down for Permanent Officers.

Employees:

- After the completion of one year's service but less than five years' service
  - 12 days non-accumulative leave per annum

- After completion of five years' service but less than ten years' service
  - 12 days per annum accumulative up to 36 days.

- After completion of ten years' service but less than 15 years' service
  - 15 days leave per annum accumulative up to 52 days.

- After completion of 15 years' service but less than 20 years' service
  - 18 days leave per annum accumulative up to 70 days.

- After completion of 20 years' service
  - 21 days leave per annum accumulative up to 90 days.

Non-European Servants:

The leave conditions applicable to non-Europeans are in accordance with the Factories Act. Indian and Native servants are granted 12 days paid leave per annum. Leave conditions were modified in Oct. 1946 for members paid less than £160.

The administrative work in connection with the granting of leave is undertaken in the various Staff Sections. For example, applications for leave are submitted to the Staff Sections where suitable staggering of leave periods and relief arrangements are made.

(a) Sick Leave:

The conditions applicable to the granting of
sick leave are laid down in the Staff Regulations and are as follows:

**Permanent and Temporary Officers:**

A permanent officer or a temporary officer whose continuous service exceeds 2 years, receives full pay in respect of a period of absence from duty due to sickness.

A temporary officer whose continuous service does not exceed 2 years receives two-thirds of his salary in respect of a period of absence from duty due to sickness.

Sick leave accrues on the basis of 6 weeks for each year of continuous permanent or temporary service.

**Employees:**

An employee who has completed not less than 2 years continuous permanent or temporary service receives full pay in respect of that portion of a period of absence from duty due to sickness which exceeds one week.

An employee who has not completed two years continuous service receives two-thirds pay in respect of a period of absence from duty due to sickness in excess of one week.

Sick leave accrues on the basis of 6 weeks (42 days in the case of monthly paid Police staff or 36 weekdays in the case of all other employees) for each year of continuous permanent or temporary service up to a maximum of 8 years prior to 1st October, 1944, in the case of employees paid on a calendar month basis, and prior to 25th September, 1944, in the case of all other employees, less any previous period or periods of absence for which sick pay was allowed, during such period of service.

**Casual Servants:**

On completion of one year's continuous service casual servants are credited with 12 days sick leave; after that sick leave accrues at the rate of 1 day for each month's service. Sick pay is at the rate of two-thirds of the basic daily wage.

The same conditions are applicable to non-European servants.

The main function of the Staff Sections in regard to sick leave is the recording of sickness absence for each member of the staff. Records of the amount of sick leave standing to the credit of each servant and the nature of the illness for which he is booked off are also available. These records are maintained in the individual
System and Departmental Staff Sections. The information recorded has not, as yet, been centralized or analysed, but a scheme for co-ordinating sickness records for the whole Service is under consideration. The proposed scheme also provides for a more adequate classification of the types of illness causing sickness absence.

A servant who is booked off for a period exceeding the amount of sick leave standing to his credit, must then make use of the vacation leave standing to his credit. If it is necessary for him to be booked off for a still longer period, the case is submitted to the General Manager's Staff Section for decision. In actual practice authority for the granting of additional periods of sick leave is invariably given in genuine cases. There are limits to the length of sick leave which may be granted, and in cases where the servant is unlikely to recover sufficiently to be able to carry out his work efficiently, the question of retirement is considered.

(e) Retirement Procedure:

Notices of resignation and retirement on attaining the age limit are submitted to the Staff Sections for decision by the Head of the Department and transmission to the Chief Accountant of any matters concerning pension rights.

(f) Disciplinary Procedure in Connection with a Breach of the Staff Regulations:

As indicated in Appendix "B" the System organization is divided up and embodies various sub-sections, i.e. Staff, Claims, Operating, General. If there is a charge under the disciplinary code relevant to a staff irregularity, the case will be dealt with by the Staff sub-section. A claims irregularity would be dealt with by the Claims sub-section; an operating irregularity by the operating sub-section, etc.

(g) Grievances Procedure:
The method of representing grievances is laid down in the Staff Regulations and reads as follows:

"Any officer or employee who considers that he has a grievance or that he is suffering under any disability, and who desires to seek redress or make any representations in regard thereto, shall first approach his immediate superior officer. If he is dissatisfied with any decision given by such superior officer he may then appeal in writing through that officer to the sub-head of his department, and thereafter, if necessary, by letter addressed through the usual official channels to the head of his department. If still dissatisfied he may appeal by letter addressed through the usual official channels to the General Manager. Appeals under this Regulation must be lodged within 14 days of the decision being communicated to the officer concerned."

If dissatisfied with the decision of the General Manager, railway servants have the right of appeal to the Railway Board. If the General Manager or the Railway Board is of opinion that the matter is of sufficient importance the case may be referred to the Conciliation Board for a recommendation.

The same procedure is available to non-European servants. There is, however, an Inspector of Non-European Labour in each system who investigates grievances and attempts to adjust difficulties. If he is unable to do so he informs the servant of the correct procedure to adopt in order to report his grievance.

These Inspectors of Non-European Labour come under the control of the Non-European Section of the General Manager's Staff Section at Headquarters.

The role of the Staff Section in dealing with grievances is mainly to advise and assist employees in making representations in accordance with recognised procedure.

(h) General Conditions:

Any difficulties relating to conditions of employment generally may be referred to Staff Sections for advice and assistance. One of the most important functions of Staff Sections is to give advice to servants
in regard to the manner in which they should set about dealing with their problems in accordance with prescribed procedure.

6. WORKING CONDITIONS:

Supervision of the general environmental conditions in accordance with the principles of the Factories Act, including such factors as lighting, heating, ventilation, etc., is a function of the Health and Welfare Department. The following aspects of working conditions are, however, dealt with in the various Staff Sections.

(a) Bonus Work and Time Studies.

Bonus work has been in operation in railway workshops for a considerable time. Time studies are made when the need arises and are arranged by the Bonus Work Inspector in collaboration with the Grade or Shop Steward representing the workshops staff.

Any difficulties in connection with the operation of the bonus work system are referred to the General Manager's Staff Section. The practical details of the bonus work system are dealt with by the Bonus Work Sections attached to each of the Mechanical Engineers' offices. In each of these offices there is a Bonus Work Inspector who figures under the Production Engineer, who in turn is directly responsible to the Chief Mechanical Engineer.

(b) Hours of work:

Hours of work are laid down by Statutory Regulations and overtime rates are paid on the following basis:

(1) Daily paid staff are paid overtime rates for any period worked in excess of the prescribed number of working hours per day.

(ii) Monthly paid staff are paid an inclusive salary which includes a maximum of three days' overtime per month. This overtime is included in the employee's salary.
irrespective of whether he works more or less than three days overtime.

(iii) Salaried staff: Special conditions are laid down in regard to the salaried staff. Salaried staff are not paid overtime for ordinary routine work, but in other special circumstances they receive payment.

In the case of non-European servants the hours of duty are the same as those of the Europeans under whom they work.

Any disputes and difficulties which might arise in regard to hours of work are referred to the Staff Sections for investigation.

7. STAFF AMENITIES:

General questions of policy and procedure in regard to the provision of staff amenities are determined by the General Manager's Staff Section. Control of these amenities in a particular system falls under the System Manager's Staff Section and the practical details of actual administration are left to advisory committees and the staff on the spot. Staff amenities include staff restaurants, canteens, rest rooms, etc.

8. SECURITY AND WELFARE:

The General Manager's Staff Section is also responsible for policy matters in regard to the security and welfare of staff throughout the service, and general principles in relation to health, accident compensation, superannuation and gratuities are laid down.

The detailed aspects of procedure in individual cases are dealt with in the System staff offices. For example sickness absence records are maintained, sick leave and sick pay are arranged; details in connection with the administration of the Workman's
Compensation Act in relation to Railway practice are handled; notices of resignation or retirement are accepted in accordance with the terms of the Staff Regulations and the Railway Service Act; eligibility for gratuities is considered in the light of the Regulations.

9. CONSULTATIVE MACHINERY:

Representations from individual Staff Associations are dealt with in the System Staff Sections. General issues affecting combined Staff Associations are referred to the General Manager's Staff Section after consideration by the Consultative Committee.

The general conditions of the Industrial Conciliation Act are not applicable to the South African Railways, which as a State Department regulates the service conditions of its staff by domestic legislation, but the Staff Associations recognised by the South African Railways are registered as Trades Unions under specific provisions in the Act. Although registration under the Act confers the corporate status of a Trades Union upon a Railway Staff Association, questions relating to the Associations' functions vis-a-vis the Administration must be settled by mutual arrangement between the Administration and the Associations concerned. The regulation of the relations between the Administration and the respective Staff Associations is a matter in which neither party can dictate; the arrangement must be mutually agreed upon between the Administration on the one hand and the Staff Association on the other.

Each Staff Association has the right of direct negotiation with the Administration upon matters affecting generally the group of servants it represents.

Provision is also made for a joint body
known as the Consultative Committee consisting of representatives from the Staff Associations representing each of the different groups of staff. The Administration meets this Committee in conference at least once a year when views are exchanged on matters of common interest.

In the event of a dispute arising between the Administration and the Consultative Committee, arbitration machinery is provided in the form of a Conciliation Board.

The Conciliation Board is a permanent board of reference and consists of 6 members nominated by the Minister of Transport (one of whom is nominated as Chairman) together with 6 representatives of the staff (one of whom is chosen by the representatives to be Vice-Chairman).

The period of office of the members of the Conciliation Board is three years.

The constitution, functions and procedure of the Conciliation Board are set out in the Regulations framed under Section 24 of the Railways and Harbours Service Act of 1925. Regulation 8 (1) and (2) sums up the functions of the Conciliation Board as follows :-

"The Conciliation Board shall deal with any matters referred to it by the Minister, but is intended primarily for considering and reporting on important matters involving conditions of service, rates of pay, or principles underlying disciplinary decisions, in connection with which differences exist between the Administration or the Management and large bodies of servants. Any matter of importance shall be referred to the Conciliation Board if the Administration or the Management is requested to do so by petition signed by not less than one-fifth of each grade or class of servants affected. Failing such petition, any matter considered of sufficient importance may be referred to the Conciliation Board at the discretion of the Minister, on request from a staff union.

The Conciliation Board shall also deal with any matter referred to it for a recommendation either by the General Manager or the Railways and Harbours Board in terms of Section 26 of the Railways and Harbours Service Act, 1925."

Non-European staff representation is
similar to European representation except that the Staff Associations function on a territorial basis because rates of pay and certain conditions of service vary in different parts of the country. There is also a joint Committee of non-European Staff Associations which meets with the Administration periodically.
In some functional industrial undertakings, the direction of personnel policy and responsibility for the execution of policy are centralized. In the case of Rowntree & Co., England, for example, the Labour Director is in control of personnel policy and the Labour Manager is responsible for the execution of that policy throughout the entire organization. In the South African Railways, the Chief Staff Manager is responsible for the direction of policy, but there is no single officer responsible for the execution of policy. In an organization as large as the S.A.R. and which extends over so wide a territory to centralize executive control in this way would perhaps be cumbersome, but under the present arrangement there is a tendency for personnel services to become divided up into a number of unrelated branches. The medical services operated by the Sick Fund and the health and welfare services conducted by the Health and Welfare Department are not closely integrated with each other or to the personnel services undertaken by the Staff Department unless as the practical application of the work is concerned. Railway Medical Officers do not advise the Health and Welfare Department of cases of sickness among railway families. The Health and Welfare Department does not, in the ordinary course of events, inform the Sick Fund or the Staff Department of cases of domestic maladjustment. The Staff Office does not necessarily inform the Health and Welfare Department when it is proposed that disciplinary action should be taken against a railway servant. There does seem to be a need for the various personnel services to be so integrated that each railway servant or family can be viewed as a complete unit by any one of the departments dealing with personnel
The introduction of special machinery for the purpose of co-ordinating the application of all branches of personnel work in the S.A.R. is suggested. The machinery might take the form of a permanent headquarters Co-ordinating Board with representatives from each of the departments concerned with personnel work and System Boards consisting of similar representatives. These Boards should meet regularly to discuss methods of application and to consider future developments with the object of seeking ways and means of integrating all branches of personnel work as closely as possible. It is also suggested that centralized and co-ordinated records of all railway staff showing particulars of the health and welfare of each railway family and the employment record of every railway servant should be established. Absenteeism, accident and labour turnover data could be extracted from the records and analysed at headquarters. These two proposals are discussed in greater detail in the final chapter.

2. RESEARCH WORK:

At present headquarters control of personnel work is mainly concerned with direction of policy, administration and planning. Systematic research work has not been developed and it is suggested that a research bureau be established for the purpose of conducting investigations into such problems as absenteeism, accidents, labour turnover, output, motion and time study, industrial fatigue, etc., and for carrying out experimental work in regard to more scientific methods of personnel selection and placement in the S.A. Railways. The services of the bureau would be valuable in assessing the effectiveness of
present services and in the planning of future developments.

It is suggested that the bureau should be placed under the direction of an experienced industrial psychologist who would require a staff of suitably trained assistants. The proposed bureau could conveniently be housed in the central training school, but it would form part of the general headquarters organization. (Alternatively the possibility of utilizing the services of the Institute of Personnel Research in Pretoria might be considered. In view of the wide ramifications of the Railway Services and the large staff employed it is doubtful whether the Institute would be able to undertake extensive research work for the Railways on a permanent basis.

3. **EMPLOYEE WELFARE SERVICES**

Although adequate welfare services are provided for the families of Railway servants, the same individualized treatment is not available to employees within the working environment. It is true that Railway servants may discuss their problems with staff officers or even with their senior officers, but these officers are neither specially trained nor wholly free for this work. In addition the average Railway servant is likely to feel somewhat restrained in their presence.

Broadly, Railway staff services include the welfare of the Railway servant and his family, but the emphasis is on impersonal rather than personal services. The type of work undertaken is largely concerned with the direction of welfare policy generally, the interpretation of staff and other regulations, and the application of prescribed procedures.

It seems desirable, therefore, that specially trained officers should be appointed for the purpose of maintaining close contact with Railway employees within the working environment. These officers who could be given the title of Employment Officer, would be available for interviews whenever required and would relieve staff officers and senior officers of the need to deal with the problems and complaints of individual employees and they could undertake any other duties in
relation to employee relations. For example, they could act as liaison officers between the Administration and the various staff associations.

These officers would also be able to assist in the recording of personnel data for use in connection with the compilation of statistics and the investigation of personnel problems. If psychological testing is adopted they could possibly be trained to undertake the administration of tests under the supervision of the proposed personnel research bureau.

As a matter of interest, the following description of a specialized type of employment service known as 'personnel counselling' is given. A modification of this method might perhaps be adopted by the proposed employment officers.

4. PERSONNEL COUNSELLING:

In the United States considerable attention has been given to personnel counselling as a means of improving employee adjustments and morale. Every worker is called upon to make adjustments in his work. If his status is raised or lowered, if he has to change his work or if he is transferred from one centre or department to another, certain adjustments are involved. In some cases adjustments are made easily and quickly, but in others they are slow and difficult, the speed and facility of adjustment depending on the particular worker's attitudes and emotional state. In addition to the adjustments connected with the work situation the worker is often faced with problems in his private life which may set up anxieties and produce mental tensions. It is the job of the personnel counsellor to help the worker solve his problems or to adjust to them. He is also often expected to communicate company policies and practices
to employees and the attitudes and problems of workers to management.

Personnel Counselling calls for a high degree of skill in the use of the interview technique and unless the interview is conducted on the right basis personnel counselling may be found to lead nowhere.

The most fruitful work in connection with personnel counselling has been conducted at the Hawthorne Plant of the Western Electric Company, U.S.A. Personnel counselling at the Hawthorne Plant grew out of the earlier researches mentioned elsewhere in this chapter when it was found that management really knew very little about the attitudes of workers or of what constituted good supervisory methods in the eyes of the workers.

From the research programme adopted in this plant it was found that physical conditions of work had some bearing on efficiency, but that the social experience of the employees - "both his past history and his present social relations within the factory and without" - was a most important factor.

A special interviewing technique was devised during the course of the research work undertaken by the Western Electric Company in collaboration with the Harvard Graduate School of Business Administration. In theory the technique is very simple. The personnel counsellor is not required to ask set questions or to get specific answers. He does not try to advise the worker, to change his point of view or to criticise or encourage him. His main function is to help the worker to talk as freely as possible about anything he chooses to discuss and to help him to understand himself. Since the worker is often pre-occupied with his problems and anxieties these may be brought to light either directly or indirectly. In actual practice this type of interview calls for great skill. The worker must be made to feel at ease. If he feels
embarrassed, uncomfortable or that he is being censured or that certain information is expected of him, the interview will not be effective.

In a report written in 1931 when the interviewing programme was still in an experimental stage the following comments in regard to the effects of interviewing were made:-

"It has long been known that one who writes a memorandum greatly clears his thought upon the material to be presented. Exaggerations, distortions, emotional reactions, defences, etc. are largely dissolved when thus viewed objectively. In a similar way employees who express their thought and feeling to a critical listener discharge emotional and irrational elements from their minds. Many personal and individual problems and attitudes have been improved by the verbal expressions which the interview affords. Taking account of the employee expressions recorded in twenty-thousand interviews, we feel that this value in interviewing cannot be lightly overlooked."

The effect of the interviewing programme on the Supervisors was said to be no less interesting. It is reported that in the opinion of the management supervision improved almost simultaneously with the beginning of interviewing.

Interviewing has the following main effects on the individual:-

(1) There is an emotional release and as the interview proceeds mental tension usually begins to disappear;

(11) As mentioned in the extract from the report written in 1931, thinking is clarified. Under emotional strain the individual is often impetuous and irrational, but as he begins to talk about his problem he is usually able to see it in a better perspective.

The interviewing programme was found to be specially valuable in dealing with problem employees as is mentioned in the following extract from the report of the Western Electric Researches:-

"All employees were supposed to conform to more or less uniform standards of output, quality of work, and general conduct. There was always a certain number who did not, and these persons became problems to their supervisors. The usual way of dealing with them was the application of pressures of a rather obvious sort; but with many individuals
this method failed because it was directed at their conscious understanding, whereas the source of their inefficiency lay far beneath conscious control. The interviewing programme had shown that the proper way to proceed was to explore the individual's personal situation, discover the source of the difficulty and then try to act on the diagnosis. Sometimes interviewing alone, the mere opportunity to give full expression to worries and other tensions, led to an improved attitude toward work. The tensions disappeared at the point of expression."

In dealing with problem cases, a considerable number of interviews may be necessary. Re-adjustment in such cases is often slow and may take weeks or months.

The work of the personnel counsellor is, however, by no means limited to problem cases. He works continuously with a particular group of workers until all the workers are known to him and he is known to them. He is always available for discussions or interviews and even well adjusted workers come to him from time to time when they are faced with a particular problem. By building up the right relationships the counsellor can encourage workers to discuss their grievances and difficulties with him rather than with each other. The spread of individual tensions to the group is, therefore, largely avoided and it is easier to maintain good morale.

According to the Western Electric Researches personnel counselling increased efficiency among workers and improved their morale. It also seemed to have a good effect on the relations between employees and supervisors and finally it did much to increase management's understanding of employee sentiments.

The Western Electric Company is noted for its well developed and extensive personnel services which attempt to cover all aspects of employee relations. As B. Gardener points out in "Human Relations in Industry" the personnel counselling programme is, therefore, not regarded as a substitute for other forms of personnel work, but is supplementary to it.
Personal counselling has been described in some detail because there appears to be a need for some such service in the S.A.R. It is not suggested that anything as elaborate as the interviewing programme undertaken by the Western Electric Company should be undertaken, for to do so would involve a large additional staff. At the Hawthorne plant of the Western Electric Company approximately half of the 40,000 employees were interviewed during an experimental period of two years. This programme was carried out by a staff of approximately 30 interviewers and 6 additional staff for analysing the records of the interviews. In view of the large number of interviewers required, it was decided to train supervisors from within the plant to assist with the work. It was believed that interviewing should form an important part of the supervisors' training and they were taken off their ordinary duties for a temporary period of one year for this purpose. In practice it was found that the experience gained greatly improved supervision. To be effective a personnel counsellor must be outside the line of authority, that is, he must be part of the industrial relations branch and he must be entirely freed from other duties so that he can devote his entire time to interviewing and building up the right relations with the workers.

It might be a fruitful experiment to introduce one personnel counsellor into each railway staff section. This appointment should be additional to the existing staff establishment. Staff clerks are at present fully occupied with clerical duties and would not have the time to devote to interviewing, but specially selected members of the staff department could be trained to do the interviewing. They could be trained in rotation and could be put on to this work for a year at a time.

In regard to the effects of the interviewing technique applied on this basis, Burleigh B. Gardner in
"Human Relations in Industry" states:

"Although the interviewing technique has been applied at the Western Electric Company primarily as a tool for the personnel counsellors, it has also proved to be of considerable value for other personnel people and for foremen and supervisors. There and elsewhere attempts have been made to train others in the basic concepts and techniques of these interviewing methods, and it has been found a very useful tool for anyone who deals with people.

Probably one of the most important ideas which most people obtain from training in this method is the realization that they must understand other people to be effective in dealing with them and that they can get this understanding only by listening to what they have to say. Closely allied with this is the realization that arbitrary orders, logical arguments or exhortations do not change a person's attitude or convince him that he is wrong. Unfortunately we see supervisors, engineers, personnel people, and others continually trying to win arguments, gain co-operation, or change attitudes through these devices.

With the training comes, too, the realization that one has to get below the surface of complaints, antagonisms, lack of co-operation, and similar difficulties in order to know what to do about them. Those in positions of authority are accustomed to taking complaints at their face value and dealing with them at that level. If a subordinate complains that he needs more money, or that the work is too hard, or his machine is no good, his superior usually accepts that as an accurate statement of what is thought to be wrong, and he either corrects the condition, tries to prove that his subordinate is mistaken, or decides there is nothing he can do about it. - - - once the superior realizes that there may be other things behind the manifest complaints, and that by interviewing he may get to the real root of the problem, then he is encouraged to try to deal with these difficulties instead of avoiding them."

5. METHODS OF RECRUITMENT:

In a large organization the first step towards efficiency is the recruitment of the right type of candidates for employment. The value of any selection programme is naturally reduced if only mediocre applicants present themselves for testing.

The methods of recruiting staff into the Railway Service were commented on in the report of the Staff Training Committee in 1938 in the following terms:
"The Committee also recommends that more active steps should be taken to induce youths of a desirable type to apply for employment on the railways.

...... the Committee recommends that the Administration should get into direct contact with all public schools throughout the Union, particularly towards the end of the year, when the school leaving examinations are being held, and bring prominently to the notice of headmasters the opportunities which the Administration offers as a career so that they in turn can convey their students on behalf of the Administration.

At the present time it is customary for leading business houses and industrial management to make these contacts, with the result that the cream of the youth leaving school is drawn off into these channels. The tendency naturally is to obtain the first employment offering, and the Administration, having made no direct contact with schools, does not secure a share of the best material leaving schools commensurate with the prospects which the Service offers in comparison with outside employment."

Improvements in railway recruitment policy were recently introduced and a special staff officer has been appointed in each system to maintain contact with the various schools. Assistance is also being obtained from the Vocational Guidance Officers of the Educational Departments who are disseminating information in regard to careers in the Railway Service.

It is the policy of the Railway Administration to encourage the entry of young applicants into the Service. This at present places a certain amount of responsibility on the Administration for young applicants usually do not know all the possible railway openings which might be available to them or what type of work they are best suited for.

In "Industrial Psychology" Charles Myers points out that until recently vocational guidance has been left almost wholly to the individual and his family. He states, "The young worker, choosing his life's work, may be influenced by his own interests and desires ....... or he may be subject to similar pressure on the part of his parents. The result is too often disastrous. Because a
boy or girl has certain interests or desires in relation to a given occupation, it by no means necessarily follows that he or she will do well at it. Those interests or desires may be related to a very insignificant aspect of his future work ... Such interests, moreover, may only be transient. And it must be realized that keen interests are by no means necessarily associated with an effective, practical expression of them."

... then dealing with young applicants straight from school, some form of vocational guidance seems to be necessary. Although vocational guidance is conducted in the schools, it must necessarily be of a rather general nature. Further guidance would, therefore, be helpful during the early stages of railway employment. This need is to some degree met by the provision of a Staff Officer in each system who is responsible for supervising the progress of 'trainees'. The main defects in this arrangement are that the Staff Officer is not trained in psychological methods and that the placement of trainees is not conducted on a scientific basis.

It seems a pity that the Administration adheres so rigidly to the principles of entry into the service of the very young. At present it is virtually impossible to enter the Railways in a clerical capacity after the age of 22 years - ex-servicemen excepted. This tends to exclude all those who have spent time in acquiring higher education, for to enter the service at the age of 22 entails a severe financial handicap in that the 18-year-old entrant in four years gains considerable incremental advancement.

Apart from this aspect, by refusing admission to persons over 22 years of age, the Railway Administration to some extent shuts itself off from new
methods and ideas. This results in an unbroken continuity of ‘railway tradition’ — very desirable in many ways perhaps, but with a tendency to lead to mental rigidity.

6. SELECTION:

In regard to the selection of candidates for employment, the Staff Training Committee commented as follows:

"The impracticability of the satisfactory selection of youths by rule of thumb methods will be readily appreciated especially when regard is paid to the particular nature of the qualities required to make a successful railwayman in those branches of the Administration's activities where continuous contact with train operation is demanded."

This Committee recommended that the responsibility for the selection of applicants for appointment to the Service — with the exception of clerical candidates and apprentices — should be delegated to a Selection Committee, and that such Committees should function in each of the Systems. With regard to the selection of clerical candidates, the Committee reported:

"It is not proposed to offer any detailed criticism in regard to the selection of youths for appointment as clerks. As has been mentioned, their selection is made on the results of the competitive examination, the nature of the subjects in which candidates are examined, combined with the stipulation that a minimum standard of education equivalent to the Junior Certificate should be possessed, providing a searching test."

There is some doubt as to the accuracy of the last statement since there is an absence of conclusive evidence to demonstrate that the present competitive examination is a valid test of clerical ability.

Apprentices are selected on the results of a competitive examination and on the recommendations of a
Selection Committee, after interview. The competitive examination now in use is a doubtful measure of the particular skills required in apprentices.

In the case of Trainees, selection and placement are determined almost entirely on the results of an interview conducted by a Selection Committee.

In regard to the method of selection by interview, Charles Myers in "Industrial Psychology" states, "The interview has hitherto been likewise practically the sole basis of vocational selection. Let us suppose that a certain number of vacancies occur in a factory, and that a larger number of candidates apply for them. Recommendations from past employers or reports from the candidate's school may be taken into account, but selection and allotment to different occupations within the factory are commonly based on the results of a brief interview. Thereafter the engaged employee, if found unsuited for his work and undischarged, is wafted from one department to another, on the principle of trial and error, until he finds work at which he proves successful."

Myers does not suggest the abolition of the interview, but advocates that it should be supplemented by other methods of examination, such as medical, physiological and psychological examinations.

Hollingworth in commenting on the doubtful value of the interview method cites the following example of the different ratings given by expert sales managers experienced in interviewing. Of 57 salesmen interviewed by 12 sales managers, one applicant was given 57th place by one manager and 1st by another; another was given 55th place by one and 4th by another.

In view of the unreliability of interviewing
as a means of selection and the possibility that the present competitive examinations do not provide an accurate assessment of special abilities, it is suggested that the Railway Administration should consider the adoption of a psychological testing programme in conjunction with present methods. (p. 81)

7. PLACEMENT:

Psychological tests are commonly regarded as a means of screening out candidates who are unsuitable for employment, and their function as an aid to suitable placement is overlooked. In this connection, Joseph Tiffin in "Industrial Psychology" makes the following observations:

"Employee tests have often been considered primarily as devices to aid in the selection of employees. This viewpoint is followed by the assumption that (1) when tests are used systematically, many applicants will be rejected—that is, not employed at all—and that (2) unless there are significantly more applicants than there are jobs to be filled, the testing programme loses its effectiveness.

It is unfortunate that the selection rather than the placement features of employee tests have been given the greater emphasis in most discussions of this subject. Yet the value of a testing programme in placing employees during a period of rapid plant expansion is fully as great as its value in selecting employees during more static periods."

In the South African Railways, placement is largely determined at the time of selection for employment end, therefore, reflects any imperfections in selection methods.

With regard to the "Trainee" scheme, apart from the unreliability of interview methods generally, the scheme suffers from the further defect that the applicant might quite easily be wrongly placed. The administration's way of dealing with this problem is to try the trainee out in a particular type of work for a short period. If
his program is considered to be unsatisfactory in that particular direction, he is tried out on work of a different nature.

A scientific testing programme would undoubtedly reduce the number of misfits and be the means of saving time and money.

A. THE PLACE OF SCIENTIFIC TESTING:

In South Africa generally there is still a good deal of scepticism in regard to the value of psychological methods of selecting personnel and the limitations of these methods are unduly emphasized. In this connexion, Joseph Tiffin's comments are of interest.

(Industrial Psychology: Employee Testing):

"A further point which the advocate of testing procedure should make clear is his recognition of the fact that psychological tests are not infallible; that they will occasionally be wrong. Any new procedure, whether in employment, production, advertising, or the like, should be evaluated not in terms of whether it achieves perfection, but whether it results in some improvement over methods that have proceeded it."

The Staff Training Committee in reporting on "Psychotechnical Tests" in 1938 was somewhat handicapped for at that time there was little, if any, "first-hand information available in South Africa in regard to the application of this branch of science in the selection and orientation of staff in industry." The Committee was, therefore, guided by the recorded results of experiments in other countries.

The Committee did, however, recommend "that the Administration should take definite steps to give this branch of science its place in the organization of the South African railways by obtaining the services of a recognised expert in this branch of science from overseas." The acceptance of the fact that psychotechnical
Tests should be conducted by an expert is significant. This is in accordance with the views of Charles Myers who states, "Would an engineer place any confidence in the results of a test of brake horsepower carried out by a psychologist or physiologist? How much more unreliable must psychological and physiological tests prove when carried out in a factory by an engineer! Yet this is what educational and industrial authorities are always demanding - a series of mental and physical tests which can be safely applied, without expert supervision, by those untrained in psychology and physiology."

The value of aptitude testing was demonstrated during the war in Great Britain, the United States and in South Africa in the S.A.A.F Aptitude Tests Section, when scientific personnel selection was conducted on a large scale. The development of the screening battery technique as a means of assessing general suitability for groups of occupations was of special significance. With this method, large groups of persons can be tested in a comparatively short space of time and the tests can be administered by untrained personnel. The screening battery does not reveal fine individual differences, but is useful as a means of differentiating between candidates who might be suitable for clerical, mechanical or unskilled work. Tests of this nature could possibly be used with advantage for the screening of candidates who seek to enter the Railway Service as clerks, apprentices or trainees.

During the war, British War Office Selection boards devised special techniques for selecting officer material which proved very successful. Similar methods have been adopted by the British Civil Service for the selection of candidates for certain administrative positions and are to be tried out for a period of three years.
The establishment of the National Institute for Personnel Research has given an impetus to psychological testing in South Africa and a number of industrial undertakings are, with the assistance of the Institute, conducting experiments into psychological testing.

Clearly, there is a need for such a testing programme in the South African Railways. As already indicated, this work would necessitate the establishment of a special branch in the Staff Department and would involve the appointment of suitably trained officers.

9. TRAINING:

After selecting and placing workers as adequately as possible, the next need is for training. The Railway Administration in introducing a central staff training school has demonstrated its recognition of the fact that servants must be systematically trained if they are to do their jobs properly.

The school is still in its initial stages and it is too early to comment on its operation. Ultimately it should function in conjunction with a scientific selection and vocational guidance scheme. Scientific studies of learning would also be of value in testing out the efficacy of various methods of training.

If candidates are properly selected, but are not trained to perform in the most efficient way possible, a good deal of their potential productivity is lost. The success of the Railway Training School will depend largely on the selection of the right type of instructors and the use of scientific methods of training. Instruction in railway practice covering such work as shunting, signalling, trains operation, station work,
clerical work, locomotive operation, etc., will of necessity have to be undertaken by railway men. Here the qualities required in an instructor should receive special attention for the ability to teach presupposes a mastery more than the possession of skill and knowledge. Tiffin suggests that the use of experts in training is a valuable supplement to the work of the actual instructor. The function of such experts is not to do the training, but rather "to set up the machinery for the training to be done by properly qualified persons, to supervise the construction or writing of necessary manuals or other materials and to keep in close touch with the accomplishment of trainees during the instructional period."

The Staff Training Committee visualized the need for refresher courses. Such courses would prevent employees from becoming 'stale' and would help them to keep abreast of modern developments.

In the case of senior officers, opportunities should also be made available for study. These men are often so burdened with day to day duties that there is little time for keeping up-to-date. It would, therefore, be sound policy for the Administration to grant them study leave periodically and to make special facilities for study available to them.

"The responsibilities and duties of supervisory staff" was one of the items in the terms of reference of the Staff Training Committee. The Committee was, however, merely asked to report "whether the powers and duties of inspecting and supervisory staff connected with the responsibility of supervising the grades included in the scope of the investigation were such as to ensure that degree of efficiency essential for correct and safe working."

No comment was, therefore, made in regard to the selection
and training of supervisory officers.

The present method of selecting supervisory officers on the basis of service and qualifications is open to improvement, since no allowance is made for temperamental factors which are of special significance in the handling of personnel and it is most undesirable that a mentally unstable person should be placed in control of others. It would, therefore, be in the interests of both the Administration and Railway servants if temperament and emotional instability testing were to be included in the procedure at present adopted for the selection of supervisory staff.

In the Railways supervisory officers are usually promoted from the ranks. The man concerned acquires knowledge and experience in his particular field as his railway service increases. The duties of a supervisory officer, whether he is a workshop foreman, a senior clerk or a supervisory officer of any kind, require an understanding of human relations and usually also an ability to impart knowledge, but the person concerned is neither scientifically selected nor specially trained for these aspects of his work.

It is suggested that the Railway Staff Training School should provide courses for the training of employees for promotion and special courses for the training of various types of supervisory officers. In courses of this nature, it would be necessary to avoid school-classroom methods and the training should be conducted as informally as possible. Lectures and discussion groups could be held and the courses would require to be adjusted in relation to the needs of the various departments. The training of staff officers, for example, could include lectures and discussions on the
Staff Regulations, the Railway Service Act, the Workmen's Compensation Act, the Factories Act, the Sick Fund Regulations and general Railway policy and procedure. In addition, training in interviewing and methods of imparting knowledge, and lectures on some aspects of social psychology, sociology, economics, social legislation and public administration, would be helpful.

10. WORKING CONDITIONS:

In the Railways environmental factors such as illumination, temperature and ventilation, noise, etc., are supervised by the staff of the Health and Welfare Department. No scientific investigation of hours of work or the timing of rest pauses has been conducted, nor has any attempt been made to relate environmental factors to output. Time studies are made in connection with the bonus work system which is in operation in most Railway workshops, but motion studies have not as yet been conducted.

It is suggested that some studies on the relationship between working conditions and output and efficiency might be undertaken by the proposed Research Bureau in collaboration with the staff department and the Health and Welfare Department. Such studies are difficult because of the number of variables which are likely to enter into the situation so that it is essential that they should be conducted by expert personnel.

Although environmental conditions are known to affect output, the Western Electric Researches indicated the importance of other factors in this connection. The aim of a programme of research conducted by the National Research Council at one of the Western
Electric Plants was "to determine the relation between intensity of illumination and efficiency of workers."

It was found that there was no simple relationship between these factors. When light intensity was increased, output increased. When light intensity remained unchanged and the workers thought it had been increased, output was the same as under the improved lighting conditions. The presence of an unknown psychological factor was suspected and the investigators decided to attempt to eliminate it by further experimentation. Six average female workers were selected from a large shop department and placed in a separate room. It was expected that if they were asked to co-operate the psychological reaction would in time disappear.

For five weeks after the girls entered the test room no change was made in working conditions. Various experiments in hours of work, rest pauses, financial incentives, etc were then tried out. Identical conditions of work were repeated in later experimental periods when it was found that output for two identical experiments carried out at different times bore no relation to each other. "The only apparent uniformity was that in each experimental period output was higher than in the preceding one." The girls were aware of this and stated that the increase came about without any conscious effort on their part. Before the commencement of the experimental period, they had repeatedly been asked not to strain, but to work "as they felt."

T.N. Whitehead, Associate Professor of Business in the Graduate School of Business Administration, Harvard University, who made a careful statistical analysis of the output records showed that the changes which took place in the output of the group had no simple correlation
with the experimental changes in working conditions. This should not, of course, be taken to imply that there is never any relation between output and environmental conditions.

One explanation for the increased output is simply that the girls were given a sense of importance. They felt that the management was interested in their results and that they were part of a valuable piece of research. In other words, they were no longer small cogs in a large wheel, but had become individuals who mattered. A substitute for the test-room conditions which induced this result could perhaps be provided by efficient personnel management. In the Railways the appointment of employment officers or personnel counsellors might be considered as a means of stimulating interest among workers, particularly those engaged in monotonous routine work. (The functions of personnel counsellors were dealt with earlier in this section.)

11. MOTIVATION:

Perhaps the greatest need in the South African Railways' personnel organization is for greater attention to be paid to the question of motivation. No one works without some motive, and incentives to effort are many and varied. It is, however, important to realize that no one incentive remains effective for long. The South African Railways Administration relies mainly on financial incentives and general personnel services, i.e. promotions procedure and bonus work, and on its general policy of social security and security of tenure, to achieve high efficiency and productivity.

Social security and security of tenure
are easily taken for granted because they are always there and financial incentives are by no means infallible. There are in any case groups of workers in the South African Railways who fall outside the range of financial incentives; for example - low-graded workers over the age of 50 whose chances of advancing much further are slender; servants whose mental ability is such as to preclude them from acquiring the necessary educational qualifications for further promotion; servants at the top of certain grades who are eligible for appointment to grades where there are a very limited number of vacancies - this applies particularly to senior typists and senior lady clerks; servants engaged in routine and monotonous work where the rewards are small such as Hollerith machine operation, ticket sorting, etc. In such cases there is a strong possibility that servants do not work to maximum capacity.

May Smith in "An Introduction to Industrial Psychology" quotes the following example given by Christopher A. Lee in connection with the failure of a financial incentive:

"A group of young girls was engaged in threading needles for older girls doing embroidery. After they had been working for some time, we thought that they would feel encouraged to work harder if set on piece-work. The record up to that time was 96 dozen needles threaded in one day, which was considered a good performance. When the piece-work rate was fixed no new records were made, and it appeared to have little effect on production. In a short time, however, the output fell until the average figure was about 75 dozen.

We then realised that we had chosen the wrong type of incentive. The girls had little interest in increasing their wages, since they lived at home and handed over their pay envelopes to their parents, who did not reward increased earning by an increase in pocket money. So we finally arranged to set a task which, when completed, left the girls free to play or use their time as they liked outside. The task was fixed at 100 dozen, although the workers'
representative thought this was high, in view of the previous record; we submitted that the girls had not yet worked under the influence of a genuine incentive, and promised to bring down the limit if it proved too high. On the second day, the forewomen came to me and asked what she should do; it was only 2.30 p.m. and all the girls had done their 100 dozen. They were, of course, allowed to go. This set them off; and the incentive of leaving early became secondary to their enthusiasm to make new records."

In a large organization it is particularly necessary to provide some means of stimulating interest for not only is there a large volume of fairly monotonous work to be performed, but it is easy for the worker to feel that his efforts make little or no difference to total output.

Incentives are not static for it is characteristic of most human beings that they do not greatly value anything which is always available. For example, the man who knows that his salary is regular and secure does not regard it as an incentive to special effort.

The determination of incentives to high productivity is a complex problem and in the S.A.R. it would involve considerable research work which could only be undertaken by specially trained staff. Until such an investigation is undertaken, the Railways will not be in a position to know how effectively employees are working. This is a question which could be studied by the proposed research branch.

12. MORALE:

In the South African Railways family welfare services and health and security measures do possibly indirectly influence morale. These measures are, however, mainly of general value and do not necessarily ensure the
maintenance of high morale among individual workers. A large part of the activities of the Railway Personnel Organization and the machinery for staff representation and conciliation are also aimed at the maintenance of good morale.

