

PERSONNEL AND EMPLOYMENT

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Personnel and Employment.

Introduction

The science of the selection of human beings for certain positions in industry has been developed for the most part during the last decade.

For a long time considerable skill has been used in the purchasing of raw material but with little attention given to the purchasing of human labor. In scientific purchasing, the market is studied, materials are tested, and a careful survey of all conditions are made. There is no blind bargaining. The same principles that govern the purchase of any commodity should be observed in the selection of workers, but unfortunately only a comparatively small number of employment executives have recognized this fact.

One reason for this lack of development has been the surplus labor reserve. This no longer prevails. Industrial conditions and legislation are working to eliminate this excess labor supply and wise business executives recognize that the source of labor supply should be correlated with the organized labor market.

Executives have found that there is an enormous expense connected with the hiring and firing of men. They realized that a reduction of labor turnover was best brought about by carefully considering in advance

the fitness of the applicant for the job in question. In order to put this principle into operation, special selection and placement departments were created.

Personnel administration according to Tead and Metcalf, is the direction and co-ordination of human relations of any organization with a view of getting the maximum necessary production with a minimum of effort and friction, and with proper regard for the general well-being of the worker.¹

To obtain the best results a separate personnel department should be maintained. This department should stand on an equal basis with other departments. Its purpose is to analyze the job, and to make all necessary studies of job requirements in order that the applicant may be measured in accordance with the demands of the position for which he is an applicant.

Personnel departments may vary according to the size of the firm, the character of the business, and the local labor situation. Notwithstanding these variations, there are a number of essential features common to all personnel departments. It is the purpose of this investigation to discover how these essential principles of management are applied in the personnel department of typical industrial concerns.

1. Tead and Metcalf -- Personnel Administration, page 2.

CHAPTER I.

The Functions of the Personnel Department.

An important function of the personnel department is that of selection of employees. The personnel department should investigate the requirements of the firm and the source of supply of the various grades of labor. New channels of labor supply are furnished by schools, by immigrant, and by transfer from other firms. Applicants are interviewed by the personnel manager, and are subjected to certain tests and examinations. Records are kept not only of employees, but also of applicants for positions who are thought worthy of future consideration. References are followed up and in some cases personal visits are made to the employee's home.

Another function is the "follow up" of the employee. The average executive does not have time to give much attention to a personal study of his employees, so a separate individual is usually hired entirely for the purpose of follow up work. It is the aim of the employment manager to keep in close personal contact with his men. Much of the work of the employment department is done after the applicant has been hired. It is then necessary to assist him in adjusting himself to his new environment.

On the other hand, companies having no personal

department the applicant fills out a blank, receives a few moments of preoccupied attention, is assigned to a department where help is needed, and is then forgotten.

Under the personnel department may come the training of new workers and apprentices. Some firms find it very beneficial to educate their own employees. The Marshall-Fields Company maintains a school to train their own sales-people. They are thoroughly taught the Marshall-Fields policy and their salesmen, no matter where you find them, do not deviate from their policy.

Henry Ford educates a great many of his employees. He maintains many different courses of instruction. All Ford employees have the opportunity of receiving expert instruction during their period of employment.

Department stores furnish a good illustration of the training of employees. The need of such training is emphasized in a report of the New York Educational Society in which it is shown that less than one-half of the employees in ten large department stores of a certain city have a grammar school education.¹ This condition is now changing for the better due to the educational and child labor laws restricting the employment of children. Though the legal age for employment is now fourteen years in some states, many establishments have decided to employ

1. Bulletin sent out by New York Educational Society.

no person under sixteen years, thus doing away with compulsory continuation schools and labor certificates.

One of the objections often made to systematic training for department stores' employees is that they spend only three or four years at their work and during this time shift rapidly from one store to another. The purpose of training employees is to awaken their dormant powers, and to increase their efficiency so as to fit them for promotion.

Dr. Sveddin says that one of the greatest reasons for the decline of the apprenticeship method and the increase of training given in schools, is that the number of jobs is increasing so much faster than they can be filled by the old apprenticeship method.^{1.}

If the employee is required to attend a special school, he should not be expected to study and attend classes solely on his own time.

The three essential requirements for the scientific training are as follows:^{2.}

1. The existence of a continuing hope of promotion.
2. Sufficient time in which to study.
3. Freedom from favoritism.

^{1.} Vocational Guidance--Sveddin, Chapter 2.

^{2.} Lecture given Summer 1921, by Miss McFarlin, University of Colorado.

No incentive for better work can be given unless there are just rewards for improvement, and no broad system of training can continue unless it has a close connection with the machinery of the organization.

A function of much significance is the analysis of labor turnover. This is perhaps the greatest problem that has to be solved by the personnel department. An unusual turnover in any department will be a danger signal, calling for special investigation.

Turnover in retail stores is perhaps an extreme case. In one city where a complete study¹ was made, it was found that out of three hundred and twenty-seven women members of the sales force in the largest store, the average age was twenty-four, and the average number of years spent in department store work was six. The high rate of labor turnover among women employees is due to the fact that they are too proud and too timid to go to the management and ask for an increase but instead secure employment elsewhere.

There are forty million jobs in the United States which furnish the five million changes in work each year, with an annual loss of over a billion dollars--an average cost of twenty-five dollars for each change of jobs.

¹ Lee Gallaway, Office Management. Chapter 3.

¹ Labor turnover is the change in personnel of any working force that is brought about by hiring and firing the service of workers either by resignation or dismissal of employees.

The rate of labor turnover may be estimated by dividing the average number of employees on the pay-roll in a general period into the total number who quit their employment in the same period.

If in an establishment employing an average of one thousand employees, five hundred quit their services during the period, the turnover is 50 % for this period.

The formula for calculating per cent of labor turnover as given by Tead & Metcalf is as follows:

$$2. \quad T = \frac{S}{F}$$

In this formula T represents the rate of turnover; S the total separations and F the total average force on the pay-roll.

The former formula may be modified to keep complaint dissatisfaction at a minimum: $T = \frac{(S - U) - LC}{F}$

In this formula T represents the rate of turnover; S the total separations; U the unavoidable separations; LC is the permanent changes and not seasonal lay-offs, and F is the average force on the pay-roll.

1. Holtzclaw, H. F. Definition given in a class in Personnel Management at Okla. A. & M. College, 1922.

2. Tead & Metcalf, Personnel Administration. Page 283.

There are several reasons for a high rate of turnover. Some of these reasons are:

In some plants their output is seasonal. The employees needed for this work during a certain period must necessarily be laid off during another period on account of the nature of the business.

