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PERSONNEL MANAGEMENT

Principles, Practices, and Point of View

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PERSONNEL MANAGEMENT

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PREFACE TO THE THIRD EDITION

DURING the 10 years since Stanley Mathewson brought **out the** Second Edition of this book, there has developed a shifting of emphasis in industrial relations. New techniques have emerged, and other practices have received a wider acceptance. Certain relationships that were formerly the sole province of the employer and his employees have now become mandatory, in that national and in some cases state laws prescribe specific procedures to be followed. In most instances, additional legal restrictions have been placed upon the employer; yet, in some jurisdictions, employees have been required to assume responsibilities corresponding to their privileges. A whole series of legislation has grown out of the decade of the thirties. The revision of this book has been undertaken to include the social and labor legislation, management's attempt to adjust its practices and policies to the new requirements and the new practices and procedures that have evolved aside from those to meet the new legal relationships. The field of psychology is playing an increasing role not only in initial selection, transfer, and promotion, but also in the realm of training, morale measurement and development, and increased productive efficiency. Our approach is essentially one of balance. We assume a mutuality of interest on the part of the employer, employee, consumer, community, and government. We recognize that in certain short-run situations this community of interest may not exist; yet a sound labor policy must be built on the long-run approach.

As a means of checking our revision against current procedures, some 231 companies were surveyed. The details of this survey are presented in Appendix A. It is a pleasure to acknowledge the assistance of Laura Saeger, a graduate student in the School of Commerce of Northwestern University, in the preparation of the statistical material in this survey. We are also indebted to the various companies that cooperated to make this study possible.

For reading certain chapters and for making helpful suggestions, special appreciation is expressed to S. C. Andrews, Walter V. Bingham,

Grace E. Manson, Christian A. Ruckmick, Robert M. Seashore, and Edward K. Strong.

We extend our profound thanks also to the personnel workers and other executives who provided excerpts from their writings and conclusions based on experience for the benefit of our readers.

WALTER DILL SCOTT,
WILLIAM R. SPRIEGEL,

EVANSTON, ILLINOIS,
June, 1941.

PREFACE TO THE FIRST EDITION

MANY books have been written on the relationships which exist between management and worker. If evidence of advancement in point of view and in sanity of attitude is desired, we have only to point to such books as these, many of which we have named in the bibliographies accompanying the several chapters in this volume.

It is natural that few, if any, of these books should attempt to cover the whole field of personnel relations in industry, for it is, indeed, a broad field and its phases are many and varied. Volumes could be written upon any one of these phases—cooperative management, profit sharing, pension plans, training, supervision, and so forth and not half the truth be told. For aside from the extent and ramifications of this branch of business administration, it is a progressive study, and what is accepted as truth today may be but part of the truth tomorrow.

So in presenting this book to students of personnel management, we have attempted to outline the principles of personnel adjustment in industry as they are known today, with no claim that we are covering the entire field of industrial relations and with no thought that the truths which we enunciate will not grow and develop year by year with the investigation and research which industry is coming more and more to devote to this branch of the science of management. Our purpose is to crystallize modern thought on the subject of human adjustments in industry, both as an expression of what has been achieved so far and as a basis for further growth.

The personal differences between individuals have come to be recognized more and more as vital factors in industrial efficiency. The productivity of groups of workers is necessarily dependent, in large part, upon the productivity of the individual members of those groups, each in his own work. Individuals are differently endowed with those faculties of mind and body—especially those faculties of mind—which enable them to contribute to the work of the world. Because of these differences in workers and because of the differing requirements of various kinds of work, one person will not succeed equally with another in a given task, nor will two tasks be done equally well by the same

worker. Unless a proper adjustment is made between the worker and his work in these terms and between the worker and his working environment, the individual will not contribute in fullest measure to the economic well-being of society, nor will he benefit personally in maximum degree, nor will the work itself be done as well as it can be done and as well as it should be done.

The achievement of these wholesome human adjustments is essential to true industrial efficiency and is a prerequisite to the success of other important agencies—such as those named above—in establishing wholesome relationships between management and men, in promoting industrial production and in advancing social well-being.

In this book we have attempted to set forth the principles underlying the creation and maintenance of these wholesome adjustments, to define the instruments necessary in the work and to suggest how they can be utilized most effectively in making these principles active, dynamic forces in management.

The reader will find no suggestion that these instruments and practices are perfect, even if—as we view them today—the principles which underly them appear fundamental and unchanging. He will discover no claim that because a certain procedure has proved successful in one plant or company, that it will necessarily prove equally successful in another. He will find himself warned, at times, to refrain from accepting half-proved facts as conclusive, to recognize the limitations of certain instruments and certain practices as well as their possibilities. But he will be asked, frankly, to approach the study of these things with an open mind, free from prejudice for or prejudice against, to demand proof or ample evidence but to hold himself in readiness to accept it when it has been found. For such an open mind is necessary in all progress in thought, whether it be in this particular field of management or in any other branch of experimentation.

Unless we investigate in a scientific spirit, unhampered by tradition or prejudice, and unless we are willing to accept the fruits of our investigation as the basis for present action and further research, we cannot grow in knowledge and we are closing the door to opportunity.

What industry has learned in the field of industrial relations is not the yield of any man or group of men, nor is it in the possession of any man or group of men. The names of those who have contributed to the truths which are set forth in this book are legion. Our part has been that of bringing together within these covers, so far as it has been possible, the facts of common-sense direction of workers regardless of where and how they have been discovered and regardless of where the credit for them lies. Our only regret is that, through our

own limitations, we shall be unable to give credit to all those **to** whom credit for research in this field is due.

In 1917, shortly after America entered the World War, The Committee on Classification of Personnel in the Army was created by the War Department to help provide the ways and means of discovering the special qualifications of the hundreds of thousands of men flowing from industry into the army in order that their individual capabilities might be utilized best in the country's service. Besides the authors, the Committee included E. L. Thorndike, James R. Angell, Walter V. Bingham, Raymond Dodge, Horace L. Gardner, John J. Coss, W. R. DeFicld, Wm. Browne Hale, J. J. Swan, R. M. Yerkes, Winslow Russell, John F. Shepard, E. K. Strong, Philip J. Reilly, L. M. Terman, and J. B. Watson. Others associated with the Committee were M. H. S. Hayes, Beardsley Ruml, Stanley B. Mathewson, Louis B. Hopkins, Joseph W. Hayes, Clarence Yoakum, J. Walter Dictz, C. R. Dooley, M. M. Jones, W. S. MacArthur, R. H. Puffer, Wm. A. Sawyer, Kendall Weisiger, Alvin E. Dodd, Joseph H. Willits, Donald G. Paterson, A. W. Kornhauser, H. J. Ryon, Harry Wellman, Jos. F. Page, Samuel J. Gummere, Delos Walker, Storm V. Boyd, and Grenville Clark. The regular Army officers who had much to do with the success of the work were General H. P. McCain, General Robert C. Davis, General Henry Jervey, General Peter C. Harris, General R. I. Rees, Colonel A. M. Ferguson, and Colonel Jens Bugge.

Under the direction of the Committee, an Army organization of 7,000 officers and men interviewed and classified over 3,000,000 men and placed over 1,200,000 in the Army service where they could use their special abilities in a degree that would have been impossible otherwise. This fact is mentioned for three reasons. in the first place, we wish to acknowledge the contributions made by these men. In the second place, while the work in the Army was far from perfect according to industrial standards, it was done better than ever before under such emergency conditions and it did much to formulate certain of the basic principles underlying personnel work in industry. In the third place, it provided an unprecedented stimulus to American employers to study the adaptation of these principles to the personnel problems of industry.

After the war, the authors, with Louis B. Hopkins, Stanley B. Mathewson, Beardsley Ruml, and Joseph W. Hayes, organized as The Scott Company for the purpose of assisting employers, through research and consultation, to develop the technique and procedure of applying these principles to their own organizations. Much of the material in this book is drawn **from their** experience **in cooperating**

with more than 40 industrial and business concerns, including meat packers, banks, manufacturers, department stores, insurance companies, and public service corporations.

We desire to acknowledge with thanks the contributions of all these gentlemen. The preparation of this book would have been quite impossible without their cooperation. We wish to state our appreciation especially of the help given by Stanley B. Mathewson and Donald G. Paterson in preparing certain chapters and to express our indebtedness to Louis B. Hopkins for contributing important parts of the text and for advising and consulting throughout with reference to the form and content of the book

WALTER DILL SCOTT,
ROBERT C. CLOTHIER

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PART I

THE DEVELOPMENT OF PERSONNEL MANAGEMENT

CHAPTER I

THE BACKGROUND OF PERSONNEL MANAGEMENT

The thoughtful executive is keenly aware of the fact that current human relationships are in the main merely an extension of those that have existed in the past. Businessmen are making their plans and their decisions in the light of plans and decisions others have previously made along the same lines. Few business houses or industrial concerns are willing to entrust their destinies to executives who are not thoroughly conversant with the history of business principles in general and of the developments in their own fields of activity in particular.

It is exceedingly important in a study of industrial personnel work that we should consider the historical background of the relations between employer and employee and trace the steps that have brought us to our present conception of the principles that underlie the whole some and effective association of management and the worker.

The Historical Development of Personnel Management.—In the Middle Ages, the lot of the worker was not a particularly happy one. He lived a kind of gray life. His ambition was to be able to live, and his efforts were devoted to earning the bare means of subsistence. Rarely did the thought of improving his lot cross his mind. The twinkling star of opportunity had not risen. The sunshine of equal rights had not lighted his ways. As he and his children were born so they lived and died.

In America, young and fresh and unfettered by ancient traditions and class privileges, there appeared promise of better things. During the early part of the nineteenth century, there was little parallel between industrial conditions in America and in Europe. The majority of our people lived on the land and there earned their livelihood. There was work for all and plenty. In the cities and towns, this was the age of the small tradesman, the household industry, the age of the small workshop. In a degree probably never before attained, the workers were regarded as human beings. This condition

of relative concord and efficiency might well have been the continuing basis for labor relations in industry had not the inventive faculty of mankind stirred and entered industry upon the age of steam **and** machinery.

Eli Whitney invented the cotton gin, and overnight the need of the South for cheap labor overwhelmed all other considerations. The institution of slavery, with its attendant social evils, was greatly expanded. It is hard for us to understand the process by which a nation conceived in an ideal of equality and human rights could condone a practice that outraged these ideas so flagrantly, but we must remember that the economic need was apparently great, and social justice was then, as it is now, in a state of transition and growth.

In fact, the social conscience still slept. Privileged classes of that day believed the world was theirs in a degree that even now our most obtuse reactionaries would not make themselves ridiculous by claiming. The lesson had not yet been learned that a permanent civilization or effective social order cannot be stably erected upon the backs of an underprivileged pauper class. Hundreds of thousands of lives **and** seas of blood were the price we had to pay to learn that lesson.

Results of the Industrial Revolution.—The Civil War eliminated slavery, and a brighter day seemed to have broken. Men now worked for wages, for pay—a great improvement over working for their keep. The wholesome relationships of the small shop and the household industry became even more general. A hundred years before, **in** the Old World, epochal mechanical inventions, such as the power **loom**, the steam engine, and the spinning jenny, had already set **in motion** the great forces of the Industrial Revolution. Before the **Civil War**, the Northeastern portion of the United States had begun its great industrial development based upon the application of steam **power** to mechanical devices. The Southeastern portion, with its **slave labor**, its agricultural economy, and its social concepts, was **much slower in** applying mechanical power to its manufacturing needs. **Throughout** the land, home production and the small shop gave way to the factory. Industry was learning that by grouping workers **together in large** numbers and standardizing their activities, production **and distribution** could be tremendously increased and costs reduced. **Civilization has** advanced more since the advent of machines than **it had advanced** previously since the Stone Age.

But every current has its backwashes **and contrary eddies**. Although mankind as a whole has benefited greatly, **misunderstanding** began to undermine the sympathy and cooperation that **had previously**

existed between employer and employee. Whereas, in the home and shop, discontent and friction seldom could exist as a result of *misunderstanding*, a gulf now began to yawn between the employer and his workers. Where the workers in a single group previously numbered a handful, they now began to number hundreds and thousands. Whereas, previously, the employer enjoyed the rich gift of friendship with his associates at the bench, it now became possible for him to know them only casually, if at all; to know their faces and names perhaps, but not their weaknesses and their strengths, their interests, their ambitions, their family fortunes, their follies, and their hobbies. They became to him merely a group of workers, a collective thing, whose labor must be bought in the market. So, without the employer's knowledge and probably against his real purposes, there came into being an attitude on the part of management toward the workers that has become known as the commodity conception of labor.

The Commodity Conception of Labor.—When there was an abundance of labor available, the wages were low; when labor was scarce, wages were high. This gave rise to the *idea that labor, affected by the law of supply and demand, was like a commodity, the price of which was determined by the supply and the demand for it.*

Although it was believed that the law of supply and demand could not be modified, and much less overcome, nevertheless it was also evident that, even though this conception of labor might be correct in part, it did not include many vital factors of production about which management was to learn many important lessons.

The Machinery Concept of Labor.—The commodity theory did not take into consideration the fact that the employer, disinterested in the workers personally, was likewise disinterested in their problems as such. Furthermore, it neglected the fact that he bought and sold, not the actual labor, but the products this labor produced; this was his chief concern. *He determined the value of labor by the goods it brought forth and thought only in these terms.* With this in mind, *it is not difficult to see how readily the employer could regard his employees as mere operating organisms, or machines, capable of a certain amount of output.*

The conditions of the worker, however, were no better under this conception than under the commodity theory. He was not regarded as a volitional being in either case, and it is little wonder that his mind was diverted to protection rather than to production. The resulting unhappiness and inefficiency, together with the growing knowledge that neither the commodity nor the machinery conception of labor was complete, lead to the beginnings of the welfare movement.

The Good-will Conception—Era of Welfare Work.—Many employers, both large and small, began to realize that something was lacking in the relationships between management and workers. Powerful unions had grown apace, violent strikes took place, and "unreasonable demands" were made by labor everywhere. Courts were clogged with claims and counterclaims involving industrial injuries. The introduction of large groups of women workers brought in special problems. These controversies were largely based upon the existing hazards, working conditions, and wages. *Employers finally began to realize that the welfare of their employees had a direct effect upon their productivity. Safety, first aid, lunchrooms, rest room,s, bulletin boards, visiting nurses, and a horde of ameliorating movements were introduced.* At this stage the large employer without a welfare movement was considered backward indeed.

To the great surprise of many employers, however, these welfare efforts of themselves became the points of attack of labor organizations. The visiting nurse was looked upon as an instrument of management to spy on workers in their homes; bulletin boards were interpreted as devices of soporific propaganda; first-aid stations were of tem ridiculed as places where no "he-man" would permit any fussing over a minor injury; even the costs of safety devices were sometimes objected to on the grounds of lowering wages. Labor in some instances took the attitude: "Put the money in our pay envelopes and we will take care of ourselves."

This independent point of view has been exceedingly difficult for many managers to understand. The employer who was most active in the welfare movement was often harassed by the greatest labor turbulence. Employers obsessed with the welfare idea became increasingly paternalistic toward their children of the factories, yet it became evident that doing something for the welfare of their employees not only failed to solve management's problems but often introduced new and especially disturbing factors.

Natural-resource Conception of Labor.—Concurrently with the efforts of employers, *some statesmen began to conceive of labor as a natural resource, which it devolved upon the state to protect. Out of this conception came child-labor laws, restriction of hours for women workers, workmen's compensation, and health and accident legislation.*

The cycle of such movements generally follows a well-defined pattern. First, some intrepid employer tries a newfangled idea in the face of ridicule and objections from his associates; upon finding that his program' pays dividends, large numbers of employers fall in line; finally, legislative enactment prescribes the once newfangled practice

for the laggards! Of course, not all labor legislation has by any means evolved in this manner, since much social legislation has been initiated by and accomplished through the efforts of labor organizations.

The Human Conception of Labor.—Just prior to the World War, certain enlightened employers here and there began to preach and practice a strange new doctrine. This doctrine was based upon a frank acknowledgment that the old conceptions of relationships between employer and employee were inadequate; in fact, they were responsible for a series of evils. It stated that arbitrary or paternalistic control by management was apt to lead into troublous paths and that cooperation between management and labor was essential to efficient production. *It made the declaration that the minds of the workers as well as their bodies must be considered in management and that the state of their minds had much to do with the value of their services.* It protested that if men are not "on side" in interest and loyalty, they are apt to be *in absentia* on the job and it went on to make the assertion that what management wants in its workers is not merely their physical presence, but the full measure of service that physical presence makes possible. Buying mere physical presence with good wage dollars that ought to buy as much individual production as possible is a costly process.

But the tenet of this new doctrine that left many of the old-school "executives gasping for breath, was that *the workers had certain "inalienable" rights as human beings, that these rights were as important as the rights of other persons with whom they had dealings, and that it was industry's duty to recognize these rights.* This was a blow at the honored belief that the worker's only function was to deliver as much as he was capable of delivering and that management possessed every right to fire him as soon as he failed to do so. It held that all men are equal, in the sense that they have much the same impulses and reactions as all other men. It held that industry had a moral obligation not only to permit its workers to achieve their rights but to encourage and help them to make as much of themselves and of their lives as possible. In short, *this doctrine stated brazenly that industrial concerns have three obligations—to their stockholders, to their customers and the public, and to their employees.*

The student of industrial progress cannot but be amazed upon learning that surprise and resentment should have greeted the preachings of these progressive employers. It is much the same wonderment that one feels in recalling that once we thought a king could do no wrong, that we burned witches at the stake and estimated how many devils could dance on the point of a needle. We are going ahead too fast—and perhaps too intelligently—to persist in ignoring facts when

they are clearly demonstrated. And so, whereas some years ago the employers who entertained such enlightened views were in the great minority, it is now true that industry generally is adopting their beliefs.

Conception That Each Individual Is Unique.—This new doctrine went on to say that men of any particular race or social or occupational class cannot with justice and profit be regarded as all alike or handled all alike. It pronounced that *men differ one from another as far as their mental qualities are concerned far more than they differ physically*. No one had ever advocated clothing all the men of the country in shoes and clothes of the same size and shape, and the fact began to dawn upon us that it was equally absurd to attempt to endow them with the same mental habiliments. It was recognized that one man may have unusual aptitude along certain lines and that another may lack it entirely; obviously it was out of order to attempt to cram them into the same job. It became apparent that one had the ability to learn in a degree entirely lacking in the other, that to try to develop them equally in the same way was similarly impracticable. It made itself clear that one man had distinct ambitions along one line, another along another, and that any stereotyped incentive would stimulate them unequally. The difference between men temperamentally forced itself upon the attention of progressive employers, and they saw that, although one method of control, or discipline, would be effective with respect to one, another method would be required with respect to another.

It is apparent that personnel management is not merely a problem of discovering the right man for the right place, the somewhat obsolete conception of square pegs for square holes, for the worker and his work will vary from time to time; consequently, the ability and interest of the worker will change and develop. Industry cannot merely bring together two rigid inelastic units that are so shaped that they will fit, for the worker and his job cannot be separated into such units. Both are plastic and changing in themselves, the job exercising an influence on the worker and the worker likewise influencing the job.

Citizenship Conception of Labor.—We have seen how the idea that workers were merely instruments of production capable of a certain amount of output gradually gave way to the idea that they were volitional human beings who not only differed from one another, **but who also** reacted in various ways to different circumstances. **This brings us to** the newer conception that not only are the workers **human beings and to be** treated as such, but that they are also a part of the **industry to which they have sold** their labor. *Just as citizens of the United*

States automatically have certain inherent rights and a voice in determining and exercising those rights, so are workers, as citizens of the industry in which they are employed, entitled to the same right of having a voice in determining the rules and regulations under which they work.

Workers have always been a part of industry. The fact that they were not recognized as such has made them no less so. In the very earliest strikes, workers drew up demands against their employers. These demands were nothing more than a statement of the fact that they as workers believed that the employer had no exclusive right, 'to dictate to them the conditions under which they were to work; that they were a part of the industry just as much as he; thus they had some right to say what wages they should receive, how many hours they should work, and what the terms of employment should be. These inherent demands of every strike have not been understood until recent years. Consequently, when the citizenship theory of labor was first mentioned, it was thought to be a newfangled idea. It was not until the employers, having resisted the demands of their employees in a strike and thinking they had settled their labor problems, found that the discontent of the workers increased, that many finally grasped the idea that the wage earners of their establishments were really a part of the industry with a right to have a voice in the management of the affairs concerning them.

The outgrowth of this realization has been industrial democracy with its shop committees, industrial councils, employee representation plans, and the like. True industrial democracy, however, is more than that form of organization whereby employers and employees meet jointly for discussion of difficulties, thus giving the employee an adequate voice in determining his working conditions. It is, as Edward A. Filene well puts it, "a guarantee that the management of the business shall be responsible and largely dependent for its rewards on its efficiency. It is no use to give employees a part of the control if inefficient management curtails profits so that they do not benefit."

When a worker sells his labor to a concern, he makes a permanent investment of that labor; this investment on his part is more in proportion than that of the stockholder of the industry. If he is suddenly forced to leave his job, he may have to move to another community and temporarily lose his right of political franchise as a consequence; he not only has no voice in the industry of which he is a part, but often he temporarily loses his rights as a citizen. Until management fully realizes that the investment of a man's labor carries with it similar rights to that of citizenship in a community, industrial democracy cannot be attained. Like political democracy, *industrial democracy is*

self-government by the people, determining the mutual relationships of employer and employee, terms of employment, conditions of labor, rules and regulations affecting employees, and the relationships of employees to each other.

This latter factor, relationships of employees to each other, has too often been overlooked in the citizenship theory of labor; attention being focused entirely upon the relation of the employer and the employee, neglecting the fact that no matter how close the relationship or how mutual the understanding between management and worker, if there is discord among employees, one infringing upon the rights of another, there can be no true democracy.

Where the citizenship theory has attained a foothold, as in the clothing industry, the analogy has been carried to the extent of establishing a judicial personnel to interpret it, administrative offices to enforce it, and a constitution, with legislative branches, to alter it.

Customer Conception of Labor.—As old concepts have been abandoned and the worker has come to be regarded as a citizen with inherent rights in industry, ultimately *the conclusion has been reached that he is even more than this, he is a customer who is "always right"*

This may seem like a drastic statement, but it is no more so than was the statement, "The customer is always right," when it was first made. Also, when the one-price system was announced, many thought it was simply a crazy notion. The old idea of everyone's having a natural instinct to truck and trade, as expounded by Adam Smith in his *Wealth of Nations*, was firmly entrenched in the minds of the people. They wanted to bargain, and they argued that a one-price system would eliminate the very joy of bargaining; it would be impossible for a seller to be honest and to stick to a one-price system. However, when a few farseeing, daring merchants inaugurated the system, it became quickly evident that the old system of bartering rested on the assumption that all customers were adults competent to protect their own interests, whereas the new system made it possible for the child of the household to make exactly the same bargain as the competent adult.

With the inauguration of the one-price system, the merchant discovered that if he treated everyone as a gentleman a few would exploit him; conversely, if he treated everyone as a crook many would exploit him. The losses from the exploitations of the few, however, were so greatly discounted by the increased business from the good will of the many that he could afford to discount the minor losses in the greater profits from the larger business and was well able to adopt the slogan "The customer is always right."

When the employer goes as far as the merchant did in establishing a new relationship with his customers and lives up to the slogan of Tightness among his employees, will not the worker become right in the same way that the customer did? He is often the very same person: "always wrong" as an employee, but just across the street "always right" and reasonable as a customer.

Many enlightened employers believe that too much emphasis has been put upon obtaining the good will of the customer and not enough on obtaining the good will of labor; that this industrial good will can be won only when policies that have won it for the up-to-date merchant are adopted. When labor, treated as a customer, discovers that it does not need the "competent adult" (labor organization) to make its trade, the need for the competent representative in labor relations will disappear, just as the need disappeared for bringing together competent adults in order to buy and sell.¹

Once it is discovered that the worker is "always right,"² it becomes evident that he is not only right, but that often he knows more about the detailed operation of industry than the owner or the manager; he is informed and, what is more, it is in his power to put into effect this knowledge in the saving of costs, the reducing of waste, and the lowering of prices. Let us not confuse this idea, which is evidenced in the organization of a large Eastern manufacturing company and a Mid-western concern, with that of employee representation as practiced in many other progressive concerns. In the latter instances, the employees, with their elected representatives, have a say in the executive councils where they can present their claims, point out to the management certain mistakes, and help to prevent grievances. However, this is a long way from attaining the atmosphere that surrounds the relationships of the seller and the buyer. Public utilities have for a long time had a complaint desk where customers could bring their grievances, but the mere fact that complaints were received was not enough. Public-utility companies came to hold that every customer must go away satisfied. Many industries with employee representation plans or trade-union contracts are still in the early complaint-desk stage, or

¹ This statement will not be accepted by the professional labor unionist who is committed to the theory of class-consciousness. The experience of the Nunn-Bush Shoe Company of Milwaukee and the recent experience (1940) of the Endicott-Johnson Company of Johnson City, N. Y., seem to verify this view. The Endicott-Johnson workers voted 12,693 for no representation against a combined vote of 2,691 for the C.I.O. and the A. F. of L.

² This statement is not to be interpreted literally but is to be taken as indicative of a point of view.

what has been called the "Vanderbiltian" state of mind. After the complaints are received—"the public be damned!"

It must not be inferred that, even when management and the worker are in this combined state of agreement, they can in turn neglect or exploit the customer, as was charged in the competitive field of the coal industry, where managers, combined with labor unions, were said to have exploited the customers and forced them to pay excessive prices. The customer, when he believes he is exploited in this fashion, does exactly what the worker does when he thinks he is exploited; he turns to defensive measures—organizations, demands, and strikes. He boycotts the seller and substitutes other products to meet his necessities.

Partnership Conception of Labor.—Closely related to the citizenship idea of labor is the concept of mutuality of interests or the partnership relationships between management and labor. In theory, the citizenship concept of labor implies mutuality of interest, but it is well known to students of government that "rights" are emphasized largely to the exclusion of responsibilities. The partnership relationship implies mutual responsibilities as well as the sharing of the fruits of the joint endeavors. The earliest effort to translate the partnership idea into action was the fostering of stock-ownership plans. More recently, profit sharing has come into prominence. In some instances, the sliding wage scale tied to volume of business and profits has the partnership concept in part at least as its basis.

Some may argue that the partnership concept of labor is fallacious, that there can be no mutuality of interests between owners who are seeking large profits and workers who desire high wages, that the two interests are incompatible and cannot be reconciled. Under certain circumstances in the short run, these criticisms are sound; however, in the long run, which is immeasurably more important to both management and labor, their interests are identical. In the short run, the competitive situation and general business conditions may make necessary the reduction of wages. It is natural that labor would not like this, yet, even under these conditions, in the relatively short run, it is better for labor to have a reduced wage than to continue at a high rate until the business is forced to liquidate. Enlightened management fully recognizes that low wages do not necessarily mean low production costs. Management and labor are mutually interested in producing a product that will meet with public approval and that can be sold at a price that will result in volume production. The long-run success of a business enterprise enables both the owners and the workers to realize their respective objectives. The partnership

conception of labor implies mutual confidence and respect and contributes materially to the realization of the ultimate business objectives of the owners, workers, and consumers.

Harmonizing the Various Conceptions of Labor.—It is needless to say that no large group of employers at any time held any of the foregoing conceptions of labor in its pure state with all its implications. These conceptions of labor have been presented as representative of attitudes in general rather than of specific viewpoints tenaciously held. There have been numerous cases in recent years where, the employer's governing philosophy has closely approached either the *citizenship conception* or the *partnership conception* of labor as far as actual practice is concerned. Each of the various conceptions of labor has a germ of truth in it and contributes something to an *eclectic conception* of labor that strives to appropriate the truth in any of the various conceptions of labor. This is in substance the view of careful students of modern labor problems. Scientific management, in its attempt to formulate a rational conception of labor, has approached the problem from as many angles as gave promise of shedding light on the subject. The individual and group relationships have been analyzed from the physiological, psychological, sociological, and economic points of view. Each has contributed to a better understanding of employer-employee relationships. The citizenship and partnership conceptions of labor are at present playing important roles in industrial relations.

CHAPTER II

THE WORKER-IN-HIS-WORK UNIT

Before considering the more practical aspects of the organization and functioning of the personnel department in industry, it would be profitable to explore a little more fully a basic concept that was introduced in the preceding chapter. This concept has profoundly influenced modern thinking about organization and management even though it has not always been labeled as it is in this chapter.

Concept of the Worker-in-his-work Unit.—We have said that the worker influences his job, and the job likewise exercises an influence on the worker; we can now proceed with the consideration of the worker-in-his-work unit as an entity by itself.

When a foreman is promoted and made superintendent, he is not the same when superintendent as he was when he was a foreman. He reacts differently to his new job, and the job has a different effect on him; the old worker-in-his-work unit is destroyed, and a new unit is created.

The task of management is to make every worker-in-his-work unit as effective as possible. To achieve this, three different angles, or elements, of the worker-in-his-work unit must be given due consideration. Briefly they are as follows:

1. Capacities—referring to those abilities, to those attainments, inherited or acquired, that a worker has, is capable of, and must, to a certain degree at least, exercise in his work.

2. Interests—not only an individual's desires and ambitions, but also his instinctive, impulsive tendencies, vague yearnings, and ill-defined cravings that may or may not stir him to his fullest action in performing his duties.

3. Opportunities—not only opportunities for advancement, although that is included, but opportunities to exercise his capacities and satisfy his interests.

To illustrate the principles listed above, a simple diagram is presented in Fig. 1. This illustrates a perfect adjustment; one in which the worker possesses the exact *capacities* required for the work, the work similarly affords the *opportunity* for exercising these *capacities*, and the worker's *interests* are entirely satisfied in the performing of his duties.. Such a perfect balance of the three elements of the worker-in-his-work unit is, for a number of reasons, seldom achieved in actual

industrial practice. These reasons form one of the major causes of waste in production.

Adequate Supply and Proper Selection of Labor.—The first factor in creating a well-balanced worker-in-his-work unit consists of two parts; first, the *development of an adequate supply* of the right kind of labor and, second, the *proper selection of workers* for certain jobs from that supply of labor. If a concern is forced to take whatever labor is available because of the inadequacy of the supply, the best methods of selection lose their usefulness; on the other hand, the best labor supply

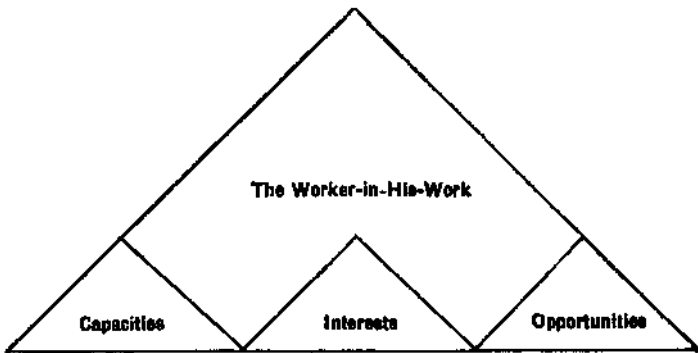


FIG. 1.—Graph showing the perfect balance between capacities, interests, and opportunities.

will be of less value if a company has not the means of properly selecting the workers from it.

The employer who has available an adequate, or more than adequate, supply of labor, is less likely to pay attention to selective methods, his attitude being, "if they don't make good they can be fired." The employer with a restricted supply of labor is more likely to pay some attention to placing his workers properly, for if they do not make good he hesitates to fire them, there being no others available for replacement.

Few employers will admit that they do not use the best judgment possible in selecting labor; doubtless they do, but is their best judgment the correct method of selecting employees? Selecting men by the use of judgment that is unaided by fairly well proved objective tests may actually be unfair both to the applicant and to the company.¹ The applicant is entitled to the fullest consideration of his ability, and the company is entitled to the services of men whose *interests* and *capacities* are well suited to the available opportunities.

¹ See Chap. XIII for an illustration of selecting employees on the basis of the judgment of 13 major executives.

It is equally important that the worker's enlarging interests and **skills** be considered when vacancies occur in grades of work higher than the ones the particular worker is filling at the time.

Maladjustment of the Worker-in-his-work Unit.—There are three ways in which the worker-in-his-work unit may be maladjusted. The first we take up is perhaps the most common—that of the absence of the requisite capacities.

A small-parts metal manufacturer in the Middle West needed a man on his installation force, a man capable of installing electric motors and gasoline engines. A mechanic who seemed to be well qualified applied for the position. He was of good physique, presentable in appearance and manner, and seemed interested in the work; furthermore, he already had 10 years' experience in a small garage doing work similar to that which he would be required to do on this job.

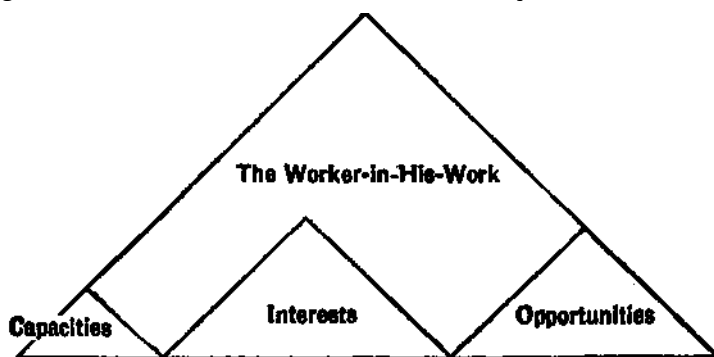


FIG. 2.—Graph showing the relation between capacities, interests, and opportunities, illustrating the absence of requisite capacity in the worker.

He was taken on the force and sent to a company training school for several months. During this time, he was sent out on several jobs and failed badly on every one. The management was puzzled; they could not find out what was wrong. The man was anxious and uneasy; he, too, did not know what was the matter. Some time subsequently, the company made certain experiments with trade-skill tests as a means of selecting workers. In the pursuit of these experiments, it was found that, in spite of his appearance of intelligence and notwithstanding his 10 years' experience, this man had only an apprentice knowledge of gas engines and electric motors.

This illustrates a case of a worker-in-his-work unit in which the factor of capacity was lacking to a great degree in spite of all appearances to the contrary. Using the same technique as used in Fig. 1 to diagram the perfectly balanced worker-in-his-work **unit**, the graph **now has** this appearance (Fig. 2).

A general manager in Ohio was confronted with the problem of **finding** an assistant for a small plant, in a near-by town, **that had recently been put under** his supervision. **In one of the departments**

of the large central plant, there was a faithful and capable foreman who had worked wonders in a difficult departmental situation. The general manager reasoned, "Foreman Brown will make an excellent superintendent for the plant we have taken over, and this job will be a promotion for him." Brown accepted the new position and moved to the near-by town. During his first months as superintendent he constantly revisited his old department at the central plant and while on duty at the branch plant often bored his associates there with detailed comparisons of what a wonderfully well organized and efficient department he had left. His new job and his enlarged opportunities fretted him constantly, and as time went on he talked more about his old job and did less about the problems in his advanced position. Within a year, it was necessary to relieve him as superintendent of the

The Worker-in-His-Work

Capacities

Interests

Opportunities .

FIG. 4.—Graph showing the relation between capacities, interests, and opportunities when an absence of interests exists.

branch plant. He returned to the central plant as foreman in his old job and 8 years later was a contented, efficient, productive unit of the central organization.

There was no question as to his *capacities* and *opportunities* in the new job; however, they were greater than his *interests*, which were centered entirely in his old job and could not be transferred to the new one. The diagram of this worker-in-his-work unit is shown in Fig. 4.

No matter how great are the capacities and opportunities, if a worker is disinterested in his work, he will be thinking of, as well as looking **for**, work that does appeal to him and will satisfy his particular interests. As a consequence, productivity and quality will be low, **not** because of the worker's inability, but because of his inertia.

Training.—Every worker brings to the job a certain amount of potentiality, of capacity for growth. His value to his employer lies **not** only in what he is, but also in what he may become. If he is gifted' with that unusual quality of clear foresight and ability of self-analysis, he will go far in the attainment of those potentialities. **But**

most of us are ordinary human beings with the ordinary human being's limitations, and we struggle along unintelligently, doing the work at hand as best we may, puzzling over the difficulties we encounter. Even those of us who have had educational advantages are subject to this confusion in thinking; we need guidance in the first place and help in the second.

Personnel management has made great strides in the field of training workers. Management's great opportunity and responsibility in this respect have been generally appreciated, and many different plans are in effect that are designed to bring the workers to greater personal effectiveness in their work through carefully thought-out methods of instruction.

Creative thought has been given to methods of instruction. The training department is now a recognized part of many industrial and business institutions. The vestibule school is frequently the first environment the new employee knows. Advanced training courses are made available for those who want to take them and who, in the judgment of the employer, are qualified. Management in many instances no longer insists upon a close cause-and-effect relationship between the employee's course of training and the work he is then engaged in, or even the work to which he has reasonable assurance of being transferred or promoted. Industry is appreciative of the fact that insistence upon such a narrow interpretation of the purposes of training is apt to defeat the larger purposes of educational effort along these lines, that training has advanced from something of value in increasing the effectiveness of the worker in his immediate work to something of value in increasing the effectiveness of the worker as a man generally, as a member of the organization generally, and as someone upon whom sometime (although in ways perhaps not then obvious) greater and greater responsibilities will probably be laid.

In addition to the benefits accruing to the company from adequate training of the workers, there are personal values that the worker himself receives that have far-reaching social and economic implications. The worker has increased satisfactions and a feeling of security in being able to perform his task well. He also has his interest in his work increased when opportunity is provided to learn the task next higher in the scale in which he is working.

Opportunity for Self-expression.—We have discussed, so far, the general effects of faulty selection and placement and of inadequate training methods upon human happiness. In doing so, we have, as it were, created the worker-in-his-work unit, and we have then proceeded to increase its effectiveness by increasing, **through training, the**

capacities that the worker contributes to it. Let us assume, therefore, for purposes of further discussion, that we have brought it to a relatively high state of development; then we are brought face to face with a third cause of unhappiness that can best be expressed by the failure to provide adequate *opportunity*.

We have said in the first part of this chapter that *opportunity* includes opportunity not only for advancement but also for using *capacities* and *interests*. For the worker it implies opportunity for self-expression, for the satisfaction of such creative instincts as he may possess, for such growth as he craves, for the fulfillment so far as possible of those desires and ambitions that move him.

To a certain type of employer, this statement will make no appeal. Such an employer asserts that, if a man is any good and has any "stick-to-itiveness," he will make his opportunity, he will get to do the things he wants to do, he will get ahead. All of which is probably true. And all of which is indicative of a feeble grasp of human nature.

All men are not superior men; they are not all endowed with the same innate drive. Fortunately or unfortunately, men are *men*, and, for the most part, they have quite as many and as marked weaknesses and flaws as they have sinews and merits. Why attempt to evade facts by regarding the exceptional man as the average?

Industry must utilize the services of men of all types, not of one superlative type. It must use, as best they may be used, the services of men lacking great strength, of men lacking superior judgment, of men lacking initiative, planning ability, special knowledge, tact—a hundred and one different qualities. It must use the services of men who lack the ability to sell their own abilities. What shall be its course? Shall it throw them all into a common pool and say, "Sink or swim"?

Of course, we do not anticipate an affirmative answer. Those persons with the commodity conception of labor might reply affirmatively, but industry is getting away from the commodity conception of labor. It is recognizing that, just as we must consider the *capacities* and *interests* of people at work, so we must consider the *opportunities* for them to satisfy those *capacities* and *interests*. Consequently, let us now give our attention to two primary phases of opportunity—the opportunity for self-expression and the opportunity for advancement.

Everyone of us is stamped with an individuality of his own. In whatever we think, in whatever we do, that individuality is revealed. It demands the opportunity of expression. If you are a good tennis player and enjoy tennis, you will probably play tennis. If you are a lawyer **and** enjoy the practice of law, you will probably practice it.

If you are a good machinist and enjoy the great possibilities for real creative effort that that trade opens up to you, you will undoubtedly follow it. That is, you will play tennis and practice law and work in a machine shop if you have the opportunity to do so. In such ways do men express their individualities.

In the degree in which an industrial organization gives intelligent thought to furnishing its workers the opportunity for creative effort, or more broadly for self-expression, in that degree it will tend to harness to production one of the most potent influences. Many men have not lost the old pride of workmanship that prevailed in the days of the trade guilds in spite of the tendency of modern standardization and modern group production to crush it. And where management is capable of striking that happy balance between efficient processing and the efficient utilization of human instincts of workmanship, there it will have solved a great part of the problem of continuous, year-in-year-out efficient production.

Opportunity for Advancement.—In reference to the worker-in-his-work unit, we said that certain men were not ambitious and had no desire to get ahead. Whiting Williams has pointed out that certain men in the steel mills are not ambitious for the responsibilities of foremanship. This, however, is by no means characteristic of all men and women. Many people are ambitious. They want to get ahead. In this instinctive desire for progress lies a great force that, if properly recognized and harnessed, adds greatly to the man power of each individual and of every group of workers.

This opportunity for advancement must be definite, real, concrete—not a vague hope. A clear-cut promotional policy is now recognized as an essential part of any effective personnel control system. Employees are not usually satisfied with casual statements such as "there is always room at the top" and "if a man is any good he'll get ahead." They demand evidence of a definite policy in this respect. When such evidence is furnished, positive results in increased application and increased efficiency inevitably ensue.

As implied previously in the chapter, the successful execution of any promotional policy involves thorough knowledge of the capacities and interests of the workers and of the opportunities in the work throughout the organization.

Where such a thought-out, consciously adopted policy is lacking, we may look for mediocrity of effort and lack of interest. There will be a constant tendency for those persons capable of superior effort and actuated by keen interest to seek opportunity elsewhere. Those who remain **will** lack one of the most powerful incentives to do their best.

In fact, the absence of such a policy is doubtless responsible for the sinking of unknown numbers of men and women of high potentiality into a state of passive acceptance of their present work and environment as their proper sphere.

Here we see the direct causal relationship between the lack of opportunity to advance and a lessening in interest, and the consequent weakening of the effectiveness of the worker-in-his-work unit.

The Distance between Management and Men.—There is probably no single item in modern industry that prevents the worker's receiving personal satisfaction out of his work more than the distance between the top management and the worker himself. Many companies have sincerely striven to remove this barrier. Most companies have conscious policies of personnel management. They believe in "the square deal,"⁷ even though they may interpret it in various ways. They believe in providing opportunity for advancement. They believe in cultivating morale and *esprit de corps*. But frequently we find management is far removed from the worker *in the worker's mind*. The men at the head of the company may congratulate themselves on their organization's being a regular family group; yet, at the same time, the workers down the line may be conscious of barriers to mutual understanding, aware of administrative policies gone awry in execution that are entirely unknown to the officers and higher management.

The wish is often father to the thought. Frequently management believes in a certain policy (*e.g.*, promotion strictly according to qualification, interest, and merit of performance) and, thereupon, *ipso facto*, believes it is really in effect. Often, in spite of this confidence on management's part, the policy exists only in contemplation and is not in executive effect at all. For instance, many managers delude themselves with the statement, "The door of my office is always open to any worker no matter how humble his position." It would be embarrassing, however, to ask many of these managers just how many "humble" workmen have entered that door during the year just passed.

We find, indeed, that because of this failure on the part of the higher executives to appreciate the workers' reactions, wholesome policies consciously adopted in the president's office are frequently inoperative as far as the individual worker in the ranks is concerned. And, even where they are operative, misunderstanding of their nature and purposes on the part of the worker frequently destroys their usefulness; unless such policy, wholesome in itself, is faithfully and truly interpreted to the workers, their reaction is apt to be negative or, worse **vet**, antagonistic.

Where this is so, there is a lack of mutual understanding and, consequently, a lack of mutual sympathy. The worker, for instance, fails to see the tie-up between good work on his part and advancement in the organization. His efforts are not given entirely to doing the best work he is capable of doing; they are vitiated by a sense of futility.

Where a lack of complete understanding and sympathy exists, the worker's thought instinctively flows into channels of self-protection and even retaliation. His interest wears thin, and *the worker-in-his-work unit*, of which he is a part, loses proper balance and so loses effectiveness because the factor of *interest* shrinks, as against the factors of *capacity* and *opportunity*.

The Influence of Misunderstanding.—The distance between management and men is the direct cause of the misunderstanding that so often exists between the two. The "square deal" is something that enters into all phases of the relationship between management and labor, on labor's part as well as on management's. Where it is lacking, dissatisfaction inevitably arises, and then comes friction with its train of evil consequences.

For one reason or another, it appears frequently and sometimes in most unexpected places. Sometimes it is the result of selfishness on the part of the employer or on the part of the employees. Sometimes it is the result of sheer stupidity in permitting phantom differences of opinion to look like real differences of opinion, or in insisting upon superficial technicalities, or in failing to recognize that the other fellow's opinion is something that is probably as good and as worthy of consideration as one's own. Frequently, sources of irritation of these kinds produce antagonistic states of mind out of all proportion to their importance, which, in turn, exercise a depressing effect on production.

A young man, for instance, recently fell heir to a farm—and, with it, to an ancient feud with one of the neighboring farmers. Believing in a policy of frankness and fact, he went to see his friend, the enemy, and asked him for his version of the controversy. "I maintain," said his neighbor, belligerently, "that your fence is three feet over the line on my property." The young man breathed a sigh of relief. "Is that all?" he replied. "Well, tomorrow morning take your men out there and move it over six feet." The belligerent gleam died away. "**I will not,**" replied the ex-enemy, "I was only standing on the principle of the thing."

How seldom do we exercise such simple common sense as this. To be sure, there will be some who would condemn such open-mindedness as a fruitful source of trouble. They believe that everyone would impose upon them. It is this fear of being imposed upon **that often**

prevents us from meeting the other fellow halfway. It is the same fear that prevents the other fellow from meeting us halfway. And so we do not meet, and our differences continue.

In the industrial field, this fear of being imposed upon causes more friction between management and men than can be estimated.

It is folly not to recognize these obligations of leadership. For friction, arising from whatever cause, diverts men's minds from productive effort to thoughts of self-justification and self-protection, and their output is proportionately cut down. The interest factor in the worker-in-his-work situation is here repressed. In the measure in which the employee begins to think of himself and his interests as something apart from his company and his company's interests, in that measure is his effectiveness in his work reduced.

The Effect of Worry.- Let us, too, consider the matter of worry. In its acute forms, it becomes fear, and fear is paralyzing to efficiency, because fear and interest cannot reside together in the same person. In its less acute forms, it acts as a drag, not necessarily rendering us impotent, but making our tasks much more difficult than would otherwise be the case.

There are many kinds of worry. Most persons have worries at home, big worries or small ones. Few are free from financial worries. These ogres are difficult to overcome. Sometimes the employee sees no way out, and, although he would welcome advice and assistance, he hesitates to ask for it, and management, perhaps through not knowing about the ogre at all, fails to offer aid. It feels, too, at times that the employee may resent "interference" with his private affairs, that he may feel "it is none of the company's business."

Perhaps the most common worry is the fear of losing one's job. It is remarkable how high up in an organization this particular worry worms its way. The dread of want, of dependence, of failure, often exists where there is apparently no reason whatever for it. Even high executives and officers in an organization share it in greater or less extent. The fact that it is usually groundless may make it illogical but does not prevent it from casting a shadow on the efficiency of the persons who entertain it.

There is not only the fear of loss of a job and the consequent loss of money, but also the fear of overwork, *i.e.*, the fear that management will find out how much the worker can do and insist upon his speeding up so as to obtain the maximum amount of production. A corollary to this fear of overwork is that of reduction of rate, which means less money for the worker or harder work to earn the same amount of money.

More advanced employers recognize these fears and appreciate them in their full significance, and their policy is to develop in their workers a feeling of security in their positions, a sense of confidence in the permanence of their employment. For the extent to which fear of losing one's job and fear of overwork are permitted to permeate an organization, to the same extent, true efficiency is certain in the long run to suffer. Fear and worry do not materially reduce a worker's capacities; however, they greatly reduce any possibility of making maximum use of a worker's capacities, tend to retard his interests in his work and restrict his opportunities; in short, they prevent the proper adjustment of the worker to his work unit.

Incentives.—The effectiveness of the worker in his work is affected, as we know, by the degree to which the factor of *interest* exists in it. In turn, *interest*, the composite of all those influences that motivate the worker, is stimulated by incentives of various kinds. It is to incentive we wish now to direct your thought.

There are many different kinds of incentives. Traditionally we think of some method of compensating increased output by increase in pay, some monetary reward immediately tied in with the performance of the work. Piecework, task and bonus, and premium payment are instances of these kinds of incentives, and, when properly applied, they are agencies in stimulating and promoting to a limited extent individual production. Methods of this kind, it is true, have their backwashes. Failure to win the reward causes resentment and dissatisfaction. But, when a plan of tying in compensation with performance is simple (so that it can be readily understood), practicable (so that the reward is well within reach), and fair (so that an equitable proportion of the saving goes to the worker), the results are usually good.

There are other incentives of a nonfinancial nature that also exert a profound influence upon the *interests* and, consequently, upon the effectiveness of the workers in their work. We have already spoken of the effect of promotional policies upon employees: of the ways and means we shall treat later. But there is one specific incentive that is fundamental and far reaching and that is intimately related with the concept of the *capacities*, *interests*, and *opportunities* of the worker-in-his-work unit. Where it exists, interest inevitably runs high. Where it is lacking, interest inevitably is at low ebb regardless of such temporary or more immediate incentives that may be in operation. We have reference to the *certainty* on the part of the worker that management *knows* his *capacities* (what they actually are rather than what they may seem to be), that management *knows* his *interests*, that management *knows* the quality and quantity of his individual performance, and **that**

better things await him strictly in accordance with that knowledge on management's part. Here is an absence of that fear that he may be overlooked, that he may be judged unfairly, that his career may be handicapped through the bias of his immediate superior or through his own inability to sell himself. Here is perfect confidence that he has his own future in his own hands, that it will be a thing of his own making and of that alone.

In this direct connection between performance and reward lies the most constant, inspiring incentive of all. This is the kind of incentive that permeates the individual's life as an employee rather than stimulating him in one particular phase of his employment. Instead of merely encouraging him to get out more units per hour (perhaps at the cost of quality), or sell more merchandise (perhaps at the cost of good will), this fundamental sort of incentive encourages him to take an *interest* in his work, to study out better ways of doing things, to forget the clock on the far wall, to maintain friendly relations with his fellow workers. It encourages him to "stay put," for here, surely, is *opportunity*; here a man's merits are known and he is rewarded accordingly. Under these circumstances, a worker may reasonably be expected, provided the work does not exceed his capacities, to be properly adjusted to his work unit.

The Entire Personality.—In analyzing the proper adjustment of the worker-in-his-work unit, every angle of the individual's personality must be considered. It involves all the basic urges or instincts and the many social and economic implications of these instincts. The emotional side of man cannot be entirely ignored. As a matter of fact, some of the most bitter struggles with labor seem to have more of an emotional than an economic bias. Again the industrial work place and workers combine to form a social unit that extends over into the outside lives of the workers. Certain occupations have a higher social rating than others, and the employee's social status both within and without the organization is definitely influenced by his occupation.

As individuals mature in the social and industrial organization, they pass through various stages of personality adjustment. Some of these are very simple, and others are at times somewhat strenuous. The ordinary person (if it be possible to think of such an individual) has relatively little difficulty in making these adjustments. There are others who may be classified as problem workers. They may have little difficulty in performing the physical tasks but have serious problems in emotional and personality adjustments. Industry as a rule is not in a position to render the advice necessary to fit these

problem cases into the industrial picture, since they **require the service** of a trained psychiatrist.

Summary.—No attempt has been made in this chapter to treat exhaustively the many angles influencing the worker's adjustment to his work unit. The central idea has been to focus our attention on the fact that the employee's *interest, capacities, and opportunities* definitely condition his reaction to his work unit. The failure of management to recognize the individual differences involving interests, capacities, and opportunities has contributed much, to the unhappiness and confusion of the worker-in-his-work **unit**. *The employee is both a social and economic entity possessing different characteristics in various work situations.* It has not been our purpose to discuss the various instruments used or the practices followed in achieving the desired adjustment of the worker to his work unit. We have merely raised a few of the problems involved so that we may proceed to the detailed discussion of the organization and practices of personnel management with the background of the social and economic implications of the worker-in-his-work unit in mind.

CHAPTER III

THE ORGANIZATION AND FUNCTION OF A PERSONNEL DEPARTMENT

The personnel work of an organization cannot be housed within a certain department bearing that exalted name. Personnel management is a leaven permeating all phases of management; the responsibility for it rests upon all executives and persons in supervisory positions. Personnel policies may be decided upon by the major officers of the organization, but the lesser executives, the foremen, and the supervisors are the ones who carry out those policies—they are the real personnel managers. Obviously, a great need exists for giving these executives, foremen, and supervisors the right point of view toward their dealings with their subordinates. It is necessary that advice and consultation be made available to them in directing their workers. It is requisite, if the company's policies of personnel management are to be uniformly and effectively carried out, that there should be an organization within the company, a department (if the reader will not allow the word to suggest separation and detachment) that shall be charged with the maintenance of personnel records; with the practices based upon them; with selection, transfer, and promotion in cooperation with departmental executives; with the responsibility for seeing that the company's policies relating to personnel practice and procedure are carried out.

Types of Organization.—In the *straight-line organization*, authority flows from the president or head of the concern through his lieutenants *departmentally* to the department heads, group heads, foremen, and, lastly, to the rank-and-file workers.¹

Such an organization is illustrated in Fig. 5.

There are certain distinct advantages in the line type of organization. It provides for direct managerial control, it is economical, it is definite, and it ensures specialization in each line of activity. For these reasons, it is particularly suited to smaller companies.

¹ See Richard H. Lansburgh and W. R. Spriegel, *Industrial Management*, John Wiley & Sons, Inc., New York, 1940, pp. 76-101; see also William N. Mitchell, *Organization and Management of Production*, McGraw-Hill Book Company, Inc., New York, 1939, pp. 70-114, for a detailed discussion of organization types.

The weaknesses of this type of organization are: it is not flexible; it forces the specialists in their individual fields to perform additional duties of a general managerial nature for which they may not be especially fitted; it leaves every executive dependent upon his own abilities and resources and fails to give him specialized staff aid in

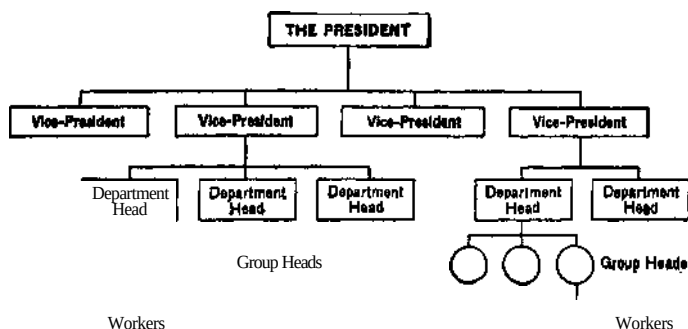


FIG. 5.—The line type of organization.

matters (such as purchasing, legal assistance, personnel, etc.) in which he needs expert counsel.

It is obvious in a line organization that a sharp line of demarcation separates department from department. It would, consequently, be impracticable to set up a personnel department as a line department,

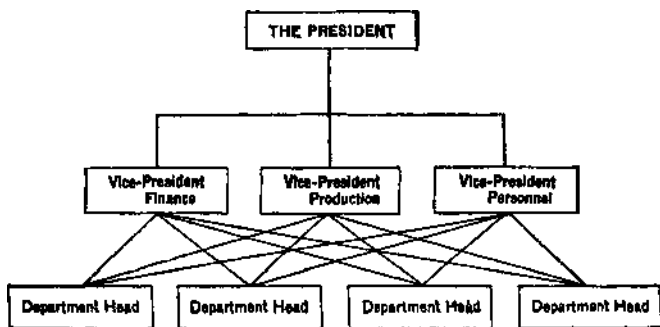


FIG. 6.—The staff type of organization.

since its value to the operating executives in other departments, where the real work of personnel lies, would be impeded and rendered ineffective.

In the *functional staff organization*, on the other hand, authority flows from the president *functionally* to the department heads. Each department reports to one specialist with reference to production, to another with reference to finance, to another with reference to person-

nel, etc.¹ This type is the extreme form of functionalized organization. Such an organization is illustrated in Fig. 6.

In this type of organization, the operating executives are freed from the necessity of performing work outside their special fields and are offered expert counsel and advice as needed in the performance of their duties. Such an organization, however, depends too highly upon the personal ability of individuals to cooperate. Sharp lines of authority are absent, and the effectiveness of managerial control, of coordination of effort, and of discipline is severely hampered.

The third type, the line-and-staff organization, combines the principles of each of these and enjoys certain of the advantages of both. It has as a skeleton the straight-line organization, but expert staff officers exist to give the line executives specialized advice and assistance in the performance of those duties outside their own fields

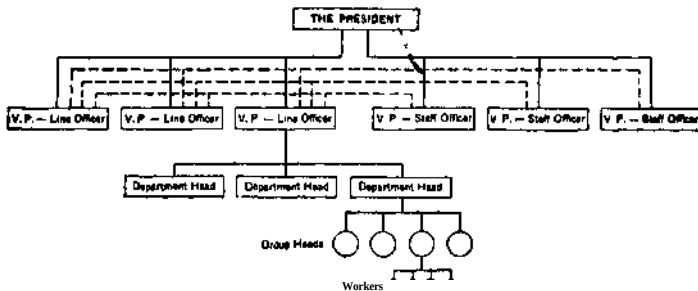


FIG. 7.—The line-and-staff type of organization.

for which they are not especially fitted. In graphic form, this type of organization is illustrated in Fig. 7.

With the exception of most smaller organizations where it is possible for personal intimacy to exist in high degree, the line-and-staff organization is that favored by most companies. Even where no conscious thought has been given to problems of organization and where no organization charts have been prepared, in essence and in function it is usually the line-and-staff type of organization that is in effect.

Personnel Administration Should Be Decentralized with Centralized Control.—The *personnel department* is essentially a staff department when viewed from the standpoint of the enterprise as a whole.

¹ Frederick W. Taylor, the "father of scientific management," originated the idea of functionalized management. It has never met with wide acceptance; however, the basic idea has been elaborated with modifications into the line-and-staff organization. Taylor's concept carried the idea of functionalization all the way down to the worker.