It is difficult to assess morale in the S.A.R. If labour turnover is used as a gauge, there is room for improvement. The rate among European employees was roughly 9.7% for the year ended 31st March, 1946, and resignations accounted for about 77% of the leavers. The turnover rate among non-Europeans is higher. Absenteeism is also often an indication of high or low morale, but absenteeism figures are not available for the whole service. The security of railway employment and the social security measures and welfare services tend to increase the stability of staff. Strikes and major industrial difficulties are rare, although there was recently an artisans' go-slow strike. It is possible that some Railway servants instead of taking such drastic action as leaving the service or going on strike may indulge in a certain amount of grumbling. In the S.A.R. genuine grievances are dealt with in an officially recognised manner - i.e. in writing through the prescribed channel. Grumbling is, however, discouraged or ignored. Although the provision of regulations and instructions to cover all conditions of service reduces the possibility of actual injustice to a minimum, this does not prevent a feeling of injustice or discontent in certain individual cases. It is true that the grumbler's complaints can often be discounted, but one grumbler can undermine the morale of a whole office or workshop. The grumbler who is ignored may turn into an agitator and his dissatisfaction is liable to spread. Sometimes difficulties are removed simply by the process of ventilation. In some cases explanations might suffice or concrete adjustment might be possible. In other cases, the particular employee may benefit by
psychiatric treatment.

The limitations of managerial insight in regard to employee morale were demonstrated by the Western Electric Researches at the Hawthorne Plant when outside investigators discovered attitudes and types of behaviour among employees, which were quite unknown to the management. For example, after experiments had been conducted in the Relay Assembly Test Room the following observations were made in a Company report:— "Upon analysis, only one thing seemed to show a continuous relationship with this improved output. This was the mental attitude of the operators. From their conversations with each other, and their comments to the test observers, it was not only clear that their attitudes were improving but it was evident that this area of employee reactions and feelings was a fruitful field for industrial research." "Why was the mental attitude of the girls different in the test room from what it had been in the Department?" "They (the girls) were exceedingly disparaging about the supervisors in the department, although management felt that the department had particularly good supervisory personnel. These facts suggested that the management of the company really knew very little about the attitudes which employees took toward conditions in the plant and very little also about what constituted good supervisory methods."

In some large organizations in the U.S.A. an attempt is made to measure morale by the use of the anonymous attitude survey technique, which consists of a questionnaire anonymously checked by employees and dropped into a ballot box.

In the S.A.R. no attempt has as yet been made to assess the attitudes of workers scientifically. Some studies on these lines might perhaps be conducted
(iii) dealing with questions which require the collaboration of agencies outside the individual workshops and which, therefore, imply close relationship with community agencies, District Committees and the regional organization for production, transport, food, fuel and other aspects of the war effort.

It is suggested that something on the lines of Joint Production Committees might be introduced in the S.A.R. Alternatively, the scope of the Joint Consultative Committee might be widened to include production and efficiency problems.

As a means of promoting more informal staff discussions, meetings of the staff in each Railway Section might be arranged periodically. This type of meeting would be specially useful in clerical sections where the work is often monotonous. In the Railways a large amount of clerical work has to be performed and much of this work can be reduced to a routine which must eventually become monotonous to the men and women engaged in it. It is possible that some of these men and women are not capable of anything more than routine work and are not interested in assuming greater responsibilities. Even if this were the case — and there is no conclusive evidence to prove it — the efficiency of these workers might be improved if they were consulted more frequently. They might have useful ideas on methods for increasing efficiency, for improving working conditions, for the training of new employees or reducing sickness absence or they might wish to discuss their own special problems. Even if their suggestions could not be put into effect or their requests met, they would at least feel that they had been consulted and given the opportunity to express their views.
CHAPTER III

HEALTH AND WELFARE SERVICES.

1. Historical Note.

2. Family Welfare Services:
   (1) Group Activities.
   (2) Case Work.


4. Other Welfare Services.
Chapter 3

Health and Welfare Services

1. Historical Note:

The whole health and welfare organization of the South African Railways has grown out of a particular health measure - the prevention of malaria. In 1930 a Departmental Committee was appointed to inquire into the high incidence of malaria in the lowveld of the Transvaal and in Natal. At that time malaria was not only much more prevalent in these areas than it is today, but the mortality rate was also high.

This Committee, in addition to recommending that attention should be given to structural improvements in railway buildings and staff quarters, also stressed the need for some form of preventive organization. It was suggested that the organization should function under a Medical Officer and should undertake both seasonal and permanent anti-malarial measures.

As a result of the Committee's findings a Railway Medical Officer in the Eastern Transvaal who had made an extensive study of tropical medicine was appointed as Medical Officer, Anti-malarial Measures. (This designation was later changed to Railway Health Officer).

The control of malaria added a new function to the activities of the South African Railways. It was, therefore, necessary to select and train special staff and in addition volunteers were called for to assist in the work, which resulted in a tremendous decrease in the incidence of malaria generally, and in some of the areas where it was once prevalent malaria has been practically eliminated.

After the malaria control measures had
been organized on the two Railway Systems concerned, i.e. Natal and the Eastern Transvaal, other phases of preventive health work were undertaken. Foremost among these were anti-plague measures. At this time the Railway Administration's interest in rodent destruction was concentrated mainly on prevention of damage to goods in transit, and preventive measures extended no further than the employment of a number of rat catchers.

The newly-formed health organization in stressing the connection between rodent infestations and plague and the danger not only to the Railway Administration, but to the community as a whole of the spread of plague, secured the cooperation of Railway staff and outside bodies. The work was then organized on a uniform basis throughout the Railway Service and in addition to the large scale destruction of rodents, other measures such as rat-proofing of Railway premises were commenced.

The policy followed from the beginning provided for the linking in of the Railway Health Organization throughout the country with the plague prevention measures of the Central Government and Local Authorities.

The next health measure to come under the control of the health organization was the protection of domestic water supplies and in 1934 a survey of all domestic water supplies was commenced.

During 1936 catering hygiene and workshop hygiene were also brought under the control of the Railway Health Officer and in the same year the fumigation and disinfection of railway quarters and buildings were included in the functions of the Health Department.

By 1937 the major aspects of general
preventive health work in the South African Railways were concentrated in the Health Department. In commenting on the activities of the Department in this year the Railway Health Officer stated:

"As a Government Department the local authority for the railway administration is the Minister for Public Health, and the resultant absence of definite regulations or by-laws applicable to the Department very often gives rise to the practice of multiform standards of public health throughout the wide ramifications of the Service. For the furtherance of Public Health measures a wide understanding of the peculiarities of railway working is a sine qua non in both policy and staff, and for this reason a domestic health organization in full cooperation with the policy of the Central Government is absolutely essential.

The early policy of this organization to follow the broad standards of Act 26 of 1919 and associated legislation has been continued and by the principle of leading and education of the railway mind towards these standards it is pleasing to report that instances of obstruction or opposition seldom, if ever, occur."

The first Health Department undertaking to overlap into the field of social welfare was the inauguration of a Railway model village during the year 1924-35. The emphasis was, however, still largely on preventive health measures.

The first village consisted of 100 wood and iron insulated houses and accommodated 400 men, women and children. The village was carefully planned and special attention was given to such matters as proper sanitation and fumigation. A resident nurse was appointed and a doctor visited the camp twice a week.

During the year 1935-36 the village was enlarged to accommodate 587 inhabitants and an additional village was erected to accommodate 1,172 inhabitants.

Health measures included the periodical examination of food and milk supplies and the testing of domestic water supplies. All intending residents were medically examined at the time of recruitment.
and again on entrance into the villages. At each village
discipline, health and social welfare matters were under
the control of a Camp Superintendent.

In 1937, the Railway Health Officer
reported that "the villages have definitely served
the two main objects for which they were intended,
namely to provide a suitable labour force for the
'construction' under amenable living conditions,
and to improve the standard of life of these people
and their dependents."

When the Natal Construction work was
completed these two villages ceased to function.
Construction operations were, however, then commenced
on the Cape Eastern Main Line Improvements and two
similar villages were established there which are
still in existence.

In 1938 the Railway Administration
extended the scope of its welfare services beyond the
limits of the model villages.

This step was commented on by the
Railway Health Officer in his annual report for 1938
in the following terms:-

"Up to the beginning of 1938 the social
services among the lower paid staff in the
employ of the South African Railways and Harbours
Administration were entrusted to the Continuation
Committee of the National Congress of 1934. The
Administration gave the movement financial
support, but as it had no say in the policy and
activities of the Committee it was felt that
the Management should itself undertake this
service."

In deciding upon policy and drawing up
a plan of campaign the need for educative measures
was given special attention. Although the Administration
had made a substantial practical contribution to the
welfare of "poor whites" by providing fixed employment, standard wages, housing, pension and sick fund privileges, etc., it was felt that the lack of educative measures was a limiting factor in the rehabilitative plan.

The proposed railway social welfare services were, therefore, to be directed mainly at educating the lower-paid workers towards self-help in health and welfare matters.

In this context the following extract from the Railway Health Officer's Report of 1939 is of interest:

"The fact is often overlooked that as a result of social retrogression, the poor white, as a rule suffers from ignorance in regard to health and social matters, which makes his rehabilitation difficult and, in isolated cases, impossible. It is felt that of the large sum of money spent in material assistance a comparatively small portion contributes towards a genuine remedy. The remainder serves to aggravate the position by undermining ambition and independence. In the long run improvement can only be effected by changes in the people themselves and it is essential that they should participate in their own rehabilitation. In fact serious dangers are attached to attempts at improving the economic position without at the same time urging self-help.

An example of a contrast is furnished by the Administration's model workers who, after being taken into the service are left to themselves and, the labourers in the Model Villages, where rehabilitative treatment is given. Although the former enjoy the privileges of a fixed establishment, i.e., departmental housing, on a much higher standard than in the Model Villages, pension, sick fund, paid leave, privileges, facilities for promotion and enhanced allowances; the latter are employed only in casual capacity, and their privileges greatly reduced, yet they still compare favourably."

This first experiment in social welfare was primarily a family service and it was proposed that educative and rehabilitative measures should be introduced in the home through the workers' dependents. The scheme envisaged welfare work among the families of 16,000 railway workers distributed in cooperatively small numbers over the whole Union.
This venture into the realm of social welfare work involved the appointment of specially trained personnel. In order to carry out the work efficiently the following qualifications were considered necessary:—

1. General Nursing and Midwifery
2. Social Science.

As no single course of training covered these fields, it was decided to appoint Health Visitors qualified in general nursing and midwifery and Social Visitors with a university training in social science.

The scheme was launched with the following personnel:—

6 Health Visitors
P Social Visitors
1 Senior Health Visitor
(A Senior Social Visitor was appointed soon afterwards)

During the first year preliminary work was carried out and surveys of health and socio-economic factors were prepared for a large number of communities. Attention was directed mainly at communities where 50% or more of the families were railway, and where a large number of railworkers were concentrated. In the larger centres arrangements were made to integrate railway welfare services with other welfare services and to cooperate with existing social welfare organizations.

When the surveys covering communal health and socio-economic factors had been completed, individual families were studied. The family surveys covered:—

1. The health of the family as a unit.
2. The socio-economic welfare of the family as a unit.

The aims of the family surveys were:—

1. To make a sound social diagnosis of each family requiring assistance.
2. To determine methods of self-help within the family.
3. To assist the family in its own rehabilitation by:-
   (a) Advice and guidance.
   (b) Assistance from local sources.
   (c) Assistance through official channels.
   (d) Any combination of the above.

The purpose of investigation into communal and domestic circumstances was to determine the direction in which educative measures could best be developed. As a result of these investigations, the planning of group activities with educational potentialities was begun. By the end of 1939 the following group schemes had been initiated:—

1. Nutrition:
   Vegetable and fruit clubs.
   Pre-school milk clubs.
   State-sided butter clubs.

2. Infant and Maternal Welfare:
   Ante and post-natal clinics.

3. Homecraft:
   Sewing clubs.

4. First Aid and Home Nursing:
   St. John Ambulance classes.

5. Juvenile Recreation:
   Children's clubs.

From the outset the families concerned were encouraged to take as much responsibility as possible for the running of their clubs. This policy was immediately effective in the vegetable clubs where in many cases the running of the clubs was left entirely to the members.

Although the foundations of railway welfare work were laid during the year 1938-39 and both family visiting and group activities were commenced, the extension of these activities throughout the Service has taken many years and much consolidation work is still required.
2. **ORGANIZATION OF HEALTH AND WELFARE DEPARTMENT:**

All Railway health and social welfare services function under the direction of the Railway Health Officer (an experienced and specially qualified medical officer), who is assisted by four assistant Health Officers (medical officers) and three Chief Welfare Officers (trained in social work or nursing or both). The remainder of the staff consists of experts in the field of health and social welfare, physical educationists, clerks and miscellaneous other assistants.

The work is centralized in the headquarters health and welfare section which is responsible for the planning and co-ordination of health and welfare services throughout the Railway Service. The general control of health and welfare work is, therefore, vested in the headquarters section, but health and welfare staff are attached to the System Manager's office in each Railway System.

For administrative purposes the Health and Welfare Department is divided into the following four main sections:

- Health Section.
- Social Welfare and Nutrition Section.
- St. John Ambulance Section.
- Physical Training Section.

Annexure shows the staff establishment for the Health and Welfare Department at the 31st March, 1947.

3. **FAMILY WELFARE SERVICES:**

Railway welfare work is primarily a family service and attention is focussed on the worker's home and his dependants. The principle upon which these family services is based is that the worker whose home is well-adjusted is better able to cope with his job.
The work falls into two main categories -
(1) group activities, and (2) individual family visiting. These two aspects of family welfare work integrate with each other and are considered to be of equal importance. In the course of group activities individual problems are often brought to light, and individual family visiting provides a stimulus to group activity.

A. GROUP ACTIVITIES: Group activities include the following:

- (a) Nutrition services.
- (b) Family health services.
- (c) Educational services.
- (d) Recreational services.
- (e) Juvenile Services.

(b) ELIMINATION SIMULCE.

(1) Club Vegetable Gardens: Vegetable shortages and high prices during the war period led to the establishment of Railway Club Vegetable Gardens. There are now four Club Vegetable Gardens, which are situated at the following points:

- Touwa River (Cape Province)
- Incanga (Natal)
- Bloemfontein (Orange Free State)
- Pretoria (Transvaal).

The main functions of these vegetable gardens are:

1. To smooth out market fluctuations in supply. Market supplies vary from day to day and the supplies available from the gardens are known in advance.

2. To equalize market fluctuations in price. Vegetables from the gardens are priced at the discretion of system staff, which ensures that club members will receive an adequate supply of vegetables for the weekly subscription.

The gardens are financed out of the Central Nutrition Fund and were at first under the control of the Headquarters Health and Welfare Department. Control has since been de-centralized and the gardens are now
(ii) Vegetable Clubs: The Railway Vegetable Clubs are a co-operative buying scheme. Subscriptions are collected monthly in advance and supplies are purchased weekly in bulk. The individual subscriber thus reaps the advantage of bulk purchasing.

The vegetable clubs are organized by the welfare staff, but once organized the actual running of the clubs is usually left to the members. Each club has a secretary and a committee and members are appointed to assist with distribution and organization.

A week's supply of vegetables costs 1/6d. to 3/6d. and must be collected by the subscriber from the distribution depot.

During the year 1945-46, 178 vegetable clubs operated throughout the Service with a total membership of 1,232. Although the number of clubs increased from 148 in 1945 to 178 in 1946, membership dropped from 1,778 to 1,232. This drop may be attributable to more extensive cultivation of private gardens, and perhaps the high price of other commodities may have been responsible for curtailing the amount of money available for the purchase of vegetables.

The following table shows the distribution of clubs and the composition of membership for the period.
1945-46:

<table>
<thead>
<tr>
<th>System</th>
<th>Number</th>
<th>Rail-Workers</th>
<th>Other</th>
<th>Non-Europeans</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cape Western</td>
<td>25</td>
<td>27</td>
<td>212</td>
<td>29</td>
<td>268</td>
</tr>
<tr>
<td>Cape Northern</td>
<td>25</td>
<td>55</td>
<td>141</td>
<td>4</td>
<td>200</td>
</tr>
<tr>
<td>Cape Midland</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>Cape Eastern</td>
<td>16</td>
<td>38</td>
<td>40</td>
<td>Nil</td>
<td>76</td>
</tr>
<tr>
<td>C.F.S.</td>
<td>6</td>
<td>21</td>
<td>7</td>
<td>Nil</td>
<td>28</td>
</tr>
<tr>
<td>Natal</td>
<td>26</td>
<td>61</td>
<td>172</td>
<td>4</td>
<td>237</td>
</tr>
<tr>
<td>Western Tvl.</td>
<td>45</td>
<td>55</td>
<td>119</td>
<td>Nil</td>
<td>174</td>
</tr>
<tr>
<td>Eastern Tvl.</td>
<td>30</td>
<td>79</td>
<td>96</td>
<td>4</td>
<td>179</td>
</tr>
<tr>
<td>S.W.A.</td>
<td>2</td>
<td>4</td>
<td>62</td>
<td>2</td>
<td>68</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>175</strong></td>
<td><strong>340</strong></td>
<td><strong>849</strong></td>
<td><strong>43</strong></td>
<td><strong>1,272</strong></td>
</tr>
</tbody>
</table>

Fruit clubs are run in conjunction with the vegetable clubs at most centres and membership of these clubs also includes non-Europeans.

As a further means of ensuring adequate supplies of vegetables and fruit, railway servants are encouraged to cultivate their own gardens and special facilities are provided for the purchase of plants and fruit trees from Railway Nurseries. (Over 1,000 fruit trees were distributed free of charge during the year 1945-46).

The vegetable and fruit clubs are, therefore, regarded as a supplementary source of supply in cases where it is not possible to cultivate home gardens, where local supplies are very high priced and where there are seasonal shortages.

(iii) State-aided Pre-school Milk Clubs: Pre-school milk clubs are conducted throughout the Service. In centres where fresh milk is not readily available dried milk is distributed. The following tables show the number of clubs in each System and the daily average membership:
(a) Fresh Milk Clubs:

<table>
<thead>
<tr>
<th>System</th>
<th>No. of Clubs</th>
<th>Rail-Workers</th>
<th>Other Grades</th>
<th>Pri-Grades</th>
<th>Non-Grades</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>C. West</td>
<td>1</td>
<td>5</td>
<td>52</td>
<td>Nil</td>
<td>26</td>
<td>85</td>
</tr>
<tr>
<td>C. North</td>
<td>6</td>
<td>23</td>
<td>74</td>
<td>49</td>
<td>Nil</td>
<td>166</td>
</tr>
<tr>
<td>C. Mid.</td>
<td>16</td>
<td>235</td>
<td>223</td>
<td>222</td>
<td>497</td>
<td>1,377</td>
</tr>
<tr>
<td>C. East.</td>
<td>5</td>
<td>263</td>
<td>88</td>
<td>12</td>
<td>2</td>
<td>365</td>
</tr>
<tr>
<td>O.F.S.</td>
<td>7</td>
<td>95</td>
<td>37</td>
<td>Nil</td>
<td>Nil</td>
<td>132</td>
</tr>
<tr>
<td>Natal</td>
<td>4</td>
<td>26</td>
<td>40</td>
<td>8</td>
<td>Nil</td>
<td>74</td>
</tr>
<tr>
<td>W. Tvl.</td>
<td>7</td>
<td>405</td>
<td>13</td>
<td>297</td>
<td>Nil</td>
<td>715</td>
</tr>
<tr>
<td>E. Tvl.</td>
<td>4</td>
<td>161</td>
<td>100</td>
<td>74</td>
<td>Nil</td>
<td>335</td>
</tr>
<tr>
<td>S.W.A.</td>
<td>2</td>
<td>7</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
<td>7</td>
</tr>
<tr>
<td>TOTAL</td>
<td>52</td>
<td>1,380</td>
<td>587</td>
<td>762</td>
<td>527</td>
<td>4,256</td>
</tr>
</tbody>
</table>

(b) Dried Milk Clubs:

<table>
<thead>
<tr>
<th>System</th>
<th>No. of Clubs</th>
<th>Rail-Workers</th>
<th>Other Grades</th>
<th>Pri-Grades</th>
<th>Non-Grades</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>C. West</td>
<td>9</td>
<td>24</td>
<td>11</td>
<td>Nil</td>
<td>239</td>
<td>274</td>
</tr>
<tr>
<td>C. North</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>C. Mid.</td>
<td>9</td>
<td>43</td>
<td>7</td>
<td>7</td>
<td>59</td>
<td>116</td>
</tr>
<tr>
<td>C. East.</td>
<td>4</td>
<td>56</td>
<td>8</td>
<td>Nil</td>
<td>Nil</td>
<td>64</td>
</tr>
<tr>
<td>O.F.S.</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>Natal</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>W. Tvl.</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>E. Tvl.</td>
<td>10</td>
<td>17</td>
<td>6</td>
<td>3</td>
<td>Nil</td>
<td>26</td>
</tr>
<tr>
<td>S.W.A.</td>
<td>19</td>
<td>15</td>
<td>12</td>
<td>Nil</td>
<td>Nil</td>
<td>27</td>
</tr>
<tr>
<td>TOTAL</td>
<td>51</td>
<td>155</td>
<td>44</td>
<td>10</td>
<td>298</td>
<td>507</td>
</tr>
</tbody>
</table>

These clubs serve as a nucleus around which other services are built up. At some centres the clubs function on nursery school lines and a period is devoted to organized games and free play. The children are also regularly weighed and medical and dental treatment is
arranged when necessary. These facilities are provided for the children of both European and Non-European servants.

At one centre in the Cape Eastern System the Railway Medical Officer visits the club regularly, and cars similar to those used by school Medical Inspectors have been introduced. A health record of each child is, therefore, maintained and it is proposed that this early health history should accompany the child at the time of school entry, which would ensure the continuity of the health service from the pre-school age.

Absolute uniformity in the functioning of pre-school milk clubs has not been possible because of the varying conditions in different parts of the country. At some centres it is difficult to obtain suitable accommodation and at other centres the number of club members is so small that the organization of special activities would not be justified.

The Johannesburg club provides an ideal pattern for pre-school milk club development. The club is specially equipped and is furnished on nursery school lines and a lady Welfare Officer is in attendance for two hours daily.

(iv) State-aided Butter Scheme: The Health and Welfare Department undertakes the distribution of State-aided butter to railway families. All railway servants whose earnings do not exceed 11/- per day are entitled to benefits under the scheme.

During the year ended 31st March, 1946, over 761,000 lbs. of butter were distributed to approximately 12,000 railway families consisting of approximately 49,000 persons. The Administration's contribution to this scheme amounted to nearly £30,000. A small additional sum was paid in handling fees to individuals and committees responsible for distribution.
(v) **State-aided Grocery Schemes:** Other essential foodstuffs are also distributed on behalf of the Union Social Welfare Department to Railway staff whose incomes are under £25 per month. The commodities distributed consist largely of items in short supply such as sugar, rice, tea, condensed milk and canned fruits.

(vi) **Private Butter, Cheese and Bacon Clubs:** There are a number of private clubs which function on the co-operative purchasing principle, including butter, cheese and bacon clubs.

(b) **FAMILY HEALTH SERVICES**

(i) **Clinics:** Twenty-two European and non-European ante- and post-natal clinics are controlled by the Railway Welfare Officers. As it is desirable that clinics should be held weekly, in rural areas where the lady Welfare Officers are called upon to cover considerable distances, clinics are usually organized in conjunction with local nurses and other organizations. In the larger centres where clinics are provided by local authorities, Railway cases are referred to these clinics and Railway Welfare Officers co-operate with the clinic staff when necessary.

(c) **EDUCATIONAL SERVICES**

(i) **Homework Clubs:** Homework clubs are run in each of the Systems, and there are clubs for coloured and native women as well as for Europeans. Sewing, weaving and cookery classes are conducted and lectures and demonstrations are arranged. Railway homework clubs are only organized in centres where facilities of this nature do not already exist. Where they do, Railway women are encouraged to take part in them, and Railway Welfare Officers assist the club organizers in every way possible.
(11) **St. John Ambulance Activities:** The Railway Administration forms a District of the St. John Ambulance Brigade in South Africa, and there are Railway Divisions throughout the Service. The work includes classes in first aid, home nursing and hygiene for Europeans, non-Europeans and children. Competitions are held periodically and Railway servants generally show great interest in the movement.

In addition to their educational value, the clubs provide an informal social organization where senior officers and junior servants meet and where the wives and children of low-graded servants mix and compete with those of high-graded officials.

There are over 4,500 members of the Railway District of the St. John Ambulance Brigade.

(d) **RECREATIONAL SERVICES:**

(1) **Physical Training Clubs:** Physical education may be regarded partly as a health measure, but the clubs which are open to Railway servants and their dependents also serve a social and recreational function.

The physical training scheme extends throughout the Railway Service and there are clubs at all the larger centres and at many of the smaller centres. In 1945, total membership, i.e. participants, was nearly 4,000, the total membership was 3,597.

Most of the instructors are Railway servants who have been specially trained in physical education. With a few exceptions, they are all engaged in full time Railway work and conduct classes during lunch-time and after work.

During 1944 thirty-two women employees were selected from clubs in various parts of the Union for an intensive course of instruction. They were specially trained to enable them to conduct classes for women and
children. These instructresses are all engaged in full-time work in the Service and the classes are, therefore also held during lunch-hours and after office hours. In addition, Welfare workers who qualify for the Railway Diploma in Health and Social Work are trained as instructresses in physical education, and health foremen are trained as instructors.

Physical training classes are usually held in Railway Institute Halls, but in some centres there are specially equipped gymnasiums. In the larger centres there are usually several teams and interest is stimulated by inter-team and inter-club competitions. Demonstrations are also staged from time to time. In the larger centres the club work has been extended to include outdoor games such as hockey and football, and at some centres there are swimming clubs. The women's classes include free standing exercises, apparatus work, games and folk dancing.

The inclusive monthly subscription for railway servants is 1/- (Members of the public are permitted to join the clubs at a slightly higher fee). The clubs have been extensively subsidized by the Railway Administration, but are now functioning on a sound financial basis.

(e) JUVENILE SERVICES.

(1) Children's Clubs: Children's clubs have been established in 38 centres and the total membership is well over 1,000. These clubs, apart from their purely social function, provide instruction in homecraft, gardening and agriculture.

B. INDIVIDUAL FAMILY VISITING: The visiting of individual families is as important a part of the work of the Welfare Staff as the organization of group
activities. Home visiting is intended as a means of maintaining contact with families in need of guidance and treatment and is also directed at the early detection of abnormal conditions in the home. For this reason the principle of visiting all railway families has been adopted and the majority of visits are paid to cases which appear to be normal.

The aims of railway home visiting are set out in the Railway Health Officer's Report for 1944-45 in the following terms:

"Family visiting is as much a part of welfare work as group work. These visits are essential in order to encourage families to participate in the various clubs established, to watch for any preventable conditions which make their appearance in family life, and to assist families in any matters which may hinder their normal function in the community. For this reason not only are the families requiring attention visited, but all railway families of whatever grade whether normal or not. The largest majority of visits are paid to normal cases."

The following figures show the number of "normal" cases visited in relation to cases requiring attention, for the year 1944-45:

<table>
<thead>
<tr>
<th></th>
<th>Attention Cases</th>
<th>Normal Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Grades</td>
<td>2,005</td>
<td>8,421</td>
</tr>
<tr>
<td>MILITARY FAMILIES:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Grades</td>
<td>1,855</td>
<td>2,045</td>
</tr>
<tr>
<td>NON-EUROPEANS (Not classified)</td>
<td>2,927</td>
<td></td>
</tr>
</tbody>
</table>

The main problems disclosed during the first visit to a family are classified each year on a percentage basis and the highest percentage of problems have been found to be related to health matters.

In this context the Railway Health Officer's Report for 1944-45 states:

"The problems in regard to health are still the major problems found in all cases visited in the field. There appears to be an increase in this group of problems during the last year, particularly
The following is a classification of the problems revealed on first visits to 1,674 railway families during the year ended 31st March, 1945:

<table>
<thead>
<tr>
<th>Ordinary Families</th>
<th>Military Families</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pay-Grade Workers</td>
</tr>
<tr>
<td>Health</td>
<td>31.4</td>
</tr>
<tr>
<td>Housing</td>
<td>19.6</td>
</tr>
<tr>
<td>Financial</td>
<td>18.9</td>
</tr>
<tr>
<td>Domestic Strife</td>
<td>18.6</td>
</tr>
<tr>
<td>Education</td>
<td>2.7</td>
</tr>
<tr>
<td>Diet</td>
<td>1.2</td>
</tr>
<tr>
<td>Slovenliness</td>
<td>3.0</td>
</tr>
<tr>
<td>Employment</td>
<td>2.7</td>
</tr>
<tr>
<td>Child Welfare</td>
<td>1.2</td>
</tr>
<tr>
<td>Others</td>
<td>1.2</td>
</tr>
</tbody>
</table>

During the year 1945-46 the distribution of problems among European railway families visited was found to be as follows:

<table>
<thead>
<tr>
<th>Problem</th>
<th>Total number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>31.6%</td>
</tr>
<tr>
<td>Financial</td>
<td>27.2%</td>
</tr>
<tr>
<td>Family disruption</td>
<td>19.1%</td>
</tr>
<tr>
<td>Housing</td>
<td>14.5%</td>
</tr>
<tr>
<td>Child Welfare</td>
<td>4.7%</td>
</tr>
<tr>
<td>Slovenliness</td>
<td>2.7%</td>
</tr>
<tr>
<td>Alcoholism</td>
<td>1.7%</td>
</tr>
<tr>
<td>Mental</td>
<td>1.4%</td>
</tr>
<tr>
<td>Education</td>
<td>1.3%</td>
</tr>
<tr>
<td>Other</td>
<td>1.3%</td>
</tr>
</tbody>
</table>

(In the course of visits to approximately 2,000 non-European families and 50 office interviews, it was found that the highest percentage of problems was also associated with ill health).

Of the health problems encountered in the course of family visiting during 1945-46, nervous disorders were the most common. The distribution of health problems was found to be as follows:
Nervous conditions ........... 15%
Respiratory diseases ........... 11%
T.B. and other infectious diseases ........... 11%
Diseases of circulatory system .......... 10%
Constitutional diseases (rheumatism, etc.) .. 9%
Affections of digestive system ............ 8%
Female complaints ................ 8%
Injuries ......................... 5%
Miscellaneous .................... 2%

The data obtained from family visiting during the year 1945-46 revealed a close relationship between health and financial problems, since the highest percentage of financial problems were associated with ill-health. It was also found that the problem of alcoholism had increased and was responsible for 10% of the cases of family disruption.

As is to be expected, the greatest number of problems of all types were found to occur in the lowest income groups.

3. PRACTIVE AND PREVENTIVE SERVICES:

The Health Department is primarily concerned with promotive and preventive health matters insofar as they affect railway staff and the travelling public.

Dr. E. H. Cluver in the introduction to his book "Public Health in South Africa" states, "The study of public health must be approached from two aspects. Its aim in the first place is to raise the general fitness of the individuals constituting the nation to so high a level as to render them immune from attack by preventable disease. Secondly, its aim is to reduce to a minimum the actual attacking agencies by promoting general sanitation."

The efforts of the welfare section of the Health Department are directed at the first aim - raising
the general fitness of the individuals — by education
in diet and nutrition, hygiene, physical and mental
recreation, and general health matters; while the
attention of the health section of the Health Department
is focussed on the second aim referred to by Dr. Cluver.-

Among the activities undertaken by the
"health" section of the Health Department are the
following:

Malaria Control: Active anti-malaria
measures are permanently undertaken on the Eastern
Transvaal, Natal, Cape Northern and South West Africa
Systems.

One of the ways of combating malaria is
to destroy the anopheline vectors by treating their
breeding places. This method has been adopted by the
"health" staff and all breeding places in the vicinity
of railway quarters are oiled or sprayed with insecticides,
but permanent measures such as draining, filling in of
depressions and tree planting are also carried on
continuously.

To safeguard railway staff and the travelling
public all passenger trains and railway buses operating in
or through malarious areas are sprayed.

In the work of malaria control the
Railway Administration co-operates with other Government
Departments, local authorities, malaria committees and
private bodies in the Union and South West Africa.

Anti-rat and Plague Work: Plague is
especially a rodent disease and the possibility of human
infection can be reduced by rodent extermination. The
wholesale destruction of veld rodents would be
impracticable in the Union; measures are, therefore,
directed at keeping buildings, etc., rodent free.
The Railway Health Staff deal with plague prevention by the destruction of rodents, and by the elimination of rodents from railway property.

The destruction of rodents is carried out by the disinfection of buildings and adjoining railway property, and by trapping, baiting and gassing.

Rodent proofing is the most effective way of eliminating rodents and the proofing of all railway goods sheds, etc., is gradually being achieved. The prevention of harbourage within goods sheds is an important factor in the prevention of spread of plague and also prevents damage to property, food supplies and merchandise in goods sheds.

In addition to railway premises inspections are made of premises of co-operative societies and other private concerns whose premises are situated on or adjacent to railway property and the attention of the relevant authorities is drawn to stores which are rodent infested or inadequately rat-proofed.

In undertaking anti-rodent measures the Railway Health Staff work in close co-operation with the Union Health Department and Local Authorities.

**Infectious Diseases:** In cases of notifiable infectious diseases which occur on railway property, measures are taken to guard against spread. Where patients are not hospitalised the Railway Medical Officer supervises the isolation of patients and contacts. Disinfection of railway property affected is undertaken by the Health Staff at the termination of the illness. Where infectious patients have travelled by train disinfection of saloons is also carried out by the Health Staff.

*Active measures in connection with the*
prevention of certain infectious diseases are continuously undertaken by the welfare staff; for example - diphtheria immunization, periodical vaccination against smallpox, isolation of tuberculosis, etc.

Fumigation: Fumigation of railway property is undertaken when necessary by members of the Health Staff certificated in accordance with the Union's Hydrogen Cyanide Fumigation Regulations. Fumigation of all railway saloons is also carried out at quarterly intervals.

General Sanitation on Railway Property:

(a) Housing: Periodical inspections of railway houses, quarters, hostels, non-European compounds, etc., are undertaken by the Health Staff and compliance with the provisions of the Slums Act is in general adhered to.

(b) Domestic Water Supplies: The Health Department is responsible for the provision of adequate and notable supplies of water for domestic purposes to a large number of railway servants and their dependants and to the travelling public. Over 2,600 supplies are supervised which involves routine inspection to ensure protection against pollution, and regular bacteriological examinations. All suspicious or unsatisfactory supplies are substituted or rendered safe by means of chlorination. Systematic sampling of train water supplies is also undertaken.

Catering Hygiene: Inspections of food supplied to the Catering Department for consumption by railway staff and the travelling public are conducted to check compliance with the Public Health and Food, Drugs
and Disinfectant Acts. Unsatisfactory foodstuffs are
concerned. Dairy products are similarly examined and
analysed in terms of the Dairy Industry Act.

Inspections of foodstuffs supplied for
consumption by departmentally-fed non-European staff are
undertaken and investigations are conducted in connection
with the provision of suitable substitutes for goods in
short supply.

The Health Staff are also responsible for
sanitation inspections and the supervision of general
public health measures in the two model villages on
the Cape Eastern Main Line Improvements - "Vooruitgang"
at Dohne and "Rustfont" at Cathcart.

Workshop Hygiene: The Railway Administration
accepts the principles of the Factories Act and three
full-time Health Inspectors are engaged in inspecting
yards, shops and depots throughout the Union in order
to ensure compliance with the terms of the Act.

Investigation into the need for additional
amenities at depots are conducted by the Health
Inspectors and particulars of any facilities required are
reported to Headquarters for consideration. For example -
the question of providing meal facilities at running staff
rest rooms is at present under consideration.

Building plans for proposed new buildings and
layouts for new workshops are scrutinised by the Health
Staff to ensure that all aspects of industrial hygiene are
incorporated in the buildings from the outset.

Working Conditions: General working
conditions including lighting, ventilation and heating,
elimination of noise, dust extraction, etc., are
supervised by the Health Staff. The Health Staff also acts in a consultative and advisory capacity in suggesting improvements in existing premises and when plans for new buildings are under consideration.

Scheduled Industrial Diseases and other Occupational Ailments: Where necessary special investigations are carried out in connection with the cause and prevention of industrial diseases.

Absenteism: Although no systematic investigation into the causes of absenteism in the Railways as a whole has as yet been carried out, a specialized investigation into absenteism in two Railway workshops has been conducted. The initial purpose of the investigation was to ascertain fluctuations in sickness incidence and to determine whether the popularity of benefit societies had any bearing on the high sickness incidence sustained in mechanical shops. Over a period of eight years, the Health Inspector (Works), therefore, extracted particulars of sick leave and 'injury-on-duty' leave from records in the Lurban and Bloemfontein mechanical shops.

By the end of 1945 it had definitely been established that there was no relationship between sickness absence and membership of Sick Benefit Societies and no further comparisons were made on this basis.

Table showing the extent of sickness and accident absence in the two workshops for the years 1944-45 and 1945-46 is as follows:
### 1. Yearly Comparison of Sick Absenteeism: Separate Grades

<table>
<thead>
<tr>
<th></th>
<th>Total Staff Employed</th>
<th>No. of Sick Absences Due to Illness Recorded</th>
<th>Days Lost Total Staff</th>
<th>Average Days Lost Per Sick Absentee</th>
<th>Average Days Lost Per Man</th>
<th>Average Days Lost Per Injury</th>
<th>Total Staff</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BLOEMFONTEIN:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARTIZANS:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1944-45</td>
<td>496</td>
<td>753</td>
<td>5651</td>
<td>7.5</td>
<td></td>
<td></td>
<td></td>
<td>11.4</td>
</tr>
<tr>
<td>1945-46</td>
<td>606</td>
<td>975</td>
<td>6124</td>
<td>8.3</td>
<td></td>
<td></td>
<td></td>
<td>13.4</td>
</tr>
<tr>
<td>SKILLED RAILWORKERS:</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1944-45</td>
<td>272</td>
<td>474</td>
<td>4279</td>
<td>9.07</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>1945-46</td>
<td>327</td>
<td>464</td>
<td>4796</td>
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<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1944-45</td>
<td>369</td>
<td>915</td>
<td>5987</td>
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<td></td>
<td></td>
<td>16.2</td>
</tr>
<tr>
<td>1945-46</td>
<td>409</td>
<td>1069</td>
<td>7254</td>
<td>7.4</td>
<td></td>
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<td>19.4</td>
</tr>
<tr>
<td>DURBAN:</td>
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<tr>
<td>ARTIZANS:</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1944-45</td>
<td>763</td>
<td>1041</td>
<td>9012</td>
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<td></td>
<td>11.8</td>
</tr>
<tr>
<td>1945-46</td>
<td>919</td>
<td>1172</td>
<td>10653</td>
<td>9.1</td>
<td></td>
<td></td>
<td></td>
<td>11.6</td>
</tr>
<tr>
<td>SKILLED RAILWORKERS:</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1944-45</td>
<td>359</td>
<td>536</td>
<td>4626</td>
<td>8.6</td>
<td></td>
<td></td>
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<td>13.2</td>
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<tr>
<td>1945-46</td>
<td>436</td>
<td>404</td>
<td>4351</td>
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<td></td>
<td></td>
<td>9.0</td>
</tr>
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<td>RAILWORKERS:</td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1944-45</td>
<td>92</td>
<td>179</td>
<td>1270</td>
<td>7.1</td>
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<td></td>
<td>13.8</td>
</tr>
<tr>
<td>1945-46</td>
<td>111</td>
<td>239</td>
<td>1192</td>
<td>8.3</td>
<td></td>
<td></td>
<td></td>
<td>17.9</td>
</tr>
</tbody>
</table>

### 2. Yearly Comparison of Injury on Duty Absenteeism

<table>
<thead>
<tr>
<th></th>
<th>Total Staff Employed</th>
<th>No. of Sick Absences Due to Injury Recorded</th>
<th>Days Lost Total Staff Sustained</th>
<th>Average Days Lost Per Injury Sustained</th>
<th>Average Days Lost Per Man</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BLOEMFONTEIN:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ARTIZANS:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1944-45</td>
<td>496</td>
<td>732</td>
<td>2172</td>
<td>6.5</td>
<td></td>
</tr>
<tr>
<td>1945-46</td>
<td>606</td>
<td>397</td>
<td>3143</td>
<td>7.9</td>
<td></td>
</tr>
<tr>
<td>SKILLED RAILWORKERS:</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1944-45</td>
<td>272</td>
<td>165</td>
<td>1147</td>
<td>6.9</td>
<td></td>
</tr>
<tr>
<td>1945-46</td>
<td>327</td>
<td>114</td>
<td>804</td>
<td>7.6</td>
<td></td>
</tr>
<tr>
<td>RAILWORKERS:</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1944-45</td>
<td>369</td>
<td>283</td>
<td>2299</td>
<td>8.1</td>
<td></td>
</tr>
<tr>
<td>1945-46</td>
<td>409</td>
<td>320</td>
<td>2818</td>
<td>8.8</td>
<td></td>
</tr>
</tbody>
</table>
## Yearly Comparison of Injury on Duty Absenteeism (Contd.)