Plants that do not have a good personnel department have no specific requirements. An unskilled worker who is seeking employment will apply and get the job. After he works a few days he finds that he is not qualified. He then quits, which increases the rate of turnover.

There should be a definite plan of promotion. Where an employee works day after day at the same job, receiving the same rate of pay, and seeing no chance of bettering himself in the plant, the first chance he gets, he will go to another plant again increasing the rate of turnover.

Two of the greatest reasons for a high turnover are long hours and low pay. The employee is entitled to a certain amount of recreation and enough money to maintain the prevailing standard of living for himself and his family. Should he not get this he will seek employment elsewhere.

Promotion is an incentive to work and where the employee can see no chance for promotion he loses interest and finally quits the job.

Other functions of the Personnel Department are:

1. Arrangement for promotion or increase in pay, transfer to other departments or to different kinds of work. These are matters with which the employment manager should deal. In some cases the employment manager has full control over discharge but in most factories he must act only upon the recommendation of the foreman.

2. The enforcement of Federal and State laws concerning the occupation of minors and women.

The Oklahoma law regulating the employing of minors and women is as follows: 1.

"No child under the age of fourteen years shall be employed or permitted to work in any factory, factory workshop, theater, bowling alley, pool hall, or steam laundry and no child under the age of fifteen years shall be employed or permitted to work in any occupation injurious to health or morals or especially hazardous to life or limb. No child under the age of sixteen years shall be employed or permitted to work at any of the following occupations--wiping or cleaning any dangerous machinery, manufacture of paints when there are acids, dyes, lyes, gases, glass dust or other dust or lint in such quantities as to be injurious to health, nor shall females under the age of sixteen years be employed in

1. Labor Laws of Okla. 1919. Article III. Section 3728.

any capacity when such employment compels them to remain standing constantly." Section 3722. "No child under the age of sixteen years shall be permitted to work in any gainful occupation except in agriculture and domestic science more than eight hours in any one day, allowing one hour a day for noon-day meal and rest, or more than forty eight hours in one week. During the time the child is at work the employer must provide seats."

Section 3723: "No boy under the age of sixteen years and no girl under eighteen years shall be permitted to work in any of the occupations mentioned between the hours of six o'clock p. m. and seven o'clock a.m."

Chapter 163, Section I. "No woman shall be allowed to work in certain occupations more than nine hours per day, no more than fifty-four hours per week."

For further information see the "Labor Laws of Oklahoma".

3. Arranging for the housing of employees, caring for health and sanitation, providing recreation, libraries, lunch rooms and acting as a general information bureau.

4. Reducing absences and tardiness. 1.

The causes of labor turnover may be divided into:

1. Duncan H. N., Industrial Management. How to Reduce Absences and Tardiness.

1. Physiological.
2. Psychological.
3. Social.

The cost of labor turnover is enormous. In the bringing of an employee to efficiency, there must be included, the hiring of the new worker. This also takes the time of high salaried men to oversee him and bring him in correct relations with the other employees of a plant.

The new workers must also be trained, and this training must be given by superiors which takes up a great deal of their time.

When an unskilled person is employed he does not work as fast, or put out as satisfactory a product as the older worker. Where the production is set down, the cost may be higher per unit; the overhead remaining the same as for a greater production. It is also true that the unskilled worker wastes a great deal more raw material than a skilled worker. Too, when an employee does not know how to care for machinery, accidents occur frequently and the machinery depreciates much more rapidly. This results in an increased cost to the management.

The personnel department was devised to partially control these things. The department should prove that turnover can be reduced by:

1. A better handling of employment.
2. More intelligent placements.
3. A definite system of wage increases and promotions.

The personnel department should analyze two factors before the suitability of an applicant for a job can be considered.

1. The qualifications necessary or desirable for a position.
2. The test necessary to determine whether an applicant meets these requirements.

If jobs could be standardized the management would be quite simple. But since work involves more of the personal element than does machine work, making the problem of standardizing the job quite difficult.

The scientific selection of employees, followed by specialized training to fit them for their jobs and promotion as soon as they show fitness to be advanced is the most rational way of giving stability to employment and of attacking the evil of labor turnover.

CHAPTER II.

Job Analysis.

If a department is in need of help, the qualifications needed for the job should be indicated on a requisition blank, so that the selection can be intelligently made. This involves job analysis--one of the most difficult and fundamental functions connected with the scientific selection of men.

Job analysis is desirable for two reasons:

1. It may be used to arrive at a satisfactory wage schedule.

2. It may help select, train and promote employees.

From the definition given by Tead & Metcalf,¹ the meaning of job analysis can be readily understood. "Job analysis is a scientific study and statement of all the facts about a job which reveal its content and the modifying factors which surround it." A job analysis is really a blue print of job requirements.

Job analysis is of value to every one directly or indirectly concerned.

The advantages to the employer are numerous. In the first place a job analysis standardizes the operation. This analysis of a job shows the management the best way to carry on an operation under the existing conditions.

1. Tead & Metcalf. Personnel Administration. Page 255.

Job analysis not only standardized operation but it also is used to improve on operation. In the original analysis the defects and good points both are made clear. If the employer can see the defects of the plant, he can devise means of doing the work more quickly, and a better quality of product can be turned out with less fatigue, less effort and less cost.

Job analysis also places responsibilities where they should be placed. Where there is no such analysis, a great deal of responsibility is left to the entire plant. It cannot be traced down to a central point, because no one knows to whom it belongs. In job analysis the responsibility of buying is clearly given to one person, and of inspection of machinery, to another. All the responsibilities are centered in certain proper individuals.

The analysis of a job also presents a statement of sequence of operation. It shows the prevailing order in which work is done and enables the manager or foreman to see whether this prevailing order is the best way of doing operations.

The analysis of a job also furnishes data which can be used in the job specifications. It shows the effect that the job has upon the worker.

Job analysis shows the amount of output produced by workers of different degrees of skill. The slow worker

tends to work faster trying to produce as much as the man higher up.

The different jobs are co-ordinated more soundly in the job analysis. The relation is shown between different operations.

This analysis is also of value to the employee in the following ways:

It makes the work run smoother and easier. There is assured a steady supply of raw material so the work runs smoothly.

Job analysis increases the workers earning power as it increases productivity. There may be some difficulty in this as laborers usually want more divided than is actually produced.

The employer and employee should be brought together and agree on the fair amount of output. This bargaining is used by some large plants.

The job analysis would not be complete if it neglected the public. This it does not do as the consumer is intimately dealt with.

The public is often called in as a third party to settle disputes between managers and workers. From the analysis of a job, necessary information can be gathered so the public can act intelligently in this capacity of settling labor disputes.