Within the department itself, the organizational structure is usually of the line type. As a staff department, the personnel organization can be of maximum value to the entire enterprise. There is a tendency in some organizations for the personnel department to take unto itself line authority in fact if not in name. Such a procedure tends to cause the foremen and other line officers to shirk their responsibilities in industrial relations, which in turn reduces the effectiveness of the major efforts of the personnel department.¹ The personnel department is charged with the responsibility of advising management from the chairman of the board of directors to the lowest line supervisors on all questions affecting the employer-employee relationship, is responsible for performing all the functions of employing workers for the various departments within the organization, represents management in many of the relationships that affect the organization as a whole, and is further charged with representing the legitimate claims of the workers to management. Real personnel relationships will always remain decentralized when the maximum *personal satisfactions* are realized. The personnel department is the centralized clearing agency for aiding all other departments effectively to carry out their responsibilities in all personnel matters. These functions will be treated in greater detail in the following paragraph.

Functions of the Personnel Department.—The primary function of the personnel department is to employ qualified workers in sufficient numbers to meet the requirements of the business enterprise and to participate in all activities that will tend to keep the employee a satisfied cooperative and productive worker. The activities for which the personnel department is directly responsible will vary with the nature of the industry, the size of the industry, and the over-all organizational structure of the business. For instance, the safety department may be headed by a safety engineer who reports directly to the works manager or general superintendent in one organization, and it may be under the direction of the personnel department in another or even under the director of public relations, as it is in one large Midwestern enterprise. The factory cafeteria usually is supervised by the personnel department, yet one industry of national repute has its cafeteria actually run by the purchasing department but under the functional supervision of representatives of the employees' club. The public relations department in some organizations is under

¹ See Paul Pigors, L. C. McKenney, and T. O. Armstrong, *Social Problems in Labor Relations*, McGraw-Hill Book Company, Inc., New York, 1939, pp. 10-15, 125-127; see also J. Walter Dietz, "New Trends in Personnel Policies," *Personnel*, Vol. 16, No. 3, February, 1940, p. 102.

the personnel department, or department of industrial relations, as it is often called in manufacturing industries, yet it is frequently a separate staff functional department reporting to a major executive.

The activities and functions tabulated below are frequently under the supervision of the personnel department:

- I. Employment:
 - A. Source of labor supply.
 - B. Information regarding prevailing community rates.
 - C. Information relative to job requirements.
 - D. Selection.
 1. The application blank.
 2. The interview.
 3. Tests.
 4. Physical examination.
 5. Checking references, records, and approval of supervisor.
 - E. Introduction of the worker to the company's policies and to his department supervisor.
 - F. Follow-up of the new employee for initial adjustment.
 - G. Maintenance of records of all employees hired, resigned, discharged, transferred, and laid off.
- II. Promotions, transfers, discharges, and separations:
 - A. Establishment of lines of promotion.
 1. Records to aid in the identification of eligible men for promotion.
 2. Information for the organization relative to promotion policies and lines of promotion.
 - B. Establishment of policies regarding transfers.
 1. For the immediate convenience of the company.
 2. For the convenience of the employee.
 3. To increase employee flexibility as a part of a regularization of employment program.
 4. Provision of necessary records to make effective a transfer program.
 - C. Formulation of policies regarding discharges.
 1. Information to supervisors regarding company policies governing discharges.
 2. Information to employees regarding company discharge policies.
 3. Detailed records with supporting data of all discharges.
 4. Removal of the causes for discharges as far as possible.
 - D. Separations initiated by the employees.,
 1. Determination of the cause for all employees' leaving.
 2. Records of all separations and analysis of them to discover causes.
 3. Removal of causes of separations as far as possible.
- III. Formulation and direction of training program in keeping with company objectives:
 - A. Apprentice training.
 - B. Training of new employees.
 - C. Training of present employees in improved methods.
 - D. Training of employees for transfer, promotion, and versatility.
 - E. Training of foremen and minor supervisors.
 - F. Training program for executives.

- G. Special training programs for college graduates and other selected employees.
- II. Cooperation with schools and colleges.
 - I. Cooperation with employees' clubs in their educational programs.
 - J. Vestibule schools.
- K. General training of workers in company policies, company organization, and company products.
- L. Cooperation with safety and health departments in training for:
 - 1. Safety.
 - 2. Health practices.
- M. Promoting suggestions from employees.
- N. Library and magazine circulation.
- O. Americanization programs (of relatively less importance than when immigration was less restricted).
- P. Special annual report designed especially to provide information desired by employees.
- IV. Remuneration and incentives:
 - A. Formulation of wage plans.
 - B. Formulation of vacation programs.
 - C. Rating of jobs throughout the organization.
 - D. Job specifications.
 - E. Studies in cost of living and community wages with recommendations to management relative to the company's practices.
 - F. Formulation of policies for rewarding employees' suggestions.
- V. Health and sanitation:
 - A. Initial physical examinations.
 - B. Periodic physical examinations.
 - C. First aid to the injured.
 - D. Medical treatment for minor illnesses.
 - E. Hospitalization programs.
 - F. Sanitation as related to health.
 - G. Health education.
 - H. Cooperation with local health authorities.
 - I. Studies of the causes and methods of eliminating:
 - 1. Fatigue.
 - 2. Monotony.
 - 3. Mental strain.
 - 4. Occupational diseases.
 - J. Studies covering:
 - 1. Rest periods.
 - 2. Mutual benefit society's experience in payment for absence due to accidents, illness, etc.
 - K. Dental care (not a part of most programs).
- VI. Safety:
 - A. Safety education.
 - B. Studies in the causes of accidents.
 - C. Mechanical guards.
 - D. Safety inspection and guidance of employees, safety committees.
 - E. Promotion of safety contests.
 - F. Formulation of safe-practice codes.
 - G. Fire protection.**

VII. Financial aids to employees:

- A. Advances on wages to new employees.
- B. Employees' mutual benefit societies.
- C. Credit unions.
- D. Profit-sharing programs.
- E. Mutual saving programs.
- F. Employee stock-ownership plans.
- G. Pension plans.
- H. Unemployment insurance.
- I. Workmen's compensation insurance.
- J. Group life insurance.
- K. Group hospitalization.
- L. Special discounts on company's products.
- M. Loans to employees during layoffs.
- N. Certain annual wage guarantees.
- O. Aid in payment of tuition for attendance at evening classes in approved schools and colleges.

VIII. Employee service activities:

- A. Recreational activities.
- B. Housing, gardens, parks, and similar activities.
- C. Boys' clubs.
- D. Restaurants.
- E. Company stores for employees.
- F. Legal advice (usually does not include appearance in court).
- G. Counsel in personal matters.
- H. Visiting nurses.
- I. General educational activities not related to training for company jobs.
- J. Plant magazine.

IX. Employee-employer and community cooperation:

- A. Various forms of employee-employer representation.
- B. Management-labor union cooperation.
- C. Community cooperation:
 - 1. Community funds.
 - 2. Safety campaigns.
 - 3. "Cleanup" drives.
- D. Procedures for:
 - 1. Settling grievances.
 - 2. Promoting company welfare in terms of improved product and competitive position.
 - 3. Layoffs, discharges, and promotions.
- E. Practically any personnel activity may be a matter of formal cooperation between management and the employees.

The foregoing responsibilities and activities are presented in a somewhat different arrangement in Fig. 8.

In the smaller boxes at the head of the chart appear a number of those aspects of management-employee relationships with reference to which conscious policies must be determined by the officers of the higher command. These higher officers we may regard as occupying

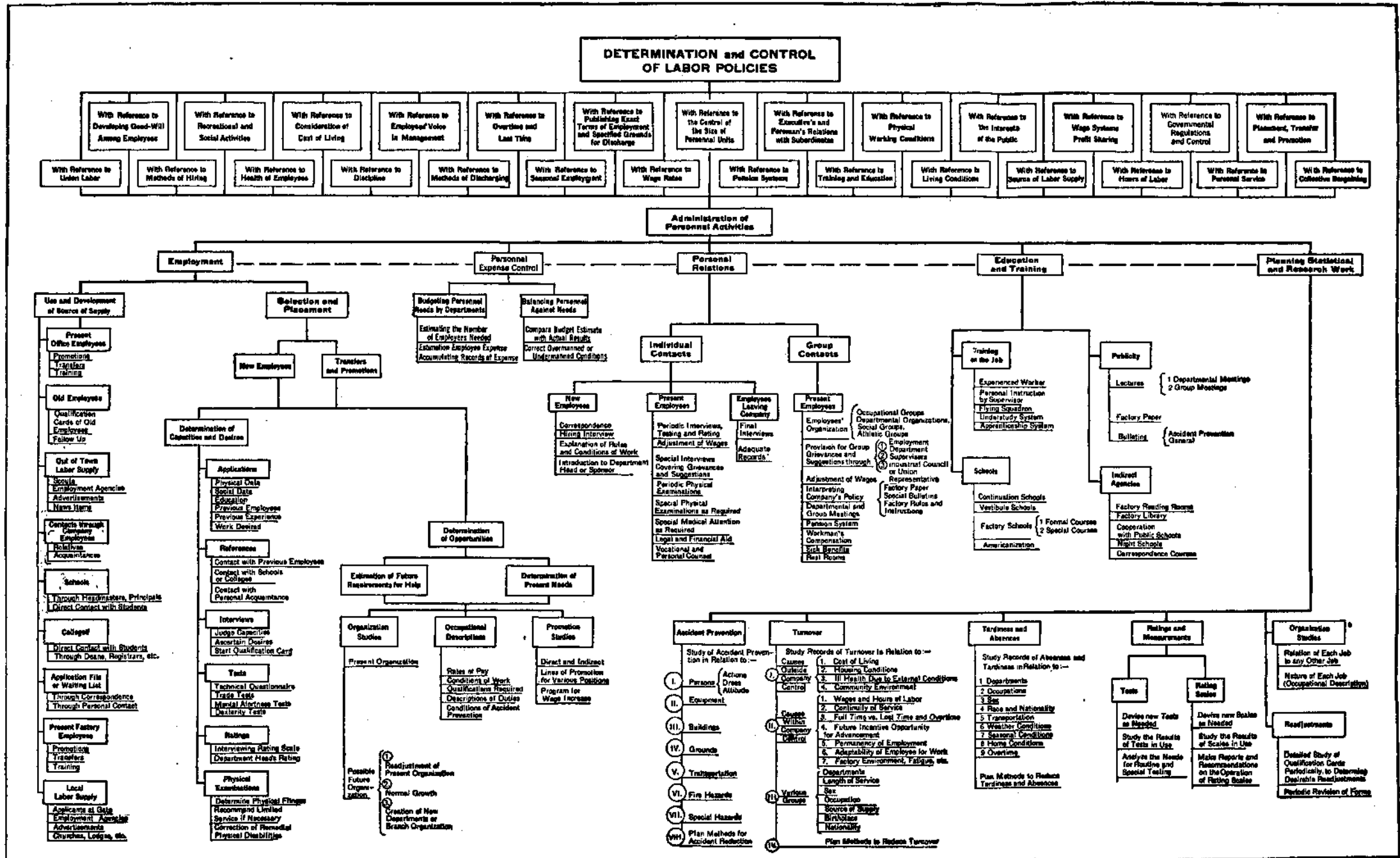


FIG. 8.—Functional chart of labor management.

the larger box at the top. The administration of these policies is vested in the personnel department, which we may think of as occupying that box entitled administration of personnel activities, and their direct execution is charged to the members of the personnel department and to the executives and supervisors throughout the company under the general coordination of the personnel manager.

It is apparent upon careful perusal that the policies set forth in the small boxes at the top of the chart are carried out under one or more of the functions suggested in the five boxes, employment, personnel expense control, personal relations, education and training, and planning and statistical research work.

Under employment, for instance, are suggested certain ways of developing sources of labor supply and methods of determining the facts of individual *capacity* and *interest* needed as a basis for intelligent action in selection for employment, placement, transfer, and promotion. We may regard this part of the chart as covering those functions that have to do with placing the worker on the payroll.

The second box, personnel expense control, has reference to that function of personnel administration that determines the personnel needs, number, kinds, and expense necessary for each department within the organization, and that constantly adjusts these needs according to production.

The third box, personal relations, suggests those many and varied contacts by which the management comes in touch with its workers, contacts through which the effectiveness of the workers in their work should be stimulated and increased.

Because of its importance, education and training is not regarded as an item under this general heading (although technically, it belongs there), but is set up by itself in the fourth box. Here is a suggestion of those conscious practices by which the *capacities* and *interests* of the *workers in their work* are further increased and stimulated.

Personnel Chart of Western Electric Company, Hawthorne Works.

Having examined a theoretical organization of a personnel department, it would be well to look at an actual chart of an operating organization. Figure 9 portrays the functional relationships of the various activities of the personnel department of the Hawthorne Branch of the Western Electric Company. It will be observed that there are three main divisions: *placement*, *research*, and *service*. Each of these divisions has two or more sections under it. This organization differs from some others in that the safety function is placed under the public relations department and not the industrial relations branch. The house organ also comes under the public relations department.

FUNCTIONAL ORGANIZATION CHART OF THE INDUSTRIAL RELATIONS BRANCH HAWTHORNE WORKS WESTERN ELECTRIC CO.

SUPERINTENDENT OF INDUSTRIAL RELATIONS

1. MAINTAIN ADEQUATE STAFF TO INSURE UNIFORM AND CONSISTENT APPLICATION OF PERSONNEL POLICIES AT THE HAWTHORNE WORKS
 11. SELECTION AND HIRING OF EMPLOYEES
 12. PLANNING FOR PERSONNEL NEEDS
 121. COORDINATING ACTIVITIES INVOLVING TRANSFERRING, UPGRADING AND PROPER PLACEMENT OF EMPLOYEES
 122. MAINTAINING PERSONNEL RECORDS
 13. EMPLOYEE TRAINING PROGRAMS
2. SERVICES TO EMPLOYEES
 21. HOSPITAL, MEDICAL AND SURGICAL FACILITIES
 22. RESTAURANT AND CAFETERIA SERVICE
 23. REAL ESTATE SERVICE
 24. EMPLOYEES BENEFIT PLAN ADMINISTRATION
3. RESEARCH STUDIES OF PERSONNEL POLICIES AND PRACTICES
 31. EFFECTIVENESS OF CURRENT PRACTICES
 32. RECOMMEND CHANGES IN PERSONNEL POLICIES

PERSONNEL PLACEMENT DIVISION

PERSONNEL RESEARCH DIVISION

EMPLOYEES' SERVICE DIVISION

EMPLOYMENT DEPARTMENT

1. INTERVIEW ALL APPLICANTS APPLYING FOR WORK
2. SELECT SUITABLE APPLICANTS AS NEEDED TO MAINTAIN THE REQUIRED WORKING FORCE
3. BUILD UP AND MAINTAIN SOURCE OF SUPPLY THROUGH FORMER EMPLOYEES, CURRENT APPLICANTS, SCHOOLS AND COLLEGES, EMPLOYMENT BUREAUS, ADVERTISING, ETC.
4. GIVE PSYCHOLOGICAL TESTS TO DETERMINE MENTAL, VISUAL OR MANUAL DEXTERITY
5. REVIEW RESULT OF MEDICAL EXAMINATION AND DETERMINE WHETHER APPLICANT IS PHYSICALLY ABLE TO DO WORK FOR WHICH HE IS BEING CONSIDERED
6. DISTRIBUTE "FOR YOUR INFORMATION" AND "EMPLOYEES BENEFIT PLAN" BOOKLETS
7. REVIEW AND ANSWER ALL CORRESPONDENCE PERTAINING TO EMPLOYMENT POSSIBILITIES, EMPLOYMENT POLICIES, ETC.
8. MAINTAIN GOOD RELATIONS WITH OTHER INDUSTRIES AND ORGANIZATIONS IN THE COMMUNITY
9. INTERVIEW ALL LEAVING EMPLOYEES FOR THE PURPOSE OF OBTAINING INDIVIDUAL REACTIONS TO SPECIFIC TYPES OF WORK SUPERVISORY DETAILS AND COMPANY POLICIES
10. RENDER CLERICAL SERVICE IN CONNECTION WITH HIRING AND LEAVING ACTIVITY AND MAINTENANCE OF EMPLOYEE RECORDS
 101. INVESTIGATE REFERENCES PERTAINING TO EDUCATION AND EXPERIENCE OF EMPLOYEE HIRED
 102. MAINTAIN ALL FILES INCLUDING FORMER PRESENT AND PROSPECTIVE EMPLOYEES RECORDS
 103. ANSWER WRITTEN AND TELEPHONE INQUIRIES CONCERNING PRESENT AND FORMER EMPLOYEES
 104. COMPUTE SERVICE DATA OF FORMER EMPLOYEES AND PREPARE REPORT TO BENEFIT COMMITTEE FOR VERIFICATION
 105. COMPILE STATISTICS AND ISSUE NECESSARY REPORTS IN CONNECTION WITH CHANGES IN PERSONNEL AND DISTRIBUTION OF SERVICE CERTIFICATES
 106. ESTABLISH VACATION ALLOWANCE FOR ALL EMPLOYEES

THE PERSONNEL PLACEMENT DEPARTMENT

1. TO ASSIST THE SUPERVISOR IN PLACING EACH EMPLOYEE ON THE KIND OF WORK FOR WHICH HE IS BEST QUALIFIED AND WHERE HE WILL HAVE AN OPPORTUNITY TO PROGRESS
 11. WHEN HE IS DESERVING OF ADVANCEMENT
 12. WHEN HE MIGHT HAVE ABILITY AND INTEREST OF VALUE IN NEW OR OTHER WORK
 15. WHEN BECAUSE OF PHYSICAL RESTRICTIONS IT IS NO LONGER ADVISABLE FOR THE EMPLOYEE TO REMAIN ON HIS PRESENT JOB
2. TO MAINTAIN ESSENTIAL AND CURRENT INFORMATION ON EMPLOYEE FOR UPGRADING AND TRANSFERRING
3. TO SERVE AS A CENTRALIZED CONTROL UNIT IN APPROVING ALL TRANSFERS WITHIN AND INTO DEPARTMENTS
4. TO SERVICE LINE SUPERVISORS WITH INFORMATION RELATIVE TO PERSONNEL POLICIES AND PRACTICES, THUS MAINTAINING UNIFORMITY

PERSONNEL RESULTS DEPARTMENT

1. MAINTAIN PERSONNEL RECORDS FOR ALL EMPLOYEES IN THE HAWTHORNE WORKS ORGANIZATION
2. ISSUE CONTROL REPORTS ON PERSONNEL SUBJECTS FOR USE OF MANAGEMENT AND THE PERSONNEL PLACEMENT DEPARTMENT
3. CONDUCT SPECIAL SURVEYS AND STATISTICAL STUDIES FOR THE IMPROVEMENT OF PERSONNEL METHODS

EMPLOYEE RELATIONS RESEARCH DEPARTMENT

1. PERSONNEL COUNSELING
 11. TO STUDY THE EMPLOYEES' ADJUSTMENT TO HIS WORK SITUATION
 12. TO ASSIST IN BRINGING ABOUT IMPROVEMENTS IN HIS SITUATION
2. TO COORDINATE RELATIONS BETWEEN MANAGEMENT AND THE WESTERN ELECTRIC INDEPENDENT LABOR ASSOCIATION
3. TO CONDUCT RESEARCH IN EMPLOYEE RELATIONS

PSYCHOLOGICAL AND STATISTICAL STUDIES DEPARTMENT

- PSYCHOLOGICAL TESTING PROCEDURES: DEVELOPMENT OF PSYCHOLOGICAL TESTS, DETERMINATION OF STANDARDS, BASED UPON TEST RESULTS AND OTHER DATA FOR USE IN CONNECTION WITH HIRING, SELECTION FOR SPECIAL TRAINING, AND OTHER PERSONNEL ACTIVITIES
- INDIVIDUAL ADJUSTMENT SERVICE: TESTING OF CASES REQUIRING SPECIAL INDIVIDUAL STUDY
- EMPLOYEE RATING PROCEDURES: DEVELOPMENT OF FORMS AND PROCEDURES FOR RATING EMPLOYEES; STATISTICAL EVALUATION AND INTERPRETATION OF RESULTS

TRAINING DEPARTMENT

1. CONDUCT FORMAL TRAINING COURSES
 - 1.1. FOR SUCH SKILLED MACHINE TRADES AS TOOL MAKING, DIE MAKING AND MACHINE CONSTRUCTION AND REPAIR
 12. FOR SUCH PLANT TRADES AS ELECTRICIANS, PIPE FITTERS, MILLWRIGHTS AND SHEET METAL WORKERS
 13. IN TELEPHONE SYSTEMS, APPARATUS AND EQUIPMENT FOR TECHNICAL WORKERS SUCH AS ENGINEERS, INSPECTORS, SUPERVISORS AND OTHERS
2. ORGANIZE AND CONDUCT ADEQUATE SUPERVISORY DEVELOPMENT PROGRAMS OF GENERAL INTEREST TO ALL SUPERVISORS, TO ACT IN AN ADVISORY AND COORDINATING CAPACITY FOR LOCAL UNITS OR SHOPS IN THEIR SUPERVISORY TRAINING WORK DIRECTED AT THEIR OWN PARTICULAR NEEDS
3. ASSIST AND COLLABORATE WITH THE LINE ORGANIZATIONS IN THE DEVELOPMENT OF JOB TRAINING PROGRAMS AND ANALYSES OF TRAINING DIFFICULTIES
4. CONDUCT EXPERIMENTS FROM TIME TO TIME IN SHOP OPERATIONS OF A SEMI-SKILLED OR SKILLED NATURE TO DETERMINE THE MOST EFFECTIVE METHODS OF TRAINING PROCEDURE

BENEFIT PLAN AND SERVICE DEPARTMENT

1. TO CARRY OUT THE PROVISIONS OF THE COMPANY'S "PLAN FOR EMPLOYEES' PENSIONS, DISABILITY BENEFITS AND DEATH BENEFITS"
 11. TO SEE THAT
 111. BENEFIT PAYMENTS ARE MADE TO DISABLED EMPLOYEES
 112. PENSIONS ARE PAID TO THE RETIRED EMPLOYEES
 113. PERIODIC VISITS ARE MADE TO RETIRED EMPLOYEES
 114. DEATH BENEFITS ARE PAID TO THE DEPENDENTS OF DECEASED EMPLOYEES
12. TO REPORT THE ACTIVITIES TO AND SECURE THE APPROVAL OF A LOCAL COMMITTEE ON ALL BENEFIT FUND MATTERS
13. TO PREPARE FOR FINAL APPROVAL OF THE BENEFIT FUND COMMITTEE AT THE HEADQUARTERS OF THE COMPANY ALL CASES AND MATTERS FALLING UNDER THE PLAN
2. TO RECOMMEND
 21. PERSONAL AND HOME LOANS TO EMPLOYEES IN DESERVING CASES
 22. SUPPLEMENTAL PENSIONS TO RETIRED EMPLOYEES IN DESERVING CASES
 23. SPECIAL ASSISTANCE TO ANY EMPLOYEE IN UNUSUAL CIRCUMSTANCES WHEN NOT PROVIDED FOR UNDER ANY REGULAR PLAN OF THE COMPANY
3. TO GIVE ADVICE ON FINANCIAL, INSURANCE AND OTHER THRIFT PROBLEMS

MEDICAL AND HOSPITAL DEPARTMENTS

1. TO DETERMINE PHYSICAL FITNESS OF APPLICANT FOR EMPLOYMENT
2. TO ASSIST EMPLOYEES IN MAINTAINING PHYSICAL FITNESS NECESSARY TO EFFICIENTLY CARRY ON THEIR DAILY WORK
3. TO PROVIDE THE NECESSARY TREATMENT IN CASE OF INJURY OR EMERGENCY SICKNESS
4. TO PROMOTE A MORE COMPLETE UNDERSTANDING OF THE PRINCIPLES OF HEALTH CONSERVATION
5. TO GIVE ADVICE WHEN SOLICITED TO ASSIST IN OBTAINING NECESSARY MEDICAL TREATMENT
6. TO SAFEGUARD EMPLOYEES FROM CONTACT WITH THOSE HAVING COMMUNICABLE DISEASES

RESTAURANT DEPARTMENT

1. TO PREPARE SUITABLE MENUS AND FOODS FOR THE NOON MEAL OF ALL EMPLOYEES AT HAWTHORNE WHO DESIRE THIS SERVICE
2. TO FURNISH RESTAURANT AND LUNCH ROOM SERVICE TO EMPLOYEES AS NEARLY AS POSSIBLE AT COST TO THE COMPANY
 - 2.1. IN DOING SO, IT OPERATES THREE LUNCH COUNTERS AND ONE SERVICE RESTAURANT
3. TO PREPARE AND SERVE EVENING MEALS TO SPECIAL GROUPS SUCH AS THE TELEPHONE PIONEERS, ASSOCIATED HAWTHORNE CLUBS, ETC.

REAL ESTATE SERVICE DEPARTMENT

1. FUNCTIONS OF THE DEPARTMENT
 11. ACQUISITION OF HOME PROPERTIES AND DISPOSAL OF LEASES OF HOMES OF EMPLOYEES TRANSFERRED TO OTHER LOCATIONS AT THE COMPANY'S REQUEST
 12. THE CARRYING AND MAINTAINING OF SUCH PROPERTIES AND LEASES UNTIL DISPOSED OF
 13. THE SALE OR RENTAL OF SUCH PROPERTIES HELD
2. PURPOSES OF THE PLAN
 - 2.1. TO RELIEVE THE EMPLOYEE OF RESPONSIBILITY FOR THE CARE, MAINTENANCE AND DISPOSAL OF HIS OWNED PROPERTY AFTER TRANSFER TO ANOTHER LOCATION
 - 2.2. TO GUARANTEE TO THE EMPLOYEE THE APPRAISED VALUE OF SUCH OWNED PROPERTY IN CASE OF HIS TRANSFER
 - 2.3. TO RELIEVE A TRANSFERRED EMPLOYEE FROM FURTHER LIABILITY IN CONNECTION WITH A LEASED HOME
 - 2.4. TO MAKE IT POSSIBLE FOR A TRANSFERRED EMPLOYEE TO PURCHASE A HOME AT HIS NEW LOCATION

FIG. 9.—Functional organizational chart of the Industrial Relations Branch of Hawthorne Works, Western Electric Company.

success of such organizations in maintaining and building morale depends usually, at least in part, upon the degree with which the company absents itself from direct contact. He holds himself in readiness to render such personal service as individual employees or groups of employees may desire.

These qualifications are illustrated in Fig. 10.

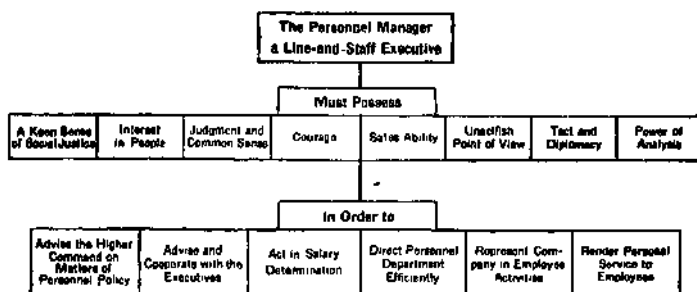


FIG. 10.—Chart showing the characteristics of the successful personnel manager.

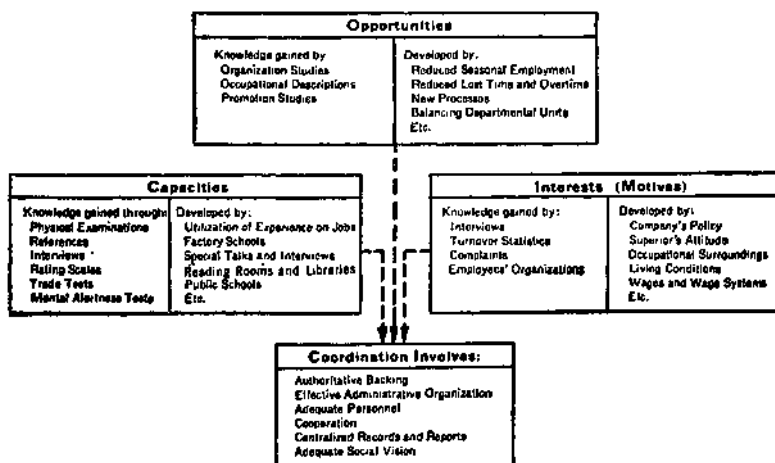


FIG. 11. -Chart showing how opportunities, capacities, and interests can be known and developed and what their coordination involves.

Figure 11 illustrates the personnel manager's coordinating function in relation to the employee's capacities, interests, and opportunities.

Summary.—The various functions listed in Fig. 9 are not found in all personnel departments. To a considerable degree, the over-all organization structure of the enterprise will determine the location of certain functions. In the smaller organizations, many of the functions are handled by the same person. Such a situation naturally precludes a high degree of specialization. Most of the personnel functions can readily be mastered by a well-trained individual who has a basic inter-

est in people. Psychological testing and the medical or health service require a specialized type of training that relatively few men in general personnel work have. In the smaller organizations, it is frequently advantageous to have part-time consultation rather than try to perform a task for which the personnel staff is not trained. On the other hand, it is not unusual to find an organization using the trained nurse, when not busy in the first-aid clinic, for clerical and interviewing duties. The trained psychologist likewise may well be used by the smaller organizations in other functions than in psychological research and testing.

It should be kept clearly in mind that the personnel function is not a new one that follows the creation of the personnel department., The personnel function exists regardless of the organization set up to care for it. It is a function that must be cared for by someone in the organization. As the number of people in the enterprise increases, specialization usually is increased not only in production, sales, finance, accounting, etc., but also in those relationships involving the employer and employee. The respective specialized department heads frequently become so absorbed in their specialties that they fail to give the necessary attention to their employees who aid them in their work.

The personnel department does not take over the departmental responsibilities of these specialists, with the possible exception of keeping centralized records, health service, and hiring, but acts in an advisory staff capacity to aid these specialists in the proper discharge of their personnel responsibilities. The remainder of this book will be devoted to a detailed discussion of the services and functions of the personnel department.

CHAPTER IV

PERSONNEL POLICIES

Business Policies.—Business policies serve as a directive in the planning, organization, and control of a business enterprise. Policy formulation is an administrative function. There are two general groups of policies, major and minor. Major policies pertain to the over-all objectives, procedures, and controls that influence the organization as a whole. Minor policies cover relationships within a segment of the enterprise with considerable emphasis on details and procedures. The board of directors formulates the top segment of major policies and establishes the framework within which the major executives build the remaining policies necessary to carry out the major objectives of the enterprise. These major policies cover in a general way nearly every phase of the enterprise, the product, methods of financing, organizational structure, plant location, marketing, personnel, etc. Briefly, *business policies may be defined as that body of principles and rules of conduct that governs an enterprise in the attainment of its objectives.* The minor policies should be founded on the major policies of the organization in order to preserve unity of purpose. The minor executives, in their interpreting of the major policies, in reality create the minor policies. Frequently, representatives of the employees participate in the creation of policies in which they are vitally interested. Business policies are, in general, more stable than procedures and regulations; yet they are not static but are modified to meet changing conditions. Carefully defined business policies serve as a stabilizing influence to prevent the waste of energy in following bypaths not in harmony with the established program; they promote cooperation in the organization as a whole and foster initiative, particularly on the lower levels of supervision.

Personnel Policies.—Personnel policies constitute; one aspect of business policies and may be divided into major personnel policies and minor personnel policies. *Major personnel policies may be defined as that body of principles and rules of conduct that governs the enterprise in its relationships with its employees.* Being a vital part of the major business policies formulated to guide the enterprise in attaining its objectives, the personnel policies naturally must conform to the broad

structural relationships governing the organization in its entirety. The major executives of an organization are directly responsible for the formulation of its major personnel policies. The chief executive officer of the enterprise is, in reality, the chief personnel officer, even though he may have the aid of a director of personnel relations who aids him in this field of specialization just as he has a sales manager, chief engineer, and others who aid him in their respective fields. The sales manager and engineer may be line officers and operate effectively, but the director of personnel, to be most effective, must serve as a staff officer. It would be difficult to overemphasize the importance of having personnel policies an integral part of the entire policy structure of an enterprise. It is not at all unusual to find an organization with an enlightened sales policy, sound public-relations policy, scientific product design policy, an acceptable financial policy, but no concrete personnel policy other than to permit each supervisor to do as his particular fancy dictates. Such an organization may have an employment officer as a matter of convenience but little else in a personnel way. Tradition and custom in such cases govern most of their personnel relationships. Tradition and custom have a place in any sound personnel policy; yet they are not sufficient to meet the changing personnel situations that have arisen during the past decade.

The minor personnel policies pertain to specific departments or other units. For instance, an employee may have plant seniority rights, the result of a major personnel policy where plant seniority is recognized, and at the same time this same employee may have departmental seniority rights, the result of a minor personnel policy. Plant seniority may give a man the right to a job in a given department, and departmental seniority may be such that he has to take the most undesirable shift. Minor personnel policies often influence departmental morale quite as much as the major personnel policies. When the two are in harmony with each other, one will supplement the other with improved personnel relations and a high type of plant morale.

Characteristics of Sound Personnel Policies,—As indicated above, personnel policies must possess organic unity with the other company policies. Organic unity of purpose tends to avoid unnecessary waste and promotes unity of action. A weakness in any of the major policies tends to weaken the effectiveness of the other policies. Policies are naturally influenced by many factors: tradition in the particular industry, technological development, competition, social approval, the prevailing attitude of organized labor, the extent of unionism in the particular industry and community, governmental regulations, **and** the ideals of the management. Personnel policies **should be stable**

yet should possess sufficient flexibility to meet new conditions. One of the most disconcerting factors in dealing with groups is uncertainty. Stable personnel policies tend to dispel uncertainty and foster a feeling of security among the employees. In order that personnel policies may function effectively in contributing to the success of the major objectives of an enterprise, they should, in general, possess the following characteristics:

1. They should be the result of careful analysis of all the facts available.
2. They should recognize individual differences.
3. They should recognize the desire of many workers for recognition as groups in many of their relationships.
4. They should recognize the fact that other workers prefer to deal with management on an individual basis rather than through an organized group.
5. They should be specific as to principles but avoid minute details.
6. They should possess a high degree of permanency but should not be inflexible.
7. They should possess organic unity of purpose in keeping with the other policies of the organization.
8. They should be formulated with due regard for the interests of all parties concerned, the employees, the public, the consumers, and the owners.
9. They should conform to governmental regulations.
10. They should provide for adequate means for becoming generally known to all interested parties.

Specific Items Covered in Published Statements of Company Personnel Policies.—The exact items covered in the published statements of various manufacturing and mercantile concerns naturally reflect the experience of the particular enterprise. For instance, one large automobile manufacturer that had a bitter experience with sit-down strikes lists 11 specific causes for discharging employees. Another company in the same industry treats the subject of discharges more in the terms of principles, pointing out that no man will be discharged because of union affiliation but that membership in a union does not confer immunity from discharge. Another large-scale company in a different industry does not mention discharges in its published statements on labor policies, yet its booklet covers almost every other phase of employer-employee relationship. The following items have appeared in some but by no means all published statements of labor policies as distributed to the employees:¹

1. Mutuality of interest between management and men.
2. Need for cooperation between management and men.

¹ See J. E. Walters, "Putting Labor Policies on Record," *Factory Management and Maintenance*. February. 1938, pp. 71-79, for an excellent discussion of this subject.

3. History of the company's growth.
4. Hiring employees.
 - a. No age restrictions other than legal restrictions on minors.
 - b. Age limits 21 to 27. (This company has a policy of promoting only from within the organization, and the first three years of employment are spent in several branches requiring considerable moving from place to place.)
 - c. Marital status preferred. (The company with a hiring age limit referred to above will not, as a rule, hire married men and discourages marriage of its employees for the first three years.) A few companies will not hire married women and force women employees to resign when they get married.
 - d. Physical examinations required.
 - e. Psychological and occupational tests required.
5. Conditions of employment.
 - a. Wage-payment method and pay periods
6. Hours of work, overtime, and shifts.
7. Basis of promotion.
8. Layoff and rehiring.
9. Discharge and voluntary separations.
10. Seniority rights.
11. Guaranteed employment after attaining certain length of service.
12. When an employee is considered a regular employee.
13. Procedure to be followed in case of a grievance.
14. Safety rules and regulations.
15. General practices.
 - a. Employee identification.
 - b. Punching time cards and reporting in and out of the plant or department.
 - c. Tool checks and tool regulations.
 - d. Removal of tools or other personal property from the plant.
 - e. Purchases from the company.
 - f. Procedure for getting pay, such as holding pay-check receipt that has previously been detached from the time clock, etc.
 - g. Absence.
 - h. Change of address.
 - i. Solicitation on company premises.
 - j. Automobile parking privileges.
16. Employee financial aids.
 - a. Savings and loans.
 - b. Credit unions and mutual benefit associations.
 - c. Group insurance.
 - d. Profit sharing.
 - e. Partial or entire payment of tuition for school attendance or correspondence-school courses satisfactorily completed.
 - f. Sale of company products to employees at a discount.
 - g. Loans during temporary layoffs.
17. Rewards for suggestions.
18. Educational opportunities.
 - a. Apprentice training.
 - b. Factory schools, vestibule school, and training on the job.
 - c. Training for promotion.
19. Employees' publication, house **organ**.

13. Social security and other compensations.
 - a. Unemployment compensations.
 - b. Pensions and annuities.
 - c. Compensation for employees injured while on duty.
14. Health, hospitalization, and similar services.
15. Vacations with pay.
16. Pay allowances during illness.
17. Freedom to discuss any item of interest with management.
18. Company stores.
19. Collective bargaining.
 - a. Recognition of employees' right to join any union of their choice.
 - b. Recognition of a particular bargaining agency or agencies (when they have been recognized).
 - c. Management's statement of the general field that is subject to bargaining.
 - d. Procedure to be followed in settling grievances or the interpretation of a bargaining contract.
 - e. The right of an individual to be heard.
20. Procedures for disseminating information regarding company policies.

Methods of Interpreting Personnel Policies to the Members of the Organization.—Personnel policies to be effective must be understood by all interested parties. This statement is just as applicable to the lower levels of supervision as to the workers themselves. Regardless of the sincerity of purpose and the soundness of policies formulated by top management with or without consultation with representatives of the workers, the real personnel policies, as far as the individual worker is concerned, are those relationships that are manifested by the daily contacts with the immediate supervisors. The first step in disseminating company personnel policies is to inform the supervisors on each executive level. It is a sad situation when a worker learns of a personnel policy through his representatives before his immediate supervisor knows it. Supervisors may be informed of changed company policies and kept aware of established policies by any or all of the following methods:

1. Conference presided over by the senior executive of the particular group.
2. Conference conducted as a part of an executive training program. Such a training program regardless of the central theme for the particular series may well include a consideration of company policies when new situations arise.
3. Written standard practice procedures issued to cover company policies at the date of issue with supplements to cover changes.
4. Standard bulletins or booklets that are issued to new employees.
5. Verbal instructions from immediate superiors.

The written form of disseminating company policies when supplemented by conferences to clarify details is to be highly recommended. **It** provides permanency of record, may be used for later reference, and minimizes deviations that are certain to creep in almost imperceptibly

unless great care is exercised. They also serve as valuable means of instructing new supervisors who may not be informed as to details.

When the supervisory force is thoroughly indoctrinated with the company policies, the major part of informing the workers has been* accomplished. As a matter of safety, however, it is wise to take additional steps to inform the workers directly through the medium of published booklets setting forth rights, privileges, and responsibilities. This is the second step in making personnel policies known to the workers. These booklets may well be distributed to the workers by their supervisors; however, it is appropriate for some representative of top management to make certain that they really do make the distribution. New employees may be informed regarding many angles of company policies by representatives of the personnel department in group meetings of the new employees. These group meetings of new employees may be called after regular working hours for that specific purpose. The employees, under the Fair Labor Standards Act, will usually be paid for the time thus spent. In one organization, a letter is sent from the office of the president over his signature welcoming each new employee into the organization and calling his attention to company policies and opportunities.

The company paper or house organ is an excellent medium for informing employees of company policies. Special feature articles on safe practices may profitably be run in the factory paper. Explanations of vacation privileges, seniority regulations, savings and loan plans, health services, pension plans, partial or complete payment of tuition for school attendance, and other personnel policies find a ready audience when attractively presented in the factory paper.

In case the company has a signed contract with an organized group of workers, this contract frequently covers many details of the personnel practices. Where such a relationship exists, the representatives of the workers should be informed of all changes in personnel policies, even though they are more favorable to the workers than the contract signed as a result of collective bargaining. These worker representatives are jealous of their positions and frequently feel keenly that their positions as leaders are jeopardized when management does more than the representatives were able to wrest from management at the collective-bargaining table. An illustration of such a reaction was the case of a large manufacturer who established a policy of making loans without interest to its employees during the slack period. The program was thoroughly sound in principle from the standpoint of the workers; yet their representatives bitterly attacked the program. The union officials would undoubtedly deny that any relationship

existed between this opposition and the fact that management announced the program without giving them an opportunity to pass on it; however, their opposition to noninterest-bearing unsecured •voluntary loans points strongly in this direction. If management is committed to a union agreement, good, personnel relations are frequently promoted by advising the representatives of the union regarding policies that affect their members.

Published statements of personnel policies are in common use today. Their wide use is a development of the past decade. Some of these include nearly all the pertinent policies and practices in one booklet, and others have several booklets covering special subjects such as safety, mutual aid associations, insurance plans, profit sharing, etc. Each system has its advantages; however the particular method is not half so important as the policies themselves and the wholehearted management acceptance of the spirit behind the policies.

The Eastman Kodak Company.—An excellent example of the formulation and statement of personnel policies is that of the Eastman Kodak Company, set forth in its *Employee's Guide Book*. This is a well-edited booklet that is given to each new employee. A section of this *Employee's Guide Book*, is reproduced below:

CODE OF INDUSTRIAL RELATIONS

The following policies and principles governing the relationship between the Company and its employees comprise the Code of Industrial Relations of the Eastman Kodak Company.

1. Wages. Wage rates are established on the basis of fairness to the individual for the work he is doing. It is the intention of the Company to pay wages equal to or above those prevailing in the community for similar work requiring like responsibility, experience, and skill. Constant attention is required and is being given to maintain this policy.

2. Hours of Work. The standard hours of work for all employees of the Company are eight hours per day and forty hours per week.

For general factory employees, the following provisions apply:—

All time worked in excess of eight hours per day or forty hours per week is paid for at the rate of time and a half.

Sunday work is paid for at the rate of double time except where the regular workday of the employee falls on Sunday.

All work on the six holidays observed by the Company—namely, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day—is paid for at the rate of double time, regardless of whether the regular workday of the employee falls on the holiday or not.

3. Stability of Employment. There are wide seasonal variations in the demand for many of the Company's products. In order to avoid, so far as possible, the effect of these seasonal variations upon stability of employment,

the Company for many years has given constant attention to the planning of its production schedules. As a result, a marked stability of employment has been achieved.

This planning program cannot, of course, prevent lessened employment, when business in general is bad and the demand for the products of the Company is greatly reduced.

4. Vacations with Pay. Annual vacations with pay are allowed to all employees hired on a regular full-time basis. Subject to the rules of eligibility, such vacations are one week in length for general factory employees who have completed one year of continuous service. Vacations for factory employees are increased to two weeks after completion of five years of continuous service. "No lost or overtime" employees are allowed two weeks' vacation after one year of continuous service.

5. Profit-sharing. Through the wage dividend, employees share in the financial success of the business on a basis of the amount of dividends declared on the common stock of the Company and in proportion to each employee's length of service and earnings. The wage dividend is not taken into account by the Company in establishing wage rates. It is paid in recognition of the contribution which loyal, steady, and efficient workers make to the success of the Company, and should be regarded not as wages but as a share in the earnings of the Company. Payment of the wage dividend in any year is dependent upon the earnings of the Company and upon special action by the directors.

6. Retirement Annuities, Life Insurance, and Benefits for Total and Permanent Disability. The Company believes that it should assist employees in providing for themselves and for their families against old age, disability, and death. For this purpose a program of benefits has been provided, based upon length of service and amount of earnings, through a group contract between the Company and the Metropolitan Life Insurance Company. The life insurance is provided upon a contributory basis, the Company and the employees sharing the cost.

7. Sickness Allowance. Under an established plan, employees absent on account of illness are paid definite allowances based on their length of service and their earnings.

8. Freedom of Discussion with Management. The Company cannot emphasize too strongly its desire that all employees shall feel free to seek information or advice from the management on any matter which is troubling them, or to call attention to any condition which may appear to them to be operating to their disadvantage. No employee need hesitate to do this, and his standing with the Company will not thereby be prejudiced in any way. He will find his foreman or supervisor or the plant employment department ready to talk over any of these matters and to give any assistance they can. The Company believes that most difficulties will be satisfactorily adjusted between the employee and the foreman or supervisor; but, if for any reason an employee is not satisfied with such adjustment, he is and should feel completely at liberty to bring the matter to the attention of anyone in the management.

9. Improvements in Methods and Processes. The continual development and introduction of new and improved methods and processes are necessary to the successful conduct of the business; and only by utilizing such improvements can the Company continue to provide stable employment at adequate wages. Nevertheless, before such changes are made, careful attention is given to any possible effect upon the employees concerned. This policy makes it possible to adopt improved methods essential to the growth of the Company and at the same time to avoid any considerable hardship to individual employees.

10. Safety. The Company has endeavored for years to lessen the accident hazards in its plants by the installation of safety devices, and by systematic safety instruction and supervision. Constant study is carried on to discover possible source of accidents and to plan means of avoiding them. As a result of this intensive work, both the number and the severity of accidents in the Company's plants have been kept at a very low rate.

11. Working Conditions. The Company makes every reasonable effort to provide and maintain sanitary working conditions. Protective clothing is supplied by the Company whenever it is deemed necessary for safety or health reasons.

12. Hiring Ages. The Company has not established and has no intention of establishing any arbitrary age limit beyond which applicants will not be hired, provided they are physically and mentally able to perform the work.

No one is hired below the age of sixteen in any department, nor below the age of eighteen in any manufacturing department.

13. Promotion. The Company aims to provide channels of promotion and to advance employees to more responsible work on the basis of their record of workmanship, competence, and general ability. In so far as practicable, promotions will be made from within the organization.

14. Layoff and Re-employment. In the event of business conditions' requiring reduction in the force, consideration will be given to individual ability, workmanship, length of service, conduct, and financial and family circumstances. The same factors will determine the rehiring of laid off employees.

15. Medical Service. Adequate medical personnel and equipment are available in case of accident or illness at work. Special attention is given to the avoidance of health hazards and to the placement of employees in work for which they are physically adapted.

16. Savings and Home-financing. A plan for systematic saving and for financing the purchase of homes is available through the Eastman Savings and Loan Association, a corporation organized and operated under the Banking Law of the State of New York and independent of the Company.

17. Educational Assistance. The Company encourages employees to pursue suitable courses of study which will help them in their work, and refunds part of the tuition when the requirements of the course have been met satisfactorily.

18. Apprentice Training. A systematic plan of apprentice training is in operation. It gives opportunity for the training of young men in various trades.

19. Employee Cooperation. Since the success of any company depends very largely on the ability fairly to satisfy the interests of customers, employees, and stockholders, and since this responsibility can be met only with the whole-hearted cooperation of all the employees, the management anticipates such cooperation on the part of everyone in the organization.

The foregoing statement of principles will remain in effect unless changes are considered necessary because of general economic conditions or because of conditions pertaining particularly to the industry. No such change will be made except after due consideration of the mutual advantages, benefits, and responsibilities of the Company and its employees.

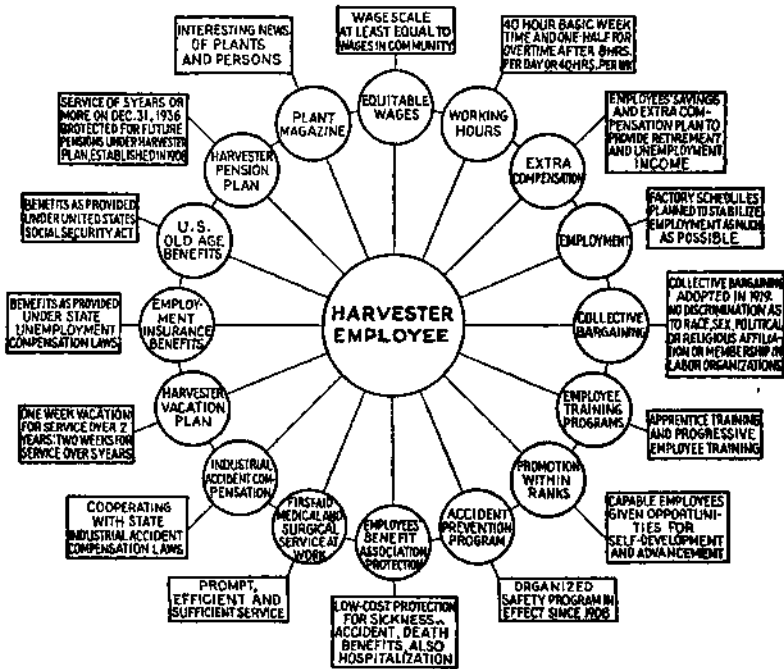


FIG. 12.- Chart showing the advantages surrounding Harvester employment. (Courtesy of International Harvester Company.)

International Harvester Company.—The International Harvester Company distributes to its new employees an attractive booklet entitled *Harvester Policies for Harvester People*. This booklet gives a brief history of the Harvester Company and its business, followed by such items as: the basis of policies, accident prevention, medical and surgical service, employees' benefit association, vacations with pay,

training and promotion, supervisory training, employee **magazine**, **annual** reports to employees, collective bargaining, and other items concerning which the company has an established policy. At the close of the booklet a chart portraying "Advantages Surrounding Harvester Employment" summarizes their policies. This chart is reproduced in Fig. 12.

The Right Point of View.—It is universally recognized that the business house or the industrial concern, whatever its nature, has a distinct responsibility to the community to fulfill the obligation to render a worth-while service. Its field of activity may be that of extracting coal or iron from the earth, that of merchandising goods to the retail trade, that of furnishing transportation or electric light. Whatever it is, it must meet the standard of social usefulness and so find a social demand. Unless it does so, it will find a short life in our economic scheme of things.

In the second place, the employer has a fundamental responsibility to those whose financial investment enables him to operate. The money invested in the enterprise must yield its fair return to the owners; for we are living in an economic age, and economic law must be observed. The reluctance of capital to enter an enterprise is the penalty for failure to return to the investors an adequate yield on their investment.

Long ago business and industry began to realize the importance of wholesome personnel relationships in the ability of a concern to fulfill these first two obligations, fair returns to the public and to the investor. Even those few employers who still think of their employees only as mechanical agents in production are becoming increasingly appreciative of the fact that human as well as mechanical methods of administration serve to increase economic effectiveness.

In the minds of all progressive employers, working people are no longer merely mechanical agents in production or a commodity to be bought and sold on market demand. The advantages to be gained in economic production through policies and methods of administration that regard them as human beings rather than as "hands" are apparent. But they are entitled to consideration as human beings by virtue of a more fundamental course of reasoning than this. Any program of production, manufacturing, distribution, and the like that does not, in addition to its profits to investors and the service rendered its customers, also provide expanding opportunities for happiness in its working force is asocial in its end result. This is a fact of which **we must** not lose sight in our consideration of, the policies and **practices of personnel administration.**

The right point of view in these matters is essential to success in labor management and personnel practice, for any failure on the part of management to observe its triple obligation—to the *public*, to its *investors*, and to its *employees*—must necessarily result in an ill-balanced and inherently dangerous policy of administration. It was only when management fully conceived the interdependence of these three factors that sound principles of personnel management were given their just place at the council tables of progressive employers.

Like the development of the automobile, one phase of social progress must await another. The principle of the internal-combustion engine had been known for a long time, but it had to wait for its general application upon the perfection of the spark plug. The principle of research in personnel management can hardly be said to be an entirely new idea, since it is implicit in Plato's *Republic*, but until recent years it has lacked its spark plug, namely, the concept of the worker-in-his-work unit.

The Need for a Conscious Personnel Policy.—There was a time when scientific research was unknown in business. Not so many years ago, for instance, the chemist was thought of in the steel industry as a well-meaning but quite useless individual. What did a chemist know about making steel? But the chemist today is one of the most important men in this industry. In most other fields of activity, too, the rule-of-thumb method of administration is passing. It is passing rapidly in the field of labor relations. Leading employers are not content to feel their way from day to day. They demand to know what factors in their labor situations are making for effectiveness of operation, what factors are preventing it. They are thinking, not in terms of tomorrow or next week, but of next year, and 10 years from now. In short, they are becoming aware of the need for definite personnel policies based on facts, consciously formulated and systematically executed.

The industrial concern or business house intent upon establishing an effective personnel situation must know where its present policies, or lack of policies, are leading it with respect to: developing sources of labor supply, selection and placement, transfer and promotion, methods of pay, methods of wage determination, training, creating incentive, health of mind and body, the release of employees, individual records and their use, and research and the application of its findings. These are only some of the most important aspects of personnel administration with regard to which conscious policies are essential.

The Need for Research.—The recognition of the need for knowing facts has led business and industry generally to undertake practical

research work on a scale that would have been **pronounced absurd** a few years ago. We see research practiced in the fields of commerce, of business, and of advertising. As a matter of fact, every business house, large and small, practices research, although it may not recognize it by that name and although it may do its investigational work stumblingly and gropingly.

So it is natural that we should find intelligent research work becoming more and more a factor in personnel administration. It is impossible to determine labor policies with benefit and with fairness or to carry them into effect without having at hand, so far as possible, the facts bearing upon them. It is impossible, for instance, to determine and carry out policies of health and safety without a knowledge of the facts with reference to the prevalence of accidents and illness and the causes for them. It is impossible to establish and practice policies designed to stabilize the work force without having the facts of labor turnover, both the amount and the causes. It is impossible to formulate and carry out policies having to do with absenteeism and tardiness without having the facts as to extent and reasons. A personnel manager capable of obtaining the necessary facts and formulating such policies is the first requisite for successful personnel management.

The Prerequisites of Success.—It is obvious from all we have discussed that the development of a wholesome personnel situation within a company characterized by well-balanced and wholly effective worker-in-his-work unit depends upon three separate factors:

1. The success of the higher command in determining labor policies wisely.
2. The success of the personnel manager in interpreting these personnel policies properly, in achieving their proper execution through the line executives, and in making the personnel department render as nearly perfect service as possible to the line executives.
3. The success of the line executives themselves, the captains and sergeants of industry, in fulfilling their obligations to management and to the workers by interpreting policies wisely and interestedly and in promoting the effectiveness of their workers by thoroughgoing leadership.

In our succeeding chapters, we shall consider in general terms the procedure followed in building up a wholesome personnel situation in an industrial or commercial organization.

CHAPTER V

THE EMPLOYMENT PROCEDURE

In this chapter we are particularly interested in the routine functioning of the employment office. Detailed discussion of the construction of the application blanks, personnel records, merit-rating forms, tests, etc., will be reserved for later chapters. For the present we shall assume the proper construction of all forms and discuss them only in relation to their use in the over-all program of supplying adequate manpower to the various departments of the enterprise.

The Physical Environment of the Employment Office.—The location of the employment office should be such that it can be reached conveniently by applicants coming in from the street. The office should also be so located if possible that it may be reached by employees of the plant without going outside the main plant. It is usually advantageous to have the employment office on the first floor; however, it may be located on the second floor when it can be easily reached from the street by a stairway.

Appropriateness should be the keynote of the general appearance of the employment office. Luxurious furnishings are entirely out of place in the employment office of a manufacturing enterprise. A bank or a department store may have somewhat more elaborate furnishings in the employment office than a manufacturing institution. In any instance, the waiting room should be clean, well ventilated, with adequate lighting facilities, drinking fountain, and comfortable places to sit down. It is frequently desirable to have a special waiting room or at least a special section in the main waiting room for women. Where large numbers are hired and a preliminary application blank is* filled out prior to the interview, a table or a counter along the wall should be provided for this purpose. The interview room or rooms should be located adjacent to the main waiting room. It is highly desirable that personnel records be filed in a room conveniently located with respect to the interviewing rooms. The same principles of motion economy and layout that are used in production should be applied to the arrangement of the employment office. The applicant should be handled in a progressive manner duplicating in principle the flow of production in the shop. This program need **not** be mechanical or

impersonal. It merely facilitates a satisfactory interview, avoids confusion, and minimizes the time necessary to give each applicant a personal hearing. Where possible all backtracking is avoided. Where tests are used after a preliminary interview the testing room may well be located in a room behind the interviewing room accessible to the applicant without going back to the waiting room. The medical department where the physical examination is given should be in line with the interviewing room and also accessible without going back to the waiting room. The location of the room where final records are typed, in case the interviewer does not fill these out, should be conveniently located with reference to the interviewing room.

A little care in locating these various sections of the employment office will save a great deal of time both for the employment staff and the applicants and produce a favorable impression on those persons seeking employment. It is often desirable to have glass partitions in the interviewing room facing the waiting room so that persons waiting to be interviewed may see that progress is being made by others, and any unnecessary mystery in connection with the interview may be avoided.

Staff of the Employment Division.—In our discussion of the physical surroundings of the employment division above, we named the most important persons in this section. It should be remembered that functionalization of the employment division can economically be realized only in those organizations having a sufficient number of employees to justify it. In the smaller organizations many of these functions will have to be performed by the same person. In the very small organization, the man who does the hiring may devote a large part of his time to other duties such as production. The following functions have to be cared for in some manner: (1) establishing employment standards, (2) making initial contact with prospective employees, (3) initial interviewing, (4) testing, (5) giving physical examination, (6) final interviewing, (7) filling out necessary records and record keeping, (8) introducing the employee to his supervisor and his job, and (9) following up the employee. Where the amount of work justifies the expenditure, each of these functions, with the possible exception of the last one, will be performed by one or more persons specializing in his work. It is often advantageous to have the man who hired the worker follow up his choice to see that his original judgment was sound. This keeps him in touch with shop conditions and has certain other advantages from the standpoint of the new employee.