<table>
<thead>
<tr>
<th>Total Staff employed</th>
<th>No. of accidents recorded</th>
<th>Days due to injury</th>
<th>Average days lost per injury</th>
<th>Average days lost per man Total Staff.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DURBAN</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CITIZENS,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1944-45</td>
<td>763</td>
<td>300</td>
<td>3244  1/4</td>
<td>10.8</td>
</tr>
<tr>
<td>1945-46</td>
<td>919</td>
<td>241</td>
<td>2586</td>
<td>11.9</td>
</tr>
<tr>
<td>KILLED RAILWORKERS,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1944-45</td>
<td>350</td>
<td>105</td>
<td>1874</td>
<td>11.6</td>
</tr>
<tr>
<td>1945-46</td>
<td>406</td>
<td>159</td>
<td>1661</td>
<td>11.7</td>
</tr>
<tr>
<td>RAILWORKERS,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1944-45</td>
<td>92</td>
<td>40</td>
<td>453</td>
<td>11.3</td>
</tr>
<tr>
<td>1945-46</td>
<td>111</td>
<td>37</td>
<td>381</td>
<td>10.3</td>
</tr>
</tbody>
</table>

From these tables it will be seen that the highest sickness absence occurred among the lowest graded workers, i.e. railworkers, and in his annual report for 1944-45 the Railway health Officer asserted that there seemed to be some relationship between the socio-economic state of workers and sickness incidence. There may, of course, be other contributory factors such as the nature of the work, working conditions, the age and marital status of workers, etc.

It would have been of interest if the analysis of the absenteeism figures could have been carried a little further. On the basis of the information given it is impossible to calculate accurately the absenteeism rate for the two workshops in question. To do this it would be necessary to know the total number of days which could have been worked as well as the number of days lost, since sickness absence or any other type of absenteeism which is being investigated is expressed as a percentage which time lost forms of the time which could have been worked in a standard working week or month or year. It would also be of value to know the percentage of workers who did not absent themselves at all or who were not involved in any accidents. The grouping of the remainder according to frequency of absence would perhaps help to throw light on the causes of absence. For example, if a worker is away once for a period of twelve days with specific illness such as influenza, his absenteeism is less significant than that of a worker who is away for a day on twelve different occasions. In the same way, the distribution of workers according to periods of absence would be more revealing than the average figures shown in the table. As it stands, the table provides a useful basis for studying group trends but does not give any information about individual workers, nor does it give any clue to the incidence of particular types of sickness. The recording of sickness absence in accordance with some suitable classification would seem to be very necessary. (The recording of sickness absence is referred to in the final chapter in connection with a proposal for the amplification and co-ordination of personnel records).

Eye Injuries (European Staff): Owing to the high incidence of eye injuries reported from all mechanical shops,
it was arranged for the local Health Foreman and Ambulance Room Attendant to collect data and investigate the causes of eye injuries at the Salt River, Durban and Pietermaritzburg workshops. The following figures indicate the number of cases which occurred at these workshops during the periods mentioned:

<table>
<thead>
<tr>
<th>Operation</th>
<th>Salt River</th>
<th>Durban</th>
<th>Pietermaritzburg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Windblown</td>
<td>442</td>
<td>561</td>
<td>35</td>
</tr>
<tr>
<td>Drilling Operations</td>
<td>29</td>
<td>44</td>
<td>27</td>
</tr>
<tr>
<td>Buffing and Grinding</td>
<td>49</td>
<td>131</td>
<td>24</td>
</tr>
<tr>
<td>Welding</td>
<td>19</td>
<td>57</td>
<td>17</td>
</tr>
<tr>
<td>Chipping</td>
<td>35</td>
<td>67</td>
<td>20</td>
</tr>
<tr>
<td>Rivetting</td>
<td>14</td>
<td>63</td>
<td>19</td>
</tr>
<tr>
<td>Turning</td>
<td>22</td>
<td>128</td>
<td>7</td>
</tr>
<tr>
<td>Caulking</td>
<td>14</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Unclassified</td>
<td>74</td>
<td>246</td>
<td>59</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>708</strong></td>
<td><strong>1,297</strong></td>
<td><strong>208</strong></td>
</tr>
</tbody>
</table>

A very high percentage of the injuries were due to windblown objects and the Health Staff recommended that open spaces around the shops should be macadamized. A fairly large proportion of eye injuries are also caused by failure to wear goggles. In this connection, the Health Staff recommended that supervisors should insist on all servants who are engaged in operations likely to cause eye injury, wearing goggles. It was further suggested that suitable action should be taken against men who wilfully do not avail themselves of this precaution.

4. **TRAINING SCHEME: HEALTH AND WELFARE WORK:**

Partly because of the high turn-over among women welfare workers, who frequently marry and leave the Service, and partly because of the time involved in acquiring a knowledge of general railway procedure, it was considered desirable to make provision for the training of Railway Welfare Officers within the Railway Service. The training scheme which was introduced in 1944 is designed to give a basic training in social work, health work and physical education, and is specially adapted to railway welfare needs.
The training scheme functions under the control of a Training Committee consisting of the following members:-

The Railway Health Officer;
The Chief Lady Welfare Officer;
The Assistant Superintendent (Staff);
Two other members of the Railway Health Officer's Staff.

Examinations are conducted in collaboration with the Union Departments of Social Welfare, Health and Education.

The course is a four-year one and includes theoretical and practical work. Each year for the first three years the probationers spend three months at Railway Headquarters for the purpose of attending an intensive course of study. Classes are conducted by the three Chief Lady Welfare Officers, and from time to time external lecturers are invited to lecture on certain special features of the course.

For the remaining nine months of each year the trainees are engaged in field work and work under the guidance and supervision of trained welfare officers - i.e. trained nurses and qualified social workers.

The establishment of the Health and Welfare Department provides for 40 probationers. The first batch of probationers completed the course in April, 1947.

The following is an outline of the syllabus covered by the training course, and indicates the Department's moderating:-

FIRST YEAR:
1. Sociology
2. Economics.
3. Economic History.
4. Social Work (Theoretical and Practical work)
5. Anatomy and Physiology.
6. Domestic Science (Theoretical and Practical work)
7. Office Organization and bookkeeping (Theoretical work and Practical work).
8. Physical Education.
SECOND YEAR:
1. Sociology:
   (a) Population problems.
   (b) Social Biology
   (c) Race relations.
   (d) Anthropology.
   (e) Rural-urban Sociology.
   (f) Social Pathology.
   (g) Social work.
   (h) Practical work - hospital nursing, domestic science, family visiting, group work.
2. Psychology.
3. Dietetics (Theoretical and Practical work).
4. Infant and child care (Theoretical and Practical work).
6. Home economics. (Special course arranged in conjunction with the Technical College School of Domestic Science).
7. St. John. (Revision and extension of previous year's work).
8. Physical Education.

THIRD YEAR:
1. Sociology:
   (a) Social law and administration.
   (b) Social work.
   (c) Practical work.
2. Psychology:
   (a) Social psychology.
   (b) Child psychology.
   (c) Practical work.
   (d) Industrial psychology.
   (e) Abnormal psychology.
3. Domestic Science (Theoretical and Practical work).
5. Physical Education - play centres, swimming, major games, revision of work covered during two previous years.

FINAL YEAR:
1. Thesis on a prescribed subject. Completion of set practical work.
2. Physical Education. Revision of previous year's work.

A similar training scheme was introduced for health field staff in May, 1946. The main object of this scheme is to provide a substantial pool of specially trained staff from which inspectorate staff may be drawn. On completion of the course a diploma in hygiene will be awarded. The course covers a period of three years and in each year three months are devoted to intensive full-time training, and nine months to field work.

5. OTHER WELFARE MEASURES:

In addition to the specialized welfare services conducted by the Health and Welfare Department, the following
additional welfare measures are provided by the S.A.R. Administration:

- Hostels and communal residences,
- Cafeterias,
- Recreation clubs,
- Housing and rent rebate schemes.

(a) Hostels: Hostels for the accommodation of Railway servants have been established at most of the larger centres in the Union. There are at present ten hostels and their main function is to provide board and lodging within the means of low-graded servants.

General policy matters are controlled by the General Manager's Staff Section, but the actual running of the hostels is conducted by a local Management Committee. Each Committee consists of a Chairman, who is usually a senior railway officer, and representatives from the departments from which the inmates are drawn, and a Senior Lady Welfare Officer.

In each hostel a number of prefects are appointed - the number is determined by the number of inmates. Grievances and complaints may be brought to the notice of the prefects and the head prefect, who attends the monthly meeting of the Management Committee, may report on any matters of importance.

Hostel charges, which are on a fixed basis determined by the Railway Board, are as follows:

1. Rental of room (based on income)
   - (a) Servants whose earnings exceed 11/6d per day - 17/6 per month
   - (b) " " " then less than 11/6d " " - 2/6 " 

2. Other Charges: (standard for all inmates)
   - (a) Catering: Basic rate £2.7.6d. per month plus 35% of the cost of living allowance paid to each servant.
   - (b) Water: 6d. per month
   - (c) Light: 6d. per month
   - (d) Departmental Laundry (household linen): 3/6d. per month.

The hostel buildings, furniture and basic equipment are provided by the Administration free-of-charge and
are also replaced and renovated free-of-charge. In addition an initial grant is made to cover the cost of such items as crockery, cutlery, linen, etc., but replacement of this equipment must come out of hostel funds.

(b) Communal Residences: Communal residences accommodate a smaller number of residents than hostels and are usually situated in the smaller centres.

There are five of these residences which function under local Management Committees, but are subject to supervision by the General Manager's Staff Section. They are run on a communal basis and catering charges are adjusted as the need arises and are not fixed by the Railway Board.

Rental charges are fixed as follows:-

(a) Single room - 4/3d. per month
(b) Double Room - 6/6d.

Communal residences are financed by the Administration on the same basis as hostels.

(c) Staff Cafeterias: There are at present six railway staff cafeterias and it is proposed to provide cafeterias at all railway workshops and at all centres where railway staff are concentrated. The main purpose of the cafeterias is to provide wholesome meals for workers at reasonable prices.

General policy matters are under the control of the General Manager's Staff Section and the management of the individual cafeterias is vested in local Committees. Each Committee consists of the following members:-

(i) An equal number of members nominated by the Department and elected by the staff.
(ii) A Chairman nominated by the Department.
(iii) A Secretary appointed by the Committee.

(The nominated members include 1 or 2 senior railway officers and a representative of the Catering Department).
The Department provides the premises, furniture, stoves and fixed equipment; supplies water, light and power free; maintains the fixed equipment in a satisfactory condition; employs the labour necessary for heavy cleaning work; and makes an initial grant to cover the cost of crockery, cutlery, linen, etc., but does not provide for the replacement of such items.

Wherever practicable the Railway Catering Department functions as the "Contractor" and employs the necessary staff. The expenditure incurred is charged against the Cafeteria Committee's fund at cost.

Cafeterias are debited with all expenditure entailed in the running of the establishment, including wages, Sick Fund and superannuation Fund contributions, cost of living allowances, etc., for staff employed.

The cafeterias are run on a non-profit making basis and meal tariffs are subject to supervision by the General Manager's Staff Section.

The staff cafeterias vary in size and the services offered vary according to the number of staff at any particular centre. The staff cafeteria at Johannesburg can accommodate ...... people. It is open from 8.30 a.m. to 6 p.m. on weekdays and from 8.30 a.m. to 1 p.m. on Saturdays. Morning and afternoon teas are served as well as hot lunches, and an average of ...... meals are served per day. Tea and coffee are provided at 2d. per cup. A lunch consisting of a hot dish or a cold lunch or fruit lunch and tea, coffee or milk usually costs under 1/-.

If sweets are included, the meal costs a few pence more. Members of the staff who use the cafeteria regularly usually buy books of coupons.

(d) Railway Recreation Clubs: Railway Recreation Clubs extend throughout the Service and are provided at all
centres where sufficient railway servants are concentrated to justify the erection of a special building. Even at stations where there are only a small number of railway servants some provision is made for recreational activities. For example - at the request of the staff at a small station a tennis court would be provided. In addition, such servants may become members of the nearest recreational club and they are permitted to borrow four library books a week, which are railed to them free-of-charge.

The recreational clubs in general consist of a hall or large room and sports grounds of some sort. At the smaller centres a tennis court and a library are usually provided.

In all cases the buildings and grounds are provided by the Administration. The initial equipment such as library books and club furniture is also supplied by the Administration. The larger clubs, which are usually self-supporting, are responsible for replacements, but in the case of the smaller clubs where the membership may not be large enough to cover the purchase of new books, etc., an annual grant is made by the Administration.

The larger clubs are naturally able to provide a greater variety of facilities than the smaller clubs. In the larger centres, playing fields, tennis courts and swimming baths are generally available to members, and the club buildings usually contain a billiard room, library and refreshment room.

Licensed clubs employ a full-time Secretary-Manager, who is paid out of club funds and where the membership is large a full-time librarian may also be employed. At the smaller centres a railway servant is usually appointed to act as Secretary-Manager on a part-time basis.

Club subscriptions vary from 1/- to 7/6d. per
month according to the size of the club and the facilities offered.

Local Management Committees are responsible for the running of the clubs, but the general direction of policy is under the supervision of the General Manager's Staff Section.

The local Committees consist of an equal number of members nominated by the Administration and elected by club members. In addition, a Chairman is nominated by the Administration and a Secretary-Manager is appointed by the Committee.

In Railway communities the recreation club is the centre of social life, particularly in the smaller centres where there are few other diversions. The hall is used for meetings, physical education classes, recreational activities for children, St. John Ambulance classes, dances, concerts, wedding receptions and other social functions. The playing fields are used for games, sports gatherings and outdoor recreational activities generally.

(a) Recreational Services for Non-Europeans:
All compounds are provided with sports gear for sports and indoor recreation, and it is the intention that all compounds should eventually have properly laid out sports grounds.

(f) Housing Arrangements: A fairly large number of railway houses is available to Railway servants at reasonable rentals in various parts of the country. During the year 1945-46, 391 new Departmental houses were erected at an expenditure of £1,622,453. On construction projects, housing is provided for all Railway servants and, in addition, there are Railway centres, such as De Aar, Nieuwpoort, Mafeking, Komatipoort, Waterval Boven,
etc. where the majority of railway servants are accommodated in railway houses. In many other centres, however, a very limited number of railway houses is available and there are long waiting lists of railway servants wanting this type of accommodation. To assist servants in these centres, the Railway Administration introduced the House Ownership Scheme for railway servants who wish to acquire their own homes and whose incomes are adequate to enable them to do so; and the Rent Rebate Scheme to assist servants who are obliged to rent houses which are not railway property.

(1) **House Ownership Scheme**: In 1937 a Departmental Commission was appointed to investigate the housing shortage among Railway staff and as a result of the findings of this Commission, the House Ownership Scheme for assisting Railway servants to acquire their own properties was introduced.

The scheme is financed out of a Central Housing Fund from which moneys are made available for the purchase or erection of houses on a hire-purchase basis for individual members of the staff (subject to certain conditions) and advances made under the scheme are repayable on an instalment basis.

Control of the scheme is vested in the Railway Central Housing Board which is constituted as follows:

- Chief Commercial and Industrial Manager.
- Chief Accountant.
- Lands, Works and Estates Assistant.
- The Railway Architect.
- Three Representatives elected by the staff.
- A Secretary appointed by the Administration.

Subsidiary Boards known as "System Housing Boards" function in each of the nine Railway Systems and exercise supervision over the respective "system" areas.

The following are the functions of the "System Housing Boards":

...
(a) The examination of all applications received from members of the staff in their respective areas.

(b) The collection of full information in regard to the financial and domestic circumstances of applicants.

(c) The collection of all possible information in regard to the integrity and character of applicants.

(d) The examination of proposed sites for the erection of houses or, where no specific sites are suggested by the applicants, consideration as to the best localities, taking into account the price of land, the possibility of rises and falls in valuation, etc. where houses should be erected.

(e) The examination of plans submitted, in the event of the suggested "type" plans not being acceptable to servants concerned.

(f) Consideration as to whether a servant, because of his health or that of his family, is liable to early transfer on those grounds.

(g) Consideration as to whether a servant is likely, for departmental reasons, to be transferred at an early date.

(h) The taking of necessary steps for the purpose of the valuation of properties by an approved individual or authority.

(i) The consideration of any other matters relating to individual cases and the submission of recommendations with relevant documents, to the "Railway Central Housing Board."

Servants who wish to acquire properties under the House Ownership Scheme must comply with the following conditions:

1. They must be members of the temporary or permanent staff.

2. They must have completed five years' service.

3. The scheme is confined to servants who are not already property owners. A servant who is already the owner of a property is not eligible to acquire a property under the scheme.

4. Interest must be paid at the rate of 3% per annum.

5. The maximum loan permitted is fixed in such a way that redemption payments will amount to not more than 35% of the servant's basic salary. The loan is calculated on the maximum salary for each particular grade.

6. The servant must redeem the loan within the remaining period of his service, except in the case of servants who are over 35 years of age when the period of redemption may be extended to up to 10 years beyond the normal retiring age, the balance outstanding upon retirement being liquidated by the servant.
(7) Life insurance is compulsory. (All servants who acquire properties under the Scheme must take out a life insurance. This is arranged through the Administration's Insurance Fund, and in the event of a servant's premature demise, the outstanding amount is paid by the Fund so that the dependants acquire a fully paid-up property. All Railway servants are regarded as insurable under the Departmental Fund without medical examination).

One of the most helpful features of the House Ownership Scheme is that no initial deposit is required. The fact that all payments, including Rates and Taxes and Insurance Premiums, are deducted monthly through the medium of the servant's pay-sheet is a further aid to the purchaser.

The following example illustrates the scheme in operation:

A servant, 25 years of age, whose income is £300 per annum with £400 as the maximum of his grade, would be eligible for a loan of £4,000. This is calculated on a 31-35 years table and the property would be paid off when he is 56 years of age or over.

The redemption payments must be such that they do not exceed 35% of the servant's basic salary. Calculated on the maximum for the grade, i.e. £400 per annum, the monthly payments must not exceed £2.24.

Monthly payments on a loan of ........... to be repaid in 31-35 years would be approximately as follows:

- Capital redemption and interest (£8,464) £3.6.2
- Insurance of housing loan ...................... 14.0
- Rates and Taxes (approximately) .......... 1.10.0

(The service varies, but an aggregate figure is adopted)

10.10.2

Resignations from the Service: In the case of a servant who resigns from the Service, if 40% of the originally stipulated period of redemption has not expired, he is regarded as having occupied the house on a rental basis and not a hire-purchase basis, and ownership is vested in the administration.

Transfer: A servant who is transferred at his own request is treated on the same basis as a servant who resigns from the Service. In the case of servants transferred at the instance of the Administration, the house should be let to another Railway servant at the "fixed rent", that is the rent paid by the hire-purchaser. If the servant is unable to find a suitable Railway tenant, then the Department has the right to provide a tenant. If neither the servant nor the Administration can find a suitable Railway tenant, then the house may be let to a private tenant, but the payments will continue to be deducted.
from the servant and he is responsible for arranging rent collection from the tenant.

If the servant wishes to dispose of his property on transfer, it is taken over by the Administration and a refund is made to the servant of the amount paid in redemption of capital (excluding interest) less depreciation at the rate of 1\%.

**Title Deeds:** Properties are registered in the name of the Administration and the Administration holds the title deeds until such time as the loans have been liquidated.

There is at present no form of House Ownership Scheme for non-Europeans, but the question was raised in the House last Session.

Loans granted during the year ended 31st March, 1946, amounted to £521,110. The amount disbursed since the inception of the Scheme is £2,672,056.

**(ii) Rent Rebate:** The Rent Rebate Scheme is designed primarily to assist the low-graded European worker, who for any reason is unable to take advantage of the House Ownership Scheme. All Railway servants, whether casual or regular, are eligible for benefits under the Rent Rebate Scheme, subject to the following conditions:

1. Any servant whose rental exceeds 20\% of his basic salary may apply for rent rebate, provided:

   (a) his wife is not earning more than £20 per month. If his wife earns less than £20 per month, the rebate is assessed on the combined salaries. For example - if the servant earns £25 per month and his wife £15 per month and the rental paid is £12 per month, the rebate would amount to £4 per month - £8 per month represents 20\% of the combined salaries.

   (b) In the case of a child earning more than £10 per month, one-fifth of one-fifth of the amount earned by the child in excess of £10 per month is deducted from the rebate.

   (c) The maximum rebate allowed is £4 per month.

During 1945-46, the amount disbursed under the Rent Rebate Scheme aggregated £336,248.
(iii) Rent Subsidy: The Rent Subsidy Scheme is comparable with the Rent Rebate Scheme, but is applicable only to non-Europeans. Non-Europeans who live in Departmental houses pay very low rentals (2/6d. per room per month for brick residences, which is, roughly, half the rental usually charged by local authorities and private owners). The scheme is, therefore, primarily intended to assist non-European workers who rent Municipal or privately-owned properties. The maximum subsidy allowed is 30/- per month, and workers earning less than 5/- per day are eligible for this amount.

In the case of workers earning more than 5/- per day, the subsidy is reduced on a formula, i.e. by one-sixth of whatever amount he earns in excess of 5/- per day. For example - a worker who earns 6/- per day is in receipt of 26/- more per month (26 day month), and the subsidy will be reduced by one-sixth of 26/- or 4/4d. To be debited from any subsidy a worker would have to earn 7/- more a day, i.e. 12/- per day in basic wages. There are in fact very few non-Europeans whose basic wage exceeds 12/- per day.

6. TRAVELLING FACILITIES.

1. Holiday Concessions [European Servants]: In addition to the granting of vacation leave as a right to all regular servants, the Administration provides holiday assistance in the form of holiday concessions to all Railway servants.

Any servant (regular or casual) may be granted one free pass annually for himself and family, available to travel between stations on:-

(a) The South African Railways;
(b) The Beira and Matoboland and Rhodesian Railways;
(c) Caminho de Ferro de Lourenco Marques.
Except in special circumstances, a servant or his family travelling on a free pass may not travel over any section of the line more than once in each direction.

Class of Passes: (a) First class passes are granted to salaried officers whose substantive salary is £254 per annum or over (£284 per annum and over in the case of Beira and Mashonaland and Rhodesia Railways) and to all female officers.

(b) Second class passes are granted to salaried officers whose substantive salary is less than £254 per annum (£284 per annum and over in the case of Beira and Mashonaland and Rhodesia Railways North of Bulawayo), and to all graded employees.

(c) A First Class holiday or medical pass may be issued to an artisan classified in the Artisan Pay Schedule and to a special or first class driver, provided he has completed 20 years continuous service after the age of 18 years.

2. Privilege Tickets: A privilege ticket enables a Railway servant to travel by rail at one-quarter of the ordinary passenger fare. A servant and his wife and children may (subject to certain restrictions) be granted at any time after appointment, single or return privilege tickets available over the South African Railways. In the case of staff with less than three months' service, privilege tickets are not granted for journeys exceeding 100 miles.

Children of Railway Servants:

Full travelling facilities including an annual free pass are available to the children of a railway servant (excluding sons over 21 years of age) who are resident with and dependent on him for support, subject to the following conditions:—
1. They have never been employed or earned money privately;
2. are in employment or earning money privately, but not earning more than £10 per month;
3. have been in employment or earned money privately, but not more than £10 per month.
4. Sons over 21 years of age who are infirm, deformed or continuing studies and have never been in employment or earned money.
5. Daughters who have relinquished their employment to keep house for their widowed father, irrespective of their earnings whilst in employment.
6. Children who have been in employment and have earned more than £10 per month, but have been unemployed for two months or more are entitled to quarter fare concessions.

NON-EUROPEAN SERVANT:

Indian or Native employees and when legally married, their children - except in cases where a polygamous marriage has been contracted - may at the discretion of a head or sub-head of department, be granted travelling facilities similar to those enjoyed by a European employee, subject to the following restrictions:-

(a) Third Class travelling facilities only may be granted;
(b) facilities are available only to children under the age of 14 years;
(c) facilities are confined to the lines of the South African Railways.

Coloured employees: A graded coloured employee may, at the discretion of a head or sub-head of department, be granted travelling facilities similar to those enjoyed by a European employee. In the case of ungraded coloured employees the following restrictions apply:

(a) Only Third Class travelling facilities may be granted;
(b) facilities are confined to the lines of the South African Railways;
(c) facilities are normally only granted to children under 14 years of age, resident with and entirely dependent on their parents. (In the case of children over 14 years of age, each case is considered on its merits).
MEDICAL CONCESSIONS:

On production of a certificate from a Railway Medical Officer, a ticket may be issued free-of-charge to a Railway servant or a member of his family entitled to Sick Fund benefits for any of the following purposes:-

(a) To visit a Railway Medical Officer for medical treatment.

(b) To visit a Specialist for consultation, examination or operation, or to visit a Dentist on the recommendation of a Railway Medical Officer.

(c) To attend a hospital for treatment as an in-patient or as an out-patient when the necessary services or special appliances are not available at the patient's place of residence or at the Railway Medical Officer's surgery.

(d) If the Railway Medical Officer certifies that the patient (entitled to Sick Fund benefits) is unable to travel alone, a free ticket may be issued to a Railway servant or to a member of his family to escort the patient on the journey. In the case of an unmarried servant a free ticket may, if necessary, be issued to a friend.

(e) If the Railway Medical Officer certifies that it is in the interests of the patient in hospital to be visited by his wife and children, free tickets may be issued to them.

(f) A servant, his wife or his children may, upon the recommendation of a Railway Medical Officer, be issued with a free ticket to visit a health resort after an illness or operation.

RESIDENTIAL CONCESSIONS:

Residential concessions are provided to enable a Railway servant to travel to and from his place of residence and his work at a reduced rate. Residential privilege season tickets are in general issued for the same class as the holiday concession to which the particular servant is entitled.
CONCLUSIONS.

1. HEALTH WORK AND FAMILY WELFARE SERVICES:

Need for Team Work:

In the conclusions to the preceding chapter reference was made to the need for better co-ordination of railway personnel services generally. Co-ordination would possibly be improved if regular meetings could be arranged between field workers on the staff of the Health and Welfare Department and Railway Medical Officers and the proposed Employment Officers so that personnel work could be conducted on a team work basis.

There is at present inadequate provision for personal contact with employees within the working environment. If the suggestion in regard to the appointment of specially trained Employment Officers is adopted, it would be desirable for Welfare Officers and Employment Officers to work in close co-operation with each other. If there is a problem in the home, it must necessarily affect every member of the family. Likewise, if the worker is faced with a problem in his working environment it is likely to affect the relationships in the family environment. It is, therefore, necessary for the Employment Officer to understand the home conditions and for the Welfare Officer to have full information on the employee's working life. Where there is sickness in the family the Railway Medical Officer's specialized knowledge of the case would be helpful to both the Welfare Officer and the Employment Officer. Railway Medical Officers and Welfare Officers carry heavy case loads and in the circumstances it would appear to be more convenient if meetings could be held at regular intervals than for contacts to be made at odd times.
Arrangements might also be made for periodical meetings with representatives of the various groups of staff so that workers' views on the functioning of personnel services might be obtained.

2. RESEARCH SERVICES IN THE HEALTH AND WELFARE DEPARTMENT:

With regard to family Health and Welfare Services, there is a need for the development of research work. At the present time the Railway Administration provides Health and Welfare Services and Social Security measures on the assumption that they will reduce absenteeism and labour turnover and increase efficiency and contentment. Definite evidence to indicate that this is the case is, however, not available. In the Railway Health Officer's Annual Report for 1945 reference is made to the most prevalent type of problem encountered in family visiting at the time of the first visit. It is not very easy for a Welfare Officer to assess whether or not a problem exists at all in a single visit. In such circumstances, the Welfare Officer's findings must, to a large degree, be based on the information which the person concerned is willing and able to disclose.

In the same Report it is stated that out of a total of 1,674 first visits made during the year, in 31% of the cases health problems were present. Unless each member of the family is medically examined periodically it is apparently difficult to say with any degree of accuracy in just how many cases there is a health problem. In the Peckham experiment in England it was found that out of 3,911 persons who underwent a first medical overhaul 3,553, or 90.8%, were suffering from some disability. A large percentage of these people were totally unconscious of any health problem, so that the person concerned is often
not in a position to give accurate information. Mental illness is perhaps even more difficult to detect unless it has reached a severe stage.

Having established that a problem such as ill-health exists, the right procedure would be to attempt to establish the probable causes of the problem and on that basis to consider the introduction of preventive and remedial measures.

As yet, no vital statistics are available for Railway families. The exact incidence of sickness is not known. The prevalence of particular types of disease in relation to age groups and different parts of the country has not been determined. Furthermore, no attempt has been made to investigate the causes of sickness in particular individuals or groups.

Until such a survey has been conducted, the effectiveness of any promotive measures adopted such as the introduction of vegetable and fruit clubs, the distribution of pre-school milk and other protective foodstuffs, education in nutrition and health and hygiene, or the organization of physical education schemes, cannot be assessed.

It is suggested that research work on these lines should be conducted by the staff of the Health and Welfare Department in collaboration with the staff of the Personnel Research Bureau which was proposed in the preceding chapter.

There is also scope for research work in the application of promotive health services. Working conditions of Railway servants are at present supervised by the Health staff, but a systematic investigation of the effects of working conditions on output and efficiency and on absenteeism has not as yet been conducted. Some such study might with advantage also be undertaken in collaboration
with the proposed Research Bureau. An attempt might also be made to trace the relationship between housing and living conditions and family health and welfare.

3. MENTAL HEALTH SERVICES:

In the S.A.R. there is a tendency to stress physical fitness and to neglect mental health. In actual practice physical and mental health are closely related and mental illness is no less common than physical illness. Mental disorders may result in physical symptoms or accompany physical illness. Efficiency may be affected more by mild mental disorders than by mild physical disorders such as colds and influenza. If preventive measures are not adopted colds and influenza are liable to spread. Although mental maladjustment does not spread in the same way, contact with a maladjusted, discontented worker may result in group dissatisfaction. Diagnostic and treatment facilities and preventive and promotive measures are, therefore, as important in mental illness as in physical illness.

In commenting on the psychological problems which are often responsible for illness and absenteeism, Sir Henry Bashford, Medical Advisor to the British Treasury and formerly Chief Medical Officer to the British Post Office, states in "Health and Welfare in the Civil Service", "But in many others the basic trouble was psychological - a real or imagined grievance, dislike or fear of some particular duty, or some personal antagonism or domestic worry. In many of these it was found possible to suggest a solution, such as a change of duty or a transfer to some other office or place. Even the mere unburdening of the anxiety had an almost dramatic effect, with an immediate improvement in attendance, health and efficiency."
The appointment of the proposed Employment Officers (see conclusions to chapter 2) might help in the direction indicated by Sir Henry Bashford. In addition, it is suggested that the possibility of appointing a team of psychiatrically-trained male and female social workers for the purpose of establishing services for the promotion of mental health and the prevention of mental illness, should be considered. If possible arrangements should be made for these social workers to work under the supervision of a consulting psychiatrist.

The services of the social workers could be made available in the proposed works clinics and the proposed community centres which are discussed later in this section.

4. APPOINTMENT OF "WORKS" MEDICAL OFFICERS;

In the South African Railways, Medical Officers are engaged almost entirely in remedial medical work for members of the South African Railways and Harbours Sick Fund, and in the larger centres at least, where they often carry a patient load of 2,000 or more beneficiaries, they are kept very busy.

In addition to the Railway Medical Officers, four Assistant Health Officers are attached to the Health and Welfare Department and are directly responsible to the Railway Health Officer. They are concerned primarily with general preventive and promotive health measures and act in a supervisory and advisory capacity to Railway Health and Welfare Staff in the various Systems.

There would appear to be a need for a third group of medical men to attend to medical services among Railway servants in their working environment. Many large industrial undertakings overseas have on their staff a "Works Medical Officer". The Works Medical Officer would
be in closer contact with the working environment than the
Railway Medical Officers and would have a better understand-
ing of the conditions under which the Railway servant
works. He would also be closer to and more concerned with
individuals than the Railway Health Officer.

In England in 1940, the Minister of labour and
National Service issued the Factories (Medical and Welfare
Services) Order stating that the occupier of a Factory
engaged in any work for the Crown might be required to
provide Medical Officers, Nurses and Welfare Supervisors
to look after the health and welfare of the workers.

The duties of a Works Medical Officer as set
out in a Government pamphlet, "Medical Supervision in
Factories" and quoted in the publication "Health and
Social Welfare", are as follows:

1. To be responsible for the organization and supe-
   rvision of First Aid services for the treatment of
   injury and sickness. The Medical Officer would
   not undertake any treatment at the home, and would
   only give continued treatment at the works, with
   the acquiescence of the patient's Panel Practitioner.

2. To examine medically and advise persons referred to
   him by, or through, the Labour Manager or individual
   employees who consult him, and to carry out the
   medical examination of persons about to be employed
   in processes involving a specific health hazard.

3. To take suitable means to assure himself of the
   fitness or otherwise of persons returning to work
   after illness.

4. To advise the Management on matters of general
   hygiene within the Factory.

5. To co-operate with the Management and with outside
   Welfare Authorities on all matters affecting the
   health of the work-people.

6. To create and maintain an effective liaison with
   outside health services, eg. Medical Practitioners,
   Hospital Services and local Authorities.

7. To keep, in confidential form, adequate and suitable
   records of his work.

8. To promote the education of the work-people,
    collectively and individually, in matters of general
    and personal hygiene.
In England the duties of the Works Medical Officers do not overlap with the work undertaken by Panel Doctors, but supplement it. Insofar as the Railways are concerned, the duties mentioned would not materially affect the position of either the Railway Medical Officers or the Health Officers, and the work of the three types of Medical Officer could quite easily be integrated. The Works Medical Officer could relieve the Railway Medical Officers of such duties as the examination of new entrants into the Service, and retiring servants. The services of the Works Medical Officer would be specially helpful in rehabilitative medical work, as he would be in a position to know both what type of work a servant returning to work after illness or injury would be fit to undertake, and the type of work available in the Railway service. When "injury-on-duty" cases return to work after treatment, the Railway Medical officer frequently recommends light work for a specified period, but since he is not fully informed about the types of work available or the nature of such work, it is difficult for him to be specific. Health educational matters, such as training in First Aid and Home Nursing could also be undertaken by the Works Medical Officer. The Works Medical Officer would be in a better position than Railway Medical Officers to assist in co-ordinating remedial health services with promotive and preventive health measures and employment services.

With the appointment of Works Medical Officers, it might be possible to arrange for the periodical medical examination of Railway servants, which would be a valuable step in the direction of better promotive work.

In the chapter dealing with Sick Benefits reference is made to the fact that Railway patients should not be discouraged from consulting a Medical Practitioner however
trivial their ailments might appear to be, and the provision of suitable clinical services within the Railway Service is suggested as a means of reducing the work undertaken by Railway Medical Officers. These clinics might well be under the control of a Works Medical Officer, whose staff should include a trained nurse and one of the proposed psychiatrically-trained social workers might visit the clinic from time to time.

5. COMMUNITY CENTRES:

It would be easier to administer group services and would encourage membership if arrangements could be made for the various activities to be housed in one building. In the Peckham experiment in England, it was found that persons who came to the health centre for one particular purpose were gradually drawn into the other activities available at the centre. In the Railways there is at present a tendency for the various group activities to be scattered.

Except in the smallest Railway centres, Railway institutes or recreational centres are available all over the country. The Institute building usually consists of at least a club room or hall and a library with Railway sports grounds adjoining and would, therefore, be a suitable point for the concentration of group services. In most cases small additions to the institute building would make it possible to accommodate services for the entire family.

Present accommodation would in most cases not be adequate for full community centre services, but the work could be started in a small way and members could be encouraged to help with the extension of the centre.
for lateness or absence; (vi) **warning notices** which indicate defects in the employee's work, attendance or general behaviour, which he is expected to correct; (vii) **change of status notice**; (viii) **grievance form** which is made out by the worker in duplicate and is signed by him, his Union representative and his foreman. The final set of cards is for use at the termination of service and consists of (i) a **termination form** and (ii) a **clearance card**.

Although the number of cards used seems excessive, the method is apparently justified by the needs of the Company. The most impressive feature of the system is that one girl can maintain all the 18 records for more than 900 employees. This indicates that once a suitable system of personnel records has been established the routine work of maintaining the records does not require a large staff.

(vi) **Provision of Supplementary Medical Services:**

The present rather rigid demarcation between medical services and preventive and promotive health services in the Railways tends to make the administration of health work somewhat cumbersome and is also a hindrance to completeness and coordination. The Sick Fund is necessarily conducted on different lines from the other Railway personnel services since medical services are undertaken by private medical practitioners who usually devote only part of their time to Railway work. It is, therefore, somewhat difficult to achieve full co-ordination between medical services and health services, and medical services and other forms of personnel work. With the best will in the world, the average Railway Medical Officer has not the time to maintain close contact with the officers engaged in other branches of personnel work.

The two types of services, that is remedial or medical services and promotive and preventive health services, do not constitute a full health service as they stand. The most noticeable gaps are individual preventive
In addition to the existing sports grounds, club room or hall and library, the following accommodation would eventually be required for a centre to function fully:

(i) A creche for babies;
(ii) A suitably equipped room for the distribution of pre-school milk with a children's playground attached to it;
(iii) A storeroom for distribution of vegetables, fruit and State-aided butter;
(iv) A room for arts and crafts and other hobby activities;
(v) A small workshop for such hobby activities as carpentry, metalwork, etc;
(vi) Accommodation for school children. Possibly most of the children's activities could be conducted out-of-doors and in the club room or hall;
(vii) A room to be used as a clinic;
(viii) An office for the supervisor which would be used for interviews when necessary.

There must be many Railway servants in the lower income groups who find it difficult to balance their budgets and to feed their families properly. The introduction of communal restaurants in the community centres might help in this direction.

If it is decided to include a communal restaurant in the centre, the club room or hall could be used for the serving of meals, and a suitable kitchen would be required.

The type of accommodation provided would have to be adjusted according to the needs and size of each individual centre.

Membership Subscriptions: It is suggested that membership subscriptions for recreational centres should be adjusted in accordance with the earnings of Railway servants in order that the facilities might be available to all. The present subscription rates at some of the larger centres might be beyond the means of some Railway servants in the lower income groups.

6. CONSOLIDATION OF GROUP ACTIVITIES:

In general the group activities arranged for Railway families require consolidation. A large number of
different types of activities have been established and their value cannot be doubted, but bearing in mind the total railway staff of over 160,000, participation in group activities is limited to a relatively small proportion of the total number of railway servants. It also seems desirable that there should be greater uniformity in the services provided in different parts of the country.

Consolidation and uniformity would probably be facilitated by the introduction of the proposed community centres.

7. TRAINING OF WELFARE OFFICERS:

The railway training course for probationer welfare officers includes aspects of nursing, social work, domestic science, physical education, and bookkeeping and office organization. The probationers attend lectures at railway headquarters for three months in each year, and the remainder of the time is devoted to field work - the maximum period available for lectures is nine months, as during the last year the probationer is expected to prepare a dissertation. In attempting to cover such a wide range of subjects in so short a space of time, there is a danger that theoretical training might be superficial, and to confine practical training to Railway Welfare Services might tend to limit the probationer's knowledge of the general scope of social work.

The problem of labour turnover among women welfare officers is undoubtedly an inconvenience to the Administration, but is perhaps not sufficient justification for sacrificing a professional training in the case of nurses and social workers. A basic professional training would seem to be essential in such fields as medicine, nursing, engineering and social work and it is usually only
after this basic standard has been attained that specialized training can be successfully undertaken. Arrangements could possibly be made for nurses and social workers who have completed their professional training to attend intensive courses in the specialized work required in the Railways at the central training school.