The public is very much interested in preventing accidents, and in the protection of its members in any way. From a good job analysis data may be collected so that society may set up protection standards. An example of this is the eight hour day that has been passed.

Job analysis advertises bad conditions, as it shows exactly what conditions are. A good way to show this would be by a graph. By taking a number of periods, if there is an increase in unwholesome conditions the curve will emphasize this.

According to Tead & Metcalf job analysis¹ should contain subjects treating with:

- The job itself;
- Qualifications necessary in the worker;
- Sequence of operation;
- Effects of the job on the worker;
- Relation of the job to the organization;
- Relations of the job to the community.

In the study of the job itself there should be given first a complete description of the job. Anything that is available to make the general picture of the job clear should be used.

If there is machinery to be handled in connection with the job, this should be fully explained.

1. Tead & Metcalf. Personnel Administration. Page ²³⁹ 260.

There should be listed the materials used in the job, whether they are expensive or not. The motions that the employee must go through in doing the job. The analysis should contain the time of work and the hours required.

There should be a standard of output. This will be a true condition of average output with existing improvement and machinery. Then the actual amount of output should be taken into consideration. This will show if workers are doing better or slacking up. There should be full consideration of pay. The rate they pay, whether by hour, piece or week, and different things as length of service, cost of living that is taken into consideration in the determination of the wage, should be clearly stated.

There should be a clear explanation of the effects of the job on the worker.

These may be:

Physiological.

Psychological.

Social.

but whatever they are the worker should know about any before he is employed.

Then there should be a study made of the relation of this one particular job to other jobs in the plant. The foremans' connection with the job, the effect of sales

and finance on the job, the general working conditions and service equipment and any other factor that can in any way be related to the job. Then there should be given the relation of this job to the community. After a complete job analysis is made, the job specifications can be taken from it. ^{1.}

After the job analysis has been made the specifications should be made in writing.

The advantages of written specifications are: ^{1.}

1. Employees and executives are forced to think seriously and systematically about the tasks and the possibilities of better conditions, as well as of increased production.

2. It leads to intelligent interest on the part of the working force.

3. The employment department is assisted in selecting new employees.

4. Information and suggestions can be given to new employees with a definiteness that can not otherwise be attained.

5. Helps to establish a more effective scheme of relationship between executives and the working force.

6. Lessens disagreements for there is a better knowledge of requirements.

^{1.} Training and Selection of Personnel--Lecture given by Miss McParlan, University of Colorado.

7. It helps the education department in planning and carrying on its work.

8. New opportunities for transfers and promotions are brought to light.

9. High grade positions are always filled from within and less desirable positions are taken by better men because of chance of advancement.

10. A better basis for efficiency rating is made possible.

11. Demands are definite instead of shifting and subject to whim and misjudgment.

12. Close attention to each task helps to bring out its undesirable features.

13. Health and safety work are promoted.

14. Wage and salary schedules can be more completely standardized.

15. Better knowledge of the task means a more stable basis for rates of payment.

16. All the functions of the employment department are placed upon a scientific basis.

17. Exact knowledge of working conditions is fundamental to all of the activities of this department. Without this knowledge industrial progress is impossible.

In making an analysis of a particular job, patience and care are required. Not only must the motions in per-

forming the job be analysed, but also the particular mental, physical or moral quality needed to do it efficiently.

Having determined the qualities needed for a particular job the next step in the selection of an employee is to check up the characteristics of the applicant. The application blank has two functions.

1. To determine an applicants' fitness for a job.
2. To serve as a future follow-up in connection with wages, progress, promotion, re-hiring, compensation for injuries and the like.

As a rule the application blank used by firms is very indefinite. An investigation was carried on by the Boston Vocation bureau in 1916. They collected application blanks from thirty different firms. The name of the firms was cut off and the blank was given to a man who had made a study of the situation. He found it very difficult to tell from the material on the blank, what kind of a firm it was used by.

Some firms use the application blank as a means of getting rid of undesirable candidates, but this is extremely poor practice. It is unfair to the applicant to allow him to waste his time in filling out a blank and waiting indefinitely to learn whether or not it has been acted upon.

The following is a sample application blank^{1.} that could be used by department stores:

APPLICATION BLANK.

Date -----	Employer fill this.
Name in full -----	Engaged -----
Address in full -----	Dept. -----
Phone -----	Position -----
Position wanted -----	Salary -----
Nationality -----	Promises -----
Religion -----	Approved -----
Married -----	
Age -----	Remarks:
Live with parents, board -----	
Give number of persons you entirely support -----	
Partially support -----	
Any relatives that have T. B. ----	
Any physical defects -----	
Are you in good health -----	
Last grade completed in school ---	
Have you ever been employed in this store -----	
If selling what lines do you prefer?	

1. Bell, Training for Department Stores.

1. Names and addresses of former employers.
2. Kind of business.
3. Your position.
4. Salary received.
5. Time of employment.
6. Discharged or resigned and why.
7. List of references including:

Pastor,

Family Physician,

Landlord.

The firm employing the person also should keep a complete record of the individual. The following employment record¹ seems to be a good one:

EMPLOYMENT RECORD.

Name of Applicant ----- Date -----
 Address ----- Clock Number -----
 Nearest Telephone, name, number -----
 Rate of pay wanted -----
 Where born ----- Birthplace of Father -----
 Date of birth ----- Birthplace of Mother -----
 Married? ----- No. of Dependents for support -----
 Did you go to Grammar School? ----- High School? -----
 College? -----
 Name of last school attended ----- Did you graduate ---
 What course did you take -----
 What Trade? ----- Where learned -----

Hearing

Weight

Height

Previous Employment:

Firm	Kind of Work	From	To	Reasons for leaving
------	--------------	------	----	---------------------

References:

Eyesight

1. Bell, Training for Department Stores.

INTERVIEWER'S IMPRESSION.

Willingness to Work

Knowledge of Work

Probable Activity

Probable Initiative

Probable Loyalty

Courtesy

Booster vs. Enocker

Willingness to Improve

Stability

Hired by

When there is a vacancy in any department the employment manager should at once be notified. As a rule the employment manager has but a vague idea of the requirements of a position, he cannot tell what kind of applicant will fit. He can obtain this information from his job analysis sheet.

When he has obtained all necessary information he is ready to interview applicants.

THE INTERVIEW.

The room where the applicant must wait must be modern for the new employees' first impression is a rather lasting impression.

When the applicant is called in to be interviewed, things should be so arranged that he will be perfectly normal. If the interviewer is favorably impressed the applicant fills out an application blank. Otherwise he will not. After the applicant fills out a blank similar to the form already given, the interviewer turns to the space on the back of the blank and writes his opinion of the applicant.