Employment Tools.—In the small organization where the general foreman does his own hiring or where the employment man has daily contact with the workers, formal written specifications **may not** be

necessary- With an increase in the size of the organization comes the need for techniques for more remote control. Job descriptions setting forth in considerable detail the characteristics desired of the employee are highly desirable. They aid the interviewer in hiring new men from the outside and are also valuable in selecting men for transfer or promotion. Of equal importance to job descriptions is some plan for grading the different jobs according to relative importance, difficulty, and skills required. A proper grading of all occupations is a valuable aid in promoting and transferring employees.

Closely related to the job description and occupational grade is the requisition for personnel. The requisition for personnel is the authority for the employment officer to provide an employee either by hiring from the outside or by transfer from within the plant. It provides considerable information and also serves as a method of control. The department needing the employee usually initiates the requisition for the employee. It should be approved by someone in

Studebaker		Dept
REQUISITION FOR HELP		
INSTRUCTIONS. Made in original by foreman requiring help. Forward to Division Superintendent for approval thence to Planning Department for check against layout, thence to Supervisor of Employment as authority to hire suitable help as indicated _____		
Class of help wanted-	Replacement 'Additional	
Date required _____	-Day or Night_	
Work will be piece work- _____	_Day Work- _____	_Light_ _____ _Heavy_ _____
Must read Micrometers— _____	_Scales— _____	-Gauges- _____ -Blueprints- _____
Must write _____	_Read_ _____	-Should be about -tall and weigh_ _____
Will break in applicant- _____	Piecework Classification	Rate
Replacing _____		
Signed _____		
Approved _____	Filled by	Employment- Transfer —
Approved _____		
Approved _____	Name .	
Approved _____	Production Mgr	
USE REVERSE SIDE FOR REMARKS	THIS SPACE FOR EMPLOYMENT DEPT.	

FIG. 13.—Requisition for help. {Courtesy of the Studebaker Corporation.}

authority who checks it against the personnel budget. The "requisition for help" indicates the number of employees wanted, the name of the position to be filled, the grade to which the job belongs, the date needed, the rate of pay, and any other desired data. This request should be in the hands of the employment officer when possible well in advance of the date when the employees are needed.¹ With adequate

¹ When an employee quits without notice, is discharged, etc., the request for personnel may require immediate action; otherwise, advance notice to the employment office may reasonably be expected.

information on the *request for personnel*, the employment officer can consult his files to see if there are men in a lower grade for whom the vacancy would be a promotion. If there are none, he can take the necessary steps to get one from the outside. Figure 13 illustrates a simple form that is often used for requisitioning new employees. It may be modified to meet the requirements of the individual situation.

The day-to-day requisitions for labor are ordinarily prepared in pad form with carbon so that the department head can express his needs concisely in terms acceptable to the employment manager and retain a copy for his own records.

Contacting Prospective Employees.—As indicated above, there are two main *sources of supply* for employees: inside the company and outside the company. As a matter of personnel policy, it is well to look first within the company for employees capable of filling the requisition. This may mean employees now working or those who have been temporarily laid off because of a shortage of work but who are still carried on the active list of employees. Such a procedure offers opportunity for promotion to worthy employees, reduces labor turnover, improves morale, and minimizes the cost of unemployment insurance (when the state provides for merit rating). In case there are no available persons on the payroll, the next contact to be made is former employees whose names have been removed from the payroll because of a protracted shortage in production. If there are no such persons available, the current file of applicants is consulted. The next step is to consult the many sources of supply that have been cultivated in case additional employees are required. The details of the various outside sources of supply will be treated in the following chapter.

Action Must Be Based on Facts.—The general principle upon which this book is based, that facts are essential to intelligent action, applies with especial emphasis to the functions of selection and placement. Quite obviously, selection and placement cannot be well done unless the facts are at hand as to the capacities and interests of the persons themselves who are being considered, and as to the opportunities of the positions throughout the organization. Those delicate adjustments involved in creating an effective worker-in-his work unit can only be made if such knowledge is rendered available through the construction and efficient use of proper instruments for personnel study and control.

First of all, the personnel manager and his assistants are confronted with the necessity for knowing the capacities and interests of the applicants for employment and of those employees who should be considered for training, transfer, and promotion.

The Interview.—In a case of the applicant from without, the interview is the most commonly used method of obtaining information.

Only in most exceptional cases are workers hired without an interview. An exchange of thought as to the nature of the work and the qualifications of the applicant is essential.

But there are interviews and interviews. In some instances, the interview is the most cursory of contacts. This kind of interview usually goes with the "hunch" method of selection. In its extreme form, this kind of interview consists merely of a few obvious questions and their equally obvious answers.

But there are other interviews that are more nearly worthy of the name. An interview consisting of set questions and snappy answers is obviously a crude affair and does not yield those facts of character, temperament, disposition, aptitude, inclination, and interest that are best ascertained indirectly, rather than as a result of direct interrogations.

The kind of interviewing that does yield these facts is an art. It is quite impossible to codify it or to subject it to regulations. The nature of the conversation must be adapted to the individual being interviewed and must be so directed as to bring out such information without reserve. The word "conversation" is used advisedly. The conference between the interviewer and the applicant is a give-and-take of thought. The interviewer is only in part a judge sitting upon the merits and qualifications of the applicant. He exercises his judgment as to the degree in which the applicant possesses those capacities and interests required in the work, to be sure, but he must also regard himself as an agent of the company whose responsibility is to give the applicant all the information he is entitled to with reference to the proposed work. It is an indictment of inefficiency against the interviewer if the applicant is engaged and upon reporting for work finds its nature different from his expectation. The interviewer furthermore must be a salesman, because—and this is frequently overlooked—the company too is on trial, and the applicant is the judge; the interviewer is the attorney for the defendant.

Confronted as it is by pressing problems of production, management is frequently tempted to think of the employment of workers as a burden. Yet, as a matter of fact, it is an act of primary importance in the well-being and effective operation of the organization. The transaction itself is not a matter of annoying routine, but a conference between two parties. One has something to sell; the other has something to buy. The applicant is entitled to the consideration and courtesy granted to anyone calling on a matter of business. The treatment the applicant receives in the employing office has much to do with his subsequent attitude toward the company. The fact that the **transaction is usually a matter of vital** consequence to him places upon

management, in the person of its employing executive, the responsibility for considering the applicant with a most judicial thoroughness.

Some employment officers make use of two interviews, the *preliminary interview* and the final interview. The *preliminary interview* is essentially a sorting process in which prospective applicants who give promise of meeting the requirements of the institution are selected for further conference. Those whose services may not reasonably be expected to be desired are *courteously* so informed. The preliminary interview is all too often delegated to a beginner or even to a watchman. This is unfortunate. To perform this task adequately requires the services of a man who has keen analytical ability and the capacity to meet people easily and one whose decisions are accompanied by prestige and authority. As would be inferred from the name, the *final interview* is of vital importance both to the satisfactory placement of the applicant and the long-run company effectiveness.¹

The Application Blank—Its Use.—We shall discuss later the several forms and records that are utilized in the interview. Suffice it to say at this point that the interviewer must be properly equipped with the means of recording the information furnished by the applicant so that it can be properly studied at the time and preserved for future consideration. There is not always a vacancy for each likely-looking applicant. Very infrequently, in fact, is there a position vacant in the organization calling for just the applicant's capacities and interests at the particular time the applicant chances to call. Yet such a vacancy may occur a week or a month later. At that time, the interviewer must be able to summon before him for study all the facts brought out in the interview in order to consider the applicant intelligently for the position. Were the interviewer to attempt to rely upon memory to summon these facts, grotesque mistakes and unfair decisions would inevitably result, for under those circumstances our harassed interviewer would be compelled to remember the qualifications of scores and hundreds of other persons as well—obviously a superhuman achievement. It is the part of the well-balanced personnel procedure to supply the ways and means of preserving these facts intelligibly. These records, in fact, become that effective source of supply of labor that we have previously discussed.

Some companies use a *preliminary application blank* that is filled out by all applicants either before the preliminary interview or by all applicants who have been selected for further interviewing. This preliminary blank does not go into so much detail as the regular

¹ See Chap. VII for a detailed discussion of the shortcomings and effectiveness of the interview as an instrument of industrial **relalkm**^.

application blank but does provide information that aids the interviewer in determining whether or not he desires to have the applicant fill out the more comprehensive form. Frequently, the preliminary application blank is the only one filled out until after the applicant has taken the employment tests, in which event the results of the tests are indicated in code on the preliminary interview blank.

References—Their Advantages and Limitations.—Some companies rely upon references to furnish information as to the capacities and interests of the applicants. If a great amount of care is taken and enough time spent in looking up these references, good results may be obtained, but, even where concerns have spent considerable time and effort in looking up references, it has been extremely difficult to obtain valuable or accurate information from the persons given as references by applicants. There are two types of references, business and personal. The business reference is the expression of opinion by a former employer or someone who has had the opportunity previously to observe the applicant at work. The personal reference is the expression of opinion by a friend or relative of the applicant.

Business references, although of far more value than personal references, cannot be used as an accurate measure of the possibilities of an applicant. Although a frank, precise statement of a former employer is of value, there are many factors that tend to cancel the value of such an expression of opinion. Perhaps the former employer, for example, formed a misapprehension of the qualities of the individual, and even dismissed him for unsound reasons, or perhaps the employer's recollections are faulty. Even with adequate personnel records at hand he may make a faulty interpretation of the entries some time later. Still another factor, perhaps the most important, is that no matter what is the form of the letter of inquiry, it is likely to receive little careful attention. A less obvious, but equally important, contributory factor is the human desire of the former employer not to give the applicant a "black eye," no matter how unsatisfactory his previous service may have been. An employer with the most honest intentions may purposely withhold the exact facts through a natural desire not to stand in the applicant's way in his proper desire to secure another job.

The applicant usually possesses enough sense to refrain from naming as references any persons who will express an unfavorable opinion of him. For this reason, opinions from personal references must be greatly discounted. In fact, it may be said that they are of little value except when they are unfavorable to the applicant.

Most letters of recommendation received from either business or personal references are read by the recipient in an attitude of critical

inspection for the slightest suggestion of inadequacy on the part of the applicant under consideration. When such inadequacies are even mildly hinted, the reader is in a state of mind to magnify the hint according to the multiplication table he happens to use in his imaginary processes.

Tests.—Tests designed to measure the mental alertness, special aptitude, achievement, physical dexterity, etc., are used by an increasing number of employment officers as an aid in the selection of prospective employees.¹ These tests are by no means the sole means of selection. They merely supplement the other devices rather than replace them. *They serve as a medium of sorting and are more valuable in rejecting those who may not reasonably be expected to succeed than in predicting the degree of success if the applicant passes the minimum requirements of the particular test.* In other words, a high score does not necessarily mean that the applicant will be superior in performance. There are too many other influences that have a bearing upon the ultimate success. On the other hand, the failure to meet the minimum or "critical score" is fairly indicative that the applicant will not be able to measure up to the minimum requirements.

Because of the time factor involved in giving actual tests of achievement, this type of test has not been widely used other than for office positions. Considerable work has been done in an effort to measure aptitudes. These have met with a fair measure of success and have been designed in such a manner that they can be administered without too complicated equipment.

Some tests have been standardized to the extent that they can be given by persons other than specialists in testing; however, it is questionable whether an enterprise is justified in entering upon a testing program without the advice, at least in a consulting capacity, of a trained psychologist. The place that the tests are given should be conveniently located to the main interview room. The tests are usually given immediately after the initial interview and prior to the final interview.

Examinations for Physical Fitness.—Physical examinations are coming to be used more and more as an aid in the selection of workers.² They are still regarded with suspicion by certain groups of employees who fear their misuse. It is obvious, however, that physical qualifica-

¹ See National Industrial Conference Board, Inc., "The Use of Tests in Employment and Promotion," and "Personnel Activities in American Business," *Studies in Personnel Policy*, Nos. 14, 20.

² See National Industrial Conference Board, Inc., "Personnel Activities in American Business," *Studies in Personnel Policy*, No. 20, New York, 1940, p. 11.

factors have much to do with the person's ability to work in a certain environment and with his success in certain types of work.

The physical examination is a means of protection for the applicant as well as for the employer. It is a costly process for the employer to assign to a job a person who is mentally qualified for it but who lacks those physical characteristics of health and strength that are essential to continued performance. It is equally costly to the employee to be assigned to work for which he is not physically qualified when he might readily be assigned to other work for which he is qualified in every way.

The physical examination, ordinarily, is not a rigorous ceremony. Usually it involves a quick examination of eyes, ears, and throat. Bronchial weakness is, of course, looked for, as is any inclination to nervousness, tuberculosis, or hernia.

The examination naturally varies somewhat from company to company. Men who are to be assigned to heavy laboring work will be tested for physical strength as well as physical health, and especial emphasis will be laid upon heart action and freedom from hernia. Similarly, for workers in offices, especial emphasis will be laid upon eyesight, the pulmonary system, and signs of tubercular tendencies.

Rating Scales.—There are certain personal qualities, such as the undefined characteristics, some of which we mentioned, that cannot as yet be evaluated by means of test methods. In certain types of work, however, these personal qualities are of such importance as to determine whether an employee will succeed or fail according to the degree in which he possesses them. In retail merchandising, for example, appearance, manner, tact, and judgment are personal qualities necessary for salespeople. The fact that these qualities are intangible and seemingly incapable of test measurement makes them no less important.

Since they cannot be measured, they must be judged, and the information as to whether a salesperson possesses these qualities will be accurate or inaccurate in the degree to which the judgment of the interviewer is accurate or inaccurate.

Modern personnel practice has furnished methods whereby the interviewer is enabled to consider these various qualities in a detailed and judicial manner and to reach an intelligent opinion as to the degree in which the applicant possesses them far better than if he attempts to make such judgments unaided. The idea of this technique is not new. It does not take the place of judgment. It is merely a vehicle for the expression of judgment. Its effect is to help make judgment more accurate. We refer to the *rating scale*. This technique will be discussed in Chap. XIX.

Introduction to Job.—In some organizations in which personnel practice is not advanced, the introduction of the worker to his position is a haphazard affair. In such instances, the newly selected applicant is given a slip of paper and told to report to Mr. Blank. Mr. Blank looks at the slip of paper first, then at the applicant and tells him to get to work on Machine 36.

Fortunately, the customary practice is far more human than this. No effort is too great to introduce properly to his work the applicant who is earnest and desirous of permanent employment. The errors that are most frequently noticeable in introducing the new worker to his work are of two kinds: first, informational and, second, inspirational.

In giving the applicant a thorough understanding of the nature of his work and of the conditions under which he is to perform it, employers are now beginning to use a definite technique designed to define the position in terms of duties, the working conditions, and the capacities required in its proper performance. The modern practice is to require the applicant to acquire actual positive information about his job and thus prevent any "kickback" afterward to the effect that the job had been misrepresented.

With reference to the inspirational aspect of the introduction of the worker to his work, it may be said that, generally speaking, the practice of giving the employee a slip of paper to hand to Mr. Blank is being abandoned. On the contrary, the new employee is treated with greater consideration and courtesy. It is the practice of many concerns to provide an escort to accompany the new employee to his department. This job is being taken out of the hands of messenger boys, as it is becoming more apparent that assurance and confidence can be given to the new employee, who is often half-scared anyway, by an adult capable of engaging him in the right kind of conversation on the way from the employment office to the department in which he is to work.

The Follow-up.—Personnel work cannot be mechanized. The employer who attempts to make his personnel procedure a matter of techniques, records, and formulas is leaving out the heart of good personnel work. Personnel work, if it is to be genuine, must be *personal* work. There must be an intimate personal relationship between the management and the individual worker. Effective methods and records are instrumental in personnel work only insofar as they help to make this personal relationship more intimate and more genuine.

The new employee usually passes through a period of critical mental impressions during the first few weeks or months of his employ-

RECEPTION
OF
APPLICANTS

PRELIMINARY INTERVIEW
AND
APPLICATION BLANK

EMPLOYMENT TESTS

PRIMARY INTERVIEW
AND RATING
FINAL APPLICATION BLANK

INVESTIGATION OF
PREVIOUS HISTORY

1
WAITING LIST OF
DESIRABLE APPLICANTS

PRELIMINARY SELECTION
IN
EMPLOYMENT DEPARTMENT

Negative decision

FINAL APPROVAL
BY DEPARTMENT
HEAD OR SUPERVISOR

Physically unfit

PHYSICAL
EXAMINATION

V V V V V V V

REJECTION

PLACEMENT

FIG. 14.—Procedure followed by some concerns in employing men. (Adapted from a chart appearing in the article, *Mental Alertness Tests for Employees* by Dr. Richard S. Uhrbrock, *Personnel*, May, 1936. Published by the American Management Association.)

ment. Everything is new to him; everything is strange. Circumstances of little or no significance assume disproportionate importance in his eyes. He is worried by minor incidents that, were he fully established in his work, would not cause him a moment's thought. The newness of his surroundings puzzles him. Because he is so new in his position, the outside world is very near by, and, when things seem to go wrong, he wonders if he has been wise in his choice of employment; perhaps it is not too late, he reasons; perhaps after all he had better get a position in the X Company three blocks away.

To offset this intangible yet certain reaction of the new employee to strange surroundings, employers frequently adopt a definite follow-up plan. This plan provides for a personal interview, informal rather than formal, by a representative of the personnel department. Bewildered by his new surroundings, the new employee thinks of the personnel department as his sponsor. He recalls the interested and sympathetic attitude shown by the personnel manager and his lieutenants, an attitude of understanding and sympathy that may be equally that of the department head or foreman, but which that executive has less opportunity to demonstrate, owing to the fact that he is faced every day with the disturbing and pressing problems of production.

Usually this informal follow-up of the new employee takes the form of a casual chat for a minute or two at his desk or machine. He is asked how he is getting along, how he likes the work, how he likes his surroundings. He is led tactfully to give utterance to any questionings or reservations that he may have entertained since starting work. Such reservations are usually imaginary and fictitious, but unless they are so expressed and dispelled, they are apt to cause as much trouble as if they were genuine and founded on fact. Because this is true, management cannot afford to ignore imaginary grievances merely because they are imaginary. As far as the effect upon the attitude of the worker is concerned, they are equal in importance to grievances that are real. They differ only in the method of correction. If a grievance is justified, it is corrected by adjustment. If it is imaginary, it is corrected by explanation. Frequent contacts are highly desirable during the first few days of employment.¹

Summary.—Figure 14 graphically summarizes the procedure followed by some concerns in employing men. In case there is no waiting list, naturally this step would be omitted. When there is immediate need for factory employees, it is not unusual to omit the investigation of previous history.

¹ The follow-up interview is developed in considerable detail in Chap. VII.

CHAPTER VI

DEVELOPING SOURCES OF LABOR SUPPLY

Sources of Labor Supply.—It is natural that we should next direct our thought to those problems that are involved in securing the workers. Let us grant that certain kinds of labor turnover are unavoidable, and even beneficial, first, because they arise from reasons that are socially and economically sound, such as marriage and promotion, and, second, because they prevent stagnation of the work force. Every organization has its flow of personnel. Replacements are constantly taking place. There is a constant levy upon the community for persons capable of performing various kinds of work.

Furthermore, most progressive concerns are subject to the necessity from time to time of enlarging their organizations and adding employees to their payrolls. This expansion program arises from several factors; namely, (1) the normal population growth requiring increased goods and services to meet the needs of the people provided the present standard of living be maintained, (2) a rising standard of living requiring more of the same goods and services as well as the creation of new wants that are to be satisfied, and (3) the increased competitive advantage of certain concerns enabling them to get more of the available business than formerly.

These expansions require new men. These are not replacements; yet growth of this kind similarly contributes to the company's demand upon the community. This constant flow of people into the organization constitutes a real need for a reliable supply of personnel—a source of labor supply. Furthermore, it *necessitates that kind of labor supply that will provide persons possessing the special capacities needed in the performance of the company's tasks.*

The Source of Supply within the Organization.—The recognition that the personnel structure of a company is fluid leads us inevitably to the conclusion that, for many positions within a company, *by far the best source of supply is that consisting of the persons already in the organization*, usually those occupying less important positions. The policy of promoting from within is a policy usually pleaded by management and somewhat less frequently practiced. As we have already pointed out, management frequently permits its conscious belief in the

worth-whileness of a certain policy to constitute actual belief that that policy is in effect in the organization. As a matter of fact, the successful execution of the policy of promoting from within involves a technique and procedures that, although not necessarily complicated, are far more involved than the procedure of relying upon casual observation and memory to reveal the characteristics, merits, and quality of performance of the individual employees throughout the organization. We shall discuss this more fully in a later chapter.

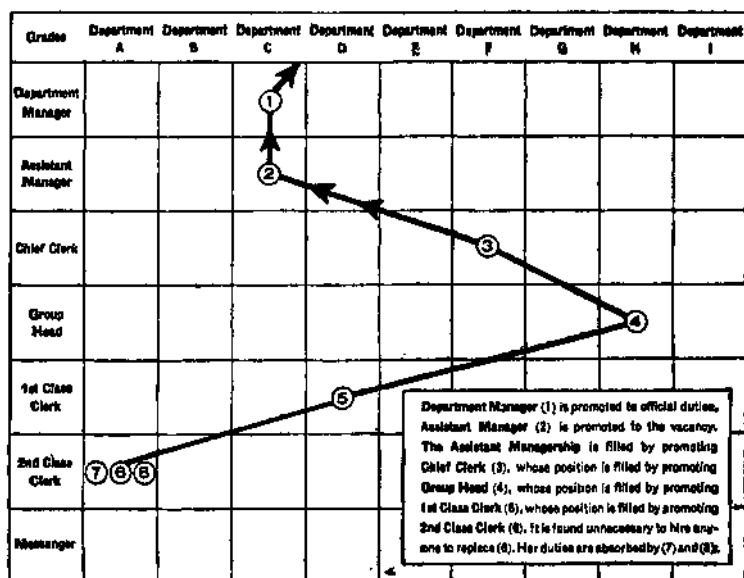


FIG. 15.—Graph showing the possibilities of chain promotions.

reassignment of duties will provide for the proper performance of those tasks that formerly were done by the last promoted employee. As a matter of fact, *it is well known that a condition of inflation usually exists in the lowest ranks of employees.* Added employees are taken on at a time of peak load, and, when the peak passes, they are not laid off. When a vacancy occurs in the organization, and a chain of promotions creates a vacancy in the lowest rank, the opportunity is then provided for drawing in the slack, not by dismissing one of the workers, but by the simple expedient of not hiring a new worker to fill the vacancy.

It is a common policy in transportation systems to advertise a vacancy, in order to give anyone within the organization the chance of obtaining the job. If two men apply for the same job, one is selected on the basis of seniority. Such a policy affords opportunity for the development of the best source of labor supply, that from within the organization, and for giving the workers opportunity for promotion. Promotion from within is the important factor in this practice, not the selection by seniority.

The successful execution of a promotion-from-within policy involves an accurate knowledge of the *capacities* and *interests* of the individual employees throughout the organization. This knowledge cannot be gained nor can it be retained by rule-of-thumb methods. An adequate personnel procedure and proper personnel records are essential. The exact nature of these methods and records will be brought out in later chapters.

Nothing that has been stated, however, should be regarded as an argument that constructive thought should not be given to the development of adequate outside sources of supply. The organization obviously cannot live by feeding on itself alone. It is necessary to procure workers from outside, of course, but except in unusual cases it should not be necessary to engage workers from outside for positions other than those in the rank and file.

Contacts through Present Employees.—Many companies employ, with advantage, a plan through which the present employees are encouraged to introduce their friends. The arguments in favor of this policy seem to outweigh many times the arguments against it. It is usually true that the friends of employees will be the same kind of people as the employees themselves. Consequently, if the standard of the employees is high, it is altogether probable that those persons whom they attract to the company will be of equally high quality. Sometimes cards are printed by which employees may introduce their friends to the employment department. It is usually true that for

personal and social reasons the employees themselves will desire to bring their friends in contact with the employment department. This is one method of developing the labor supply that is so obvious that it seems to require no discussion; yet it is true that a vast majority of employers have given no constructive thought to it.

Former Employees.—Another source of supply, which is perhaps not so prolific, is the former employees of the company. It is a costly oversight for a company to lose contact with those employees who for good reason, personal or otherwise, have been obliged to resign. In the case of women employees, this is particularly true. If there is death or sickness in a given family, it is usually the sister or the daughter who must step into the breach at home. Yet the home situation created by a death in the family is frequently a temporary one, and this is even more true in the case of illness. Consequently, department stores, offices, and factories where women are employed have found that a considerable proportion of their former employees who have been obliged to leave subsequently become available for reemployment especially for rush periods if not permanently.

The employment department is in an unusually good position, in the case of these ex-employees, to use judgment in selection. It has already had the opportunity to discover their individual *capacities* and *interests*, not vicariously through references and outside sources of information, but directly through observation of the persons themselves on their jobs. Here there is no opportunity for camouflage, no probability of poor selection based upon the absence of facts. If the records of the personnel department are adequately created in the first place and adequately maintained in the second, the employing authorities should be in a position to judge with considerable success the probable effectiveness of such a person in a position to be filled.

Applicants at the Gate.—It is impossible to say that any one avenue of procuring employees from outside is better than any other. Too much depends upon the company itself and upon the community in which it is situated. In a general way, however, it may be stated that the most fruitful outside source of labor is that made possible by careful study of those persons who apply for employment... By this it is not meant that a company should rely solely upon the applicant at the gate. But if we may assume that, out of 10 applicants, 9 are judged undesirable on one count or another, the fact remains that out of haphazard applicants of 500 persons, a waiting list of 50 who are generally qualified should be available.

When vacancies are to be filled, consequently, the personnel department will probably have records of a number of persons who are gener-

ally qualified, and, if it is well-organized, such records will play an important part in its employment procedure.

It is obviously a shortsighted policy, however, to rely upon the source of supply that is made available only through casual applicants at the employment department. It is true that if the prestige of the company is good and if it is known as a good place to work, the results will be more or less satisfactory as long as the need for workers remains well within the supply so made available. This is, however, seldom the case. We find on the part of practically all companies a very real need for constructive methods of developing other sources of labor supply.

The Civil Service policy of having on hand an eligible list of applicants available for specific jobs is another method of dealing with the problem of supply and selection. This eligible list is made up after the Civil Service examinations are given; it is not until the list is depleted below a certain limit that another examination is held. These examinations are widely advertised and held at various times and places. Some industries have followed a similar practice. They attempt to have on hand at all times an eligible, waiting, or application list, as it is variously termed. Although such a list may not at times be worth keeping for the listing of common or unskilled labor, it may serve the purpose of bringing to mind desirable employees above that rank when they are needed.

Contacts through Schools and Colleges.—Many companies, especially those employing large numbers of clerical workers, find it advantageous to establish a relationship of cooperation and good will with the principals of high schools and business training institutions. It is altogether probable that the graduates of such schools will be qualified in one way or another for work of this nature. To be sure, they are usually inexperienced as far as actual business practice is concerned, but they possess the advantage of specific training that is often lacking in the casual applicant. Educational institutions are continually sending out into the business world young men and women who are trained or who have attained a degree of education above the average, young persons who, generally speaking, are the products of good homes and who, ordinarily, are possessed of ambition and intelligence. Furthermore, the principals of such schools are more than glad to meet the employer halfway. They are coming more and more to take an active interest in placing their graduates with concerns that are advanced in their personnel outlook and desirous of employing young people capable of advancing and assuming more and more responsibility.

Similarly, business institutions seeking men especially qualified for advancement to executive positions of special importance are now following the practice of establishing similar relationships with institutions of higher education. It is a common thing nowadays for a concern to send a capable executive to the various colleges and universities who is able to explain to the undergraduates the advantages of association with the company he represents.

Although these business institutions invariably have certain specifications, such as the degree of technical knowledge required, it is true that the students are often hired more on a basis of personality than on the qualities necessary to meet the specifications. For example, a certain college upperclassman with a pleasing personality was presented at intervals to a number of employers seeking exclusively for technically trained men in engineering. Although this student had not taken a single technical course, he was invariably selected for employment in the various engineering industries.

Contacts through Employment Agencies.—Another source of labor supply is that made available through employment agencies. The several types of agencies may be classified as public, private, or restricted. The public agencies are those supported by taxation and maintained by the Federal, state, or municipal governments; private agencies, as the name indicates, are maintained by individuals for private gain; restricted agencies are maintained by a group, and serve only the members of that group.

Federal and state governmental agencies serve two purposes: placing applicants, and shifting surplus labor from one place to another when necessary. It is gratifying to note the marked improvement in the quality of the work performed by the public employment service during the past few years. It is to be hoped that this good work will continue. Private agencies, owing to certain practices bordering on exploitation, have not been looked upon in a favorable light by many social scientists. By comparison, restricted agencies are less common than governmental or privately owned ones. In several cities, for example, there are manufacturer's associations that maintain employment agencies that take applications for employment from anybody, but supply the applicants only to those concerns belonging to the associations.

Generally speaking, sound selection and placement practices have not been the rule in most of the types of employment agencies we have just mentioned. The first applicant often gets the job, the agency being frequently more concerned with the mechanical sending of the

applicants for consideration than with the selection of applicants to fit the needs of the employer. Employment agencies have an unusual opportunity for doing constructive work, but in the past this opportunity has not always been fulfilled.

Contacts through Labor Scouting.—The labor scout is an agent frequently used by employing concerns. He takes on especial importance in times of labor shortage. The effectiveness of this method depends upon the effectiveness of the scout. At times, beneficial results are yielded; but constant watchfulness must be exercised to prevent the scout from becoming an agent of *diverting* labor from other concerns. It is unwholesome practice to engage in competition of this kind. It is conducive to unrest and to instability. The concern that engages in it creates the need for his competitor to do likewise, and in the end the practice is bound to react against him. In personnel policies, as in everything else, fair play is coming to be recognized as one of the principles of good management, and, where a concern engages in practices that are not ethically sound from the point of view of business fair play, it is apt to suffer in the end.

Reciprocal Contacts with Other Companies.—In rare instances, two or more companies, employing like or similar types of workers, have, in special cases, agreed that, when one company has an individual worker of merit who desires promotion but for whom they have no opening, they will first notify the other companies, in order that one of the companies may, if it needs such a worker, have first call. This has become common practice in some associations of personnel managers.

This practice is capable of development in a way that benefits all concerned. The companies doing so win the enviable reputation of taking care of their good employees, they relieve themselves of carrying an employee on the rolls at a higher rate of pay than the occupation Warrants, and they earn the confidence and good will of both their neighbor employers and the individual employees in whom they display such personal interest. .

An interesting example of cooperation between employers is the case of the Underwood Elliott Fisher Company and the Pratt & Whitney Corporation of Hartford, Conn.¹ The Underwood Elliott Fisher Company did not anticipate increased business due to war conditions during the early part of 1940 and found itself with a surplus of skilled mechanics. The Pratt & Whitney Corporation built a new addition and faced a shortage in skilled workmen. During the first week of the cooperation, the Underwood Elliott Fisher Company released 50 skilled mechanics to the aircraft manufacturer. As the

¹ *The Management Review*, February, 1940 p. 53.

new addition neared completion, other skilled men were released to the mutual advantage of both corporations and the employees.

Contacts through Labor Unions.—Where the management of an organization recognizes labor unions, the chief labor supply may be made available through the business agent of the union. There is occasionally a definite agreement between management and the union that all needs must be supplied through the business agent. Only in case of failure on the part of the agent to furnish an adequate supply of labor is management in a position to seek employees elsewhere. Some agreements even go as far as to say that, after failure on the part of the union to furnish the requisite needs, the employer may hire whom he wishes only until such time as the union can supply union workers to take their places.

The union, of course, wishes to keep the shop unionized, so every effort is made by the business agent to provide help when needed. It has been claimed that by promising a man a job if he will join the union the business agent is usually able to supply a worker for every vacancy.

Contacts through Advertising.—We have deferred until the last our consideration of that channel of securing labor that is frequently used, yet least desirable, advertising. It is undoubtedly true that employees of good quality are secured through this channel. It is equally true that large numbers of floaters, malingerers, and others who are unfit are attracted by the advertisement in the degree in which it is made to sound attractive. Generally speaking, advertising is the method of securing help that should be resorted to last. The concern that has established prestige among the working population as dealing fairly with its workers in terms of compensation and in terms of opportunity for advancement, and that has earned the reputation for being a good place to work, should, except in times of extreme labor shortages, have no need to resort to advertising as a means of getting workers.

A Planned Program.—The development of an adequate supply of labor during normal periods of business or periods of labor shortage requires careful planning and detailed follow-up. This can only be attained through adequate records. Desirable applicants who are found through any of the various methods discussed in this chapter may not be needed at the time of the initial interview. Their applications should be placed in "prospective employee file." This file soon becomes worthless unless it is followed up regularly. A common practice is to send a card or a letter at stated intervals to these applicants to find out if they are still desirous of being kept in mind for possible openings (see Fig. 16). These applications may be filed

alphabetically or according to the job group for which the applicant has been classified. Frequently the same applicant is qualified for more than one job that necessitates cross-indexing when the file is kept

EMPLOYMENT QUESTIONNAIRE

W. D. SMITH MANUFACTURING CO.
Chicago, 111.

To: _____

ADDRESS: _____

It will be appreciated if you will answer the following questions in the spaces provided, in order that our files may be brought up to date.

1. Do you have employment? _____ I _____
 (a) Is it permanent? _____
 (b) Is it temporary? _____
2. Do you still desire a position with this company? _____
 (a) Are you available for temporary work? _____
3. What kind of work are you now qualified to do? _____
4. Are you registered for government work? _____
5. How many dependents do you have? _____
6. What is your present address? _____
 (a) Town or city _____
 (b) Street and number _____
 (c) Your own or neighbor's telephone number _____

If this questionnaire is not returned to us within two weeks or some contact made with this office, your application will be removed from our active employment files.

Weldon Jones, Supervisor
Training and Employment.

FIG. 16.—Employment follow-up questionnaire.

on a job basis. Applications may be filed on some ready reference basis, such as the Findex System (see Fig. 25), that facilitates locating persons of special qualifications or cards of a certain age. Such a program adds materially to the effectiveness of the follow-up.

CHAPTER VII

THE INTERVIEW AS A TOOL OF PERSONNEL MANAGEMENT

The interview as a medium for securing and imparting information is undoubtedly one of the oldest if not the oldest technique used in hiring free labor. For years, the interview was largely the only device used in determining whether or not to hire a prospective employee. The application blank was one of the first aids to the interview. More recently, the physical examination, psychological and trade tests, and the diagnostic interview rating chart have been added to the interview as a means of determining the fitness of an applicant for a given position. It should be noted that these are merely aids and do not supplant the employment interview.

The interview as a tool in facilitating smooth functioning of human relationships is not confined to personnel management. The interview is widely used in securing credit information, making loans, selling, adjusting complaints, diagnosing physical and mental ills, etc. There are good interviews, mediocre interviews, and poor ones. Interviewing more nearly approaches an art than a science; yet there are certain characteristics that are common to most satisfactory interviews. A careful study of satisfactory interviews will disclose the factors that are common to various types of interviewing. At least one of the common factors is the element of time. A satisfactory interview cannot be hurried by either party to the interview. On the other hand, an interview may be prolonged to the point of boredom or monotony. A capable interviewer may begin his task in the morning with a determination to do his work painstakingly and thoroughly. For the first few hours, he will frequently follow his plan. As noon approaches and he sees a large number of applicants still waiting for him, he becomes tempted to shorten his interview and to pass hurriedly over many salient points. In this chapter, we shall strive to examine the technique of interviewing to see if aids are available to improve the effectiveness of the interview.

Recognition of Individual Differences.—The experienced interviewer keeps constantly in mind the facts that individuals **differ** markedly from each other at a given time and that the same **individual differs at different times**. The following items should be kept in mind

by the interviewer not only at the time of hiring but when considering employees for demotion or promotion and in fact, in all dealings with personnel:

1. One individual differs from another in those personal aptitudes, those special abilities with which he is equipped and which he is able to contribute to the work of his company in exchange for his salary.

2. Individuals differ in interest and motive and respond best to varying stimuli.

3. The same individual changes from day to day and from year to year in ability (both in degree and kind) and in interest.

4. Different kinds of work require different kinds of personal ability in the persons who are to perform them.

5. Granting equal ability, different kinds of work are done best by persons who, temperamentally, are particularly interested in them.

6. The work in each position in a company changes as time goes on; duties are added and taken away. Sometimes the change is negligible, sometimes it is great. In the measure in which it takes place, a similar change is apt to take place in the abilities and interests the work requires of the worker.

7. Environment—working conditions, supervision, relations with the employer and with fellow employees, opportunity, etc.—exercises a tremendous influence on personal efficiency and, consequently, on group production.

Objectives of the Employment Interview.—W. V. Bingham has said, "The functions of the employment interview are: to get information, to give information, and to make a friend."¹ Unfortunately the tendency has been to emphasize unduly the "getting of information" and to neglect or to forget entirely the giving of information and the favorable relationship that should be established. An interview is not completely satisfactory that fails to give due consideration to all three functions. The long-run effect of the failure "to make a friend" may be even more costly to the company than a failure to get all the information desired. The company's reputation in the community as a good place to work is closely related to the contacts made by the employment interviewer.

It is self-evident that the employment interview should result in the providing of adequate information upon which to formulate a sound decision to hire or not to hire the applicant or to file the application for later consideration in case there is not an opening suited to the applicant at the time. The fact still remains that many interviews fall far short of attaining this objective, as will be illustrated by the experimental interview discussed below.

A common error in interviewing, particularly when there is a shortage of desirable applicants, is to oversell the job to the applicant.

¹ W. V. Bingham, "The Three Functions of the Interview in Employment/' *The Management Review*, Vol. XV, No. 1, January, 1926, p. 36.

False hopes are frequently built up in the minds of the prospective employee. When the new worker finds that the job does not correspond to the picture painted for him by the employment interviewer, he is prone to be resentful and may leave when he otherwise would not have objected to the conditions. As far as possible the true picture of the job and working conditions should be given the applicant. The interview provides the first step in the training program of the new employee. Personnel policies and rights and privileges are explained for the first time. The task is not finished at the time of the hiring interview, but it should be well begun. In a very real sense, the interviewer is both a teacher and a learner.

Types of Personnel Interviews.—As previously stated, the interview is used in almost every phase of human relationships. In the field of personnel management, there are at least six distinct classifications of the interview, namely, (1) the preliminary employment interview, (2) the final hiring or placement interview, (3) the follow-up placement interview, (4) the counseling interview, (5) the routine administrative interview regarding transfer, promotion, layoff, rating, etc., and (6) the final separation interview. Each of these interviews has specific objectives, and the techniques are modified somewhat to attain these objectives.

1. *The Preliminary Employment Interview.*—A reference to Fig. 14, "a flow chart of employment procedure" shows the *preliminary interview* bracketed with the *preliminary application blank*. Where both preliminary and final employment application blanks are used, the preliminary interview is usually held either immediately before or after filling out the preliminary application blank. Some time is saved by having the blank filled out by the applicant before the preliminary interview. This blank is short but contains such information as the kind of position sought, experience, whether or not the applicant has worked for the firm previously, etc. Where there is no preliminary application blank, the preliminary interview usually precedes the filling out of the regular application blank. The preliminary interview should be conducted by someone who inspires confidence, who is genuinely interested in people, and whose judgment is reliable in the general "sizing up" of applicants. It is no job for an ordinary watchman or clerk. Care must be exercised lest the "weeding-out" process of the preliminary interview be too hasty and desirable workers be thus lost to the company. If it develops during the preliminary interview that the company may reasonably expect to be able to use the services of the applicant, he is referred to the testing department (when tests are used). If the applicant is a former employee, his record is looked

up so that his previous history and test record may be available to the final interviewer. The preliminary interview has the distinct advantage of saving time both for the applicants and the final interviewer. It serves to sort the applicants into two groups, those concerning whom the company desires more detailed information and those in whom, for the time being at least, the company has no further interest. When properly handled, good will is promoted in that the rejected applicants may look elsewhere the same day for employment. Since the preliminary interview is the initial contact established by the applicant, it is highly important that this reception be a courteous one. The preliminary interview tends to minimize unnecessary waiting by the rejected applicant and thus promotes the feeling of having been properly treated even though there was no opening available.

2. *The Placement Interview.*—If the preliminary interview and tests have been properly conducted, the final placement interviewer has in front of him some positive data to assist him in the final interview and ultimate decision. If the applicant has been previously employed by the company, the record of the applicant's history will reveal items of interest in determining his fitness for reemployment. It is desirable that the final placement interview be held in private where the applicant may feel free to answer questions, ask questions, and talk frankly. It is well to have men interview male applicants and women interview female applicants. The first requirement of a satisfactory final interview is an atmosphere of friendliness. The applicant desires to sell his services, and the company is interested in securing these services either in the immediate present or at some future date. It is a dual selling relationship. The interviewer desires to sell the company's policies to the applicant. The fundamental desire should be to establish a continuing relationship that will be mutually advantageous. This can be attained only if both parties are honest with each other.

During the final interview, the interviewer appraises the applicant in the light not only of the tests but of other data appearing on the application blank. The friendly interview is designed to bring out attitudes, experiences, interests, capacities, and other personal facts that are not easily made a matter of record. It is not unusual for the interviewer to make use of a diagnostic interview rating chart or check list to aid him in summarizing the result of the interview. (These instruments will be discussed later in the chapter.) Whether or not a formal rating chart is used, the interviewer must rate the applicant in comparison with the mental ideal of the man whom he desires to fill a given vacancy. Provision is often made graphically or in code for recording a summarized rating on the front of the application blank.

As previously stated, the interview has a threefold function, (1) to get information, (2) to give information, and (3) to make a friend. If, during the final interview, it is desired to employ the applicant, it is highly important to stress the second function, to give information. If full information is given the applicant and he accepts employment, it is reasonable to assume that he will be a friend. As a matter of fact, good will is a by-product of agreeable association rather than a thing to be secured as a direct end in itself. In case the applicant is rejected, he will usually bear no ill will, provided he has been given due consideration and has not been hastily dismissed.

In addition to the desirable characteristics of pleasing personality, tact, the capacity to get and to give information, the interviewer must possess sound economic judgment. His responsibility for selection places a real burden upon him. An employee, once selected, soon acquires certain rights that become extremely embarrassing to the company in case a mistake has been made. Seniority rights make careful selection doubly important. An employee hired during the early period of an expanding program at the time may not be so marginal as to be discharged before he attains a permanent status, but his nearness to the marginal state may saddle the company with an employee who in the long run is not desired. One of the functions of the final employment interview is to avoid the selection of applicants on whom initial training expenses will be expended only to discover that an error was made at the time of hiring.

Common defects in employment interviews that have been recorded and studied are found to be:¹

1. Interviewers have difficulty in establishing rapport with the applicants.
2. Interviewers do not have a clearly defined technique developed but tend to flounder looking for a clue or opening.
3. Questions are not carefully formulated to elicit from the applicant freely and fully the desired information.
4. Many interviewers do too much of the talking in an attempt to put the applicant at ease.
5. Many interviewers lack skill in bringing the interview to a close.

Possibly the best method of improving the interview technique is to have a series of records made of the actual interviews and analyze the defects. A stenographer in an adjacent room with a window open or by the use of phones can take a verbatim report of the interview. A recognition of the defects suggests the cure.

¹ See Richard S. Uhrbrock, "Analysis of Employment Interviews," *Personnel Journal*, Vol. XII, No. 2, August, 1933, pp. 98-101.

3. *The Follow-up Interview.*—It has been found advisable for the personnel department to establish follow-up contacts more frequently during the early days of the individual's employment than later on when he has become settled in his job. It is well, for instance, for a representative of the personnel department to have a chat with the employee during the afternoon of his first day at work. This may serve the purpose of sending him home after his first day's work in a satisfied frame of mind; otherwise he might have a doubtful report to make to his family.

The follow-up plan, furthermore, serves the purpose of yielding additional information as to the *capacities* and *interests* of the worker. No matter how effective the employment process has been, there is much information regarding the *capacities* and *interests* of the new worker that is not yet at hand. This more specific information will yield itself as there is increased opportunity to observe the worker in his work. But such observation must not be casual. It must be conscious and well planned. The representative of the personnel department must have it in mind as he interviews the new employee on his follow-up rounds.

Although the new employee may have been ill at ease during his first interview owing to the feeling of being on trial, he will probably be more confident and more communicative in the follow-up interview if it is conducted in the right manner by the representative of the personnel department. Furthermore, the worker will have had an opportunity at that time to have observed his work and his working environment, and he may express certain distinct reactions to them of one kind or another that will throw further light on his *capacities* and *interests*.

The follow-up technique similarly may yield important information concerning the *capacities* and *interests* of the older workers by virtue of the fact that they have had opportunity to change and develop in *capacities* and *interests* since their initial interviews in the employment department. It has been pointed out above that the personnel situation in any company is in a fluid state, partly by virtue of the fact that the employees themselves are constantly changing and developing in *capacities* and *interests*. Management will fall woefully short of its objectives if it continues to think of the employee in terms of the *capacities* and *interests* that he demonstrated upon being hired. Whereas, in earlier days, the intimate relationship between the employer and employee permitted the employer to know the employee's progress and self-development, just so is it necessary nowadays for management to obtain that same information through conscious effort. This is where

the follow-up interview serves a second useful purpose. It yields information as to the changed and developed capacities and interests of the workers that are recorded in the personnel department.

Although the early follow-up contacts with new employees can be made best on the job, it is undoubtedly good practice in the case of employees older in service to invite them to a regular "sit-down chat" in the employment manager's office or in one of the interviewing rooms. This serves to free the individual from the embarrassment possibly arising from the presence of his fellow employees. It brings him into an atmosphere free from the pressure of production and, if the interviewer is diplomatic, establishes an ease of mind and confidence on his part that in turn will lead him to be more communicative. Such interviews, as we have pointed out, should not be permitted to degenerate into a series of questions and answers or to remain stilted and forced. An atmosphere of friendly interest should be aroused. The employee should be encouraged to speak freely. Good humor should ordinarily prevail, and the employee should be protected in the assurance that what he says will be regarded as confidential.

The follow-up interview often furnishes information as to working conditions and as to the mental attitude of the workers that may have escaped the vigilance of the department heads and foremen. Unfortunately the average employee will refrain to an absurd extent from coming to his chief with complaints and suggestions. Yet this hesitancy is understandable. Many executives unconsciously assume a manner that does not invite this kind of comments. Sometimes the chief does not meet his employees halfway in this respect. The employees, sensing this, hesitate to come forward with facts and fancies that might be of great value to the executive in improving certain conditions within his department.

This reserve, however, does not exist in equal measure between the employee and the representative of the personnel department—provided, of course, the representative of the personnel department exercises the proper diplomacy and tact in commanding the confidence and respect of the employee. In these interviews, much information of this kind is brought to light. Because this is so, the personnel manager is often aware of unwholesome facts and conditions prevailing in certain departments that are not apparent to the department heads themselves. He is in an unusually favorable position to observe such facts and conditions by virtue of his detached viewpoint.¹

¹ For fear this discussion may appear too idealistic and not capable of practical application, a word of warning should be given. It is not always easy for some employment interviewers to distinguish between legitimate complaints of workers

The periodic follow-up interview serves also to check up on the accuracy of the *occupational description*. We have pointed out that the personnel situation within any company is in a plastic state and is changing not only with respect to the *capacities* and *interests* of the workers, but also with respect to the nature and *opportunities* of the positions. In the same degree in which the qualification card of an employee that is correct today may be a very poor picture of the employee a year hence, the occupational description that is correct today may be far from correct later on. It is necessary for the personnel department to recognize the necessity of checking the occupational description periodically to ensure its continued accuracy. This can be done through a detailed plan that has nothing to do with these interviews of the employees of which we have been speaking. But such a procedure can be supplemented and even replaced by a plan of interview that, in addition to serving the purposes that we have outlined above, will reveal changes that have taken place in the duties and responsibilities of the various positions. It is advisable, consequently, for the interviewer to have in hand, during such interviews, not only the qualification card of the individual showing his ratings and his other *capacities* and *interests*, but the occupational description as well. He is then in a position to ask the employee to read the occupational description and to tell whether or not at this time it offers a correct picture of the occupation in which he is engaged.

4. *The Counseling Interview*.—Although it must be admitted that all interviews to a certain extent offer opportunities for adjusting individual problems of employees, there has been developed a certain technique that has as its primary purpose the aiding of employees in their personal adjustments.¹ This statement does not imply that the company pursuing such a program does not expect to receive any benefits from its efforts. Quite the contrary is the case. By rendering a service to its employees, the company expects to avoid many of the pitfalls of discontented workmen, to improve plant morale, and to have a lower unit cost of production in the long run. It is a long-run

and the prattlings of the *chronic kicker*. Almost every organization has its problem workers who may perform their tasks satisfactorily but are constantly complaining about something. It is seldom that the ordinary employment interviewer is equipped by training and temperament to handle these personality problems. These will be discussed again under the heading of the Counseling Interview.

¹ See William J. Dickson, "Understanding and Training Employees," *American Management Association, Personnel Series* 35, pp. 4-18; Elton Mayo, *The Human Problems in American Industry*, The Macmillan Company, New York, 1933, pp. 55-98; F. J. Roehlisberger, William J. Dickson, and Harold A. Wright, *Management and the Worker*, Harvard University Press, Cambridge, 1939, pp. 185-376.

program and not one the immediate returns of which are always demonstrable.

The Western Electric Company, Hawthorne Plant, Chicago, has in all probability developed the counseling program more completely than any other company in the United States. It did not come into being in this plant overnight but was the outgrowth of several years of painstaking research. An interviewer is assigned to a given department or area within the plant. He is not in any way responsible for production, hiring, layoffs, discipline, or any other administrative or managerial function of a routine nature. His sole function is to acquaint himself with the employees with whom he is to work, to keep the necessary records of his interviews to aid him in his work, and to enable him to pursue researches in the effectiveness of the program. He may interview an employee on his own initiative, at the suggestion of the supervisor, or on the initiation of the worker. The technique used has undergone changes as the program progressed. In summary, it may be described as follows:¹

1. Interviewer's attitude:
 - a. 'One of interest and sympathetic curiosity.
 - b. Quite as much interested in interviewing satisfied employees as those who are dissatisfied.
 - c. An employee's interpretation of his own personal situation can only be changed by an internal or psychological change within the employee.
 - d. An employee will take the necessary steps to correct a situation when he has clarified his thinking by talking over his problem in detail with the interviewer. The employee will initiate his own action and assume the responsibility for his acts.
 - e. Any action initiated by the employee will tend to relate him to other people in the situation in question.
 - f. The supervisor's relationship with his employees will be strengthened rather than weakened by the interviewing process.
2. Methods used:
 - a. The employee is put at ease by the general surroundings and attitude of the interviewer.
 - b. Strict confidence is guaranteed the employee in reference to anything he may say.
 - c. The employee is encouraged to talk freely and to continue to talk until he is talked out.
 - d. The employee is never interrupted while he is talking.
 - e. The interviewer never argues with the employee or gives him advice.
 - f. The interviewer strives to discover how the employee thinks and feels and why.

Space will not permit even a partial evaluation of this technique. It is apparent that the average employment interviewer is not equipped

¹ *Op. cit.*, American Management Association, *Personnel Series* 35, pp. 4-18.

either by training or by experience to serve effectively in the capacity of an industrial counselor. By its very nature this program is somewhat expensive; yet its results, if they even partly equal the expectations of its advocates, are well worth the expenditure. Such a program does not take the place of other well-organized personnel procedures. In fact, this program should not be undertaken until after other sound procedures have been adopted and are functioning effectively. When properly used, this program bids fair to make a basic contribution to the social well-being and contentment of industrial workers in their work situation.

5. *Routine Personal Interviews with Employees.*—Many of the routine adjustments are handled through the personal interview. Wage advances, transfers, promotions, special vacations without pay, and other relationships that arise require a mutual agreement that can often be handled best by a personal conference. The plant supervisor conducts many of these interviews. Others are handled by the representative of the personnel department. The same fundamentals apply to this type of interview as to interviews in general. They must not be rushed. The employee likes to feel that his problems are given adequate consideration even though his request may be rejected. Adequate records should be made of the agreement reached to avoid later misunderstanding. Facts should be available upon which to formulate an agreement. Confidence is promoted when the employee learns that the company's policies are carried out in the light of the facts of a given situation. As a rule it is best that these facts, as far as they concern the individual employee, be made available to the employee. These interviews should be conducted by persons in authority and not by some clerk who merely keeps the records. This gives the employee a feeling that he is being considered as an individual who merits personal attention. Such interviews provide an excellent opportunity for constructive morale building within the organization.

6. *The Final Separation Interview.*—It is a good personnel procedure to have a representative of the personnel manager interview all persons who are permanently separated from the company either on their own initiative or by discharge or permanent layoff. Such a program will often reveal the causes of labor turnover and provide records that may be valuable later. Often an employee who is leaving of his own accord may be saved for the company. Frequently, a transfer can be arranged if the employee does not like the work he is leaving.

In the case of persons discharged, it is desirable to make a record of **the reason for** the discharge and to inform the employee concerning the

exact reason for the action taken. It has always been good practice to discharge only for legitimate cause; yet the National Labor Relations Act has made it imperative that this cause be one that can in no way be construed as being related to the discharged employee's relationship to a union. It is very important to give the employee a written statement of the reason for the discharge and to have him sign this statement, the carbon copy of which is made a matter of permanent record. Management, by making such a record, is in a better position to justify its action should it later be required to do so by the National Labor Relations Board.¹

The Diagnostic Interviewer's Guide,—E. F. Wonderlic, director of personnel of the Household Finance Corporation, has devised a Diagnostic Interviewer's Guide to aid the interviewer in securing the essential information. This guide is not desired to be an addition to the regular interview. It is an integral part of the interview itself. It serves as a control device assuring that a well-rounded, planned interview is conducted. It is divided into four major sections, (1) work history, (2) family history, (3) social history, and (4) personal history. Under each heading is a series of questions to be answered by the interviewer. For a favorable answer, a (+) is circled, and an unfavorable answer has a (—) circled. The maximum score would be +34 and the minimum score would be —34. An applicant whose total score was less than some such score as +10 would not be considered further. The exact critical scores will differ for various kinds of work when the same form is used. The Diagnostic Interviewer's Guide reproduced by permission of Mr. Wonderlic is shown in Fig. 17.

The Graphic vs. the Narrative Interview Report.²—There is no unanimity of opinion as to the desirability of making a record of the interview during the interview itself. Some interviewers feel that little if any writing should be done at the time of the interview. The use of the graphic rating scheme minimizes the writing required to record data that it is desired to keep regarding the applicant. If a narrative record is made of the various characteristics, it takes more time and may not be more valuable or reliable than a carefully constructed graphic rating of these same characteristics. C. H. Smeltzer and C. R. Adams conducted an interesting experiment in which six

¹ See William Girdner, "Procedures in Discharges," *Personnel*, Vol. 14, No. 3, Feb. 1938, pp. 118-121.

² See C. H. Smeltzer and C. R. Adams, "A Comparison of Graphic and Narrative Interview Reports" *Personnel*, Vol. 13, No. 2, November, 1936, pp. 41-45; see also "The Scientific Construction of an Interview Chart," *Personnel*, Vol. 13, No. 1, August, 1936, pp. 14-19.

DIAGNOSTIC INTERVIEWER'S GUIDE

NAME _____ DATE _____
 ADDRESS _____ INTERVIEWER—

The interviewer should begin each interview with this statement to himself, "This applicant will impress me according to my past experience with persons who remind me of him. Consequently I must be on my guard against such prejudices which may naturally arise on account of this. I must keep a record of the facts and judge the applicant on the basis of the facts only. The applicant is a blank to me now." (Interviewer should write out information received as answers to the questions in the space left for that purpose.) If extra space is needed use separate sheets of paper. All of this material should be included with the blank itself when returned to the personnel department. The questions which are listed below for the interviewer to ask the applicant are suggestive. Other queries pertinent to the applicant's history will naturally suggest themselves to the interviewer as he contacts the applicant.

Please read special instructions on last page before interviewing.

WORK HISTORY:

Interviewer says—

1. Give me the names of your past employers. Begin with the last or present employer and go backward. Tell me:
 - (a) How you got the job,
 - (b) What you did, and,
 - (c) Why you left.
2. How did your previous employers treat you?
3. What experience of value did you get from each job?
4. Did you do work of such quality that your employer would be glad to recommend you?
5. Were you ever criticized for the kind of work you did? Give me some examples of mistakes or failures.
6. Can you give me any example of success in your experience, particularly in handling people?
7. What kind of work did you enjoy the most and seem to progress the best in?
 - (a) Mechanical work?
 - (b) Clerical and detail work?
 - (c) Contact work?
 - or (d) Do you know?

When the interviewer has secured as much information as it is possible for him to get concerning every phase of the applicant's work history, he should ask himself the following questions:

1. What kind of work history does the applicant have?

(-) Poor - Fair || Good - Excellent (+)

2. Has it been the type of work which has required meeting and handling different types of people? (+) Yes || No (-).
3. Has the applicant indicated ability to work consistently? (+) Yes || No (—).
4. Has the applicant indicated a serious and sincere attitude toward the work he has been doing? (+) Yes || No (-).
5. Has the work been such as to necessitate the development of habits of persistence and aggressiveness? (+) Yes || No (—).
6. Has the work history indicated a capacity for growth? (+) Yes || No (—).
7. Does the work history reveal habits or attitudes which would make it easy for the applicant to adjust himself to the policies and procedures of this company? (+) Yes || No (-).
8. Is this man a good soldier as evidenced by good team-work? (+) Yes || No (-).

FAMILY HISTORY:

Interviewer asks—

1. What was the economic condition of your home? (Well to do, poor, average)
2. What did your father do?
3. How many children were there in the family?
4. What do your brothers or sisters do now for a living?
5. What kind of work did you do in part time, while growing up?
6. Did your parents insist upon your getting the education that you have?
7. What percentage, if any, of the costs of your education did you earn yourself?
8. Did you complete your school course? If not, why?
9. What kind of religious and moral training did you have? (Taught these things at home or church)
10. At what age did you become economically independent of your parents?
11. Do you contribute to the support of your parents?
12. Did your parents live together as you were growing up?
13. What kind of educational background did they have?
Father—
Mother—
14. What kind of work were they most anxious for you to do?