It may be felt that a certain amount of the welfare work undertaken in the Railways does not require the specialist services of social workers and nurses, but a working knowledge of the principles of social work and nursing, combined with some training in physical training, domestic science and general Railway procedure. The present Railway training should adequately meet these requirements, but it would seem to be desirable for Railway-trained officers to work under the supervision of trained nurses, social workers and physical, educationists even after the Railway training has been completed. Since in any one of these fields the normal training period is 3-4 years, it would not be possible for the probationer to acquire a thorough knowledge in each field in the time allowed.

The training of Railway health field staff is not comparable. The course is less diffuse and these men cannot be confused with professionally trained staff. They are not given the title of Health Officer or Assistant Health Officer, nor are they trained to undertake the same work as Health Officers.

Since the normal training period for physical education is 3-4 years and the Railway course usually does not exceed 6-9 months, it would seem to be desirable for Railway-trained instructors to work under the supervision of experienced physical educationists.
F. OTHER WELFARE SERVICES;

General welfare services for Europeans in the South African Railways are on the whole well developed, but there is a need for the extension of such services as staff canteens and staff hostels. This need is recognized by the Railways and will in time be met. With regard to non-Europeans, the contract of service in some cases provides for housing and food. Where it does not, there is a need for the development of similar facilities for non-European workers.

Certain suggestions have already been made in regard to the planning of recreational clubs on a community centre basis. There does, however, appear to be a need for stimulating interest in the clubs since Railway servants are sometimes unaware of the services which are available. This might be done by the insertion of notices in the various staff publications and the Railway Magazine, and by issuing pamphlets and arranging discussions and lectures. Mention might also be made of the recreational clubs or community centres - if the latter are established - at the time of the initial interview when new employees enter the Service.

The Railway House Ownership Scheme is not designed for the lowest income groups. Since the redemption payments may not exceed 35% of the servant's basic salary and the maximum loan which could be granted in the case of a servant earning £400 per annum would be in the region of £850, it would be almost impossible for a servant with an income of less than £250 per annum to attempt to purchase a house.

The Rent Rebate Scheme is intended for servants in the lower income groups. This scheme assists the servant temporarily, but does not provide him with long-term
security, and during the two years 1.4.44 to 31.3.46 an
ex-endeiture of £923,990 was incurred (£597,742 for the
year 1944-45 and £336,248 for the year 1945-46).

The rent subsidy scheme for non-Europeans
functions on a similar basis.

In spite of the fairly extensive housing
arrangements provided by the Railway Administration,
there must be many Railway servants in the lower income
groups who experience difficulty in obtaining
accommodation. Bearing in mind that the maximum rent
rebate for Europeans is £4. per month, there might well
be servants in these groups who are unable to find
suitable accommodation within their means. To overcome
these difficulties, the Railway Administration might
consider the possibility of establishing hostels for
Railway families in certain areas or perhaps housing
estates.

There is at present no House Ownership Scheme
for non-European Railway servants and there is obviously
a need for some such scheme. Alternatively the
establishment of hostels for non-European workers and
their families might be considered.

Although it might seem that housing is not
strictly the responsibility of the employer, if
employees are inadequately housed they cannot be expected
to work effectively and to this extent housing is the
concern of the employer. This responsibility has in fact
been accepted by the Railways and it is, therefore,
suggested that present schemes should be extended to
include the provision of family hostels for European and
non-European workers in the lower income groups.
CHAPTER 4.

SOCIAL SECURITY MEASURES.

Except in the highest income groups any interruption in earning capacity causes hardship and the lower the income the greater the hardship. Apart from the (actual) consequences of insecurity, the possibility of future insecurity is liable to set up anxieties in the worker and to reduce his efficiency. Insurance against the risks associated with irregularity of earnings is, therefore, desirable in the interests of the worker's welfare. The main causes of irregularity of earnings are:

(1) Sickness.
(ii) Accidents.
(iii) Unemployment.
(iv) Old Age.

Although insurance against these risks might seem to be more the responsibility of the State than the employer, where adequate provision is not made by the State many employers have found it expedient to introduce schemes to protect workers against at least some of the contingencies of life.

State schemes are usually of two kinds - (i) social assistance, and (ii) social insurance. In most countries social insurance has been preceded by social assistance and in some countries social assistance has survived as a parallel service during the period of transition.

State assistance was at first confined to destitute persons, but with the introduction of social assistance, benefits were extended to those whose means were not adequate to satisfy certain minimum needs in accordance with a prescribed standard.

In the case of social insurance, both employers and employees usually contribute towards the social
security measures - Soviet Russia where only employers contribute is an exception - and there is no means test.

In "Approaches to Social Security" (I.L.O Studies and Reports Series H, No. 18) the merits of social insurance are commented on in the following terms, "Social Insurance is situated between social assistance, which expresses the obligation of the community towards its needy members, and commercial insurance, based upon the equivalence of the premium paid by the individual and the indemnity promised to him. The strength of compulsory insurance resides in the association of the prospective beneficiaries and their employers in financial responsibility, in the non-lucrative and permanent character of its institutions, and in the specialization of the latter for the service of benefits in cash and in kind and for preventive action."

The first attempt at insurance among workers in Western countries took the form of mutual aid. Mutual aid had its beginnings in the societies formed by groups of workers, usually in the same occupation, who banded themselves together to assist individual members in distress. In return for crudely assessed contributions certain benefits such as burial and sickness assistance were given. These societies were later developed along more systematic lines and in England until recently operated in conjunction with the national insurance scheme.

The type of social security provided in industrial organizations is based on the same principles as social insurance, but usually the benefits are more
generous and fewer risks are covered. In the main these schemes seem to have been introduced either because there were no State schemes or because such schemes were incomplete or inadequate to meet the needs of selected groups of workers, and they have survived as supplementary schemes where the need for additional benefits is felt.

In some countries compulsory social insurance, social assistance, mutual aid societies and individual industrial schemes function side by side. In other countries a well developed plan of social insurance has largely taken the place of the other schemes. England is an example of the former and Soviet Russia of the latter. In South Africa unemployment and workmen's compensation are the only two forms of social insurance, but these schemes are supplemented by a fairly comprehensive system of social assistance. In addition, many concerns, particularly large industrial organizations, State undertakings and public utility companies in which continuity of service is important, have introduced their own contributory schemes of social security for the benefit of employees. In some cases these schemes are on a voluntary basis, and in others they are compulsory, but workers and management are jointly responsible for their administration and contribute jointly towards their cost.

The Social Security measures adopted by the South African Railways Administration function on a compulsory basis and provide sickness and old age benefits. Industrial accidents and diseases are dealt with in accordance with the provisions of the Workmen's Compensation Act and, subject to certain conditions, additional benefits are made available to Railway staff. Unemployment insurance is carried out in terms of the Unemployment Insurance Act,
INSURANCE AGAINST SICKNESS

1. DEVELOPMENT OF SICKNESS INSURANCE:

The main function of sickness insurance is to make provision for the worker when his earnings are interrupted through sickness. Such provision should include the cost of medical treatment, hospitalization, medicines, etc., and compensation for loss of wages due to absence from work. Promotive health measures and rehabilitative services should also fall within the scope of sickness insurance. In countries where there is a general social security scheme cash benefits may be divorced from medical and health services for administrative purposes, but sickness insurance contributions provide cover for cash benefits and medical services.

In most countries until the latter part of the 19th century, if the worker did not make personal provision against the contingency of sickness, the only relief available would have been in the form of charitable or pauper services. Towards the end of the 19th century public assistance came to be provided in a number of countries. Public assistance usually included some form of non-contributory pension for those whose health was so impaired that they were incapable of earning a living, and various forms of medical services. The latter consisted predominantly of institutional care for the sick among low income groups.

The first compulsory sickness insurance scheme was introduced in Germany in 1883. The scheme was under the control of the Imperial Insurance Office, but was administered by Sick Benefit Associations, consisting of
employers, employees and public spirited citizens. Employers were required to purchase insurance stamps in accordance with the premiums laid down. The workers themselves contributed two-thirds of the cost of the stamps and the employers one-third. Benefits included medical treatment, surgical services, hospitalization and such appliances as spectacles and artificial limbs. Maternity benefits also formed part of the scheme. The worker was entitled to one-half wages from the fourth day of illness for a period not exceeding thirteen weeks - this was later extended to twenty-six weeks. In 1914 it was estimated that over two-thirds of all employed persons in Germany were insured under this scheme.

In Great Britain at the turn of the century there was still a good deal of opposition against the principle of compulsory insurance and there were many who believed that provision for the contingencies of life should be left to individual thrift. The national health insurance scheme was, however, introduced in England in 1911 and in 1939 it was estimated that approximately 22,000,000 wage earners were covered by it.

Like the German scheme, the first British scheme was designed primarily for the industrial population and from a national point of view it was subject to certain limitations. No provision was made for the wives and families of insured workers or for self-employed workers, but the scheme covered all persons between 16 and 70 who were employed under a contract of service in manual labour or in non-manual employment if receiving a rate of remuneration not exceeding £160 a year. In 1919 the remuneration limit was raised to £250 a year and in 1942 to £420 a year.

The cumbersome machinery for the administration of benefits was greatly criticised, particularly in regard to the payment of cash benefits through various approved
societies and the consequent lack of uniformity of benefits.

The Beveridge plan removed many of the undesirable features of the scheme and made provision for the medical treatment for the entire population. This provision was based on the assumption that medical treatment for all should be regarded as a social service and its cost recognised as a public obligation. An interesting feature of the Beveridge Plan is the unification of all statutory social security measures, of which security in time of disability forms only one part. In accordance with the Beveridge Plan an Act was passed in 1944 to set up a Ministry of National Insurance.

In 1946 the National Insurance Act was passed. This Act provides for a unified and comprehensive scheme of National Insurance, which will eventually cover practically everyone in Great Britain. It provides broadly for three classes of insured persons - (i) employed, (ii) self employed, (iii) non-employed. All three groups contribute for the following kinds of benefit:

Maternity
Widows
Guardians Allowances (for orphans)
Retirement Pensions
Death Grant.

In addition employed and self-employed persons are eligible for sickness benefit, and employed persons for unemployment benefits.

The scheme is designed to maintain a national minimum standard of living below which no one should fall in times of emergency, and on this basis the principle of flat rate contributions and flat rate benefits is justified.

The British scheme is based on the principle that freedom from want must be achieved in the first instance by social insurance, i.e. benefits must be earned by contributions. The contributions from insured persons and their employers,
however, cover only part of the cost of the general scheme, and their contribution to the National Health Service is relatively small.

In the Soviet Union, the Social Security Scheme is likewise comprehensive and provision is made for the entire population. The costs of the scheme are borne by the state and employers. Free medical and restorative treatment and maternity benefits are included in the scheme. Cash benefits vary with the degree of disability and reach 100% of the wages for complete incapacity necessitating regular attendance.

The New Zealand Social Security Scheme which functions on a contributory basis includes Invalids' Benefits, Sickness Benefits and Health Benefits. The basic rate for Invalids' Benefits is £1.12.6d. per week, plus 10/6d. per week for the wife and for each child. Sickness Benefit is paid at the rate of £1. per week, and 15/- for a wife and 10/6d. for each dependent child.

Health benefits include:

1. Free treatment in State Mental Hospitals.
2. Maternity benefits, i.e. free medical treatment and either free hospitalization or nursing services during confinement.
4. General Practitioner services under capitation scheme.
5. Pharmaceutical benefits.
6. General medical services as an alternative to capitation scheme.
7. XRay diagnostic services.
8. Massage benefits.
9. District nursing services.

In South Africa there has never been any comprehensive sickness insurance scheme, and with the exception of voluntary benefit societies and the provisions made by certain large
employers and the scheme for State employees, etc., little has been done for the protection of the wage earner in times of sickness. Medical services are, however, available to low income groups, mainly in the form of in- and out-patient treatment and institutional care in Provincial hospitals. These services differ in the several provinces of the Union.

Social assistance in the form of invalidity grants is also available to incapacitated and partially incapacitated persons, subject to a means test. The free income allowance provided for under the Disability Grants Act is so small that there is little incentive for a partially incapacitated person to work. Pensions on a similar basis are available to blind and partially-sighted persons. General preventive medical services and promotive health services are inadequate in many parts of the Union, and individual promotive health services are almost impossible under present conditions.

The recommendations of the National Health Services Commission make provision for radical changes in the present medical and health measures in the Union, and stress the importance of promotive health services. It is proposed that health services should be organized on a National basis under the supervision of a central authority. Health centres distributed throughout the country will form the framework upon which the whole structure of health services will rest, and according to the report of the National Health Services Commission, "the foundation of the practice of the Health Centre will be the periodical medical examination." The Government have accepted the principle of the Health Centre as a means of preventing illness and promoting health and three centres are already in operation.

Free hospitalization services have been planned for two provinces in the Union, i.e. Transvaal and Orange Free.
In South Africa at present there is no general provision covering compensation for loss of earnings during illness. It was, however, the intention of the Social Security Committee that such provision should be included in the proposed social security measures, and it was recommended that sick benefits should be payable on a similar basis to unemployment benefits. It was suggested that at the commencement cash benefits should only be made available to employees and that the scheme should gradually be extended to include independent workers, domestic servants, etc. These proposals were, however, not acceptable to the Government.

In the Report of the Social Security Committee it is estimated that 70,000 persons are covered by voluntary social insurance and that at least 180,000 persons - mostly Europeans - are as a condition of their employment, compulsorily insured against sickness (The figure of 180,000 is low because at the time the Report was compiled casual employees in the service of the S. A. R. & H. Administration, of whom there are approximately ........, were not included in Railway Sick Benefit arrangements).

It is, therefore, estimated that approximately ........ persons in the Union, mostly Europeans, enjoy some measure of security in time of sickness.

Although these services lack uniformity and co-ordination, in the meantime they serve a useful function. It is, however, desirable that some means of providing security for all wage earners during times of sickness should be introduced.

In South Africa the present tendency is to concentrate on remedial services. Although such services are indispensable, it would be sound policy to give greater attention to the prevention of illness and the promotion of good health.
S. A. R. SICK FUND ARRANGEMENTS.

The sick benefit arrangements available to Railway servants include sick pay, medical treatment, and certain rehabilitative measures, which in conjunction with the promotive and preventive services undertaken by the Health and Welfare Department provide a fairly comprehensive scheme.

Section 31 (1)(b) of the Railways and Harbours Service Act, 1925, authorizes the Railway Administration, subject to the approval of the Governor General, to make regulations in respect of the establishment and working of a Sick Fund.

The administration, management and control of the Sick Fund are vested in a Central Board consisting of eighteen members of the Sick Fund with the General Manager as Chairman. Nine members are elected representatives of the members and nine members are nominated by the Administration.

Subject to the control of the Central Board, the affairs of the Sick Fund are managed by a District Board in each of the following Railway Systems, known as Sick Fund Districts:

<table>
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<tr>
<th>DISTRICT</th>
<th>HEADQUARTERS AT</th>
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<tbody>
<tr>
<td>Cape Western</td>
<td>Cape Town</td>
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<tr>
<td>Cape Northern</td>
<td>Kimberley</td>
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<tr>
<td>Cape Eastern</td>
<td>East London</td>
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<tr>
<td>Cape Midlands</td>
<td>Port Elizabeth</td>
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<tr>
<td>Orange Free State</td>
<td>Bloemfontein</td>
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<tr>
<td>Western Transvaal</td>
<td>Johannesburg</td>
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<tr>
<td>Eastern Transvaal</td>
<td>Pretoria</td>
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<tr>
<td>South West Africa</td>
<td>Windhoek</td>
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</table>

Members of the sick fund in each Sick Fund District are represented on the District Board and one representative is elected from each of the following categories of Railway servants:
(Railway Medical Officers are represented on all District Sick Fund Boards by their own local Group Representative, and on the Central Sick Fund Board by the Chairman of their Central Group, as well as on the Selection Committee in an advisory capacity).

Each District Board elects annually one of its elected members to be a member of the Central Board.

In addition, the following fulltime staff are attached to the Sick Fund Administrative Offices:

(a) General Secretary to the Central Board.

(b) A Secretary to each District Board.

(c) Such other staff as the Administration may from time to time appoint.

These Officers are remunerated at rates determined by the Administration and are entitled to the same privileges and subject to the same conditions of service as other servants of the Administration.

Each Sick Fund District is divided into a number of Medical Districts, and a Railway Medical Officer is appointed in each Medical District. In determining the size of Medical Districts, both territorial factors and the number of beneficiaries are taken into consideration.

There are 345 Railway Medical Districts and 351 Railway Medical Officers. There are also 36 Specialists appointed to the Sick Fund. Specialists are only appointed to the Fund where there are a sufficiently large number of beneficiaries to justify this. In addition, the services of outside Specialists are made available to beneficiaries, when necessary.

It is customary for Railway Medical Officers to work on a part-time basis and in addition to attending Sick Fund beneficiaries they usually also carry on a private
practice.

The number of beneficiaries under the care of one Railway Medical Officer ranges from 20 in the smallest district to 3,839 in the largest district. The average patient load carried by a Railway Medical Officer in the larger centres is between 1,500 and 2,000 beneficiaries.

The maximum number of beneficiaries under the care of each Railway Medical Officer is determined by the Central Board, subject to the concurrence of the Railway Administration and 2,000 is regarded as the maximum figure. It is considered, however, that in cases where Railway Medical Officers concentrate on the Fund's work and do not seek to expand their private practice, there may be justification for exceeding the quote.

1. MEMBERSHIP:

In December, 1946, the number of persons provided for by the Sick Fund was as follows:

(a) European Officers and employees ............. 84,056
(b) Casual European servants ..................... 2,547
(c) Total number of dependants of members ....194,636

All non-European servants-(approximately) 72,372 are eligible for free medical attendance, medicines and hospital treatment, but they do not contribute towards these services and are not regarded as members of the sick fund.

All European persons appointed to the regular staff of the Railway Service who obtain a certificate of health which complies with the requirements of The Railway Service Act No. 23 of 1925, become members of the Sick Fund concurrently with their admission to the Service and are required to contribute to the Fund on the stipulated basis.

(The relevant Section of the Act reads as follows:--
Ex-servicemen suffering from any disability arising out of wounds or sickness contracted whilst on active service are not, however, debarred from becoming members of the Sick Fund.

Casual servants are treated on the same basis as persons appointed to the regular service, with the exception that they are required to have one year's service with the Administration before they may become members of the Fund.

Non-European servants are not required to pay Sick Fund contributions and they are not regarded as members of the Fund. The Administration contributes 1/- per month in respect of each non-European (excluding Indians employed in Natal) and the Sick Fund provides medical attendance, medicines and hospital treatment. In addition, the Administration indemnifies the Sick Fund against any loss in providing these benefits.

The wives of members of the Sick Fund are entitled to the same benefits as members, regardless of whether or not they are engaged in outside employment and irrespective of the amount they earn.

Children under 17 years of age are eligible for similar benefits provided they do not earn more than £10 a month. Benefits to children may be continued up to the age of 21 years on payment of a special contribution of 2/6d. per child, provided they do not marry or earn more than £10 per month.

2. CONTRIBUTIONS:

Every member of the Sick Fund must subscribe to the maintenance of the Fund by paying, through the medium of his pay-sheet, monthly contributions, which vary in accordance with his rate of pay. The minimum contribution for a married member is 4/9d. per month and for an unmarried
member 3/9d. per month. These rates are applicable to members whose salary or wages do not exceed the following:-

(1) Salaried staff ............ £36.10. 0d. per annum
(ii) Monthly paid staff ....... 2.12. 2d. " month
(iii) Daily paid staff ............ - 2. 0d. " day
(iv) Hourly paid staff ............ - .3½d. " hour.

Members whose salary or wages exceed the following scales, pay the maximum contribution, which is £1. per month for a married member and 15/6d. per month for an unmarried member:-

(1) Salaried staff ............ £958. 2. 6d. per annum
(ii) Monthly paid staff ....... 68. 9. 5d. " month
(iii) Daily paid staff ............ 2.12. 6d. " day
(iv) Hourly paid staff ............ - - 6.10½ " hour

There are 21 "intermediate" tariffs of contributions, with a corresponding number of salary or wage scales.

3. SICK FUND BENEFITS:

Sick Fund benefits include medical attention, specialist treatment where necessary, hospitalization, free medicines, medical attendance at confinements and limited dental benefits.

A. Details of Sick Fund benefits as laid down in the Regulations are as follows:-

(i) Medical attendance by a Railway Medical Officer within the boundaries of a medical district in cases of sickness, accident and midwifery.

(ii) A member who resides outside a Railway medical district is entitled to medical attendance for himself and his family at a Railway Medical Officer's consulting room, but not at his home. Similar benefits are available to a member and/or his family when on leave, that is - full medical attendance if they are temporarily resident within a medical district and attendance at a medical Officer's rooms only, if temporarily resident outside a medical district.

(iii) Medicines prescribed by a Railway Medical Officer are supplied free-of-charge. Medicines prescribed by a private doctor may be dispensed free-of-charge at a Railway Dispensary or by a contracting Chemist, provided the prescription is counter-signed.
by a Railway Medical Officer.

(iv) Nursing assistance and appliances ordered by a Railway Medical Officer may be supplied, subject to the approval of the Central Board.

(v) In the case of a person injured on duty artificial limbs, eyes, teeth, etc., and appliances are supplied, provided the recommendation of the Railway Medical Officer and the approval of the District Board are obtained.

(vi) On the recommendation of a Railway Medical Officer a consultation with another Railway Medical Officer may be arranged. If another Railway Medical Officer is not available a private medical practitioner may be consulted, provided the cost to the Sick Fund does not exceed £2.2.0d.

(vii) In cases of major operation or serious illness, a private medical practitioner may be consulted, provided the Railway Medical Officer is notified and provided the cost to the Sick Fund does not exceed £2.2.0d.

(viii) On the recommendation of a Railway Medical Officer, X-ray examinations or specialist treatment may be arranged, provided the authority of the District Board is first obtained.

(ix) On similar conditions half the cost of special treatment such as massage, ionization, X-ray, deep therapy, radium, etc., will be borne by the Sick Fund.

(x) In cases of major or difficult operations, the Railway Medical Officer may be assisted by another medical man, provided the cost to the Sick Fund does not exceed £1.1.0d.

(xi) On the recommendation of a Railway Medical Officer, free railway transport is provided to any member travelling for bona fide medical, hospital or dental treatment.

(xii) In the case of persons injured on duty nursing expenses are met, on the recommendation of a Railway Medical Officer. (For periods up to 3 months one-third of the cost is borne by the Sick Fund and two-thirds by the Administration. After three months the total cost is borne by the Administration).

(xiii) Ambulance fees incurred on the recommendation of the Railway Medical Officer or on the
order of a District Secretary are paid or
reimbursed by the Sick Fund.

(xiv) Reduced terms for the services of opticians
may be arranged by District Boards, provided
no expense is incurred by the Sick Fund,

Vaccination against smallpox, immunisation against
diphtheria and treatment of venereal disease are included
in Sick Fund benefits.

B. Dental Treatment: Half of the cost of extraction
of teeth (not exceeding 3/9d. per tooth) and half the
cost of any necessary anaesthetic will be refunded provided
the maximum refund does not amount to more than £3.3.0d.
Costs of hospitalization incurred in dental treatment
are not borne by the Sick Fund.

C. Hospitalization: Members are admitted at the
expense of the Sick Fund to any Railway Hospital or
public general hospital on the certificate of a Railway
Medical Officer or District Secretary. If accommodation
is not available at either of these types of hospital,
members may be admitted to approved sanatoriums or nursing
homes under the same conditions.

If a member prefers to go to a private sanatorium
or nursing home, the District Board may in its discretion
allow a refund of the normal hospital charges ordinarily
payable by the Sick Fund.

Hospitalization is not provided in normal midwifery
cases. In abnormal cases hospitalization is provided after
the so-called "normal" lying-in period of ten days.

In any case in which expenditure is incurred
by a member for hospital treatment which is not covered
by the above conditions, representations may be made to the
District Board, but assistance may not exceed £30.

D. Non-Europeans: The following benefits are
available to non-European servants:—

(1) Indian Employees in Natal: Free medical
attention, medicines and hospital
treatment for themselves, their wives and their children under 17 years of age.

(ii) Coloured, Indian and Native Employees:
(other than Indian employees in Natal): Free medical attention, medicines and hospital treatment for themselves only. An employee in the above category may obtain medical attention and medicines for his wife and children under 17 years of age, but no hospitalization for them or midwifery attendance for his wife, subject to the following conditions:

(a) he has had two years continuous service;

(b) he bears a good character and is recommended for the privilege by the Head of his department;

(c) his wife and children reside on Railway property;

(d) he pays a contribution of 1/- per month for the privilege.

F. Pensioners: Members of the Sick Fund who retire from the Railway Service on pension may obtain full Sick Fund benefits - with the exception of midwifery attendance - for themselves, their wives and dependent children under 21 years of age, subject to the following conditions:

1. That the pensioner has retired on an annuity -

(a) on the grounds of permanent ill-health or physical disability caused by injuries sustained in the course of his duties and occasioned without his default;

(b) at an age of not less than 50 irrespective of grounds of retirement;

(c) at an age of less than 50 for any reason other than referred to in (a) and provided he has had not less than 25 years service. Contributions are based on emoluments received at the time of retirement until the age of 50 is attained. After that contributions are at the ordinary pensioners' scale.

2. That the pensioner elects to continue or secure membership at the time of the exercise of his option to commute or not to commute a portion of his pension.

4. APPOINTMENT, DISCHARGE AND CONTROL OF RAILWAY MEDICAL OFFICERS:

A selection Committee is responsible for considering applications for the appointment of Railway Medical Officers
and for making recommendations in regard to their appointment. The Selection Committee consists of two members of the Executive Committee, one representative of the Railway Medical Officers' group, and one representative of the S.A.R. Service Commission.

When it is necessary to appoint a Railway Medical Officer, the Central Board or the Executive Committee submits to the Selection Committee a schedule of the applicants for the appointment with its recommendation and the recommendation of the District Board.

If the General Manager is in agreement, the recommendation of the Selection Committee is final. If the General Manager does not agree with the recommendation of the Selection Committee, the matter must be submitted to the Minister for decision.

The appointment, discharge and control of Railway Medical Officers and the determination of Medical Districts, and salaries and allowances of Railway Medical Officers, are within the jurisdiction of the Central Board, subject to the approval of the Administration, or to the approval of the General Manager or the Minister.

Railway Medical Officers' appointments are subject to such notice on either side as may be provided for in terms of any agreement entered into.

Railway Medical Officers are required to reside where directed by the Central Board and to perform such duties, not inconsistent with their profession, as the Board may require.

5. **SALARIES OF RAILWAY MEDICAL OFFICERS**: Railway Medical Officers are paid on a per capita basis in accordance with the number of Sick Fund beneficiaries resident within the area for which they are appointed. (The per capita payment is 10/- per annum in urban districts and 11/- in rural districts).
Fees and Allowances: In addition to the salaries paid to Railway Medical Officers, the following allowances and fees are paid for the services detailed below:

(a) Travelling allowance when on duty along the line .......................... 6d. per hour.

(b) Each midwifery case ...................... £ 2. 2. 0d.

(c) When called in for consultation by another Railway Medical Officer ... 1. 1. 0d.

(d) For administering an anaesthetic for another Railway Medical Officer ... 1. 1. 0d.

(e) Medical examination of each candidate for employment ....................... -5. 0d.

(f) Medical examination in connection with pensions and superannuation fund ...........

   For a Medical Board ..................... 1. 1. 0d.
   For commutation of annuity ............. -10. 6d.
   For admission to membership .......... -5. 0d.

(g) Attendance on construction servants, their wives and children under 17 years - day visit ...................... -2. 6d.
    night visit ............................. -5. 0d.

(h) Course of lectures to ambulance class undertaken at request of Administra-
    tion .......................... 5. 5. 0d.

(i) Examination of ambulance class ....... 2. 2. 0d.

(j) Assisting at an operation ............... 1. 1. 0d.

6. DUTIES OF RAILWAY MEDICAL OFFICERS:

The duties of Railway Medical Officers as laid down in the Sick Fund Regulations are as follows:-

1. Visit and attend within the boundaries of his District, Railway and Harbour servants and their wives and families, who are entitled to the benefits of the Sick Fund.

2. Attend, at his consulting rooms, upon members, their wives and families, entitled to benefits of the Sick Fund who are non-resident in his district, provided the Sick Fund card or other evidence of title to benefits is produced.

3. Attend and, if necessary, visit members, their wives and families from other districts who are entitled to Sick Fund benefits and who are temporarily resident in his district.

4. Travel over the whole of his section of line once a week, or at such intervals and by such trains as the District Board may direct.
5. Give immediate attention to urgent calls and if unable to respond immediately to attend as soon as possible afterwards and arrange to take over the case from any other medical man who may have been summoned in an emergency.

6. In cases of accident, if he is the nearest Railway Medical Officer, it is his duty to proceed with the utmost despatch to the scene of the accident, although it may be outside his medical district, and to render all the aid in his power and to take such action as may be required to protect the interests of the Administration. (Additional fees are paid by the Administration for such special services).

7. Examine candidates for employment.

8. Vaccinate and inoculate all Railway and harbour servants and their wives and children when called upon to do so and issue such certificates as may be required.

9. Carry out such eyesight tests as may be required from time to time by the Administration.

10. Perform such dental services as are usually undertaken by a Medical Practitioner.

11. Dispense medicines for members and their families where other arrangements for dispensing are not made.

12. Report any malingering on the part of a Railway or Harbour servant which may come to his notice.

13. When a consultation is considered necessary, he should, if possible, call in the Railway Medical Officer of the adjoining district in preference to calling in an outside Medical Practitioner.

If he has cause to complain of:

(a) improper treatment;
(b) non-observance of his instructions;
(c) unnecessary stoppage of a train in which he is travelling;
(d) undue advantage being taken of the benefits of the Sick Fund;
(e) unnecessary calls for his service,

he shall report, in writing, to the District Secretary for his district within seven days of the occurrence.

14. Endorse sick certificates "no sick pay to be allowed" when members decline to live in mosquito-proof houses where such are available - or when sickness is due to indiscretion or discredite conduct.

15. Inspect periodically the Railway and Harbour premises, including staff quarters, with the boundaries of his medical district to see that sanitary conditions are maintained and precautions observed, and immediately
report to the District Board concerned:-

(a) any defects in such premises likely to affect the health of the staff;

(b) any case of infectious disease occurring on Railway premises to which he has been called in, irrespective of whether or not the patient is a beneficiary of the Sick Fund;

(c) any case of infectious disease occurring amongst Sick Fund beneficiaries within his district.

16. Report immediately to the District Board in connection with any case where an outside medical man has been called in by a member in an emergency, and which he is later called upon to take over.

17. Certify when required by the District Board as to the reasonableness of any account submitted by an outside Medical Practitioner for services in his district to a member of the Sick Fund.

18. Issue a certificate of sickness on the proper form - or counter-sign any certificate of sickness which may be issued by an outside medical man, or issue a covering certificate on the official form, to a Railway or Harbour servant, provided he is satisfied as to the bona fides of the case.

19. Lecture to such ambulance classes as may be arranged by the Administration.

20. Examine such classes when called upon to do so.

21. Examine at the request of the Administration and report on any case of alleged intoxication of a servant, for which service the Administration will pay a special fee of £1.1.0d. in each case.

22. Collaborate fully and freely with the Administration's health and welfare organization.

7. SPECIALISTS:

At the majority of the larger centres the Fund has in its service a General Surgeon, an Aural Surgeon and an Ophthalmic Surgeon. These Surgeons are remunerated on the basis of 3/6d., 2/- and 2/- respectively, per member, per annum.

It is the policy of the Fund to give consideration to the appointment of a salaried specialist where expenditure involved in respect of any one phase of specialization is heavy.
8. **CERTIFICATES OF SICKNESS:**

1. All periods of sickness must be covered by a Medical Certificate stating the nature of the sickness and the period the member was compelled to be absent from duty.

2. A member must obtain a certificate of sickness within twenty-four hours of his absence from duty and must forward it to the Officer responsible for endorsement within forty-eight hours of his absence from duty, whenever possible.

3. When a member is authorized to resume duty, the certificate of sickness must be endorsed accordingly by a Railway Medical Officer and be handed by the member to the Officer responsible for dealing with the certificate.

4. The certificate of a private medical man may be accepted provided it is counter-signed by a Railway Medical Officer.

9. **SICK PAY:**

**Permanent and Temporary Officers:** A permanent officer or a temporary officer whose continuous service exceeds two years receives full pay in respect of a period of absence from duty due to sickness.

A temporary officer whose continuous service does not exceed two years receives two-thirds of his salary in respect of a period of absence from duty due to sickness.

Sick leave accrues on the basis of six weeks for each year of continuous permanent or temporary service. The maximum period of sick leave which may be accumulated is six months.

**Employees:** An employee who has completed not less than two years continuous permanent or temporary service receives full pay in respect of that portion of a period of absence from duty due to sickness which exceeds one week.
An employee who has not completed two years continuous service receives two-thirds pay in respect of a period of absence from duty due to sickness.

Sick leave accrues on the basis of six weeks (forty-two days in the case of monthly paid Police staff or thirtysix weekdays in the case of all other employees) for each year of continuous permanent or temporary service up to a maximum of eight years prior to 1st Oct., 1944, in the case of employees paid on a calendar month basis, and prior to 25th Sept., 1944, in the case of all other employees, less any previous period or periods of absence for which sick pay was allowed, during such period of service.

Casual Servants: After one year's service casual servants are entitled to twelve days sick leave per annum at two-thirds pay.

Non-European Servants: The same conditions are applicable to non-European servants.

10. FINANCE:

The S.A.R. Administration contributes to the Sick Fund an amount equivalent to 10% of the contributions received from members, and in addition provides the following services free-of-charge:—

(a) Conducts the cash transactions of the Sick Fund
(b) Collects subscriptions.
(c) Grants travelling facilities to Railway Medical Officers and members of Sick Fund Boards.
(d) Conveys sick fund stores and correspondence.
(e) Pays all sick pay.

In respect of medical aid to staff injured on duty, the Administration bears two-thirds of the nursing or hospital expenses incurred by the Sick Fund for a period of three months. Any period in excess of three months is paid in full by the Administration. The Administration also bears two-thirds of the cost of any artificial limbs and appliances, etc. (including eyes and teeth).
Financial Position for the year 1945-1946.

Total Expenditure for the financial year April, 1945/March, 1946 £ 641,321

Salaries and allowances of Medical personnel 145,786

(i) Confinement fees 14,157
(ii) Medical Examination of new entrants to the Service 6,394
(iii) Examination of Pensioners -

Specialists Salaries 31,444

Fees to additional Specialists, other than salaried Specialists 19,738

Hospital Expenses for Europeans and non-Europeans, including ambulance 178,601

Cost of drugs and medicines ex Drug Store and Contracting Chemist, including overhead charges 101,482

Total Revenue for financial year ended 31/3/46. 640,636

(a) Member's contributions 504,568
(b) Administration's contributions 49,773
(c) Any other source of revenue, i.e. contribution by Sick Fund 98

Contributions by pensioners and employees of Railway Recreation Clubs 36,781

Contributions by Administration in respect of non-Europeans 23,446

Amounts recovered from Administration in respect of injury-on-duty cases 14,166

Medical examination of employees 6,388

Miscellaneous 323

Relaying and extra gangs 5,093
Conclusions

The most unsatisfactory feature of the Railway Sick Fund is that it tends to function in isolation. It is not properly geared to the promotive health services provided by the Administration, nor is it closely integrated with the general scheme of personnel services. It is difficult to suggest ways and means of improving the position which do not entail fundamental changes in the structure of remedial health services. This the Administration may be reluctant to do in view of the proposal to introduce national health services throughout the country. When these services are fully developed the need for Railway Medical Officers attached to the Sick Fund on the present basis may fall away. It may, however, be considerable time before the recommendations of a national health services commission are implemented, and the Railway Administration may consider the adoption of some interim scheme.

The comments contained in this section refer to remedial health services within the existing framework of the Sick Fund, but in the final chapter of this report a revised scheme of health services is outlined.

1. Administration and Supervision of Sick Fund Services:

One of the difficulties in administering the Sick Fund is that the beneficiaries are spread over a wide territory and the needs of the various medical districts differ. This is overcome in some measure by the authority vested in District Boards, but even so the Medical Districts under the control of any one Board may comprise urban and rural areas with beneficiaries living under different conditions and differing in number and type. Supervision, therefore, becomes difficult and the day to day problems of medical men and patients cannot always be made known.

Railway medical officers and beneficiaries may report to the District Board any special problems which they may encounter and all complaints are investigated. This facility is, however, not altogether adequate. Some members of the lower income groups are not particularly articulate, some members are too lazy or too indifferent to express grievances in writing, although they may grumble freely. Other members are reluctant to complain because they feel that this may antagonise the Railway Medical Officer.
The proposed joint meetings between representatives of the various staff associations and representatives of the main branches of personnel work suggested in the final chapter might be helpful in this direction, as these meetings would be more informal than Sick Fund Board meetings, and their main purpose would be to consider the functioning of the Service in the light of the needs of Railway servants.

A further suggestion which might be considered is the appointment of a Headquarters administrative medical officer and of a similar officer in each System, to act in a supervisory and consultative capacity and to carry out investigations with health matters generally.

The British Post Office Sick Benefit Scheme operates under the control of a headquarters staff of medical men. The following statement by H.H. Bashford, M.D., B.S. (London) M.R.C.P., M.R.C.S., formerly Chief Medical Officer to the British Post Office, gives some indication of the methods adopted:-

"The British Post Office Medical Service is controlled by a Headquarters Staff consisting of the Chief Medical Officer, the Second Medical Officer, four assistant men Medical Officers and a Senior Woman and four Assistant Women Medical Officers.

The Assistant Medical Officers give clinical attention to London Headquarters staff and examine candidates for entry into the Service. The Second Medical Officer acts as Deputy for the Chief Medical Officer and is particularly responsible for maintaining Headquarters staffs. The Senior Woman Medical Officer is particularly concerned with female members.

The Chief Medical Officer acts in a consultative capacity for the whole Service and is responsible for an Annual Report on its vital statistics, sick rates and health problems generally."

(The British Post Office employs approximately 190,000 men and 60,000 women - excluding a few unestablished classes. 2,600 General Practitioners hold Post Office appointments in the respective towns or districts, and
they are paid on a capitation basis).

The possibility of appointing a full-time Administrative
Medical Officer to the Sick Fund Headquarters Staff for the
purpose of undertaking the type of work carried out by the
Chief Medical Officer of the British Post Office might be
considered. The appointment of a full-time Administrative
Medical Officer in each of the system offices would
facilitate the work of supervision which is at present the
responsibility of the District Boards. The proposed
System Medical Officers should travel over their respective
Systems and report on the general functioning of the Sick
Fund in the System as well as on vital statistics, sick rates
and health problems generally. The work of such Medical
Officers would require to be integrated with personnel work
as a whole. Suggestions as to how this could be achieved
are contained in the final chapter.

2. LIMITED BENEFITS:

In common with other Sick Benefit Societies, Railway
Sick Fund Services are necessarily limited by financial
considerations. Benefits could only be improved by increasing
either the Administration’s contribution or by increasing
members’ subscriptions. Increased contributions are likely
to cause hardship among the lower income groups. The
alternative would be to increase contributions among the
higher income groups only. The objection to this is that
these beneficiaries already pay much more than the lower
income beneficiaries for the same benefits. Among the
deficiencies in the present Sick Fund arrangements, which
appear to be attributable to financial limitations are the
following:

(i) Lack of Hospitalization or Nursing Benefits
    for confinements:
    Confinement benefits include medical attention,
    but exclude hospitalization or nursing fees for
the normal "lying-in" period of ten days. Among the lower income groups the home is often not a suitable place for the delivery of a child and in many cases there are other young children in the family requiring care, so that unless the mother is hospitalized she is likely to return to domestic responsibilities before she is fit, with consequent possible impairment of health. In cases where hospitalization cannot be conveniently arranged adequate nursing services are necessary. The maternity services available to the lower income group in most parts of the country are inadequate, so that there is little hope of assistance outside the Railway Sick Fund. It, therefore, seems to be a short-sighted policy not to include hospitalization or nursing services in confinement benefits.

(ii) Incomplete Dental Services:
There is every encouragement for Railway servants in the lower-income groups to have their teeth extracted rather than filled, since they are entitled to a refund of half the cost of extraction (subject to certain conditions), but receive no assistance with repair work. A good deal of ill-health may be attributable to defective teeth and it would, therefore, be in the interests of the Railway Administration and the Sick Fund to ensure that all Railway servants were given facilities for keeping their teeth in good health.