If the applicant is hired he is taken usually to the foreman of the plant and introduced to him. The foreman assigns him to his task.

After this is done the work is just begun. There is a great deal of follow-up work to be done.

The firm should have in mind the betterment of the employee. The situation should be analyzed under three general heads:

1. Welfare.
2. Social activities.
3. Economic betterment.

Under welfare should be included:

- a. Lunch rooms.
- b. Smoking rooms.
- c. Hospitals, nurses and store physicians.
- d. Holidays and vacations.

Under Social life should be included:

- a. Gymnasium and athletic clubs.
- b. Choral societies.
- c. Store parties, dinners and entertainments.
- d. Store papers.

Economic betterment:

- a. Mutual benefit and insurance plans.

After the employee has been placed, he sometimes applies for a transfer from one department of business to another. In such cases the original application blank may be made to serve as a means of rounding up the history of the employee.

CHAPTER III.

The Labor Audit.

The Labor Audit according to Tead and Metcalf is:^{1.}
"a reasonably exhaustive and systematic statement and analysis of the facts and forces in an industrial organization which affect the relations between employees and management, and between employees and their work; followed by recommendations as to ways of making the organization more socially and humanly productive and solvent."

Special scientific skill is required to make an efficient labor audit. It requires a tactful method of personal approach, a thorough knowledge of evils in the plant, and a firm determination to see that the right advice is not only given but also followed.

The real purpose of the labor audit is to give to the employee a report on industrial relations. The labor audit gives the exact conditions in the plant without covering anything up or exaggerating any conditions.

The labor audit will help the firm to adopt a more progressive policy. If they already have a progressive policy the audit will be a help in checking up its effectiveness and indicating needed changes and improvements.

The labor audit will serve best where low productivity is due to human causes rather than mechanical ones.

1. Tead and Metcalf, Personnel Administration, page 291.

By the audit causes of strikes may be checked up on, and reasons for the lack of morals among the workers. It also may be used to show the causes of labor unrest, and labor turnover.

The labor audit does not confine the causes of difficulties to one definite set of facts but it sets forth items and causes in an inclusive way and in their proper perspective. Executives usually are disposed to attribute labor difficulties to too simple causes. The labor audit is to help these executives see the problem in its whole.

An itemized check list stimulates observational power. People are in a habit of seeing only what they are taught to see, and what they have been told to look for. By this list new fields are opened up. Situations present themselves that otherwise would never be observed.

The check list also makes it easier for the investigator to remember what he is to look for and what he has seen.

Plants that devised labor audit check lists several years ago, check up periodically on all conditions. From these results taken over a period of time the progress made by the plant can readily be seen.

The purpose of the labor audit is to find all existing facts entirely independent of anyones' opinion as to whether they exist or not. There is no chance for perso-

nal prejudice and bias to enter into the true report of the labor audit. It furnishes evidence that is beyond dispute.

These points must be applied with moderation. One of the most important elements in every labor situation is what the people think. In some cases laborers think that they do not receive enough pay in proportion to the profits paid to the owner. This may cause unrest among the laborers which might result in strikes. This would be justified by what the laborers thought was the condition. In reality this might not be true, but the problem is to convince the worker.

There are so many facts covered by a labor audit, that it will be almost impossible to measure accurately all items.

The labor audit furnishes a true report on industrial relations. Many executives do not see that there is needed within their own plant many changes, but if they study the labor audit report they find wherein, difficulties lie, and also remedies for existing evils.

There are four prerequisites to making a labor audit, according to Tead and Metcalf:^{1.}

1. A readiness on the part of the management, and preferably of the workers also, to put all facts and records at the disposal of the investigator.

^{1.} Tead and Metcalf, Personnel Management. Page 235.

2. A properly qualified auditor.
3. A method of conducting the audits and of reaching all the sources of information.
4. A standard, exhaustive and logically ordered check list of items.

A person outside the plant may be called in to make the labor audit. This person should be a disinterested one, who can really make an accurate study that is unbiased. If a disinterested party is called in he must begin at the very foundation of conditions and work to the very top. He must be able to recognize conditions that really exist and be on the lookout for many conditions.

If an outside person is called in the company must place at his disposal all information that is necessary for him to draw his conclusions effectively and quickly.

If the central management sends out a person to subsidiary plants the situation may be very difficult. There is a danger that a feeling of suspicion may arise in the minds of the local managers. The situation should be fully explained so this feeling will be avoided.

The personnel manager may make a good labor audit. This may be very complete but ordinarily he does not have access to all the details of practice and policy in the other staff departments.

The person who makes the labor audit should have

complete control of the different situations. The foremen have much valuable information about the application of the labor policy, but they usually will not reveal difficult problems unless they are assured that the information will be safe with the auditor. Smaller executives are usually glad to discuss their problems if they are assured that the listener is sympathetic.

The most satisfactory results are to be had where the workers are a party to the audit. The labor unions are instrumental in this. The executives meet with a representative chosen by the union and results are agreed upon, which both sides will accept.

The auditor can, in many cases, do much by merely making statements and suggestions. While going through the plant he may ask the foreman how often they clean the floors. The next trip he makes through the plant, in a great many cases the floors will be cleaned and windows washed. They will act merely upon the suggestion made during the visit.

The greatest difficulty found with the labor auditor is that he adopts the attitude that he is there simply to get the facts. He is tempted to enter the plant, get information as quickly as possible, draw rapid conclusions, write his report and then consider that his work is ended. This kind of a report is usually filed away, without paying any attention to the recommendations offered.

The auditor who necessarily has many different ideas, must sell his ideas as he goes along. First to the manager, then on down through the staff to the least important executive. In speaking to the different executives he should make them feel that he is speaking to them only in his capacity as a labor expert wanting to know their special problems.

When all executives have been interviewed the auditor should have a general knowledge of plant organization, policy and practice. After this the auditor should visit personally each foreman. The statements made by the foreman will either strengthen or tear down the statements made by higher executives.

In the interview with the foreman the auditor should concern himself with the detail of the individual foreman's method of running his department, especially taking into consideration the labor side.

If the auditor attends meeting of executives and workmen when he is making the study he will get much light on the practical working of the company's human relations. By attending these meetings he has a chance for direct observation of conditions. The atmosphere of the shop frequently tells much about the workers' attitude.

The labor audit may be accurately made, but it must always be audited by a qualified auditor, just the same

as the accounting records of large public corporations must be examined by experts in the accounting field.

The audit can be no better than the auditor. There may be mistakes in policies of the plant, which are clearly shown in the labor audit. The auditor who is not efficient may agree with these just to avoid correcting it. In this way the result of his work can be no better than he is himself.