When the interviewer has secured as much information about family history as possible he should ask himself the following questions:

1. Has the applicant's family history been such as to develop desirable traits of personality and character? (+) Yes || No (-).
2. Has the applicant's history been such as to make him appreciate the necessity for work and continuous application? (+) Yes || No (—).
3. Has the applicant's early training been such as to encourage honesty? (+) Yes || No (-).
4. Has the applicant's family history made him self-reliant and independent? (+) Yes || No (-).
5. Has the applicant's family history been such as to emphasize the necessity for achievement on his own part? (+) Yes || No (—).

FIG. 17.—(Continued).

SOCIAL HISTORY:

Interviewer asks—

1. What do you do in your spare time? (Evenings, Saturdays, Sundays.)
2. Do you have any hobbies?
3. Do you belong to any church, club or other social organization?
4. Do you have many close personal friends?
5. Do you enjoy being with people?
6. Are you engaged or keeping steady company with a young lady to the point where there is an understanding?
7. Are you in debt? Explain. [Note: If in debt, manager should investigate thoroughly and obtain financial statement.]
8. Did you take part in other phases of school life than studies? Explain fully. [Note to manager. —It is important to discover whether the applicant has had a wide experience of achievement.]
9. Do you prefer to deal with men or women in social and business situations?
10. What is your general reaction when, in a social or business situation, you have to inconvenience and sometimes annoy people with whom you are dealing in order to get what you are after?

When the interviewer has secured as much information as possible concerning every phase of the applicant's social history, he should ask himself the following questions:

1. Does applicant's social history indicate a creative use of leisure time? (+) Yes || No (-).
2. Will previous habits of satisfying social desires help applicant in satisfactorily doing the work of the business? (+) Yes || No (-).
3. Would the individual's social interests permit him to live within the income he would receive from the company? (+) Yes || No (-).
4. Is he careless on money matters or too heavily in debt? (-) Yes || No (+).
5. Does the applicant seem to possess tact? (+) Yes No (-).
6. Does he have a pleasing appearance? (+) Yes || No (-).
7. Does the applicant have a satisfactory working use of the English language? (+) Yes No (-).
8. Does he seem to be the type of personality that will fit in with the men now on the job? (+) Yes || No (-).
9. Does his social history indicate a capacity to get along well with people? (+) Yes || No (-).
10. Would this man be inclined to be overly sympathetic? (-) Yes || No (-+).
11. Would he be willing to sacrifice extra time necessary to do the job right? (+) Yes || No (-).
12. Was he a success in school from a social as well as a scholastic viewpoint? (+) Yes || No (-).

FIG. 17.—(Continued).

THE INTERVIEW AS A TOOL OF PERSONNEL MANAGEMENT 85

PERSONAL HISTORY:

Interviewer asks—

1. What do you consider your strongest qualities and characteristics?
2. From your own experience, what are your greatest weaknesses?
3. What ambitions do you have for yourself?
4. What caused you to apply here for a job?
5. What are you doing now to improve yourself and increase your efficiency?
6. Why should we give you a chance with us?

When the interviewer has secured as much information as possible concerning every phase of the applicant's personal history, he should ask himself the following questions:

1. Does the applicant seem vitally eager to succeed? (+) Yes || No (—).
2. Does the applicant tend to have a sound estimation of his worth to the company? (+) Yes || No (—).
3. Can this applicant look you in the eye? (+) Yes || No (—).
4. Does he express himself clearly and forcibly? (+) Yes || No (—).
5. Does he seem to be frank? (+) Yes || No (—).
6. Can you visualize this man developing sufficiently to do the work you are doing? (+) Yes || No (—).
7. Does he have a well balanced personality? (+) Yes || No (—).
8. Does applicant give evidence of being aggressive? (+) Yes || No (—).
9. Do you believe this man can insist on his rights and still retain goodwill? (+) Yes || No (—).

SPECIAL INSTRUCTIONS

The interviewer must exercise care in the following ways:

1. He must write down in as orderly fashion as possible the applicant's answers to the questions asked.
2. Where interviewer asks a question not listed which seems to be of special importance, he should write it down in the margin or on a separate sheet.
3. The interviewer should answer the questions which he has to ask himself after he has concluded the process of gathering information concerning each particular area of the individual's history.
4. The positive and negative answers should be added separately. The difference between the two totals is the score for the interview.
5. Wherever factors other than those involved in the questions included in the guide are determining influences in the interviewer's decision, detailed statement concerning these factors should be made.
6. In general a negative score or a very low positive score should eliminate the applicant from serious consideration.
7. A perfect positive score would be plus 34. A completely negative score minus 34. It is hardly possible that any applicant would make either of these two extremes.

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9-37

FIG. 17.—(Continued).

interviewers interviewed six different applicants. Each applicant was interviewed twice by the narrative method and twice by the graphic method. The records of these interviews minus the recommendations and names of the applicants were checked by 18 different qualified people who were to recommend each on the basis of the recorded data. The recommendations of these 18 different persons more nearly approximated the recommendations of the original interviewers in the graphic reports than in the case of the narrative reports. These same records, minus the names and the recommendations, were reread by the original interviewers 1 month after the original interviews. The interviewers made fewer changes from their original recommendations in the case of the graphic ratings than they did in the case of the narrative interviews. From this experiment, it would seem that the graphic record gives greater consistency than the narrative record. Although the data are not conclusive, they are at least indicative.

The Oral Test.—The interview is the method used for administering many of the so-called oral tests. These tests may take the form of showing the applicant pictures of a given machine and having him identify certain parts and describe their uses. Another method of testing is the use of questions pertaining to the particular trade or occupation. It can scarcely be expected that an interviewer will have intimate knowledge of every occupation. Interview aids consisting of a series of well-chosen questions and desired answers covering the particular occupation for which an applicant is being interviewed have been developed as aids to the interviewer.¹ The personnel division of the Army has developed a series of questions covering practically every occupation in the Army. These questions enable an interviewer who is not an expert in many trades to select within reasonable limits men who are specialists. The job specification is another aid for the interviewer in asking pertinent questions and in informing the applicant regarding details of the particular job.

Summary.—Several items should be kept in mind by the interviewer if he is to secure information, give information, and make a friend. Briefly, these may be stated as follows:

1. Usually the interview should provide the necessary privacy.
2. The interview should not be hurried.
3. The interviewer should strive to conduct the interview as far as possible from the viewpoint of the person being interviewed.
4. The interview is a discussion between equals.

¹See Lorin Andrew Thompson, Jr., and associates, *Interview Aids and Trade Questions for Employment Offices*, Harper & Brothers, New York, 1936.

5. The interviewer should ask only pertinent questions in such a manner that they will not be misunderstood and should avoid leading questions.

6. The interviewer should avoid asking personal questions until he has reached the stage where the applicant has met all other requirements, and then the reason for these questions should be explained.

7. The interview should be closed when the necessary information has been given and secured. The skilled interviewer keeps control of the interview even though he avoids all appearance of haste.

CHAPTER VIII

CONSTRUCTION AND DEVELOPMENT OF INSTRUMENTS AND RECORDS

We are now ready to direct our attention to the methods and instruments employed in personnel administration. In this chapter and those immediately following, we shall discuss the construction of these instruments. Subsequently, we shall discuss their use.

The methods and instruments described throughout are not the only possible methods or even necessarily the best methods. They are, however, typical of the best, and they are at least tried and proved instruments of successful personnel administration.

The Need for Facts as to the Work.—If the personnel manager is to achieve success in the continuous readjustment of the workers to their work, he must have ready the facts that will enable him to take such action intelligently. To have the facts in hand, he must have instruments and methods that will make them available. Generally speaking, these facts are of two kinds—those pertaining to the work and those pertaining to the workers.

Facts with respect to the nature of the work in each position are ordinarily made available through the occupational description.¹ This is essentially a bird's-eye view of the occupation in terms of its duties, working conditions, and opportunities and in terms of the capacities and interests required in its performance.

The form of the occupational description will vary from company to company. There is no stereotyped manner of presenting this information. The particular requirements of the company itself must be the guiding influence in the organization of the facts. The *method* of

¹ This instrument is frequently referred to as the job analysis, but the term *occupational description* is preferable. The reason for this is that the word "job" is not synonymous with that of occupation or position, but is in fact a specific task within the occupation or position, at which the worker may be temporarily engaged. Thus, a man engaged in the occupation of common laborer may be given a job of hauling a certain crate of merchandise to a certain warehouse, or a girl classified in the occupation of file clerk may be given the job of arranging a certain batch of cards in chronological order. Furthermore, the word "analysis" is misleading. It suggests that kind of analytical study of the details of operation that is required in a time study. The true occupational description is concerned with the general duties of the worker, not with the minutiae of their performance.

securing the information, however, is more subject to standardization, and in Chap. XI we shall discuss this in detail.

Suffice it to say, however, that the occupational description for each position should include a statement of duties (in general terms rather than in specific details); a statement of hours, probability of overtime, vacation, etc.; a statement of the experience required and of the further experience that it is desirable for the incumbent to possess, if possible; a statement of the education required and of the additional education desirable; a statement of the specific training required and of such further training as is desirable; a statement of the personal qualities an individual should possess in order to fill the position adequately; a statement of the opportunity for advancement; a statement of the compensation paid for performance of the work; and a statement of the best sources of supply through which persons can be procured to do the work.

The Need for Facts as to the Worker.—On the other side of the equation we require information as to the capacities and interests of the worker. This information regarding the person is ordinarily recorded on the qualification card. This card is a cross section of the individual in terms of his capacities and interests. It reveals all those known personal qualities and attributes that will affect the worker's effectiveness in this or in that type of work. It gives the salient facts as to his schooling and education; his previous business history; his physical qualities with respect to appearance, health, strength, etc.; his special abilities; his special interests, insofar as they can be discovered; his personal qualities (judgment, enterprise, initiative, cooperativeness, etc.); and his capacity for development and growth.

The information for the qualification card is secured through various sources: the interview, the physical examination, performance tests, the rating scale, mental-alertness tests, etc., each of which will be discussed separately in its own chapter. It is well for us to bear in mind the relation between these several specific instruments and methods and the qualification card that is the repository of the varied information they yield about the individual. The construction and use of the qualification card will be discussed in Chap. X.

The Personnel Budget.—This budget portrays graphically the salary minima and maxima for the various occupations and the salary paid to each employee in those occupations. This instrument serves to reveal (in a degree quite impossible otherwise) the relationship existing between the worker and his reward, between his rate of pay and the maximum rate of pay he can hope to enjoy on his present work, between his rate of pay and the rates of other employees on identical

and similar work. The personnel budget will be further discussed in Chap. XXV.

The Promotional Chart.—The promotional chart displays graphically the information contained in the occupational descriptions relative to transfers and promotions. It is a bird's-eye view of the avenues of advancement that exist throughout the organization from the humblest position up through the intermediary ranks to the higher command. This will be discussed at length in Chap. XII.

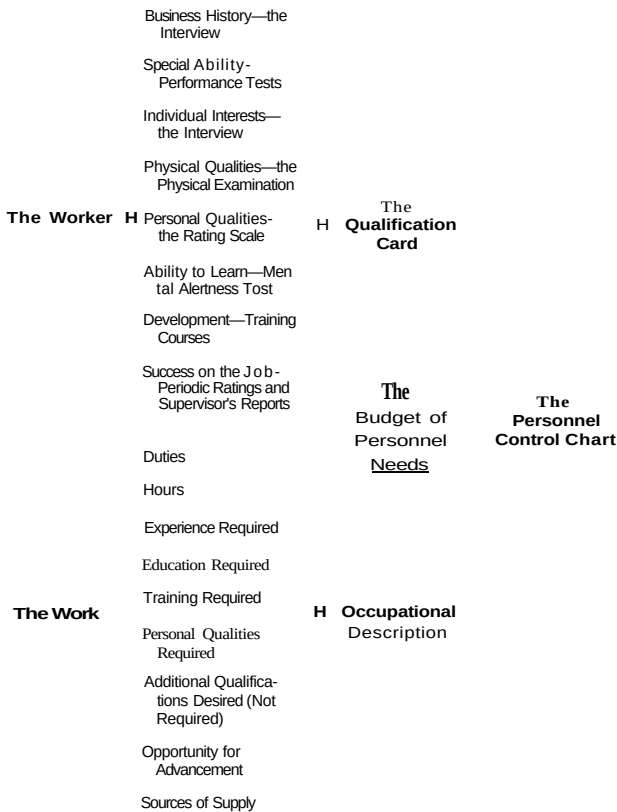


FIG. 18.-Graph showing relationship between the several instruments used in personnel control.

The Personnel Inventory.—These four instruments (the occupational descriptions, the qualification cards, the personnel budget, the promotional chart) constitute the personnel inventory. This inventory depicts the total personnel situations within the company. It makes available the facts that are necessary for maintaining the well-

balanced adjustments of the workers in their work throughout the organization. It is used daily in personnel department procedure. Figure 18 shows graphically the relationship between these several instruments used in personnel control. It makes it possible for management to answer promptly and with assurance such questions as these:

1. What are the requirements of this position? Of that?
2. What kind of training should be given a person being **groomed for this** position? For that?
3. What are the standards of success in this position? In that?
4. Which employees are succeeding in their work? Which are not?
5. Which persons in the organization are now qualified for this work? **For** that?
6. Which persons can best be trained for this work? For that?
7. What are John Jones' qualifications? Mary Smith's?
8. Richard Doe, an efficient worker, is outgrowing his job. Where can he be transferred or promoted to best advantage?
9. Edward Roe is not succeeding at his work. What is the cause? What is the remedy?
10. Elsie Brown is recommended for an increase in salary. In view of the value of the work assigned her, of the quality of her service in that work, of its effect on other employees, is the increase justified?
11. Is the cost of doing the work of this position (*e.g.*, meter-reading, filing, etc.) normal or below estimate, or too high?
12. Are there too many or too few employees in this department? In that?
13. Is the personnel expense of this department running too high, **or** of that department too low, for efficiency?
14. What transfers, changes, or promotions should be brought about to balance an undermanned department with workers from an overmanned **group**?

This kind of detailed information is obviously of great value in making individual adjustments and readjustments of workers to their work. It goes further, however. It is essential in developing the broader aspects of personnel administration. These instruments play a mighty part in the effective cultivation of these important functions of management.

The personnel inventory does not and should not duplicate records kept in other departments. Records kept in any department are assumed to be available for use for the personnel department. Annual audits and special reports require the keeping of particular records someplace in the company. The personnel department may prepare the reports, but ordinarily this department would not be expected to keep the records to provide such data as the following:

The cost of accidents.

The cost of sickness.

The cost of occupational disease.

Records of quality of work, amount of waste, number of seconds or defective goods.

Absence and lateness records, except as summarized by the employee's operating department and transferred to the central personnel office for permanent addition to the employee's file.

This introductory chapter to the instruments of personnel administration would be incomplete if it did not stress two facts.

First, every employer, every businessman, takes a strange pride in the fact that his business is different. This difference is usually a very real one. Every company has its own history, its own traditions, its own problems of administration and production. Because this is so, it is usually impossible for one concern to borrow bodily the methods and instruments used by another concern.

I Cultivating Sources of
I Labor Supply

I Improved Selection of
I Workers for:
I (a) Employment
I (b) Assignment
I (c) Training
I (d) Promotion

Thus Increasing Each
Worker's Efficiency
in His Work

Thus Improving Quality !
and Quantity of Group
Output and Reducing
Labor Costs

I Training and Developing
I Workers
I Controlling Expense
I Injecting Leadership
I into Supervision

I furnishing Incentive

FIG. 19.—Graph showing the value of utilizing the qualification card, the occupational description, and the personnel control chart by the personnel manager.

It is true that, regardless of the nature of the business, regardless of the product, regardless of the conditions of manufacture, the principles of personnel administration that underlie the construction and use of these instruments are uniform. These principles are basic and sound wherever the relationship of employer and employee exists, but they must be interpreted by each concern in the light of that concern's particular situation. For these reasons, it is necessary for each concern to develop its own instruments of personnel administration by adaption rather than by adoption.

In the second place, it is impossible overnight to construct these instruments or to develop the procedure based on them. They require the same effort, the same penetration of thought as the most abstract technical problem. Slipshod methods will not suffice. The -practice, for instance, of securing information for the qualification card and for the occupational descriptions by issuing questionnaires to the

employees will not suffice to make those instruments effective in operation. The questionnaire method is presumably the cheapest method in terms of time and expense, but it is known to be woefully expensive in terms of results. If the personnel instruments and the procedure based upon them are to be really effective, they must be well done. Money and time saved at the expense of effectiveness is poor economy. However, these instruments have maximum value when used as shown graphically in Fig. 19.

CHAPTER IX

CONSTRUCTION AND USE OF THE APPLICATION BLANK

The application blank and the qualification card are the two most valuable instruments for securing and recording all pertinent information concerning the capacities and interests of the workers. With this information in hand, together with the information yielded by the occupational description, management is better able to adjust the workers to their work in such a way that capacities, interests, and opportunities will be more nearly balanced and each worker-in-his-work unit made effective in the greatest possible measure.

Naturally, the first step in the construction of those records that have to do with the capacities and interests of the worker provides for the creation of the application blank. This form is in such current use that detailed definition seems almost superfluous; yet the application blank is an important link in the chain of personnel instruments and must be so prepared as to coordinate with the whole personnel procedure.

The purpose of the application blank is to bring to light the more obvious data about the capacities and interests of the worker. It is not practicable to rely upon the application blank to furnish that more elusive information about shades of capacity or shades of interest that is necessary to effective placement. This more refined information can be brought forth only in the carefully conducted interview. The application blank, consequently, merely furnishes the means of starting the process of securing the needed information about the applicant.

Procedure.—Different companies have followed different procedures in using the application blank. It is customary on the part of some to have the applicant fill out the application blank when he first steps into the personnel office; other concerns make a practice of having the applicant fill out the application blank only when he has passed the preliminary interview through which he has been deemed worthy of further consideration. Some concerns request the applicant to fill the blank out in full; others request him to fill it out only in part.

Industrial experience seems to indicate that time and effort are wasted in the employment office if all applicants—good, bad, and

indifferent—are obliged to fill out the application blank. Where this practice is followed the preliminary weeding-out follows a perusal of the blanks so filled out. It is preferable in ordinary practice, however, for an interviewer trained in quick judgment to question the applicant briefly as to his experience and wishes and to appraise his general worth before instructing him to fill out the application blank.

Experience has further shown that it is desirable for the applicant to fill out the application blank at least in part. The entries in his own

1	2	3	4	5	6	7	8	9	10	11	12
APPLICATION BLANK FOR EMPLOYMENT											
INSTRUCTIONS: Fill out carefully the blanks on this side of the sheet, making sure that your entries are complete in every respect. If you wish to give more specific information about your previous employment, use the space provided for remarks. Do not write on the back. When you have finished, bring the blank to the Desk.											
NAME <u>Walter Budd Henderson</u> POSITION <u>Correspondent</u> On <u>Salary</u> <u>_____</u>											
ADDRESS <u>17 West Chestnut Avenue, Chester</u> TELEPHONE No. <u>Main 1962-70</u>											
DATE AND PLACE OF BIRTH <u>JANUARY 28, 1896 - Albany, New York</u>											
ARE YOU NOW EMPLOYED? <u>Yes</u> If so, WHY DO YOU WANT TO CHANGE? <u>In exchange for practice work</u>											
CAN YOU ACCEPT A POSITION AS ONCE? <u>No</u> If not, HOW SOON? <u>Two weeks - to give notice to employer</u>											
NAMES OF RELATIVES NOW EMPLOYED BY THIS COMPANY: <u>John Henderson (Caretaker, Louisville)</u>											
PREVIOUS EXPERIENCE: Here note the positions you have held:											
Name of Employer	Street Address	City	State	Date Left	Time what did you do?	Salary	Name of Dept. Mgr.				
<u>American Stamping Co.</u>	<u>High and Spruce</u>	<u>Chester</u>	<u>Pa.</u>	<u>2</u>	<u>Adjuster, plain work</u>	<u>12.00 wk.</u>	<u>Mr. Thompson</u>				
<u>James and Thibault</u>	<u>300 Main St.</u>	<u>Chester</u>	<u>Pa.</u>	<u>3</u>	<u>Clerical work</u>	<u>12.00 wk.</u>	<u>Mr. Janda</u>				
<u>Elite Tailor Co.</u>	<u>16 McHenry St.</u>	<u>Albany</u>	<u>N.Y.</u>	<u>3</u>	<u>Hand work</u>	<u>1.00 wk.</u>	<u>Mr. O'Brien</u>				
<u>School</u>											
REMARKS: <u>Do not want a mechanical or routine job. Believe I can sell or promote sales by letter. Am interested in that kind of work.</u>											

FIG. 20.—Face of typical application blank for employment.

hand without advice or suggestion will reveal information as to his penmanship at least, as to his clarity of understanding, and as to the degree of education he has attained. But more specific information regarding the applicant's capacities and interests cannot be obtained by a blank filled out by the applicant. It calls for the services of a capable interviewer, as we shall point out more fully in our next chapter, someone who can build up an interview upon the basic information the applicant himself has entered upon the blank and who can so procure the additional data as to shades of capacity and interest that will be needed in placing the applicant effectively in the organization.

A Questionnaire and a Check List.—Good industrial practice employs the application blank as a two-sided instrument, first, as a group of questions for the applicant himself to answer, and, second,

Figures 20 and 21 illustrate an application blank representative of the best traditional procedure. The front is for the perusal of the

EDUCATION		PERSONAL DATA																	
Common School, 1 2 3 4 5 6 7 8 Only Name <u>Wm. G. F. F.</u> Age at grad <u>14</u> High School, 9 10 11 12 Grad. Name <u>Western High</u> Age at grad <u>18</u> Courses Taken <u>English, History, Civics</u> How the <u>Shawnee</u> met. COLLEGE <u>1 2 3 4 5 6 7 8 9 10 11 12</u> Grad. Year Name <u>None</u> <u>See above</u> Specialized in <u>None</u> Languages spoken <u>None</u> Read <u>None</u> Remarks BUSINESS COURSE <u>Schumann's - Suburban</u> Now studying? <u>Yes</u> What? <u>Business Admin</u> Previous Ed. or Tr. desired <u>None</u>		Self dependent <u>Yes</u> Dependents <u>None</u> Partial <u>None</u> Adult <u>None</u> Relationship <u>Wife and daughter</u> Marital <u>None</u> Address <u>Same</u> <u>Phone No. 1234</u>																	
TECHNICAL TRAINING		INTERVIEWER'S RATING																	
None PHYSICAL DATA Ht. <u>5' 10"</u> Wt. <u>170</u> Eyes <u>Gray</u> Hair <u>Gray</u> Complex. <u>Good</u> Limbs <u>Tall</u> Age, Exact? <u>Yes</u> Unfit for <u>None</u> Remarks		TEST SCORES <table border="1"> <thead> <tr> <th>July</th> <th>Test</th> <th>Score</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td><u>100%</u></td> <td><u>M.A.</u></td> <td><u>62</u></td> <td></td> </tr> </tbody> </table>		July	Test	Score	Remarks	<u>100%</u>	<u>M.A.</u>	<u>62</u>									
July	Test	Score	Remarks																
<u>100%</u>	<u>M.A.</u>	<u>62</u>																	
PERSONAL REFERENCES		INTERVIEWER'S RATING																	
Name Address Phone <u>Dr. A. A. Rogers</u> <u>Oliver Ave. Albany</u> <u>1234</u> <u>Dr. R. Marshall</u> <u>7th St. S. Erie</u> <u>5678</u> <u>John P. Phares</u> <u>Tarantula Ave.</u> <u>9012</u> <u>Rev. Adam Jones</u> <u>First Church</u> <u>3456</u>		Scaled by <u>E. R. F.</u> M. M. S. <table border="1"> <thead> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td><u>1</u></td> <td><u>2</u></td> <td><u>3</u></td> <td><u>4</u></td> <td><u>5</u></td> <td><u>6</u></td> <td><u>7</u></td> <td></td> </tr> </tbody> </table>		1	2	3	4	5	6	7	Remarks	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	
1	2	3	4	5	6	7	Remarks												
<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>													

FIG. 21.—Reverse of typical application blank for employment.

applicant and for his own handwritten answers. The desirability of having the applicant fill out this information is obvious. The questions have to do with specific, concrete information that allows little latitude for variation from fact in the response.

The Content of the Application Blank.—On the front of the blank, for instance, appear such data as name, address, telephone number, date and place of birth, present availability, position desired, and previous experience.

The reverse of the application blank, on the other hand, is prepared for the use of the interviewer and serves both as a check list for him and as a recording surface for entering the information elicited in the interview. In drawing out this information from the applicant, the interviewer usually uses the indirect method rather than the direct question. Under education, for

instance, by check mark he indicates the degree of education the employee has had and writes the name of the school or college he attended. Similarly, by check mark over the appropriate initial, he indicates roughly whether, as a result of his observation, the applicant qualifies as excellent, good, fair, or poor in handwriting and in the making of figures, in mathematical computation, and in English. Under high school and college, entries are made to show the courses the applicant has taken and in which he has specialized. The applicant's linguistic ability is indicated, and data entered as to the business courses he has completed or the technical training he has enjoyed.

If he is now studying, that information is entered in the space provided. If he desires further education or training, entry is similarly made to that effect, together with a description of the kind of education or training desired.

In the interview, personal data about the applicant are also brought to light. The facts of sex and race will, of course, be obvious, and are indicated by checks over the appropriate M F—W C. Similarly, by a check the interviewer indicates whether the applicant is single, married, widowed, or divorced and again his housing status is shown. Does he own his home? Does he rent? Does he board? Does he live at home? Is he paying on his home? Similarly, entries regarding the employee's dependents, both partial and full, are made in the proper spaces.

Such physical data as are available from the interview (the physician's examination has not yet been held) are entered in the spaces provided for physical data. The applicant should be encouraged to speak quite frankly of his physical qualifications, of those respects in which he apparently excels and those respects in which he may be deficient. If, for instance, he suffers from poor eyesight, it will be to his best advantage to state that fact quite clearly. Frankness on his part will enable the interviewer to arrange for his assignment, other things being equal, to work in which poor eyesight will not impede him and which, in turn, will not injure his eyes still further. If he has a weak heart, he should take unusual care, especially if applying for a job requiring physical labor, to make that fact known to the interviewer. With that information in hand, the interviewer will be in a position to assign him to work in which heavy physical exertion can be avoided. To be sure, such information may make it impossible for the interviewer to employ the applicant at all, but even this is preferable to the other alternative; it is better to be unemployed for the moment than to be strumming a harp or heaving a shovel.

Naturally, the applicant is tested for proficiency in the job for which he is applying, provided the work lends itself to that kind of approach. His scores in such tests are entered on the application blank. These scores will have much to do with his final selection and with his placement in this work or that.

The interviewer does not devote his attention only to the applicant's capacities. It is always difficult to learn the exact truth about a person's interests and motives in such a brief conversation as that which is necessary in most instances. It is quite possible, nonetheless, for the interviewer to create an atmosphere in his conversation that will lead the applicant to speak fully

and frankly of the *kind of work* he enjoys and of his special hobbies. Naturally, the interviewer is on his guard to sift fact from fancy in the applicant's replies and enters in the space on the blank only the information with reference to his desires and interests that is apparently genuine.

The Interviewer's Rating Scale.—The application blank, when properly constructed, also makes provision for a record of the interviewer's impression of the applicant in certain more obvious personal qualities. We shall point out in Chap. XIX that any rating of an individual's qualities must be based upon the rater's knowledge of the individual in those qualities. Naturally, the interviewer does not possess this knowledge of the applicant which, to be reliable, must be based upon day-in and day-out experience with him over a considerable period of time. It is impossible for the interviewer to form reliable judgments of the applicant in terms of initiative, industry, planning and organizing ability, leadership, and cooperativeness. If the applicant is made a member of the organization, he will later be rated in such qualities as these, and it will then be entirely practicable to make such ratings, for the department heads and others in supervisory positions will then have had the opportunity to observe the degree to which the employee manifests these qualities in his work.

It is necessarily the interviewer's function, nevertheless, to judge the applicant as far as he can do so. Although he is not in a position to rate him in terms of the qualities we have just discussed, he must inevitably form his opinion of the applicant in certain more obvious, perhaps more superficial, qualities that are apparent on the surface. The interviewer's rating scale, consequently, makes it possible for the interviewer to rate the applicant in such terms as appearance, manner, apparent quickness of understanding, apparent friendliness and cooperativeness, and physical qualities. The technique employed to record these judgments in the space provided for them on the application blank will naturally vary according to the kind of rating scale employed. Presuming, however, that the graphic rating scale, such as is described in Chap. XIX, is integrated into the personnel technique of the company, it is probable that letters or digits will be entered in the proper spaces to indicate the degrees in which the applicant possesses these more obvious qualities.

There should be, of course, a close similarity between the content and layout of the application blank and the content and layout of the qualification card, which we shall discuss in our next chapter. A great deal of the information that is to be entered on the new employee's qualification card will be taken bodily from his application blank, and, as a matter of clerical procedure, this can be done most readily when a degree of parallelism of this kind exists between the two records.

Method of Quick Reference.—When the applicant is engaged at the time of his first interview, the information on his application blank is transferred to his qualification card, and the application blank itself is

Yellow tab }

It would be desirable, in this instance, to select a girl with a high-school education and a good personality. Consequently, blanks carrying yellow tabs on Figs. 3 and 8 are similarly withdrawn.

A perusal of the blanks will make available information regarding all the recent applicants for employment at the company who seem *generally* qualified for a stenographer's position. The actual selection of the applicants to be interviewed is made from a careful study of the detailed data appearing on the blanks. The actual selection of the individual for the position is made, of course, only after these selected applicants have been interviewed. It is frequently desirable to apply to the application card the principle of the Findex System. This

I—		J
	Dear Sir (or Madam):	I
I	Recently you made application for employment with this company. If you still wish us to consider you for a position, will you kindly return this card to us with a note to that effect. If we do not hear from you, we shall assume you wish to cancel your application.	I
I		I
I	Send your reply to the Personnel Department.	I
	(Signed) National Bicycle Company.	J

FIG. 22.—Card used for checking up the availability of applicants.

system facilitates both the initial use and the later follow-up in keeping the file alive.

Keeping the File Alive.—It is necessary to adopt a procedure that will prevent the application blanks in the file from becoming obsolete. Persons will frequently apply at a company for employment but, not immediately finding a position awaiting them, will seek elsewhere for work and at times obtain it. Most of these persons are not subsequently available for employment, although their application blanks remain on file. It is quite impracticable to expect these persons to ask the company to cancel their applications. It is hoping for too much to expect them to remember to do so. For this reason, many companies follow the practice of sending out a post card periodically, every month or so, to the persons whose application blanks remain in file.¹ Such a post card appears in Fig. 22.

As a part of this procedure it is customary for the personnel department to affix a tab of distinguishing color, blue, for instance, to indicate the month in which the application blank was inserted in the file. Thus, on the first of April it is possible to send out these post cards to all those persons whose application blanks are tabbed with blue on 1, indicating that the application blanks were inserted in file during the month of January. Two weeks later

¹ See Fig. 16 for another form used in following up the applicant.

the application blanks for those persons who have not replied to the post card will be lifted from the file and inserted in the dead file. These persons have presumably obtained employment elsewhere or are otherwise not interested. The live applications, however—those persons who still wish employment with the company—remain on file for the attention of the personnel department when positions are to be filled for which they are generally qualified.

Similarly in May post cards will be sent to those persons whose application blanks are tabbed on 2 to show that they were inserted in the file in February, and so on.

Everything that has been said heretofore in this chapter is based upon the assumption that the applicant has come in person to the employment office. Many initial applications, however, are received by letter, telephone, and the like. A different preliminary technique is, of course, necessary in dealing with applicants from a distance. Here an immediate personal interview is not feasible. Many of the most desirable applicants live at some point so distant that the expense of coming for a personal interview is prohibitive unless there is a fair chance of securing employment.

It is customary under these circumstances to mail the distant applicant a blank so constructed that the employment manager can fairly judge whether or not it is desirable to pursue the matter to the point of sending for the applicant. Many companies make a practice of offering the distant applicant half the travel expense necessary for a personal interview. The employer and the applicant are then taking a "fifty-fifty" chance that the interview will result in employment.

It should be obvious that under such circumstances the application blank that is mailed to the applicant cannot be of the check list type, such as is shown in the first part of this chapter. Practically the same information is required, and the chief difference in the two forms is that the questions to be answered by the applicant are not abbreviated, but so worded that the applicant readily discerns what is wanted. Such cryptic initials as O. R. B. L. P. must be expanded into: owns home, rents home, boards, lives with parents, paying on home.¹

Such material as the interviewer's rating scale (for subsequent use) can properly be a part of a mailed application blank, provided the instructions to the applicant are clear, through such expressions as, "Do not write in this space."

An inspection of application blanks now used by business firms makes it evident that most application blanks are much alike. A

¹ In some instances, additional information may be secured concerning the applicant by having him report to the nearest state employment office which may give him tests and forward a complete record of his qualifications.

common size is an 8¹/₂- by 11-in. two-page form. This form frequently calls for information that is never used but fails to provide space for information that has real predictive value.

Changes in Application Blanks.¹—However, during the last decade, certain specific changes have been made in application blanks:

1. Before an applicant is permitted to fill out the regular application blank, he is asked to fill out a 3- by 5-in. card that calls only for his

PERSONAL HISTORY

NAME _____ DATE _____

ADDRESS _____ PHONE _____

DATE OF BIRTH _____ AGE _____ SEX _____

1. Number of *full* dependents (include wife unless she is gainfully employed) _____

2. (a) Principal occupation in recent years _____

(6) Specific work done in it _____

(c) Have you ever sold life insurance? _____

3. (a) Are you now employed? _____

(b) If not, how long have you been unemployed? _____ years and _____ months.

4. How long have you worked for your present employer? _____ years and _____ months. (If you are unemployed, give information for *last* employer.)

5. Name all the organizations, clubs, or lodges (church, business, political, fraternal, social, military) of which you are now an active member in good standing (1) _____ %

(2) _____

(3) _____

(4) _____

6. In which of these organizations have you held an important office within the past five years? (Name the organizations and state the offices held in them) _____

7. What is your approximate *net* worth? _____

8. What are your *minimum* current living expenses? _____ per month.

9. How much insurance do you have on your own life? _____

SPACES BELOW THIS POINT ARE TO BE FILLED OUT BY MANAGER
OR GENERAL AGENT

10. (a) Date when Manager or G. A. first discussed with prospective agent the possibility of his entering the life insurance business _____, 19 _____

(b) Length of time over which negotiations have taken place _____ months.

FIG. 23.—An improved application blank used by many insurance companies.

name, social security number, address, telephone number, age, height, weight, and the name of the job or jobs sought. This card is sometimes called the "interview card" or the "preliminary application blank." As soon as possible after this card is filled out, it is presented by the applicant to the preliminary interviewer for a brief interview. If the applicant is judged to be obviously unsuited for employment, he

¹ See the Appendix for present use of the application blank.

is courteously dismissed. If he is approved by the interviewer, he then fills out the regular complete application blank.

2. Some firms make the application blank a permanent record and use it both as an application blank and as a qualification card.

3. More space is given for data concerning the after-hours' activities of the applicant, *e.g.*, "In what school activity did you engage?" "To what clubs, fraternal, social, or educational organization do you belong?" "What office do you hold in each of these organizations?" "What are your favorite forms of recreation?" "Please put a check before the items in which you are most interested." (The check list provides many types of group games and many forms of vocal or instrumental group performances.)

4. Only usable data are called for. The Life Insurance Sales Research Bureau has devised an application blank so unique that instead of retaining the traditional name they call it a "rating chart" or a "personal history form"—reproduced as Fig. 23. It calls for no information except such as—(1) is essential for identification, *i.e.*, name, date, address, telephone, or (2) possesses known predictive value, *e.g.*, all the 10 numbered items. Any possible answer to each of these 10 numbered items has a definite predictive value, *e.g.*:

There are only seven possible answers to the inquiry concerning the number of full dependents. Each of the possible answers is here listed with its weighted value to the right.

No dependents—3
1 dependent—4
2 dependents—6
3 dependents—8
4 dependents—8
5 dependents—7
6 or more dependents—4

The grading of the answers to each of the 10 items is so standardized that it can be accomplished and recorded quickly. The sum of the 10 scores is secured and adjusted (by a simple formula) to the age of the applicant and transformed to the familiar grades excellent, very good, good, fair, or poor.

On the success of these quantitative ratings in the selection of agents, the bureau reports such actual results as the following: A test of the effectiveness of the rating plan¹ in selection was made with the records of a representative group of agents. This test group consisted of a number of agents all contracted by one company. Of the 408 agents who were still under contract at the end of their first year, those rated as excellent produced one and one-half times as much as

the average for the whole group, and three times as much as agents rated by the plan as poor. Moreover, of those agents who rated excellent, there were twice as many who stayed in the business at least 1 year as there were among those who rated poor. An agent who rates excellent is sixteen times as likely to be successful as one who rates poor.

Many Companies Are Experimenting.—A company conducting house-to-house selling found that, of the items on their application blank, married and age 35 to 40 were the two items most predictive of success.

A company employing cab drivers found the items that differentiated the most are age, nationality, marital status, number of children, number of dependents, trade followed, and weight.

A company manufacturing and distributing soap found four items to be indicative of success—9 years of schooling, ability to read blueprints, age 25 to 39, and military service and rank. All other items lacked predictive value.

A company selling shoes discovered that, for their sales personnel, height and weight are not diagnostic of either success or failure.

An electrical company employing substation operators found differential values in age, marital status, number of children, number of dependents, nationality, and height.

A telephone company found future success was indicated by good scholarship in school, campus activities, and graduation at an early age as compared with classmates.

These examples seem to suggest the future possibility of constructing a special application blank for each organization. Such a blank would contain only: (1) items of identification, and (2) items that have value in differentiating the applicants who will succeed from the applicants who will fail.

We have now considered the traditional methods used to record the information regarding the capacities and interests of applicants for employment. We have cited improvements that have been made in application blanks during the last few years. We have cited researches being carried on by several organizations that may modify the application blanks of the future.

In the next chapter, we shall proceed to consider the technique of recording the capacities and interests of persons who are already members of the organization.

CHAPTER X

THE QUALIFICATION CARD

The Need for the Qualification Card.¹—Although society and industry have only begun to learn how to ascertain the capacities and interests of individuals, a number of practical methods have been evolved. Certain of these methods are well denned. We shall proceed to discuss them in their proper place. Our purpose now is to consider the construction of the qualification card² on which this information regarding the individual's capacities and interests is recorded in accurate and usable form.

The need for the qualification card in the average industry or business concern is obvious. Only the "shoestring" business attempts to operate without adequate records. Human memory is too fragile a thing to rely upon to make available all the facts and figures needed in the successful administration of a business. Mention, if you can, a manufacturing concern that relies upon the memory of the foreman for information as to the cost of materials. Mention the insurance company that attempts to operate without the most exhaustive and analytical actuarial records.

Oddly enough, few organizations regard personnel records as equaling in importance operation records of this kind. Yet in time industry generally will appreciate that it is just as absurd to attempt to utilize the capacities and interests of the workers to maximum effectiveness through relying upon the impressions and memory of the executives and foremen as it would be to run a railroad without timetables or to build a bridge without specifications.

The qualification card offers a condensation of the important facts pertaining to the capacities and interests of each worker. The file of qualification cards, properly constructed and utilized, reveals the labor assets of the organization and provides most of the data for a labor audit or personnel inventory. The file of qualification cards is the organization's index of man power, not as an indication of the number of persons available, but as an indication of their combined effectiveness in service.

¹ See Appendix for the popularity of the qualification card.

² Sometimes known as the employee's record, personal qualification record, personal record, progress card, or service record.

Four Essentials of the Qualification Card.—The successful qualification card possesses four essentials:

In the first place, it must be complete. It must record all of the information about the individual that has a bearing upon his effectiveness and success in his present work or in any other work in the organization to which he may be assigned.

In the second place, it must be brief. This information must be recorded concisely, and irrelevant information must not be recorded at all.

In the third place, it must be up to date. We have pointed out that men and women are not static, rigid units of power. On the contrary, they are plastic, changing, developing—sometimes even retrograding. Their interests vary, their capacities change. The qualification card must, so far as possible, show the capacities and interests of the worker as he is, not as he was at some former date.

In the fourth place, the qualification card must be so constructed and so filed that this information is immediately available when it is wanted.

The Content of the Qualification Card.—There is no one best way of constructing the qualification card. Too much depends upon the nature of the business and the problems and conditions prevailing in the company itself. In one company a folder of some kind will be preferable, in another a small card, in another a larger sheet, but except in most unusual conditions there are certain basic principles that must prevail in the form of the qualification card, and there are certain types of information that are essential.

Let us proceed then to consider the kinds of information about the worker the qualification card should make available. Generally speaking, the following should be provided for:

1. *Personal Information:* Individual's name, date of birth, social security number, address, telephone number, photograph, clock number, department and occupation; his marital status, number and kind of dependents, housing status (whether he owns his own home, rents or boards, etc.), nationality, race, citizenship, etc.
2. *Physical Qualifications:* Health, height, weight, physique, strength, endurance, sensory acuteness; physical limitations or disabilities.
3. *Educational Qualifications:* Scholastic attainments, both in years of schooling and in nature of courses studied: common school, high school, college or university, special training such as that procured in business college, trade school, correspondence school, night school, or other institutions of technical training.
4. *Technical Ability and Aptitude:* His degree of skill and knowledge in special kinds of work as revealed by trade-test ratings, skill ratings, dexterity ratings, and other less direct sources of information such as inquiry.

5. *Mental Qualifications*: Mental alertness as revealed through objective measurement, by the use of mental-alertness tests, etc.
6. *Merit Ratings*: Capacity for leadership, cooperativeness, tact, diplomacy, initiative, appearance and manner, planning ability, ability in developing men, industriousness, sales ability, etc., as determined by rating scales based on observation.
7. *Social Data*: Hobbies, civic activities and interests, athletic proclivities, etc., affecting the social relationships between the worker and his associates,
8. *Experience*: History of positions held prior to employment: names of employers, length of service in each place, nature of work, earnings, and reasons for leaving.
9. *His Progressive History in the Company*:
 - a. Source of supply from which the worker was drawn and date of employment.
 - b. Positions held: dates, earnings, reasons for transfers and promotions.
10. *Regularity and Promptness*—recorded periodically.
11. *Record of Accidents*: Number and kind of accidents and reasons.
12. *Suggestions and Complaints*.
13. *Plant Activities*: Membership on employees' committees, athletic teams, social organizations, etc.
14. *Desires*:
 - a. Educational.—Desire for further educational courses, either within the plant or outside.
 - b. Training.—Desire for such training in his work and in work to which he is ambitious for promotion.
 - c. Nature of Work.—Statement of the work in which the individual feels he will prove most effective and in which he will find greatest satisfaction.
 - d. Transfer.—Reasons he desires transfer.

It is evident from a perusal of this tabulation of essential data that should be entered on the qualification card, that several different methods must be employed to procure it. Obviously, a great deal of it is a matter of history. Such information as is historical in nature can best be obtained by interview. In the case of new employees, of course, this historical data is secured from the application blank as described in the preceding chapter.

Some companies use three forms—a brief preliminary application blank, a complete application blank, and a qualification card. Most companies combine into a single form the preliminary and the complete application forms. Some firms combine into a single form the complete application blank and the qualification card.

Getting the Information.—It should be pointed out here that the same reasons that make it inadvisable to utilize the questionnaire in securing information for the occupational description hold good with reference to the qualification card. It is unwise procedure to attempt to obtain this information by a series of questions either in printed form

or by word of mouth. We have pointed out that personnel work that is not personal is an attempt to apply mechanical methods to a project that cannot be mechanized. The concern that attempts to secure such historical data from its employees by such mechanical methods is bound to fail to get the desired information and is apt to arouse antagonism and prejudices that are based upon a misconception of the work and of its purposes.

The Interview vs. the Questionnaire.—For two reasons, therefore, the interview, rather than a questionnaire, is essential in securing this historical data from the employee. In the first place, it must be remembered that, owing to misunderstanding, a certain amount of distrust and prejudice colors the average person's attitude toward records of this kind. This prejudice is based entirely on misinformation. The qualification card is the employee's spokesman in the councils of management. It is constantly arising in meetings to proclaim his experience and special qualifications. When properly used it guarantees that through no oversight can the employee be overlooked when positions of greater importance and opportunity are to be filled. Obviously in a concern where qualification cards are in use, it is a serious handicap to the individual if through error no card is prepared for him, or if through misunderstanding on his part as to its personal value to him the information recorded on it is not so complete as possible. Yet it is a common occurrence for an employee to say, "All this is none of the company's business. If I do my job well that is all they have a right to ask." This point of view is one that the questionnaire will not answer and refute. The interviewer, on the other hand, is able to give the doubting worker a correct understanding of the nature and purposes of the qualification card and to win his enthusiastic cooperation instead of his grudging acquiescence. The interviewer, in short, is largely a salesman. It is one of his primary functions to sell the idea of the qualification cards to the workers. Unless he is successful in doing so, the effectiveness of the personnel work as a whole may be seriously neutralized by the misconception and resultant hostility of the employees.

The second reason why the interviewer is an essential part of the plan is no less cogent than the first. Any rigid, mechanical set of questions, whether presented in printed form or by word of mouth, will not yield the desired information. As soon as the idea in general has been sold to the employee, he must be encouraged so far as possible to talk quite freely with reference to his work, his history, and his ambitions. An atmosphere of friendliness must prevail, and the interviewer must create it. Confidence must be established on the part of the

worker. He must be led to abandon embarrassment and reserve and to take the interviewer into his confidence. When the interviewer has been successful in creating this attitude on the worker's part, then the real facts will begin to emerge. It should be noted, however, that these facts emerge frequently as the indirect result of the conversation rather than as the direct answers to specific questions. The interviewer may have certain definite inquiries in mind, certain definite questions to ask, but he will refrain from asking them in the same manner that the census taker employs at the front door. He will direct the conversation into this channel, into that, until he strikes a response on the part of the worker. When this point has been reached, he will have little difficulty in securing the facts he wants. But unless he proceeds in this manner, the most inquisitorial interrogation will not bring the real facts to light.

It is obvious that persons of considerable judgment, initiative, and tact must be selected as interviewers. They should have a true understanding of the principles underlying constructive personnel work, and they should be sympathetic with them. They should possess that enthusiasm for the "square deal" in industrial relations and for the qualification card as a means in achieving that "square deal" that will make them effective salesmen of the idea. They should have a personal interest in people, a sympathetic attitude toward their problems and ambitions, but a fund of common sense that will not permit them to indulge in sentimentality. They should be able to terminate each interview with confidence that the worker will go back to the office or shop and, in turn, sell the idea of the qualification card to his associates.

With reference to the above itemization of the facts to be recorded on the qualification card, it is apparent that the interview should yield the personal information desired, information as to the employee's educational advantages, the special training he has had, social data, his previous business history, his progress upward through the company since his employment, his interest in certain kinds of work, and his desire for further education and training.

Ordinarily the work is so organized that the corps of interviewers meet with the employees, department by department. The departmental manager is, of course, sold on the idea in advance, and the interviews are held with his full consent and cooperation. Usually a tentative schedule is worked out in accordance with which the employees call one by one at the conference rooms where the interviews are being held. The practice differs somewhat from that employed in making the occupational descriptions, since, in case of the qualification card, it is recognized as poor practice to interview the employees at

their desks or machines. Their minds are riot free, and they are oppressed both by the presence of their associates and by the work to be done. It is far easier to create the proper atmosphere of confidence and friendliness when the interviewer and the person being interviewed meet in privacy. The conference room should be tastefully decorated to achieve an informal rather than an official atmosphere.

Physical Qualities.—The information regarding the employee's physical fitness is ordinarily procurable from the records in the company physician's office or in the personnel department. These can readily be abstracted and entered on the qualification card. It is not necessary, of course, to make the entries as complete as is customary in the physician's own records. There is no need for great detail in this respect, since an itemization of facts that might be significant to a trained physician might have no significance whatever for the personnel manager. Usually such data include a mention of height and weight, quality of eyesight and hearing, and a statement of special disability, such as pulmonary tendencies, inclination to nervousness, heart weaknesses, etc. It is usually advisable to specify those kinds of work for which any physical limitations of the employee may render him unfit.

Test Findings.—Where mental-alertness tests are made a part of the personnel procedure, it is desirable, of course, that the mental-alertness score be entered on the qualification card in the space provided for it. As we shall explain in a later chapter, this is one instance in which some approach has been made toward a practical diagnosis of the individual's vocational aptitude. It is known in certain companies that for specific kinds of work, a person who scores high in a mental-alertness test, other things being equal, will succeed in the work, whereas others who make a low score in the mental-alertness test will succeed in a far less degree. It is known similarly that, in other kinds of work, mental alertness is a distinct liability, that persons ordinarily continue to perform the work more consistently if their score in the mental-alertness test is low. The mental-alertness score on the qualification card, consequently, must be interpreted with great discretion on the part of the personnel manager and his assistants.

Similarly, the individual's score in other tests, such as stenographic tests, file clerk's tests, dexterity tests, and trade tests (such as those for electrician, cabinetmaker, plumber, and lathe hand), is entered in the space provided for the purpose.

Personal Qualities.—Information as to the degree to which the individual possesses such personal qualities as initiative, judgment

good appearance and manner, industriousness, and cooperativeness, is not always ascertainable by the interviewer, although possibly he may glean some idea in his conversation of the individual's general fitness in these respects. Many concerns have no specific method of reliably securing this information. But, since we are considering a well-balanced personnel procedure, we shall assume that these facts are in hand through the use of some such instrument as merit ratings and the interviewer's rating scale. These entries are made in the spaces on the qualification card provided for them.

In like manner, the attendance and promptness records are available either on independent records in the employees' departments, in the personnel department, or in the paymaster's department. The transferring of these data in condensed form to the qualification card is a simple clerical procedure.

It is apparent from a consideration of the procedure so far that each *employee* in the company is well represented in the personnel department. There is little occasion for him to nurse a grudge against management for failing to recognize his qualifications and special desires. In an unusual degree, he is in a position to stand or fall by his actual merits and performance. This will make no appeal, it is true, to a certain class of workers—those who resent any evaluation of their services and who depend upon aggressiveness and display to win them promotion over their equally efficient, but less spectacular, brethren. Fortunately these are in the minority. The great bulk of the workers in any organization consists of those who are doing their work well day in and day out, but who for the most part lack the faculty of self-advertisement and the ability to sell their own services. It is these employees, after all, who are usually the most valuable employees, who profit most from the qualification card and the procedure that is based upon it.

The Visible Index.—There is ordinarily employed some mechanical method of filing, in order to bring to the attention of the personnel manager not only those persons who are particularly qualified for a certain kind of work, but also to bring to his attention the qualities (capacities) and desires (interests) of every employee. The visible index system is admirable for this purpose.

On the bottom of the qualification card is a work classification index, showing any desired number of small squares numbered serially. These squares and the name of the employee form the visible part of the record. Special meanings are given to these numbered squares and, by filling in the squares with various colors, the qualifications, needs, and desires of individual employees are visibly brought to **the**

attention of management. For example, a desirable applicant asks for a certain job. There being no vacancy at the time, he is placed at some other occupation. On the visible index of his qualification card, square 29 is filled in in blue, which indicates the job he is on; square 58 is then *crossed* in blue, indicating that the applicant wants that job, and that an adjustment is necessary. When the man is placed on the desired job, square 29 is filled with black and square 58 with blue, indicating that the adjustment has been made. By various methods of this sort, it is possible to establish a definite numerical color code that, if used in a visible index file, makes it a simple matter to locate cards of employees possessing the necessary qualifications for filling vacancies as they occur and to discover employees needing special attention.

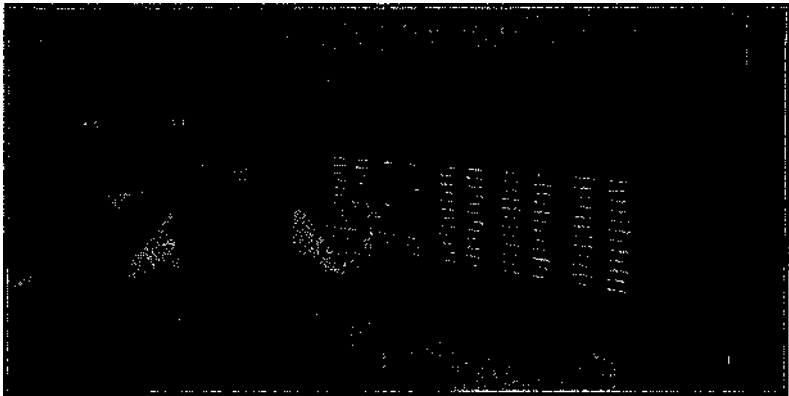


FIG. 24.—Qualification card files in use.

These qualification cards should be filed numerically (by check number) by departments rather than alphabetically or numerically throughout the company as a whole. The small square cut out on the right-hand side of the card allows the department number to be visible when the card is placed in the pocket of the visible index file. Where the personnel department is successful in building up the necessary cooperation with the operating departments, the foremen will want to look over the cards of their groups. This cannot be done readily unless the cards are filed alphabetically, or numerically, by departments. Frequently department heads obtain duplicates of the cards for their own departmental use. When an employee is removed to a different department, his card can easily be shifted to another pocket in the file under the proper department number without any change on the card except his check number. It is desirable to have the department numbers put on the card in pencil so that the cards can always be returned to the proper file. Figure 24 shows these files in use.

The visible index is not limited to any specific use. In general, its purposes are many; it may be used purely for statistical purposes; or it may be used for adjusting individual employees; it may also be used in promotion plans, studies of accidents, and the like. A concern interested in comparing the success of high-school and college employees with the other workers, may by the use of a color code on the visible index have the necessary data available at all times for immediate calculation. Another company interested in the relative merits of racial groups may use the visible index for coding such data.

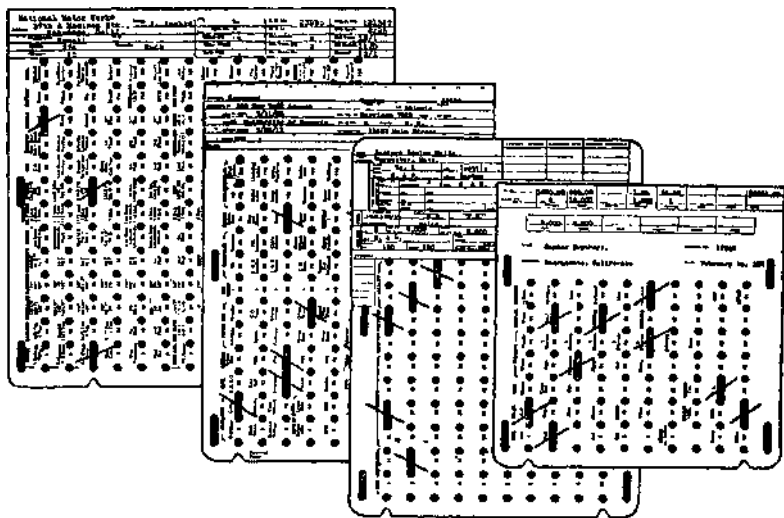


FIG. 25.—A group of Findex cards.

Mechanical Devices for Locating Qualification Cards.—One of the best known systems of locating qualification cards or other filed data by mechanical means is the Findex System. The Findex Systems, Incorporated, will prepare a card with the information desired by the individual company having a part of the information available through typing or writing (Fig. 25) and a part of it coded through a series of holes. This information may include almost anything desired such as age, sex, education in terms of years, citizenship, special qualifications such as toolmaker, machine operator, painter, etc. A special device is provided for slotting the hole, thus connecting the given hole for a special qualification with the one below it. When it is desired to locate a man with certain characteristics such as a citizen who has had experience in painting, a rod is run through the hole indicating citizens and through the hole indicating painters. The file drawer containing the cards is then pulled out and turned upside down by a simple mechanism that is a part of the file. All cards that meet the special requirements

then fall down one notch. These are then locked in this position and the file drawer is righted, leaving all the qualification cards visible that are being looked for. This device is simple in operation and facilitates rapid finding of persons whose qualifications have been coded. Only one side of the card can be coded; however, the other side of the card between the holes may be used for written data.

The visible index and the Findex System are the successors to the celluloid tabbing visible system that, however, is still used as the index system by some companies.

The value of a file of qualification cards depends upon their use. When indexed by the visible index, the Findex, or colored celluloid tabs, the qualification cards are of the greatest value. They enable the employer to know his personnel, its assets, potentialities, and liabilities. A good qualification card, properly used, is one form of employee representation in the councils of management.

CHAPTER XI

THE OCCUPATIONAL DESCRIPTION

Any consideration of the occupational description must be based upon an agreement as to what constitutes *an occupation*. An occupation and a job may be two different things. A job is either an occupation or a specific task within an occupation.

Let us assume as a definition, consequently, that a specific occupation or position is a continuing assignment sufficiently unlike all other assignments that the transfer of an experienced worker to that assignment from another assignment would involve special training rather than simply casual instruction, or sufficiently unlike other assignments that the conditions surrounding the performance of its duties involve unusual mental or physical strain, unusual difficulty, or unusual unpleasantness in performance.

Unless one assignment differs from another in the amount and kind of training involved or in strain, difficulty, or degree of unpleasantness, those two assignments may be regarded as the same occupation or position.

The occupational description is a condensed picture of the occupation in terms of those factors that affect the worker. It is not ordinarily a record of details. It is to be used in establishing a mutual understanding between the department chief and the personnel manager with respect to the duties of the occupation and the kind of person needed to perform those duties effectively; in acquainting the new employee with the nature of the work to which he is to be assigned; in selecting persons for the position both from without the organization and by transfer within; in setting the salary limits for the occupation and in evaluating its importance to the organization in dollars and cents. On the other hand, it is *not* to be used, *primarily*, in laying out a training program, in teaching the new worker the specific operations involved, in setting piecework rates, or in establishing the one best way of doing the work.

Because its function is to serve the objectives outlined **above**, the occupational description ordinarily does not go into **great** detail. We are concerned with the kind of person needed to **do** the **work** and, of

course, with the duties that he is to perform, but we are not concerned with the minutiae of their performance.