3. EXCLUSION OF SERVANTS WHO CANNOT PRODUCE A "CLEAR" CERTIFICATE OF HEALTH:

With the exception of ex-servicemen, persons who cannot produce a "clear" certificate of health at the time of the entrance medical examination are not eligible for membership of the Sick Fund. They are further penalized because they cannot become members of the regular staff and their prospects of advancement in the Service are restricted. In addition, they cannot contribute to the Superannuation Fund. In such a position the person concerned must suffer frustration in his work and the anxiety associated with insecurity which would probably aggravate his physical condition.

The main purpose of the entrance medical examination should be to discover any physical disabilities so that the applicant can be placed to best advantage. It should also
be the means of informing the applicant of any physical
abnormality and of encouraging him to seek medical
treatment.

An applicant who is suffering from some severe
disability which cannot be corrected or arrested by medical
aid and which will prevent him from undertaking any work
without endangering himself or others, is obviously not
a suitable subject for placement in open employment.

In cases where an applicant is considered to be
capable of performing useful work and his services are
accepted, it is desirable that he should be given the
same opportunities for medical treatment as other Railway
servants. If this is not done, it is likely that he will
neglect to obtain medical assistance with consequent
unsatisfactory results to himself and the Administration
since his efficiency is liable to be low and his
absenteeism high. A servant who is suffering from any
disability should be encouraged to maintain his health
at the best possible standard, in which case he should be
provided with facilities for medical attention instead of
being deprived of them.

To adopt such a practice would not necessarily
involve the Sick Fund in heavy additional expenditure.
People who suffer from physical disabilities quite often
live long and useful lives, and many members of the Sick
Fund who are regarded as "normal" when they join the
Service sooner or later contract diseases and develop
illnesses.

In selecting candidates for employment, physical
fitness is greatly stressed, but little attention is
paid to mental health. There are forms of physical
disability which might debar an applicant from membership
of the Sick Fund but which are less likely to have
unsatisfactory consequences from an employment point of
view than certain types of mental disability and
instability. Yet the entrance examination does not include tests for mental disabilities.

4. **Entrance Medical Examination**

Since the applicant's future career might so easily be jeopardised by the results of the entrance medical examination, it is desirable that the examination should be conducted with great care. If it is accepted that a medical examination should also serve as a means of preventing illness and promoting health, then it is essential that the examination should be as thorough as possible.

With the limited time at his disposal and in the absence of the elaborate equipment and expert staff necessary for modern diagnostic techniques, the Railway Medical Officer is hardly in a position to make more than a superficial investigation. He is also handicapped by the lack of case history relating to the person concerned.

The percentage of persons who fail the Railway medical examination is relatively small, i.e. ...,%. It is significant that in the Peckham Experiment in England, of 3,911 individuals of all ages who were examined it was found that 3,553 or 90.8% had something the matter with them at the first overhaul. Commenting on these figures, it is stated, "as the District from which these families were drawn was chosen because it did not contain a social-problem group of the populace, but on the contrary one that was considered likely to yield a relatively healthy populace, this finding is an arresting one."

In the same experiment it was found that of 500 families, 68.5% of the individuals were suffering from various disorders of which they were totally unaware, and the majority of them stated that they were quite well. Among the types of disorders brought to light in this
group were abdominal tumours, undisclosed nephritis, avitaminosis, worms, cancer, diabetes, etc. The patient is, therefore, often not in a position to assist the medical man in making his diagnosis.

In view of the fact that many Railway Medical Officers appear to be overworked and as a thorough medical investigation would involve considerable time, it is suggested that the examination of entrants into the Service should be undertaken by full-time Works Medical Officers whose appointment is suggested elsewhere in this report. (See conclusions to chapter on Health and Welfare Services and final chapter).

Every facility for adequate diagnosis should be provided and the Medical Officer should present a complete case history of the person examined indicating any physical abnormality. Recommendations for the treatment of the abnormality should be included and the Medical Officer should maintain contact with the applicant if he is appointed to the Service to encourage him in carrying out the treatment.

5. CHOICE OF MEDICAL OFFICER;

The fact that it is neither possible to choose nor change a Medical Officer presents difficulties to both the medical man and the patient. Just as in everyday life some people cannot get along together, so some patients and medical men cannot get along together. Under present conditions there appears to be no solution to this difficulty. Even if a Panel of Doctors were to be made available in the larger centres, there would not be enough doctors or patients to carry out such a system in the smaller centres. In addition, the Panel system is itself subject to limitations. Under a Panel system, Railway
patients would be spread out among a large number of medical men and doctors who had only a few Railway patients on their books would probably not be very interested in the general functioning of the Sick Fund. Another argument often advanced against the Panel system is that the more popular doctors are over-worked. This aspect could, however, probably be adjusted.

Even with the introduction of a State Medical Scheme, it would be difficult to provide for free choice of doctor in districts with a small scattered population.

6. ATTITUDE OF MIND OF BENEFIT SOCIETY PATIENTS:

A benefit society patient is liable to develop an attitude of mind which sometimes has unfortunate results. On the one hand, he is sensitive about the fact that his position is not quite the same as that of a full-paying patient, and this makes him suspicious of the doctor. On the other hand, he feels that he is paying for whatever services he gets — particularly when he pays his subscription for years without needing medical attention — and expects a certain standard of treatment when he is ill. Some Railway patients are less reasonable and considerate than private patients. They expect the doctor to come promptly when he is called and may call him out unnecessarily at inconvenient hours. The doctor in turn is likely to develop an attitude towards Railway patients generally and may treat genuine cases with less consideration than they deserve.

As long as private practice continues to flourish this attitude between benefit society patient and doctor is likely to continue.

7. PART-TIME MEDICAL OFFICERS:
The fact that the Railway Medical Officer conducts a private practice in addition to his Sick Fund duties is unsatisfactory from the point of view of the Railway patients. In such circumstances, the medical man is liable to discriminate between private and railway patients. The appointment of full-time medical officers would be impossible in small towns with only a few railway patients. In the larger centres where the Railway Medical Officer carries a heavy load of Railway beneficiaries, it would be possible to arrange full-time appointments. In fact, in cases where the Railway Medical Officer has as many as 2,000 Railway patients on his books, there must be very little time available for outside activities.

The appointment of full-time Railway Medical Officers would be preferable to the present system whereby the Railway Medical Officer conducts both Railway and private practice, but even this would not remove all the difficulties. In the first place, in order to obtain the services of the more competent and experienced men, it would be necessary to pay salaries so high that they might be out of proportion to the scales laid down for other professional officers or senior administrative and technical officers in the Railways. This is particularly likely to be the case insofar as Specialists are concerned.

The appointment of full-time medical officers on a salaried basis and the elimination of private practice is an essential part of State medical services, but even in these circumstances care would have to be exercised to ensure that State medical men do not develop a "civil service" attitude. If conditions in the medical profession ceased to be particularly attractive, there would be little incentive for young men and women to embark on the long course of training involved in medicine.
Any scheme for the appointment of full-time medical officers - whether Railway or State - would have to provide for adequate rates of remuneration and other facilities for maintaining the status of the profession in order to ensure that a sufficient number of persons of the right type would enter the profession.

The Departmental Committee appointed to inquire into the working of the S.A.R. & H. Sick Fund in 1939 considered the question of the appointment of full-time Railway Medical Officers and reported as follows:

"The considerations advanced in favour of this suggestion (the appointment of full-time Railway Medical Officers) are:

(a) the practitioner appointed would have no outside interests to serve;

(b) he would be amenable to the Regulations of the Fund to a greater extent than a part-time Officer;

(c) being permanently appointed, he would be better able to develop the 'family doctor' attitude than Railway Medical Officers are under the present system;

(d) he would be relieved of anxiety in regard to his future by membership of the Superannuation Fund and other Railway privileges."

"The considerations advanced against full-time appointments:

(a) many of the medical practitioners in the Service at present, on a part-time basis, have reached an age where a full-time appointment, with the privilege of a pension, would not be attractive.

In adopting such a policy the Fund would, therefore, lose the services of some of the more experienced Railway Medical Officers, as the period in which they would superannuate would be too short to enable a reasonable pension to be earned;

(b) the appointment of full-time Medical Officers would not eliminate the possibility of undesirable practitioners being appointed. It might often be that the circumstances making them undesirable would arise after their appointment, and the procedure of dispensing with the
services of a full-time medical officer would, without doubt, involve a greater measure of difficulty than is the case under the present Railway Medical Officers' agreement;

(c) Whilst the services of a full-time medical officer would be available to members for a greater period of the day than is possible under existing conditions, a full-time officer would not be available for twenty-four hours per day, and the difficulties experienced in this direction with part-time officers would not be eliminated.

In this connection, the attention of the Committee has been directed to the existence in America of a double-shift of medical practitioners for certain benefit societies. The Committee would only remark that contributions by members of the societies concerned are very much higher than can be afforded by members of the Sick Fund;

(d) Members opposed to the suggestion expressed the fear that a full-time appointment might result in the adoption of an attitude of indifference, and that practitioners so appointed would adopt the 'sergeant-major' attitude towards members, which is a very undesirable feature."

The Committee did not recommend the appointment of full-time medical officers. The question should perhaps again be reviewed.

8. SPECIALIST SERVICES:

As already mentioned, in the larger centres the Sick Fund usually has in its service a general Surgeon, Aural Surgeon and an Ophthalmic Surgeon.

From the report of the Departmental Committee appointed to enquire into the working of the S.A.R. & H. Sick Fund, there would appear to be some confusion in regard to the functioning of Specialist services. On the one hand, Railway Medical Officers are expected to send Surgical cases to the Fund's Surgeon Specialist, but on the other hand are criticised for over-working Specialists in other branches of medicine. The following extract from the report of the Departmental Committee
in question indicates the attitude of the Committee in regard to the conditions under which Railway patients are referred to Specialists:-

A. "227. The tendency to send cases for specialist treatment that might well be dealt with by the Railway Medical Officers would appear to be growing. Evidence was obtained to show that in many cases patients were sent to specialists after a very cursory examination or no examination at all by Railway Medical Officers.

228. This tendency may have its growth in the fact that the Railway Medical Officers have to deal with so many patients in their consulting hours that they are unable to give that attention which the Fund considers warranted. In this respect, however, the Committee has already recommended the barring of household remedies for the purpose of permitting the Railway Medical Officer to devote more time to the cases which come before him."

(Para. 210 of the same report states - "Evidence reveals that in the large towns from 30 to 60% of the time spent by Railway Medical Officers at their consulting rooms is occupied with beneficiaries requiring household remedies only")

"229. Whatever the cause may be, the referring of cases to specialists is increasingly apparent as specialization extends its scope. The Fund invariably finds itself in the position of being compelled to appoint salaried specialists in order to limit expenditure involved by payments to specialists not in the Service of the Fund."

B. The report goes on to say that "there is an undoubted tendency on the part of Railway Medical Officers to overwork the salaried specialists to the Fund, and this becomes apparent immediately a new specialist appointment is effected by the Fund." "This tendency on the part of Railway Medical Officers results in the work of the specialist concerned being increased to such an extent that the Fund has difficulty in controverting claims from its specialists for increased remuneration based on increased work created after appointments are effected. With such working, therefore, there is the obvious danger that the position could become so acute as to cause financial embarrassment to the Fund by the effecting of additional salaried specialist appointments."

In spite of these objections, the Sick Fund in general requires Railway Medical Officers to perform operations only in cases of emergency, and at some centres where there is a large concentration of staff an appropriate allowance is paid for this service. The report states that,
"the practice of Railway Medical Officers performing surgical work in cases other than emergency is growing and, in this respect, is defeating the object of the Fund in providing specialist services. Whilst there is no evidence to indicate that this has acted unfavourably on members, the fact remains that the Fund remunerates its specialist surgeons for work they do not perform, and the members concerned are not receiving specialist attention."

It seems somewhat illogical that Railway Medical Officers should be encouraged to send surgical cases to a general surgeon specialist, but the practice of sending patients requiring other types of treatment to specialists is not favoured.

It is not the general policy of the Sick Fund to appoint Gynaecologists on a salaried basis and Gynaecological work is usually undertaken by the Fund’s General Surgeon. In this connection, the Departmental Committee reported, "the evidence obtained by the Committee from the surgeons tends to indicate that a very large proportion of the work that falls to the lot of the Fund’s General Surgeons is gynaecological." The surgeons in question informed the Committee that they considered themselves competent to undertake such work. The fact that the medical profession makes provision for gynaecological specialization, seems to indicate that there is a need for the services of Gynaecologists and the present Railway policy in this connection would appear to be unsatisfactory.

In the past, orthopaedic work was also usually undertaken by the General Surgeons, but arrangements were recently made for the treatment of fracture cases arising from injury-on-duty to be dealt with by Orthopaedic Surgeons in the larger centres.
It must obviously be left to the discretion of the general practitioner as to whether or not a case should be referred to a specialist and to select the particular type of specialist he considers most suitable in any individual case. If it is felt that Railway Medical Officers refer cases to specialists to reduce their own work, it would be better to reduce their work in some other way. Beneficiaries should not be discouraged from consulting Railway Medical Officers in connection with what might appear to be trivial ailments, but they should be discouraged from treating themselves with household remedies. Railway Medical Officers might be relieved of some of this work by the provision of suitable clinical services on the lines indicated in the chapter dealing with "Health and Welfare Services." These clinics should be established in railway offices, workshops, running sheds, etc., where a sufficient number of staff is congregated, and should be staffed with a Medical Officer trained in social medicine, a trained nurse and a social worker. Entrance medical examinations could possibly be undertaken in the clinics and minor injuries and illness which occur during working hours could be dealt with.

9. REHABILITATIVE SERVICES:

The activities of the Sick Fund include very little scientific rehabilitative work. This is work in which the medical man cannot operate single-handed for the purely medical services have to be integrated with social work, occupational therapy and employment requirements.

In "Health and Social Welfare", Anne Carr makes the following remarks in regard to rehabilitative services:

"The new conception of rehabilitation very much enlarges the field of the doctor's responsibilities in dealing with his patients and links him, not only with the therapists, but with social workers and industrial experts. Medical training has concentrated
rather on the use of technical apparatus for diagnosis and treatment; it has tended to overlook that the "case" is a human being and that a thorough understanding of his psychology and social and family conditions are also necessary to treat him as a whole. "Rehabilitation" is concerned, not only with the restoration of lost health and physical power, but with the maintenance of general health and vitality during the course of illness or of treatment for injury."

Rehabilitative work should rightly be under the control of the State and facilities for rehabilitation should be made available in all institutions for the treatment and care of the sick and disabled. Since South Africa has not yet advanced to the stage where rehabilitative services are general, it might be advantageous for the Railway Administration to introduce services of its own.

A Railway rehabilitation scheme could quite easily be put into effect by arranging for the Sick Fund, Staff offices and Health and Welfare Department to work in conjunction with medical men dealing with cases which require rehabilitative treatment. In the final chapter reference is made to the possibility of introducing a rehabilitative scheme at the Central Railway Training School.

Social workers play an important part in rehabilitative work and welfare officers on the staff of the Health and Welfare Department are qualified to give assistance in this direction. The services of occupational therapists would, however, also be required. The social worker would form a link between the various parties concerned in the rehabilitative process and would maintain contact with the patient from the onset of illness until the return to work.

Railway rehabilitative work would, of course, include injury-on-duty cases, but would by no means be confined to these cases or the rehabilitation of fracture patients.
10. PERSONAL PROMOTIVE HEALTH SERVICES:

As indicated in the report by the National Health Services Commission, personal promotive health measures can best be undertaken by the State. Private medical practitioners seldom have the facilities or the time to engage in such work and their efforts are mainly confined to remedial work. The whole Railway Sick Fund scheme works on the principle of private medical practice and remedial work.

The medical man cannot be expected to carry out the dual task of remedying illness and maintaining health singlehanded. Modern developments in the field of medicine are making it more and more necessary for him to work as a member of a team in which the services of specialists, technicians and experts in allied fields are readily available.

The most important feature of personal promotive health work is to forestall disease, and there are two approaches to this goal:

(i) the early diagnosis and treatment of unsuspected disease, and

(ii) isolating the factors which are likely to lead to disease in particular individuals.

The most effective way of achieving these ends would be by a system of periodical medical examinations. Insofar as the Railway Sick Fund is concerned, it might be argued that the Railway Medical Officers are already overworked and that they could not be expected to undertake an annual or biennial examination of all Sick Fund members. Even if they had the time, they would require assistance in the form of equipment and staff.

The health centre has been found to be the most efficient way of providing these facilities, and the Government has agreed to implement the recommendations of the National Health Service Committee in regard to the
establishment of health centres. It may, however, be a long time before such services become generally available and the Administration will have to decide whether or not it is desirable to introduce some interim programme to promote the health of Railway servants in the meantime. A scheme which might be considered would be the establishment of community centres based on purely promotive health lines, but as a temporary measure the periodical medical examination of Railway servants and their families might be undertaken. This would involve the appointment of a certain number of additional Railway medical officers. Before deciding whether or not such a scheme would be financially justifiable, it would be necessary to know the estimated cost of sickness among Railway servants, to the Administration. Such costs would have to include, not only the cost of sick pay, hospitalization, medical staff and the administrative work in connection with the running of the Sick Fund, but also the indirect cost of idle machines, lowered production, delays, relief staff and overhead costs.

A proposal for the establishment of community centres is outlined in the conclusions to the chapter on "Health and Welfare Services" and in the final chapter.

11. SICKNESS STATISTICS:

Sickness statistics in South Africa generally are inadequate and in the South African Railways, with the exception of an investigation into sickness absence in a few workshops, very little has been done in this direction. The factors associated with disease cannot be dealt with in anything but a haphazard way without accurate and detailed records.

The average general practitioner is too rushed to attempt to record detailed case histories of his patients.
or to analyze these records. This work will be greatly simplified when the National health centres are established where the services of social workers and clerical assistants would be available.

In the meantime, health records and sickness statistics would be of value in the South African Railways. Sickness rates in the Railways could be calculated in relation to different occupations, different parts of the country and different income and age levels. The incidence of particular types of sickness could also be considered in relation to these factors. In the light of such knowledge, the factors associated with sickness among Railway staff could be isolated and remedial measures could be introduced on a systematic basis.

The present practice in the South African Railways is for particulars of sickness absence and diagnosis to be recorded on the staff files of the servants concerned but, since these files are scattered all over the Union, it is not possible to get a complete picture of sickness absence and its causes. In any case, it would be desirable for the information contained in the staff files to be supplemented by family case histories and employment data.

The British Post Office maintains accurate sick records of all its employees from the age of 15 to 60 years and, in the words of Dr. Bashford, formerly Chief Medical Officer to the British Post Office, "It is possible to assess the significance, under practical everyday working conditions, of certain medical abnormalities or affections, or of the value of certain forms of treatment, with an exactitude and over periods of time scarcely attainable in other ways."
1. DEVELOPMENT OF ACCIDENT INSURANCE:

The first system of insurance against industrial accidents was introduced in Germany in 1884. Under the scheme employers were required to join mutual accident insurance associations, and assessments were levied in accordance with the hazards of the enterprise. The rate of compensation was determined by a fixed schedule, but accident benefits were not paid until after the expiration of thirteen weeks absence. During this initial period the workman was paid out of the sickness insurance fund to which both employers and employees contributed. The German law made provision for medical and surgical treatment as well as financial compensation.

Accident insurance was established in Norway in 1894 in a slightly different form. Provision was made for a State insurance fund instead of mutual insurance associations, and the premiums paid by employers were determined on the basis of the total wages of employees and the degree of hazard of the work undertaken. Compensation, in accordance with a fixed schedule, was paid by the State out of the State fund.

In England until 1880 the workman could only obtain compensation if he was successful in a common law action against his employers, and this entailed proof of negligence on the part of his employers. If a workman was killed in, or died as the result of an industrial accident, his family had no right of action and, therefore, could not claim compensation.

In 1897 a new principle was introduced in England, in that liability to pay compensation was imposed upon the employer in the case of a workman sustaining injury "by accident arising out of and in the course of his
employment." Even the worker's own negligence, provided it did not constitute wilful misconduct, did not necessarily debar him from benefits. If death or permanent disability resulted even in the case of wilful misconduct, benefits were paid.

The Act of 1897 prescribed a schedule of benefits for injuries resulting from industrial accidents in the more dangerous industries and, although no provision was made for the compulsory insurance of employers, the payment of compensation in accordance with a fixed scale was laid down.

In 1906 an Act was passed which extended the scheme to cover the majority of employers in Great Britain and compensation for scheduled industrial diseases was included. The Workmen's Compensation System in England at this time differed from other methods of insurance against interruption of earnings in that it was largely influenced by the legal conception of personal liability and liability was placed upon the individual employer.

The National Insurance (Industrial Injuries) Act of 1946, remedied the legal defects which were inherent in the earlier Act. Liability, instead of being on the individual employer, was placed upon a Central Fund and arrangements were made for the scheme to be administered by the Ministry of National Insurance. The main provisions of the new Act are that:

(i) all persons employed in Great Britain under any contract of service or apprenticeship are insured without income limit;

(ii) benefits are related to the degree of disablement caused by the industrial accident or disease and not to loss of earning power.

In South Africa before the Act of Union in 1910, only the Cape of Good Hope and the Transvaal Colonies had workmen's compensation legislation, and the Orange Free State and Natal had no statutes dealing specifically with the
subject.

In 1914 the first Union Workmen's Compensation Act was passed and in 1917 the provisions of the Act were extended to include certain specific diseases resulting from the nature of the workman's employment.

Further legislation was passed in 1934, and the Workmen's Compensation Act (No. 59) came into operation in 1935. The provisions of this Act were largely remedial and it was planned on a less scientific basis than the Act of 1941.

The Workmen's Compensation Act (No. 30) of 1941 was passed to amend and consolidate the laws relating to workmen's compensation and the creation of a central accident fund was perhaps the most important departure from the earlier legislation.

2. **WORKMEN'S COMPENSATION IN SOUTH AFRICA:**

In South Africa there is a State administering authority, consisting of the Workmen's Compensation Commissioner, whose authority is final, but who is assisted by assessors in cases where disputes arise. The assessors are representative of employers and employees in each industry. Insurance is compulsory with a State fund known as the Accident Fund - exception is made in the case of the State as an employer and local authorities employing 500 or more Europeans. Every employer (other than the exempted employers mentioned above) is assessed by the Workmen's Compensation Commissioner on the basis of such percentage of the annual wages of his workmen as the Commissioner deems necessary.

In other respects the South African Legislation is in principle very similar to the Workmen's Compensation Act which was passed in England in 1897. It imposes a liability on the employer to pay compensation to the injured workman, or, if the injury be fatal, to his
dependants, although there has been no wrongful act or omission on the part of the employer or anyone employed by him.

(a) **Employer's Negligence:** In terms of Section 43(1) of the Act of 1941, if the workman's injury is in any way attributable to the negligence of the employer, or a person acting in his behalf or to a defect in the condition of the premises, works, plant or machinery used in his business, the Commissioner may award additional compensation.

(b) **Employer's Liability:** Liability is imposed on all employers of "workmen". The definition of "workman" includes any person who has entered into or works under a contract of service or of apprenticeship or learnership, with an employer, excluding domestic servants and agricultural labourers. The Act of 1941 excluded persons whose earnings exceeded £750 a year. The Act to amend the Workmen's Compensation Act, which was passed in 1945, introduced a new principle in this respect and includes persons whose incomes exceed £750 a year, provided that the employer of such person or class of persons has made special arrangements with the Commissioner. The Amending Act, therefore, paves the way for the inclusion of all employed persons within the scope of workmen's compensation.

(c) **Contracting out of the Act:** In terms of Section 32, contracting out of the Act is forbidden, but "where the Commissioner is satisfied that by reason of old age or serious physical infirmity or any previous injury, a person, if employed as a workman, is specially liable to meet with an accident or, if he meets with an accident is specially liable to sustain serious injury he may, in connection with any contract for such employment
authorise the workman and the employer to agree that compensation less than that prescribed, to such extent and in such circumstances as he may authorise, shall be payable in respect of an accident to the workman." The minimum compensation payable in such circumstances is half the normal rate, and compensation is only reduced when the workman's serious physical infirmity, old age or previous injury has caused or contributed to the accident, the seriousness of the injury or death.

(d) Preventive and Rehabilitative Measures:
The Act makes provision for preventive and rehabilitative measures and in terms of Section 14 the Commissioner may give effect to any scheme which he deems suitable:

(1) for the prevention of accidents or scheduled diseases;
(2) for aiding injured workmen to return to work;
(3) for assisting workmen in reducing or removing any handicap resulting from their injuries;
(4) collect and record statistics and information relating to the occurrence or cause of accidents and scheduled diseases and the grant of benefits to persons under this Act.

In this connection, the office of the Workmen's Compensation Commissioner recently issued a memorandum on accident frequency and severity statistics, suggesting that all employers of labour should keep regular accident records and statistics. The memorandum states that one of the most important functions of the Workmen's Compensation office is to give effect to schemes for the prevention of accidents and that the success or failure of any such scheme can only be judged in the light of statistical records kept over a long period. The memorandum outlines a method for the maintenance of accident records on a uniform basis.

(e) Conditions under which Compensation is Payable: Chapter III sets out the conditions under which compensation is payable, in the following terms:
"If an accident happens to a workman resulting in his disablement or death, such workman shall be entitled to compensation in accordance with the provisions of this Act."

Compensation is not payable for the first three days of disablement which lasts for less than two weeks in the case of a European workman, and Natives receive no compensation for a disablement lasting less than seven days. If a Native workman is in receipt of food and quarters, he receives no compensation for a disablement lasting less than fourteen days.

(f) Conditions under which Compensation may be refused:

1. If the accident is attributable to the serious and wilful misconduct of the workman, unless such accident results in serious disablement, or the workman has died in consequence thereof leaving any dependant wholly dependent upon him;

2. in respect of disablement or death, if the accident would not have occurred, or if the disablement or death would not have resulted, but for the pre-existing diseased condition or physical defect or infirmity of the workman, or any injury previously sustained by the workman, the existence of which was known to the workman but unknown to the employer - provided that the Commissioner may in his discretion award such compensation as he deems equitable if in his opinion the accident materially increased the extent of the disablement or materially accelerated the death;

3. in respect of his death, if the workman dies more than 12 months after the accident, unless it is proved that the accident directly caused the death, or was the principal contributory cause of death.

(g) Determination of Amount of Compensation payable: The amount of compensation to be paid is determined
on the following basis:-

(i) **Temporary Disablement:**

Compensation is paid to all workmen temporarily disabled, in the form of periodical payments proportionate to their average monthly earnings, on the following basis:

**Europeans:**

- 66-2/3% of earnings up to £20 per month, and 37-1/2% of earnings in excess of £20 per month, but not exceeding £33.6.8d. per month.
- Compensations may be increased to an amount not exceeding the workman's earnings or £6.10.0d. a month, up to 12 months - or longer at the discretion of the Commissioner.

**Natives:**

In the case of a Native workman whose monthly earnings do not exceed £15.6.8d., periodical payments are paid for a period not exceeding 12 months on the basis of 66-2/3% of his monthly earnings. The period may, however, be extended by the Commissioner.

(ii) ** Permanent Disablement (Europeans):**

Compensation for permanent disablement is determined by the degree of disability in accordance with a fixed schedule. Where the disablement is 25% or less, payment is made in the form of a lumpsum. In cases where the disablement is over 25%, compensation is paid on the basis of a monthly pension.

In the case of a 25% disablement a lumpsum equal to ten times the monthly earnings of the workman up to £20 a month, plus six times the monthly earnings in excess of £20 and not exceeding £33.6.8d. per month, is paid.

Disablement under 25% is compensated for on a proportionate basis.

In the case of 100% disablement a monthly pension is paid which is equal to 66-2/3% of the monthly earnings up to £20 per month, plus 37-1/2% of earnings in excess of £20 a month up to £33.6.8d. The amount may be increased in the discretion of the Commissioner to an amount not exceeding the workman's earnings or £6.10.0d. a month.

Where an injured workman requires constant attendance, additional benefits may be paid in respect of such help.
Natives:
In the case of a Native workman the compensation payable for permanent disablement is as follows:

100% disablement - a lump sum equal to 30 times the workman's monthly earnings up to £20 of such earnings, plus 15 times his monthly earnings in excess of £20, with a minimum compensation of £150 and a maximum of £800. Where the degree of disablement is less than 100%, the compensation is proportionately decreased.

(iii) Death:
In the case of a workman who dies as a result of an accident sustained in the course of his work, compensation is paid to his dependants on the following basis:

(a) A widow or invalid widower, and no children, receives a lump sum not exceeding twice the workman's monthly earnings or £50, whichever is the less, and a monthly pension equal to 35% of the pension which would have been granted to the workman if totally and permanently disabled.

(b) If the workman leaves as dependants a widow or widower and one or more children, the widow or widower receives the compensation mentioned in the preceding paragraph (a) and compensation is also awarded to the child or children, provided the total compensation does not exceed the compensation which would have been granted to the workman if he had been totally and permanently disabled:

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<thead>
<tr>
<th>Number of Children</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>1</td>
<td>20%</td>
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<td>2</td>
<td>35%</td>
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<td>3</td>
<td>50%</td>
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<td>4</td>
<td>60%</td>
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<tr>
<td>5</td>
<td>65%</td>
</tr>
<tr>
<td>6 or more children</td>
<td>70%</td>
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The compensation payable to a child ceases when the child reaches the age of 16 years, or dies, or marries before reaching that age. The Commissioner may, however, in his discretion continue payment after the age of 16 years.

(c) In the case of the death of the widow or invalid widower, the pension payable to children of the workman may, in the discretion of the Commissioner, be increased by an amount not exceeding the pension which was payable to the widow or invalid widower.
If the total compensation payable does not amount to at least an amount equal to two years' earnings of the workman, or £500, whichever is the less, the Commissioner may in his discretion increase the compensation to this extent.

In the case of re-marriage, the widow or invalid widower, is paid a lump sum equal to 24 times the monthly pension.

Natives: Where a Native workman dies and leaves dependants, compensation in the form of a lump sum is paid to the dependants. The amount of compensation is determined by the Commissioner according to the number of dependants and the degree of dependency, but it may not exceed the lump sum that would have been paid to the workman for permanent total disability.

(h) Medical Aid: Expenses incurred in respect of medical aid are borne for a period not exceeding one year from the date of the accident and up to an amount of £100, but if in the opinion of the Commissioner further medical aid is desirable, the period may be extended to two years. The Commissioner may also revive the right to periodical payments if the workman suffers further disablement as a result of the same accident, or undergoes further medical, surgical or remedial treatment necessitating absence from work, if the Commissioner is of the opinion that further treatment will reduce the disability from which the workman is suffering.

The employer may be permitted to arrange for medical aid to injured workmen, provided such arrangements are not less favourable than the medical aid prescribed in the Act.

Natives: Medical aid to Native workmen is on a similar basis, except that expenses are defrayed by the Commissioner for a period of six months instead of one year and the total expenditure allowed is £50 instead of £100.
Compensation Act are applied, but certain additional benefits are provided.

(i) In terms of the Act, persons earning more than £750 a year are not regarded as "workmen" and are, therefore, not eligible for compensation. The amendment to the Act makes provision for the inclusion of such persons if the employer makes special arrangements with the Commissioner. It is, however, not obligatory for the employer to do so. The Railway Administration has made provision for the inclusion of servants whose earnings exceed £750 per annum in the Railway and Harbours Service and Superannuation (Amendment) Act 1946 (Act No. 11 of 1946). Such servants are, therefore, regarded as "workmen" in terms of a statutory right.

(ii) A Railway servant who is 100% disabled or so disabled that he is unable to return to work and who is a member of the Superannuation Fund, is eligible for superannuation benefits as well as compensation in terms of the Workmen's Compensation Act.

(iii) A regular servant who is temporarily disabled is entitled to full pay for the full period of absence, until the injury reaches a stationary stage. Neither time limit nor the amount to be spent on medical aid is laid down, nor is there any waiting period before payments begin. The workman is also eligible for any compensation due in respect of any permanent disablement.

If further disability arises as the result of an accident, at any time after a Railway servant returns to work, he receives full pay and medical benefits for the period of absence.

(iv) Casual employees are eligible for benefits in terms of the provisions of the Act.

(v) In the case of Natives, periodical payments are assessed in terms of the Act, but the full cost of living
allowance is paid. All other benefits to natives are in accordance with the provisions of the Act.

(vi) In terms of Section 81 of the Act, the Railway Administration makes its own arrangements for the provision of medical aid to its servants, and these arrangements are in some respects more favourable to the injured servant since no limit is set for medical expenses.

(vii) The Railway Administration's entire staff of approximately 160,000 is covered for accident compensation. An average of 1,200 to 1,300 accidents occur each month which result in absences of more than three days.

(viii) A specially trained staff is employed to deal with workmen's compensation matters and most of the administrative work is carried out by these officers. Of the 1,200 to 1,300 cases which occur each month, only about 100 are referred to the Workmen's Compensation Commissioner. Cases are referred to the Commissioner where there is doubt as to whether liability should be accepted and where there is doubt as to the percentage of disablement. All cases where the percentage of disablement is in excess of 25%, i.e., cases in which a pension is paid, must be referred to the Commissioner.

(ix) Native cases are referred to the Director of Native Labour for an assessment of periodical payments.

ACCIDENT PREVENTION IN THE SOUTH AFRICAN RAILWAYS

The Railway Administration considers the following factors to be of major importance in the prevention of accidents:

(a) Careful Selection of Staff:
(Although staff selection is not in accordance with a scientific testing technique, specified qualifications are required for almost every type of work, with the exception of unskilled labouring duties. Scientific selection of staff, including aptitude and temperament testing is under consideration).

(b) Adequate Training:
A period of training is laid down for almost
every type of work - other than unskilled labouring duties - and the learner, probationer or trainee works under close supervision until he is "passed out" as competent in the type of work in which he is being trained.

The establishment of a central training school is a further development in the training scheme.

(c) **Safe System of Working:**
There are comprehensive safety regulations relating to the various services operated by the Administration with which members of the staff have to be conversant before they are appointed to operating positions.

(d) **Safety First Propaganda:**
A certain amount of safety-first propaganda is disseminated in the form of slogans on the weekly notice and the working timetable used by members of the operating staff.

(e) **Inspection of Railway Premises by Health Inspectors:**
Health inspectors visit railway workshops periodically mainly to ensure compliance with the Factories Act and to supervise workshop conditions insofar as the health of staff is concerned, but they are also in a position to report on accident hazards. The frequency of eye injuries recently received attention and ways and means of reducing the number of these accidents were suggested.

(f) **Awarding of Commendations:**
Commendations are awarded to members of the staff who avert accidents.

(g) **Payment of Bonuses:**
Bonuses are paid in certain circumstances to members of the staff who detect a defect which might lead to an accident.

(h) **Training in First Aid:**
It is considered that training in first aid makes employees safety-conscious. The railway administration has a large St. John Ambulance organization with a total membership of something over 1,000; employees are encouraged to join the St. John Ambulance Brigade and the administration bears the costs of instruction and administration. Competition work is arranged to stimulate interest and in competition the safety-first angle is stressed.

(i) **Safety-first movement:** Some years ago, there was a well developed safety-first movement in the Railways. This was abandoned, but has recently been resuscitated. It is the intention that the safety-first movement should be developed along scientific lines, which will entail an analysis of the causes of accidents and finding ways and means of preventing them.

**The Personal Factor in Accidents:**
The personal factor as a cause of accidents has not received attention and no attempt has so far been made to isolate the accident-prone person or to exclude him from hazardous occupations.
SUGGESTIONS FOR IMPROVING WORKMEN'S COMPENSATION ARRANGEMENTS IN THE SOUTH AFRICAN RAILWAYS

Preventive Measures:

More active preventive measures should be taken. The fact that present methods of prevention are not adequate is demonstrated by the large number of accidents which occur each year. An investigation of accidents should be conducted on the following lines:

(a) Accident records should be centralized and analysed;

(b) Accident rates should be calculated for different branches of the Service and different systems. An attempt should be made to discover the types of work in which accidents are likely to occur, and to isolate individual servants whose accident rate is higher than average for the type of work in which they are engaged.

(c) The total number of hours lost during the course of a year as the result of accidents and the total cost involved should be estimated. By bringing such costs to the light of day an additional incentive for reducing accidents would be provided.

(d) Tests for accident-proneness should be considered. Testing could be arranged in collaboration with the proposed Personnel Research Bureau.

Rehabilitative Measures:

The Administration should make better provision for the rehabilitation of injured servants, and every effort should be made to enable them to return to work with as little delay as possible. The present arrangements for placing employees on light work are unsatisfactory. Very often the responsible officer is unable to find any light work. If light work is available it might be work in which the servant is totally disinterested. A permanently disabled servant should, if possible, be trained for new work if he is unable to return to his former work. He should not just be placed on any work which happens to be offering. The case of a shunter who lost his right arm in a shunting accident is worth considering in this context. He was unable to return to shunting duties, but was appointed as a cloak-room attendant. In a short time it was apparent that he was drinking heavily. After misconducting himself
in front of a member of the public he was asked to resign. If he was a confirmed inebriate, he should never have been appointed as a shunter, and if his drunkenness was the result of his disability or the change in employment, it seems a pity that more adequate rehabilitative measures were not adopted.

GENERAL COMMENTS ON WORKMEN'S COMPENSATION ACT.

(1) Pension in the case of Permanent Disablement of less than 100%: Hardship is often caused when a workman is permanently disabled to the extent that he is unable to return to work, but is not 100% disabled. The case of a 31 year old fitter might be cited. While operating a grinding-machine, he was struck on the head by a fragment of grind-stone which became dislodged from the machine, and he fell on to a concrete floor. He was detained in hospital for about two weeks with concussion and returned to work, but suffered from severe headaches and depression. He then received further medical treatment and was away from work for a considerable period. When he eventually returned to work, the headaches recurred and these seemed to be aggravated by the noise and conditions generally in the workshops. He was granted six months leave on full pay, but at the end of this period still felt unable to return to work.

The disability was stated to be partly psychological and was assessed at 30%. In such cases it seems desirable that better provision should be made for rehabilitation and for re-training.

(ii) Pension for 100% Permanent Disablement: In the case of 100% disablement, the total pension of a low income wage earner is often inadequate, and where there are minor children supplementary assistance is often necessary. The pension arrangements should perhaps be a little more flexible in such circumstances so that individual cases...
could be considered on merit.

(iii) Preventive Measures: Although statistics are kept, no very strong compulsory preventive measures have been taken. The memorandum on the frequency and severity of accidents which has been distributed to employers would have been of greater value if it had been made obligatory for all employers to keep records.

(iv) Rehabilitative Measures: It seems desirable that the Act should include better provision for rehabilitative measures. Suitable training schools should be set up and disabled workers should be trained for new occupations when they are unable to return to their former employment. Additional sheltered employment schemes for cases of severe disability are also required – particularly for non-Europeans. Existing schemes are inadequate to meet present requirements.

Long periods of absence from work are known to have a demoralizing effect on the worker, who is liable to develop either a "won't work" or "can't work" attitude. Since employers might be somewhat reluctant to go to the trouble of finding suitable employment for a partially incapacitated worker and they might be genuinely unable to do so, the establishment of special employment schemes for the temporary employment of industrially injured persons might be considered.

Special sheltered employment schemes for industrial casualties might also be introduced. It is suggested that these schemes should provide facilities for the re-training of disabled workers who are unable to return to their former occupations, but who are capable of labour in the open market, and for the permanent employment of permanently incapacitated workers.

In this connection reference should be made to the training and re-settlement schemes which were set up in Great Britain during the war. These schemes provide training facilities for new labour and for the re-training of disabled persons who are capable of normal employment. In addition special residential training centres were established for severely disabled persons.

The post-hospital rehabilitative centres for special groups of industrial workers, including railwaymen, are also of interest. In these centres the patient is given a period of active, medically directed convalescence away from the hospital or sick-room atmosphere.

The medical rehabilitation centre at Roffey Park, Horsham, England, is another type of rehabilitative service which would be of great value in South Africa. This centre specializes in the rehabilitation of persons with mental and nervous disorders which often cause or aggravate physical symptoms.

It would be useful if some form of contact could be made with the injured workman and his family in cases where disablement is likely to be permanent or of
long duration. This could perhaps be arranged in collaboration with the Union Social Welfare Department or Social Welfare Agencies.