The contents of the labor audit are grouped under the following three¹-major headings:

1. The employment organization.
2. The outside economic and industrial forces which the management cannot control.
3. The wage and total earnings.

The labor audit is of practical use to the general management, the personnel management, the worker and to the community.

The audit as a method of standardizing records and carefully analyzing them is useful to the manager, because it gives the management a good estimate of the personnels' working efficiency.

In the hiring and introduction of new executives into the plant the audit can be used to make clear to them how the company's labor policy is operating.

Finally the employer, by studying the audit, can

1. Tead and Hecolif, Personnel Administration Page 305.

see the problem that the plant is to solve and he can readily see the steps he could individually take to help solve these problems.

From the viewpoint of the personnel manager the labor audit has indispensable values. It enables the manager to know all the elements of his problem. It enables him to frame and suggest policies which will solve his problem. By it he can sell his policy to the organization with maximum effectiveness. He can also improve his own policy, when he sees its shortcomings in the labor audit.

The labor audit is also of advantage to the worker. It may seem that the audit is simply a device to inquire into the workers grievances before they have fully developed. The labor audit may seem to be used to maintain the employers policies secretly, and yet these same policies be unsound. The objections raised are wrong for the labor audit is primarily an instrument of inquiry. It is used to discover inhuman, social policies in the labor relations of an organization.

The materials used in the labor audit should be used in published reports. If the public knows accurately what the true facts are, in advance of strikes, it will reason with both sides and the strike can be more equitably settled.

The labor audit has a constructive function also. Public utilities for instance, can better themselves by studying their labor audit and seeing where their own weaknesses are located.

The results of the labor audit are measured by the conviction that the auditor himself carries, and the tendency that the interested parties have to act upon the recommendations made.

The labor audit outlines a long time program and plan of personnel activities on which the company can efficiently work during future years.

The labor audit tends to get conditions upon a fairer and more equitable basis.

The problem of control and of authority is fundamental in all modern industries. The labor audit is justified for it locates faults and helps establish sound methods of government and control.

CHAPTER IV.

The Reduction of Labor Turnover.

Labor turnover is the change in personnel of a firm's employees.

To make these changes, especially transfers from one position to another, and to do it intelligently, presupposes a complete, accurate record of the employee's activities.

The classification for building up promotion records by the employment department is usually as follows:¹

1. Productivity.
2. Evidence of native ability.
 - a. Initiative.
 - b. Construction.
3. Mistakes and errors.
4. Attendance.
5. Punctuality.
6. Evidence of loyalty.
 - a. Work in communities.
 - b. Attitude toward superiors.
 - c. Grasp of firm's policies.

In order to promote an employee when he is ready to be transferred there should be periodical re-rating of every one in the system.

1. Lecture on Personnel. Summer 1921. Miss McFarland. University of Colorado.

The employment department should have complete records of each employee on file, including:

1. Application blank.
2. Placement.
3. Duties.
4. Reports of superiors.
5. Employees' own statement concerning department work and working conditions.
6. Wage increases.
7. Transfers.
8. Promotions.
9. In case of resignation or discharge the reason for such action.
10. The next position held after leaving the plant's employ.

The task of employment manager is almost superhuman. An employment manager is required to be responsible for the selection, training and education of employees.

In the general requirements, the employment manager to be most efficient should be a man, at least thirty-five years of age, and a person educated either in an institution of higher learning or by experience. It takes a man of this age to meet the educational requirements. He should be dignified in appearance, forceful yet approachable looking.

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The employment manager should be a man of such a nature that he would have complete control under trying circumstances.

The manager of this department should be able to place himself on the same plane as those with whom he is dealing. He should be interested in the force as individual human beings and not as machines. He must be of sympathetic nature--should be sympathetic with their ambitions, their abilities and their possibilities. He should be fairminded, and impartial in engaging, promoting and discharging employees. He should be able to place himself under the same conditions under which the employees work. Tact is one of the most desirable qualities. The employment manager must be tactful in putting people, to whom he is talking, at their ease, so they will talk freely. He should not be satisfied with conditions as they are existing but should be able to invent solutions of problems that confront the firm. When he makes up his mind he should be judicial and not ever changing. But before he forms his opinion he should weigh carefully all evidence, and be ready to take a chance of being wrong.

One of the essential requirements of a personnel manager is that he be honest. He should use his power judicially. He should be masterful--supreme in his own

realm, yet of the people and approachable. He should be able to lead people without driving. Open-minded to untried methods and movements in industrial circles. He should always be striving for better and nobler fundamentals on which to build business. He should not sit back, but should be energetic in making the machinery of the organization move. He should have the executive ability to have the force carry out its duties and meeting its responsibilities. He must be sensitive in the managing of his force to prevent leakage, waste and overlapping.

One rare quality that is essential to a personnel manager is that of self-knowledge. Ability to recognize his own strength and weaknesses. Any one possessing all of these qualities would be truly superhuman.

The following summary of how to reduce labor turnover is suggestive:¹

1. Preliminary measures.

a. Attempt to learn true cost of turnover in your plant in order to know how much you can afford to spend to class contributions.

b. Keep adequate records as means of analysis of sources and causes of turnover.

1. Separate record for each employee including date of employing, rates, earnings, bonuses, de-

1. Class Contribution--Personnel. University of Colorado.

fective work, complaints, absences, tardiness, dates of quitting and reasons.

2. Turnover by departments.
3. High and low earning power.
4. Defective work by departments.
5. Absences and tardiness by departments.

2. Fundamental remedies.

a. Hire the right men for the job.

1. Work up good prospect file.
2. Co-operate with agencies for industrial education.
3. Examine new applicants thoroughly.
4. Hire in accordance with written specifications for each job.
5. Examine physically with view of general fitness, suitability for specified job, and to need of later up-building.
6. Visit homes of desired applicants.
7. Check up records of previous employments.
8. Hire only those who can earn an adequate wage.

b. Pay an adequate wage.

1. Study cost of and facilities for decent living for each workman and use results in setting base rates.

2. Give special study to cases of inefficient workmen, to see if money troubles are affecting them.

3. Centralize and pay off at discount, debts of overburdened workmen.

4. Promote mutual aid association.

5. Establish legal aid bureau.

6. Pay weekly.

7. Discharge alcoholics.

8. Instruct in proper use of income.

9. Encourage thrift and home-building.

10. Where special causes for increased living cost obtain, attack them, as by co-operative stores, housing measures, etc.

c. Provide steady work.