The Content of the Occupational Description.—Before we proceed to an explanation of the methods of constructing the occupational description, let us consider the kinds of facts that it should ordinarily reveal. Briefly, the content of the occupational description might be summarized as follows:

DESCRIPTION OF THE WORK

1. *Name of Occupation and Location.*—Its symbol in the occupational code, or indexed list of occupations in the organization. Alternative names in use. Names of allied occupations from which a worker could be transferred with little additional training. Names of the divisions, departments, and units where it exists. These entries might be regarded as the *identifying* entries.

2. *Statement of Duties.*—Here is given a brief description of the *functions* performed by the employee rather than the details of how he performs those functions. His responsibilities are described, such as those for the custody of funds, for supervision of other workers, for training subordinates, etc. A statement is made of the machines, tools, and materials used that involve some special ability or skill on the part of the worker; here, for instance, would be mentioned a drill press or a typewriter, but not a broom or time stamp.

3. *Conditions of work:*

a. Location	Factory, office, inside, outside, overhead, underground, solitary, gang, etc.
b. Time	Permanent, temporary, day, night, hours of labor, probability of overtime, peak loads, uniformity of work, etc.
c. Posture	Standing, sitting, stooping, walking, climbing, reaching, lifting, etc.
d. Speed	Quick, moderate, slow.
e. Accuracy	Coarse, fine, exacting.
f. Degree of automaticity	Varied, routine, repetitive.
g. Health hazards	Ventilation, illumination, nerve strain, eyestrain, physical strain (heavy, medium, light), moisture, heat, dust, humidity, fumes, acids, exposure to weather.

h Accident hazards

i. Disagreeable features	Dirt, noise, oil, etc.

4. *Pay:*

a. Method	Monthly, weekly, biweekly, daily, hourly, piece rates.
b. Rate	Range of pay from minimum to maximum.
c. Bonuses, premiums	Attendance, Christmas, wage, etc.
d. Penalties	For absences, tardiness, infringement of rules.

5. *Training and Promotion.*—Length of apprenticeship or of training period; training on the job or in separate department; basis and line of promotion—understudy jobs, related jobs or advanced job.

6. *Sources of supplu.*

REQUIRED QUALIFICATIONS OF THE WORKER

7. *Sex.*
8. *Race.*
9. *Nationality.*
10. *Age:* minimum, maximum.
11. *Physical qualities:* height, weight, strength, eyesight. Physical impairments permitted.
12. *Education:* common school, number of years required and desired. High school, number of years required and desired. College, number of years required, degree; business-school training; technical training.
13. *Experience:* Kinds and durations of employment.
14. *Language ability:*
 - a. English—read, write, speak.
 - b. Other languages.
15. *Merit rating (critical score):*
 - a. Appearance and manner.
 - b. Leadership.
 - c. Cooperativeness.
 - d. Initiative.
 - e. Ability in developing men.
 - f. Accuracy.
16. *Test rating (critical score):*
 - a. Mental alertness.
 - b. Extravert-introvert.
 - c. Aggressive-submissive.
 - d. Interests.
 - e. Emotional stability.
 - f. Mechanical aptitudes.
 - g. Trade skills.

In considering forms such as the above and other personnel management devices shown in this work, we repeat the caution that they must not be used without the proper research attitude. A device that may have worked perfectly in one organization may fail dismally in another because of some variable not present in the first instance.

This table suggests the content of the occupational description in the average company. It must, however, be regarded as elastic. The nature of the company and its work will have an effect upon the desirability of many of these items. It may even be possible in certain instances to omit one or more. Unless exceptional conditions prevail, however, an effective occupational description will cover adequately the points mentioned in this list.

Constructing the Occupational Descriptions.—Many concerns attempt to obtain the information for the occupational descriptions by issuing questionnaires to the workers in the various occupations **and to the executives under whose jurisdiction the occupations fall.** This

method is not usually satisfactory. It depends entirely upon: first, the willingness of the individual to furnish the data; second, upon his possession of the facts; and, third, upon his ability to present them **in** the right way. Experience has shown that the average worker, who is not cognizant of the exact purpose of the occupational description and who is unaware of the need for exactness in his information, will answer the questions without giving them the careful thought that they require. Even when certain individuals conscientiously give such a questionnaire their best effort, they are apt through ignorance of its nature and purposes to lay too much emphasis on one aspect and too little emphasis on another. The result is that such questionnaires, although they seem at first to offer the simplest and least expensive method of procuring the facts, usually yield data that are misleading and that involve such careful reanalysis and study that the expense saved in procuring them is more than lost in interpreting them.

It is generally conceded that if occupational descriptions are to be made at all they must be made well and that management must be willing to invest properly in their construction. Their importance justifies it. It is becoming recognized in greater and greater degree that the construction of an adequate occupational description for a given position necessitates a personal interview with the workers who are engaged in that work by an interviewer possessing intelligence and tact and one who is trained in the technique of securing the essential facts. Where it is possible for the personnel manager to do this himself, the practice is, of course, desirable, since he thereby comes in personal contact with the work and is enabled personally to observe its **nature** and requirements. The average personnel manager, however, is far **too** busy to do this by himself. He is consequently compelled to **train a staff of** interviewers to do it for him.

Too great emphasis cannot be laid upon the need for care in the selection of the interviewers. In the first place, each interviewer **should be** a person of general intelligence and power of analysis. He should be able to grasp the principles underlying personnel work, to **understand** the specific objective of the occupational description, and **to ask his** questions and make his observations accordingly. , He must **be able to sift** the facts **of** each occupation, setting aside those that are **unimportant and** unessential and retaining those that are pertinent to the **description** of the occupation and of the worker. He must possess **confidence in himself and** in the importance of his mission, and he must **have that kind of personality** and exercise that degree of diplomacy **and tact that will enable him to** enlist the worker's interest **in the enter-**prise, **sell the idea of the occupational** description **to him, and awaken** in him a desire to furnish a true picture of his work.

Great care must be given to the training of the interviewers. It is customary to hold "school" before the work is started. Among the textbooks for such a school should be included the governmental publications and *The Occupational Index* listed in the bibliography for this chapter. Before each interviewer proceeds to visit the workers in order to secure the desired data, he must be given a full understanding of the principles of the work in general, of the specific objectives of the occupational descriptions, and of the technique of securing the information and writing it into an occupational description.

In beginning the work, it is necessary at the outset to make some rough classification of the occupations in the organization, assigning to each occupation the workers who are apparently engaged in it. This information, if it can be called such, is usually in the possession of the payroll department. No matter how little real thought has been given to the classification of the workers, there is inevitably some tentative classification in effect that is used as the basis for wage rates. Where a conscious attempt at classification has previously been made, more reliable information will, of course, be at hand. Whether the probability of accuracy in these existing classifications is great or small, it is a good policy to assume that *what is* is right until investigation indicates those ways in which it is wrong.

Before the interviewers proceed to secure the information with respect to the various occupations in a company, it is good practice, therefore, for the personnel manager to have a list prepared of the employees in the organization classified according to the occupations so far as they are known at that time. With these listings in hand it is possible to direct the efforts of the interviewers more effectively.

The Technical Procedure.—When this list has been prepared, it is important to adopt arbitrarily a simple numerical code through which a definite symbol number is assigned to each occupation. The value of this device will become apparent on a moment's thought. The interviewers are about to make a study of something that is as yet nebulous and unknown. Preconceived ideas of the various positions are to be subjected to an unwonted strain. Management's conception of the content, of various jobs is to change radically. It is to be found in many cases that the accepted occupational titles are inadequate and in some cases, misleading. In the construction of the occupational descriptions, these titles will change as well as the knowledge of the job content. It is consequently apparent that, with occupational titles and occupational content subject to change and revision, great difficulty will be encountered in maintaining the identity of the occupation throughout its analysis and redefinition unless some unvarying, unchanging symbol is employed to mark it. This is the original purpose of the occupational code number.

The code numbers themselves, once assigned, never change. But the code itself must be capable of expansion and revision. As an interviewer

proceeds to analyze the work of a number of employees who apparently are classified alike, he may readily find that part of them are doing one kind of work, part another. In this case, the necessity for creating new classifications is apparent. These new classifications must in their turn receive identifying symbols in the numerical code.

Incidentally, the code number continues to be a valuable device even after the occupational descriptions have been completed. Eventually it serves a useful purpose in administrative work involving the use of the occupational description.

The Work Sheet.—At this point in our discussion of the procedure of getting the facts, it is necessary to describe the work sheet. This is an essential instrument for the interviewer. At one time it was regarded as good practice to prepare the occupational description as a sheet of paper bristling with boxes in which check marks were entered to indicate certain facts about the occupation; for instance: factory work; office work; high-school education required; common-school education required; sex; and nationality. This kind of occupational description is easy to make, in reality too easy, for it often leads to a superficial consideration of the facts of the occupation.

When this truth became apparent, the tendency seemed to swing in the opposite direction. Attempts were made to prepare the occupational description in essay form in which the check mark was noticeable by its absence. This form of occupational description was difficult to construct. There was a strong tendency to overlook certain facts. It was hard to use.

Modern practice favors the use of the work sheet as an instrument on which to record the facts as they are learned by the interviewer, before he proceeds to write up the occupational description in its final form.

A typical work sheet is reproduced in Figs. 26, 27, 28, and 29. When the interviewers have received their preliminary instruction in the technique of constructing an occupational description, the occupations appearing on the index (referred to on page 119) are assigned to the various interviewers according to their special qualifications and their personal interests. It is always well to assign to an interviewer those occupations in which he takes a personal interest and with respect to which he has some fundamental knowledge. The personal capacities and interests of the interviewers, therefore, must be carefully considered in making these assignments, just as these factors must be considered in making an assignment of anyone to his work. It is desirable, however, to refrain from assigning to an interviewer an occupation with which he is intimately familiar. Experience has shown that when a person proceeds to write an occupational description of his own work or of other work with which he is closely associated, he is apt to deal in minutiae and to stress the unimportant details equally with the important facts. It is true of all of us that with reference to our own work we lack perspective. In constructing occupational descriptions, perspective is essential.

When the assignments have been made, a clerk enters the names of the workers assigned to each occupation on the index on the reverse of the work sheet. See Fig. 29, page 125. A definite line of attack is now open to the

interviewer. Point is given to his effort. Here are the workers from whom he is to get the information that, when entered on pages 1, 2, and 3 of the work sheet, will enable him afterward to write up the occupational description. The work sheet, consequently, acts as a check list to ensure that all the essential

OCCUPATION <u>Auto Mechanic</u>		*Symbol <u>1622</u>
*Other titles in use <u>Auto repairman, Garage Helper</u>		
*Occurring in Sections <u>Repair Shop, Garage</u>		
*Sub-occupations <u>Auto Mechanic (?)</u>		
*Occurring in Sections <u>Electrical Shop</u>		
A	Branches	
	Units	
*Addenda		
*Statement of (a) duties, (b) responsibilities, (c) tools and equipment, (d) working conditions: (a) Does general overhauling, also has to drive and test cars. Works on all makes of cars, but particularly on Dodge and Cadillac touring cars and Buick, Standard 8 and 9. C. trucks. Also overhauls and repairs ignitions, wires, also generators. Has to repair motor and gear box then in running condition. Works under direction of foreman. (b) Responsible for condition of cars and trucks. For work day, cause loss and exchange life. (c) Has to know how to read with acetone torch, battery, gauges and valve reader. All customary garage tools. (d) In garage, occupies floor frequently, adds, especially in winter, to his feet, particularly all day. Has to crawl under cars to make heavy repairs.		

FIG. 26.—Page 1 of typical work sheet.

facts are covered in the investigation. It is not permitted, however, to usurp the place of the occupational description itself.

The arrangement of the work sheet is largely a matter of personal preference. Because the work sheet reproduced in this chapter has demonstrated its practicability, let us consider it as a typical example in our study of work sheets in general.

In section A are entered the name of the occupation and its code symbol before the work sheet is handed to the interviewer. In this section the interviewer indicates the departments and sections in which the occupation occurs as his investigations yield that information.

MINIMUM REQUIREMENTS.	
C	"Physical Requirements" "Strength." <u>St. C</u> "Weight." <u>160 lbs.</u> "Height." <u>5' 10"</u> "Eyesight." <u>Good</u> "Other qualities." <u>has hearing</u> "Reason." <u>Reasons allowed hearing necessary to diagnose motor trouble</u>
D	"Education" Post-Graduate Work _____ College _____ High School _____ Common School _____ "Degree." <u>None</u> "Subjects required." <u>None</u> "Reason." <u>Must be able to handle motor trouble</u> "Equivalents." <u>None</u>
E	"Special Training" "Subjects required." <u>None required</u> "Reason." _____ "Equivalents." _____
F	"Experience" "Nature." <u>Practical experience in garage or repair shop</u> "Reason." <u>Will shorten his learning period</u> "Equivalents." <u>Some special training or 1 year as mechanic sufficient</u>
G	"Technical Skill" "Trade." <u>None required</u> "Reason." _____ "Equivalents." _____
H	"Personal Qualities" "M." ☒ "E." ☐ "N." ☐ "F." ☒ "Age." <u>18</u> "to 55." ☐ "Race." <u>White</u> "Citizenship." _____ "Judgment." Erroneous personal danger _____ Erroneous motor safety laws _____ Erroneous safety instructions _____ "Kind and reason." <u>Must be able to handle motor trouble</u>
	"Creative Ability" Originality _____ Skill _____ Initiative _____ "Kind and reason." _____
	"Supervisory Ability" <u>None</u> "Characteristics of force." <u>Mechanical experience is essential owing to</u> <u>presence of motor adjustments</u>

FIG. 27.—Page 2 of typical work sheet.

Section B is utilized to enter the description of the position itself, specifically in terms of the duties and functions involved, the principal responsibilities that rest upon the incumbent, the tools and equipment utilized in the work that require special skill and knowledge, and, lastly, the conditions under which the work is done.

In describing the duties, it is necessary to bear in mind that what is desired is not a recapitulation of detail, but a *statement of function*. We are concerned

with the work the employees do, not with the minute hows and wherefores of the doing. Great brevity should be shunned in this statement of function; it usually leads to a sketchy and incomplete statement of the essential information required in writing up the occupational description. On the other hand, redundancy is equally to be avoided, since it usually leads to the recital of unimportant details and to difficulty in classifying and scoring. This paragraph is usually prefaced by a small *a* in the margin to tie it up with the word "duties" in the heading.

Next the interviewer enters a simple statement of the kinds of responsibility the worker is compelled to assume in his work, prefacing it with a marginal notation *b*. This provision has reference to such responsibilities as that for the custody of money, for the custody of property, for safeguarding the life and safety of others, or for the supervision and training of subordinates.

In the next paragraph, prefaced *c*, are named briefly the tools and equipment, used in the performance of the task, that require special experience and training. It is unnecessary, of course, to cite those simple implements that anyone can use, such as a hammer or hatchet. Those tools, on the other hand, that do require special skill and knowledge should unfailingly be mentioned, for they have much to do with the qualifications required in the worker; the interviewer, for instance, would make reference to such instruments and tools as typewriter or acetylene welder.

Finally, the interviewer enters, after *d*₁ a brief description of the working conditions under which the duties of the position are performed. Management is interested, for instance, in knowing whether office or factory positions prevail, whether in the former the light is bad and the office congested, and whether in the latter gases, noise, danger, etc., are present. This part of the statement should give a picture of the employee at work. It is especially important, since later, in the occupational description, it will have considerable effect upon selection and placement. We have mentioned on page 116 the kinds of working conditions that should be considered here.

The interviewer is now in a position to consider the capacities and interests required in the worker. Pages 2 and 3 (Figs. 27 and 28) of the work sheet are reserved for this purpose. On page 2 (Fig. 27), sections C, D, E, F, G, and H are for those entries that have to do with *minimum requirements*, those qualifications that the worker *must* possess in order to be considered for the position at all. On page 3 (Fig. 28), sections I, J, K, L, M, and N, are for those entries that have to do with those qualifications that it is desirable for the employees to possess *in addition* to those minimum qualifications specified on page 2 (Fig. 27). The similarity in the appearance of these two pages is obvious. They are arranged in this way in order that the interviewer may consider each factor separately (such as special training) and determine in conference with the employees and with their superiors, the degree to which each factor is essential and the degree to which it is further desirable. Under eyesight, for instance, the interviewer may indicate on page 2 (Fig. 27) that, for a certain position, perfect color sense is *required*. On page 3 (Fig. 28) he might indicate that in addition to possessing perfect color sense, it is desired for good reason that the worker be free from the necessity of wearing glasses.

In this connection, it should be emphasized that every fact entered by the interviewer on these two pages should be substantiated by a *good reason*. It is in this respect that the customary check list falls down. If perfect color sense is required, the interviewer should state the reason briefly, but adequately, in

ADDITIONAL QUALIFICATIONS DESIRED.									
I Physical qualities: <i>Should be free from tuberculosis</i> "Reason <i>Being free from tuberculosis</i>									
J Education: Post-Graduate Work _____ College _____ High School _____ Common School _____ "Additional subjects desired <i>Manual training</i> "Reason <i>H.S. education will help him assume supervisory duties</i>									
K Special Training: _____ "Additional subjects desired <i>Auto repairing, apprenticeship as machinist</i> "Reason <i>He will be expected to make a few years of practical experience in garage or repair shop</i>									
L Experience: _____ "Nature _____ "Reason <i>Two years experience with same work is desirable</i>									
M Technical Skills: _____ "Trade <i>Auto mechanic</i> "Reason <i>Will shorten training period</i>									
N Personal Qualities: _____ "Age <i>18 to 40 years</i> "Citizenship _____ "Judgment _____ "Kind and reliable _____									
O Creative Ability: _____ "Kind and reliable _____ "Other qualities _____									

FIG. 28.—Page 3 of typical work sheet.

the space provided for it. There are two purposes for ascertaining and giving the reason in each case: in the first place, it ensures that the requirement stated is a genuine, not a fictitious one; it is so easy when fatigued or when working under pressure to accept a statement as fact when, actually, it has not been substantiated. In the second place, the statement of reason clarifies the meaning of the requirement itself. If we know, for instance, that perfect color

vision is needed to match yarns rather than to recognize railway signals, a special significance is given to the entry.

In section D, the interviewer indicates by a check mark on the top line the amount of schooling the worker must have had to qualify for the position. On

O

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

P

NAME	Sec. Br. and Unit	Job Description	Age	Service	On Work	Rating	Salary
1. J. B. Smith	Garage	None	26	2 yrs.	5 mos.	C	\$26
2. J. A. Walton	Garage	Ignition	27	1 1/2 yrs.	1 yr.	D	\$26
3. G. R. Black	Garage	None	22	1 yr.	1 yr.	D	\$20
4. J. D. Smith	Repair Shop	None	24	2 yrs.	2 yrs.	A	\$32
5. M. E. Doherty	Garage	Tire Rep.	27	5 yrs.	3 yrs.	C	\$28
6. J. L. Green	Garage	None	25	3 yrs.	5 mos.	B	\$22
7. K. L. Head	Repair Shop	None	18	1 yr.	1 mo.	D	\$16
8. A. R. Lytle	Garage	None	25	4 yrs.	2 mos.	A	\$28
9. P. K. Brown	Garage	None	29	2 mos.	2 mos.	-	\$22
10. L. O. Stone	Garage	None	24	4 yrs.	1 yr.	B	\$27
11. J. B. Higgins	Garage	None	33	2 yrs.	6 yrs.	B	\$26
12. S. P. Tracy	Garage	None	42	2 yrs.	1 yr.	C	\$27
13. H. L. Walker	Repair Shop	Tire Rep.	34	7 yrs.	5 yrs.	C	\$22
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FIG. 29.—Page 4 of typical work sheet.

the top line in section J, he enters another check to indicate the education that it is desirable for the worker to have had, over and above that specified by the check mark in D. Provision is also made for entries showing the collegiate degree, if any, the worker should have won and the subjects in which he should have specialized. The reasons such degrees and subjects are **required** and **desired** are given, as indicated above, **in the space provided for them.**

In similar manner, the interviewer records under E and K the years of special training the worker should have had, the subjects he should have studied, and the reasons for such special training. In F and L, the extent and kind of experience will be shown and, in G and M, the special or technical skill that is required and desired in the occupation.

In H and N, the interviewer indicates those personal qualities and characteristics that are important in the work. S M E has reference to his marital status—single, married, or either. M F E has reference to sex—male, female, or either. Age, race, and citizenship are self-explanatory. Along the appropriate lines, he enters checks indicative of judgment, creative ability, and supervisory ability, and, in the spaces at the bottom of the page, the interviewer describes such other personal qualities as are important in the work.

All this information the interviewer obtains by personal conference with the workers on the job and with their superiors. It is proper here to enter a word of warning. Everyone has the *natural tendency to overemphasize unessential characteristics of his duties and sometimes to lay undue stress upon their importance*. This is seldom done consciously. It is the result of such intimate knowledge of the details of the work and such familiarity with all its ramifications that a true sense of proportion has been lost. This tendency on the part of the persons to distort the information they give about their occupations creates the necessity for great care on the part of the interviewer to use his own judgment in sorting and evaluating the facts given him by the employee. The interviewer must appraise such facts in the light of his broader knowledge of the nature of the work in other positions in the organization.

Wherever possible, it is desirable for the interviewer to talk with all the workers in each occupation. At times, it is not imperative that he do so. Some occupations, such as common labor, are so standardized that interviews with relatively few of the employees in a group will yield sufficient information to prepare the occupational description for the group as a whole.

Writing the Occupational Description.—When the interviewer has completed the *work sheet*, he proceeds with the preparation of the *occupational description* itself. Like the work sheet, the form of the occupational description is largely a matter of personal preference. Figure 30, reproduced on page 127, has demonstrated its effectiveness in use, however, and we shall consequently make it the basis of our discussion.

The interviewer has now returned from the office or shop where he has secured the needed information and made the proper notations on his work sheet. He is now prepared to write the occupational description. Accordingly, at the top, opposite the word "occupation," he enters the correct occupational title. In selecting this title, he uses the nomenclature already in effect if it is properly descriptive of the nature of the position. It is always well to adopt the titles in use, if possible. The members of the organization have naturally become familiar with such titles, and their continuance involves no change in habit of thought on their part. If, in a given case, however, the title in use is not descriptive, the interviewer selects from the *Dictionary of Occupational Titles* a new title that is truly descriptive of the nature of the position,

making sure that it does not conflict with any title already in use and that it is uniform and harmonious with other occupational titles.

In the upper right-hand corner, he enters the symbol number.

Immediately under the name of the occupation, he enters those departments and units in which the occupation occurs.

Prepared by Harrison Date August 10, 1940

		<u>Occupation</u>		<u>AUTO</u>	<u>MECHANIC</u>			
		Occurring in:	I	SECTION	I	RANCHBS	I	UMTS
MYHIMUM		<u>RROUMkMYTS</u>	Maintenance	0aigae	Repeir	I		
D	C	E	D	F	B	E		I
tne automobiles and trucks used toy this company are kept la condition In the Garage Branch of the Maintenance Section. Under direction, the auto mechanic overhauls, repairs sad operates such standard machines as the "Dodge" and "Cadillac touring oars and "Mack", "Standard B" and "O.M.C." motor trucks. Us tests, overhauls and repairs motors, generators and ignition units. He does acetylene voiding and uses such tools as lathe, reamer and valve reader. 7.45 a.m. to 11.3o a.m. 11.30 a.m. to 12.15 p.m. Lunch j Monday to Friday 12.15 p.m. to 4.30 p.m.) 7.45 a.m. to 11.45 a.m. Saturday Minium Qualification The Auto Mechanic must have graduated from common school and is addition, he must have had three years practical experience in a garage or automotive machine shop as repairman. In liou of en year of practical experience, six months special training in auto-repairing or one year as machinist apprentice will be accepted. Man, to 50 years of age. Additional Qualification Desired. The auto Meohanio should be physically strong, capable of occasional heavy lifting. He should have good eyesight in order to do olose work and make fine adjustments, although glasses are permitted. Keen hearing is also desired in order to enable him to test motors toy sound. Accuracy is important in this work as errors may cause delay and impair work Worting Conditions Garage with concrete floor, the worker is on his feet about half the time. Much of his time he is in a crouching or prone position inoident to repairs underneath the cars, the Auto Meohanio is outdoors part of the time, especially when testing machines on the road. Principal Lir Of Promotion Prompt truck Driver 190, Chauffer 169. Mechanic's Helper 062. Tot Oaarge Superintendent 193, Engine Mechanlo 192.								

Approved by T.C. Davidson Ch. of Sec. Pat. Bureau Ch. of Dr. T.H. Shaul Dir. of Pers.

FIG. 30.—Face of typical occupational description sheet.

The word "duties" is then entered in the margin. It is advisable here to enter in a sentence or so a brief statement of the purposes and functions of the department as a whole to serve as a preface in order to give the specific description of the occupation its proper setting. After this introduction, the inter viewer proceeds to a complete, concise statement of the functions of the position based upon his rough record of duties on the work sheet but freed from

the redundancy and errors in expression that are natural in such a statement prepared on the job at the moment of getting the information.

Early in this statement he uses a phrase indicating the amount of supervision the position requires. The following phrases, in italics, are found valuable in the achievement of this purpose:

Immediate Supervision.—The degree of supervision that an apprentice, a clerk learning office routine, or a copyist draftsman receives. It is not expected that the employee will use much initiative, and this faculty is watched until the supervisor is sure it is being used in the right direction. Immediate supervision involves close watch over all the specific details in the work—what duties are performed, how they are performed, step by step.

Supervision.—The degree of supervision that a new clerk would receive after the first uncertainty is over, and the supervisor feels that the clerk is "catching on." Supervision does not involve so close a watch over *specific* details, but general phases of the work are controlled by constant reference to the supervisor for advice and decision.

General Supervision.—The degree of supervision flowing from foreman to journeyman. The worker here begins to assume his share of responsibility. He is supposed to know the mechanics of his job and exercise that knowledge without advice or spur. The means of performing a given task is usually left entirely to the worker.

Direction.—The degree of supervision exercised over a trained worker by his administrative chief or section head. A definite objective is set, and the worker is left to go ahead, in conformity with policies with which he has no recommendatory connection. It is expected that there will be need for frequent conference both as to the general phases of the work and specific details.

General Direction.—The degree of supervision exercised over a section head by his administrative chief. The latter expects a finished product without appreciable reference even as to general plans of the work and with practically no reference as to the specific details of how the work is to be accomplished.

General Administrative Direction.—The degree of supervision exercised over a trained technical man by his administrative head. General administrative direction lays emphasis on the fact that the technical features of the work are practically all in the hands of the worker. It is illustrated by the direction the president of a manufacturing corporation might exercise over the chief engineer.

It is advantageous to use the simple declarative sentence in stating the duties of the position—"Under *general supervision*, the sheet-metal worker constructs by machine or hand the sheet-metal parts used in building construction, water tanks, etc. He works from sketches and blueprints and uses such tools as square shears, brake and beading machine, etc." This is found to be clearer and more direct than infinitive or participial phrases or abbreviations; these usually are clear to the author, but confusing to others.

It is also found advantageous to express the duties *in general terms* wherever possible in order to lend elasticity to the occupational description and to specify definite duties of a detailed nature under illustrative phrases using expressions such as: "He may carry on research work in special problems, such as, effect of combined bending and compression, studies of eccentric movements," etc.

Qualifications Required and Qualifications Desired.—Next the interviewer enters "hours" in the margin and opposite it the hours of work, daily and Saturday. Here also he specifies the vacation allowed.

Then he enters "minimum qualifications" in the margin, and opposite it he describes the qualifications the employee *must* possess to be considered for the position at all; these are shown on page 2 (Fig. 27) of his work sheet. First, *education* is defined and, second, *experience*. Then, if equivalents are permitted; if, for instance, additional experience will be accepted in lieu of a certain amount of education, the appropriate changes are made.

When education and experience have been properly specified, the interviewer proceeds in the next paragraph to define those other qualities of a personal nature that are required in the position—such qualities as intelligence, accuracy, and physical qualities. These are also shown on page 2 (Fig. 27) of the work sheet. Where such a quality exists in negligible degree, it is good practice to make no mention of it whatever. The information in the occupational description should be positive only, not negative. Usually sex and age are entered last under minimum qualifications.

Additional Qualifications Desired.—We consider here those qualifications that it is desirable for the worker to possess over and above those that he must possess to be considered for the position at all. Here the word *must* gives way to the word *should*. This, of course, is taken from entries on page 3 (Fig. 28) of the work sheet.

After *working conditions*, the interviewer enters a brief description of the conditions under which the duties of the occupation are performed, especially those that are unusual or objectionable.

Lastly, he enters the names of those lower positions that seem to lead up to the position that is being described and the names of those higher positions to which it in turn seems to lead. This usually calls for analytical thinking and for the study of the occupational descriptions for allied positions.

When this point has been reached, the interviewer has the *occupational description* properly typed and then submits it personally for the consideration of the foreman or executive in charge of the job. This is an excellent policy. The foreman may frequently discover inaccuracies in the original compilation of facts. It also serves to enlist the executive's active interest in the enterprise in a degree that would not be realized if he were given no opportunity to look over the finished draft and to criticize it.

Where good suggestions are made, they are, of course, embodied in the final draft of the occupational description. Here again, however, the interviewer uses his judgment, since he is frequently made the recipient of gratuitous and irrelevant suggestions and comments characterized chiefly by misplaced emphasis.

Figure 31 illustrates a simple method of keeping track of the progress being made throughout the plant or department during the period of initial development of the occupational descriptions.

Evaluating the Factors Affecting Compensation.—At this point the occupational description is nearing completion. The attention of the reader, how-

*

ever, is directed to the box at the top of the occupational description entitled *minimum requirements*. This is broken down into eight compartments, each

SYMBOL	OCCUPATIONAL DESCRIPTION	B First craft made	C Ret. by Stem.	D Ret. by Interv.	E Ready for Furn.	F Ret. from Furn.	G Horn. a ready for C.S.	H OK'd by C.S. by A.S.	I OK'd by A.S.	
001	Laborer	X	X	X	X	X	X	X	X	
002	Helper, Milling	X	X	X	X	X	X	X	X	
003	Laboratory Aid	X	X	X	X	X	X	X	X	
004	Lead, Milling	X	X	X	X	X	X	X	X	
005	Lead, Smelter	X	X	X	X	X	X	X	X	
006	Machine Tenders	X	X	X	X	X	X	X	X	
007	Machinists	X	X	X	X	X	X	X	X	
008	Assistant Furn.	X	X	X	X	X	X	X	X	
009	Technical Services	X	X	X	X	X	X	X	X	
010	Technical Services	X	X	X	X	X	X	X	X	
011	Technical Services	X	X	X	X	X	X	X	X	
012	Technical Services	X	X	X	X	X	X	X	X	
013	Technical Services	X	X	X	X	X	X	X	X	
014	Technical Services	X	X	X	X	X	X	X	X	
015	Technical Services	X	X	X	X	X	X	X	X	
016	Technical Services	X	X	X	X	X	X	X	X	
017	Technical Services	X	X	X	X	X	X	X	X	
018	Technical Services	X	X	X	X	X	X	X	X	
019	Technical Services	X	X	X	X	X	X	X	X	
020	Technical Services	X	X	X	X	X	X	X	X	
021	Technical Services	X	X	X	X	X	X	X	X	
022	Technical Services	X	X	X	X	X	X	X	X	
023	Technical Services	X	X	X	X	X	X	X	X	
024	Technical Services	X	X	X	X	X	X	X	X	
025	Technical Services	X	X	X	X	X	X	X	X	
026	Technical Services	X	X	X	X	X	X	X	X	
027	Technical Services	X	X	X	X	X	X	X	X	
028	Technical Services	X	X	X	X	X	X	X	X	
029	Technical Services	X	X	X	X	X	X	X	X	
030	Technical Services	X	X	X	X	X	X	X	X	
031	Technical Services	X	X	X	X	X	X	X	X	
032	Technical Services	X	X	X	X	X	X	X	X	
033	Technical Services	X	X	X	X	X	X	X	X	
034	Technical Services	X	X	X	X	X	X	X	X	
035	Technical Services	X	X	X	X	X	X	X	X	
036	Technical Services	X	X	X	X	X	X	X	X	
037	Technical Services	X	X	X	X	X	X	X	X	
038	Technical Services	X	X	X	X	X	X	X	X	
039	Technical Services	X	X	X	X	X	X	X	X	
040	Technical Services	X	X	X	X	X	X	X	X	
041	Technical Services	X	X	X	X	X	X	X	X	
042	Technical Services	X	X	X	X	X	X	X	X	
043	Technical Services	X	X	X	X	X	X	X	X	
044	Technical Services	X	X	X	X	X	X	X	X	
045	Technical Services	X	X	X	X	X	X	X	X	
046	Technical Services	X	X	X	X	X	X	X	X	
047	Technical Services	X	X	X	X	X	X	X	X	
048	Technical Services	X	X	X	X	X	X	X	X	
049	Technical Services	X	X	X	X	X	X	X	X	
050	Technical Services	X	X	X	X	X	X	X	X	
051	Technical Services	X	X	X	X	X	X	X	X	
052	Technical Services	X	X	X	X	X	X	X	X	
053	Technical Services	X	X	X	X	X	X	X	X	
054	Technical Services	X	X	X	X	X	X	X	X	
055	Technical Services	X	X	X	X	X	X	X	X	
056	Technical Services	X	X	X	X	X	X	X	X	
057	Technical Services	X	X	X	X	X	X	X	X	
058	Technical Services	X	X	X	X	X	X	X	X	
059	Technical Services	X	X	X	X	X	X	X	X	
060	Technical Services	X	X	X	X	X	X	X	X	
061	Technical Services	X	X	X	X	X	X	X	X	
062	Technical Services	X	X	X	X	X	X	X	X	
063	Technical Services	X	X	X	X	X	X	X	X	
064	Technical Services	X	X	X	X	X	X	X	X	
065	Technical Services	X	X	X	X	X	X	X	X	
066	Technical Services	X	X	X	X	X	X	X	X	
067	Technical Services	X	X	X	X	X	X	X	X	
068	Technical Services	X	X	X	X	X	X	X	X	
069	Technical Services	X	X	X	X	X	X	X	X	
070	Technical Services	X	X	X	X	X	X	X	X	
071	Technical Services	X	X	X	X	X	X	X	X	
072	Technical Services	X	X	X	X	X	X	X	X	
073	Technical Services	X	X	X	X	X	X	X	X	
074	Technical Services	X	X	X	X	X	X	X	X	
075	Technical Services	X	X	X	X	X	X	X	X	
076	Technical Services	X	X	X	X	X	X	X	X	
077	Technical Services	X	X	X	X	X	X	X	X	
078	Technical Services	X	X	X	X	X	X	X	X	
079	Technical Services	X	X	X	X	X	X	X	X	
080	Technical Services	X	X	X	X	X	X	X	X	
081	Technical Services	X	X	X	X	X	X	X	X	
082	Technical Services	X	X	X	X	X	X	X	X	
083	Technical Services	X	X	X	X	X	X	X	X	
084	Technical Services	X	X	X	X	X	X	X	X	
085	Technical Services	X	X	X	X	X	X	X	X	
086	Technical Services	X	X	X	X	X	X	X	X	
087	Technical Services	X	X	X	X	X	X	X	X	
088	Technical Services	X	X	X	X	X	X	X	X	
089	Technical Services	X	X	X	X	X	X	X	X	
090	Technical Services	X	X	X	X	X	X	X	X	
091	Technical Services	X	X	X	X	X	X	X	X	
092	Technical Services	X	X	X	X	X	X	X	X	
093	Technical Services	X	X	X	X	X	X	X	X	
094	Technical Services	X	X	X	X	X	X	X	X	
095	Technical Services	X	X	X	X	X	X	X	X	
096	Technical Services	X	X	X	X	X	X	X	X	
097	Technical Services	X	X	X	X	X	X	X	X	
098	Technical Services	X	X	X	X	X	X	X	X	
099	Technical Services	X	X	X	X	X	X	X	X	
100	Technical Services	X	X	X	X	X	X	X	X	

FIG. 31.—Typical progress chart used for coordinating investigational efforts in the original preparation of the occupational descriptions.

of which is intended for an entry indicating the degree to which a factor important in establishing proper rates of compensation exists in the work.

For purposes of concise statement and easy evaluation, a code is usually adopted to indicate the degree to which these factors exist in each occupation. The letter A is used to indicate that it exists in maximum degree. The letter F is used to indicate that it exists in minimum degree. Specifically, these letters are interpreted in case of each factor according to a table adapted to the needs of one company. Figure 32 is a reproduction of the first and the sixth items of such a table.

It is customary, when the occupational description has thus been brought to completion, to have several copies made and to have them filed in numerical order according to the *occupational code*.

The Office Procedure.—We must not forget, however, that the personnel situation within any organization is changing—always changing. The classifications established by these occupational descriptions and the names of employees classified under each are presumably correct at the moment. Changes, however, are constantly taking place. Transfers and promotions are being made. Employees are being released; others are being hired. It is therefore necessary to establish a procedure whereby every transfer, every promotion, every new employee engaged, and every release is made known to

the custodian, whoever it may be, of the occupational descriptions and of the lists of employees within each occupation, sometimes known as the *occupational census*.

It is desirable for several copies of each occupational description to be prepared. Of course, the personnel department requires at least one complete set. In addition, each department head should have a copy of the occupational description for every position that exists in his department.

EDUCATION

- A. Graduation from college.
- B. Graduation from high school.
- C. 2 years high school.
- D. Graduation from common school.
- E. 6 years common school.
- F. None.

PHYSICAL QUALITIES

- A. Superlative—*e.g.*, great strength (continuous heavy lifting), exceptional eyesight (draftsman, instrument maker).
- B. Superior—*e.g.*, unusual strength (occasional heavy lifting), good eyesight (machinist).
- C. Better than average—*e.g.*, better than average strength (carpenter, plumber), better than average eyesight (typist, mimeograph operator, fabric worker).
- D. Below average—*e.g.*, average strength not needed (watchman, messenger, engineer)—average vision not needed (doper, dry-kiln operator, fire fighter).
- E. Slight—*e.g.*, little strength required (office worker, watchmaker, draftsman), poor vision acceptable (janitor, laborer).

FIG. 32.—Code used for concise statement and rough evaluation.

There is nothing arbitrary in the procedure that has thus been outlined. The size, nature, and complexity of each organization will determine the exact procedure to be followed in preparing occupational descriptions for the positions in that organization. The foregoing, however, is a statement of a procedure found to be effective. It undoubtedly contains the elements that exist in every program for the construction of occupational descriptions and may be regarded as a typical plan of action.

The use of the occupational description in selection, in acquainting the new employee with the nature of his work, in establishing a common language between the personnel department and the operating departments, and in wage control, will be discussed in future chapters.

CHAPTER XII

TRANSFER, PROMOTION, AND DISCHARGE THE PROMOTIONAL CHART

No matter how carefully selections of applicants are made, not all will prove satisfactory. No matter how thorough supervision may be, misfits between the worker and the job will develop. Any one of these misfits may be due to a lack of balance between capacities, interest, and opportunity. The individual may lack the essential capacities; the job may lack sufficient opportunity; or the job may not sustain the interest of the individual.

Transfer.—Under any of the above conditions, it is to the interest of both management and worker that a transfer be made.

The following situations would seem to indicate the desirability of a transfer:

The applicant expressed great interest in the job to which he was assigned. It now develops that he was mistaken, for he has no interest in that type of work.

The worker has advanced as far as possible on the present job and is capable of succeeding at a better job.

Reduction of work in the department makes necessary the reduction of workers. Another department is employing help. One of the workers who faces a layoff could fill the vacancy.

Many workers are doing good work but lack the experience that would prepare them for better positions. Experience in various other jobs of the company might provide that experience.

It is of course true that no company can comply with all requests for transfer. However, the wise administration of transfers is recognized to be of such major importance that some companies have placed all transfers under the control of one executive or office with power to prescribe the conditions under which requests for transfers will be favorably regarded. Under such auspices, transfers may become an important part of the total training program of the company.

Reasons for Making Promotion.—In order that the worker in his work may develop systematically his capacities, interests, and opportunities, it is recommended above that transfers be administered systematically. Transfers are important but not sufficient to meet the

needs for harmonious development of the worker in his work. Because of the effect on employees, promotions are much more important than transfers.

Specifically, the following reasons for promoting employees have recently been mentioned by experienced business executives:

Promotion is the stepping up of an employee to a position in which he can render greater service to the company.

Promotions from within the company are not so apt to be mistakes as are selections from without.

The knowledge that deserved promotions are being made increases the interest of other employees in the company and the desire to serve the interests of the company.

Such knowledge causes other employees to hope that their turns will come next, and so they remain with the company and reduce the labor turnover.

It creates a feeling of content with the present conditions and reduces radicalism more effectively than espionage or coercion.

It increases interest in training and in self-development as necessary preparation for promotion.

The Seniority Promotion Plan.—The seniority promotion plan is as old as civilization itself. The oldest son succeeded his father as chief, king, emperor, lord of the estate, and inheritor of the wealth and the power of his father. Seniority provided certainty and dependability. It reduced rivalry and struggle. Historically, the seniority method of promotion must be regarded as a success.

It is still regarded highly in America by our Army and Navy, our labor unions, our Civil Service, and by our commercial and industrial institutions.

Nevertheless, in this modern world, seniority is quite inadequate as a universal promotional system. It survives merely because no better system has been developed that has won public confidence.

The Three-position Promotion Plan.—In May, 1916, Frank B. Gilbreth and his wife Lillian published a report of their interesting three-position promotion plan in the *Annals of the American Academy of Political and Social Sciences*. This plan has great influence in present-day thinking even though it is not generally used in its original form. A single paragraph from that report presents a fair conception of the plan.

The Three Position Plan of Promotion considers each man as occupying three positions in the organization, and considers these three positions as constantly changing in an upward spiral. . . . The three positions are as follows: First, and lowest, the position that the man has last occupied in the organization; second, the position that the man is occupying at present in the

organization; third, the highest, the position that the man will next occupy. In the first position the worker occupies the place of the teacher, this position being at the same time occupied by two other men, that is, by the worker doing the work, who receives little or no instruction in the duties of that position except in an emergency, and by the worker below who is learning the work. In the second position the worker is actually in charge of the work, and is constantly also the teacher of the man next below him, who will next occupy the position. He is also, in emergencies, a learner of the duties of his present position from the man above him. In the third position the worker occupies the place of the learner, and is being constantly instructed by the man in the duties of the position immediately above.

The Understudy System of Promotion.—In a stable organization, each promotion from within creates a new vacancy. Accordingly, it would seem wise to postpone every promotion until another employee has been selected and trained to fill the anticipated vacancy. The accomplishment of this result is facilitated by the understudy system. This system is particularly effective in filling vacancies that occur in executive and supervisory positions. However, it may be extended to include practically every position—high and low. This system places on each person the responsibility (with or without the cooperation of others) for selecting and training the best available employee for his successor. When this system is applied to executives, each executive selects an assistant who becomes his understudy. This understudy acts for his superior on assigned tasks. He may substitute for him in case of absence or sickness. He has reason to hope that he will succeed his superior as soon as he is qualified.

The Merit Promotional Plan.—Any one of the three promotional plans discussed above increases the probability that promotions will be based on merit. However, each plan fails to utilize many of the most important means for selecting and preparing the individual for promotion. Personnel management has progressed so far in the study of jobs and of people that the time has come when certain firms are justified in claiming that they are actually promoting on *merit*.

Construction and Development of the Promotional Chart.—The study of people embraces not only present ability but also aptitude for future development. The study of jobs embraces not only the skills required but the relationship of each job to all other jobs of the organization. These relationships are very much involved and differ greatly from company to company. Chapter XI tells how the occupational description for each position shows, in addition to other data, the promotional opportunities opening before the worker. This information is essentially useful in revealing *from* what occupations

workers can be promoted to certain positions most logically and to what occupations they can most logically be promoted from certain positions. These promotional lines take no notice of the other lines of advancement that may be open to an individual through special ability or study on his part. In this sense, of course, any higher position is a logical line of advancement for a person in any lower position. Consequently we should consider in tracing the promotional opportunities for any position only those higher occupations that in a vital sense *utilize experience gained in that position*.

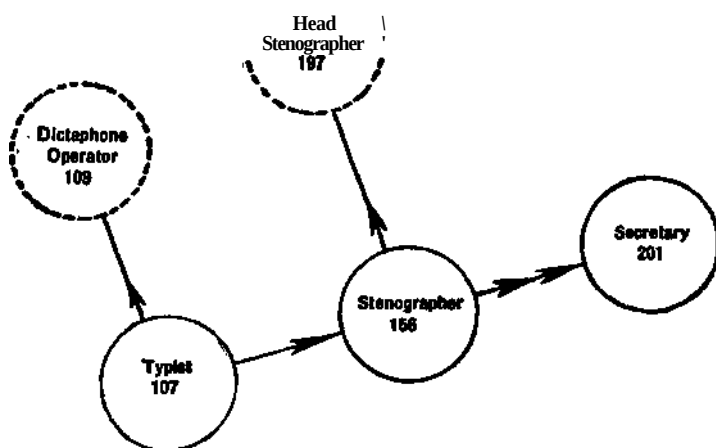


FIG. 33.—Chart showing the reciprocal relation of occupational descriptions.

Now, for various purposes of personnel management, it is desirable to reveal these normal lines of advancement in such a way that the whole promotional situation within an organization is capable of visualization at a glance. The need for such a bird's-eye view of the promotional opportunities within an organization is apparent when we consider that a clear-cut promotional policy is recognized as an essential part of any effective personnel control, because, as we have emphasized, employees are not ordinarily satisfied with the vague statement that higher positions are filled from within the organization and that "there is always room at the top for a good man." In the first place, they realize that such talk is frequently "bunk"—to use their own phraseology. They think, and in many cases think rightly, that this is merely a happy phrase rather than a going policy. They suspect (at times with keener discernment than they are conscious of) that management, although it sincerely desires to make such a promotion-from-within-policy a matter of actual practice, frequently lacks

the methods and technique of doing so. And so they demand evidence of a definite promotional policy and of management's ability to make it operative.

In carrying out such a policy, there is a primary need for the occupational description and for the qualification cards, as we have already pointed out. There is need furthermore for a promotional chart of the kind we have described that will trace the avenues of advancement up through the organization in such a way that every employee may see the opportunities open before him and, with the occupational description, inform himself of the experience or special training he should acquire in order to advance up those attractive avenues.

The Rough Draft.—The construction of the promotional chart can best be made at the time the occupational descriptions are being prepared. It has been found excellent procedure to utilize a large sheet of paper—the size naturally depends upon the organization—spread upon a table or tacked to a wall. Along one of the sides of this large sheet of paper are entered rough occupational group titles such as clerical, mechanical, engineering, technical, labor, etc., that serve thus to divide the sheet into "areas." Since the various occupations are to be entered on this sheet, in the manner to be described, it is apparent that the purpose of these areas is to bring together in the same parts of the sheet those occupations that have a family resemblance and between which there is consequently greater probability of promotional relationship.

As each occupational description is completed, the individual charged with the construction of the promotional chart enters a free-hand circle an inch or two in diameter in the appropriate area and writes in it the name and code number of the occupation. If the occupation is obviously of lesser importance, the circle is drawn near the bottom of the chart. If it is a high-and-mighty occupation, the circle is drawn near the top. Middle-class occupations are shown by circles in between. As an illustration, the occupation file clerk would be indicated by a circle in that area headed by the word "clerical" and near the lower edge of the sheet. The occupation secretary, on the other hand, would appear on the same area but nearer the head of the chart.

Let us assume by way of illustration that the occupational description for stenographer has been completed and has been referred to the person in charge of the promotional chart. This person draws a circle at the proper place in the clerical area and writes in it the code number of the occupation and the title stenographer. The occupation stenographer then is represented on the chart.

The next step is that of drawing phantom circles below and above the real circle for stenographer for the occupations named in that occupational description as those *from* which persons can best be drawn for the occupation of stenographer and those *to* which persons experienced in the occupation of stenographer can most logically advance. Let us assume, therefore that the occupational description for Stenographer 156 indicates that persons occupy-

ing the position of Typist 107 should be considered when vacancies in the position of Stenographer 156 occur. A phantom circle is then drawn in the proper area but below that representing Stenographer 156, and in that phantom circle is entered 107 and the term "typist." A line is drawn connecting that phantom circle Typist 107 with the real circle Stenographer 156 (see Fig. 33).

Similarly, let us assume that occupational description for Stenographer 156 indicates that it leads to the position of Secretary 201. A phantom circle is consequently entered in the proper area for secretary nearer the top of the chart than that of Stenographer 156, and a line is drawn connecting it with the real circle Stenographer 156. On each of these two lines, immediately adjacent to the circle Stenographer 156, is drawn an arrowhead pointing in the direction of advancement. This arrowhead is a device adopted to show that the occupational description for Stenographer 156 indicates that the avenue of promotion is from Typist 107 and to Secretary 201. The purpose of these arrowheads will become apparent in a moment.

Now, as fast as the occupational descriptions are completed, they are entered thus on the rough chart by real circles similar to that already drawn for Stenographer 156. The positions bearing a promotional relationship to them are similarly indicated by phantom circles. Of course, where a phantom circle already exists for such a position, the connecting line is drawn from or to that phantom circle that is already drawn; in this case a second phantom circle is, of course, avoided.

Making the Occupational Descriptions Reciprocal.—When a phantom circle already exists on the chart for a position for which the occupational description has now been completed and which naturally is to be shown on the chart by a real circle, the phantom circle is then blocked into a real circle, the lines of connection drawn, and the arrowheads entered.

The purpose of the arrowheads now becomes clear. If two real circles are connected by a line that has but one arrowhead, attention is called to a lack of reciprocity between the two occupational descriptions. The occupational description for Stenographer 156, for instance, indicates that the logical line of promotion is from Typist 107, but the occupational description for Typist 107, does not return the compliment. At this point, a section of the rough chart might appear as illustrated in Fig. 33.

Here it is apparent that the occupational descriptions for Typist 107, Stenographer 156, and Secretary 201 have been completed. The occupational description for Secretary 201 states that the line of promotion is from Stenographer 156 as revealed by the arrow on the connecting line immediately adjacent to the circle for Secretary 201. Conversely, it is apparent that the occupational description for Stenographer 156 indicates that it leads to Secretary 201 as revealed by the arrow on the same line immediately adjacent to the circle for Stenographer 156.

There is also a line connecting Stenographer 156 with Typist 107. This bears but one arrow, that immediately adjacent to the circle for Stenographer 156. As implied above, this indicates that the occupational description for

Stenographer 156 states that the line of promotion is from Typist 107. The absence of a second arrow, however, immediately adjacent to the circle for Typist 107, indicates that the occupational description for that position does not state that it leads to Stenographer 156. Here is a lack of reciprocity between these two occupational descriptions. The interviewer then studies these two positions anew to ascertain if this promotional relationship really exists and, if it does, to enter Stenographer 156 on the occupational description for Typist 107 in order to indicate that advancement logically takes place to that higher position.

The phantom circle for Dictaphone Operator 109 indicates that the occupational description for that position has not yet been completed. It is shown in this form, however, because the occupational description for Typist 107 names that position as one to which the position of Typist 107 leads. Notice the single arrow on that line immediately adjacent to occupation for Typist 107.

Need for Special Study of Promotional Possibilities.—It is unreasonable, of course, to expect the interviewer preparing the occupational description for a position to visualize at that time all the promotional opportunities inherent in the position. It is quite natural that he should overlook such possibilities. The compilation of these avenues of advancement is a problem calling for a careful analysis of the occupational descriptions for all positions that bear the slightest resemblance. The avenues of promotion, as entered on the rough copy of the promotional chart from the occupational descriptions, should be regarded only as the basis for more analytical study of the organization. Consequently, the person assigned to the construction of the promotional chart should be selected for his power of analysis, his ability to trace relationships, his personal knowledge of the work through the organization, and his interest in research. It is under his direction that the interviewers who have prepared occupational descriptions for positions that are not thus reciprocal will confer, secure additional facts as needed, and reach a decision as to whether in each instance the avenue of advancement actually exists. Not infrequently it is necessary to pay return visits to the department and to consult with the executives and employees in order to obtain the true facts.

When all the occupational descriptions have been completed and when the corresponding circles have been entered on the rough draft of the promotional chart, the result is usually something of amazing intricacy. Positions that at the outset seemed to have no generic relationship whatever and that consequently were entered in the first place in entirely different parts of the chart will be tied together by connecting lines. The "areas" serve to make most of these connecting lines as short and direct as possible, but in all probability the chart will

be obscured by long sinuous lines beginning with one circle and weaving their way in and out until they finally reach the other circle.

Making Final Draft.—The chart is now ready for the draftsman. It is his responsibility, with the cooperation of the author of the chart, to restore order out of chaos. In doing so, it has been found good practice to cut small cards, each representing a circle on the rough draft, and to arrange and rearrange them on the surface of a table until the minimum of complexity has been attained. The draftsman is then in a position to make this arrangement permanent and to draw in the connecting lines. The promotional chart for one organization prepared according to this technique is illustrated in Fig. 34.¹

Broadly speaking, the chart serves two purposes, first to indicate those positions that bear a promotional relationship to each other and, second, to indicate those positions that seem to enjoy no promotional opportunities at all. It is true that in most concerns there will be blind-alley jobs. It is also true that in certain instances it is unavoidable

¹ The following is quoted from explanatory preface that originally contained the chart reduced as Fig. 34:

"This chart shows the lines of advancement from the lowest positions in the organization up through the intermediate grades to the higher positions. It permits a bird's-eye view of the information which is entered individually by Occupation on the Occupational Descriptions. It shows the positions which seem to offer unusual opportunity to get ahead. It shows those positions, advancement from which seems improbable, except, of course, through a study and self-preparation of a kind and degree over and beyond that yielded in the performance of the duties of the position. Naturally no consideration has been given in these statements of the lines of promotion to those channels which may be open to an employee by virtue of special preparation or unusual ability. In such a sense any position . . . is a logical promotion for any employee.

"But the use of the chart in the Employment Department is only a part of its function. As stated above, it should be made a source of constant incentive to the employees . . . in revealing to them the avenues of advancement opening ahead of them which they may expect to travel *provided they make good on their own jobs and show evidence of initiative and ability.*

"Obviously there is a close tie-up between the prosecution of such a promotional policy as we outline here and the successful maintenance of a group of understudies qualified to step into the positions of their superiors should it become necessary to replace such superiors.

"As stated, this chart shows a number of positions which seem rich in opportunities for advancement, others which are not so well endowed and others which offer no opportunities for advancement whatever. The latter are the positions which first call for study and analysis. In industrial practice it has been found possible to resolve these 'blind-alley jobs' into jobs leading to other and better jobs by careful planning. While such industrial practice may not be a sure criterion for such an organization as . . . it is our belief that similar study and analysis of these positions will make it possible to break down the walls which now **apparently** prevent the incumbents in these positions from advancing."

able that they exist. It is nonetheless true, however, that careful organization study will frequently open up avenues of advancement for many such blind-alley jobs. Here is an opportunity for a constructive investigation on the part of the personnel department. Every position indicated as having no promotional opportunities ahead should be made the subject of careful analysis. If such opportunities are capable of development, they should be so developed. If such promotional opportunities are incapable of development, that fact should be definitely established.

Promotional Chart for Individual Employees.—After preparing the promotional chart for the entire organization, as shown in Fig. 34, management then possesses a definite technique for carrying out a promotion-from-within policy. To make this policy operative, each employee should have evidence of the possibilities ahead of him from the particular job he holds at the present time. It is illogical to expect employees of every type to discern any promotional opportunities for themselves from a chart, such as Fig. 34. However, unless employees, even the ones doing only common or unskilled labor, can see for themselves the steps of advancement before them, a promotional technique falls short of its primary purpose.

By following a similar technique to that of preparing a chart for the entire organization, a more simple chart can be prepared for individual employees, indicating to them the steps of promotion from their present jobs. The chart shown in Fig. 35 is a typical example of one that has been used for this purpose. This particular chart is issued for a roll boy, one of the least skilled positions in a paper manufacturing concern. It shows distinctly how an employee beginning as a roll boy can rise from that job through the different steps to the possible responsible position of machine tender. It also shows the minimum and maximum rates paid on each job to which he may be promoted. Another similar chart can be prepared for an employee beginning as beater helper trucker, showing all the steps of promotion leading to the well-paid and skilled position of beater engineer, and so on. Similar charts can be issued for each type of job and promotional line within the company. It is true that such charts do not show "cross-over" promotions, but these can be explained from the master chart in individual instances. The main purpose of presenting promotional opportunities to individual employees is to show them that promotion is possible, rather than to suggest that only one line of promotion is open. The average employee is not thinking so much in terms of the precise steps he must follow to make progress, but he is vitally interested in the fact that progress is possible.

PROMOTIONAL POSSIBILITIES

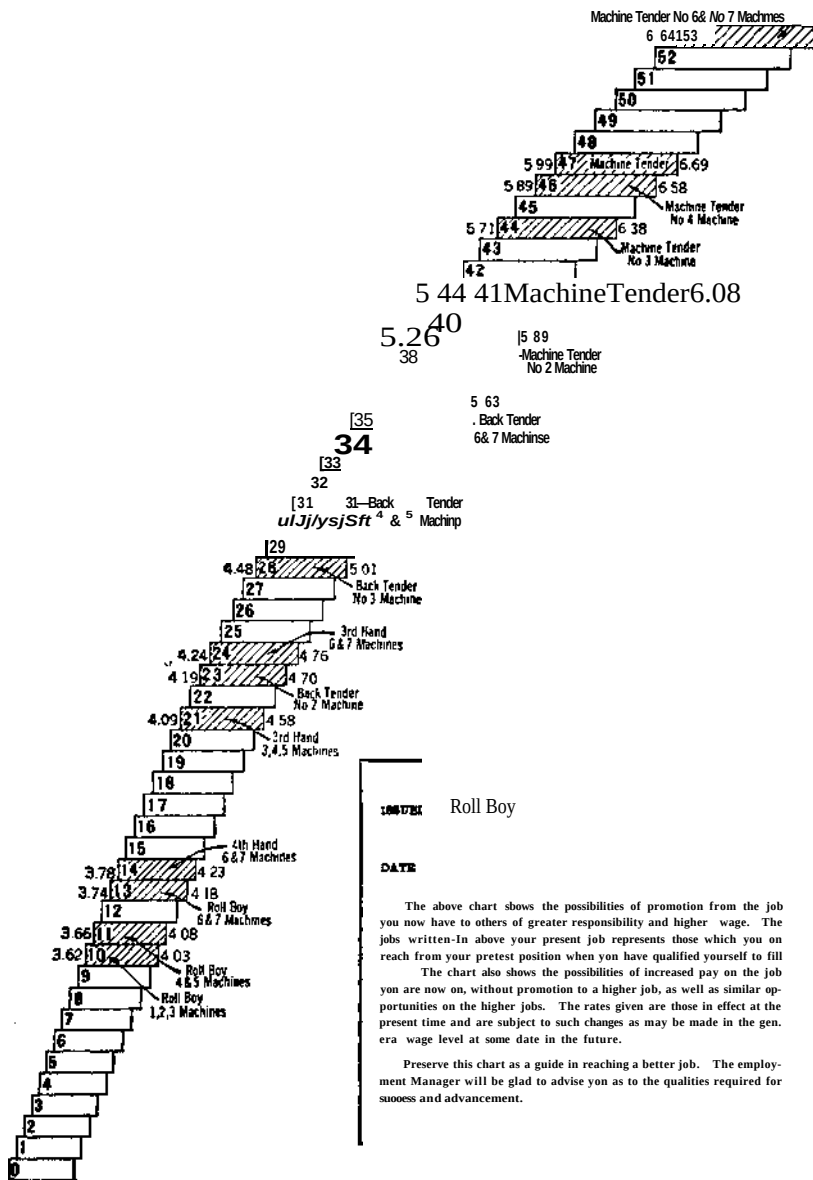


FIG. 35.—Promotional chart for individual employees.