In the case of serious accidents where the worker is likely to be permanently disabled or temporarily disabled for a long period, prompt action might be the means of avoiding some of the psychological accompaniments which are often associated with industrial injury. The possibility of unemployment would be reduced and the worker would be likely to be better adjusted and less of a burden on the State.

(v) Payment of Lump Sum Compensation to Natives: The payment of a lumpsum instead of a pension in the case of Natives who suffer permanent disablement, is unsatisfactory. It is more necessary for Natives to receive a pension than Europeans for on the whole they are less provident and know less about investing money. This step was recommended by the Social Security Committee, but the recommendation was not accepted by the Government.

(vi) Periodical Payments to Natives: In the case of Europeans no compensation is payable where disablement necessitates absence from work for less than three days. It is difficult to know why the period is seven days in the case of Natives.

UNEMPLOYMENT INSURANCE.

The unemployment insurance Act (Act No. 53 of 1946) is of special significance because it marks the first step in the direction of contributory social insurance in South Africa. The Workmen's Compensation Act is the only other contributory scheme, but employees do not contribute towards this form of security.

It is not proposed to deal with unemployment insurance in any detail since it is the policy of the Railway Administration to stabilize its labour force and to encourage continuity of employment among all classes of workers.
In terms of Section 2 (o)(i) and (ii) of the Act, persons in the permanent employment of the Railways in terms of the Railway and Harbours Service Act (Act No. 23 of 1925) and persons on the regular non-European staff establishment of the Railways, are exempted from unemployment insurance. In addition, persons whose earnings exceed £750 a year are automatically excluded from the provisions of the Act. Casual and temporary servants in the service of the Railway Administration are, however, required to contribute to the Unemployment Insurance Fund, and in terms of Section 32 of the Act the Railway Administration is required to contribute on the prescribed basis in respect of such servants.

In terms of the Act, an Unemployment Insurance Fund was established and funds are derived from the following sources:

(a) the contributions of employers and contributors;
(b) contributions of the Minister from the Consolidated Revenue Fund in terms of Sub-section (2) of Section 32 of the Act;
(c) Any moneys paid as penalties under the Act;
(d) any interest from investments of the Fund;
(e) any moneys appropriated by Parliament for the payment of advances to defray expenditure incurred in connection with the administration of the Act, including the payment of benefits in terms thereof, as the Minister, in consultation with the Treasury, may determine. (The moneys so advanced and the interest thereon shall be a charge upon the Fund).
(f) the assets of the central unemployment benefit fund established under Section 29 of the Unemployment Benefit Act (Act No. 25 of 1937), and of the unemployment benefit funds established under Section 4 of the Act.

The Fund is under the control of the Secretary for Labour who is assisted by an Unemployment Board consisting of Representatives of employers and employees and Unemployment Benefit Committees which are also representative of employers and employees. The functions of the Board and the Committees are set out in Sections
13 and 16 of the Act respectively.

The benefits paid to a contributor during any period of unemployment are calculated in terms of his earnings when he was last employed, on the following basis:

1. Up to £78 per annum ................. 22/6 per calendar week or 3/4 of weekly earnings whichever is the lesser.

2. Exceeding £78 but not exceeding £130 ........................................ 25/- per calendar week

3. Exceeding £130 but not exceeding £182 ........................................ 30/- per calendar week

4. Exceeding £182 but not exceeding £234 ........................................ 40/- per calendar week

5. Exceeding £234 but not exceeding £286 ........................................ 40/- per calendar week

6. Exceeding £286 but not exceeding £338 ........................................ 45/- per calendar week

7. Exceeding £338 but not exceeding £750 ........................................ 50/- per calendar week

Unemployment benefits are normally restricted to 26 weeks in any one year, and except in special circumstances no payments are made during the first week of unemployment. In addition contributions must have been paid for a minimum period of 13 weeks - not necessarily continuously - and the unemployed person must be capable of and available for work. Full details relating to payment of benefits are set out in Section 40 of the Act.

OLD AGE INSURANCE.

1. DEVELOPMENT OF OLD AGE INSURANCE:

With the exception of Germany, where compulsory old age insurance was introduced in 1889, the earliest old age pension schemes were on a non-contributory basis, and the first of these schemes was introduced in Denmark in 1891. Within the next 20 years New Zealand, Australia, France, and Great Britain had established similar schemes.
Old age insurance, or old age pensions on a contributory basis, are a later development and in many countries the non-contributory pension has gradually been replaced or supplemented by a contributory scheme of some sort.

In the United States, non-contributory pensions at present cater primarily for agricultural and independent workers, but it is likely that the Federal scheme of old-age and survivors' insurance will eventually cover the whole employed population and the necessity for non-contributory pensions will fall away. In terms of the Social Security Act of 1935 (amended in 1939) benefits to the aged are of two types - (1) assistance or gratuitous pensions for the immediate relief of the destitute aged; (2) annuities on a contributory and contractual basis which are intended as the long term solution.

In Great Britain the non-contributory pension survives largely as a means of providing for persons who were not in the past in insurable occupations and are now in need. Payment of the non-contributory pension is conditional upon a means test. The new National Insurance Scheme aims at including the entire population in the contributory scheme and it is expected that within ten years the whole present uninsured population will become eligible for old age pensions as of right.

In South Africa old age pensions were introduced for European and Coloured people on a non-contributory basis in terms of the Old Age Pensions Act (No. 22 of 1928).

Public servants, local authority employees and employees in public utility companies and some large industrial undertakings are, however, able to participate in superannuation schemes which function on a contributory
basis. Such schemes are common in other countries, such as Great Britain and America. The advantages of superannuation schemes to both employer and employee are obvious. From the employee's point of view they provide a substantial degree of security. From the employer's point of view the greatest asset probably lies in the encouragement of continuity of service. Patterson in "Social Aspects of Industry" suggests the following reasons for the introduction of pension schemes by industrial undertakings:— "The purpose of private pension systems of large industrial concerns were both humanitarian and selfish, both idealistic and practical. Pension systems made for efficiency, stability and loyalty among employees. The aged and inefficient worker was removed from an industrial organization in which speed and accuracy were vital. Pension plans also reduced labour turnover and industrial conflict."

Superannuation may be defined as a type of old age pension which bears a direct relation to the employee's salary at the time of retirement and his length of service.

In many countries the superannuation schemes for public servants have been the forerunners of general schemes of compulsory pension insurance and in South Africa it is possible that this pattern will eventually be followed. It is, however, significant that in Great Britain the development of social insurance and superannuation has been parallel, and approximately 2,500,000 people participate in superannuation schemes of some kind. A satisfactory feature of superannuation is that the rate of benefit is related to previous earnings and enables the retired worker to maintain a standard of living approximating to his accustomed level.
SUPERANNUATION IN THE S.A.R.

1. CONDITIONS:

The South African Railway Administration, in common with other State Departments in South Africa, provides superannuation benefits for its employees on a contributory basis. This form of old age insurance in the Railways is of long standing, for pension schemes were in operation in all the State transport services before they were amalgamated at the time of Union to form the South African Railways and Harbours.

In 1912 provision was made by Parliament for "the payment of certain retiring allowances to persons in the employment of the Department of Railways and Harbours of the Union" and for the amalgamation of the old superannuation funds to form a new fund - i.e. the Railways and Harbours Superannuation Fund.

In 1925 another Act was passed (Act No. 24 of 1925) "to make further provision as to retiring pensions or other financial benefits payable to servants in the Department of Railways and Harbours of the Union, and to amend certain laws relating thereto." Under this Act the 1912 Fund was closed and the new Railways and Harbours Superannuation Fund was constituted. In terms of Section (42) of this Act certain regulations relating to the administration of the Act were framed by the Railway Administration and published in 1940.

The Superannuation Fund is managed by a Committee of Management known as the Joint Committee, consisting of servants of the Administration. Half of the members of the Committee are elected by members of the Fund and half are nominated by the Administration. The Chairman of the Committee is also nominated by the Administration.

The Act stipulates that "the Joint Committee
shall appoint from its members a sub-committee with such powers as may be prescribed." This committee is known as the Executive Committee and consists of the Chairman and two members of the Joint Committee. One member is elected by the nominated members of the Joint Committee and the other is elected by the elected members.

The functions of the Joint Committee are laid down in Regulation (21) in the following terms:-

"The Joint Committee, or the Executive Committee on its behalf, shall, subject to the provisions of the Act and these Regulations, and to the control of the Administration, have power to examine, approve, confirm or reject any application for admission to membership of the Fund or the New Fund when an unqualified Medical Certificate is not obtained or in regard to which any dispute or question arises, to settle questions in respect of contributions, to examine, approve, or decide upon the periods of service on which contributions may be made; to decide questions with reference to claims made upon the Fund or the New Fund; to settle all disputed points with reference to annuities and other benefits; to authorise the payment of all amounts due to dependants other than widows or minor children, in terms of Section 33 of Act No. 24 of 1925 or Section 50 of Act No. 28 of 1912; and to carry out and perform the several duties prescribed by the Acts or by these Regulations."

The functions of the Executive Committee are defined in Regulation (17) and are as follows:-

"During the intervals between the meetings of the Joint Committee, the affairs of the Fund and the New Fund shall be administered by the Executive Committee, subject to such directions as may from time to time be given by the Joint Committee."

The Secretary of the Superannuation Fund is appointed and paid by the Railway Administration, but is under the control of the Joint Committee, subject to the provisions of the Superannuation Fund Acts and Regulations.

a. Membership: Every European servant of the Administration who has obtained a satisfactory certificate of physical fitness, automatically becomes a member of the Superannuation Fund on being appointed to the Railway Service, unless:

(i) he is less than 16 years of age, in which case his membership will commence on his sixteenth birthday;

(ii) his contract of engagement is for a fixed period and does not provide for membership;
(iii) he is employed in a casual capacity.

(Non-European servants are not eligible for membership of the Superannuation Fund, but are entitled to certain retiring benefits in terms of the Gratuities Act, which is discussed later in this chapter).

b. Contributions: The rate of contribution to the Fund is determined by two factors:-

(i) The class of servant to which the member belongs, i.e. officer or employee;

(ii) Age.

Contributions are computed on the non-intermittent emoluments, i.e. excluding overtime payments, allowances, etc. The following table shows the rates of contribution for officers and employees:

<table>
<thead>
<tr>
<th>Age at date from which contributions payable</th>
<th>Percentage of Pensionable Emoluments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Officers</td>
</tr>
<tr>
<td>16 to 21 years</td>
<td>5%</td>
</tr>
<tr>
<td>Over 21 but not exceeding 27 years</td>
<td>5%</td>
</tr>
<tr>
<td><strong>27</strong></td>
<td>5%</td>
</tr>
<tr>
<td><strong>33</strong></td>
<td>6%</td>
</tr>
<tr>
<td><strong>39</strong></td>
<td>7%</td>
</tr>
<tr>
<td><strong>45</strong></td>
<td></td>
</tr>
</tbody>
</table>

Contributions are deducted monthly from earnings through the medium of the servant's paysheet, on the following basis:-

1. A servant who is remunerated by salary calculated annually contributes on one-twelfth of the full annual pensionable emoluments.

2. An employee remunerated at a monthly rate of pay contributes on the full monthly pensionable emoluments or on thirty times the equivalent daily pensionable emoluments, whichever is the greater.

3. A daily paid employee contributes on thirty times the daily pensionable emoluments; and

4. An employee remunerated at an hourly rate of pay contributes on two-hundred-and-forty times the hourly pensionable emoluments.

c. Benefits: On retirement from the Service, which may be due to:-

(1) Attaining the age limit, which is 60 years - except in the case of telegraphists, engine-drivers, firemen (of locomotives) or divers, when it is 55 years.
Severe bodily injury or ill-health or physical disability, occasioned without the member's own default, which disables the servant permanently from exercising the duties of his post; a member is entitled to an annuity or gratuity depending upon the length of his membership of the Fund.

Annuities are calculated at the rate of one-sixtieth for each year of membership of the Fund, of the average annual pensionable emoluments of the seven years immediately preceding retirement. A member who has not contributed to the Fund for a period of at least ten years is not entitled to an annuity.

A servant has the right to elect to commute for a single cash payment any annuity not exceeding £36, and a portion not exceeding one-third of an annuity of more than £36. In the case of a member who elects to commute an annuity not exceeding £36 for a single cash payment, such payment is calculated actuarially according to the period for which the recipient may be expected to draw the annuity, the minimum payment being not less than twice the amount of his contributions to the Fund. In the case of a member who elects to commute a portion not exceeding one-third of an annuity of more than £36, for a lumpsum, the payment must not be less than an amount which bears the same proportion to the commuted portion of the annuity as twice the amount of the member's contribution to the fund bears to the full annuity.

d. Resignation: A servant who, after giving the notice required by law, regulation or contract, retires voluntarily from the Service before superannuation, is entitled to a refund equal to the amount of his own contributions, plus 10% of such amount in respect of each complete year for which he has contributed in excess of thirteen years.

e. Retirement of Female Servants on Marriage: A female servant who is discharged or required to resign
from the Service on her marriage or who voluntarily retires from the Service in contemplation of her marriage and marries within three months after retirement, is paid not less than twice the amount of her contributions to the Fund.

f. Dismissal for Misconduct: On dismissal for misconduct an amount equal to the member's own contribution, without any addition, is paid to him. The same conditions apply when a member leaves the Service by deserting, refusing to serve, or resigns without having given the prescribed period of notice.

g. Death of a Member: On the death of a member, the following benefits are payable to his dependants:-

1. If death is due to an industrial accident or disease arising out of or in the course of the member's employment, a sum equal to twice the amount of his own contributions, plus 2½% of such sum in respect of each complete year for which he has contributed, is paid to his dependants.

(This amount is paid in addition to the compensation provided for in terms of the Workmen's Compensation Act).

2. If death is due to any other cause, a sum equal to twice the member's contributions without any addition is paid to his dependants.

(Section 33 of Act No. 24 of 1925 defines the type of dependants of a deceased member to whom the payment of contributions may be made, in the following terms:—

(i) (a) a widow or widower, or minor children or step-children, or dependent adult children or step-children; or

(b) a father, mother, brother or sister dependent upon him for support and maintenance but not any other collateral or more distant relative.

(ii) Payments shall be made in the following order of preference, unless that order be varied by the member by written notice in his lifetime to the Administration:-

(a) to the widow, or in the case of a deceased female member if it has been in writing so directed by her during her lifetime, to the widower; or

(b) to the children and step-children in equal shares; or

(c) to the father and mother in equal shares or to the survivor of them; or
(d) to the brothers and sisters in equal shares.

The mother of an illegitimate child or a dependent illegitimate or adopted child (whether or not the child was adopted under the provisions of the Adoption of Children Act 1923) have the same rights as a widow and a legitimate child, provided there is no widow or legitimate child.

Provision is also made for payment of benefits to dependants when a member dies after superannuation, subject to the following conditions:

The amount already paid out in pension instalments is deducted from the sum represented by twice the deceased member's contribution to the Fund. In addition, if part of the annuity has been commuted, the member's contributions shall be deemed to be reduced in the proportion which the commuted portion of the annuity bears to the full annuity. In the case of a member who dies before superannuation and leaves no dependants, provision is made for payment to be made to his estate; if he dies after superannuation payment may be made to his estate, subject to the conditions referred to in the preceding paragraph.

2. FINANCING OF THE RAILWAY SUPERANNUATION FUND:

a. The Railway Administration's Liabilities to the Fund:

(i) The Administration contributes a sum equal to the monthly aggregate of the amounts of contributions payable by members during each month. This sum must be paid on the last day of each respective month.

(ii) In addition, the Administration contributes such further sums as may from time to time be necessary to secure the solvency of the Fund.

(iii) The Administration bears the cost of conducting the business of the Fund, the cost of administering the Fund and of any actuarial investigations.

(iv) All the moneys of the Fund are held on behalf of members and interest is paid at the rate of 4½% per annum, monthly.
### Expenditure

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual annuities</td>
<td>903,592.95</td>
</tr>
<tr>
<td>Committed annuities</td>
<td>285,090.18</td>
</tr>
<tr>
<td>Benefits to representatives of deceased contributors</td>
<td>22,002.54</td>
</tr>
<tr>
<td>Accounts paid or payable to Members retired or deceased; before superannuation:</td>
<td></td>
</tr>
<tr>
<td>Voluntary retirees</td>
<td>108,723.12</td>
</tr>
<tr>
<td>on account of ill health</td>
<td>2,611.12</td>
</tr>
<tr>
<td>on account of age</td>
<td>--</td>
</tr>
<tr>
<td>on account of other causes</td>
<td>127,270.04</td>
</tr>
<tr>
<td>Other causes</td>
<td>19,062.72</td>
</tr>
<tr>
<td>TOTAL</td>
<td>61,571,553.12</td>
</tr>
</tbody>
</table>

### Revenue

By balance at 31st March, 1945

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue during year ended 31.3.46.</td>
<td></td>
</tr>
<tr>
<td>Contributions by Members</td>
<td>1,221,967.11</td>
</tr>
<tr>
<td>Contribution by Administration</td>
<td>1,202,248.12</td>
</tr>
<tr>
<td>Other Revenue:</td>
<td></td>
</tr>
<tr>
<td>Members, interest on contributions</td>
<td>5,268.46</td>
</tr>
<tr>
<td>Admin., interest &amp; for &amp;</td>
<td>3,985.10</td>
</tr>
<tr>
<td>Admin., interest on Fund balance</td>
<td>1,666,323.72</td>
</tr>
<tr>
<td>Contribution by Admin. to meet deficiency in Superannuation Fund</td>
<td>441,900.00</td>
</tr>
<tr>
<td>Other receipts</td>
<td>1,629.09</td>
</tr>
<tr>
<td>By balance</td>
<td>28,027,335.12</td>
</tr>
</tbody>
</table>

TOTAL REVENUE for year ended 31st March, 1946, including Administration's contribution to meet deficiency in the Fund

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRATUITIES</td>
<td></td>
</tr>
<tr>
<td>In terms of the Gratuities Act of 1941, every servant of the E.A.R. &amp; E. Administration (European or non-European) who is not eligible for membership of the Superannuation Fund is entitled to an annuity or gratuity after a period of five years continuous service, or</td>
<td></td>
</tr>
</tbody>
</table>
(11) AXLE ROLLING
by M. A. M. invest. 1968

Revenue during year ended 11.3.48.
Contributions by Balance 1,26,30,11. 3.
Contribution by Administration 1,26,30,11. 3.

Current revenue:
Interest on contribution 5,85, 4. 2.
Admin. Interest 4 for 6 5,85, 10. 3.
Admin. interest on End Service 1,14,85, 10. 3.
Contribution by Admin. to meet deficiency in 5,85, 10. 3.
Other receipts 60,00, 0. 0.

Expenditure
for 5,85, 10. 3 60,00, 0. 0.

In terms of the contributory act of 1941, every member of the...
interruption service which amounts in the aggregate to a
period of five years or longer, subject to the following
conditions:-

(1) on the date of retirement he is not - in respect
of the period of service for which benefit is
claimed under the Act - a member of, or
participant in, any pension or superannuation
fund or scheme under any law, and is not
qualified for a pension under any law;

(ii) has never - in respect of the period of service for
which benefit is claimed - been eligible for member-
ship of, or participation in, any such fund or
scheme (except the pension scheme provided for in
the Railways and Harbours Gratuity Act, 1928), or
was refused admission to, or participation in, any
such fund or scheme, although he was eligible for
membership or participation.

a. A servant with five years or more service, but less than
fifteen years service, is entitled to a gratuity equal to the
aggregate of his emoluments for the last 13 weekdays of
his service, for each year of service.

b. A servant with fifteen years or more service, but less
than twenty-five years service, is entitled to an annuity
not exceeding one-half of his annual earnings during the
last ten years of his service. Annuities are calculated
on the following scale:-

<table>
<thead>
<tr>
<th>Earnings on the date immediately preceding the date of retirement</th>
<th>Amount of Annuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/6d. or more per day</td>
<td>30/- per annum in respect of each year of service.</td>
</tr>
<tr>
<td>Less than 7/6d. per day</td>
<td>20/- per annum in respect of each year of service.</td>
</tr>
</tbody>
</table>

(At the request of the servant and with the concurrence of
the General Manager, a gratuity equal to one-eighteenth of
the average earnings in respect of each year of service,
may be granted).

c. A servant who has had twenty-five years or more service is
entitled to an annuity on the following scale:-

<table>
<thead>
<tr>
<th>Earnings on the date immediately preceding the date of retirement</th>
<th>Amount of Annuity</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/6d. or more per day</td>
<td>45/- per annum in respect of each year of service, not exceeding 40 years</td>
</tr>
<tr>
<td>Less than 7/6d. per day</td>
<td>30/- per annum in respect of each year of service, not exceeding 40 years</td>
</tr>
</tbody>
</table>
or to an annuity equal to two-thirds of his average annual earnings during the last ten years of his service, whichever is the less. Alternatively a gratuity equal to one-twelfth of the average earnings in respect of each year of service, not exceeding 40 years, may be granted under the conditions mentioned in (b).

In the case of the death of a servant while in the service of the Administration, or not in the Service in the case of an intermittent employee who would have been eligible for a gratuity and would probably have been re-employed, a gratuity is paid to a dependant or dependants in the discretion of the General Manager, subject to the following conditions:

The gratuity shall not exceed a sum equal to one-quarter of the emoluments which the deceased earned during the last 26 days of his service, for each year of service. Further, the General Manager may apportion the gratuity among two or more such dependants in such a manner as he deems equitable and he may pay out the gratuity in such instalments as he deems desirable.

If a person who is entitled to a pension in terms of the Act dies, his right to the pension or any part of the pension which has not yet been paid to him shall lapse; but the General Manager may, in his discretion, deal with any dependants in the manner outlined in the preceding paragraph.
CONCLUSIONS.

The Railway Administration's Superannuation Fund has much to commend it. Under this scheme there is no means test and a pension is granted as of right; the pension bears some relation to the worker's earnings at the time of retirement and to his length of service; and a servant who leaves the Service of his own free will gets back what he has paid into the Fund (with interest after a specified period).

The scheme compares favourably with the non-contributory superannuation scheme for public servants in Great Britain where there is no absolute right to a pension and the Treasury and the heads or principal officers of a Department have authority to dismiss any person from the public service without pension or compensation. Civil servants who leave the service of their own free will before reaching pensionable age receive neither pension nor gratuity nor any form of compensation for loss of pension "rights". Likewise, servants dismissed for misconduct receive no pension or compensation.

There are, however, certain deficiencies in the Railway Superannuation arrangements, the two more important of which are:

(i) Servants who cannot produce a clear medical certificate are not eligible for admission to the Fund. Subject to certain conditions, provision is made for their dependants under the Gratuities Act, but this is not very adequate.

(ii) No proper provision is made for the dependants of pensioners. When a pensioner dies, his pension ceases, and the amount he has already drawn as a pension is deducted from twice the contributions he has paid into the Fund, before payment is made to his dependants. In the case of a pensioner who dies, say, five years after the retiring age, it is possible that a very small sum would be available for his dependants. In the higher income groups such a contingency would be provided for by private insurance arrangements, but in the lower income groups this is not likely to be the case.

With regard to dependants the arrangements made
by the Transvaal Chamber of Mines are of interest. In the case of this pension scheme a member's widow receives a pension equal to one-third of the pension the member was receiving at the time of death. In addition, a pension equal to one-sixth of the pension the member was receiving is granted to each child (not exceeding 2) under the age of 18 years. If the widow is 55 at the time of her husband's death, or when she does attain the age of 55, provided there are no children eligible for benefit, the pension is increased to half of the pension which her husband was receiving.

If the member or pensioner dies and leaves no widow and there are children under 18 years of age, a pension equal to one-third of the pension which he would have received or was receiving is granted to each child (not exceeding 2) under 18 years of age. Such pension ceases if the child marries or dies before attaining the age of 18 years. The pension may, however, then be granted to any other eligible child in the family. If there are more than two children under the age of 18, the Trustees may, in their absolute discretion, apportion the pension among the children in such a way as they deem equitable.

Additional provision for a member's dependants is made in that any male married member may immediately upon retirement on pension, commute his pension for a joint pension payable until the death of the survivor of himself and his wife. There is, however, no definite ruling as to the amount of such pension, which is decided by the Trustees acting upon the advice of the Actuary "who shall have regard to the ages of the member and his wife and children and to the state of health of all parties." The other provisions for dependants mentioned in the preceding paragraphs fall away when a joint pension is
The extra expenditure which would be incurred in providing improved benefits to the dependents of female, pensioners, widows, or doing so difliculty, by monthly contributions of workers in the lower income groups can hardly be increased on their income is small sufficient to meet present needs. Ideally, if a reservation were to be made in the amount of the pension paid, the pensioner could receive a part or all of the pension in the lower income groups. As little reservations to a maximum figure, the higher income groups would contribute their share of the total cost of the Fund, but the number of servants in the lower income groups is so much greater than those in the higher groups that even the servicerear benefits alone could probably not cover the additional expenditure.

The administration's limitation in respect of the superannuation Fund is $4,000,000 more than one and a half million pounds per annum - excluding
obligations in terms of the gratuities Act.

To increase the administration's contributions to the superannuation fund would perhaps place undue emphasis on this one personal service at the expense of others. (For distribution of expenditure on personal services see Appendix C (i) and C (ii)).

It might well be argued that the categories of persons affected by the deficiencies in railway superannuation arrangements should be the responsibility of the State. A provident fund might, however, be introduced without involving the administration in any heavy additional expenditure. It is suggested that members should pay into the fund each month a certain percentage of their earnings and at the time of retirement or death the amount paid into the fund plus an agreed rate of interest should be paid out. This would amount to little more than a compulsory saving scheme and benefits would necessarily be limited, but it could provide a measure of additional aid in the case of the death of a pensioner or member of the superannuation fund. It would be the means of
supplementing gratuities in the case of persons who are unable to produce a clear medical certificate and are debarred from membership of the superannuation fund, and would be of assistance to servants who join the Service rather late in life and whose pensions might be somewhat inadequate.

It is suggested that non-European servants should also be permitted to join the proposed provident fund to enable them to contribute towards their own security and to supplement any gratuities for which they might be eligible.

In view of the Administration's efforts to stabilize non-European staff, it is suggested that the possibility of arranging for non-European servants who are on the regular staff to become members of the superannuation fund, might be considered.

Other minor points which might be mentioned in regard to the superannuation fund are (1) the case of the Railway servant who joins the Service rather late in life and whose pension cannot be expected to be very adequate. There is obviously very little that the Administration can do about this, but the suggested provident fund might possibly be a help; (ii) the case of the servant whose last 7 years of service do not afford opportunities for promotion. By computing the pension on the average earnings during the last 7 years of service, servants who achieve rapid promotion in the last few years of service are more favourably placed than the servant whose later progress is less spectacular. If the pension were computed on the average earnings for the entire period of service, there would perhaps be a fairer distribution of available funds. (In the case of the Transvaal Chamber of Mines' Pension Scheme, the position is even worse for the pension is calculated on one-
including old age pensions, would give rise to many difficulties as regards the adjustment of existing State and private pension and provident funds.

(c) The progressive increase in expenditure would be so considerable (there would be a rise of about £4,000,000 per annum within a few years) that the country could not lightly undertake a contractual obligation of this order.

(d) The higher income groups who would contribute most heavily to the funds, would in practice receive little or no benefit. Their payments would, therefore, have to be regarded as being in the nature of tax payments rather than insurance contributions.

(e) While there is much to commend in the suggestion that all persons, however slender their means, should bear their share of responsibility by being required to make contributions, however small, the contrary argument that levies should not be extracted from the very low income groups, who, as it is, have not sufficient wherewith to provide themselves and their families with the bare necessities of life and many of whom are already in receipt of State assistance in one form or another, also merits serious consideration.

(f) In order to ensure that persons did not evade payment of their contributions, a National population register would have to be established. A suggestion that a partial register, excluding all Natives as well as those Europeans and Coloureds not gainfully occupied - e.g. children and housewives - who would not pay contributions, might be compiled, proved to be impracticable. The alternatives were, therefore, either a total population register, which would, nevertheless, have to exclude Natives because Native births, deaths and marriages in rural areas are not notifiable and this would render the keeping up to date of the register an impossible task, or the creation of other machinery to ensure that payments of contributions are not evaded.

With regard to the postponement of a contributory scheme and the eventual elimination of a means test, the following extract from an article on Widow's, Orphans and Old Age Pensions by Joan Simeon Clarke is of interest:

"We have, therefore, been irresistibly forced to advocate that the means limit be abolished altogether, and that the old age pension be given to all citizens. We are of the opinion that no other course will remove the very serious objections to the present system."

This is an extract from the Report of the Departmental Committee on Old Age Pensions issued in 1919. The arguments with which the Committee fortified this piece of advice have not been refuted. They have been shelved, so that twenty years later in the year ending 31st March, 1939, there were still...
576,072 Old Age pensioners, 32% of all such pensioners whose pensions were paid only after an investigation of the claimant's means. The remaining 68% were pensioned by right of insurance, and still other impecunious aged persons, being ineligible for any sort of pension, were supported by their local Public Assistance Committees. Had the 1919 Committee's advice been taken it would have paved the way for a single and unified Old Age Pensions Administration in this country. But now, since the provision of supplementary pensions, we have a triple system. Non-contributory old age pensions are administered by the Customs and Excise to persons over 70, subject to various qualifications, including an income limit; contributory old age pensions for women over 60 and men over 65 (together with their insured wives over 60) are administered by the Ministry of Health under the Widow's, Orphans and Old Age Contributory Pensions Act; lastly, supplementary pensions can be paid to any old age pensioner after an investigation of means and needs carried out by the Assistance Board."

With regard to the Government's reasons for rejecting the recommendations of the Social Security Committee, the following points should be considered:-

(a) The fact that many thousands of people in the Union do not require an old age pension does not seem to constitute a valid reason for not proceeding with the scheme. This must be true of many other countries, particularly the United States, where compulsory schemes operate in many States.

(b) The difficulties associated with the adjustment of existing State and private pension and provident funds are likely to increase and the sooner an attempt at a unified plan is made the better it would appear to be.

(c) The Beveridge Plan proposed to overcome the difficulties of immediate heavy additional expenditure and of adjusting existing superannuation schemes by the introduction of a transition arrangement. A similar plan could possibly be worked out in South Africa.

(d) The difficulties associated with the introduction of a National population register in South Africa are great and there is no strong possibility of their removal in the near future. In the Report of the Social Security Committee, it was stated that, "the only special records which the "B" scheme will entail are in respect of actual beneficiaries" - the proposed beneficiaries being Native males over 18 years of age. With regard to the "A" scheme, it was proposed that Natives should be registered with the Native Affairs Department. In addition local records were to be maintained by the paying agencies, including the Department of Labour. The Committee, therefore, visualized that these difficulties could be overcome.
CHAPTER 5.

FINAL CONCLUSIONS

In the course of analyzing the factual data in regard to the various railway personnel services, it seemed that in some respects these services could be improved and certain adjustments were accordingly suggested in the conclusions at the end of the relevant chapters. An attempt will now be made to draw some general conclusions on the functioning of the services as a whole.

1. CO-ORDINATION

NEED FOR BETTER CO-ORDINATION OF RAILWAY PERSONNEL SERVICES

Railway personnel services are aimed at promoting the wellbeing of railway servants and at reducing the physiological, psychological and sociological maladjustments which result in lowered efficiency. Present measures include medical and health and welfare services for workers and their families, employment services and facilities for staff representation and conciliation, social security and housing and feeding schemes, recreational clubs, travelling concessions and annual free passes.

There can be no doubt that these services are of benefit to both railway servants and the railway administration but it is difficult to determine just how far they are successful in achieving their aims or where they fail. This is largely because existing personnel services do not form an inter-related whole. A gap or deficiency in any one service may impair the efficiency of personnel services as a whole. In "Practical Psychology", Berrien indicates the far-reaching effects of a defect in one aspect of personnel work — in this case selection and training when he states, "Retirement plans, hospitalization provisions, recreation
programs and other morale builders can be immediately sabotaged by a foreman's over-bearing, brow-beating, treatment of his men.". The danger of an inadequately co-ordinated programme of personnel work is that a single oversight of this nature may undermine constructive work undertaken in other directions. Clearly there is a need for co-ordination to be as complete as possible and for the results of personnel work to be assessed as a whole as well as in respect of each individual service...

It is true that many of the benefits derived from personnel work are intangible and that there is no exact measure of human wellbeing. The relationship between personnel services and efficiency is complex for so many variables enter into the situation that it becomes very difficult to isolate the particular factors which improve or reduce efficiency in individual cases. There are, however, certain general problems such as high absenteeism, accident and labour turnover rates and ineffective work and discontent, which are symptomatic of deficiencies in personnel work and which are to some extent measurable. It cannot be taken for granted that such problems will automatically disappear simply by the provision of personnel services. Each service requires to be examined critically in the light of the information which is available for the services as a whole. It is necessary to know where and to what extent problems exist and to attempt to isolate the causes of these problems.

For example, unsatisfactory working conditions, poor health, discontent, unsuitable placement and bad supervision, may all result in excessive absenteeism and it is only by considering absenteeism in relation to these factors that effective remedial action can be planned.

The first step would be the maintenance of records of absenteeism to determine the absenteeism rate.
If it is unduly high, it is necessary to analyze the recorded data to establish the frequency and duration of absences among individual workers and to attempt to ascertain the causes of absenteeism. If sickness appears to be the major cause of absenteeism, the types of sickness require to be analyzed in relation to occupations, geographical and working conditions, income levels, sex and age groups and personal factors. By this process it should be possible to come to some general conclusions about the reasons for absence and to plan suitable preventive and remedial measures.

The Railway Administration provides various services such as a Sick Fund, a health and welfare department and a staff department which, if functioning effectively should prevent excessive absenteeism. If excessive absenteeism persists it can be expected that there are deficiencies or gaps somewhere in these services.

Although sickness and accident absence statistics are maintained in a few Railway workshops, as stated elsewhere in this report, the system of recording is not adequate nor are the analyses detailed enough. In the two workshops for which figures were available, i.e. Durban and Bloemfontein, 37,070 days were lost due to sickness during the year ended 31st March, 1946, and the average sickness absence per worker was 14.3 days. The absenteeism rate cannot be accurately calculated as the total time which could have been worked is not known, but working on the basis of the average figures of 14 days lost per worker per annum and a 26 day month throughout the year, the rate would be roughly 4%.

Similarly the Railway Administration adopts various measures for the prevention of accidents and if the accident rate still remains high, it is necessary to attempt to discover where present measures fail. The causes of accidents are numerous and to come to any conclusion on this problem would involve a continuous classification and analysis of the factors which contribute to the occurrence of accidents of various kinds and the maintenance of full records relating to the persons involved in accidents. In the Railways between 1,000 and 1,500 accidents are reported each month, but only about 10% of these accidents are serious accidents involving permanent disablement in excess of 25%. In the Durban and Bloemfontein workshops, which are the only shops for which figures are available, 11,973 days were lost due to accidents during the year ended 31st March, 1946, and the average absence per worker for the year was 4.1 days.

Excessive labour turnover is usually an indication that workers are not deriving satisfaction from their work. In some cases this may be attributable to general labour conditions or to personal factors, but where the rate is persistently high in one organization it is likely to be connected with some aspect of the work situation. Here again it is necessary to know the extent
of the problem and its probable causes, and on the basis of these findings to introduce preventive and remedial measures. The Railways maintain records of wastages, but these records are not sufficiently detailed and the classification of reasons for leaving is too general. In the case of voluntary retirements every effort should be made to find out the exact reason for leaving. During the year ended 31st March, 1946, 8,924 European servants left the Railways and the total European staff was 91,532. The labour turnover rate was, therefore, 9.7%. Resignation from the Service accounted for 77% of the leavers, 7.5 were dismissed and the remainder left for unavoidable reasons such as age limit, ill health, death, etc. The labour turnover rate among non-Europeans was much higher.

The consequences of ineffective work are lost time and wasted effort. Ineffective work may be attributable to laborious methods in clerical work or unnecessary and ineffectual movements in manual work. It may also be the result of the recruitment of unsuitable workers, poor selection techniques and faulty placement, inadequate methods of training or unsatisfactory organization and supervision. For some types of work motion and time studies provide a clue to the extent of ineffective work and on the basis of time studies suitable rewards may be paid as incentives to high efficiency.

Discontent and lack of co-operation are less obvious causes of inefficiency unless they develop into strikes or other major crises. Discontent may be attributable to inefficient methods of supervision, unattractive working conditions or inadequate incentives. It may be justified or it may arise from misunderstandings, or it may spread from the personal grievances of an agitator. By such methods as personnel counselling and the use of the anonymous questionnaire the morale of workers can be roughly assessed and experienced personnel officers who are in close contact with workers are usually able to detect whether or not they are co-operating on the job. If workers are unco-operative - apart from the danger of strikes and disputes - their efficiency is impaired. The Railway Administration has a recognised system of staff representation and also provides numerous facilities for the settlement of grievances and disputes, but if difficulties still occur it is necessary to seek for possible causes and for ways and means of removing them.
Although they do not by any means cover the whole field of possible variations, the few examples given will serve to indicate the number of factors likely to influence efficiency among groups of workers. It is not easy to separate out the factors which lead to any one problem, but the task is simplified if personnel services can be viewed as a whole and are carefully integrated with each other. This is not altogether the case with Railway personnel services; although there may be co-operation and consultation between the Sick Fund and the Health and Welfare Department, these services are not closely integrated with each other, nor are the employment services undertaken in Railway Staff Offices systematically linked up with the family welfare work conducted by the Health and Welfare Department.

Lack of co-ordination in personnel work also has an adverse effect on the individual employee. If personnel services are not properly integrated with each other the individual worker tends to be treated as a number of separate parts. For example, he may be seen as an unreliable worker, a negligent father, or a sick man - depending on whether he is being dealt with by a staff officer, a welfare officer or a medical officer. It would be an advantage - both from his point of view and from the point of view of personnel work - if he could at all times be seen as a complete entity. In this way it would be easier to detect the causes of any inefficiencies in the individual. For example, in the case of the unreliable worker and negligent father, both his unreliability and negligence might be attributable to ill-health. By solving the health problem it might be possible to bring about improved occupational and domestic adjustment. It would also be helpful to the medical officer and welfare officer to have information relating to the employment background of the cases they deal with.
There are points of similarity between workers which make it possible to deal with them as a group for some purposes, but there are usually as many differences as similarities between them. Each worker brings to his work not only his ability and handicap, but also his own particular attitudes, needs, hopes, interests and fears, which often exist quite independently of his work and yet influence him at work. Therefore, it becomes necessary to take all these individual traits, peculiarities and differences into consideration and to treat each worker as an individual as well as a member of a group. He cannot be treated as an individual unless his whole background is known, and information relating to his working life, his home life, his health, his social activities and his mental state is available. This calls for the maximum degree of co-operation between the various branches concerned with personnel work.

The need for full co-ordination of all aspects of personnel work is, therefore, twofold. It is essential for the efficient organization of personnel services as a whole and for the purpose of achieving maximum efficiency in the individual worker.
main function of this board would be to direct the co-
ordination of personnel work on a Union basis.

(ii) By the introduction of system personnel services
boards to undertake similar work in each Railway System.

(iii) By the holding of personnel services conferences in each
System. The representatives at these conferences should
be drawn from the main departments concerned with
personnel work and the function of the conferences
would be to discuss problems encountered in the
practical application of personnel work in each
specialized field and to foster a team spirit among the
officers undertaking different types of personnel work.

(iv) By the holding of joint conferences consisting of
representatives from each of the staff associations
and from each of the main departments concerned with
personnel work.

(v) By the introduction of comprehensive and co-ordinated
personnel records in each System. It is suggested that
the records relating to individual Railway servants
which are at present maintained in system staff offices
should be simplified so as to present a complete case
history of each Railway servant and that monthly
returns based on these records should be submitted
to headquarters for analysis. The results of these
analyses should be recorded at headquarters.

(vi) By providing supplementary medical services as a
means of integrating remedial and proactive and
preventive health work.

(vii) By the establishment of community centres for the
purpose of centralizing family and general health
services to a greater degree and to improve co-
ordination in family health work.

(1) Permanent Headquarters Personnel Services Board:

It is suggested that representation on the
headquarters permanent personnel services board should be on the
following lines:-

Chief Staff Manager (Chairman)

Railway Health Officer - promotive and preventive
health services, including
education in health and safety

Sick Fund Administrative Officer

General Secretary of the Sick Fund

Chief Welfare Officer - medical services.