1. Give piece-workers steady flow of material during the day, by proper scheduling system.

2. Regularize production throughout the year to minimize lay-offs and shut-downs.

3. Abolish the annual physical inventory, in favor of perpetual inventory with continuous checks.

4. Make repairs promptly and provide a sufficient reserve supply of tools.

d. Don't fire hastily.

1. Check up foremen whose departments

show high turnover records through men's quitting.

2. Don't let foremen discharge at all.

3. Give unsatisfactory men at least one chance through transfer.

4. Establish employment committee to review cases of discharge where men appeal.

5. Establish foremen's club to study ways of getting along with men.

6. Interview, before paying off men who quit voluntarily.

3. Supplementary remedies.

a. Start new men right.

1. Make clearly understood agreement as to starting pay and schedule of advances.

2. Introduce new men to bosses, to fellow-workers, and to physical surroundings, and acquaint them with rules and facilities of plant.

3. Instruct men thoroughly in new tasks.

4. Advance money or meal tickets to beginners short of funds.

5. Help beginners speedily to get on piece or bonus rates.

b. Promote physical efficiency.

1. Establish physical department.

2. Examine all workmen periodically and

provide machinery for following up those found to be defective.

3. Provide adequate light, heat and ventilation.
4. Reduce noise, dirt, and noxious odors and fumes.
5. Purify oils, waste, and other supplies.
6. Purify drinking water.
7. Provide sanitary lockers, wash rooms, and toilets.
8. Insist upon good teeth and good eyes by using, at least on part time, the services of a dentist and an oculist.
9. Have nurses or doctors visit those kept home by illness.
10. Provide mid-workday meals at plant.
11. Provide good tools and fatigue-minimizing equipment.
12. Shorten work-hours while securing fair output.
13. Provide at least three rest periods during the day.
14. Arrange for yearly vacations with pay for all employees. This can be on the basis of an efficiency record or punctuality record.

15. Promote athletics.

c. Foster good habits.

1. Investigate causes of unexcused absence.

2. Fix strict penalties for tardiness and unexcused absence.

3. Bonus regular attendance.

4. Establish pay system that encourages and rewards accuracy, high output and punctuality.

d. Give all employees a hearing.

1. Hear complaints at all times, no matter how put forward.

2. Hold regular shop meetings by departments and by divisions to hear men's ideas.

3. Establish system for considering written suggestions from men; and rewarding with commendation, prizes, or promotion, all thought worthy, and acknowledge all such suggestions without exception.

4. Encourage all forms of self-directed organization, whether of athletic, social or co-operative enterprises, and provided such organization is not subject to the orders from persons outside of your plant and contrary to its interests.

e. Make work in your plant a efficient career.

1. Establish system for granting unexcused

for pay, increases as deserved.

2. Discover ambitions of men for future transfers and promotions.

3. Help train men to new tasks.

4. Transfer with some liberality.

5. Encourage men to improve general education by reimbursing for outlay on courses of study completed.

f. Provide for future of all workmen.

1. Purchase group insurance for all workmen.

2. Pension disabled and old employees.

3. Share profits on some form of stock sharing basis.

One firm in the United States that has a well developed personnel department and could be used as an illustration as such is the United States Steel Corporation.

This company has been characterized as "A Corporation with a Soul."¹

The management of a corporation stands fundamentally in a position of balance between the following three general groups.

1. The stock holders who own the properties and business, and appoint the Board of Directors.

2. The general public in which are included in-

1. From statement made at the Annual Meeting of Stockholders of United States Steel Corporation. April 10-21.

cluded investors, employees, employers, consumers and competition, and all others who may be interested in, or affected by the action or attitude of the managers.

3. The masses of the working force whose services are absolutely essential.

The United States Steel Corporation provides for the workmen safe and healthful working and living conditions, and sets the wage rate in accordance to the work done.

During the twenty years of The United States Steel Corporation's existence there has not been a serious complaint to the management by the workmen themselves. If a workman wants to join a labor union, he is at liberty to do so. The safety, sanitation and welfare work of this Corporation is conducted through the Central Department and through various standing committees composed of representatives of larger Subsidiary Companies.

Bureau of Safety, Sanitation, and Welfare carry on the administrative work of the various committees, conducts special investigations and conferences on important welfare subjects, and obtains valuable information which keeps the Subsidiary Companies advised of the latest and best methods in accident prevention, sanitation and welfare work.

A Committee on Safety was appointed in 1908 and is

composed of nine members. This committee deals with all problems of accident preventions.

A Committee on Housing composed of twelve members, was also created. It considers all phases of the housing problem, including town planning, design and construction of comfortable houses for employees.

The Committee on Sanitation is composed of five members, four of whom are presidents of subsidiary companies. There is a sub-committee on sanitation consisting of twelve members. These committees deal with all problems relating to sanitation in the plants, mines and communities where different plants are located.

The Committee on Education is composed of six members. It deals with all educational measures for the instruction and advancement of employees, including:

1. Americanization.
2. Apprenticeship.
3. Occupational training.

Company Central Safety Committees are composed of important officials from each of the plants, mines or railroad divisions. Their duties are to look after the safety of their particular company.

Plant Safety Committees are made up from important officials from the Plants. They meet monthly or weekly, and sometimes daily to consider accident prevention, activities with respect to their plant.

Plant Workmen's Safety Committees usually consist of three or more members from the rank of workmen. They meet monthly to make inspections, to investigate accidents, and to recommend means of preventing similar accident. The membership of these committees is rotated so as to have all employees serve on the committees.

Plant departmental and special committees composed of foremen, master mechanics, and skilled workmen are also organized. They meet weekly or monthly to make inspections, to investigate accidents and to investigate particular problems.

Up to September 30, 1922, more than fifty-five thousand two hundred and nine men had served on the Safety Committees and there are now over eight thousand nine hundred and twelve men serving regularly.

Careful attention is given by the Employment Departments to the placement of new employees in the jobs for which they are the best suited and physically fitted. The new man at his work is given every encouragement and is closely looked after for to change his occupation if it is found he is not suited for the one for which he was employed.

Medical examinations of employees established by the majority of the Subsidiary Companies has proved very beneficial to the employees and to the company. These

examinations serve as a guide to the plant officials not only in placing men in occupations which they are physically capable of performing, conserving their health, but also in assigning men to certain jobs which may at times require extraordinary mental alertness and quick movements. They bring to the attention of the men physical defects, often only slight and easily corrected which might if neglected develop into serious ailments.

Since 1906 serious and fatal accidents in the operations of all the Subsidiary Companies have been reduced 55.13%, and thirty-five thousand three hundred and thirteen men have been saved from serious or fatal injury. Since 1912 any accident causing loss of time greater than the balance of the working term, has been reduced 71.41%, which means that a total of one hundred and ninety-three thousand two hundred and thirty-two men have been saved from injury.