Through the use of such a technique, an employee is able to see the promotional opportunities ahead of him, and, if he is at all interested or ambitious, he will strive to develop the qualities necessary to be promoted from one step to another. The use of the promotional chart as an instrument for creating incentive will be discussed in a later chapter.

Later chapters provide further data that should prove to be of assistance in the more complete development of an adequate merit promotional plan.

DISCHARGE

Some years ago a "successful" sales manager made the remark that he was planning to add 10 members to his sales force. When asked how he would do it, he replied that he would hire 100 and fire 90 of them. He hired by the once-over method, provided no training, and very little supervision. He never suspected that he was using a method that was justified only in the jungle and not in modern business; *i.e.*, the struggle for existence and the survival of the fittest. Fortunately, the "hire-and-fire" procedure is rapidly disappearing. Nevertheless, discharges are still necessary and will presumably always be so.

Security of Employment.—The era of unemployment that began in 1930 has greatly increased the desire of workers to obtain security of employment. Even opportunity for increase in income and promotion to higher positions of responsibility are regarded as of less importance than security.

In response to this demand of labor for security of employment, Federal and state laws have been passed that restrict the right of employers to discharge employees in certain instances. Labor unions take group action against certain types of dismissals. Civil Service regulations greatly increase the security of all Civil Service employees. Many types of employers have formulated rules and regulations for satisfying the demands of employees for increased security of employment.

Statistics dealing with labor turnover indicate that discharges are becoming infrequent and administered primarily in the interest of the general welfare.

Discharges rarely result from a single impulsive act or from an act that might not have been anticipated by associates and superiors. Discharges do usually result from antisocial traits or habits that are characteristic of the offending person. The following data are sub-

mitted as illustrations of the close connection between discharges and unfortunate habits or traits:

A U. S. Department of Labor survey of labor turnover among bakers reports that most discharges were administered for inefficiency, dishonesty, drunkenness, carelessness, or indifference. Infrequent causes of discharges reported were for accidents, insubordination, personal conduct, uncleanliness, infraction of rules, fomenting of discord, destructive negligence, wastefulness, and physical unfitness.

A survey of the causes of discharge of office and clerical workers reports that most of the discharges were due to character traits. A few were reported as due to each of the following: carelessness, lack of cooperation, laziness, absences (not caused by illness), dishonesty, lack of specific skills preventing promotion.

Who Has Power to Discharge?—Historically, the foreman or the department head had the right to hire and to fire the workers. He has been unwilling to relinquish this right, but in most companies he has been compelled to do so. In some companies, he retains the right to discharge a new worker during his probationary period and to exclude a regular worker from the department but not to discharge him from the company.

A common procedure today is for the foreman or department head to recommend a discharge but the execution of the order is transferred to the personnel director or to some other official or to two or more of the officials of the company. A representative of the workers may call for a review of the case, and, unless the discharge is unmistakably just, the worker may be reinstated.

To demonstrate that the discharge was justified and was not due to unfair discrimination or to the personal prejudice of the foreman, the availability for presentation of such evidence as the following is most convincing:

Permanent records of all merit ratings made by the foreman. Such records are especially convincing if there are ratings of the trait that resulted in the discharge.

Permanent records of ratings of the defendant's traits made by others than the foreman.

A memorandum of the attempts made by the foreman to help the defendant to overcome this weakness.

A copy of any warning that had been sent him, or a memorandum of any conference in which he had been warned.

The letter of discharge, especially if the letter states the cause of the discharge.

CHAPTER XIII

TRADITIONAL METHODS OF JUDGING MEN

Every employment office is frequented by would-be employees who are obviously not qualified. Omitting all reference to these definitely disqualified persons, the statement might be made that, of the first 100 applicants who enter an employment office, most of them might be regarded by the employment manager as potentially worthwhile employees.

Individual Differences.—In the physical stature of these 100 men there may be no striking differences. The tallest man is not twice the height of the shortest. The heaviest man is seldom three times as heavy as the lightest.

Not only in stature, but also in their anatomical structure, in their physiological functions, and in their sense perceptions, these 100 men are all much alike, and they are in each of these particulars much like their primeval ancestors.

By a process of slow evolution, the human race has acquired new capacities, and in the possession of these newer, distinctly human capacities, individuals differ enormously. In muscular strength, skill, and endurance and in the keenness of perception by the "seven senses," the 100 applicants referred to are fairly much alike. If these were all employed and all assigned to a job so simple that it could have been performed by their distant primitive ancestors, then most of those employed would probably be able to earn a wage not less than one-half that of the best. If these men had all been hired and all assigned to work requiring a high degree of judgment, initiative, and tact, most of them would have failed completely, and, of those who survived, the poorest, after 10 years of experience, would probably not be worth to his company one one-hundredth as much as the best.

Important Individual Differences Not Easily Judged.—In height, weight, physical strength, and keenness of perception, there are individual differences, but they are usually relatively unimportant and are easily determined. In the higher human capacities that are essential for success in all important jobs in modern industry, individual differences are great, and these desirable capacities and undesirable weaknesses cannot be readily appraised by traditional methods.

The relative difficulty and expense of selecting employees for simple and for difficult jobs is illustrated by the following hypothetical instances:

1. The employment manager was directed to select, from the 100 candidates, that one who would most successfully fill a new, simple, routine position—a position that required no capacities except those possessed by our primitive ancestors.

The employment manager gave each of the applicants a customary once-over but had no verified information concerning their past experience, since it was a new position and none of the applicants had succeeded or failed on such a job. However, with a feeling of certainty, he made his recommendation. This recommended applicant was tried and failed and was dismissed. In lost time of management and in wasted material, the wrong recommendation cost the company a minimum of \$10. The second candidate succeeded. In fact, any one of 50 of the applicants would have succeeded.

2. The employment manager was directed to recommend from the 100 candidates that one who would most successfully fill a new but difficult and important position—a position that required capacities that have been developed since the days of our primitive ancestors.

The once-over and the interview did not reveal conclusive evidence as to the degree to which the various candidates possessed, in the highest degree, some of those capacities that were essential for success in the new position. Following traditional methods, the employment manager made his recommendation. We may assume that out of the 100 applicants not more than 5 could succeed, and that, if the employment manager was a good judge of men, he would have one chance in ten of selecting one of the five who might succeed. With so much depending on chance, it might be assumed that his first four recommendations resulted in failures. The cost of each failure would, certainly be \$100—possibly several hundred dollars.

The total advantage to the company in having the first recommendation successful rather than the fifth, in the promptness of filling a strategic position, in time saved by the management for training and supervising, in the saving of material—all these advantages might amount not to a few hundred dollars but to several thousand dollars.

Of executives who bear the responsibility for selecting salesmen, many take great pride in their ability as "pickers." Furthermore, they welcome an opportunity to demonstrate their skill.

Inability to Judge Men Demonstrated.—Arrangements were made for 13 industrial executives of major rank, each of whom prided himself on his ability in choosing men, from as many different companies,

[illegible]

In the experiment the results of which are shown in Table 2, six district managers of one company were called together and instructed to select the best men from 36 individuals and to rank them in order of superiority. These managers' standards were identical; their industrial environment was also the same. Each of them admitted he was a good judge of men, yet the inconsistencies were shocking.

Excellent agreement was reached on applicant IV, but applicant I, on the other hand, was ranked all the way from 1.5 [tied for first place] to 11; applicant V was ranked from 3 to 28; applicant XIII from 3 to 23, etc. If any one of these managers judged these 36 applicants well, then 5 of them judged poorly. Yet all were "good judges of men."

Similar "tryouts" have been carried on with different companies and with different types of employers. In all these group "tryouts," similar results have been secured:

There is not likely to be close agreement among judges as to who is the best applicant.

There is frequently fairly close agreement as to the bottom two or three candidates.

No judge, who depends merely upon the traditional once-over and the interview, is a good "picker."

Inexperienced judges are frequently not much poorer than experienced judges.

The difficulty and the importance of selecting the right person for every important position has been recognized for centuries, but before the recent advancements of science, men had turned to all sorts of weird and "infallible" methods for judging the capacities of men for important positions.

Practices for Judging Men in Industry.—Here are some of the practices that have been believed in and followed by successful executives for selection in industry. No man believes in very many of them, but many men believe in some. Astrology, chance as manifested in drawing of straws, casting of lots or the nipping of a coin, chiromancy, character analysis, divination, fortunetelling, graphology, horoscopes, intuition, magic, mediums, mind reading, omens, occultism, oracles, palmistry, phrenology, physiognomy, premonitions, sorcery, racial superiority, and subconscious "hunches"—each has its devotees.

There are many people who have never depended on an "infallible" system, yet have had their judgment warped by an unfortunate the coefficient of correlation, a figure ranging from — 1.00 (complete disagreement) to +1.00 (complete agreement). See Edward L. Thorndike, *The Theory of Mental and Social Measurements*, for a discussion of correlation.

prejudice or by a deduction from a single, or a few peculiarly fortunate or unfortunate experiences. Otherwise how could any wise man or

TABLE 2.—COMBINED REPORT OF 6 DISTRICT MANAGERS AS TO ABILITY OF 36 APPLICANTS FOR SALES POSITIONS

Applicants	Managers					
	A	B	C	D	E	F
I	5.0	11.0	2.0	1.5	3.0	2.0
II	8.5	11.0	12.0	3.0	7.5	5.5
III	6.5	18.5	25.0	21.0	15.0	22.0
IV	2.0	2.0	1.0	1.5	1.0	5.5
V	15.0	3.0	4.0	28.0	3.0	14.5
VI	1.0	11.0	5.0	9.0	15.0	3.0
VII	17.5	18.5	19.0	12.0	23.0	26.0
VIII	14.0	18.5	27.0	6.0	15.0	23.0
IX	28.0	11.0	22.0	11.0	3.0	9.0
X	19.0	11.0	16.0	18.0	15.0	10.5
XI	10.5	23.0	18.0	17.0	30.0	4.0
XII	12.0	30.0	22.0	35.0	30.0	14.5
XIII	3.0	23.0	12.0	5.0	15.0	19.0
XIV	4.0	11.0	6.0	24.0	23.0	18.0
XV	31.0	5.0	8.0	4.0	7.5	25.0
XVI	6.5	1.0	7.0	7.0	7.5	7.0
XVII	28.0	30.0	3.0	29.0	23.0	8.0
XVIII	23.5	4.0	9.5	32.5	23.0	1.0
XIX	16.0	6.0	20.0	26.5	34.5	10.5
XX	8.5	11.0	15.0	14.5	30.0	21.0
XXI	21.5	11.0	17.0	8.0	23.0	17.0
XXII	13.0	30.0	30.0	30.0	30.0	24.0
XXIII	35.0	11.0	14.0	25.0	15.0	16.0
XXIV	26.5	16.0	9.5	23.0	23.0	27.0
XXV	34.0	23.0	26.0	14.5	7.5	13.0
XXVI	30.0	23.0	11.0	10.0	15.0	12.0
XXVII	21.5	34.0	34.0	16.0	30.0	32.0
XXVIII	10.5	30.0	23.0	19.0	7.5	28.5
XIX	25.0	18.5	21.0	20.0	15.0	20.0
XXX	28.0	23.0	29.0	34.0	7.5	28.5
XXXI	23.5	30.0	33.0	13.0	30.0	30.0
XXXII	17.5	30.0	31.0	22.0	23.0	31.0
XXXIII	33.0	34.5	36.0	32.5	15.0	33.0
XXXIV	32.0	26.0	28.0	26.5	34.5	36.0
XXV	26.5	30.0	24.0	31.0	36.0	34.0
XXXVI	36.0	36.0	35.0	36.0	30.0	35.0

woman ever believe that all Japanese are cruel; that all Danes are honest; that all foreigners are ignorant; that it is unwise to employ

any college man; that only college men should be considered as prospects for positions of leadership; that redheaded men are temperamental; that character can be judged from a photograph; that all boys raised in affluence lack ambition; that all boys raised in poverty are industrious; that all Germans are domineering; that no man should be employed who does not conform to the current local fashion in his beard, hair, clothing, and manners of speech; that the average of all the individuals of "my" particular race is definitely superior to the best of any other race; or that all persons with low foreheads are dull and have criminal tendencies?

Sufficient evidence has been cited to prove that the ordinary and traditional methods for judging men for important positions are inadequate. This evidence does not indicate that better methods do not exist.

CHAPTER XIV

EARLY SCIENTIFIC EXPERIMENTS IN JUDGING MEN

Industry Sought Help in Judging Men.—From 1910 to 1917, several employers called upon the psychologists in the near-by universities and requested help in overcoming the difficulties experienced by employers in judging candidates who could succeed in diversified types of employment.

Requests came to Prof. Mtinsterberg of Harvard for assistance in selecting motormen for streetcars, officers for steamships, and switchboard operators for a telephone company.

Requests came to Profs. Cattell and Thorndike at Columbia for assistance in selecting students who might succeed in carrying the work in different grades and types of educational institutions and departments.

Requests came to Prof. Bingham at Carnegie Institute of Technology for assistance in selecting salesmen for a department store; also requests for assistance in selecting employees for a bank, an automobile manufacturer, a rubber manufacturer, a food company, an electric-equipment manufacturer, and a producer and distributor of drugs and pharmaceuticals.

Requests came to a professor of psychology at Northwestern for assistance in selecting traveling salesmen for a tobacco company; technicians for a machine-manufacturing company; operators and minor executives for a silk-manufacturing company; skilled operators and minor executives for a company manufacturing clothes.

A city manager requested Prof. Terman of Leland Stanford to assist in selection of policemen for a city in California.

(During these years, only one such request is reported as coming from educational institutions and none from the Army, the Navy, or any Federal agency.)

Each of these six professors of psychology mentioned had for a decade or more been interested in devising and administering tests for individual differences. They welcomed the opportunity to adjust and **to try out** these tests to practical ends.

In each of the instances cited, the results were sufficiently successful to awaken great interest in vocational testing on the part of many-psychologists and of quite as many business executives.

The Army Sought Help in Judging Men.—From 1917 to 1919 (from the beginning of the World War to the completion of the demobilization) the psychologists and employment managers of America were pressed into the service of the Army. These students of human behavior were first asked to prepare mental-alertness tests to discover recruits possessed of sufficient intelligence to acquire new skills quickly; second, to prepare mental-alertness tests to discover recruits possessed of such inferior intelligence that their presence was a menace to the Army; third, to devise methods for selecting candidates for commissions in the Army to displace hit-and-miss methods and political influence. Before any one personnel problem was completely solved, additional assignments were discovered to be urgent.

In every assignment, the psychologists supplemented the work of (1) Army officers, and (2) of businessmen who had had wide experience as employment managers or as executives having to do with personnel in business.

In actual practice, the chief task of this group was not to report on the intelligence of recruits or on the qualifications of prospective officers but to assist in locating qualified men for officers and for privates in each of the vocations of the Army.

Every combat division required 64 mechanical draftsmen, 63 electricians, 142 linemen, 10 cable splicers, 156 radio operators, 29 switchboard operators, 163 telegraphers, 360 telephone repairmen, 52 leather and canvas workers, 78 surveyors, 40 transmitters, 62 topographers, 132 auto mechanics, 128 machinists, 167 mechanics, 67 blacksmiths, 151 carpenters, 691 chauffeurs (auto and truck), 128 tractor operators, and 122 truckmasters. Each division had to have these 20 types of specialists and men from 68 other trades among its enlisted personnel.

In addition to these 88 classes of specialists required by each combat division, the needs of the other Army organizations raised the list of occupations common to the Army and to civil life to 565. This does not include the skills of destruction and defense that can be acquired only in the Army.

The draft did not bring to the camps sufficient skilled recruits to supply the necessary numbers of men for each of the 565 specified occupations. However, no Army unit could be sent to France until its requisition for personnel had been filled. This necessity led (1) to a careful, personal analysis of each soldier, (2) to a recruiting pro-

gram outside the enlisted personnel, (3) to intensive training programs to increase the number of qualified personnel, and (4) to an assignment based on the talent of the soldier and the need of the Army.

The traditional Army methods of judging and assigning men were wholly unscientific and based largely on a doctor's examination, trial and error, and the recommendation of interested parties.

The group (psychologists, Army officers, and employment managers) entrusted with the responsibility for classifying the 3,000,000 soldiers used new personnel tools and new personnel methods. The results were fairly successful, and were regarded by the highest officers of the Army as most valuable.

Under the date of Oct. 22, 1918, the Adjutant General of the U. S. Army addressed a letter to the Adjutant General of the American Expeditionary Forces in which he spoke of this personnel group of psychologists, army officers, and businessmen and stated that this group "has the satisfaction of seeing divisions and other units organized along scientific lines with every man placed where he can be of the most service to his country."

The Secretary of War and the officers of the Army were convinced that scientific methods were essential in quickly and effectively classifying, selecting, transferring, and promoting men in the U. S. Army.

By 1919, 3,000,000 men had returned from the Army to civilian life. While in the Army, most of them had taken some form of psychological tests. Of all those who attained a high rating in these tests, over 200,000 were selected as officers and many others were assigned to positions of responsibility and prestige.

Magazines and daily and weekly newspapers heralded the marvels of these tests. No wonder that throughout America psychological tests became regarded as a new form of magic.

From 1919 to 1933, the scientific testing program having to do with personnel management went through a period of consolidation.

Scientific Procedures May Be Abused.—In this period (1919-1933) psychological tests were, in the business world, given widely and recklessly. All too often they were given by persons who were not qualified to administer them, to interpret the results, or to draw valid conclusions based on these results. Tests so used could be nothing more than a fad that rapidly lost interest.

In a few business houses, psychological tests were not regarded as a form of magic but as a desirable aid that required attention and study, and sometimes a psychologist was employed as a consultant to assist in a testing program. If the psychologist was the right man, if

he gave much time to this work, and if conditions were favorable, the results were satisfactory.

Instances accumulated in which poor employees secured higher ratings than did successful employees. Soon the report spread that psychological tests were not dependable. During the years of the depression of the early thirties, economies in administration were sought everywhere and in particular in new departments and in new activities. Many of the firms that toyed with "personnel" and with "psychological" tests after 1919 discontinued the practice before 1933. Tests as a form of magic proved unsuccessful, but tests as a practical application of science increased in favor even during the years from 1919 to 1933.

In 1931, 1932, and 1933, studies were made as to the use of psychological tests in certain industries in a cross section of the business world. The reports indicated that such tests were used in from only 4 to 8 per cent of the organizations studied.

Educational Institutions Turn to Science in Judging Prospective Students.—In this period (1919-1933), educational institutions made their greatest progress in the use of psychological tests.

The first "wide use of psychological tests in an educational institution" was made by Prof. Cattell of Columbia, when in 1896 he applied "physical and mental measurements" to 100 freshmen. From that date to 1919 there was a gradual development of interest in psychological tests as an aid in educational and vocational selection and in educational and vocational guidance. However, the development of this interest in psychological tests was so slow that after 23 years (1896-1919) there had been developed but a beginning of a selection or guidance program that included psychological tests. Even these beginnings were discernible in but few educational institutions.

In the 14 years from 1919 to 1933, psychological tests as an essential part of a selection and guidance program were perfected and extended to most of the better institutions of higher learning in America and also to many of the more progressive secondary schools.

This great progress was made possible (1) because there were in the universities for the first time many psychologists who were students of psychological tests; (2) because the interest was increased and extended through the activities of scientific societies and through the publications of scientific books and journals; and (3) because in many institutions a new position was created that embraced the functions of utilizing the findings of psychological tests. The occupant of this position was often known as "personal director."

These psychological tests as used in educational institutions include tests for general intelligence in addition to tests for such specific interests, aptitudes, and capacities as musical ability, mathematical ability, language ability, special motor abilities, etc.

Those who were familiar with the results of psychological tests in educational institutions came, by 1933, to regard such tests as a necessity in any selection or guidance program. By 1941, testing programs had become standard practice in educational institutions.

CHAPTER XV

MEASURING APTITUDES TO UNDERSTAND AND TO USE IDEAS

MENTAL-ALERTNESS TESTS

Chapter XIII has indicated the hazard of depending upon native wit or on business experience in estimating aptitudes that are essential to success in business. Chapter XIV discussed the beginnings of scientific procedures in judging people in industry, in the Army, and in educational institutions. Appendix B will present a brief sketch of some of the important cooperative, scientific programs that are being carried out in attempts to increase the accuracy of the measurement of human aptitudes for business.

In this chapter, the term "tests" will be used to include all psychological tests that are spoken of by their authors as intelligence tests, mental-ability tests, mental-aptitude tests, or mental-alertness tests.

Many thousands of so-called psychological tests have been devised. Annually many new standardized psychological tests have been constructed for national distribution. Many of them have been used extensively and with success. The successful tests may, according to E. L. Thorndike, be classified, with some overlapping according to their functions, into three groups :

Tests Classified.

1. Tests to measure the ability to understand and to use *ideas* (and symbols of ideas).

2. Tests to measure the ability to understand and to operate *things* and mechanisms.

3. Tests to measure the ability to understand and to manage *men*:

- la.* These ideas, together with the symbols of the ideas referred to above, include: the material out of which are made all abstract and general thinking; all chemical formulas, legal decisions, and scientific principles; all the higher forms of thinking that differentiate the human from the animal; all plans, programs, values, and logical thinking such as similar and dissimilar, profit and loss, cause and effect, and right and wrong. The ability to understand and to manage ideas and their symbols is spoken of as common sense, verbal intelligence, ingenuity, practicability, and educability (elaborated in this chapter).

2a. The ability to understand and to manage things and mechanisms includes: the motor control essential for skilled handwork; the mechanical imagination essential for the creating or for using complicated blueprints; coordination of hand and eye essential for running a machine whether it be a typewriter, a printing press, a bicycle or an airplane (elaborated in Chap. XVI).

TEST A	
Get the answers to these questions as quickly as you can. Then write the answer after the question.	
Use the side of the page to figure on if you need to.	
If you cannot get the answer to a question, pass on to the next one.	
1. How many are 10 apples and 5 apples?	Answer_____
2. If you drive 6 miles an hour for 2 hours, how far do you drive?	Answer_____
3. If 24 men are divided* into 6 equal gangs, how many men will be in each gang	Answer_____
4. Jim had \$15 in the bank and drew out 57. How much did he have left	Answer_____
5. If you save \$10 mon!li for 3 months, how much will you save?	Answer_____
6. How many are 8 men and 9 men and 8 men?	Answer_____
7. How much will you have to pay for 3 one-cent postage stamps and 3 two-cent postage stamps?	Answer_____
6. How many pencils can you buy for 60 cents at the rate of 2 for 5 cents?	Answer_____
9. If you buy 3 packages of tobacco at 9 cents each and a pipe for 50 cents, how much change will you get back from \$5.00?	Answer_____
10. If it is 75 miles from Dayton to Columbus and the railroad fare is 3 cents a mile, how much will it cost you to make two round trips?	Answer_____
11. If your board cost \$4 a week, your room \$2.50, you save \$3.25 and your weekly wages are \$21, how much do you have left each week for other things?	Answer_____
12. If the inside dimensions of a box are 10 feet by 5 feet 6 inches by 3 feet, how many cubic feet will it hold?	Answer_____
13. How long could you keep 4 electric lights going on the amount of current required to keep 3 simlllar lights going 2 hours?	Answer_____
14. If 4 three-ton trucks require 3 trips apiece to remove a pile of scrap, how many similar trucks making only one trip each would be required to remove haif the pile?	Answer_____J
15. If 144 cubic feet of water arc drawn from a tank 12 feet long and 6 feet wide, how much is the surface of the water in the tank lowered?	Answer_____J
16. An atroplane flew 3 miles in 72 seconds. How many miles'an hour is that?	Answer_____
17. How many hours is it from 8 A. M. May 27 to 10 P. M. July 3? May has 31 days and June has 30.	Answer_____

FIG. 36.—First page of mental-alertness test. (Test A—time limit 4 minutes.)

3a. The ability to understand and to manage men includes: much that is ordinarily called tact and diplomacy; an enticing and inspiring personality, interest in people and eagerness to serve them; and insight into motives and ability to appeal to the sympathies and dominating motives in others (elaborated in Chap. XVII).

In this chapter, we desire to give the reader an understanding of the nature and the use of some of the mental-alertness tests that are being used in business at the present time. One such test, known as Series I, is distributed by C. H. Stoelting and Co. of Chicago and has been used extensively.

TEST B

After each word in heavy type there are four words. Underline the one of these four words that is exactly opposite in meaning to the word in heavy type.

Samples 1 and 2 are done correctly.

Sample 1. Light—(sun, dark, day, weight).

Sample 2. Cry—(laugh, play, baby, sad).

Begin with number one and work as fast as you can. If you are not sure, guess.

1. High—(tall, low, sky, deep).
2. Out—(empty, up, in, go).
3. Summer—(spring, winter, hot, swim).
4. White—(black, clean, dress, cotton).
5. Slow—(freight, clumsy, fly, fast).
6. Yes—(agree, no, sure, must).
7. North—(cold, east, hot, south).
8. Above—(sky, hole, below, high).
9. Top—(bottom, sides, box, spin).
10. Good—(bad, rough, boy, nice).
11. Wet—(damp, rain, dry, sand).
12. Up—(high, down, town, stairs).
13. Rich—(gold, man, starve, poor).
14. Front—(back, yard, door, side).
15. Long—(far, short, close, thin).
16. Hot—(fire, ice, cold, stove).
17. East—(north, sun, west, right).
18. Day—(light, hour, dark, night).
19. Big—(large, little, giant, full).
20. Love—(hate, girl, grief, enemy).
21. Buy—(price, sell, hat, cheap).
22. Boy—(school, bad, play, girl).
23. Soft—(hard, brittle, smooth, rubber).
24. Weak—(day, sick, big, strong).
25. First—(foremost, second, last, prize).

FIG. 37.—Page 2 of mental-alertness test. (Test B—time limit 1 minute.)

The actual nature of any mental-alertness test is most easily comprehended by taking the test. Readers who have not previously taken Series I should do so now. To take the test you will need to have an assistant who will note the amount of time allowed for each section of the test and who will direct you to pass on to the next **part** of the test when the allotted time has expired. Series I is reproduced

as Figs. 36 to 41. If you want to obtain a fair rating, you should not read this test in advance. You should not even turn over these pages until your assistant is ready to direct you. He will need to have a

TEST C				
I	In each of the lines in this test the first two words fit each other in a definite way. You are to draw a line under the one word in heavy type that fits the third word in just the same way that the second word fits the first. Look at Sample 1.			
1	SAMPLE 1. boy is to man at kitten is to (cat, dog, rat, girt).			
	The word cat is underlined because a cat is a grown up kitten just as a man is a grown up boy. Look at Sample 2			
	SAMPLE 2. eye is to tee at ear it to (song, hear, blue, bright).			
I	The word hear is underlined because hear fits ear just as see fits eye. We hear with our ears and we see with our eyes.			
	Begin with number 1 and work as fast as you can without making mistakes.			
	1. eat	isto bread	drink	isto(water, thirsty, swallow, taste) a
I	2. man	is tome	a. bird	it to (fly, nest, tree, tings) 2
	3. feathers	it to bird	at fur	isto(soft warm, bear, brown) 3
I	4. shoe	is to foot	at hat	isto(coat, slraw, head, tun) 4
	5. door	is to house	at gate	is tongs, hinges, yard, latch) 5
	6. wash	is to face	at sweep	it to (floor, broom, straw, clean) 6
	7. cold	is to ice	at heat	is to(wet,cold, bot,hre) 7
I	8. penny	isto copper	at dime	it to(uarter, silver, spend, penny) 8
	9. food	is to man	fuel	it to (burn, coal, engine, wood) 9
	10. sit	is to chair	at sleep	is to(rest,wake,snore,bed) 10
	11. swet	is to suger	at sour	is to (unplcasant,bitter,taste,lemon) 11
	12. summer	isto spring	autumn	it to (spring, winter, summer, fall) 12
	13. swim	is to water	at fly	it to (air, bird, kite, arrow) 13
	14. egg	is to bird	at acorn	it to (grow, fall, oak, hard) 14
	15. love	is to friend	at hate	is to (dlsike, enemy, slster, admire) 15
	16. minute	it to second	hour	is to(day,second, mlnute,watch) 16
	17. automobile	is to wagon	motorcycle	it to (ride, speed, bicycle, car) 17
	18. pan	is to tin	at table	is to (chalr, wood,legs,dishes) 18
	19. skin	is to boby	bark	it to (tree, dog, bite, noise) 19
I	20. Tuesday	is to Monday	at Friday	isto (weck,thursday,luck,saturday) 20
	21. ma.	is to arm	tree	to (shrub, limb, roots, bark) 21
	22. father	is to son	mother	it to (aunt nephew, daughter, sister) 22
	23. shoestring	is to shoe	at button	to (coat, bone, bell, hook) 23
	24. fin	is to fish	» wing	to (fly,air,bird,sail) 24
	21. above	is to below	at top	to (spin.bottom,surface.side) 25

FIG. 38.—Page 3 of mental-alertness test. (Test C—time limit 1½minutes.)

watch with a second hand, and he will need to be very careful to call time exactly as indicated under the test on each page.

Take the Test.—Your final score is the sum of the following:

1 point for each correct answer in Test A; Possible score 17.

½point for. each correct answer in Test B; Possible score 12½

1 point for each correct answer in Test C; Possible score 25.

1 point for each correct answer in Test D; Possible score 14.

1 point for each correct answer in Test E; Possible score 20.

1 point for each correct answer in Test F; Possible score 12.

A score of $100\frac{1}{2}$ is possible, but no one has ever closely approximated such a score.

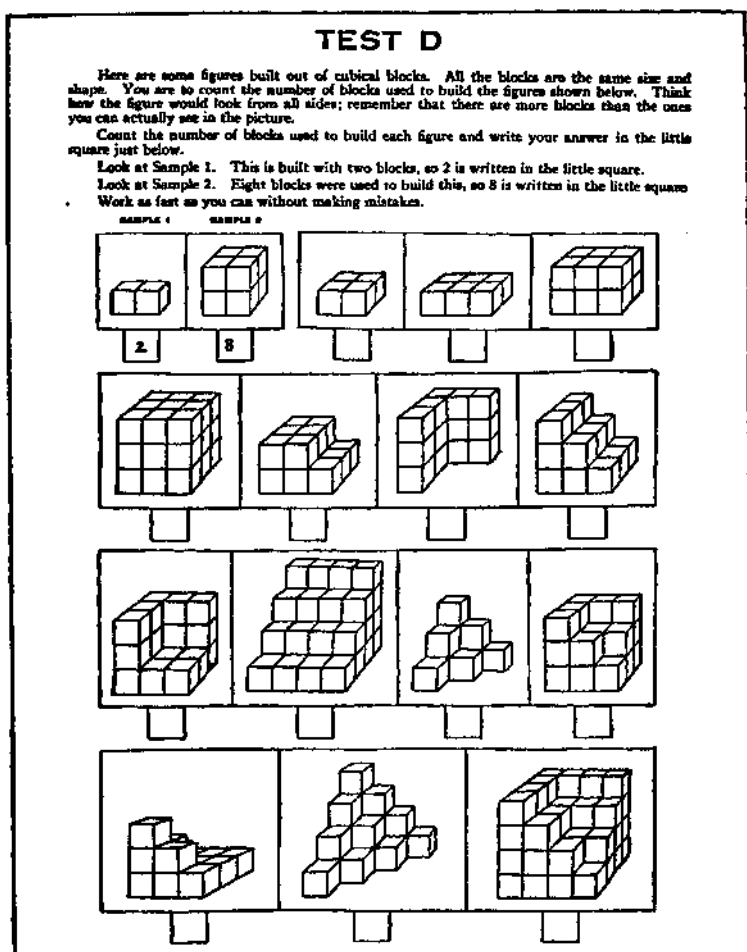


FIG. 39.—Page 4 of mental-alertness test. (Test D—time limit 2 minutes.)

What Was Your Score?—A score of 25 was the average score of the group of girls employed by a department store to assist in the holiday rush. A score of 54 was the average score of a group of sales executives. The average score for engineers was 57. The readers of this book will make scores more like the sales managers than like the sales helpers.

The test, Series I, is properly classified as a mental-alertness test and was intended primarily to measure the ability to understand and to manage ideas and their symbols. Series I was devised, however, for use in industrial organizations in which this was temporarily the

TEST E

On each line of this test there are some letters. The letters on each line can be arranged to spell the name of an animal. Look at Sample 1.

SAMPLE 1. tra

The letters **t r a** when properly arranged spell rat.

You are to write after each group of letters the name of the animal that can be spelled with those letters- Begin with the first. If you come to one you can't do pass on to the next

Work as fast as you can without making mistakes

1. tea	_____i
2. rede	_____
3. niol	_____3
4. lgrei	_____4
5. snkuk	_____5
6. erba	_____
7. Ifow	_____7
8. barze	_____8
9. bnsio	_____
10. kmyeon	_____
11. urtle t	_____11
12. duonh	_____
13. haplente	_____13
14. delopra	_____14
	_____15
16. goroanka	_____16
17. ycteo o	_____17
18. kunmpchi	_____18
19. peatnole	_____ - - 19
20. Iqtiur e	_____20

FIG. 40.—Page 5 of mental-alertness test. (Test E—time limit 2½minutes.)

only test to be used. Accordingly, special subtests were included to predict success or failure for prospective cashiers and accountants, and for prospective engineers (mechanical, civil, and electrical) and mechanics. Subtests A and F are mental-alertness tests, but they are also trade tests intended especially for cashiers and accountants. Subtest D is likewise a mental-alertness test and also a trade test intended for engineers and mechanics. Separate scores were recorded for each

subtest, and these part scores proved valuable in vocational selection and in vocational guidance.

There is no known method of measuring the human mind directly. But, by means of psychological tests, we may measure the mind

TEST F

In this test you must think about coins. Here is a sample question to show you what the test is like.

Sample 1. What 9 coins add up to 65 cents?

cmHalves

2 Quarters

 Dimes

| 1 | Nickels

 Cents

The answer is 2 quarters and 1 nickel. Notice that all you have to do is to write the correct numbers in the square before the name of the coins.

Be sure that you select exactly the number of coins asked for in the question and be sure that they add up to the correct amount.

Begin with the first question you can't answer, go on to the next one.

Work as fast as you can without making mistakes.

QUESTION 1 What 3 coins add up to 60 cents? Halves Quarters Dimes Nickels Cents	QUESTION 2 What 3 coins add up to 85 cents? Halves Quarters Dimes Nickels Cents	QUESTION 3 What 4 coins add up to 41 cents? Halves Quarters Dimes Nickels Cents	QUESTION 4 What 3 coins add up to 85 cents? Halves Quarters Dimes Nickels Cents
QUESTION 5 What 4 coins add up to 70 cents? Halves Quarters Dimes Nickels Cents	QUESTION 6 What 5 coins add up to \$11? Halves Quarters Dimes Nickels Cents	QUESTION 7 What 4 coins add up to 50 cents? Halves Quarters Dimes Nickels Cents	QUESTION 8 What 6 coins add up to 73 cents? Halves Quarters Dimes Nickels Cents
QUESTION 9 What 6 coins add up to 60 cents? Halves Quarters Dimes Nickels Cents	QUESTION 10 What 5 coins add up to 90 cents? Halves Quarters Dimes Nickels Cents	QUESTION 11 What 7 coins add up to 25 cents? Halves Quarters Dimes Nickel Cents	QUESTION 12 What 6 coins add up to 40 cents? Halves Quarters Dimes Nickels Cents

FIG. 41.—Page 6 of mental-alertness test. (Test F—time limit 3 minutes.)

indirectly. Mental-alertness tests (a form of psychological tests) are tests that measure the speed and accuracy at which an individual understands and reacts to ideas, their symbols, and their relationships.

Since 1910, thousands of scientists have directed their energies to discover and to improve devices and methods to measure the speed and accuracy at which different individuals and classes of individuals understand and react to ideas and to the symbols and relationships of

ideas. Most of these innumerable devices and methods have been tried out, but many of them proved to be impractical. The result has been a simplification of each test, a reduction in the number of tests, and an increase in the reliability, the objectivity, and the validity of the tests that have survived.

The Constituent Elements of Mental-alertness Tests.—The following five classes of subtests constitute most of the mental-alertness tests that are generally regarded as those best meeting the needs of business organizations.

- I. Similarities and opposites (including analogies and proverbs).
- II. Information (including vocabulary).
- III. Completion (including sentence completion, disarranged sentences, narrations completion).
- IV. Arithmetic.
- V. Number series.

(Possibly following directions and block counting should be included.)

These five classes of tests constitute a great majority of the subtests that make up the batteries of mental-alertness tests used at the present time.

1. Similarities and Opposites.—The speed and accuracy of comprehending and reacting to the relationship of like and unlike are currently measured by four different methods, each of which is illustrated by a brief excerpt from well-known tests.

A. In the first method (Army Alpha Test No. 4), the subject is merely asked whether two given words mean the same or the opposite:

If the two words of a pair mean the same or nearly the same, draw a line under *same*. If they mean the opposite, or nearly the opposite, draw a line under *opposite*. If you cannot be sure, guess. The two samples are already marked as they should be.

Samples:

good—bad	same—opposite
little—small	same—opposite
1. no—yes	same—opposite
2. day—night	same—opposite
3. go—leave	same—opposite
4. begin—commence	same—opposite
5. bitter—sweet	same—opposite

B. In the second method (Series I, Test B), the subject is asked to select from a group of words the opposite of a given word.

After each word in heavy type there are four words. Underline the one of these four words that is exactly opposite in meaning to the word in heavy type.

Samples 1 and 2 are done correctly.

Sample 1. **Light**—(sun, dark, day, weight).

Sample 2. **Cry**—(laugh, play, baby, sad).

Begin with number one and work as fast as you can. If you are not sure, guess.

1. **High**—(tall, low, sky, deep).
2. **Out**—(empty, up, in, go).
3. **Summer**—(spring, winter, hot, swim).
4. **White**—(black, clean, dress, cotton).
5. **Slow**—(freight, clumsy, fly, fast).

C. In the third method (Thurstone, Fig. 42) the subject is given a word and asked to select from a group of words the word that means either the same as or the opposite of the given word:

The first word in the following line is "many."

many	<u>ill</u>	<u>few</u>	<u>down</u>	<u>sour</u>

One of the other words means either the *same* as or the *opposite* of "many." The word "few" has been marked because it is the opposite of "many." The first word in the following line is "ancient." Mark one of the other words that means the same as or the opposite of "ancient."

ancient dry long happy old

You should have marked "old" because it means the same as "ancient." In each of the following lines mark the word that means the *same* as or the *opposite* of the first word.

deep	blue	shallow	tense	watery
awkward	clumsy	loyal	passive	young
hot	dry	cooked	red	cold

FIG. 42.—The Thurstone Same-opposite Test.

D. In the fourth method (Fig. 43, page 164) the subject is given two words that are related in a particular way, also a third word and a group of words. He is asked to underline one word in the group so that the relationship between the first and the second word is the same as the relationship between the third word and the underlined word.

In the four methods considered above, all are alike in that the responses of the subjects are recorded by underlining a single word. They are also alike in that each test has definite directions, preliminary samples, and from 25 to 100 problems carefully graded from the easiest to the hardest.

II. *Information (Including Vocabulary).*—Investigation has demonstrated that for most purposes any information test is at the same time a vocabulary test.

In each of the lines in this test, the first two words fit each other in a definite way. You are to draw a line under the one word in heavy type that fits the third word in just the same way that the second word fits the first. Look at Sample 1. <

Sample 1. Boy is to man as kitten is to (cat, dog, rat, girl).

The word cat is underlined because a cat is a grown up kitten just as a man is a grown up boy. Look at Sample 2.

Sample 2. Eye is to see as ear is to (song, hear, blue, bright).

The word hear is underlined because hear fits ear just as see fits eye. We hear with our ears and we see with our eyes.

Begin with number 1 and work as fast as you can without making mistakes.

1. eat	is to bread	as drink	is to (water, thirsty, swallow, taste)	1
2. man	is to home	as bird	is to (fly, nest, tree, sings)	2
3. feathers	is to bird	as fur	is to (soft, warm, bear, brown)	3
4. shoe	is to foot	as hat	is to (coat, straw, head, sun)	4
5. door	is to house	as gate	is to (swings, hinges, yard, latch)	5

FIG. 43.—The mixed relationship test.

Multiple choices in each of the three forms of measuring information follow:

A. Underline the correct answer.

- Of what country is Rome the capital?
Europe, France, United States, Italy, Spain.
- Where does a purser work?
Store, Club, Ship, Depot, Hotel.
- How many legs has a Guernsey?
3 4 6 20

B. Underline the correct answer.

- People hear with the eyes, ears, nose, mouth.
- The apple grows on a shrub, vine, bush, tree.
- Bridge is played with rackets, pins, cards, dice.

C. Underline the words that belong to objects of a particular class.

- Underline the words that are colors:
motor, paper, green, class, poetry, dwell, purple, etc.
- Underline the words that are fruits:
coast, pear, column, apply, planet, author, etc.
- Underline the words that are foods:
tower, bread, cover, thread, search, nimble, potato, etc.

III. *Completion.*—Many types of completion tests have been found satisfactory:

A. The subject is required to supply in indicated places the word that completes the sentence:

1. We are going_____school.
2. The poor baby_____as if it were_____
3. Pictures are_____on the_____and rugs are put on the_____

B. The subject is required to underline the one word out of a group of four that completes the sentence:

1. A man does not always have bones heart teeth lungs.
2. An apple grows on a shrub vine bush tree.
3. Ivory is obtained from elephants mines oysters reefs.

C. The subject is required to supply in an indicated place the word that completes the sentences, but the choice is restricted to a word of a certain number of letters and to a word beginning with one of a group of five letters. The subject is merely to mark this initial letter (L. L. Thurstone, Fig. 44):

The following sentence has a word missing at the place indicated by the parenthesis. You are to think of the word that best completes the meaning of the sentence.

A (4) is a contest of speed.

b = c = m = r = t =

The missing word is *race*. The number in the parentheses is the number of letters in the missing word. The letter *r* has been marked because it is the first letter in the missing word.

Do the following example:

A (7) is a piece of spongy paper to absorb ink from fresh writing.

k = b = c = m = p =

You should mark *b* because it is the first letter in the missing word *blotter*. This word has seven letters and it completes the sentence.

Do the following examples in the same way:

A (6) is a body which, like loadstone, has polarity and the property of strongly attracting iron.

m = t = h = s = r =

(3) is a contest by force between states.

d = h = n = s = w =

A (6) is an open excavation for obtaining stone,

h = k = p = q = s =

An (8) is a choosing by vote, as to an office,

a = e = i = o = u =

An (9) is a covered vehicle for conveying the sick or injured to a hospital.

a = e = i = o = u =

The missing words in these sentences are *magnet*, *war*, *quarry*, *election*, and *ambulance*.

When the starting signal is given (not yet) turn the page and work more problems of the same kind. Work rapidly because your rating will be the total number of correct answers. You may not be able to finish in the time allowed.

FIG. 44.—The Thurstone Completion Test.

IV. *Mathematical Tests*.—The speed and accuracy of comprehending and reacting to mathematical relationships is currently measured by two different methods.

A. One method is to require the subject to solve mathematical problems and to record the answers:

1. How many are 5 men and 10 men? (•)•
2. A man walked 8 miles and then walked back 2 miles. How far was he then from where he started? (•).
3. If it takes 4 men 3 days to dig a 120-foot drain, how many men are needed to dig it in half a day? (•).

B. Another method is to assign a problem and to suggest a group of answers from which the subject is to underline the correct answer.

1. If a pair of shoes were bought for \$3.50, what change would be received from a five-dollar bill? Draw a line under the correct answer.
\$2.50 \$1.50 \$1.00 \$3.50 \$5.00
2. If $4\frac{1}{2}$ yards of cloth cost 90 cents, what will $3\frac{1}{2}$ yards cost?
40 30½ ~~60~~ 70 90
3. A druggist sells a mixture of 2 parts water and 3 parts alcohol. How many pints of alcohol will it take to make 25 pints of the mixture?
25 $16\frac{2}{3}$ 15 $12\frac{1}{2}$ 10

V. *Number Series Test*.—This test measures the ability to comprehend the mathematical relationship existing between the units of a number series and to extend the relationship to additional units. The following problems are typical:

A. Put in the blank lines the two numbers that should come next in each row of figures.

1. 15 20 25 30 35 40
2. 8 9 12 13 16 17
3. 2 3 5 8 12 17
4. 15 16 14 17 13 18
5. 20 17 15 14 11 9

The Number Series Test has also two alternative forms:

B. Fill in the missing numbers.

- 26 22 _ 14 10 _ 2
72 _ _ _ 37 _ _ _ 2

C. Cross out the number that does not belong in the series.

- 2 4 8 10 16 32
72 36 18 9 6

The five classes of tests presented above (I, II, III, IV, each been tried out on several millions of individuals. Each class has been improved by eliminating unreliable elements and by retaining the most, reliable and such as demand a minimum of skill and of time in administering and in grading.

Several or all of these classes of tests have been given singly and also as a combined battery of tests. Careful research has been employed to discover the weight that should be given both to the total battery score and to the separate score of each subclass of tests. In

vocational selection, the battery score is emphasized; in vocational guidance, the separate scores are emphasized.

Spiral Omnibus Test.—Where the tests are administered, with a time limit, in the form of a battery, the subtests are frequently not separated, but the easy parts of each test are given first, and the hard parts of each are left for the unusual individuals who succeed in completing much or all of the test. All intervening parts are scaled as evenly as possible from the easiest to the hardest. Such tests are usually spoken of as scaled tests, cycle tests, or as spiral tests. When the items of each sort increase in difficulty throughout the test—*i.e.*, each item is more difficult than the preceding item of that sort—the test is called a "Spiral Omnibus Test."

One of the best tests of this type is the one devised and used extensively by E. F. Wonderlic of the Household Finance Corporation. Of the 50 items, the first 5 items together with the instructions follow:

This is a test of problem-solving ability. It contains various types of questions. Below is a sample question correctly filled in:

Which one of the five words below tells what a dog is?

1 tree, 2 flower, 3 animal, 4 vegetable, 5 fruit_____ (3)

The correct answer is "animal"; so the word "animal" is underlined. Since the word "animal" is number 3, the figure 3 is placed in the parenthesis at the end of the line.

Answer the next sample question yourself. Merely draw a line under the correct answer and put its number in the parenthesis.

Of the five things below, four are alike in a certain way. Which is the one not like these four?

1 smuggle, 2 steal, 3 bribe, 4 cheat, 5 sell_____ ()

The correct answer, of course, is "sell"; so you should have underlined the word "sell" and placed its number in the parenthesis.

Here is another one:

If one apple cost 3ff, how much will 9 cost?_____ ()

When the answer to a question is a letter or a number, put the letter or number in the parentheses without underlining anything. All letters should be printed.

1. The opposite of awkward is (?)

1 strong, 2 pretty, 3 short, 4 graceful, 5 swift_____ ()

2. Silver is more costly than iron because it is (?)

1 heavier, 2 scarcer, 3 whiter, 4 harder, 5 prettier_____ ()

3. The opposite of gentle is (?)

1 strong, 2 careless, 3 humane, 4 thoughtless, 5 rough_____ ()

4. The opposite of honor is (?)

1 glory, 2 disgrace, 3 cowardice, 4 fear, 5 defeat_____ ()

5. Of the five things following, four are alike in a certain way. Which is the one not like these four?

1 tar, 2 snow, 3 soot, 4 ebony, 5 coal_____ ()

Test Scores Are Significant.—It seems strange that the scores attained on such simple tests would have any practical significance. However, experience has demonstrated that:

Certain types of jobs are filled most successfully by individuals who attain high mental-alertness ratings; *e.g.*, engineers and managers.

Certain other types of jobs are filled most successfully by individuals who attain low mental-alertness ratings; *e.g.*, common laborers, and fishermen.

Still other types of jobs are filled most successfully by individuals who attain medium mental-alertness ratings; *e.g.*, mechanics and salespeople.

The mental-alertness score is more prophetic of the future wage or salary of any large group of applicants who are worthy of employment than is any other single measurement or employment procedure.

The prophetic value of test scores increases with time. The test scores may correlate low with the income of employees at the end of the first year of employment. If the tests were wisely selected, the correlation will be very significant after 5 years of employment, but still higher after 10 years.

Such mental-alertness scores for 100 applicants can be secured:

With a delay of but 1 hour.

With a cost of but \$1 per individual (including all overhead expenses).

With a prophetic value greater than that of any other known selection procedure.

The X-ray is demonstrated as a successful diagnostic instrument only when it is supported by all other modern diagnostic procedures and by skillful healing treatments.

The chemical soil analysis is a demonstrated success in measuring the value of land only when the proper seed has been selected, the growing grain adequately cultivated, and profitable markets obtained.

The importance of chronological age as a measure of life probability is demonstrated only when it is supported by careful consideration for such factors as inheritance, occupation, and health.

When are mental-alertness tests highly diagnostic? Only under very special conditions can the value of mental-alertness tests be demonstrated.

1. **The values of mental-alertness tests are demonstrated only when they are a part—and a very modest part—in a good employment program. (Here no mention is made concerning the value of mental-alertness tests in transfers and**

promotion.) Many chapters have to do with the development of an employment program that is equipped to secure, to select, and to place the right man in the right place.

2 The values of mental-alertness tests are demonstrated only when they are but a part—and a very minor part—in a good personnel program. Unless after employment there are throughout the organization conditions that result in the survival of the fittest, then good employment procedures are of little or no consequence. Most of the chapters in this volume have to do with the development of a type of personnel management that creates conditions under which morale is increased, labor turnover is reduced, and the survival of the fittest in all jobs is attained.

3. The value of mental-alertness tests are demonstrated only when they are—
- a. Properly constructed to meet the needs of a particular organization. So many good mental-alertness tests have been constructed that the present need is merely a wise choice from the hundreds of offerings.
 - b. Tactfully administered so that every candidate may put forth his best efforts in solving the assigned problems.
 - c. Scientifically interpreted: The *grading* of the papers is reduced to a mechanical use of stencils or other tools. No dependence is placed on the personal judgment or estimate of the grader. Accordingly, the grading may be accurately accomplished by a clerk. However, the interpreting of the results should be left to a psychologist who has had statistical training, who has had experience with tests, and who has had some experience with working conditions within the organization.

To increase the probability that the conditions mentioned above (1, 2, 3,) may be met, it is recommended that:

Larger business organizations employ one or more full-time psychologists.
Smaller organizations employ the part-time services of a psychologist.

Many large business organizations employ full-time attorneys, physicians, and engineers; only a few employ full-time "students of human behavior." It is altogether probable that within a few years most of the larger companies will find it profitable to employ psychologists as regular staff officers.

Smaller companies can at the present time secure the part-time services of competent psychologists through:

Local colleges and universities.

The Psychological Corporation at the home office, 522 Fifth Avenue, New York, N. Y., or at one of its branch offices.

State employment offices.

The American Association of Applied Psychology.

Mental-alertness tests, such as those discussed in this chapter, are by official regulations made an important factor in the personnel management of every unit of the Army and Navy. By local regulations they are used in most institutions of higher learning. As stated in Chap. XIV, such tests were in 1933 used in few business organizations. However, the increase in the number of business firms using such tests has been very rapid during the last few years. The data demonstrating this increase are presented in Appendix A.

CHAPTER XVI

MEASURING APTITUDES TO UNDERSTAND AND TO OPERATE THINGS AND MECHANISMS

Every employer knows that some employees have greater aptitude than others in understanding and managing things and mechanisms. He seeks to discover such aptitude in applicants and to develop it in his employees. He devises clever procedures for observing, for measuring, for increasing, and for rewarding such aptitude.

Except for a brief discussion of muscular strength and of interests, no reference is made in this chapter to such very pertinent factors as:

The anatomical and physiological structures determining abilities in manual skills.

The effect of training in developing work methods and work habits.

Individual differences in attitude, motivation, sentiment, interests.

The influence of the total environment on the worker.

Of the many tests used in business for measuring aptitudes to understand and to manage things and mechanisms, only three classes of tests are here considered. These three are:

I. Work-sample tests.

II. Analogous or miniature work tests.

III. Special-aptitude tests.

I. Work-sample tests have been constructed to measure the ability of applicants who claim skill in any one of several types of jobs:

A. The applicant claiming ability to understand and to manage a typewriter is given the work-sample test that can be performed accurately and quickly only by an expert typist. See Figs. 45 and 46.

If the candidate claims skill in stenography as well as in typewriting, the same copy may be used, but the conditions are changed as indicated in the instructions (Fig. 47).

If she claims skill in transcribing records from dictating machines, she is given the copy on the cylinder, but not on the printed page as prescribed in Fig. 45.

If she claims skill in taking dictation, the examiner dictates the copy at the fastest rate she is able to make her shorthand notes, but not as prescribed in Fig. 45 or 47.

The test for typists and for stenographers as presented here are ability tests. They are also called "trade tests" because they test an

actual trade skill. They are furthermore called work-sample tests, since the factor tested is a manufacturing process—typewriting pages—under business conditions. These tests meet scientific standards in that they are conducted under controlled conditions and the results are carefully measured as to speed and accuracy.

INSTRUCTIONS TO THE EXAMINER

1. Make sure that the typewriter is in good condition. The only form of supplies needed is typewriter paper, 8½ 11.

2. Say to the candidate: "Be seated at this typewriter. Insert paper and adjust the typewriter for single space."

3. When these instructions have been complied with give to the candidate the loose sheet of test copy and say: "Copy this as rapidly as possible making no erasures, and as few mistakes as possible; and report to me as soon as you are through."

4. Record the starting time in minutes and seconds. This represents the time at which the copy is handed to the candidate, not necessarily the time that he begins to write.

5. Record the time when the candidate gives to the examiner the finished typewritten copy.

6. Record on the candidate's individual score card his name, and the total time in minutes. Ignore the fractional part of a minute.

7. Determine the number of errors. An error is any error in a word or the space or punctuation immediately following a word. A word which has several errors is counted as *one* error. Record the number of errors on the score card.

RATING THE CANDIDATE

1. Multiply the number of minutes by ten. Ignore the fractional part of a minute.

2. Add the number of errors.

3. This sum is the candidate's score. Rate the candidate according to the following table:

Expert: 0 to 86 inclusive with less than six errors.

Journeyman: 0 to 86 inclusive with more than five errors.

Apprentice: 87 to 150 inclusive.

Novice: 151 and above.

C.C.P. Trade Test

39-t-I-l-Pf-II

FIG. 45.—Instruction for test for typist.

This test is adequate as a clerical-ability test. It measures fairly accurately the present clerical ability of the testee to perform a specific task. It is not, in and of itself, an adequate clerical-aptitude test. However, this test would form a desirable subtest in a clerical-aptitude test. Such an aptitude test might consist of:

1. The above work-sample clerical tests.

2. Such a test as the Minnesota Vocational Test for Clerical Workers.

3. Any one of the standard tests for mental alertness.

TEST COPY

This is the kind of ambition which creates things and which pushes the world along; an ambition to do or to be, to produce or to master something, and which never for an instant loses sight of the point first aimed at unless it be to aim at some point which is still higher and still harder to hit. That sort of ambition consists of only two elements, work and purpose; all men have had it who have striven with a definite end in view, even though some of them might not be willing to call it by that name. The dictionary gives several meanings of the word, but it matters very little which you accept, for the end is always the same; if you work with a desire to make a name for yourself, or if you try to establish an idea which you know to be right, you follow the same lines, and the method you adopt has for its basis ambition; there is no other word which can take its place and no other which has even a similar meaning.

Ambition may be counted as one of the best qualities of the human race; to be sure it has led to evil a great many times, or to what has seemed at first to be such, but I doubt if there has ever been a case where a great ambition did not in the end result in great good to all mankind. Napoleon has been called the most ambitious man that ever lived and crimes without number have been laid at the door of that ambition, all of which may be true, but today the world is better in many ways because he lived in it and because he was ambitious. An ambition to make money, to have a large pay envelope, has been sneered at as unworthy the thought of any young person; that is entirely wrong, for say what you will there are a thousand and one things that make for the best good of everybody which can only be had through the medium of hard cash; we should dress well and read good books; we should surround ourselves with a certain amount of what have been termed luxuries but which are fast becoming necessities; all these things cost money and to get money we must earn it, therefore the ambition for a large pay envelope is simply an ambition for better conditions in life, than which there can be no more worthy ambition.

FIG. 46.—Copy for test for typist.

This kind of an aptitude test would give a measure of the present ability and some indication of the possible future development of a typist or stenographer.

B. The candidate claiming ability to understand and to manage a truck is given a work-sample test for truck drivers.

The largest employer of truck drivers in America prepared a work-sample test for chauffeur candidates. The candidate is provided with a standard truck and is permitted to make a short practice run and to try out all the gadgets. After this preliminary practice is completed, the test begins. The chauffeur is required to drive the truck over a prepared route that contains a hill, a short turn, a narrow passage, etc. The examiner sits to the right of the chauffeur during the practice run and the test run and gives standardized instructions and records all errors. A candidate who makes one error or less is classed as an expert, 4 to 9 inclusive as a journeyman, and 11 to 15 as an apprentice.