Chief Welfare Officer - family welfare services, group
activities including recrea-
tional services, general
educational services excluding
employment training, and
nutritional services.
Chief Personnel Officer
- employment services, i.e. recruitment, selection, placement, training, motion and time study, working conditions and conditions of employment insofar as they affect worker efficiency, staff representation and conciliatory machinery in relation to morale of workers.

Chief Superintendent (Staff)
- staff regulations and legislation affecting staff and general policy in regard to such welfare services as housing and rent rebate schemes, staff restaurants and travelling facilities, and administration of social security measures.

Chief Accountant.
Chief Technical Manager
Chief Commercial and Industrial Manager

) Advisory members who would not be required to attend all meetings, but would be called upon for consultative purposes, when necessary.

The establishment of this board visualizes the appointment of two additional senior officers. In chapter 2 it was pointed out that the creation of the position of Chief Personnel Officer should be considered and in chapter 4 the appointment of a medical officer as Chief Administrative Officer to the Railway Sick Fund was suggested.

The Board would be responsible for the direction and co-ordination of all railway personnel services. The direction and control of personnel policy would remain under the Chief Staff Manager and the function of the Board would be to ensure integration in the execution of policy. Recommendations for adjustments in policy could be submitted to the Chief Staff Manager when considered necessary. A further function of the Board would be to ensure the effective working of personnel services as a whole with special reference to the co-ordination of activities, the filling of gaps in the services and the correction of deficiencies. The Board would also arrange
for the investigation of any particular problems affecting
human efficiency in the South African Railways. The
Board would be in a position to view such problems
within the framework of all personnel work and would
be able to plan future developments on an integrated
basis.

The specialist services of the proposed
Personnel Research Bureau which is discussed later in
this chapter under the heading of "New Services", would
be available to the Board for the purpose of collecting
and analyzing data, compiling statistics, and supplying
any necessary information in relation to personnel
services generally.

It is suggested that the members of the
headquarters Board should meet at least four times a year.
Once a year a meeting with representatives from the
System Boards should also be arranged.

(11) System Personnel Boards:

It is proposed that in each of the systems
similar boards should be set up. The System boards might
consist of the following members:

- Employment Officer (Chairman)
- Assistant Health Officer
- Railroad Medical Officer
- District Secretary of the Sick

The function of System Boards would be to direct
and co-ordinate personnel work in each of the systems on the
lines laid down by the Headquarters Co-ordinating Board. It
is suggested that the System Boards should meet at least
once a month and that once a year representatives from all
over the Union should meet at headquarters to facilitate
exchange of views on the work in each system.

The representatives who attend the proposed
system personnel conferences referred to below would maintain close contact with System Boards and would supply the Boards with first-hand information in regard to field work and general or particular problems associated with the practical application of personnel services. It would be the duty of the System Boards to assist field workers in their respective spheres of activity and to put into effect any measures necessary for promoting the integration of their work.

(iii) System Personnel Conferences:

It is suggested that system personnel conferences should be held periodically and that they should be attended by representatives from all departments and branches concerned with personnel work. The following is a suggestion for the basis of representation at the conferences:

- **Staff Department**
  - Employment Officers
  - Staff Officers

- **Sick Fund**
  - Medical Officers
  - District Secretary

- **Health and Welfare Department**
  - Health Officer
  - Welfare Officers

The purpose of holding such conferences would be to discuss any particular problems associated with the effective application of any branch of personnel work and to facilitate the exchange of views on specific cases which might more fruitfully be dealt with by joint rather than individual action.

The results of these conferences would be reported to the System Personnel Services Boards in order to keep the latter informed of all aspects of the practical application of personnel work in each system.

As part of a long-term programme it is suggested that permanent personnel services committees should be set up on a team work basis. The present organization
of railway personnel services does not lend itself very readily to the type of team work envisaged and the re-organization involved would probably not be practicable at this stage. If railway community centres are eventually established it may be found possible to arrange for all personnel work to radiate from these centres, in which case this team work plan could be considered.

The functions of these committees would be similar to those of the proposed conferences, except that the committees would work on a more personal and informal basis. Individual cases would be discussed and any necessary treatment would be planned by the team. The composition of the team would be similar to that of the conference representation. The type of co-ordinated work contemplated could perhaps be conducted by transmitting written reports and correspondence from one department or branch to another. But the main object of holding these team discussions would be to make personnel work more personal and to facilitate prompt action - on a joint basis where necessary. For such team work to be effective meetings would have to be held at least once a week. The difficulties in the way of putting this scheme into effect at the present time are that Railway Medical Officers are probably too busy to be able to devote the necessary time to them, and the areas covered by Railway Medical Officers and Welfare Officers do not necessarily coincide so that the families under the care of one Railway Medical Officer would not be visited by one Welfare Officer. Conversely the cases dealt with by a particular Welfare Officer might be attended by more than one Railway Medical Officer.
(iv) Joint Personnel Conferences:

It is suggested that from time to time joint conferences should be held between representatives of the staff associations and representatives of the main branches of personnel work. It would be an advantage for the persons engaged in personnel work to have the views of those who are affected by it and to be aware of any shortcomings in the services from the workers point of view. Useful suggestions might be brought to light and criticisms could be investigated. This form of consultation could be used as a means of helping workers to understand more about the functioning of personnel services and to stimulate their interest in them.

(v) Co-ordination of Records:

In the absence of comprehensive centralized records, many factors affecting the wellbeing and efficiency of workers are likely to escape notice and reliable statistical analyses are impossible. Sound personnel policy and planning are largely dependent on a full knowledge of all the facts relating to personnel work and such facts cannot be made available without the accumulation of the necessary data. By maintaining adequate records of all personnel matters, group trends and individual behaviour patterns can be traced, problems can be more readily detected, their extent measured and their causes and costs assessed.

The planning of a co-ordinated system of personnel records would require to be undertaken by experts and it would probably be necessary to do a certain amount of exploratory work before methods - suitably modified to meet railway needs - could be standardized. The methods suggested here are very tentative and are intended only as a guide to what might be done.
It is suggested that the proposed railway personnel records should include fairly detailed case studies of each individual railway servant which would be maintained in system staff offices, and general personnel work records which would be maintained at headquarters.

The individual records would present as complete a picture as possible of each railway servant and by extracting and analysing the material contained in these individual records general information and statistics relating to the factors affecting worker efficiency could be made available. In this way it would be possible to evaluate the effectiveness of personnel work as a whole, of particular branches of personnel work and of personnel work in relation to the individual worker.

It is proposed that the information which is at present recorded in respect of each railway servant in his staff file in system staff offices should be augmented and that the staff file method of recording should be supplemented by the introduction of case history cards or sheets on which the information contained in staff files would be summarized.

The staff file should contain as much information as possible relating to the worker and his family from the day he starts work until he leaves. This information should include initial and periodical reports by employment, welfare and medical officers. To ensure uniformity these reports might be in the form of a standardized questionnaire, but provision should also be made for any relevant and non-confidential information which might be obtained by personnel officers in the course of the type of interviews mentioned in chapter 2 under "personnel counselling". Particulars of qualifications and training, the results of aptitude and temperament tests - if conducted - details of progress in training
and merit rating - if adopted - should all be recorded. Information in regard to salary or wages, promotions and transfers, periods of absence and reasons for absence, accidents and causes of accidents, would all be included. Except in cases of retirement or death the file should close with the report of a final interview with an employee who is leaving the Service. This report should contain as much information as possible in regard to the reasons for leaving. Much useful information might also be obtained from retiring servants who might express views more freely at the time of leaving the Service than when still in the Service.

To facilitate reference it might be desirable to have a number of separate folders enclosed in the main file cover. For example, one cover might contain welfare information which would include housing and leisure-time activities as well as case history data relating to the worker and his family. One cover might relate to employment data, another to health and sickness absence and a fourth to accidents. On the inside of the main file general information such as age, sex, race, marital status, date of joining the service, etc., could be indicated. Alternatively, separate cards might be used for the recording of such types of information.

All significant information contained in the staff file should be summarized on the case history card. The front of the card could be used for general particulars of the worker such as sex, age, marital status, place of residence, department, section, centre, date of entering service, official designation, duties, particulars of transfers, dates of promotion, salary or wages, hours of work, personnel officer's remarks, employment rating, date of and reason for leaving Service.

The back of the card could be used for health

* * * Suggested card index card is shown in Appendix.

* * * For specimen rating sheet see Appendix.
and welfare data. Periods of absence, reasons for absence, types of sickness, number and causes of accidents and occupational diseases should be indicated. Remarks on family background, leisure-time activities and housing should also be included. Some system of coding the necessary information would require to be devised to save time and space in completing the cards. Similar coding methods could be used in the headquarters office for analyzing the data for the final Hollerith tabulation of results. When candidates are being considered for promotion much useful information would be available for the guidance of the Railway Service Commission, and in cases where disciplinary action is contemplated decisions would be supported by the full facts of the case. If an employee is transferred from one system to another his file and card would be transferred with him.

Suitable schedules would have to be drawn up in order to summarize the data contained on the cards for submission to the headquarters records office each month. The form these schedules would ultimately take would depend on the particular needs of the E.A.R. & H. Administration.

Separate schedules would require to be drawn up for the recording of absenteeism (sickness absence and other), accidents and labour turnover for each department. In each case it would be necessary to show age, sex, marital status, income, race, department, centre, occupation, length of service and a remarks column should indicate any special factors likely to affect absenteeism, accidents or labour turnover such as working conditions, family background, leisure-time activities. Each schedule would also have to show total number of railway servants in the department, the number in each occupational, age, sex, marital status, income and race group, and the number of railway servants according to different periods of
service. This information is essential in order to ensure the validity of any findings in connection with the classification of the causes of absenteeism, accidents and labour turnover.

The monthly returns would be analysed at headquarters each month when statistics would be compiled for the whole Railway Service, for each System and each Department. This information would be of assistance in attempting to isolate the factors which appear to influence high absenteeism, accident and labour turnover rates, and in assessing the effectiveness of the various personnel services. It would also be valuable for comparative purposes. For example absenteeism and accident rates for various departments, types of work and parts of the country could be compared. Interest in reducing accidents and absenteeism might be stimulated by drawing the attention of workers to the rates in their own departments in relation to other departments.

The headquarters records office should also maintain records of the estimated costs of absenteeism (including sickness absence), accidents and labour turnover, for the whole service and for each system and department on a monthly and annual basis.

The suggestions in regard to the type of data which should be accumulated and analyzed are not intended to be exhaustive and there are other factors relating to personnel which might with advantage be recorded.

It might be felt that the recording of information in staff files and on case history cards would be too cumbersome, in which case the necessary data could be extracted straight from the files and entered on the schedules. The case history card method is suggested only as a means of facilitating reference.

There is no doubt that the proposed method
methods of co-ordinating and centralizing personnel records would involve a good deal of time and a fairly substantial staff would be required to deal with the additional work. The planning and establishing of the records would entail the greatest amount of work and it is suggested that this should be undertaken under the direction of the proposed personnel research bureau, which is discussed under "New Services". In addition to the staff of the research bureau, one or two clerical assistants would be required in each system staff office for the maintenance of the proposed records. The proposed scheme would, therefore, add to the Administration's expenditure, but in the final instance the consequences of not providing such a system are likely to be more costly.

The methods adopted by the Parker Appliance Company, Cleveland, U.S.A., are of interest. Personnel records in this Company include 18 different cards divided into three sections. The first set is completed before the applicant for employment is engaged and consists of the following - (i) an application form which gives details of age, marital status, experience and qualifications; (ii) a destination card which is completed by the interviewer at the time of hiring; (iii) a time card; (iv) a tax card authorizing tax deductions; (v) an insurance card; (vi) a payroll rate card; (vii) a job rate card. The second set of cards is for use during employment and consists of (i) three visible index cards which are made out in duplicate - one set is retained in the personnel department, and the other set is sent to the department where the employee works. These three cards give a complete history of the employee. (ii) Index cards which are filed in a vertical visible index rack and contain identifying information such as name, address, sex, telephone number, clock number, department, etc., and are designed mainly as a means of locating employees quickly; (iii) a dispensary card which shows the reasons why and number of times a person has reported to the dispensary and the treatment given; (iv) attendance cards; (v) notification of absence, showing reasons.

and promotive services and rehabilitative services. The greater part of the Railway Medical Officer's time is taken up with remedial work and the Health Staff do not undertake any individual work but confine themselves to the administration and supervision of general promotive health measures.

It seems logical that the medical services conducted by the Sick Fund should be amalgamated with the health services undertaken by the Health and Welfare Department. This would involve radical changes and the need for the Sick Fund in its present form would possibly fall away. If such a step were taken the administrative work in connection with contributions, sick pay and sick leave, could be incorporated with the administrative work undertaken on behalf of the other social security measures such as workmen's compensation, superannuation and unemployment insurance, and the Railway Medical Officers would be attached to the Health Department.

To put into effect a comprehensive and co-ordinated health plan would probably necessitate the appointment of Railway Medical Officers on a full-time basis. The various aspects of health work could then be planned on more systematic lines and the principles of team work could be more readily put into effect. By arranging for regular meetings between medical officers and health officers all phases of health work could be integrated. The introduction of "works" clinics where the medical officer would be in touch with the work in his working environment, and community centres where preventive medicine could be integrated with promotive health measures and other forms of personnel work, would be valuable aids in a co-ordinated plan.

In view of the possible introduction of extensive national health services in the future, the Administration may not find it expedient to adopt such
large scale changes in the functioning of the Sick Fund as would be necessitated by the proposal outlined above.

An alternative scheme is, therefore, suggested which would take the form of supplementing the present medical services. This scheme would also be facilitated by the introduction of "works" clinics and community centres, which will be discussed later in this chapter, and would be dependent upon the appointment of an additional group of medical men. In chapter 3 they are referred to as "Works" Medical Officers, but they could be given any other suitable title. These officers would be attached to the Health and Welfare Department and they would act as advisory medical officers in the working environment. They would be in contact with the workers in their working environment and would be available for consultation during working hours at certain specified times. They would work in co-operation with Railway Medical Officers (or State Medical Officers when the National Health Services come to fruition) personnel officers, welfare officers and health officers.

It is suggested that the duties of the "works" medical officer should include:

(i) The medical examination of entrants to the Service.

(ii) Medical examination of workers referred to him by personnel or supervisory officers.

(iii) Medical examination of workers who wish to consult him during working hours.

(iv) Education of workers in health matters and general and personal hygiene.

(v) Organization and supervision of first aid depots and carrying out of first aid treatment.

(vi) Conducting lectures in St. John Ambulance work.

(vii) Arranging for the placement of semi-fit workers on suitable light work - particularly cases of injury-on-duty where long periods of absence are likely to occur unless suitable light work can be found.

(viii) To make recommendations in regard to the placement of persons suffering from any physical disability - minor or otherwise - who have been certified by the railway Medical Officer as fit for duty.
(ix) To consult with health officers and personnel officers on matters of general hygiene within the working environment.

(x) To co-operate with the research staff on any investigation into the health of workers and working conditions.

(xi) To keep adequate records of the health of workers and of injuries caused by accidents.

(xii) To co-operate in an accident prevention programme.

(xiii) To conduct periodic medical examinations of workers.

(xiv) To maintain contact with Railway Medical officers, personnel officers and welfare officers, in regard to the progress of individual cases.

The works Medical officer would not undertake any treatment except first aid in the case of illness or injury at work, nor would he undertake any home visiting. If he should consider that a worker requires treatment at home he would refer him to the railway medical officer.

To facilitate the work of these medical officers, it is suggested that clinics should be established in workshops, running sheds and offices, where a sufficient number of railway servants are concentrated. If it is decided to introduce community centres, arrangements could possibly be made for the works medical officers to spend part of their time at the works clinics and part at the community centres.

(vii) Community Centres:

It is suggested that community centres should be introduced as a further means of integrating health and welfare work. Such centres should, of course, only be established where a sufficient number of railway servants are concentrated and where adequate services of this nature are not already provided by local authorities or other bodies.

The community centre could be used as a means of bringing together preventive medicine, promotive health and general welfare services. It would also help to preserve
the unity of the family and would foster favourable social relationships between different groups of workers and their families. The worker who is engaged in dull monotonous work or who is deprived of prestige in his work may gain prominence in sports or hobbies or music. He may come to know other railway servants whom he never meets or sees at work. He may find that he can beat his foreman at bowls or that his senior officers like to hear him sing. These opportunities for self-expression and friendship can be of considerable value in building up good morale and in helping workers and supervisors to understand each other better.

The main object of the community centre is to promote physical and mental wellbeing by providing wholesome leisure-time activities for every member of the family. By centralizing the activities at one point the various members of the family group do not have to scatter in search of entertainment and friends.

In the lower income groups the home is often not a very congenial place nor does it afford a very stimulating environment for the children. In consequence the husband may go off to meet his friends in bars and beerhalls and the children may seek excitement in the streets and cinemas while the wife may become a drudge in the home without any outside interests or activities.

The centre can be so planned that the mother may bring her children with her — the younger ones to be left in the creche and the older ones to join in special activities for their own age groups. If she is a member of the vegetable and fruit clubs, the mother could arrange to collect her vegetable and fruit parcels when she attends the centre. If her family is entitled to state-aided products these may be collected at the same time.

By providing a communal restaurant at the centre where cheap meals would be obtainable, it would be possible
for husband and wife to meet at the centre for a meal. Where the children are old enough to be out at night, the whole family might arrange to attend the centre on a special evening each week. On this evening the mother would be released from the need to prepare dinner and would spend the evening in relaxation with her husband and their friends.

Although the centre would always be under the supervision of an expert staff, members should be encouraged to accept responsibility for the running of the various activities so that they would come to feel that the centre belonged to them. This could be achieved by asking members to form committees within the various interest groups, and by calling upon them to help with the work of the centre. Members would be expected to wait on themselves at meals, to get out their own equipment, to take care of it in use, and to put it away after use. The women could take it in turns to prepare afternoon tea, to help in the creche and the men and juveniles could assist with repairs and the maintenance of grounds.

The centre could be made the focal point for all leisure-time activities and the meeting place for railway families. It would, therefore, be convenient for members if health and welfare advisory services could be made available in the centre. Arrangements could be made for medical men and welfare officers to be on duty at the centre at specified times. Members with health or welfare problems could then consult these officers at the centre.

The particular services to be made available at the centre would to some extent depend on the needs and wishes of the members, but the following is a broad indication of what would be required:-
Services for Children:

b. Activities for girls and boys from 6 to 12 years.
c. Activities for adolescents - 12 to 17 years.

The activities under (a) and (b) might include physical training, games, dramatics, musical appreciation, arts and crafts, domestic science for girls and woodwork or metalwork for boys, and hobbies clubs, etc.

Services for Young People:

These could include -

a. Social functions for working girls and boys, such as dances, concerts and card evenings.
b. Educational activities such as debates, discussion groups, drama circles, musical clubs, arts and crafts classes, dressmaking and cookery classes for girls, and woodwork and metalwork for boys.
c. Outdoor activities - games such as tennis, hockey and soft ball, swimming and picnics.
d. Indoor games such as ping pong, badminton, billiards and physical training.

Services for Adults:

These would be on similar lines to the services for young people, but special groups could be arranged for wives and mothers covering such topics as budgeting, food values and preparation of food, planning menus, infant care, homemaking.

Health Education:

Health education could be planned through instruction in St. John Ambulance work, covering first aid, home nursing and hygiene. These classes should be graded according to age groups. Films on the maintenance of health and the prevention of disease could also be shown.

Preventive Health Services:

Clinics should be provided within the centre for the medical examination of members - if possible periodical medical examination of all members should be arranged. If adequate pre- and ante-natal services are not available, these should also be conducted within the clinic.

The medical services would be purely diagnostic and advisory and no treatment would be undertaken.

(In the event of the recommendations of the National Health Services Commission in regard to health centres being fully implemented, the need for this type of work would probably fall away).

Welfare Services:

A welfare officer would be on duty in the clinic and would be available for interviews at specified times.

Accommodation:

The type of accommodation required for a
community centre would depend on the number of members and the nature of the area to be served. There is something to be said for starting with a small centre and building it up as the need arises. The members could be encouraged to help with extensions both by offering their services during their leisure-time and by organizing fund-raising activities. Two notable experiments in community centre work were started in a small way in inadequate premises and have proved very successful — these are the Peckham experiment in England, and the John Gray community centre in Johannesburg. There are, however, disadvantages associated with starting a centre in unsuitable or inadequate premises. It is more difficult to arouse interest and activities must be limited so that the future of the centre might be jeopardized. Even if the centre is to be started in a small way certain minimum accommodation is required. There should be outdoor space for playgrounds for the children and for games such as tennis and perhaps hockey and football. In the larger centres a hall would be essential and in all centres separate accommodation for adults and children would be required. Provision should also be made for a clinic and an office.

In the conclusions to chapter 3 the type of accommodation which would be required in a complete unit is outlined. Where no suitable buildings are available and the number of railway servants is small the possibility of using mobile units as community centres might be considered. The mobile unit might be in the form of a specially equipped railway coach containing a library, projector, clinic, and arts and crafts equipment and perhaps a piano or radiogram.

Staff:

The staff would depend on the size of the centre and the number of members, but in all cases there should be a
centre supervisor - preferably a social worker with training in group activities. In parts of the country where centres are small and scattered one person could supervise several centres and each centre might be open for only one or two days a week. The services of a medical officer and a trained nurse should also be made available if at all possible - on a part-time basis where necessary.

It is suggested that at the larger centres a team of workers on the following basis should be available:

- Supervisor (social worker).
- Welfare Officer (social work).
- Welfare Officer (health).
- Medical officer.
- Supervisor of children's activities.
- Clerical Assistant.
- Instructor in physical education (part-time).
- Instructor in homemakings (part-time).
- Hobbies instructors (voluntary assistants).

The supervisor and clerical assistant would be required on a full time basis. The hours of the other members of the centre staff could be adjusted according to the needs of each particular centre.

Although a staff of from 2 to 7 is suggested - varying according to the size of the centre - it is possible that no new appointments would be necessary. Many of the group activities and most of the other services at present undertaken by the welfare officers would be centralized, although a certain number of welfare officers would still be required for home visiting. The physical training instructors would be able to conduct classes at the centre instead of at various scattered points. Instructors in homemakings and domestic science would possibly only be required at each centre for a few hours each week. The medical officer and the clerical assistant would probably be the only 2 new appointments necessary and, as already pointed out, it might be possible to utilize the services of the proposed works medical officers at the centres on a part-time basis.
CO-ORDINATION OF RAILWAY PERSONNEL SERVICES WITH THE SERVICES CONDUCTED BY OTHER BODIES.

The process of co-ordination should not be confined to railway work alone, but should extend from the railways to other bodies undertaking similar services. It is at present the policy of the various departments concerned with personnel services to work in co-operation and consultation with other departments, provincial administrations, local authorities and private organizations, but definite machinery for integrating and correlating railway work with the work of these other bodies should perhaps be provided. This could be achieved by arranging for regular meetings to be held with representatives from these bodies. Contact would then be established on a systematic basis and would not be confined to sporadic co-operation and consultation.

2.

PROVINCIAL RAIL SERVICES INCLUDING ADJUSTMENTS TO EXISTING SERVICES

A. ADJUSTMENTS TO PRESENT METHODS OF SELECTION AND TRAINING:

The undesirable results of unreliable methods of selection have already been stressed. It is of great importance to the worker and the organization concerned that he should be placed on the type of work for which he is best suited - in the railways good selection and placement are of special significance because workers are encouraged to make the railway service a life career. Occupational misfits reduce efficiency and increase absenteeism, labour turnover, accidents and discontent.

Personnel selection is, however, only one part of personnel management and cannot be expected to be a panacea for all industrial ills. The value of scientific selection is influenced by the quality and quantity of workseekers who present themselves for testing, and the way in which they are trained and placed after selection.

The success of scientific selection is, therefore, dependent
on a sound recruitment policy and scientific methods of placement and training, and ultimately on conditions generally in the particular organization and industry.

The Railways have recently adopted a more active recruitment policy and by co-operating with the Education Departments are making railway careers known in the schools. A little more could perhaps be done in this direction by the publication of a brochure giving details of the various types of occupation available in the Railways and by dramatising the importance of transportation in the life of the community.

As indicated in the conclusions to chapter 2, it is considered that present methods of selection are open to improvement. It is, therefore, suggested that these methods should be supplemented by the introduction of psychological testing.

It is suggested that as far as possible all the work connected with new appointments to the Railway Service should be centralized in one section and that this section should be responsible for the application of whatever selection techniques are decided upon. The scope of the present employment officer might be extended for this purpose.

The preparation of suitable tests would involve a knowledge of the special requirements for the various types of occupation in the Railways. Job specifications would have to be drawn up setting out (i) the nature of the various occupations and the terms of employment for each, and (ii) the qualifications and personal attributes required for each type of occupation. Experimental tests would have to be constructed for various types of occupations and these would then have to be tried out on representative groups of workers. By comparing the scores of these workers with their job performance, it would be possible to find out whether the tests really were measuring the qualities required in different types
of work end whether they were doing so with accuracy. The
construction and validation of suitable tests would require
to be undertaken by experts in the field of personnel
selection, and elsewhere in this chapter it is suggested
that a Personal Research Bureau should be set up with a
staff capable of conducting such work.

The following scheme is tentatively suggested
as a basis for personnel selection in the Railways:

(1) Interviewing of candidates: To ensure that
interviews are conducted as fairly as possible
and to prevent personal bias or irrelevant factors
from entering into the situation, it is suggested
that selection committees and any persons who
interview candidates for employment should be
provided with definite instructions and should rate
each candidate in accordance with a
standardized rating table. The compilation of
a properly validated rating table would have to
be undertaken by experts and it is suggested
that this could be done by the proposed Personnel
Research Bureau.

(ii) Railway competitive entrance examinations where
these are now in use.

(iii) Aptitude tests to provide a rough screening of
candidates to determine whether applicants for
admission to the Service as clerks or apprentices
are suitable for these careers. These tests could
also be used for trainees.

(iv) Tests of special skills and abilities to assess
particular aptitudes among potential apprentices
and to sort out clerical applicants in accordance
with the different types of clerical work for
which they are required.

(v) Intelligence tests. Before applying these tests
it would be necessary to find out the range of
intelligence quotients which would be most
conducive to occupational adjustment in
particular types of work. A candidate might
possess the necessary skills or abilities for
a particular vacancy, but the work might be beneath
his mental capacity in which case it might prove
to be unsuitable.

(vi) Temperament tests and tests of mental stability.
An attempt should be made to find out, not only,
whether the candidate is temperamentally suited
to the type of work for which he is being selected,
but also whether he is temperamentally suited to
conditions in the Railway Service generally.

Tests of mental stability are of special importance
in certain types of work, for example in hazardous
occupations where the risk of accident is great or
in occupations where the lives of others might be
involved. It is also important that persons in
positions of responsibility or who are in control
of others should be well adjusted. Special tests
for accident proneness have been devised which
make it possible to isolate persons who are likely to sustain an undue number of accidents. These might be applied in the selection of candidates for certain occupations.

(vii) Medical examination. (Suggestions for improving the entrance medical examination were made in the conclusions of Chapter 2).

For the selection of candidates for certain senior and administrative positions, it might be desirable to supplement present methods by the use of psychological tests on the basis of those being used in conjunction with examinations and interviews for the administrative class of the British Civil Service and for the Foreign Service. As it is the policy of the Railway Administration to make appointments to higher posts from candidates within the Service, the psychological tests could be considered in conjunction with the applicant's qualifications and past record of railway work.

Training:

When the railway training school is completed, training will be available in most branches of railway work. It is suggested that training should not be confined to new entrants to the Service, but that provision should also be made for training for promotion and for the training of candidates for the position of foreman or supervisory officer. In the Railways where it is the policy to encourage men and women to enter the Service as soon as possible after leaving school, it is inevitable that the majority of foremen, supervisors and senior officers must come up from the ranks. However efficient these men may be they have usually had no training in imparting their knowledge to others, nor have they been taught how to handle people. The training school will relieve the supervisory staff of some of the work connected with the training of staff, but learning and teaching will not cease when the trainee leaves the school. It is, therefore, essential that supervisory staff should not only be able
to do their jobs well, but that they should be able to assist those working under them. Arrangements could possibly be made for them to attend some part of the courses proposed for the training of Employment Officers which are discussed in the next section of this chapter.

It is suggested that the staff of the training school should work in co-operation with the staff of the proposed Personnel Research Bureau with regard to certain aspects of training. For example studies of the learning process could be conducted by the staff of the Bureau in order to evaluate different methods of instruction, and for certain types of work motion and time studies might be undertaken.

The rate of learning will vary with different persons and for different types of work. As a guide it is useful to assess the average speed of learning for particular skills and to compare the individual's progress with this average. The rate of learning can be shown graphically by plotting what is known as the learning curve. In the initial stages learning is usually fairly rapid, but this is followed by a period when the learner's performance appears to be stationary and what is known as the learning plateau is reached. At this stage learners require to be encouraged to persevere and by the introduction of suitable incentives they can usually be helped to increase their efforts and to attain greater proficiency. Instructors should have a knowledge of the characteristics of the learning process to enable them to exercise patience and to encourage learners to reach the highest level of proficiency.

In certain types of work motion and time studies would be valuable to the instructors. With a knowledge of the standard time taken by skilled operatives for certain operations the progress of the individual learner could be assessed. Motion studies which are
designed to eliminate unnecessary and wasteful movements and which make it possible to instruct the learner in the most economical way of performing his task could also be conducted in conjunction with the Research Bureau. It is essential that the learner should be shown the right way to set about his work from the outset. If this is not done he may develop faulty habits which are difficult to remove and which ultimately slow down his performance. Shunting, signalling and machine operation are such the types of work for which motion studies might be conducted in the railways.

B. EXAMINATION OF WORK OF APPOINTMENT OFFICERS, THE APPOINTMENT OF SPECIALLY TRAINED APPOINTMENT OFFICERS:

The provision of a comprehensive system of family welfare services indicates the Administration's recognition of the relationship between domestic adjustment and efficiency. Similar services are, however, not available for the prevention of occupational maladjustment. If the worker is not adjusted to his work, not only will his efficiency be lowered, but his home life may also be disturbed, for he is liable to carry the anxieties and problems associated with his working life into his domestic life.

Occupational maladjustment may be attributable to a number of factors. It may be an indication that the worker is not suited to the type of work he is engaged in. The work may be too difficult for him in which case he is liable to be anxious and depressed, or it may be too easy for him in which case he may be frustrated and discontented. On the other hand it may be a purely personal matter. The worker may have some problem on his mind or he may be suffering from a neurosis. The former may be reduced by the introduction of more scientific methods of selection and the latter may be diminished by more individualized treatment of workers within the working environment.

It is true that senior officers and staff
officers may attempt to put into effect the type of individualized treatment visualized, but most of them are already overburdened with other duties and however human and understanding they may be, they have had no systematic training in this type of work.

The proposed personnel research bureau would be responsible for the research work in connection with a scientific selection programme, but the applied work would probably have to be undertaken in the various system employment offices, as it would not be practicable to send all candidates for employment to headquarters for testing. This work would also necessitate the appointment of specially trained officers who would be capable of administering tests under the supervision of the headquarters research bureau.

It is suggested that the function of the present staff office employment sections be extended to include psychological testing, and to provide improved facilities for the individualized treatment of workers within the working environment. The work could be centralized in the headquarters employment section under the Chief Personnel Officer. The headquarters section would be responsible for co-ordinating the work throughout the Union and would undertake the analysis of data submitted from the system personnel records offices. All employment services would be under the direct control of the Chief Personnel Officer who would in turn be responsible to the Chief Staff Manager. The Chief Personnel Officer would, however, work in close cooperation with the personnel research bureau. In the employment sections of each system staff office one or more specially trained officers would be needed. It is suggested that these officers should be termed 'employment officers'. The proposed employment officers would be on the System Manager's staff, but they would work under the
supervision of the Chief Personnel Officer.

The duties of the proposed employment
officers would include:

(1) **Interviewing employees:** The employment officer
would be responsible for interviewing new entrants
to the service and for maintaining contact with
them during the first few months of service. He
would then be available for interviews whenever
the need arose. Employees should feel that the
employment officer is readily accessible and that
they could contact him freely. All employees
leaving the service would also be interviewed.
In the case of those who leave before reaching
retirement age - except women who leave to marry
or men who are retired on the grounds of ill-
health - every effort should be made to find out
the reason for leaving.

(11) **Carrying out applied work for research bureau in
connection with the administration of psychological
tests and co-operating with bureau in accumulating
personnel data and compilation of statistics.**

(11a) **Supervising personnel records, co-operating with
medical and welfare officers in preparation of case histories,**
submitting monthly returns of relevant personnel data to headquarters.

(11i) **Investigating any cases of occupational maladjustment
reported by supervisory officers.**

(11v) **Co-operating with supervisory officers in compilation of \*employment rating records, which would be of
assistance in making recommendations for promotions
and transfers.**

(v) **Co-operating with supervisory and staff officers
when disciplinary action is under consideration.**

(vi) **Investigating complaints from supervisors or
employees.**

(vii) **Attending personnel conferences held in conjunction
with medical and welfare officers.**

(viii) **Attending staff associations meetings.**

It is suggested that employment officers should
be selected from the members of the staff department and to
ensure that they are suited to this type of work psychological
testing should be used. A period of training would then be
necessary and it is suggested that suitable courses should
be planned by the Director of the proposed research bureau.

The courses might be on the following lines:

3. Interviewing Techniques.

*Specimen employment rating card is shown in appendix.*
vi. Railway Staff Procedure - Staff Regulations and Railway Service Act.

vii. Social legislation as it affects the Railways.

viii. Social psychology.

ix. Elementary economics.

x. Introduction to sociology.

xi. Public administration.

Moreover necessary practical work could have to be arranged.

It is proposed that at first only male personnel officers should be trained, but at a later stage women might be trained for departments where a large number of women are employed.

EMPLOYEE EVALUATION:

Rating as a means of evaluating employees has come to be used extensively in the United States of America and in other countries and it is suggested that some system of employee rating be incorporated in the proposed personnel records.

Rating techniques are useful in arranging the allocation of work and in planning work programmes, but it is perhaps in connection with promotions decisions that their greatest value lies. On the one hand they provide a systematic method of selecting persons for promotion and on the other hand they supply objective evidence in support of the action taken if objections should be raised by other employees.

By providing an objective standard of evaluation, rating techniques make it easier for supervisors to assess the worth of their employees fairly and they help to eliminate personal bias. More important, they make it possible to develop more or less uniform standards of evaluation throughout a particular organization. In normal circumstances different supervisors will evaluate the same employee in different ways. In addition the same supervisor may feel differently about the same employee at different times. Allowance is made for these variations by arranging for rating to be undertaken by more than one person and by conducting periodical ratings.

Another feature of employee ratings is that they provide an incentive to proficiency. When employees realize that they are being evaluated they are likely to work harder.

In the Railways the use of rating techniques could be valuable for several reasons. Both Railway employees and supervisors are frequently moved from one section or centre to another. An employee may be thought well of by one supervisor and may not get along so well with another. The recommendations of his supervisory officer are of importance when the filling of vacancies for promotions takes place. It may happen that an employee may be eligible for promotion at a time when a new supervisory officer has been appointed to his workshop or office and to whom he is not well known, or soon after his own transfer to a new workshop or office. In either case the supervisory officer will be able to base his recommendations on only a brief knowledge of the employee.
Ratings would be of assistance to the Railway Service Commission. The members of the Commission do not see the candidates for promotion and usually do not know them. Their decision must be based on the employee's qualifications, his experience and the recommendations of his senior or supervisory officer. Their task would be simplified if such recommendations could be supported by periodical ratings.

Rating should preferably be undertaken by three persons and the employee should be shown his ratings and be told why he has been rated in a particular way. The supervisor will then be more careful not to rate an employee unjustly and the employee will be given the opportunity of realizing his limitations in his job and will know where he must improve himself. If rating is undertaken by three supervisors in order of seniority, the two junior supervisors will attempt to rate as fairly as possible and the senior supervisor will gain some insight into the junior supervisors' rating ability. This, of course, pre-supposes that the senior supervisor has himself been properly selected for his job.

There are numerous rating techniques and perfection cannot be claimed for any of them. Two widely used methods are the rating scale and rank order rating. The former method consists in the drawing up of a scale of values for each of a number of traits and the rater is required to rate each worker for each trait. In rank order rating the rater is expected to place each of a group of employees in order of merit for a particular trait. The method can, therefore, only be applied to fairly small and uniform groups. A third method - check-list rating - can be more accurate than the other two methods. The check list usually consists of a number of descriptive words or statements relating to particular traits and the rater is asked to check only those items which are applicable to the individual who is being rated. If the check list has been systematically compiled and properly validated it is likely to be relatively reliable. It is usual for the employee to be scored on the basis of the check list rating and this score gives a general picture of the traits which are being evaluated.

Questionnaires are a form of self-rating and may be
criticised on the grounds that the subject may give untruthful answers. The questions may, however, be framed in such a way that there would be no apparent reason for lying and as the questionnaire is considered as a whole a general impression of the subject can be gained in spite of a few untruthful responses.

Rating on the basis of the observation of the behaviour of subjects during intelligence tests and tests for special skills and abilities has been found to be very successful in assessing temperamental traits, but this method requires specially trained testers.

The standardization and validation of rating techniques must necessarily be undertaken by experts, but foremen and supervisors can be trained to carry out most methods of rating. In using the rating scale or the rank order method great care must be exercised to avoid what is known as a "halo" effect, which is what occurs when a supervisor thinks well of a particular employee and tends to rate him high for every trait. Conversely if a supervisor does not get along well with an employee he may tend to give him a low all round rating. This can be avoided to some extent by the check list method if direct statements are put to the rater and he is asked to give concrete examples to illustrate the way in which he has checked the list. In actual practice it is desirable to use more than one system of rating since no single method is completely reliable.

Specimen rating tables are given in the appendix.

C. RESEARCH BUREAU:

It is proposed that a Personnel Research Bureau should be set up in the Railway Training School under the direction of an experienced industrial psychologist. The Bureau would not as an advisory body to the proposed headquarters personnel co-ordinating board mentioned in the first section of this chapter. It would also be available for consultative purposes in connection with the introduction of the proposed centralized personnel records system, would advise on the types of analyses to be undertaken and would report on the results of these analyses. The Bureau would also be responsible for the compilation of statistics relating to various aspects of personnel work.

The Bureau would conduct all research work in connection with personnel services. Special problems affecting Railway personnel would be investigated and when considered necessary experiments would be carried out in any direction which might lead to greater efficiency and improved wellbeing of Railway servants.

It is suggested that the Bureau should undertake the necessary research work in respect of the following:-
(i) Personnel selection and training.
(ii) Factors affecting industrial fatigue in the Railways.
(iii) Motion and time studies.
(iv) Incentives among Railway workers.
(v) Investigation of absenteeism, accidents and labour turnover.
(vi) Planning and supervision of training course for proposed employment officers.

The Bureau would also be concerned with the costs of all personnel work and would prepare estimates of the costs to the Administration of such problems as absenteeism, accidents, labour turnover and ineffective work.

The staff of the Bureau should consist of a team of experts in the various branches of personnel work. Statistical and clerical assistants and typists would also be required.

D. MENTAL HEALTH SERVICES:

It is now coming to be realized that mental health is as important as physical health. The two cannot in fact be easily separated. Mental maladjustment may lead to physical symptoms and physical abnormality may be responsible for mental stress. By conducting an entrance medical examination, the Railway Administration makes an attempt to assess the physical health of new entrants to the Service, and by making provision for promotive and preventive health services and medical services it seeks to maintain the physical health of its staff, but no systematic attempt has been made to assess the mental adjustment of new employees or to provide services for the maintenance of mental health. It is not possible to deal with a physical symptom until it has been diagnosed and the cause has been detected. This is also true of neurones and mental maladjustment.