During the first six months of 1922, one hundred and thirty-six plants, mines and other operations, with an average employment of fifty-five thousand six hundred and thirty-nine men went through one entire month without one disabling accident, and some of the operations succeeded in going from two to six months. In all there were recorded an aggregate of three hundred and sixty-six months in which no accidents occurred.

These figures show briefly what has been accomplished physically in the way of accident prevention. Safety work, while undertaken by the Corporation purely through humanitarian motives, is now recognized as a business proposition of enormous practical and economic value.

Results that have been accomplished by the United States Steel Corporation could also be obtained by other corporations if they would maintain committees for various departments as does the above corporation. Their results would be in proportion to the amount of money and energy spent on this work.

CHAPTER V.

The Problem of Welfare Work.

The United States Steel Corporation has since 1906^{1.} reduced fatal or injurious accidents 56.13%. This means that one hundred and ninety-three thousand two hundred and thirty-two men have been saved from injury.

During the first six months of 1922, one hundred and thirty-six plants with an average employment of fifty-five thousand six hundred and thirty-nine men went through an entire month without one disabling accident, and some of the plants succeeded in going from two to six months without serious accidents. Six months was the largest period that they run without accidents.

I. Accidents.

The general classification of causes of all accidents.^{1.}

1. Hand labor	44.04%
2. Machinery	4.88
3. Mines	15.17
4. Railroads	4.23
5. Burns	7.02
6. Eyes	5.17
7. Falls	8.27
8. All others	11.12

^{1.} United States Steel Corporation--Bulletin on Accident Prevention. December, 1922.

Hand Labor:

a.	Struck by falling material	14.51%
b.	Wheel-barrow	2.08
c.	Strains	4.90
d.	Ran into something	4.24
e.	Slivers, sharp edges	4.95
f.	Caught between material	6.15
g.	Sledge hammers	7.11

Falls:

a.	Slipping, tripping ground level	4.93%
b.	Scaffolds	.55
c.	Holes	.42
d.	Ladders	.45
e.	Slipping, tripping from above	1.94

Machinery:

a.	Caught or struck by machinery	3.42
b.	Breaking	.22
c.	Struck by material	1.24

Railroads:

a.	Struck by car engine	.40
b.	Working on cars	.48
c.	Coupling, uncoupling	.57
d.	Fell from engine	.86
e.	Loading and unloading	.83
f.	Switch stand	.19
g.	Hand cars	.19

h.	Holes	.16
i.	Collisions	.18
j.	Derailment	.16
k.	Overhead	.13
l.	Defective Equipment	.08
m.	Ladles	.05
n.	Poling cars	.04
o.	Frogs	.01

Mines:

a.	Haulage or skip track	6.01
b.	Falls from roof	3.65
c.	Falls from side	2.47
d.	Blasting	.25
e.	Cages	.12
f.	Delayed blasts	.04
g.	Chutes, raises	.17
h.	Gas, smoke	.09
i.	Shafts	.16
j.	Premature explosions	.08
k.	Falls from face	.50
l.	Steam shovels	.42
m.	Live stock	.65
n.	Slides, cave-ins	.55

Burns:

a.	Hot metal, fine dust, flames	4.42
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b. Steam, hot water, acids.	1.81
c. Electric shocks	.79

All others:

a. Falling material	1.14
b. Chips	1.42
c. Miscellaneous	1.50
d. Nails	1.09
e. Cramps	.69
f. Emery wheels	.48
g. Fighting	.25
h. Asphyxiation	.26
i. Boilers	.07
j. Elevators	.09
k. Excavating	.06
l. Cranes	4.17

Only 4.88% of these accidents were directly due to machinery causes.

The United States Steel Corporation has spent twelve million dollars in improving the general physical status of the plants and operations and constructive effort was made to educate the workmen in safety matters and maintain their interest and co-operation in the work.

They employ one hundred and twenty-five engineers.

All new employees receive instruction in matters pertaining to the duties to which they are assigned and are warned of the hazards involved in the work and asked

to exercise caution and to observe all safety regulations which have been adopted for their protection.

Their interest and co-operation is further asked through the medium of departmental safety meetings which are attended by all the employees of the department, by safety rallies, motion pictures, literature and bulletin boards.

Everything possible is done to safeguard employees from accident, but provision is made for relief in case of injury.

The following table shows the decrease in rate of accidents since 1906, when accident prevention was started:

Per cent rate decrease in accident, per one thousand employees.

		Saved from serious injury.
1906		
1907	10.40	532
1908	18.21	783
1909	25.28	1236
1910	43.49	2215
1911	41.26	2012
1912	36.06	2023
1913	38.29	2273
1914	40.52	1748
1915	43.54	2145
1916	51.60	1957
1917	41.63	2891
1918	46.84	3094
1919	46.84	2940
1920	53.90	3817
1921	53.13	2676
1922	55.13	2971
	Total	35213

First aid and rescue crews have been organized in all the mining companies of the United States Steel Corporation. These are specially trained men who can take immediate charge of the situation whenever an emergency arises where life is in danger and to give help to injured men.

Now there are seventy training stations in the Subsidiary Companies and since they started approximately twenty thousand six hundred and fifty-eight men have received instruction and six hundred and seventy are now training.

There are at the present three hundred and eighty-nine completely equipped emergency stations. All injured employees, no matter how trivial the injury, are sent to the emergency station where they receive prompt medical attention.

To insure proper treatment of injured employees, two hundred and ten company surgeons and physicians, two hundred and twenty-two nurses and one hundred and four orderlies are employed in connection with the emergency and base hospitals, besides one hundred and eleven outside surgeons and physicians serving on salary, who make daily visits to the plant and may be called on short notice in case of accidents.

The Committee on Sanitation has installed four thousand four hundred and four sanitary drinking fountains, two

thousand and fifty-six comfort stations with adequate toilet facilities, comprising twenty-three thousand and forty-three washing faucets and basins, five thousand three hundred and seven showers and one hundred and fifty-two thousand eight hundred and six lockers.

Restaurants have been installed where employees may obtain meals at a moderate cost. There are now in operation sixty of these restaurants and lunch rooms.

Club rooms and gymnasiums are also equipped and kept for the employees.

One hundred and nine tennis courts and one hundred and twenty-five fully equipped athletic fields with baseball diamonds are maintained for employees.

The corporation maintains schools to meet the requirements of all grades of employees.

The following is a partial list of the subjects offered in the educational courses:

Elementary and Advanced English.