C. A work-sample test for motorcyclists (sidecar included) has been used that resembles the test for truck drivers.

INSTRUCTIONS TO THE EXAMINER

1. Make sure that the typewriter is in good condition. The necessary supplies are typewriter paper 8 ½ X 11, a stenographer's notebook, and pencil.

2. Say to the candidate: "Be seated at this table." Give him the notebook and pencil.

3. Give the candidate the loose sheet of copy and say, "Copy this in shorthand as rapidly as you can without making mistakes."

4. Record the starting time in minutes and seconds. This represents the time at which the copy is handed to the candidate, not necessarily the time that he begins to write.

5. Record the time when the candidate gives to the examiner the finished notes and the sheet of test copy.

6. Record on the individual score card the candidate's name, and the total time. Ignore the fractional part of a minute.

7. Say to the candidate: "Be seated at this typewriter. Insert paper and adjust the typewriter for single space."

8. When these instructions have been complied with, give to the candidate his stenographic notes and say: "Copy this as rapidly as you can without making mistakes."

9. Record the starting time in minutes and seconds.

10. Record the time when the candidate gives to the examiner the finished typewritten copy.

11. Record on the candidate's score card the total time of transcribing in minutes. Ignore the fractional part of a minute.

12. Determine the number of errors. An error is any error in a word, or the space or punctuation immediately following a word. A word which has several errors is counted as *one* error. Record the number of errors on the score card.

RATING THE CANDIDATE

1. Add the two time scores. Multiply the sum by ten. This is the candidate's time score.

2. Add to the time score the number of errors. This sum is the candidate's final score.

3. Rate the candidate according to the following table:

Expert: Score 0 to 225 inclusive with less than 13 errors.

Journeyman: Score 0 to 225 inclusive with more than 12 errors and less than 26 errors,

or, score 226 to 300 inclusive with less than 26 errors.

Apprentice: Score 0 to 300 inclusive with more than 25 errors

or, score 300 to 500.

Novice: Score 501 or more.

FIG. 47.—Instruction for test of skill in stenography.

In one such test for motorcyclists, the course is confined to a plot of fairly level ground, 275 ft. long and 85 ft. wide. The experimenter sits in the sidecar and gives such instructions as these:

Run with the two main wheels on the white plank.

Enter the plank in low and leave the plank in high. Stop.

Run through this alley without touching the tape. Do not hit **any stakes**

Stop.

Make a left turn. Run through the sand pit. Do not bump when crossing the ditch. Stop. Etc.

A candidate who makes no more than three errors is classed as an expert, 4 to 7 errors as a journeyman, 8 to 13 errors as an apprentice.

D. Work-sample tests for wiremen have been used for many years. The Illinois Bell Telephone Company has identical sets of a work-sample test so that several candidates may be tested simultaneously without mutual interference.

The test is a typical complex wiring job. The examiner provides the materials and the tools, demonstrates some of the first steps in the procedure, and gives complete verbal instructions as to what the task is. These instructions are then repeated. The examiner records the time consumed in completing the job and the mistakes made. Each candidate is classified on the basis of the time he consumed and the errors he made. The score is based 50 per cent on the time consumed and 50 per cent on the quality of the work.

Work-sample Tests Should Be in General Use.—The results of a trade test are in the form of concrete facts. They are not regarded as a prognostication of future ability but simply as a measure of the present ability of the candidate, or of the worker. These results are not ordinarily given a statistical interpretation. In a standard volume on trade tests the index contains no such terms as reliability, validity, standard deviation, or coefficient of correlation.

A work-sample test should not be compared with an informal "tryout" on the job whether the "tryout" continues 30 sec. or 30 days. Such a "tryout" is of course a rough-and-ready test. In many organizations, it is the only approximation to a test that is applied. Any informal "tryout" on the job is unscientific and expensive and ordinarily should be displaced as soon as possible by an actual work-sample test or by some other test under which conditions are standardized and results are measured.

Work-sample tests, however, are not sufficient. Two applicants might take the same work-sample test at the same time and make identical scores. One may have acquired his present ability by long training and experience. He may have attained his maximum capacity and have no aptitudes requisite for promotion or transfer. The other may have attained his present status of accomplishment with less training and experience but may have aptitudes that show possibilities for further development on the job or that indicate his fitness for transfer or promotion to positions of greater importance. Accordingly, work-sample tests should be a part of a "battery" of tests in which special-aptitude tests are included.

II. Analogous or Miniature Work Tests.—An analogous or miniature work test is one in which an artificial situation is created that calls forth reactions from the testee nearly identical to his reactions in an actual work situation. Any analogous work test has several desirable features:

It substitutes inexpensive equipment for the very expensive equipment used in business.

It adds to the total situation devices for recording automatically the responses made by the subject.

It reduces the complex working conditions to recordable units.

Such tests are especially desirable in selecting operators for equipment that is not only expensive but in which emergencies are likely to arise in which ineptitude on the part of the operator results in property damage and also in personal injury or death.

In measuring the ability of candidates to handle various kinds of motor vehicles, many analogous work tests have been devised and have been employed successfully:

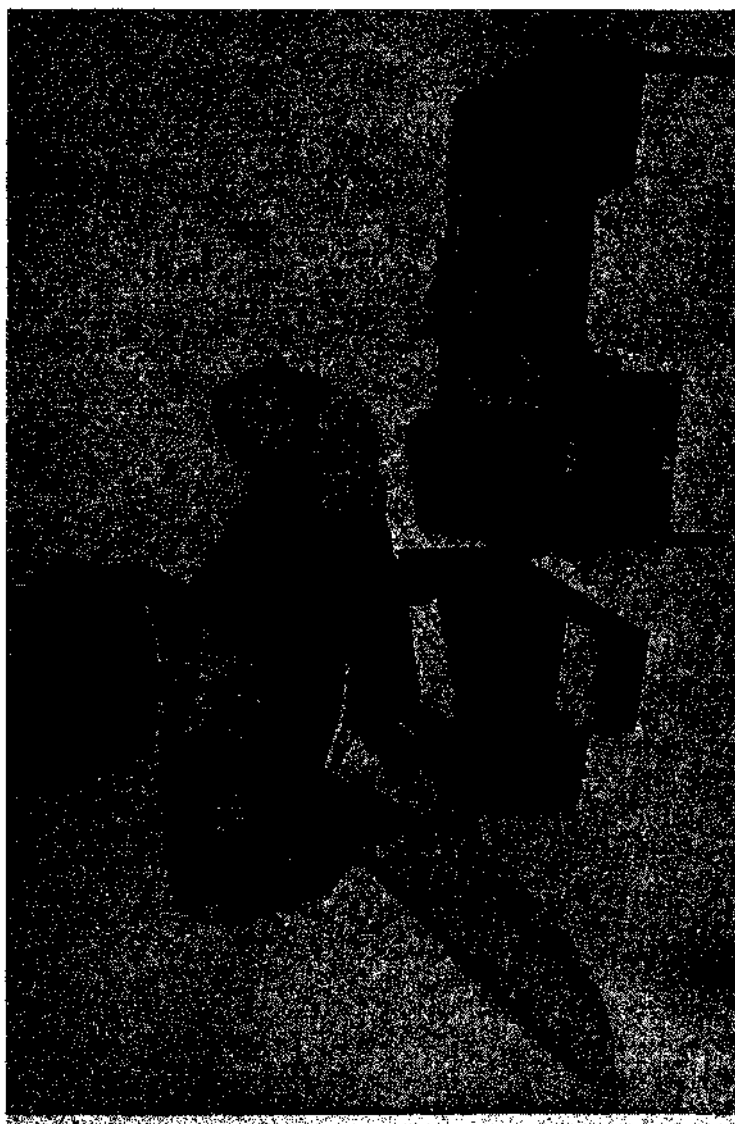
A. The reactions of a streetcar motorman under ordinary and under emergency conditions have been successfully measured.

A large number of moving pictures were taken from the front platform of a moving streetcar. The scenes included sharp bends of the track, people crossing in front, taxicabs approaching from side streets, children playing on or near the track, pedestrians crossing the track, etc. A front platform of a streetcar was set up in a research laboratory. The platform was provided with all the instruments common to streetcars for starting, stopping, changing the speed, and for signaling. However, the "instruments" were not connected with the electric current, the brakes, and the bell. They were connected with an apparatus for recording exactly how and when they were used by the subject. Some distance in front of this fixed platform and also on all sides of the platform is a large screen on which the moving pictures are shown. These pictures, previously photographed from the platform of a moving streetcar, create an illusion of movement in the mind of the subject as he stands on the stationary platform and looks at the moving pictures.

The subject being tested stands on the "platform" and is directed to "control the car" according to the situations depicted just as he would on an actual run. All his responses are recorded automatically.

B. In an attempt to measure the reactions of taxi drivers in traffic emergencies, the following is a sample of "emergencies" that were created:

A small boy (a rubber dummy) on roller skates is catapulted out from behind a parked car and directly into the path of the moving taxi. By means of the photoelectric relays, a record is made of exactly what the taxi



"roadscope." The roadscope is in reality a moving picture of a road, and the subject is told to steer his automobile according to the changing conditions as indicated. The degree of success is measured and recorded automatically.

D. The Link Aviation Trainer.—This is a device and a procedure for training and testing experienced pilots for "blind flying."

The equipment as shown in Figs. 48 and 49 is apparently a miniature airplane. The plane is perched on a fixed base by means of a complex mechanism that is much more than a mere universal joint. The position of the plane on the base may be rotated by the pilot through the full 360° and

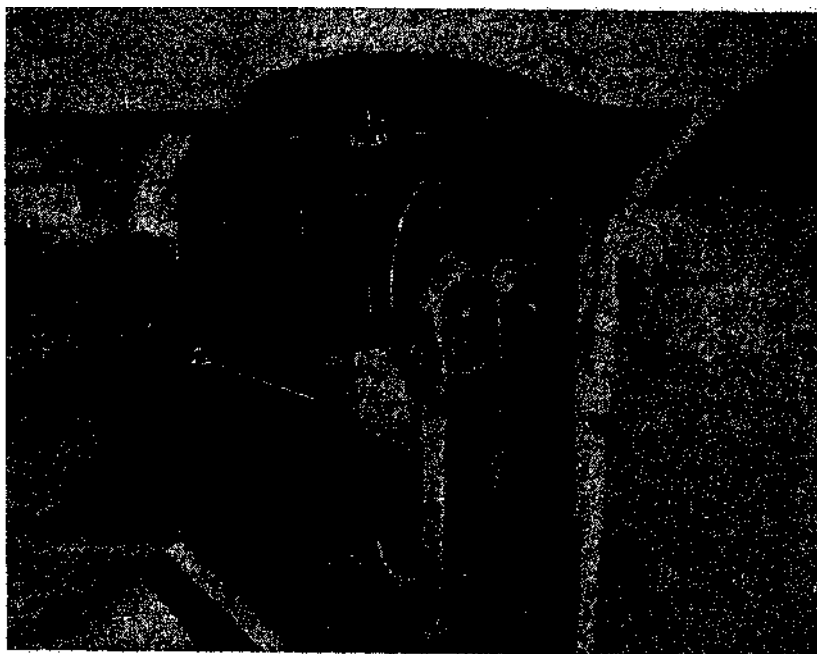


FIG. 49.—Instrument panel of Link trainer.

through a longitudinal and lateral movement of 30°. The cockpit is equipped with complete mechanisms for turning, banking, climbing, diving, spinning, accelerating, etc. The trainer and instruments operate so that a given movement of the controls will bring about a change of apparent altitude of the craft together with the corresponding change in instrument readings that would occur in actual flight.

The testee is assigned a "problem," enters the cockpit, places the earphones on his head, and pulls down the hood that completely shuts off the sight of all objects outside the cockpit. The instructor transmits by radio to the pilot the radio range signal that he would receive were he flying in a similar position in relation to some particular radio sending station. It is the problem of the pilot to interpret the signal, find his location, identify the radio beam and

follow it into the cone of silence, and then complete his orientation problem by bringing his craft in to a landing on the airport without violating any standardized rules or codes. The exact "progress" of the "ship" is recorded during every instant of the flight until the landing is completed on the field.

The testees are ordinarily men who have had some experience in real flying, and they assert that after the first few seconds they have the feeling of being in an advancing plane and that all their actions are such as would be made in regular flight. Some of the testees—possibly 2 per cent—are found to be unable to succeed in blind flying. Such flyers are not qualified for instrument flights and, accordingly, are not selected for the most responsible positions of flying under ordinary conditions of peace or war. This procedure assists in eliminating unfit pilots and reduces the time and the expense of training good pilots.

The Link Aviation Trainer is manufactured by the J. V. W. Corporation, Newark, N. J., and is standard equipment for the U. S. Air Corps and for the air services of Great Britain, Germany, Italy, Japan, Russia, China, etc. The U. S. Bureau of Air Commerce authorizes its use as a substitute for part of the air time required in preparation for the various instrument and radio tests.

E. Analogous or miniature work tests are by no means restricted to the measurement of the aptitudes of candidates for *transportation* services. The Wisconsin Miniature Test for Engine Lathe Aptitude, as reported by Prof. Clark L. Hull, is of special interest.

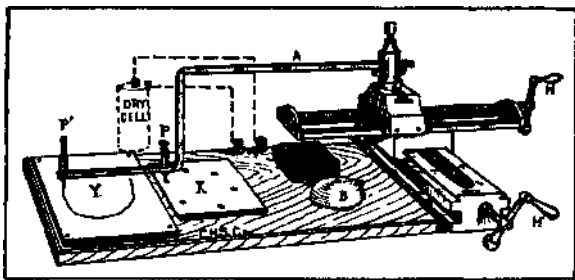


FIG. 50.—Wisconsin Miniature Test for Engine Lathe Aptitude.

A reproduction of this apparatus is shown in Fig. 50. It duplicates that part of an engine lathe that controls the movement of the cutting tool. To this end, the arm *A* supporting the point *P* is mounted in such a way that the latter may be moved anywhere about the bakelite plate *X* by the joint action of two screws placed at right angles to each other and turned by the cranks *H* and *H*. It will be observed in Fig. 50 that these cranks are duplicates of those actually used on an engine lathe. The task of the subject is to move the point *P* around the series of six electric contacts shown in plate *X* as

rapidly as possible while going as directly as possible from one to the next. When the point touches a contact, an electric bell *B* rings to notify the subject that he has succeeded in touching it and that he may proceed to the next contact. In order to secure a graphic record of all of the movements of the subject in passing around the contacts, arm *A* is extended over area *Y*, upon which is placed a piece of paper. On this extension is a point *P'* that contains a small lead pencil that traces a duplicate of the path made by point *P*. A typical record is shown as *Y* in Fig. 50.

The six work-sample tests presented on pages 171 to 174 are alike in that the testee produces a product or performs a type of service of known commercial value. The skill of the performance is measured in commercial terms.

The five analogous or miniature work tests are alike in that the results are measurable by their conformity to the pattern of skilled, semiskilled, unskilled, or unsuccessful workers. The standardizing of each of these tests was secured by giving the tests to a large number of skilled and semiskilled operators and also to novices and workmen who had failed. The record of a worker may show that he applies a steady oven pressure to his control or that he grasps his controls convulsively and applies his brake too suddenly. The record for each testee follows a pattern. An analogous or miniature work-sample test would be entirely worthless unless the record of a skilled worker followed a pattern unlike the pattern of semiskilled, unskilled, or unsuccessful worker.

The validity of an analogous or miniature test is measured in terms of the accuracy with which it ranks operators of known abilities.

III. Special-aptitude Tests.—(Also known as special-capacities tests, potential-abilities tests, or as latent-capacities tests.)

A pressing need, but a need easily provided, is to develop and to administer tests to measure the job proficiency already attained by prospective employees. This is accomplished quickly, inexpensively, and accurately by means of work-sample tests and by analogous work tests as discussed above.

But the most difficult task for psychological testing in business is to measure, in prospective employees and in regular employees, not the abilities already attained but the aptitude for future development; not the skill to perform today but the skill that may be anticipated after years of experience.

During recent years, progress has been made in job analysis and in personal analysis. We are learning what activities are involved in each particular job. We are learning "what it takes" physiologically and psychologically to be able to develop into an expert in each **job**.

No two jobs are exactly alike, and success in no two jobs depends on the same abilities or on the development of exactly the same latent capacities. However, it is the general assumption that apprentices in the mechanical and certain other trades should present among their aptitudes a fairly high rating in each of two groups of essential capacities:

A. Muscular abilities.

1. Strength of fingers, hands, and limbs.
2. Speed of movements of fingers, hands, and limbs.
3. Steadiness of manual movements.
4. Accuracy of movements.

B. Ability to perceive and to visualize things and mechanisms in their space relationships.

TESTS FOR SPECIAL APTITUDES ILLUSTRATED

A. Muscular Abilities.—1. *Strength of Fingers, Hands, and Limbs.*

The strength of the fingers, hands, arms, and legs is readily measured by the appropriate dynamometer. The most useful dynamometer is the hand dynamometer. Figure 51 is a reproduction of the Smedley Hand Dynamometer. It is accurate and convenient. The strength of the grip is shown directly in kilograms on the face of the instrument. It is also provided with a piston attachment for operating the tambour required for producing kymograph records. When the grips of the hand are made to synchronize with a metronome beating seconds, a curve of endurance or of exhaustion is secured. Striking personal differences are thus revealed. The tenth consecutive grip of a great athlete may be less than 10 per cent as strong as his first grip. The tenth grip of a nonathlete may be 100 per cent as strong as his first grip. Some people have the ability to "throw themselves" into a supreme effort; others lack this ability. The ability to make a supreme effort is important in some jobs but not in others.

2. *Speed of Movements of Fingers, Hands, and Limbs.*—The speed at which a single movement can be initiated is measured by any reaction time apparatus.

The speed at which simple hand and finger movements can be repeated a given number of times is measured by dotting with a lead pencil or tapping with a telegraph key.

The speed with which a recurrent series of movements can be repeated is measured by some such simple device as a three-hole tapping apparatus.

The speed of completing a series of hand and arm movements is measured by such a performance test as the Minnesota Manual Dexterity Test.

The speed (quickness, rapidity, swiftness, or velocity) of movements of the eye, finger, hand, or arm is measured by photographic methods.

The individual who ranks high in one of these five measurements of "speed" might not rank high in any other of the types of speed. Speed seems to be specific and not general. In some types of work, one type of speed is important. In other occupations, it may be that another type of speed is required. Accordingly, in selecting "speed" tests for workers in any occupation, care must be taken to ascertain the **kind** of speed required in that occupation.

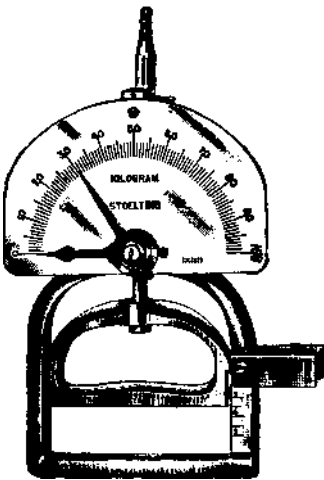


FIG. 51.—Smedley hand dynamometer.

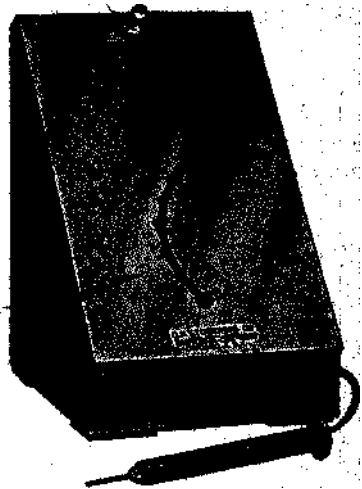


FIG. 52.—The Gurnee tracing apparatus.

3. *Steadiness of Manual Movements*.—The degree of steadiness of manual movements may be measured by the Herbert Gurnee Test as reported in the *American Journal of Psychology* of (Apri), 1939. The apparatus is shown in Fig. 52. The essential features of the equipment, of the procedure, and of the results are:

The path that the stylus must follow is in the shape of an inverse S.

Each side of the figure is broken at equal intervals by nine V-shaped notches. The notches provide a means of controlling the rate of movement. The insulation of the notches serves the purpose of making breaks in the circuit if the testee tries to run along the side of the plate.

The rate of movement is controlled by a metronome set at 100 beats per minute.

The instructions contain the following: This is a test of steadiness. Insert the pin of the stylus about one-third of the way into the groove and move

without stopping from the upper end to the lower end and back, trying to avoid touching the sides. Each time you touch the sides an error will be recorded against you. Move at the rate of one notch to each beat of the metronome. You will get one practice trial with each hand and then six more trials with each hand.

The score is determined by dropping the first record for each hand and averaging the remaining six records. The higher the score the poorer the performance.

The reliability of the test is determined by correlating the averages of the three odd trials against the averages of the three even trials. The coefficients reported are 0.818 for the right hand and 0.765 for the left hand. "It is reasonable to conclude that the instrument satisfies the conventional requirements of reliability." No report is made concerning validity.

4. *Accuracy of Movements.*—The Johnson O'Conner Finger Dexterity Test is used to measure accuracy of manual movements.

The equipment consists of a flat metal plate, a metal tray and 310 cylindrical brass pins. The plate has 100 holes 0.196 in. in diameter, spaced y_2 in. apart arranged in 10 rows. The tray has sloping sides. The pins are 0.072 in. in diameter.

The instructions include a demonstration, preliminary practice, and such statements as: "Here is a board with room for three pins in each hole. Pick up three at a time and fill the holes, placing three pins in each as fast as you can. There are extra pins in this tray so that if a few fall on the floor there will still be enough. Do not stop to pick them up." The score is the time required to place the 300 pins in the holes, and it varies from about 8 to 16 min.

The validity of the test is high for those classes of bench workers who make continuous use of the rapid manipulation of small objects.

The Johnson O'Connor Tweezer Dexterity Test is in some ways similar to the Finger Dexterity Test. The holes in the metal plate are smaller, there are fewer pins, and the pin is grasped by tweezers and not by the ringers.

The instruction includes demonstrations, preliminary practice, and such statements as: "Here is a board with room for one pin in each hole. Pick up with the tweezers and place one pin in each hole as fast as you can."

The validity of this test as reported is not high, but it has some value in measuring aptitude for vocations requiring the frequent use of small instruments.

The MacQuarrie Test for Mechanical Ability contains subtests devised to measure accuracy of movements—especially the subtests on tracing and dotting. There are seven subtests:

- To draw a pencil line through irregularly spaced openings.
- To put three pencil dots in each of a number of circles.
- To put one dot in each of 100 small circles.
- To copy geometric figures.
- To locate corresponding dots on large and on small squares.
- To count blocks in contact.
- To follow with the eye each of several lines passing through a maze of lines.

The reliability of the test is reported as high, and, under favorable conditions, a validity as high as 0.80 has been reported.

Caution.—In modern industry, many of the demands for strength, speed, steadiness, and accuracy are being met by machines and not by muscular aptitudes. Also, strength, speed, steadiness, and accuracy that seem inadequate may be made quite sufficient by training and by improved work methods.



FIG. 53.—Healy and Fernald form board.

B. Ability to Perceive and to Visualize Things and Mechanisms in Their Space Relationships.—There are occupations that demand aptitude in perceiving the size, shape, and distance of objects in their space relationships; in comprehending how parts of mechanisms fit together and what happens when one part is moved; in making and in reading diagrams and blueprints, topographical maps, and profiles; and in translating two-dimensional blueprints into three-dimensional models or vice versa.

1. The form board is a widely used device for measuring this ability to perceive objects in their two-dimensional space relationship. Figure 53 indicates the pattern of one of the first form boards extensively

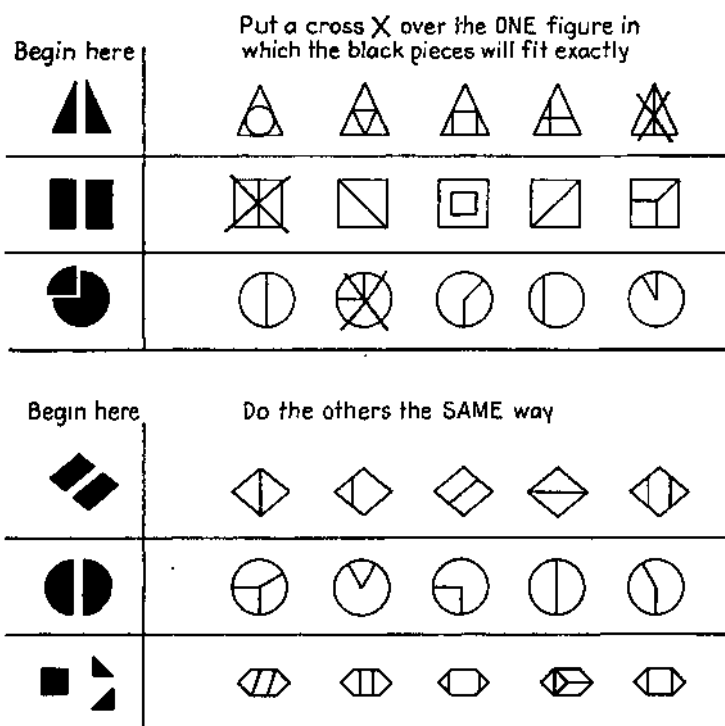


FIG. 54.—The R. C. Shultz form board.

new answer, since the only possible answer is one of the five alternatives provided. A guess has one chance in five of being correct, so the score does not depend largely on luck. If he is able to perceive the spatial identity between the figure to the left and one of the five figures to the right, he makes a high record—practically nothing else is involved.

2. The assembly test also is used for measuring the ability to perceive objects in their three-dimensional space relationships. The Stenquist Assembly Test has been widely used and has been satisfactory. The equipment is shown in Fig. 55. The test is designed as a group test having been given successfully to entire classes in

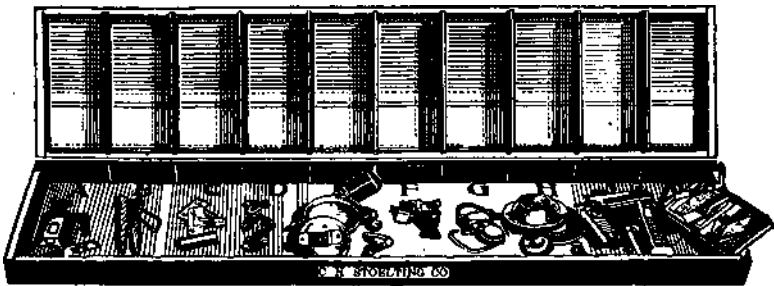


FIG. 55.—The Stenquist assembly test.

schools, to entire companies in the Army, and to large groups in business organizations. The time is limited to 30 min. The score is based on the number of objects assembled during the 30 min.

A revision of the Stenquist Test, known as the Minnesota Mechanical Assembly Test, provides 33 objects instead of 10, and extends the time to 65 min. instead of 30. The revision is much more dependable than the original. A high rating even in this revision may be due to wide experience and so be a measure of present ability rather than a measure of aptitude for further development.

3. The unfolded solids test is occasionally used to measure ability to perceive objects in their three-dimensional space relationships. A recent revision of the unfolded solids tests, made by Dr. L. L. Thurstone, contains so many new features that he calls his revision "Surface Development." The first page of this revision, reproduced as Fig. 56, contains all the instructions and the preliminary practice. Following this preliminary page there are presented "Pictures" of increasing complexity together with the corresponding "Diagrams."

A high rating in the tests mentioned in A (Muscular Abilities) above indicates that the prospective apprentice for a metal trade is capable of becoming a proficient workman in almost any unskilled or semiskilled routine job of the trade. A high rating in both A and B

(ability to perceive and to visualize things and mechanisms in their space relationships) above indicates probable potential ability in jobs requiring not only routine manipulative skill but also the ability to handle mechanical equipment and to read and to construct complex blueprints. High ratings in both *A* and *B* may be indicative of inventive mechanical ability.

Special mention should be made of the meritorious work with analogous and miniature work tests carried on by German scientists

SURFACE DEVELOPMENT

In this test you will be shown pictures of some simple objects that can be made from cardboard or sheet metal. With each picture there is also a diagram showing how a piece of cardboard might be cut and folded so as to make the object. The dotted lines show where the cardboard or metal should be folded.

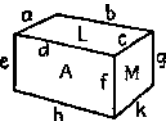
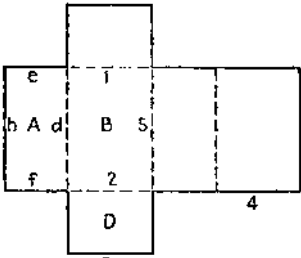
Look at the *picture* and the *diagram* below. The diagram shows a cardboard cut so that it might be folded into the shape of a box. Notice the side *A* in the picture and also the side *A* in the diagram. Notice that the edges *e*, *d*, *f*, *h* in the picture are also marked in the diagram.

In the *schedule* there are indicated certain parts of the diagram which correspond to certain parts of the picture. You are to fill in the blank spaces in the schedule.

In the first line of the schedule we are to *find the part of the picture* that corresponds to the side *B* in the diagram. Look at *B* in the diagram and you will see that it corresponds to *L* in the picture. Therefore *L* has been written in the blank space opposite *B* in the schedule.

In the next line of the schedule we are to *find the part of the picture* that corresponds to 1 in the diagram. Look at the edge 1 in the diagram and you will see that it corresponds to the edge *a* in the picture. Therefore the letter *a* has been written in the schedule.

Fill in the other blanks in the same manner. Go right ahead. Do not wait for any signal.

PICTURE	DIAGRAM	SCHEDULE														
		<table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr> <th style="padding: 5px;">Part of the picture</th> <th style="padding: 5px;">Part of the diagram</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px; text-align: center;">L</td> <td style="padding: 5px; text-align: center;">B</td> </tr> <tr> <td style="padding: 5px; text-align: center;">a</td> <td style="padding: 5px; text-align: center;">1</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px; text-align: center;">2</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px; text-align: center;">3</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px; text-align: center;">4</td> </tr> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px; text-align: center;">5</td> </tr> </tbody> </table>	Part of the picture	Part of the diagram	L	B	a	1		2		3		4		5
Part of the picture	Part of the diagram															
L	B															
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When the signal is given (not yet) turn the page and do more problems of the Ramp kind. Work rapidly and accurately because your mark will be the total number of correct answers. You may not be able to finish in the time allowed.

Stop here. Wait for further instructions.

FIG. 56.—The Thurstone surface development test.

in selecting men adapted to understand and to manage motorized equipment of all kinds. This work was begun before 1917 and has been carried on continuously. Special mention should be made of the work of such scientists as O. Bobertag, F. Giese, A. Heilandt, H. Hildebrandt, W. Moede, O. Lippmann, M. Nier, W. Poppelreuter, H. Rupp, and K. A. Tramm.

It is probable that these scientists made possible the wise selection of the personnel for the mechanized German army units.

CHAPTER XVII

MEASURING APTITUDES TO UNDERSTAND AND TO MANAGE MEN

The ability possessed by the successful dry-goods salesman is quite different from the ability possessed by the efficient infantry officer. Yet each is judged by his ability to understand and to manage men. It is apparent that different tests must be used to measure such diversity of abilities as those possessed by successful men who are salesmen (personal contact), advertisers (printed page), authors, military commanders, orators, radio artists, social leaders, supervisors of labor, statesmen, and teachers.

The following classes of tests or of procedures are used to measure the aptitudes of prospective salesmen to understand and to manage customers:

I. The Application Blank.—The purpose of the application blank is to provide data concerning the past experience and present status of the applicant so that the interviewer may answer in quantitative terms such questions as the following:

How desirable is his present age?_____

How adequate is his scholastic training?_____

How adequately has his previous experience prepared him for the position we need to fill?_____

How wisely does he spend his leisure time?_____

How stable is he?_____

How well would the proposed salary meet his current living expenses?_____

On each line following the question should be placed the appropriate letter or figure.

See Chap. IX for a more detailed discussion of the Application Blank.

II. The Interview.—This provides the occasion for making subjective estimates in quantitative terms to such questions as:

How fittingly does he dress?_____

How pleasing is his general personal appearance?_____

How am I affected by his voice?_____

How well does he express himself in conversation?_____»

How much good will does he create in me?_____

How ambitious is he?_____

How industrious is he?_____

The interviewer bases his judgment in part on the reading of letters of recommendation and on other data submitted by the applicant, but the special concern of the interviewer is to answer as accurately as possible the questions listed above. See Chap. VII on the Interview and Chap. XIX on Merit Rating for more complete details.

III. The Honesty Test and the Medical Examination.—The application blank and the interview cannot be relied upon to reveal evidence of dishonesty in dishonest applicants. Letters of recommendation from personal friends and former employers may even be devices for concealing dishonesty. Favorable confidential reports from former employers are at times submitted in the hope of securing a new job for one who could no longer be trusted.

There is no test that can guarantee honesty for the future, but there are tests that, to a high degree of certainty, can ascertain whether the subject has in the past been dishonest:

A. The Keeler Polygraph Test.—This test has been developed by Leonarde Keeler of the Scientific Crime Detection Laboratory of Northwestern University.

The polygraph or lie detector, first used practically by the police department of Berkeley, Calif., in 1921, is a collection or composite of instruments. It is made up of three units, one of which measures and records the subject's breathing, another that records changes in his pulse rate and blood pressure, and still another that measures the changes in the resistance of the skin to electric currents. All the bodily responses are recorded simultaneously on a moving strip of paper driven by a synchronous motor, but each unit is a separate entity and can be operated independently. The three units operated at once constitute the polygraph.

Principle of the Polygraph.—The polygraph is simply an apparatus that records the physiological changes in the subject's body that accompany his emotional changes. It is not a lie detector in itself, but it is a diagnostic instrument for the detection of deception. As the physician's fever thermometer and stethoscope are diagnostic aids in discovering a patient's diseased condition, so the polygraph is an instrument or aid to the personnel expert in his analysis of the subject's truthfulness. In the hands of a highly trained operator, the polygraph offers reliable and extremely critical data for the separation of truth from falsehood. But, as in the case of the physician's diagnostic aids, the interpretation of the data is the important part of the process. The careful training of the polygraph operator therefore is as important in the detection of deception as is the exact training of the physician in the field of medicine.

Uses of the Polygraph.—The common impression is that the lie detector catches criminals, yet its most valuable use in the police and commercial fields as well as in the community is in the elimination of suspicion from innocent persons. Time, money, and effort saved in narrowing down the limits of the investigation are considerable. To spare the feelings of innocent persons and consequently to preserve their good will are important and vital points when considering the use of the polygraph.

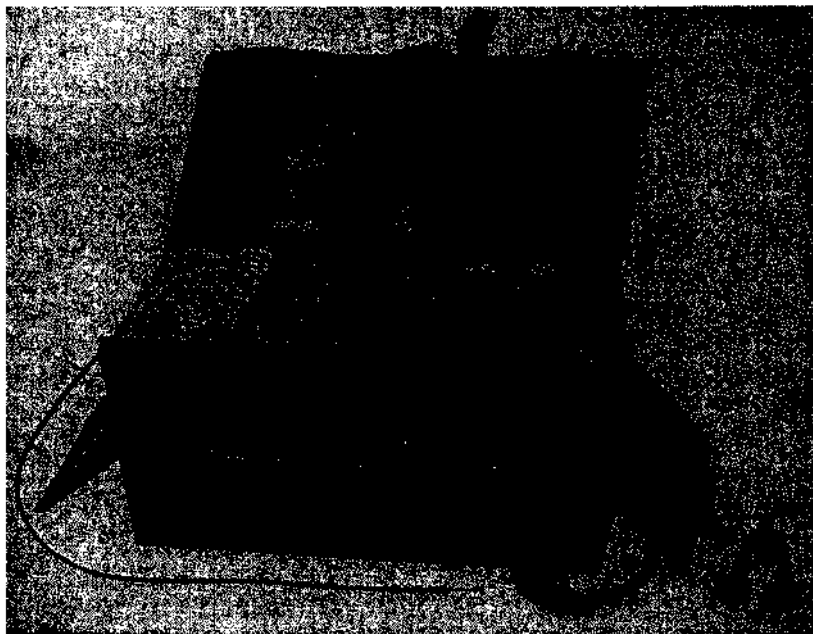


FIG. 57.—keelersv of Associated Research. Inc.. [Ch.ica.no](#) .

The degree of community protection offered by the polygraph is certainly an important factor to be considered. A few years ago in Berkeley, Calif., an eleven-year-old girl was raped by an unknown person. The only description of the rapist that could be given by the child was that he was attired in work clothes, similar to those worn by men working on a government relief project. The first 120 workers from a camp near the scene of the crime were given the polygraph test, and none gave reactions indicating guilt. The polygrams of the one hundred twenty-first denoted his guilt and, when his records were shown to him, he confessed. The time and effort necessary to clear this case by ordinary investigation procedure would have been long

and arduous. Under the circumstances, the case would have been almost impossible to solve without the polygraph.

It is common police experience that prominent citizens are sometimes charged with crimes by irresponsible persons or neurotic children. Frequently the crimes charged are of a sexual nature—an exceedingly serious type of charge to face. The polygraph test has again and again protected law-abiding citizens from just such situations by examining both the person charged and the one making the charge.

In Evanston, Ill., and Wichita, Kan., all applicants for police positions are required to take a polygraph test; in East Cleveland, Ohio, all applicants for Civil Service positions must submit to it. It has turned up many a criminal record and revealed otherwise undesirable backgrounds. The Chicago Park District Civil Service Commission examines policemen against whom a charge is placed or on whom suspicion is cast. The honest police officer welcomes the chance to exonerate himself of charges, and the public is protected from actions of irresponsible public servants.

Banks have made use of the polygraph, and, among Chicago bank personnel, 15 per cent (2,500 subjects) have, after taking the test, admitted theft of some money. Sixty-two per cent of all tellers tested (those employees handling cash) admitted theft of small or large amounts.

Among employees of department stores, approximately 85 per cent admit having taken money or merchandise.

Lloyds of London, reduce their bond premium rates when employees are subject to the Keeler polygraph (lie-detector) service findings. The polygraph is shown in Fig. 57.

One chain store firm had set up a 2 per cent reserve of gross sales as a protection against pilfering by employees. A test run of 400 employees in a certain store district disclosed 76 per cent of them taking merchandise or money or both. None of these employees was discharged, but following the tests they were advised that reexaminations were to be held in 6 months. If at this later examination period they were still taking money or merchandise, action would be taken. Six months afterward a sampling of this group was examined, at which time it was found that less than 1½ per cent had continued ties. This company estimates its previous annual loss by employee pilfering at \$1,500,000. From the standpoint of the employee, the betterment of morale is noticeable.

Recently a company operating a chain of automobile service stations complained of a loss of revenue from service charges. Examinations of all employees in four such stations disclosed that every

employee was taking money from such charges; some took all service charges that came their way—some took only a part of the cash that passed through their hands. The ensuing increase of earnings from this source was \$500 a month.

Approximately sixty Chicago banks and mercantile houses use the polygraph method of personnel examination. Some examine all persons making application for positions; others use the polygraph when specific losses are discovered. Sixty-five per cent of all applicants **for** jobs have taken money or merchandise or both—they are

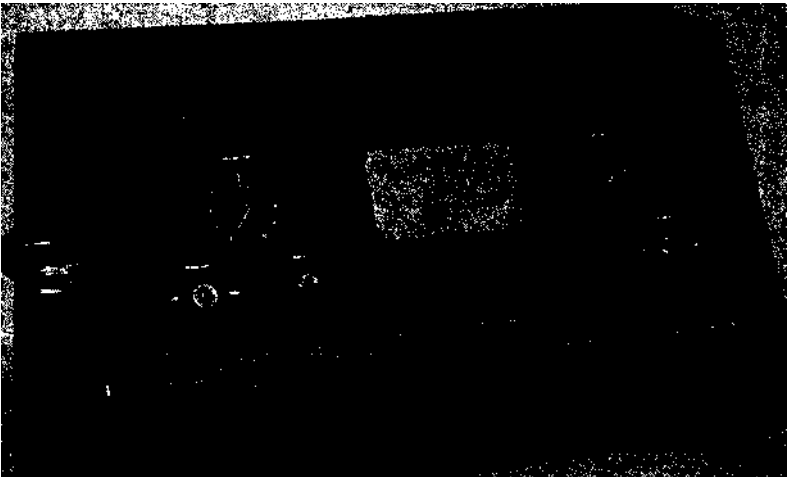


FIG. 58.—The Ruckmick affectometer. {Courtesy of Maico Co., Inc., Minneapolis.)

warned of reexamination and passed for bond if their final test indicates the entire truth has been told. Subsequent examination of these persons shows that less than 2 per cent continue their pilfering. Those that make complete confessions usually prove better risks than reexamined and untried persons. Those who pilfer without detection usually continue to pilfer. Those who are detected usually cease to pilfer.

B. The Ruckmick Affectometer Test.—The affectometer, Fig. 58, is a special type of galvanometer devised to measure the psychogalvanic reflex. It was invented by Dr. Christian A. Ruckmick and is distributed by the Maico Co., Inc., of Minneapolis. Other instruments have been devised for this same purpose. Interest in the psychogalvanic reflex is indicated by the fact that during the last 30 years

more than 450 articles have been published on this subject—mostly in scientific journals.

For many years, it has been known that emotional changes cause instantaneous changes in the electrical potential of the sweat glands. The affeetometer measures these electrical potential changes in the sweat glands in the palm of the hands.

The affeetometer has already been given successful practical tests by the police departments of several cities. Its main function in the hands of the criminologist or police department is in the sifting of criminal suspects, where it proves an invaluable timesaver. In the hands of a competent operator, its success as a lie detector is reported as better than 90 per cent.

The use of the affeetometer is not restricted to the detection of deceit. Dr. Ruckmick reports: j

This instrument is already in use by large advertising companies in measuring the relative "eye-appeal" and emotional effect of colorful and attractive packaging, of different renderings of a page of advertising copy. In this day of speed and hurry when a successful page of advertising has to step out of the magazine and hit the reader in his emotional weak spot, some concrete measurement of emotional effect on the reader is extremely valuable in preparing and selecting advertising copy. The same is equally true in the radio broadcasting field, where tones of voice, expressions, dramatizations, gags, etc., can all be laboratory tested for emotional effect before being released.

C. The Marston Systolic Blood-pressure Test for Deception.—

Professor Hugo Miinsterberg of Harvard University urged the desirability of measuring blood pressure for evidence of deception (*On The Witness Stand*, 1908). One of his students, William Moulton Marston, began a series of experiments to try out this suggestion. Without the consent of either Dr. Miinsterberg or Dr. Marston the experiments were given publicity by a newspaper reporter. The reporter christened the blood-pressure test "the lie detector." At this same time (1915), Dr. Marston reported his experiments in the *Journal of Experimental Psychology*. It is a matter of historic interest that the term "lie detector" was coined to describe the tests devised by Dr. Marston and that it referred primarily to the blood-pressure test rather than to any other type of test. Dr. Marston asserts that in judging emotions use may be made of all instruments that measure relative blood pressure, respiration, reaction time, psychogalvanic (skin) reflex, and hand tremors. However in his book, *The Lie Detector Test*, he emphasizes exclusively the value of examinations of blood-pressure changes. He anticipates wide extension of the legal application of the test. "Lie Detector evidence should and will become universally

accepted in Court, but the greatest benefit derived from the use of the test will be its effect in eliminating the perjury of witnesses rather than in the increased number of criminal convictions thus accomplished." He reports successful utilization of the test in examining consumers' reactions to commercial products, *e.g.*, the reactions of men and of women passengers to airplane travel. He prophesies the increased use of this test in such unusual places of personnel management as the selection of political candidates and in supplying a motive for moral education.

All Honesty Tests Are Fundamentally Alike.—The three honesty tests discussed above are identical in philosophy and in general procedure:

Each test assumes that all emotions are reflected in a particular pattern of physiological changes.

Each assumes that these physiological changes differ not only qualitatively but also quantitatively and so are measurable.

Each assumes that the record or measurement of these physiological changes can be interpreted only by an expert who possesses knowledge of human emotions and is experienced in measuring these changes.

Each type of test assumes that the experimenter is an artist who by means of his technique of questioning is able to arouse the emotions to be gauged.

Each type is strengthened by rechecking the responses of the subject. These control tests are coming to be regarded as almost essential.

Many honesty tests are highly reliable, but no one is infallible, and Marston reports, "In 107 cases the blood pressure test failed four times." Ruckraick reports successes of 94 per cent. Keeler reports 85 per cent of success and 75 per cent confessions. Keeler also reports that, at the Northwestern University Crime Detection Laboratory from January, 1935, to June, 1938, out of 2,171 cases 12 mistakes were made in diagnosis as shown by later evidence.

In June, 1940, there appeared in *Public Management*, official journal of the International City Managers Association, an article by Keeler entitled "Lie Detector Proves Its Usefulness." In that article, the following statement was made:

The lie detector has been found useful in locating stolen property; in testing fugitives from justice who are wanted elsewhere; in testing persons suspected of crimes who are found innocent but who have guilty knowledge and can be of aid in locating and convicting the actual offender; in checking on fictitious reports of burglaries, robberies, holdups, and other offenses made to the police to cover up defalcations and indiscretions; and in testing witnesses whose testimony is believed to be false, colored, prejudicial, or biased.

Such an article appearing in a commercial or industrial journal would of course stress the reductions in petty thievery and the improvement of the morale of the employees.

Any statement concerning the lie detector appearing in a book on Personnel Management and in the chapter on Measuring Aptitudes to Understand and to Manage Men must call attention to the following facts:

1. The lie detector has led to a better understanding of people insofar as honesty is concerned. No man is altogether honest or altogether dishonest, any more than he is altogether industrious or altogether lazy. Under ordinary conditions, most of us are fairly honest and fairly industrious. Under favorable conditions, most of us may become scrupulously honest and amazingly industrious, or vice versa.

The curve for individual differences in honesty is probably the same as the normal curve for individual differences for other traits. However, honesty like loyalty is difficult to rate. The application of the lie detector may make possible experiments that may result in findings that conform to the normal distribution curve.

2. The lie detector has made possible managerial procedures:

- a. that result in improved selection, placement, transfer, replacement and promotion of personnel;
- b. that deter the employees from pilfering cash and merchandise; and
- c. that improve the self-respect and general morale of the personnel.

3. The sales manager may use the lie detector as an aid to supplement his aptitude to understand and to manage subordinates or others. Management may use the lie detector to measure the honesty as an essential qualification of a sales manager.

Distinct professional training is a prerequisite for using the honesty test quite beyond the training possessed by employment managers. Accordingly, it is here grouped with the medical examination, and it is assumed that the honesty test and all medical tests will be given by an expert outside of the regular employment office.

IV. The Intelligence Test.—The successful salesman thinks quickly and responds promptly.

The intelligence of the prospective salesman can be measured so easily, so inexpensively, and so accurately that such measurements should be standard practice in the office that employs salesmen.

Mental-alertness tests are discussed and illustrated in Chap. XV.

V. The Aggression-Submission Test.—In personal selling, the *attitude* of the salesman is important. On the one hand, he may take an aggressive, dominant attitude, or, on the other hand, he may take an attitude of submission or hesitation. It is possible, within limits, to measure the degree to which a prospective salesman will take either

of these attitudes in actual selling. Two of the most widely used aggression-submission tests are illustrated below:

A. The Bernreuter Personality Inventory is one of the best known of such tests. It consists of 125 questions, each of which the subject is required to answer with a yes or no or with a question mark. Some questions are mere decoys and carry no weight; *e.g.*, "Would you dislike any work which might take you into isolation for a few years, such as forest ranging, etc.?"

Some questions have been found to be only slightly indicative of either aggression or of submission, *e.g.*, "Do you find conversation more helpful in formulating your ideas than reading?" Some questions have been found to be distinctly indicative of aggression, and answers are weighted heavily, *e.g.*, "Are you troubled with shyness?" In measuring for aggression, an answer of a yes is given a weight of -4 , a no is weighted as $+6$, and a ? is weighted as -3 .

B. The Pintner procedure in measuring ascendancy-submission is based on a method slightly different from the method employed by Bernreuter. The Pintner test lists statements, each of which is descriptive of either an aggressive or a submissive attitude. The subject is asked to check whether he feels the "same" or "different." The following statements checked as "same" indicate ascendancy:

"I try to be the first one to get into a street car."
"I have a lot of nerve."

The following statements checked as "different" also indicate ascendancy:

"I find it hard to talk before other people."
"I do not like to be the leader in games."

The Humm-Wadsworth Temperament Scale and other good scales for measuring emotions, attitudes, and sentiments are for the sake of brevity omitted from consideration.

VI. Extraversion-introversion Test.—Not only do prospective salesmen differ in the degree to which their attitudes may be classed as aggressive or as submissive, but they differ also in the extent to which their attitudes justify the classifying of some as extra verts **and** others as introverts.

The extravert is objective; the introvert is introspective.

The extravert is affected by his environment, the introvert by his moods.

The extravert expresses himself best in public address, the introvert in writing.

The extravert is often outspoken; the introvert is more careful of the feelings of others.

The extravert frequently takes little care in dressing; the introvert takes much time in dressing.

The feelings of the extra vert are not easily hurt; not so with the introvert.

The extravert thrives under discipline; the introvert rebels at discipline

The extravert is affected less by praise than is the introvert.

The extravert is less likely to suspect the motives of others than is the introvert.

The extravert is most likely to excel on the athletic field; the introvert in the classroom.

The extravert lives in the outer world; the introvert lives within himself.

The extravert is prosaic; the introvert is imaginative.

The extravert engages in acting; the introvert in daydreaming.

The extravert rarely worries; the introvert suffers emotional upsets.

Three methods of measuring extraversion-introversion are here illustrated:

A. The Bernreuter Personality Inventory is the best known test for measuring extraversion-introversion. Among the 125 questions answered by a yes or no or a ?, some have no value, some only little value, but others have great value in measuring extraversion-introversion; *e.g.* ,

An answer of no to the following questions is highly diagnostic of extraversion:

"Are your feelings easily hurt?"

"Do you often feel lonesome when you are with other people?"

An answer of yes to the following question is highly diagnostic of extraversion:

"Are you willing to take a chance alone in a situation of doubtful outcome?"

"Do you take the responsibility for introducing people at a party?"

B. As an extraversion-introversion test, A. R. Root has found a very simple form to be satisfactory.

He asks a list of pertinent questions and then proposes five weighted answers for each, *e.g.*,

The testee is asked to check the answer that most accurately describes himself.

Do you like to be by yourself a great deal?

_____ Most often enjoy being by myself.

_____ Prefer not to have others about.

_____ Like to be with others about half the time.

_____ Am seldom alone.

_____ Hate ever to be alone.

C. In measuring ascendance-submission and extraversion-introversion the testee does the checking in the tests cited above, devised by Bernreuter and Root.

Donald A. Laird recommends a procedure that requires the checking to be made by a rater who has had opportunity to observe the behavior of the ratee. The rater makes use of a rating scale in recording his judgments as illustrated by the following three examples selected from a total of 41*

How has he been as a social mixer?	Always in the lead.	Mixes readily,	Friendly with some,	Usually retiring,	Shy and backward.
How has he been about blushing?	Readily at slight cause?	Blushes readily,	Once in awhile,	On rare occasions	Never blushes.
How has he been about selling things?	Very poor salesman,	Dislikes selling.	Sells when necessary,	Sells when given opportunity.	Always selling things.

An aggressive person enjoys selling and is likely to become a successful salesman. The same may be said of a person who is an extravert. Accordingly tests for aggression-submission and for extraversion-introversion are at the same time tests for aptitude for salesmanship.

The successful salesmen of America are tall men. By this we mean that in stature over half of them rank above the average of male adults. However, few successful salesmen are greatly above the average height. Likewise, successful salesmen may be aggressive and may be extraverts. By this we mean that they are rather aggressive than submissive and rather extravert than introvert. However, most of them are certainly closer to the average than to the extremes.

VII. The Interest Test.—Personal selling is for some people a desired opportunity, the realization of an ambition, an exciting game, a stimulating contest of wits, a satisfaction not equaled in any other occupation.

On the other hand, there are people for whom personal selling is a necessary evil, a humiliating experience, a tedious drudgery, a dissatisfaction not equaled in any other occupation.

Interest tests have been devised to measure the interest of a sales candidate in the various activities connected with special types of selling. Interest tests will be discussed in Chap. XVIII.

A Balanced Testing Program.—The seven tests referred to above include those most favored by many experts in the field of personal salesmanship.

The "infallible" methods referred to in Chap. XIII are thoroughly discredited. The "hire-and-fire" method is recognized as cruel to the applicant and as expensive for the company.

It is quite possible in selecting salesman to put too much dependence on any one of these seven tests. A high rating in one test is not a sure prediction of success. A fairly low rating in one test is not a sure prediction of failure.

Some sales managers depend too much on previous experience and present status. If, in 1918, a sales manager had sought a man to "sell" a political idea to the German people and if he had depended on previous experience and present status, he would have rejected Adolf Hitler. If he had given proper consideration to all seven of the tests, **he** might have selected him. Hitler would have stood well in all tests but that of the application blank that gave his previous experience and present status. He would have stood high in any honesty test as he defined honesty in his book, *Mein Kampf*. He would probably have outranked any man in Germany in interest and aggressiveness.

Some sales managers depend too much on the interview. Many illustrations of this overemphasis are cited in Chap. XIII.

It is possible to put too much dependence on a high or on a low rating made by a physician or by an expert with the honesty test. One of the 20 largest companies conducting a national distribution in America employed as sales manager a man who had embezzled funds from his previous employer. After some years of successful endeavor, he resigned to become the head of a company of his own. The author of this chapter gave some of the seven tests to this man and can report the ratings, exclusive of the honesty test, as remarkably high.

Another one of the 20 largest companies conducting a national distribution in America applied a battery of tests to its present sales force. One of its very successful personal salesmen demonstrated by the mental-alertness test that he possessed an intelligence⁴ not above that of a seven-year-old boy. According to all other of the tests he stood high. He could not keep his own sales records and he did require much supervision, but he was a successful and a valuable salesman. He was satisfied and stable although the turnover was excessively **high** among the salesmen with superior intelligence. Salesmanship that involves planning, supervising, and teaching requires a high quality of intelligence. There are sales procedures that require affability, "canned" statements, "shoe leather," and a low degree of intelligence. If intelligent men are selected for such positions, they soon become dissatisfied and seek other jobs. For such jobs, intelligence tests are important in eliminating those who pass with a high score.

The previous example of the embezzler who became a great sales manager and the example of the stupid man who was a fairly successful salesman are presented because they demonstrate that a candidate **may** possibly succeed even though he fails to come up to a minimum **standard** in one test. (At the request of any sales manager, the authors will be pleased to supply further data concerning these two examples.) Presumably there are no successful salesmen who would **fail in more than one out of the** first four of the seven tests.

The typical successful salesman has a behavior attitude that justifies his being classified as aggressive, as extravert, and as interested in the various activities involved in salesmanship. But our experience with the last three of the seven tests is inadequate at this time to justify sweeping statements concerning their validity for selecting salesmen. However, those who have had the most experience with these tests are enthusiastic in recommending them.

Of the seven tests here discussed no one is applicable only to the testing of the aptitudes of salesmen. The honesty test should be excluded from the tests to measure the aptitudes to understand and to manage men unless the term *ability* is used in a broad sense and includes *dependability*.

Weighting the Tests.—A scientific personnel specification for each sales position would throw much light on the qualifications that are required for success on the job and hence on the weight that should be given to the results of valid tests for that job. Pending the development of such personnel specifications, the following tentative suggestions are made:

1. All applicants for sales positions should be measured by each of the seven tests.
2. The following weight might be the maximum for each test:
 - a. The application blank (the questionnaire) 20 points
 - b. The interview. 20 points
 - c. The medical examination and the honesty test 10 points
 - d. A mental-alertness test (Including an information or vocabulary test). 20 points
 - e. The aggressive-submission test 10 points
 - f. The extravert-introvert test 10 points
 - g. The interest test 10 points
3. For meeting special conditions, changes such as the following are suggested:
 - a. The application blank should be given less weight in measuring applicants for positions that do not require previous experience.
 - b. The interview should have greater weight if it represents the combined judgment of several experienced interviewers.
 - c. The medical examination might have less weight in measuring applicants for positions that do not involve physical strain. The honesty test might be omitted for positions that contain no opportunities for stealing — if there be such!
 - d. The mental-alertness test should be given less weight if it is used only to determine a rating above which and below which candidates will not be employed.
 - e. All attitude and interest tests are new, and there is still some question as to their reliability and their validity. As soon as these have been established for any positions, the weighting might be increased.
 - f. A test on emotional stability might be added with the **appropriate readjusting of the weightings.**

If we should proceed on the assumption that in selecting personal salesmen the seven tests should be used and with the suggested weighting, there is no reason to assume that the same tests and the same weighting should be used in selecting employees for any other job.

This battery of seven tests is recommended as a good beginning procedure in selecting salesmen for the usual type of personal selling. Similar batteries should be developed for other types of selling. Still other batteries should be developed for measuring aptitudes to understand and to manage men who are to engage in activities other than selling.

This chapter might have given special consideration to any one of several other classes of employees. The salesman was selected as a typical example. Furthermore, the understanding and managing of salesmen has become an interesting and important illustration of art and science as applied to the control of human behavior.

Two hundred years ago, Pope wrote, "The proper study of mankind is Man." However, the business leaders of the world have only begun to recognize the study of man as of even more importance than the study of finance, of transportation, of "horse" power, of supplies, and of equipment. It is during the present decade that the business world began to apply experimental procedures to the measurements of aptitudes to understand and to manage men.

The Psychological General Staff of the German Reich.—In Chap. XVI, reference was made to the progress made in Germany in testing ability to understand and to manage things and mechanisms. In this chapter, special mention must be made of the most stupendous program ever conceived for understanding and for managing men, and for testing the aptitude for understanding and managing men.

It is no exaggeration to state that the Germans have made masterly applications to their military program of the psychological techniques discussed not only in the two preceding chapters and in this chapter, but also in the two succeeding chapters.