Among the large staff of the Railways there must be many cases of undetected and unsuspected neurones
end personality deviation. Referring to conditions in the United States in 1937 Elizabeth L. Adamson M.D. states, "Judging by hospital figures, there are more 'mental cases' in the United States today than all others combined. For every bed in use because of tuberculosis, heart trouble, bone deformity, contagious ailment, or surgery, there is another occupied by a sufferer from mental disease. And it is quite likely that the same proportion holds outside the hospitals as within. Yet even these figures are inadequate, for the two types of disorders cannot in fact be so easily distinguished; anywhere from thirty-five to seventy-five percent of the ailments reported to doctors as purely physical, it has been estimated, have at least some contributing factor of mental trouble. Moreover, many emotional handicaps never appear at all in medical statistics as we now know them, but turn up instead as causes of divorce, alcoholism, or suicide." Edward Glover, M.D., Director of the London Clinic of Psychoanalysis, makes similar observations in his introduction to "Psycho-analysis" published in 1979. He states, "Although the incidence of psychological disorders in general practice has never been accurately estimated, there is no doubt that they are of extremely common occurrence. In whatever form they may appear, whether as pure neuroses for example, or as psychological complications of organic illness, they provide the general practitioner with some of the most harassing of his therapeutic problems."

There is no reason to suppose that conditions in South Africa are vastly different from those in the United States and in England. Perhaps concealed psychological disorders may be partly responsible for the large number of patients who consult railway medical officers on apparently trivial pretexts; and they may also be

"So You're going to a Psychiatrist"

"See conclusions to Chapter 4."
be a contributory factor in sickness absence.

In the work situation the maladjusted worker may be more of a menace to others than to himself. If he is one of the rank and file his neurosis may take a number of different forms. He may become anxious and hypersensitive; he may become aggressive and be hard to get along with; he may resent authority and become an agitator; he may fear responsibility or become accident-prone. If he is a foreman, a supervisor or a senior officer the neurosis is even more likely to react adversely on others. If the neurotic suffers he does not suffer alone. His inner turmoil is turned on those around him.

There are, of course, various degrees of mental maladjustment and the worker who is severely maladjusted, no doubt, eventually finds his way to the Railway Medical Officer and the Psychiatrist - possibly not before he has done some damage. Mental maladjustment in the worker himself or in any member of his family is likely to have detrimental effects on his work, and for this reason it seems desirable that the Railways should pay greater attention to the mental health of their staff. The following suggestions are offered as ways of reducing the unfortunate results of mental maladjustment.

(1) Testing for Mental Instability:

Mental instability testing should be included in the personnel selection programme. The purpose of testing for mental instability would be to attempt to place unstable workers in such a way that they will not harm themselves or others. They should not be placed on hazardous work or work that involves the lives of others, nor should they be placed in control of others. Care should also be taken to place workers with a tendency towards instability in such a way that their instability will not be aggravated.

Testing for mental instability has not by any
means been perfected, but there are various methods in use which can at least be used as a guide and which will indicate the extremes of adjustment and maladjustment. Among these are the interview, the rating technique, the questionnaire and the observation method. To achieve the best results it is desirable to use a combination of methods. Of the methods mentioned above, the interview is the least reliable means of measuring mental instability.

The rating technique has several variations, which are divided under "first order rating," "second order rating," but the most commonly used are the rating scale and rank order rating. The former method consists in the drawing up of a scale of values for each of a number of traits and the tester is required to rate each worker for each trait. The advantage of this method is that it may be used for large groups of workers who are not necessarily engaged in the same sort of work, but it is not highly reliable. The rank order method consists in placing workers in order of merit for the trait being rated. This type of rating is more accurate than the scale method, but it is only suitable for small groups of workers engaged in the same sort of work.

Questionnaires are a form of self-rating and may be criticized on the grounds that the subject may give untruthful answers. The questions may, however, be framed in such a way that there would be no apparent reason for lying and as the questionnaire is considered as a whole a general impression of the subject can be gained in spite of a few untruthful responses.

Rating on the basis of the observation of the behaviour of subjects during intelligence tests and tests for special skills and abilities has been found to be very successful, but this method requires trained testers.

Periodical medical examinations have been recommended elsewhere in this report as a means of detecting and dealing with physical abnormalities in their early and remodiable stages. Periodical ratings of
Emotional stability would seem to be valuable for the same reasons. If an employee who is usually reliable, well-adjusted and easy to get along with has a sudden flare-up or misbehaves himself in some way, it would be better to try and find out the reason for the outburst than to deal with him by disciplinary action. The worker who is habitually unreliable and unco-operative might require to be dismissed in the interests of the service. Periodical ratings would also be of assistance in considering promotions and transfers. An isolated unpleasant occurrence might impress itself on the mind of the foreman and supervisor, but if it is considered in relation to periodical ratings it will be seen in proper perspective.

(ii) Helping the Maladjusted Worker:

Among any large group of workers there are always a few problem cases. They are usually unreliable or unco-operative or disgruntled. The foreman or supervisor usually tries to deal with them in his own way and if he is unsuccessful he becomes resigned to the fact that they are problems and leaves it at that. These are the cases in which personnel counselling might be helpful. The technique of personnel counselling was described in some detail in the conclusions to chapter 2. It is suggested that the proposed employment officers might be given some training in this form of interviewing. Cases of severe maladjustment would, however, require to be referred to a psychiatrist.

The possibility of appointing a consulting psychiatrist in each of the larger centres might be considered. In "Personnel Administration" by Tend and Metcalf (1933) reference is made to the potentialities of psychiatric work in the following terms, "A further development of recent years deserves mention among these
special services because it is one that may hold large promise for the future. A consulting psychiatrist has been employed in two or three companies to help restore the mentally maladjusted workers to a more wholesome outlook. Although the number of companies that would find the full-time employment of such a mental hygienist advisable may never become large, the value of this work is tremendous; and it can no doubt be effectively extended by the use of trained consultants on a part-time or fee basis."

There is a tendency in the railways as in other large organizations to ignore the problem worker because it is probably felt that to pay attention to him would only bring to light more complaints and difficulties. The manifest complaint is usually not what is bothering the problem worker. There may be something beneath the surface which prompts him to say that he is over-worked or that his machine is no good or that his foreman does not know his job, and if his work were reduced, his machine changed or his foreman transferred, he would find something else to complain about. In the course of personnel counselling it is often possible to get to the root cause of the trouble and so prevent further difficulties.

(iii) Mental Health Services for Families of Workers:

The appointment of a number of psychiatrically-trained social workers who could be consulted in cases of mental maladjustment among the families of Railway servants, might be helpful. If the proposal to establish community centres is adopted arrangements could also be made for psychiatrically-trained social workers to visit the centres periodically and to interview cases when necessary.
264.

HEALTH AND WELFARE DEPARTMENT AND
POSSIBLE NEED FOR ESTABLISHING A SEPARATE WELFARE DEPT.

Since the Health and Welfare Department does not
concern itself solely or even primarily with maladjusted
units in the Railway Service, it is suggested that all
general welfare services such as recreational activities,
staff cafeterias and housing should be incorporated in the
functions of the department. The Health and Welfare
Department already undertakes part of this work. It is
responsible for group activities in the form of physical
culture clubs and St. John Ambulance classes and for
certain feeding and nutritional services. It is also
interested in the question of staff housing.

If the scope of the welfare branch of the
Health and Welfare Department is to be thus extended and
the Health Department is to be extended by the inclusion
of the supplementary medical scheme proposed earlier in this
chapter, it might be desirable to consider the establishment
of two separate Departments. In this way all matters
affecting the welfare of the Railway family would be
brought within the scope of the Welfare Department, and
all matters relating to remedial, preventive and promotive
health services would be included in the Health Department.
(As already mentioned, there may be some difficulty in
amalgamating remedial services with promotive and
preventive services).

There is perhaps also something to be said
for health and welfare services being administered
separately. There are many points at which health and
social welfare services converge, but if the services are
operated jointly, there might be a tendency for a health
or welfare bias to develop at the expense of one service
or the other.

In connection with the possibility of merging
social welfare work with the functions of the Union
Department of Public Health instead of establishing a separate Social Welfare Department, the following comments made by the Secretary for Social Welfare in his report of 30th Dec., 1939, are of interest—

"The Department of public health deals with the medical and preventive aspects of disease, habits and conditions affecting, or likely to affect, the health of organized communities, particularly infectious and contagious diseases, food adulteration, sanitation, housing, etc., and acts as medical advisor to Government Departments.

These activities form, of course, an important aspect of social welfare, but the Department of Public Health as at present constituted is equipped as a professional department concerned largely, if not almost exclusively, with the medical aspects of public health. Consequently, if Government social welfare activities had been transferred to the Department of Public Health, the subordination of the general question of the rehabilitation of the socially unfit to the medical aspects of public health would have been inevitable.

These considerations need not, however, have precluded the possibility of the re-organization of the Department of Public Health in a way designed to overcome the objections mentioned above. The amalgamation of social welfare and public health activities in an entirely re-organized Department of Public Health and Social Welfare would have required an officer of administrative and financial training as its head controlling, on the one hand a medical staff under a Chief Health Officer, and on the other, an administrative organization handling social welfare subjects."

It is significant that a separate Social Welfare Department was established.

7. **Supplementary Housing Schemes and Communal Restaurants**

In view of the present housing shortage and the possibility that efficiency may be affected by inadequate housing arrangements, it is suggested that the existing Railway Housing, House Ownership and Rent Rebate Schemes should be supplemented by the establishment of hostels or housing estates for the accommodation of the families of Railway servants in the lower income groups. In either case the provision of communal restaurants might be considered. Many essential commodities are in short supply and in spite of the facilities afforded by Railway
co-operative purchasing schemes, it must be difficult for low-graded railway servants to feed their families adequately. By preparing meals in bulk in restaurants, it would be possible to provide meals at reasonable prices and properly balanced menus could be prepared. Such a step should have beneficial effects on nutrition, health and efficiency.


Railway Social Security Measures in Relation to State Provisions

In order that railway social security measures may be seen in better perspective an attempt will be made to trace the relationship between State and railway social security schemes before proceeding to comment on the apparent deficiencies in the social security measures provided by the Railways.

The whole social security system in South Africa is at present in a state of transition. Two schemes function on the basis of social insurance. These are unemployment insurance and workmen's compensation — although workers do not contribute towards the latter. It is proposed that the national health services, which have not yet been developed to any extent, will eventually be responsible for preventive and promotive health services and for medical services for the entire population. In two of the provinces, i.e. the Transvaal and the Orange Free State, free hospitalization services will shortly be introduced. No arrangements have, however, been made for insurance against loss of earnings due to sickness and cash benefits will, therefore, not be paid. Old age pensions will continue to function on a non-contributory basis with a means test for determining eligibility. Family allowances are payable, subject to a means test, where there are more than two children in a family. The income ceiling of £17 per month
for Europeans and £9 per month for coloured persons (in cities) is so low that it is unlikely that railway families would be eligible for benefits under this scheme.

It is difficult to make definite suggestions in regard to railway services when the extent of the future development of State services is not known. Generally it is in the interests of the employer to supplement or augment State social security measures where these are incomplete or inadequate as insecurity has an adverse effect on the wellbeing and efficiency of workers. The Railways have established their own sickness insurance and superannuation and gratuities schemes to supplement State schemes and have augmented the benefits applicable in terms of the Workmen's Compensation Act. There are, however, certain deficiencies in the railway schemes and in existing State schemes, and it is difficult to suggest ways and means of remediying them. In considering the country as a whole these deficiencies may be of less urgency and importance than other measures which have yet to be introduced, and the Railways on the other hand may be unwilling to incur expenditure on improving schemes which may ultimately be taken over by the State or which are felt to be the responsibility of the State.

The new unemployment insurance scheme has been criticised on various grounds, and a Commission was recently appointed to investigate various aspects of the operation of the Act, but on the whole Railway servants are not greatly affected by unemployment insurance, as it is the policy of the Railways to encourage continuity of service. Unemployment insurance is in any case only applicable to casual and temporary servants.

The introduction of national health services is likely to affect the railway sick fund, and when the national health services and provincial hospitalization schemes are developed the present Sick Fund system will
probably have to be completely revised. It would, however, seem to be desirable to continue to run a sick benefit scheme as a form of insurance against loss of earnings due to sickness for which contributions could be suitably adjusted. Medical services in their present form would in all probability no longer be required, unless arrangements could be made for sick fund services to be integrated with the national health services and for the Railways to undertake this work for their employees on behalf of the national health services. In either case, there is some doubt as to whether the Railways should embark on any large scale changes in the functioning of the Sick Fund at the present time. If the Sick Fund is not to become an integral part of the national health services, the expenditure which would be involved in any immediate changes might not be justified. If it is ultimately to form part of the national health services programme any adjustments made now might not fit in with the requirements of the national health scheme. The two determining factors would seem to be whether present deficiencies justify immediate adjustments and the time which is likely to elapse before national health services are fully developed.

State responsibility in regard to workmen's compensation is clearly defined and in spite of certain limitations this is at present the most satisfactory State social security measure. It has, therefore, been possible for the Railways to adopt a definite policy in relation to workmen's compensation, and certain additional benefits are available to members of the Administration's regular staff. Some of the benefits applicable to Natives in terms of the workmen's Compensation Act seem to require adjustment, notably the payment of lumpsum compensation, where the degree of disability is in excess of 25%, instead of a pension as is the case with Europeans. Such an adjustment could hardly be undertaken by the Railways since in cases where a severe disability occurs the Native concerned would probably cease to be a Railway
servant and apart from financial considerations, suitable arrangements would have to be made in regard to the methods of paying out the pensions, perhaps in areas far removed from railway centres.

The position in regard to superannuation in the railways is fairly straightforward as there is no comparable state scheme. The present state old age pension is on a non-contributory basis and is subject to a means test. There can, therefore, be no doubt that a railway superannuation scheme is justified. The two main deficiencies in this scheme are the inadequate provision for dependents and the exclusion of railway servants who cannot produce a clear certificate of health at the time of entering the railway service. Here again it might be argued that persons in these categories are rightly the responsibility of the State and not of the employer.

The deficiencies in state and railway social security measures are not difficult to detect - in fact they are probably apparent to anyone who has given any thought to the matter of social security. Nor is it very difficult to suggest ways and means of remediaying the deficiencies. The real difficulty lies in the financing of the remedies and in deciding who is to be responsible for their introduction. The national income - inadequate as it is - is already expected to stretch in so many different directions that any additional expenditure must necessarily be considered in relation to the most urgent needs of the country as a whole. As far as the railways are concerned, three factors have to be borne in mind - (i) extensions in social security measures must be considered from a business angle and the possible benefits to be derived from them must be weighed against the additional costs which would be incurred; (ii) in the case of measures to which railway servants contribute it would be necessary to find out whether they would be willing and able to pay increased contributions for increased benefits; (iii) the possible development of State services has to be kept in mind so that the railways do
not become involved in unnecessary expenditure or embark on projects which are likely to be duplicated by State schemes at a later stage.

In view of the many problems surrounding the question of social security in the Railways at the present time, the suggestions contained in the following section are offered reservedly and with the realization that desirable as some of the proposed changes may be, they may be impracticable for financial and other reasons.:-

**Sick Fund Arrangements:**

A proposal for improving health services generally by the introduction of supplementary medical services is given in section 2 of this chapter. The suggestions which follow relate to the existing Sick Fund arrangements and are summarized from the conclusions to chapter 4.A.

(1) It is suggested that at Railway headquarters an administrative medical officer should be appointed to act in a supervisory and consultative capacity to the whole Sick Fund and to co-ordinate and report on medical services generally. The possibility of appointing a similar officer in each System might also be considered. These officers in being released from the ordinary day to day duties of the Railway Medical Officers would be in a position to co-ordinate the work of the Sick Fund in the various medical districts and to integrate Sick Fund services with health and welfare services. They would also be able to co-operate with the personnel research bureau in the compilation of vital statistics and the accumulation of health data. It is possible that the expenditure involved in such a step might be more than offset by improvement in the health and efficiency of Railway servants and by a reduction in sickness absence.
It is suggested that consideration should be given to the question of providing complete dental services and of hospitalization or nursing benefits for confinees where State provision for the latter is inadequate. The lack of such services is likely to have repercussions on railway servants and their families which may eventually involve the Administration in greater costs than the costs of the proposed services. If it is not possible to arrange for the contributions of railway servants to be increased to meet the costs of these additional benefits the possibility of increasing the Administration's contribution to the Sick Fund might be considered.

It seems undesirable that persons who cannot obtain a clear medical certificate should be debarred from medical benefits. It is in the interests of the Administration to ensure that every servant - fit or disabled - is given every opportunity to maintain his health at the best possible standard. Servants who are so handicapped that they cannot usefully be employed by the railways require to be placed in sheltered employment, but those who are accepted for employment should be assisted and encouraged to obtain medical treatment and advice for any physical abnormality from which they might be suffering.

As railway medical officers in the larger centres often have a heavy case load and are kept busy with remedial work, it is suggested that entrance medical examinations should be conducted by the proposed works medical officers mentioned under "Supplementary medical services". These officers should be given every facility to ensure that the entrance medical overhaul is conducted as thoroughly as possible. The purpose of the entrance medical examination should be three-fold:-
a. To find out whether the candidate is suffering from any physical abnormality;

b. To encourage him to seek medical advice and treatment if he is suffering from a remediable condition;

c. To make it possible to place the candidate on such work that any physical handicap will impose the minimum limitation on his efficiency.

(v) The possibility of appointing full-time Medical officers in the larger centres should be given consideration. The advantages of having full-time Medical Officers seem to out-weigh the disadvantages. The fact that Railway Medical Officers usually also conduct a private practice might lead to discrimination between Railway and private patients. In addition, in an organization as large as the S.A.R. it is essential that all health services should be co-ordinated and that these services should be integrated with the other personnel services. This is more difficult to achieve with part-time officers who are unable to devote their whole time and attention to Railway work.

(vi) In the report of the Departmental Committee, it was suggested that Railway Medical Officers send patients to Specialists to reduce their own work. If the Railway Medical Officers have too much on their hands, it is suggested that they should be relieved of some of their duties - for example, the entrance medical examination and attention to minor injuries and illnesses which occur during working hours and which are not serious enough to necessitate that the patient should be booked off from work. This proposal is dealt with under "Supplementary Medical Services" in section 2 of this chapter in connection with the appointment of Works Medical Officers and the establishment of works clinics.

(vii) It would be in the interests of both the Administration and the worker if greater attention were paid to the
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b. To encourage him to seek medical advice and treatment if he is suffering from a remediable condition;

c. To make it possible to place the candidate on such work that any physical handicap will impose the minimum limitation on his efficiency.

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(vii) It would be in the interests of both the Administration and the worker if greater attention were paid to the
rehabilitation of railway servants after illness or injury. Rehabilitative work would be valuable after long illnesses and where a servant is temporarily disabled for long periods as in the case in some types of fracture. Long periods of absence from work are de moralizing and more systematic methods should be adopted in attempting to find suitable light work in such cases. Where a servant is so disabled that he cannot return to his former work and the administration proposes to retain his services provision should be made for re-training. Dramatic results have been obtained with rehabilitative work among disabled soldiers and similar facilities should be available to industrial casualties. This should probably be a State responsibility, but where the railway servant is disabled and his services are to be retained it is a waste of human resources if he is simply placed on any work which he can do. For example, an active man who loses a limb in, say, a shunting accident may not be in the least suited to such work as cloakroom attendant, lifter or records clerk, but unless he is re-trained these are the kinds of jobs on which he is likely to be placed.

It is suggested that rehabilitative workshops should be established in the central training school for the purpose of providing light work in the case of servants who are booked off work for long periods because no suitable light work is available for them, and for the re-training of permanently disabled servants whose services are to be retained.

(#111) It is suggested that the periodical medical examination of railway servants and, if possible, their wives and families should be introduced. By the early detection of disease or of pre-disposing factors towards disease serious illnesses and long absences might be averted.
Periodical medical examinations are an essential part of any programme of preventive medicine. It is interesting to note that periodical medical examinations are to be introduced at the van der Bijl Steelworks in Vereeniging.

b. Superannuation Fund:

The present superannuation arrangements do not cover Railway servants who are unable to produce a clear medical certificate, and provision for the dependents of members and pensioners is inadequate.

It is suggested that the introduction of a provident fund should be considered as a means of assisting these two categories of persons. This fund would represent a compulsory savings scheme and would supplement gratuity or pension payments at the time of the death or retirement of Railway servants.

It is suggested that non-European workers should be included in this scheme and that consideration should also be given to the question of arranging superannuation fund membership for non-European servants who are on the regular staff.

c. Insurance Against Accidents.

In view of the large number of accidents which occur each year, it is suggested that the Administration should tackle the question of accident prevention on more systematic lines. Detailed accident data should be recorded, centralized and analyzed. Accident rates should be calculated for different departments and systems. Monthly competitions might be arranged between different branches of the Service as a means of stimulating interest in accident prevention among Railway servants.

It is also suggested that tests for accident proneness should be included in the general personnel selection programme.

In this context it is of interest to mention that at an Industrial Safety Conference held in Connecticut, U.S.A., in March, 1947, Dr. P. J. Monroe, Neuro-psychiatrist from the New Britain General Hospital, stated that he placed emotional disturbances first in the scale of causes for industrial accidents, cited studies indicating that approximately 15% of the workers in most plants form an "accident prone" class and are involved in almost 100% of the accidents. He also stated that the mentally and emotionally handicapped are greater risks than the physically handicapped. (Industrial Medicine: June, 1947 - from Connecticut Medical Journal, April, 1947).
A proposal for improving rehabilitative services for railway servants who are injured as the result of accidents sustained in the course of duty is contained in the preceding section.

6. The present practice of paying lump sum compensation to natives who are permanently disabled is unsatisfactory and in such cases compensation should be in the form of a pension as is the case with Europeans. This is, however, a State and not a Railway responsibility.

4. PERSONNEL WORK IN RELATION TO THE SOCIAL STRUCTURE.

This report has so far been confined to a review of personnel work within a particular industrial undertaking, namely the South African Railways Administration. Like other industrial undertakings, the Railway Administration is in itself a social system, but it cannot be considered in isolation for it falls within and forms part of the larger social system of the country as a whole. The two social systems are both dependent on and influenced by one another.

Personnel management is concerned with the living structure of the industrial undertaking and its scope is limited only by the relationships of the men and women engaged in that undertaking. These men and women are as much a part of the wider social system of the country as of the smaller industrial system. They bring to the work situation traces of their contact with the wider social environment and carry into this environment some of the influences of their working life.

The human relationships within an industrial undertaking, therefore, assume great complexity. The stresses and strains of industrial life alone are enough to set up tensions, but added to these are the individual and group differences which have their origin outside the
workshop and office walls. It is not surprising that frictions, dissatisfactions and disagreements often occur and find expression in such symptoms as excessive absenteeism and labour turnover, poor production, low morale, lack of co-operation and industrial disputes.

It is largely because of the difficulties associated with the handling of these problems that attention has come to be focussed on the human relationships in industry and the principles and practice of personnel management have emerged.

This new interest in human relationships is well timed. Recent advances in scientific and technological research have led to revolutionary developments in the field of nuclear fission and the production of new materials, which seem to indicate that scientific and industrial progress has outstripped knowledge in the field of human organization. If the potentialities of these new resources are to be directed towards the betterment of human society and not towards its destruction, insight into the human problems created by our industrial advance must catch up with science and technology. The most urgent need in human organization is for co-operation. This need is apparent in the field of international and national affairs as much as in the narrower sphere of industrial relations.

Professor Elton Mayo has pointed out that, "While material efficiency has been increasing for two hundred years, the human capacity for working together has in the same period continually diminished. Of late, the pace of this deterioration seems to have accelerated. This observation is strikingly evident in the international field; it is evident also within any modern society, if the relation between the constituent groups be closely inspected .... the human capacity for spontaneous co-operation has greatly diminished or, at least, has not kept pace with other
Personnel management represents one of the ways in which human co-operation can be improved, and research directed at a systematic study of the problems of human relations in industry may help to bridge the gap which now lies between developments in the field of science and technology on the one hand, and human organization on the other.
Appendix A. (1)

CASE HISTORY CARD.

The information contained on this card could be divided into the following eight sections, and each section could be recorded on a separate card, if it is more convenient to do so:

(i) Pre-Employment Information.
(ii) Employment Information.
(iii) Labour Turnover Data.
(iv) Sickness Absence.
(v) Accidents and Absenteeism Attributable to Accidents.
(vi) Family Health.
(vii) Family Welfare.
(viii) A Leave Card indicating the amount of leave standing to the employee's credit and the amount taken each year. (No provision has been made for leave in the suggested Case History Card and a separate card would, therefore, be necessary).

The reason for using a single Case History Card would be to get as complete a picture as possible of each employee and his family at a glance. The information would have to be greatly condensed and a system of abbreviations and symbols could perhaps be worked out. If a single card is used, it might be necessary to complete a new card for each employee each year in view of the limitations of space. It is suggested that these cards should be completed in duplicate and that one copy should be retained in the system office and the other should be sent to the Central Recording office at headquarters.
## 1. PRE-EMPLOYMENT INFORMATION

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>C. T. or P.</th>
<th>Date of Birth</th>
<th>Sex</th>
<th>Marital Status</th>
<th>Date of entering Service</th>
<th>Date of appointment to Temporary Staff</th>
<th>Date of appointment to Permanent Staff</th>
</tr>
</thead>
</table>

**Qualifications:**

**Summary of Previous Experience:**

Previous Employer(s) in past two years:

<table>
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<tr>
<th>Periods of employment</th>
<th>Nature of Duties</th>
<th>Rate of Pay</th>
<th>Initial Interview</th>
<th>Competitive Examination marks</th>
<th>Intelligence Quotient</th>
<th>Antitude Test Ranking</th>
<th>Temperament Test Rating</th>
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</table>

**Summary of Entrance Test Results:**

<table>
<thead>
<tr>
<th>Previous Employer(s)</th>
<th>Initial Interview</th>
<th>Competitive Examination marks</th>
<th>Intelligence Quotient</th>
<th>Antitude Test Ranking</th>
<th>Temperament Test Rating</th>
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</table>

## 2. EMPLOYMENT INFORMATION

<table>
<thead>
<tr>
<th>Date of Appointment to present position (This column will show promotions)</th>
<th>Official Designation</th>
<th>Duties</th>
<th>Salary or Rates</th>
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**Transfers:**

Date of Transfer | From | To | Reasons for transfer, i.e. Promotion, Health, Health of Family Climate or any other reason. Please state whether at own request or request of Department.

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<th>Date of Transfer</th>
<th>From</th>
<th>To</th>
<th>Reasons for transfer</th>
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**Periodical Ratings:**

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<th>Year</th>
<th>Employment Rating</th>
<th>Mental Stability Rating</th>
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</table>
**Labour Turnover.**

Date of Leaving Service. Reason for leaving - i.e. age limit, ill health, permanent disablement as result of industrial accident or disease, dismissal or resignation. (Reason for resignation should also be given.)

---

**Health Information.**

Date of Entrance Medical Examination. Remarks. (Specify any abnormality)

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**Accidents and Industrial Diseases.**

Injury on Duty or Industrial Disease. From To Into Injury - Accident Accident or or Disease Disease. Nature of Accident or Disease According to classification. Nature of Accident or Disease According to classification.

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**Health of Family.**

Name of R.M.O. Remarks.
<table>
<thead>
<tr>
<th>Date of Marriage</th>
<th>Wife's occupation before marriage</th>
<th>Present occupation if working</th>
<th>State whether Family in receipt of -</th>
<th>Members of -</th>
<th>State-aided products.</th>
<th>Vegetable Club</th>
<th>Fruit Club</th>
<th>Home-craft Club</th>
<th>St. John Ambulance Brigade</th>
<th>Any other Clubs.</th>
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Recreational and Hobby Activities of Family:
Father: .............................................................
Mother: .............................................................
Children: .............................................................

<table>
<thead>
<tr>
<th>Date of Welfare Officer's Visits</th>
<th>Remarks: Appearance, Mental State and General Health of Wife and Family</th>
<th>Condition of Home</th>
<th>Specify any problems, such as Alcoholism, Debt, Malnutrition, Ill Health</th>
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Sickness, injury and accident classifications would have to be prepared and the symbols for the relevant groupings would be shown in the respective columns. A tentative sickness classification is attached.
### Suggested Classification of Diseases and Injuries

1) **Colds and Influenza:**
   - (i) Colds
   - (ii) Influenza

2) **Diseases of the Respiratory System:**
   - (i) Pneumonia
   - (ii) Bronchitis
   - (iii) Laryngitis
   - (iv) Asthma
   - (v) Other diseases of the respiratory system

3) **Diseases of the Digestive System:**
   - (i) Biliary Attacks
   - (ii) Jaundice
   - (iii) Gastric and Duodenal Ulcers
   - (iv) Gastro-enteritis
   - (v) Appendicitis
   - (vi) Other diseases of the digestive system

4) **Rheumatism Group:**
   - (i) Rheumatism
   - (ii) Arthritis
   - (iii) Fibrositis

5) **Diseases of the Circulatory System:**
   - (i) Heart Diseases
   - (ii) Hypertension
   - (iii) Diseases of the arteries and veins

6) **Infectious Diseases:**
   - (i) General Infectious Diseases
   - (ii) Tuberculosis

7) **Genito-Urinary Diseases:**
   - (i) Kidney and Bladder Complaints
   - (ii) Diseases of the genital organs (general)
   - (iii) Menstrual disorders

8) **Skin Diseases**

9) **Endocrine and Endocrine Diseases:**
   - (i) Goitre
   - (ii) Diabetes
   - (iii)Anaemia

10) **Functional Nervous Disorders:**
    - (i) Psycho-neuroses and abnormal character states
    - (ii) Functional disorders of digestion, etc.

11) **Eye Diseases**

12) **Ear Diseases**

13) **Unclassifiable Conditions**

14) **Accidents:**
    - (i) Abrasions ... wounds, cuts, etc.
    - (ii) Sprains, strains, displacements, etc. and dislocations.
    - (iii) Fractures ... to be classified in accordance with type of fracture:
      - (a) Greenstick
      - (b) Simple fracture
      - (c) Compound fracture
      - (d) Comminuted
      - (e) Bones affected
### SPECIMEN RATING SCALE FOR A PARTICULAR TYPE OF WORK

This Scale would be suitable for a clerical position.

<table>
<thead>
<tr>
<th>General Ability in Job</th>
<th>Poor</th>
<th>Below Average</th>
<th>Average</th>
<th>Above Average</th>
<th>Well Above Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knows little about the job.</td>
<td>Capable only of routine work in connection with job.</td>
<td>Is able to cope with the job.</td>
<td>Is well able to do the job and has good all-round knowledge of details related to work.</td>
<td>Thoroughly capable and has thorough knowledge of all details relating to job.</td>
<td></td>
</tr>
<tr>
<td>Versatility</td>
<td>Can do only one type of work.</td>
<td>Can be used in other types of work only if closely supervised</td>
<td>Capable of doing related work with a little supervision</td>
<td>Can do several types of work well with minimum supervision</td>
<td>Capable of undertaking various types of work efficiently without supervision</td>
</tr>
<tr>
<td>Accuracy</td>
<td>Very inaccurate and makes many mistakes.</td>
<td>Not very accurate and often makes mistakes.</td>
<td>Fairly accurate.</td>
<td>Careful and seldom makes mistakes</td>
<td>Highly reliable and makes only unavoidable mistakes.</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>Does not care about work and consistently takes things easily.</td>
<td>Not very interested and loses time unnecessarily unless prodded.</td>
<td>Fairly steady worker</td>
<td>Willing and interested and readily completes work assigned</td>
<td>Very willing and keen and completes more than required to do</td>
</tr>
<tr>
<td>Initiative</td>
<td>Does nothing without direction and always avoids difficult jobs.</td>
<td>Makes little attempt to work without direction and is easily discouraged.</td>
<td>Makes an attempt to work on his own.</td>
<td>Gets started on a job and sees it through.</td>
<td>Not afraid to tackle anything and persists until job is successfully completed.</td>
</tr>
<tr>
<td>Co-operation</td>
<td>Always grumbling and discontented. Does not work well with other people.</td>
<td>Not a good team worker.</td>
<td>Fairly willing to work with and assist other people.</td>
<td>Gets on well with others and is usually ready to assist them.</td>
<td>Can always be relied on to get on well with others and to assist them.</td>
</tr>
<tr>
<td>Interest</td>
<td>Totally dis-interested and never seeks information on job.</td>
<td>Very little interest and seldom seeks information.</td>
<td>Fairly interested and sometimes seeks additional information on job.</td>
<td>Very interested and seeks to improve knowledge.</td>
<td>Highly interested and always seeking to improve knowledge of job.</td>
</tr>
</tbody>
</table>
A check mark is placed against the most appropriate description of the person who is being rated and each square is so marked that the range from unfavourable towards favourable can be indicated.

<table>
<thead>
<tr>
<th>Productivity</th>
<th>Poor</th>
<th>Below Average</th>
<th>Average</th>
<th>Above Average</th>
<th>Well above Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output</td>
<td>Output below average</td>
<td>Output above average</td>
<td>Output above average</td>
<td>Output consistently above average</td>
<td></td>
</tr>
<tr>
<td>Consistently below average.</td>
<td>Consistently above average</td>
<td>Consistently above average</td>
<td>Consistently above average</td>
<td>Consistently above average</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Personality</th>
<th>Poor</th>
<th>Below Average</th>
<th>Average</th>
<th>Above Average</th>
<th>Well above Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creates a consistently bad impression.</td>
<td>Usually makes a fairly good impression.</td>
<td>Likeable and makes a good impression.</td>
<td>Very pleasant and likeable and consistently makes a favourable impression.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consistently bad impression.</td>
<td>Consistently above average</td>
<td>Consistently above average</td>
<td>Consistently above average</td>
<td>Consistently above average</td>
<td></td>
</tr>
</tbody>
</table>
### Desirable Qualities

1. Very tactful.
2. Wines co-operation and loyalty.
3. Confident.
4. Full knowledge of job.
5. Keen and alert and takes unusual interest in job.
6. Excellent training for job.
7. Worked perseverance and always stays on the job until it is finished.
8. Unusual capacity for work.
10. Grasps new situations easily.
11. Makes decisions easily and ably.
12. Is reasonably humble.
13. Always on top of his job.
14. Well controlled and seldom loses his temper.
15. Presence of mind in an emergency.
16. Inspires confidence.
17. Has a sense of humour.
18. Considerate and kind.
19. Is able to impart knowledge well.
20. Gets the most out of other people.
22. Has the courage of his convictions.
23. Responsive to new ideas and seeks for new and better ways to do a job.

### Undesirable Qualities

1. Very aggressive.
2. Antagonises others.
3. Lacks confidence.
4. Poor knowledge of job.
5. Disinterested in job.
6. Poor training for job.
7. Easily discouraged and seldom sees a job through.
8. Tries to get out of work.
9. In disorganized and muddles along.
10. Is slow to grasp a new situation.
11. Undecided and hesitant.
12. Full of his own importance.
13. Weighed down by his job.
14. Frequently irritable and loses his temper easily.
15. Loses his head in an emergency.
17. Has no sense of humour.
18. Inconsiderate and thoughtless.
19. Is unable to impart knowledge well.
20. Others do not work well under him.
22. Is a "Yes" man.
23. Very conservative and is not amenable to change.
### Desirable Qualities

<table>
<thead>
<tr>
<th>No.</th>
<th>Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>24.</td>
<td>Has a pleasing personality</td>
</tr>
<tr>
<td>25.</td>
<td>Others look to him for leadership</td>
</tr>
<tr>
<td>26.</td>
<td>Has vision and foresight</td>
</tr>
</tbody>
</table>

### Undesirable Qualities

<table>
<thead>
<tr>
<th>No.</th>
<th>Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>24.</td>
<td>Is an unpleasant personality</td>
</tr>
<tr>
<td>25.</td>
<td>Is not accepted as a leader</td>
</tr>
<tr>
<td>26.</td>
<td>Is lacking in vision and foresight</td>
</tr>
</tbody>
</table>

This check list could be used as a guide in the selection of supervisors. On the left hand side the most desirable qualities should be checked and on the right hand side the most undesirable qualities. On either side not more than six qualities should be checked. The scorer should check only qualities of which he has knowledge and which he can substantiate by example. Examples should be given in the margins on the right hand side of the check lists.
I. Earnings, Salaries and Wages

1. Superannuation Fund

a. Administration's contribution on "for service" basis.  
   to cost of deficiency in fund.  
   1,222,262  
   641,517
   (Interest payable to the Fund by the Administration has been excluded.)

b. Sick Fund
   Administration's general contribution.  
   Contribution for non-European servants.  
   Medical examination of employees.  
   for re-laying and extra canteen.  
   Administration's contribution for injury-on-duty cases.  
   Salaries of administrative staff.  
   42,773  
   22,446  
   7,565  
   14,146  
   6,141
   4,261
   4,443
   157,653

(c) War Pensions
   Administration's contribution to war pensions.  
   33,773

(d) Unemployment Insurance
   Administration's contribution to the unemployment insurance fund in respect of temporary and casual servants.  
   42,553 (as at end of 1946), the administration for annum based on first quarter of 1947.)
2. **FAMILY AND SOCIAL WELFARE**

**Health and welfare staff, salaries (V.A.)**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>£26,760</td>
</tr>
</tbody>
</table>

Rent rebate

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>£2,577</td>
</tr>
</tbody>
</table>

If costs of equipping recreational centres, cafeterias, hostels, etc., and of subsidies to physical education schemes and St. John Ambulance Brigade and expenditure incurred in provision of general health measures are added the estimated total cost would be in the region of £50,000.

3. **STAFF DEPARTMENT**

**Salaries General Manager's Staff Section (150s)**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>£127,024</td>
</tr>
</tbody>
</table>

System and other staff departments.

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>£427,024</td>
</tr>
</tbody>
</table>

4. **STAFF TRAINING SCHOOL**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>£30,700</td>
</tr>
</tbody>
</table>

Staff engaged in administration of housing and rent rebate schemes,

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting staff dealing with superannuation fund and workers' compensation Act.</td>
<td>£2,526</td>
</tr>
</tbody>
</table>

The estimated cost to the administration of personal services does not include sick pay or travelling facilities. It was not realistic to obtain figures for the former and it would have been very difficult to estimate the cost of the latter. Cost of living allowances have also been excluded because they do not apply only to retired servants.

If the total expenditure incurred by the army in the year on behalf of civil servants were to be exactly as stated above, it would mean that the administration spends roughly 20 per cent on each employee.
It is of interest to quote the estimated value to the individual employee of Railway personnel services as calculated by a firm of actuaries for the Commission which was appointed to inquire into the recent dispute between the Railway Administration and the Railway artificers staff:

<table>
<thead>
<tr>
<th>Privilege</th>
<th>Average Value per Hour in Pence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superannuation Fund</td>
<td>3.06</td>
</tr>
<tr>
<td>Sick Fund</td>
<td>-</td>
</tr>
<tr>
<td>Rent Rebate</td>
<td>0.18</td>
</tr>
<tr>
<td>Travelling Facilities</td>
<td>1.95</td>
</tr>
<tr>
<td>Injury-on-duty Pay</td>
<td>0.27</td>
</tr>
<tr>
<td>House ownership scheme</td>
<td>0.15</td>
</tr>
<tr>
<td>Cost of living allowance</td>
<td>2.33</td>
</tr>
<tr>
<td>Sick pay</td>
<td>0.98</td>
</tr>
<tr>
<td></td>
<td>6.52</td>
</tr>
</tbody>
</table>

The estimated value of 6.52d per hour was calculated in respect of artificers and adjustments would have to be made in regard to other categories of staff. The Administration subsidizes the Railway Sick Fund to the extent of 17 of members' subscriptions and the actuaries considered that this item should be ignored.
REFERENCES

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Smith, May: An Introduction to Industrial Psychology: Caswili, 1943.


Viteles, M. S.: Industrial Psychology: Jonathan Cape, 1933

**RAILWAY LEGISLATION, REGULATIONS, REPORTS, ETC.**

1. Railways and Harbours Service Act (Act No. 23 of 1925).

**Regulations**

1. Regulations Relating to Administration of Superannuation Fund Act (1940).
2. Regulations Governing the Granting of Travelling Facilities to Railway Servants.

**OTHER LEGISLATION, REPORTS AND PUBLICATIONS.**

1. Factories Act (Act No. 22 of 1941).
2. Old Age Pensions Act (Act No. 22 of 1928).
Report of the National Health Services Committee: U.O.30 of 1944.


Institute of Labour Management (London): Human Problems of Management (1937).


Harvard University Graduate School of Business Administration (Bureau of Business Research): Absenteeism Management's Problem by J. B. Fox and J. F. Scott.

In addition to the references given in this list, a considerable amount of information was obtained verbally from Departmental heads and other responsible officers in the S. A. Railways. This information and all the other factual evidence relating to the Railways contained in this report has been checked by the S.A.R. Administration.