Civics, Chemistry, Metallurgy, Blast furnaces, Physics, Open hearth practice, Rolling, Mill Practice, Gas Engines, Mechanical Drawing, Coke oven practice, Masonry Construction, Fuels, Heat treatment of Steel, Alloy Steels, Wire drawing, Modern industry and Business, Management, Elementary and Advanced Mathematics, Elementary and Advanced Electricity.

The corporation has adopted a House Owning Plan under which employees can purchase homes on easy terms.

A. Installment Payment Plan for an existing dwelling.

These dwellings are owned by the company. The contract with the employee provides for an initial payment of not less than 10% of the purchase price, the balance to be paid in monthly installments extending over a period not to exceed fifteen years, with interest at the rate of five percent per year.

B. Installment Payment Plan for a dwelling to be erected.

The company will agree to build, or cause to be built, a dwelling for an employee to be purchased by him upon the same terms as A, except that the initial payment shall not be less than fifteen per cent of the purchase price. Title will be taken in the name of the company.

C. Mortgage Plan.

This method is applied when the purchaser desires to take title in his own name. It provides for a loan to the purchaser, not to exceed 75% of the cost of the property, to be secured by a first mortgage bearing interest at 5% and to be repaid in installments. Over nine million dollars have been loaned to employees to assist them in the purchase of homes.

Under a plan started in 1908, in January of each year, shares of stock of the United States Steel Corporation are offered to all employees upon easy terms and

with benefit better than those offered to ordinary stockholders. The number of shares which may be subscribed for under this plan varies according to the earnings of the employee, but the proportion is greater for lower paid men. Payments are made in monthly instalments deducted from the salary or wages of the subscribers. The minimum installment is \$2.00 per share per month and the maximum 25% of the subscribers monthly earnings.

Subscriptions which have not been fully paid for may be canceled at any time, then the money is refunded to the employee with 5% interest.

To encourage employees to keep the stock purchased under the plan, a premium is offered of \$5.00 per year for five years on each share of stock. This premium is not paid to employees who cancel their subscription, sell their stock or leave the employ of the company but the premiums thus forfeited, except only in cancellation, are placed in a fund and at the end of the five year period are divided pro-rata among the remaining share-holders.

On October 1, 1922, one hundred and fifty-four thousand three hundred and forty-two shares of preferred stock and four hundred and sixty-three thousand seven hundred and forty-two shares of common stock were held by stockholders of record who in the past acquired stock under the employees' stock subscription plan. On this same

date there were forty-six thousand four hundred and fifteen employees who were paying for one hundred and thirty-nine thousand four hundred and sixty shares of common stock subscribed for under this plan.

The United States Steel and Carnegie Pension Fund was established in 1910. Its purpose is to provide and maintain a fund for the payment of pensions to aged and disabled employees. The Corporation gave eight million dollars to which was added the Carnegie Relief Fund of four million dollars, making a joint fund of twelve million of dollars which is administered by a board of twelve trustees through a manager appointed by the board.

Principle features:

1. Compulsory retirement for men of seventy years of age, for women at sixty, after twenty-five years of service.
2. Retirement at the request of the employee or the employing officer at the age of sixty-five for men and fifty-five for women, after twenty-five years of service.
3. Retirement by reason of permanent total incapacity after fifteen years of service.
4. Pension basis: For each year of service one per cent of average monthly earnings for last ten years of service.

5. Credit for service rendered to any of the plants of the Subsidiary Companies of the United States Steel Corporation or to the predecessor of such companies.

6. Minimum pensions twelve dollars per month. Maximum pensions one hundred dollars per month.

The records of the pension plan on December 31, 1921 were as follows:

Total number of Pensioners	3427
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Number of pensions granted during 1921	788
--	-----

Total amount pensions paid during 1921	\$947,879.15
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Average age at which pensions have been granted to retiring employees since the inauguration of the plan, 66.10

Average term of service rendered by such pensioners, 30.95 years.

From an analysis of the following table¹ it is evident that the United States Steel Corporation is very much interested in labor from the human standpoint. This table shows the amount they spend on welfare work, which is all voluntary:

January 1, 1912 to September 30, 1922.

Welfare Expenditures.

Playgrounds, schools, clubs, gardens.	\$19,394,567.
Sanitation.	21,201,197.
Accident prevention.	9,768,068.
Relief for injured men and families of men killed.	31,750,698.

1. Bulletin on Welfare Work. Dec. 1922. United States Steel Corporation.

Employees stock subscription plan.	\$15,474,615.
Pension fund payments in excess of income provided by permanent fund.	2,925,588.
Total pension payment to employees.	7,476,961.
Creation of a Movement Pension Fund.	<u>8,000,000.</u>
Total	108,509,722.

The following table¹ is a summary of the facilities constructed or installed for the use of employees for the purposes named:

September 30, 1922.

Number of dwellings and boarding houses constructed and leased to employees at low rental rates.	28,451.
Churches	25
Schools	45
Clubs	34
Restaurants and lunch rooms	60
Rest and waiting rooms	278
Play grounds	175
Swimming pools	27
Athletic fields	125
Tennis courts	109
Band stands	21
Practical housekeeping centers	20
Piped systems for drinking water	461
Sanitary drinking fountains	4,404

¹. Bulletin on Welfare Work, United States Steel Corporation. December, 1922.

Wells and springs	902
Comfort stations	2,056
Water closet bowls	9,526
Washing faucets	23,048
Showers	5,307
Clothes lockers	152,806
Base hospitals	18
Emergency stations	289
Training stations	70
Company surgeons and physicians	210
Outside surgeons	111
Nurses	222
Orderlies	104
Visiting nurses	71
Teachers	205
Sanitary inspectors	44
Safety inspectors	125
Employees who have served on safety committees	55,209
Now serving	8,912
Employees who have trained in first aid	20,658
Employees now training	670

Conclusion.

Employment departments while yet new, are making much progress, especially in the East.

In Oklahoma there is but one plant that has a well organized personnel department. That is the Cosden Oil Corporation at Tulsa, Oklahoma. One of the reasons for this condition is that there are no large factories employing a great many people.

In smaller corporations as we find in this section of the United States, the foreman or superintendent hires and fires men. The success of this method will depend entirely on this one person. He often exercises his own personal feelings too much.

In the large Eastern factories personnel departments are making much headway, but there is still a great deal of room for improvement. A great many departments are not well organized. From the results of a questionnaire sent out by the Boston Vocational Bureau, it was discovered that the employment manager of this special department in a great many cases is also a foreman or a superintendent. This one great department has been neglected, but is now on the road towards improvement.

Some plants have hesitated to establish a personnel department, but now they have seen the success that plants have had that have used it and it is probable that the smaller plants will imitate the larger ones.