In 1920, Hans von Voss began an extensive development of psychological services in the Army. In this endeavor he was assisted by an ever-increasing number of experts. One military psychological laboratory was established in each of the 17 Army corps, one in each of the two naval commands, one for the Air Corps, and one central laboratory in Berlin for coordinating and directing the activities of the other 20 laboratories referred to. No mention is made here of the institutes and bureaus that engage exclusively in military propaganda.

In 1938, Adolph Hitler assumed control of this work and created the psychological general staff. Von Voss was promoted to the rank

of lieutenant general. Major General Foltman and many distinguished military leaders and scientists were assigned to duty under the lieutenant general. Of these scientists, Dr. Max Simoneit, because of his extensive publications on military psychology, is well known to American psychologists. Many of the researches of Dr. Simoneit have appeared in the journal *Soldatentum* or in pamphlets or booklets devoted to *Wehrpsychologie*. In these publications, Dr. Simoneit lists 38 distinct fields in which the German military psychologists have carried on research or have made practical applications of known psychological principles. One of these 38 fields for research and application is *selection of men*.

It is of course true that the psychological general staff is paying most attention to such military features as: (1) psychology of propaganda; (2) preparation and execution of morale offensives; (3) panic, fear, and other experiences in combat; and (4) psychological problems affecting the specialists of the *Luftwaffe* and of the *Panzer-divisions*. Nevertheless, the psychological general staff is making a distinct contribution to such phases of personnel management as the art and science of (1) creating effective procedures for building industrial morale, and (2) selecting men in industry.

CHAPTER XVIII

INTEREST TESTS

The term *interest* has several different meanings. Interest, as the term is used in personnel management, has a restricted meaning, but even the most strict usage of the term in personnel management often seems to include quite different activities or states of mind.

Webster gives the following definitions of interest:

Excitement of feeling, whether pleasant or painful, accompanying special attention to some object; concern.

Interest expresses mental excitement of various kinds and degrees.

Interest stands for a permanent disposition or capability of being actually interested. Thus we may say of a person that he is interested in mathematics, although he may not at the moment be thinking of mathematics at all.

As synonyms for the verb *interest* as here used, Webster lists the following:

Excite, entertain, engage, occupy, hold.

The following sentences are selected from *Aptitudes and Aptitude Testing* by W. V. Bingham:

We defined interest in an object, a person, an activity, or a field of occupation, as a tendency to give attention to it, to find satisfaction in it. . . . Interest in an object or in an activity reveals itself in a heightened attention to it.

There is some relationship between interests and abilities. More often than not, a person can learn to do best what interests him most, and, conversely, is likely to develop an interest in doing what he finds he can do best. The outward manifestations of interest, then, are concentration of attention and persistence of activity. An interest is a tendency to become absorbed in an experience and to continue it, while an aversion is a tendency to turn away from it to something else. Interests and aversions are dynamic.

Interest, then, is not only a symptom, it is of the very essence, of aptitude.

We are interested in things that give us either pleasure or displeasure; but we seek and prolong the experiences that give us pleasure, and we avoid or abbreviate the experiences that give us displeasure.

The man on the street knows what is meant by *ideas*, and he recognizes personal differences in aptitudes to understand and to use

ideas. Chapter XV presents an abundance of widely accepted tests to measure such aptitudes.

It is perfectly clear just what is meant by muscular abilities and by ability to perceive and to visualize *things* and *mechanisms* in their space relationships. Numerous tests to measure these abilities are presented in Chap. XVI.

There is little ambiguity about the meaning of understanding and managing *men*. Chapter XVII presents seven types of standards for measuring aptitudes to understand and to manage men. Most of these standards are accepted with hearty approval.

Merit ratings, as discussed in Chap. XIX, are easily understood and are so obviously of great practical value that even inferior types of merit ratings have been accepted with unjustifiable credulity.

Every *interest* test proposed has historically been received with skepticism and bitter criticism. However, there are at least two classes of interest tests that have withstood all criticism and have demonstrated their practical value:

1. Information Tests as Interest Tests.—The very thought of blueprints and of the mechanical construction of things awakens in some persons pleasing emotions (satisfaction), in others a state of indifference, and in others displeasing emotions. The young person who has attained the age for entering regular employment has been subjected to innumerable experiences that were pleasing to him and also to innumerable experiences that were displeasing to him. The pleasing experiences are sought and prolonged; the displeasing ones are avoided or terminated quickly.

If tools and machines are more pleasing to him than other classes of things, he will have acquired casual information concerning many tools and machines. If tools and machines are indifferent or displeasing to him, he will have casual information only concerning a relatively small number of tools and machines.

To measure the relative extent of this casual information concerning tools and machines, tests have been devised and administered to prospective apprentices in metal trades and to many other persons. These tests measure the extent of the information, and the relative extent of the information is assumed to **be** a rough measure of the interest of the testee.

a. The Stevens Mechanical Inclination Test—This test is in the form of a group test printed on an eight-page folder. On the pages are shown drawings of 150 tools, machines, or parts of machines. Immediately under each drawing is a dotted line, and on that line the testee is asked to write the name or the use of the **object**. **Twenty minutes**

are allowed for completing the test. Of the 150 drawings, the first eight are reproduced (Fig. 59). In the most recent revisions of this type of test, three improvements are introduced: (1) Instead of writing the name of the tool, the ratee is asked to check the correct name out of a list of suggested names. (2) Instead of writing the use of the tool, he is asked to check the correct use out of a list of suggested uses. (3) He is also asked to check some other pertinent fact such as: which one of several other tools is used with this tool; what is the degree of accuracy that may be assumed if the tool is used alone; and what degree may be assumed if used with another suggested tool? For example, in the Stevens test, the first item is a drawing of a micrometer caliper,



FIG. 59.—The Stevens Mechanical Inclination Test.

and the testee is asked merely to write the name or use. In a recent revision, the testee is given the following multiple choices:

1. Name: Vernier caliper Micrometer caliper Protractor Inside Micrometer
2. Use: Testing level of work Measuring outside diameter Measuring angles on work
3. When this instrument is equipped with a vernier, what part of an inch can be read directly? 0.0001 0.001 0.01 0.1

6. *The O'Rourke Mechanical Aptitude Test.*—This test is a group test and is restricted to the measurement of knowledge concerning tools, machines, and parts of machines.

In one part of the test, there are 60 statements each with five suggested answers, and the correct one is to be indicated. In another part of the test, there are 90 drawings of tools or machines, and the testee indicates which of several is used for a certain purpose or which tool is used with which other tool. The multiple choice is used throughout both parts. The directions and three of the statements of one part are reproduced in Fig. 60. The

directions and certain samples of the other part are reproduced as Fig. 61. (Reproduction authorized by the Psychological Institute.)

The Stevens and the O'Rourke tests measure interests only indirectly by measuring the extent of information that may have resulted because of interests. The validity of such tests is not high.

In each sentence below five answers are suggested. Only one of them is correct. Write the NUMBER of the correct answer on the line at the right. If you are not sure, guess. "HAMMER," marked 2, is the correct word in the first sentence, so 2 is written on the line at the right. "SCREWDRIIVER," marked 3, is the correct answer to sample 2, so write 3 on the line at the right.

Samples:

1. A carpenter drives a nail with (1) a key (2) a hammer (3) an axe
(4) a screw (5) a file. Ans. 2
2. A carpenter drives a screw into wood with a (1) hatchet (2) wrench
(3) screwdriver (4) file (5) nut Ans. _____

Answer every question on pages 5 and 6.

1. Which one of the following is used to cut a log into stove-length wood? (1) bucksaw (2) crosscut saw (3) draw knife (4) hatchet (5) wedge _____
2. Which one of the following is commonly used for electric-wiring insulation? (1) brass (2) rubber (3) steel (4) wood (5) zinc _____
3. In what part of a railroad locomotive is the steam formed? (1) boiler (2) cylinder (3) fire box (4) superheater (5) tender _____

FIG. 60.—The O'Rourke Mechanical Aptitude Test (a).

2. The Strong Vocational Interest Blank.—The Strong Vocational Interest Blank is intended to measure interests directly.

The Blank consists of eight pages, size 8½ by 11 in. Six of these pages, closely printed, contain the eight weighted parts that constitute the measuring stick. Each part contains from 39 to 100 items—total 400. The instructions and two items for each part are reproduced as Fig. 62.

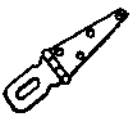
In addition to the eight parts mentioned, further facts are called for by responses to such questions as the following:

Occupation I am planning to enter _____
 Reason for choice _____
 Date of decision _____
 Jobs I have been employed at _____ i _____
 Occupations I have formerly considered or daydreamed of _____
 Occupations suggested to you by others _____
 If you could do just as you please, what would you like to be doing
 10 or 15 years from now? _____

O'ROURKE MECHANICAL APTITUDE TEST—JUNIOR GRADE, FORM C

SAMPLES

Each of the three pictures marked with a number is *used with*, a picture at the right marked with a letter. Look at the picture marked 1. Then look at the pictures marked A, B, and C and decide which is *used with* 1. Write the letter of the picture which goes with 1, on the line marked 1 at the right of the pictures. Then find the picture that is *used with* picture 2, and write the letter of that picture after 2 on the line at the right. The first sample is done correctly. Picture C is *used with* picture 1, so "C" is written after 1 on the line at the right. B is *used with* 2, so WRITE "B" ON THE LINE AT THE RIGHT AFTER 2. "Nail," marked A, is used with "hammer" marked 3, so WRITE "A" AFTER 3 ON THE LINE AT THE RIGHT.

NUMBERED				LETTERED			(Write answer here)
			Fig. 1.				1. <u>C</u>
1	2	3		A	B	C	2. _____
							3. _____

Under each set of pictures you will find some questions. In *each* square at the right of the questions, write a number or a letter to show which tools you would use to do what is asked. Where there are two squares, be sure to write a number or a letter in *each* square. Pictures 3 and A show what is used to fasten a board to a box, so 3 and "A" are written in the squares at the right after question 1. Picture 2 is the correct answer for question 2. Pictures 1 and C are the correct answers for question 3, so WRITE 1 IN THE FIRST SQUARE AND "C" IN THE SECOND SQUARE AFTER QUESTION 3.

In *each* square at the right of the questions below, write a number or a letter to show which tool in Figure 1 you would use:

	(Write an answer in EACH square)
1. To fasten a board to a box	3 \ A \
2. To tighten a nut	12
3. To fasten a door so as to use a padlock	

FIG. 61.—The O'Rourke Mechanical Aptitude Test (b).

Part I. Occupations. Indicate after each occupation listed below whether you would like that kind of work or not. Disregard considerations of salary, social standing, future advancement, etc. Consider only whether or not you would like to do what is involved in the occupation. You are not asked if you would take up the occupation permanently, but merely whether or not you would enjoy that kind of work, regardless of any necessary skills, abilities, or training which you may or may not possess.

Draw a circle around L if you like that kind of work

Draw a circle around I if you are indifferent to that kind of work

Draw a circle around D if you dislike that kind of work

Work rapidly. Your first impressions are desired here. Answer all the items. Many of the seemingly trivial and irrelevant items are very useful in diagnosing your real attitude.

1. Actor (not movie) L I D 2. Advertiser L I D etc.

Part II. School Subjects. Indicate as in Part I your interest when in school.

101. Algebra L I D 102. Agriculture L I D etc.

Part III. Amusements. Indicate in the same manner as in Part I whether you like the following or not. If in doubt, consider your most frequent attitude. *Work rapidly.* Do not think over various possibilities. Record your first impression.

137. Golf L I D 138. Fishing L I D etc.

Part IV. Activities. Indicate your interests as in Part I.

180. Repairing a clock L I D 187. Adjusting a carburetor. L I D etc.

Part V. Peculiarities of People. Record your first impression. Do not think of various possibilities or of exceptional cases. "Let yourself go" and record the feeling that comes to mind as you read the item.

234. Progressive people L I D 235. Conservative people... L I D etc.

Part VI. Order of Preference of Activities. Indicate which three of the following ten activities you would enjoy most by checking () opposite them in column 1; also indicate which three you would enjoy least by checking opposite them in column 3. Check the remaining four activities in column 2.

1 2 3

281. () () () Develop the theory of operation of a new machine, e.g., auto

282. () () () Operate (manipulate) the new machine, etc.

Indicate in the same way what you consider are the three most important factors affecting your work; also the three least important factors. Check the remaining four items in column 2. Be sure you have marked three items under 1, three items under 3, and four items under 2.

1 2 3

291. () () () Salary received for work

292. () () () Steadiness and permanence of work, etc.

Indicate in the same way the three men you would most like to have been; also the three you would least like to have been. Check the remaining four men in column 2.

1 2 3

301. () () () Luther Burbank, "plant wizard"

302. () () () Enrico Caruso, singer, etc.

Indicate in the same way the three positions you would most prefer to hold in club or society; also the three you least prefer to hold. Check the remaining four in column 2.

FIG. 62.—The Strong Vocational Interest Blank.

1 2 3
 311. () () () President of a Society or Club

312. () () () Secretary of a Society or Club, etc.

Part VII. Comparison of Interest between Two Items. Indicate your choice of the following pairs by checking (V) in the first space if you prefer the item to the left, in the second space if you like both equally well, and in the third space if you prefer the item to the right. Assume other things are equal except the two items to be compared.

321. Street-car motorman. () () () Street-car conductor

322. Policeman. () () () Fireman (fights fire), etc.

Part VIII. Rating of Present Abilities and Characteristics. Indicate below what kind of a person you are right now and what you have done. Check in the first column ("Yes") if the item really describes you, in the third column ("No") if the item does not describe you, and in the second column (?) if you are not sure. (Be frank in pointing out your weak points, for selection of a vocation must be made in terms of them as well as your strong points.)

	Yes	?	No
361. Usually start activities of my group.	()	()	()
362. Usually drive myself steadily (do not work by fits and starts.)	()	()	()
Check (V) in the first, second, or third column at the right according as the first, second, or third statement in each item below applies to you.			
389. Feelings easily hurt.	(2) Feelings hurt sometimes.	(3) Feelings rarely hurt.	1st 2nd 3rd () () ()
390. Usually ignore the feelings of others.	(2) Consider them sometimes.	(3) Carefully consider them.	() () () etc.

FIG. 62.—The Strong Vocational Interest Blank {Concluded}.

The Test Appraised.—The Strong Vocational Interest test is so unique, is so adequate from the point of view of reliability and validity that the following observations are merited:

In taking this test the successful representatives of 50 occupations or professions respond according to a pattern characteristic only of that group. The grading of results is based on the interest patterns of these successful representatives.

This test answers the question, "Does this testee tend to like the same things the -successful people following a particular occupation like?"

Although each profession or occupation has a special interest pattern that is ordinarily indicated for each successful member, it is possible to reduce many professions and occupations into a half dozen groups according to similarity of interest pattern. Thus the interest pattern for a physicist is similar to the interest pattern for a mathematician, engineer, and chemist, and to a lesser degree for a physician, dentist, psychologist, architect, and artist. The interest pattern for a lawyer is similar to the pattern for a journalist and advertiser; the

life insurance salesman to the real estate salesman; the social science teacher to the minister; the Y.M.C.A. secretary to the school superintendent; and the office worker to the accountant. A rating of A in the test indicates that the individual has responded to the items in the same way as 70 per cent of the criterion group. A rating of B indicates that the individual checked his interests in agreement with about one-fourth of the successful men in the occupation. C indicates that one does not have the interest of those successfully engaged in the occupation.

The results seem to indicate that there are only a few basic or general interests; that interests in things and mechanisms is but an aspect of a general interest that is sometimes spoken of as the physical-science factor.

The results indicate that there are very slight changes of interest between successive 10-year intervals from twenty-five to fifty-five years of age; but there are marked changes in measured interests for the age of fifteen to twenty-five years.

This test is not particularly valuable for people planning to enter manual occupations or the more routine clerical fields. It is particularly valuable for the person who has passed high in other psychological tests, because it helps to determine the occupation that will provide him the personal values that come only to the man who likes his job.

A man who possesses the talents for success in several available occupations should probably select that occupation that brings him into contact with the most agreeable companions. This test helps him to select the occupation that would bring him into contact with fellow workers of similar interests, and therefore into contact with workers who are agreeable companions.

The reported reliability of the test is high—frequently above 0.80. The validity is significant. Strong reports the following on the "Productiveness and Interest Ratings of 181 Life Insurance Agents." Of all those who received an interest rating of C, 31 per cent sold annually from \$0 to \$49,000 of insurance; 44 per cent from \$50,000 to \$99,000; 12 per cent from \$100,000 to \$149,000; 6 per cent from \$150,000 to \$199,000; and 0 per cent from \$200,000 up. Of all those who received an interest rating of A, 2 per cent sold annually from \$0 to \$49,000 of insurance; 13 per cent from \$50,000 to \$99,000; 18 per cent from \$100,000 to \$149,000; 26 per cent from \$150,000 to \$199,000, and 41 per cent from \$200,000 up.

General Considerations.—For the sake of brevity and simplicity in discussing the individual tests in Chaps. XV, XVI, XVII, and

XVIII, each test is presented as an independent unit in a program of selection. As a matter of actual practice, almost every test is used also as a subtest in a battery of tests. Each test, or each battery of tests, is used (1) not merely for selection, but also (2) as a guidance test, (3) as a measure of additional training required as preparation for a job, or (4) as a merit rating.

Chapter XV stressed the importance of mental alertness, of knowledge, of learning, and of intellectual maturity. It presented tests for measuring various forms of intellectual ability. It stressed the close relationship between a high degree of intelligence and success in various occupations. However, it should be borne in mind that intelligence is but one factor in success. Among the aptitudes to understand and to use ideas, a high rating in both ability and interest is essential for distinctive achievement.

It was stated in Chap. XVI that "A high rating in the tests mentioned in A (muscular abilities) indicates that the prospective apprentice for a metal trade is capable of becoming a proficient workman in almost any unskilled or semiskilled routine job of the trade. A high rating in both A and B (ability to perceive and to visualize things and mechanisms in their space relationships) indicates probable potential ability in jobs requiring not only routine manipulative skill but also the ability to handle mechanical equipment and to read and to construct complex blueprints. High ratings in both A and B may be indicative of inventive mechanical ability." It should be added that there are candidates for the position of apprentice in the metal trades who rank high in the tests discussed under A and B above but who would probably not succeed as apprentices or as journeymen in any metal trade. Some of this group would rate even higher in tests devised to measure aptitude for the so-called "learned" professions, for merchandising, for agriculture, for art, for seamanship, for sportsmanship, for dramatics, for writing, etc. Some such individuals apply for an apprenticeship in a metal trade because of force of circumstances, even though their hearts are not and never will be in the metal trades. They do not take and never have taken satisfaction in handling machines and would probably not succeed in a metal trade. Interest tests are therefore important in batteries of tests to measure aptitudes for understanding and operating tools and machines.

In Chap. XVII, the statement was made that in any complete battery of tests for measuring aptitudes to understand and to manage men, place must be made for an interest test. Standard interest tests are presented in this chapter.

Supervisors have a unique opportunity to judge the pertinent traits of their subordinates. Chapter XIX presents approved procedures whereby supervisors may measure the traits of their subordinates. These measurements are highly diagnostic only when they include adequate weighting of personal interests.

The human individual is a most complex organism. A worker may possess exceptional ability but fail to exercise it even though he manifests interest in his work. He may be temperamentally unstable. His previous experience may have been unfortunate. His home life may be diverting. The social environment of the job may reduce his efficiency. The tests described in these chapters may all be very much worth while, but a human individual and his environment are so complex that no battery of tests should be taken for granted as an adequate measure of all his traits and of all the factors in his environment that affect his behavior. No individual test and no battery of tests should be regarded as adequate unless the test results obtained by the organization have been found to correlate highly with the later achievements on the job.

CHAPTER XIX

MERIT RATING

The term *merit rating* is not yet fully established in personnel literature. Such synonyms as the following are used: service rating, personnel review, personality rating, employee appraisal, behavior rating, progress report, executive evaluation, and estimates upon non-measurable abilities, qualities, traits, habits, or achievements.

Merit ratings are not synonymous with test records, with production records, or with any other objective measurements. Because of a lack of workable objective measurements, business organizations depend on merit ratings of such traits (abilities, habits, or qualities) as appearance and manner, attitude toward fellow workers, cheerfulness, cooperation, dependability, enthusiasm, general value to the organization, industry, initiative, leadership, loyalty, personality, quality of work, reliability, supervision needed, and versatility. No company attempts to secure ratings on each of these traits. A common practice is to rate but five or six of them. Ordinarily the trait rated is defined and restricted so that it applies only to specific and significant actions.

Merit ratings may be used (1) to measure aptitudes to understand and to use ideas; (2) to measure aptitudes to understand and to operate things and machines; but in this chapter merit rating is presented *primarily* as a method used (3) to measure aptitudes to understand and to manage men.

Merit ratings are used in business for diverse purposes: as a record of progress for apprentices and regular employees; as a guide in making promotions, transfers, or demotions; as a guide in making lists for bonus distribution, for seniority consideration, and for rates of pay; as an instrument for discovering hidden genius; and as a source of information that makes conferences with employees helpful.

Personnel Management Slow in Development.—Although merit ratings have proved useful in government, industry, commerce, and education, their development has been relatively recent. In fact, the whole field of personnel management has been slow in development. In the Industrial Revolution that began over 100 years ago, most attention was given to the understanding and operating of machines rather

than to the understanding and management of human individuals. However, in 1847, the British Parliament passed the Ten Hour Day Law for factories employing women and children. Constantly since that date progress has been made in all the world, but particularly in America, in personnel management. The status of the worker and his output has risen steadily. For certain years, this progress in personnel management is more apparent than at other times. For example, in the half dozen years preceding 1917, such progress was particularly apparent.

. During these years, individual employers, the U. S. Labor Department, and associations of businessmen realized more acutely than ever the cost of our labor turnover in industry and in commerce. One hundred per cent annual labor turnover was normal, but certain large firms exceeded 300 per cent as their annual labor turnover. The Ford Motor Company in 1916 reported as follows: "We used to hire from 40 to 60 per cent of our force each month to maintain it. In the year 1913 between 50,000 and 60,000 passed through our employment office." At the same time, they reported a 10 per cent daily absentee list.

It was no uncommon experience in American sales organizations for 85 per cent of all new salesmen to resign or be discharged within the first 12 months. This was the period when traditional policies having to do with employer-employee relations began to be abandoned, and new and venturesome policies began to be adopted. The Ford Motor Company announced its astounding profit-sharing plan. Employment departments were created as staff organizations in many large business enterprises. Employment managers' associations were, during these half dozen years, established in most of the industrial centers of America. A great conference on employment practices was held in Minneapolis on Jan. 19 and 20, 1916. The *Annals* of the American Academy of Political and Social Science devoted the whole volume (326 pages) of the May, 1916, issue to that conference.

In this May, 1916, issue of the *Annals* appeared papers from various employment managers. One paper presented by the manager of the employment department of one of the most highly respected firms in America contained this statement:

Some employers justly claim to be able to determine the characteristics of an individual by analyzing all physical conditions such as the height of his brow, the curve of his nose and the shape of his head. Though not an adherent to this method I am not unappreciative of the fact that productive scientific study has been conducted along these lines and that on this basis, careful and efficient selections have been made. Even if this method is

followed, the employment manager must have in addition an understanding of the more usual human characteristics and tendencies. He should be able to interpret in his applicant with some degree of accuracy, such qualities as: the firmness of his eye, the set of his jaw, the self-assurance of his manner, the degree of culture of his speech, as well as noticeable mannerisms.

Such statements as these coming from persons entrusted with the selection of employees indicate that but little advance had been made in our employment and management procedure in America between 1492 and 1916. However, real progress had been made, when many of the leading business executives in America recognized that our selection and management procedures were excessively costly to capital and to labor. Furthermore, they had faith to believe that something could be done about it.

Scientific Management.—This faith was not the result of wishful thinking but was based on the actual results of experiments in management that had amazed the business world. Frederick W. Taylor, H. L. Gantt, and Frank B. and Lillian M. Gilbreth had developed scientific management into a procedure that doubled the output of the workman and of the machine. In 1914, Lillian M. Gilbreth published *The Psychology of Management*, and, in 1916, H. L. Gantt published *Industrial Leadership*. These publications and others by efficiency experts had reference to the shop worker. But many commercial leaders believed that, by the application of science, the methods of selecting and of managing commercial workers could be improved as much as had the method of selecting and of handling industrial workers.

The commercial leaders were aware of the fact that failures in selecting and managing salesmen were even more expensive and more frequent than were the failures in selecting and managing industrial workers.

Bureau of Salesmanship Research.—It was in this environment that Edward A. Woods of the Equitable Life Assurance Society, H. J. Hein²⁵, founder of the H. J. Heinz Company, and Norval Hawkins of the Ford Motor Company assumed the responsibility of underwriting the Bureau of Salesmanship Research. The bureau as organized by these gentlemen consisted of 30 important business firms. Each of the firms employed a large number of salesmen.

Each firm agreed to contribute annually a fixed sum of money beginning June 1, 1916; to make available the time of that executive of the firm who was responsible for the selection and management of salesmen; to cooperate as requested by the bureau in personnel experiments having to do with selecting and managing salesmen.

The staff of the bureau contained (1) several psychologists, who by their research and by their publications indicated an interest in applied psychology, and (2) the sales manager or employment manager of each of the 30 firms.

After a few months of cooperative study and effort it became apparent that in selecting salesmen:

1. A more practical application blank could be devised—a blank that called for all essential facts.
2. A more diplomatic letter asking former employers for confidential information could be written—a letter that would increase the number and the dependability of replies.
3. A more accurate measure of intelligence could be developed—a test that was reliable and valid.
4. A measure of the applicant's interest in dealing with people could be prepared.
5. But a measurement of the degree to which the applicant possessed many of the traits essential for successful salesmanship was not available.

There was no standard for measuring the degree to which any applicant was tactful, cooperative, or industrious, etc. The interviewer might have an unformulated subjective impression as to the degree to which the applicant possessed these desirable habits or traits, but he had no method of formulating the impression into a clear judgment and of expressing it or of recording it in such a form that it could be compared with his judgments concerning the same traits in other applicants.

The Bureau of Salesmanship Research faced squarely the necessity of devising a good yardstick for measuring and expressing in comparative terms the degree to which candidates possessed these intangible traits essential to success in salesmanship. The bureau was but one of the agencies that recognized the need and made constructive suggestions.

1. The Rating Scale Invented.—The first method invented and recommended was the rating scale. It was devised in January, 1917, and was soon recommended for trial both as a practical method for selecting salesmen and for measuring the degree to which desirable traits are possessed by the salesmen in service—*i.e.*, for both selection and for merit rating.

Prior to the creation of this rating scale, no well-considered rating scale had been invented for the use of sales managers. Disregarding unimportant exceptions to be discussed later, this rating scale was the first to be devised for use in business. It was assumed that, as soon as the scale had been tried and proved successful in rating salesmen,

it would then be adjusted to meet the special requirements for measuring the qualifications or traits of all classes of workmen and executives in business.

The Army Rating Scale.—As soon as America entered the World War in April, 1917, the staff of the bureau began at once to revise the rating scale to meet the needs of the Army. First, a scale was presented to the Army to be used for selecting candidates for commissions at the conclusion of the officer-training courses. Later, practically the same scale was presented as a method for rating periodically the officers of the Army.

After prolonged experimentation and deliberation, the rating scale was adopted as the official instrument:

a. **For** selecting candidates who might attend the military schools conducted for prospective officers.

b. For selecting from among the graduates of these schools those who were to receive commissions.

c. For periodic merit ratings for every commissioned officer. No officer was eligible for promotion unless his merit rating on the scale was as high as 60. Any officer whose rating was below 45 was subject to transfer or demotion.

At the conclusion of the war, the Adjutant General issued a full report concerning the use of the rating scale. In that report appeared the following statement:

The accuracy of the result depends largely upon the care with which the rating scale is constructed. When instructions are followed closely and raters do their work conscientiously, the ratings show a high degree of accuracy and uniformity. No other selective system that has ever been devised so completely eliminates the personal equation or so justly determines merit.¹

Soon after the actual beginning of the war, five major generals in the U. S. Army were directed by the Secretary of War to use this rating scale to rate all the major generals and brigadier generals in so far as they were acquainted with them. One hundred sixty-nine generals were rated. The final rating given to each was the average of the individual ratings made by these major generals.

During the period of the war all these officers were tested under war conditions—the most exacting test possible. Their strong points and their weak points were demonstrated, and the results were significant. The 10 generals who in the beginning had been rated highest all rose to responsibilities of preeminence during the war. The 10 generals who had been rated lowest occupied positions of merely

¹ *The Personnel System of the United States Army*, Vol. I I , p. 261.

WAR DEPARTMENT

INSTRUCTIONS FOR RATING COMMISSIONED OFFICERS

Significance of the Rating Scale.

1. Under General Orders 46 and 85 (W. D., 1918) all officers in the Army below the rank of Brigadier General will be rated quarterly according to the Officers' Rating Scale. Circular No. 73 (W. D., 1918) provides that a final rating will be given each officer just prior to separation from the service. The rating of an officer is a numerical expression of the degree in which he possesses the five essential qualifications of an officer, namely; (1) Physical Qualities, (2) Intelligence, (3) Leadership, (4) Personal Qualities, and (5) General Value to the Service. The rating is made by comparing him in each of these respects with officers of the next higher rank.

2. Promotions, discharges, and subsequent appointments are determined as a rule by ratings. Making just and accurate ratings is therefore one of the most serious duties of an officer. Proper rating is largely dependent on the possession of an accurate Rating Scale. Each rating officer makes his own scale, using the reverse of this form.

How to Make the Scale.

3. Write on small slips of paper the names of from 12 to 25 officers of your own rank and not above the average age of that rank. They should be men with whom you have served or with whom you are well acquainted. Include officers whose qualifications are extremely poor as well as those who are highly efficient. If these names do not include all the grades for each of the five qualifications, others may be added.

4. Look over your names from the viewpoint of Physical Qualities only. Disregard every other characteristic of each officer except the way in which he impresses his men by his physique, bearing, neatness, voice, energy, and endurance. Arrange the names on the slips of paper in order from highest to lowest on the basis of the physical qualities of the men. Select that officer who surpasses all the others in this qualification and enter his name on the line marked Highest under Physical Qualities. Then select the one who most conspicuously lacks these qualities and enter his name on the line marked Lowest. Select the officer who seems about halfway between the two previously selected and who represents about the general average in physical qualities; enter his name on the line marked Middle. Select the officer who is halfway between middle and highest; enter his name on the line marked High. Select the one who ranks halfway between middle and lowest; enter his name on the line marked Low.

5. In the same manner make out scales for each of the other four qualifications (Intelligence, Leadership, Personal Qualities, and General Value to the Service).

6. Each officer whose name appears on the scale should be one who exhibits clearly and distinctly the qualification and the degree of the qualification for which he has been chosen.

7. The names for Highest and Lowest on each section of the Scale must represent extreme cases. The name for the Middle should be that of an average officer, halfway between extremes. High and Low should be halfway between the Middle and the extremes. An even gradation of merit is important.

8. In making or using any section of the Scale, consider only the qualification it covers, totally disregarding all the others.

9. In rating subordinates of more than one grade the best practice is to make separate scales for each grade, using always the names of officers one grade higher than that of the subordinate to be rated. However, in exceptional cases good results have been secured where a Scale constructed of captains is used for rating both lieutenants and captains, and a Scale constructed of colonels is used for rating all ranks of field officers.

Points for Special Attention

10. Rate your subordinate for Physical Qualities first. Consider how he impresses his men by his physique, bearing, neatness, voice, energy, and endurance. Compare him with each of the five officers in section I of your Rating Scale, and give him the number of points following the name of the officer he most nearly equals. If he falls between two officers in the Scale, give him a number accordingly (e.g., if between Low and Middle, give him 7, $7\frac{1}{2}$ or 8).

11. Rate the subordinate in a corresponding manner for each of the other four essential qualifications.

12. In rating, make a man-to-man comparison of the subordinate with the officers whose names appear on your scale. Disregard the numerical equivalent until you have made these concrete comparisons.

13. When rating several subordinates, rate all of them on each qualification before adding the total for any one.

14. This is not a percentage, system and you should not allow yourself to fix in mind any particular number of points you think the subordinate ought to get.

15. The total rating for a subordinate is the sum of the ratings you give him in the five separate qualities. If these directions are followed carefully the average of any considerable group of officers rated will not be over 60 points.

16. Each officer below the rank of Brigadier General will be rated by his immediate superior. Ratings will be revised or approved by the immediate superior of the officer making the rating. Each revising officer will be held responsible for the ratings made by his subordinates.

I. Physical Qualities

Physique, bearing, neatness, voice, energy and endurance. (Consider how he impresses his men in the above respects.)

Highest	15
High	12
Middle	9
Low	6
Lowest	3

II. Intelligence

Accuracy, ease in learning, ability to grasp quickly the point of view of commanding officer, to issue clear and intelligent orders, to estimate a new situation, and to arrive at a sensible decision in a crisis.

Highest	15
High	12
Middle	9
Low	6
Lowest	3

III. Leadership

Initiative, force, self reliance, decisiveness, tact, ability to inspire men and to command their obedience, loyalty and cooperation.

Highest	15
High	12
Middle	9
Low	6
Lowest	3

IV. Personal Qualities

Industry, dependability, loyalty, readiness to shoulder responsibility for his own acts, freedom from conceit and selfishness, readiness and ability to cooperate.

Highest	15
High	12
Middle	9
Low	6
Lowest	3

V. General Value to the Service

His professional knowledge, skill and experience; success as an administrator and instructor; ability to get results.

Highest	40
High	32
Middle	24
Low	16
Lowest	8

nominal responsibility by the close of the war or were dropped from the service.

The essential feature of the scale was its use of the man-to-man comparisons. Accordingly it was called the Man-to-man Rating Scale.

The scale was used in the Army training camps to rate the candidates for admittance and also to rate the candidates for commissions. It was referred to by some as the Candidates' Rating Scale.

It was used to rate officers and was referred to by some as the Officers' Rating Scale.

Most persons who used the scale knew of its use only in the Army, and accordingly it was commonly spoken of by them as the Army Rating Scale.

Training of Raters.—Almost all officers of the Army who were directed to rate their subordinates, attended one or more conferences in which all details of the rating system were discussed. Special literature concerning the rating was provided for the commanding officers and for the camp personnel officers.

A fair understanding can be had from the minimum instruction as sent by the War Department to each rating officer.

The War Department Rating Scale is shown in Figs. 63 and 64.

The rating scale, in the form here presented or in some slightly modified form, was used to rate over 300,000 officers or candidates who desired to become officers. Every rating was significant in the life of an individual and in the effectiveness of the Army.

2. The Graphic Rating Scale.—During the years 1919 and 1920, a group of consultants and engineers in industrial personnel carried on a series of experiments in an attempt to improve the rating scale as an instrument for securing more reliable merit ratings. In conducting these experiments, they had the cooperation of 45 firms, associations, and institutions.

Difficulties Encountered.—In introducing and administering the rating scale, two difficulties arose. These same difficulties were encountered with the original 30 firms in 1917, with the Army in 1918-1919, and with the 45 firms in 1919-1920. These two difficulties were:

1. Some of the executives required to use the rating scale were unwilling to undergo the labor of making out the master rating scale. They sometimes postponed the task or made out a scale in a careless manner.

2. Some of the raters found difficulty in comparing a subordinate with the five men listed on the master scale and in stating which one of the five he resembled in the quality or trait under consideration.

SCALE B
GRAPHIC RATING SCALE
FOR
EXECUTIVES, DEPARTMENT HEADS, FOREMEN AND SUPERVISORS

INSTRUCTIONS FOR MAKING OUT THIS REPORT:

Before attempting to rate this supervisor, read carefully the definition of each quality immediately before rating the supervisor in that quality. Base your rating on the work this supervisor is actually doing at this time. Indicate your rating in each quality by placing a check (✓) on the line just where you think it ought to be. For instance, if in Quality I you think the person you are rating ranks somewhere between Unfavorable and Favorable, put your check on the line somewhere between these two points.

Afterward read Supplementary Instructions on reverse.

Name of Executive Being Rated: E. W. WILSON Name of Supervisor Being Rated: W. O. BAKER

Department or Division: SALES Supervisor's Department or Division: SALES

Group or Unit: RESEARCH Supervisor's Group or Unit: RESEARCH

QUALITIES	REPORT					
I. Consider his success in winning confidence and respect through his appearance and manner.	Impulsive	Favorable	Unfavorable	Unfavorable	Unfavorable	4
II. Consider his success in doing things in new and better ways and in adapting improved methods to his own work.	Impulsive	Unfavorable	Favorable	Favorable	Unfavorable	7
III. Consider his success in winning the cooperation of his subordinates, now, into a loyal and effective working unit.	Unfavorable	Unfavorable	Unfavorable	Unfavorable	Unfavorable	6
IV. Consider his success in organizing the work of his department or unit, both by delegating authority wisely and by making certain that results are achieved.	Unfavorable	Unfavorable	Unfavorable	Unfavorable	Unfavorable	8
V. Consider his success in making his department or unit a complete running part of the whole organization; his knowledge and appreciation of the problems of other departments.	Unfavorable	Unfavorable	Unfavorable	Unfavorable	Unfavorable	10
VI. Consider his success in improving his subordinates by inspiring, informing, or setting interest; developing talent and arousing ambition.	Unfavorable	Unfavorable	Unfavorable	Unfavorable	Unfavorable	8
VII. Consider his success in applying specialized knowledge in his particular field, whether by his own knowledge of ways and means or through his use of sources of information.	Unfavorable	Unfavorable	Unfavorable	Unfavorable	Unfavorable	9

DATE: _____ Final Rating: B Total Rating: 52

(OVER)

Face of graphic rating scale for executives, department heads, foremen, and supervisors.

objective *phrases* descriptive of the five degrees of that trait, from the maximum to the minimum. In other words, in the original scale the ratee was judged to equal a particular *person* in the degree to which

SUPPLEMENTARY INSTRUCTIONS TO RATOR

On the face of this Scale, you have entered by a check (✓) your judgment of the subordinate in seven specific qualities regarded as important by the management. In addition, you are requested to check (✓) the appropriate items below, stating your reasons, action, etc., in each instance, and to give the desired information in 5 and 6.

1. This employee (individual being rated) should be considered for promotion at the first opportunity. ☒

Reasons and suggested line of promotion: *His personality is against him but he is popular with his subordinates and helps running. To lose touch of sales research*

2. He should be transferred to other work. ☐

Reasons and suggested line of work: _____

3. He is ambitious in program and should be advised how best to qualify himself for advancement. ☒

Remarks: *Wants advice as to best course of study to take up*

4. He desires advice as to his present and future opportunities. ☐

Remarks: _____

5. He is taking special courses in: *Business English*

6. He desires special or further training in: *Statistical procedure*

7. A conference with the Personnel Division is desired with reference to this employee. ☐

**THE GRAPHIC RATING SCALE FOR EXECUTIVES
ITS PURPOSE AND USE**

1. The Graphic Rating Scale is a practical method through which each executive's and non-supervisory's ability and fitness for his current responsibilities can be known quickly, with a reasonable degree of accuracy and with uniformity throughout the Company.
2. Each department head, chief clerk, etc., rates the group heads, subheads and others in supervisory positions who are subordinate to him. Conversely each person in an executive or supervisory position is rated by several (usually three) superiors. This secures a well-balanced judgment in each instance. Where marked differences of opinion occur, the raters are directed to limit the facts.
3. The Rating Scale has been devised after careful consideration of the best practices throughout the country. It makes it possible for the department head, etc., to form and express his judgment accurately and with minimum effort. It protects the subordinate against over judgment and control heavy and (unconsidered) approval of his actions.
4. Each executive and supervisor in the Company is rated periodically, every few months. This data is entered on the individual's Qualitative Card and is considered in salary increases and in promotion.
5. All ratings are confidential. Any person desiring information as to his own ratings can obtain it from his Qualitative Card in the Personnel Division.

FIG. 66.—Reverse of graphic rating scale for executives, department heads, foremen, and supervisors.

a trait was possessed. In the proposed scale the ratee was judged to possess the trait to a degree as expressed by a descriptive *phrase*.

3. The inclusion on the rating scale of only those traits that refer to a single type of activity carried on or to a single type of result achieved by the person to be rated.

4. The substitution of a check mark on a graduated line for the *recording* of an arithmetic symbol.

In the original master scale, the five degrees of each quality or trait were expressed by five names placed one above the other. After each name was placed a number to indicate the "weight" or value of the trait as possessed by this individual. The names were arranged

(SCALE 91)
GRAPHIC RATING REPORT
ON
INVESTIGATORS, SECRETARIES, SPECIAL WORKERS AND OTHERS NOT CHARGED WITH SUPERVISION

INSTRUCTIONS FOR MAKING OUT THIS REPORT:—

Rate this employee on the basis of the actual work he is now doing. Before attempting to report on this employee, it is necessary to have clearly in mind the exact qualities which are to be reported on. Read the definitions very carefully. In each quality assign this employee with others in the same comparison in this company or division. Place a check (✓) somewhere on the line ranging from "very high" to "very low" to indicate this employee's standing in each quality. It is not necessary to put the check (✓) directly above any of the descriptive adjectives.

Name of Ratee <u>A. R. THOMPSON</u> Position <u>CUSTOMER'S ACCOUNTS</u> Dept. & Unit <u>CREDIT</u>	Name of Employee Being Rated <u>HELEN JARNEY</u> Position <u>CUSTOMER'S ACCOUNTS</u> Dept. & Unit <u>CREDIT</u>

QUALITIES	REPORT	
I. Consider the ease with which this employee is able to learn new methods; the ease with which he follows directions.	Very Superior Lowest Work Rate Ordinary Slow to Learn Dull	8
II. Consider the amount of work he accomplishes; the promptness with which he completes it.	Unusually High Output Satisfactory Output Fairly Average Limited Output Unacceptably Output	8
III. Consider the neatness and accuracy of his work and his ability consistently to maintain high workmanship in these respects.	Excellent Quality Good Quality Mediocre Fair Poor	6
IV. Consider his energy and his application to the duties of his job day-in and day-out.	Very Energetic Indifferent Lacking in Initiative Poorly Organized Lazy	7
V. Consider his success in going ahead with a task without being told every detail; his ability to make practical suggestions for doing things in new and better ways.	Very Original Reasonable Occasionally Suggestive Timid Needs Full and Detailed Supervision	8
VI. Consider his attitude of helpfulness to others; his inclination to cooperate in answer as well as in act with associates and superiors.	Highly Cooperative Considerable Fairly Helpful Little to Offer Uncooperative	3
VII. Consider his present knowledge of his work and of other work related to it.	Excellent Well Informed Moderate Average Limited	7

Final Rating C Total Rating 47

(OVER)

FIG. 67.—Face of graphic rating scale for workers in nonexecutive positions.

so that the highest was at the top and the lowest at the bottom. In the rating process, to the credit of the ratee was given the number after the name of the person he equaled in that trait.

In the proposed modification, the phrases descriptive of degrees of the trait were written under a horizontal line in such order that the phrase descriptive of the highest degree was written under the left

end of the line, the phrase descriptive of the lowest degree under the right end, etc. The record for the ratee was expressed graphically by checking on the horizontal line the distance the ratee ranked from the low end of the horizontal line.

SUPPLEMENTARY INSTRUCTIONS TO RATEE

On the form of this Scale, you have entered by a check (✓) your judgment of the employee in seven specific qualities regarded as important by the management. In addition, you are requested to check (✓) the appropriate items below, stating your reasons, advice, etc., in each instance, and to give the desired information in 8 and 9.

1. This employee (individual being rated) is qualified for a supervisory position. ☐

Remarks: _____

2. He (she) should be considered for promotion at the first opportunity. ☐

Reasons and suggested line of promotion: _____

3. He should be transferred to other work. ☒

Reasons and suggested line of work: *Her inability to cooperate with others hampers her especially in her present work*

4. He is ambitious to progress and should be advised how best to qualify himself for advancement. ☐

Remarks: _____

5. He desires advice as to his present and future opportunities. ☒

Remarks: *Should be advised with reference to her personal relationships. Is not cooperative*

6. He is taking special courses in: _____

7. He desires special or further training in: _____

THE GRAPHIC RATING SCALE

ITS PURPOSE

1. The Graphic Rating Scale is a practical method through which each employee's ability and fitness for increased responsibility can be known quickly, with a reasonable degree of accuracy and with uniformity throughout the Company.

2. Each department head, chief clerk, group head, etc., rates the workers immediately subordinate to him. Conversely each employee is rated by several (usually three or four) superiors. This ensures a well-balanced judgment in each instance. Where marked differences of opinion occur, the reasons are discussed to find the facts.

3. This Rating Scale has been devised after careful consideration of the best practices throughout the country. It makes it possible for the supervisor to form and express his judgments accurately and with confidence and effort. It protects the employee against snap judgment and against heavy and ill-considered approval of his abilities.

4. Each employee in the Company is rated periodically every two months. This data is entered on his Qualification Card and is considered in salary increases and in promotion.

5. All ratings are confidential. Any person giving information as to his own ratings can obtain it from his Qualification Card in the Personnel Division.

FIG. 68.—Reverse of graphic rating scale for workers in nonexecutive positions.

The original rating scale used a man-to-man comparison in expressing the degree to which the ratee possessed a trait. The modified rating scale used a graphic device in expressing the degree to which the ratee possessed this trait. Accordingly the original scale became known after 1919 as the Man-to-man Rating Scale and the modified scale became known as the Graphic Rating Scale.

Two of the first graphic rating scales used in business are shown as Figs. 65 to 68.

Rating Scales Constantly Improved.—The rating scale is even a newer invention than the automobile; and like the automobile it is subject to infinite improvement.

There is no record of the number of improvements that were made in the scale by the Bureau of Salesmanship Research. While the scale was being tried out in the officers' training camps during April, May, and June, 1917, six different forms of the scale were issued. According to *The Personnel System of the United States Army* (Vol. I, pp. 571-573)

OFFICE EMPLOYEE RATING SCALE

RATER_ _____ DEPARTMENT _____ _DATE_

INSTRUCTIONS TO SUPERVISORS: Place a cross (x) on the line to the right of each employee's name at that point which you believe gives the most accurate answer to the following question. Remember the phrases do not indicate columns. (For complete instructions see the attached sheet.)

Does this employee work hard?

	Wastes time walking about building, talking to others, etc.	He should be prodded occasionally.	Works steadily.	Habitually drives himself hard.
NAME				

FIG. 69.—Segment of employee rating scale of Atlantic Refining Company.

eight revisions of the scale were made from July, 1917, to September, 1918.

Most of the improvements made upon the Man-to-man Scale would apply also to the Graphic Rating Scale and vice versa. The graphic rating scales shown by Figs. 65 to 68 are much more finished products than was the Man-to-man Scale used in the Army. Nevertheless numerous changes—usually improvements—have been introduced by the various users and devisers of graphic rating scales.

Approved Procedures in Merit Rating.—The following principles are now generally agreed upon:

1. The rater should rate all his subordinates on a single quality or trait before rating any of the subordinates on any other trait.

TRAIT NO. 4—
SOCIAL ADAPTABILITY

Some men arouse the greatest confidence in their associates and customers. They possess tact yet are firm. They overcome objections and get results without antagonizing people. They adapt themselves intelligently to different types of social and business situations, maintaining the highest standards of conduct.

Other men arouse uneasiness and distrust. They do not get along with people. They have a tendency to antagonize customers by their manner or attitude. They may get results at times but at the expense of goodwill and further cooperation.

In between are many degrees of success or failure at social adjustment. Consider your men as you know them yourself, as you have observed them in their work.

10

I
Very effective
in getting along
with customers.

As effective as
the average.

Ineffective in
influencing people.

Give specific illustrations of behavior
on which your judgment is based.

ADDITIONAL REMARKS, OF RATER:

MERIT RATING

FIG. 70.—Individual rating chart of Household Finance Corporation.

EMPLOYEE APPRAISAL

23

EMPLOYEE'S NAME_

CLASSIFICATION_

BANK_____

DEPARTMENT.

DIVISION_____

RATING SUPERVISOR

SECTION_____

This form is designed to help you appraise accurately the value of employees to the organization. You are asked to rate the employee on each of the several traits or qualities listed here. After each trait there is a line representing various degrees of the trait. The descriptive phrases beneath the line indicate the amounts or degrees of the trait represented by five points along the line. They are guide-posts. You rate the employee by checking at anyplace along the line that represents your judgment of him.

In view of the importance of these ratings, you are asked to study and observe the rules printed on the other side of the sheet.

QUALITY OF WORK	1	1	1	i	i	i	i	i	i	No chance to observe
	Doubtful that quality is satisfactory		While not unsatisfactory, quality is not quite up to standard.			Quality is quite satisfactory		Quality of work is superior to that of general run of employees		Exceptionally high quality
ATTITUDE TOWARD OTHERS	i	i	i	I	:	i	i	i	i	No chance to observe
	Inclined to be quarrelsome, surly, touchy or uncooperative; upsets morale		Sometimes difficult to work with			Normally tactful and obliging; self-controlled		Always congenial and cooperative		An unusual and strong force for office morale
KNOWLEDGE OF WORK	i	i	i	i	i	i	!	1	1	No chance to observe
	Has remarkable mastery of all phases of his work		Thorough knowledge of practically all phases of his work			Adequate knowledge; knows job sufficiently well		Insufficient knowledge of some phases of job		Has not gained adequate comprehension of his work

FIG. 71.—Employee appraisal used by Dick Carlson.

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tea

A part of one sheet of the graphic rating scale devised by the Atlantic Refining Company is reproduced as Fig. 69. Each sheet contains the names (typewritten) of all the subordinates who are to be rated with the instructions and space for rating on only one trait. The raters are not only asked to rate on one trait at a time, but the sheets are so arranged that it is easier to rate at one time all the ratees on a single trait than it is to rate at one time a single ratee on all the traits.

2. The rater should be challenged to illustrate the type of actions that he regards as characteristic of the ratee.

On the scale devised by E. F. Wonderlic of the Household Finance Corporation the rater is challenged on the soundness of each rating and is asked to cite an example to justify the rating. The blank spaces for such examples are large and conspicuously placed as shown in Fig. 70.

3. Careful consideration of the descriptive phrases below the line is essential to the accurate use of the rating scale. To assure attention to these phrases the rater should not find it easy to rate by attending exclusively to the distances on the line. Mr. Dick Carlson of Farm Credit Administration has recommended a rating scale reproduced in part in Fig. 71 that increases the probability that the rater will pay full attention to the descriptive phrases. No general definition of the trait is given, and excellence on the scale is sometimes measured on the scale from left to right and sometimes from right to left.

4. Ratings should be made in response to a pertinent question. The rating scale devised for the National Metal Trades Association expresses all the specific descriptive phrases in the form of questions. The instruction and the scale for dependability and for attitude are shown in Fig. 72.

5. If a large number of persons are rated on a single trait, there would ordinarily be a few low ratings and a few high ratings; but most of the ratings would be near the average or median. The distribution of the ratings would be approximately that of the normal distribution. Percival M. Symonds, in his *Diagnosing Personality and Conduct*, states that if a seven-scale division is used there would be approximately 4 per cent of the ratings in the first seventh of the scale, 11 per cent in the second seventh, 21 per cent in the third, 28 per cent in the fourth, 21 per cent in the fifth, 11 per cent in the sixth, and 4 per cent in the seventh. If, however, a five-scale division were used, the distribution of ratings in the respective fifths would take this form—7, 24, 38, 24, 7.

6. The trait upon which the employee is to be rated must be a simple trait and not a compound one. The name of the trait should

EMPLOYEE RATING REPORT

INSTRUCTIONS—READ CAREFULLY

Each employee's ability and fitness in his PRESENT occupation or for promotion may be appraised with a reasonable degree of accuracy and uniformity, through this rating report. The rating requires the appraisal of an employee in terms of his ACTUAL PERFORMANCE. It is essential, therefore, that snap judgment be replaced by careful analysis. Please follow these instructions carefully:

1. Use your own independent judgment.
2. Disregard your general impression of the employee and concentrate on one factor at a time.
3. Study carefully the definitions given for each factor and the specifications for each degree.
4. When rating an employee, call to mind instances that are typical of his work and way of acting. Do not be influenced by UNUSUAL CASES which are not typical.
5. Make your rating with the utmost care and thought; be sure that it represents a fair and square opinion. Do NOT ALLOW PERSONAL FEELINGS TO GOVERN YOUR RATING.

After you have rated the employee on all six factors, write under the heading "General Comments" on the back, any additional information about the employee which you feel has not been covered by the rating report, but which is essential to a fair appraisal.

Read all four specifications for Factor No. 1. After you have determined which specification most nearly fits the employee, place an X in the small square over it. If the specification adequately fits the employee, place an X in the left square. If he does not quite measure up to the specification but is definitely better than the specification for the next lower degree, place an X in the right square. Repeat for each factor.

Factor	R-1	R-2	R-3	R-4	R-5	R-6	R-7	R-8
Can You Rely on Him?	•	•	•				•	•
Dependability This factor appraises your confidence in the employee to carry out all instructions conscientiously.	When you give him a job to do, have you the utmost confidence that you will get what you want when you want it?							
Attitude This factor appraises the employee's openmindedness, and his willingness to cooperate in carrying out safety and other company policies.	•		•	•				•
	Is he an exceptionally good team worker? Does he invariably go out of his way to cooperate? Is he always ready to try out new ideas?							
			Does he meet others half way and go out of his way to cooperate? Is he usually ready to try out new ideas?			Does he usually cooperate, but with some reluctance to accept suggestions and try out new ideas?		
						Does he cooperate only when he has to? Is he unwilling to try out new ideas? Does he have little interest in his job?		

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O
S
ft;

suggest one type of activity or one type of result achieved by those to be rated. The trait should not include unrelated factors (*e.g.*, neatness and endurance, physique and voice) nor should the results achieved by the trait be ambiguously expressed.

The principle here stated was flagrantly violated in the Army Rating Scale as reproduced in Figs. 63 and 64.

The first consistent attempt to comply with this principle is manifest in the graphic rating scale reproduced as Figs. 65 to 68.

7. The trait should be defined or expressed objectively and not subjectively. In the *Journal of Personnel Research* (Vol. I, p. 519), Filer and O'Rourke provide the following illustrations:

LEADERSHIP

Subjective definition: rate this executive's force, self-reliance, decisiveness, tact, ability to inspire men and to command their confidence, loyalty, and cooperation.

Objective definition: rate this executive according to the success he has shown in developing a loyal and effective organization by administering justice, inspiring confidence, and winning the cooperation of his subordinates.

APPEARANCE

Subjective definition: personal attractiveness, cleanliness, neatness, dress.

Objective definition: consider how favorably he impresses his men by his physique, bearing, and manner.

8. The trait should be defined and illustrated in terms of work performed on the job. A rating scale used by the Philadelphia Electric Company emphasizes this procedure:

INDUSTRY

Consider the man's application to the duties of the job, day in and day out.	On the job all the time.	Usually on the job.	Just gets his work done.	Has to be continually prodded to get work done,	Neglects work constantly,

In a form recommended by the National Industrial Relations Board, the first sentence of the instruction is: "Base your ratings on your own direct knowledge of the employee's performance on the job."

9. Any trait that manifests itself in industry manifests itself also in activities away from the workbench. In order that the mind of the rater should be restricted to industry, it may be desirable to omit the title of the trait but to describe it in terms of pertinent acts in industry. This procedure is followed by E. F. Wonderlic in the rating scale shown in Fig. 73, in which he omits the name of the trait.

10. The rater frequently finds that the rating scale fails to include certain traits or certain considerations that are important assets or are

READ THIS DESCRIPTION CAREFULLY

Some men have unusual ability to inspire and command respect, obedience, cooperation, and loyalty of those under them. They are foremost in accepting the ideas and policies of the company and in leading others to use these methods.

Other men have to force and drive their men to get results. The men under this type of manager very rarely do work on their own initiative. The manager does not inspire men to do well, and they do not develop enthusiasm for their work from contacts with him.

In between these two limits are varying degrees of leadership. Consider the men you are estimating in regard to conditions as you have observed them in the office.

"0

PLACE A CHECK (y) ALON& THE LINE AT A POINT WHERE YOU THINK THE MAN ACTUALLY STANDS

Name	Position	Extremely fine leader of men.	Ordinary leadership ability.	Shows little promise as a leader.
Give specific illustrations of behavior on which your judgment is based.				Unable to observe

S

Name	Position	Extremely fine leader of men.	Ordinary leadership ability.	Shows little promise as a leader.
Give specific illustrations of behavior on which your judgment is based.				Unable to observe

FIG. 73.—Form for rating single trait devised by E. F. Wonderlic.

This form is designed to help you to appraise accurately the value of your employees to the organization. You are asked to rate the employee on each of several traits or qualities listed here.

After each trait there is a line representing various degrees of the trait. Each of the phrases under the lines describes the amount or degree of that trait represented by the point directly over the phrase. You rate any employee by putting

your check mark at the place on the line which represents your judgment as to his possession of the trait. If the true description would fall between two of the descriptions given, you should put your check between the two, nearer the one which is nearer the correct description.

In view of the importance of this rating, both to the employee and to the bank, you are urged to study and observe carefully the suggestions furnished you with these forms.

QUALITY OF WORK	<u>1</u>	<u>1</u>	<u>5</u>	<u>i</u>	<u>i</u>	<u>i</u>	<u>i</u>	<u>i</u>	<u>i</u>	<u>i</u>	<u>i</u>	No chance to observe.
	Quality is often unsatisfactory.		Quality is not quite up to average of the group.		Quality is about average of group.		Quality of work is superior to that of general run of employees.		Exceptionally high quality.			_____
Comment:												
CAPACITY TO DEVELOP	<u>1</u>	<u>i</u>	<u>i</u>	<u>i</u>	<u>i</u>	<u>1</u>	<u>i</u>	<u>i</u>	<u>i</u>	<u>i</u>	<u>i</u>	No chance to observe.
	Future growth doubtful.		Only moderate development ahead.		Shows fair promise.		Very promising promotional material.		Great future growth probable; should go far.			_____
•												
Comment:												

MERIT RAITL

FIG. 74.—Employee appraisal of Farm Credit Administration.

serious liabilities in the performance of the ratee. To encourage the giving of such information, a space on the right side, on the bottom, or on the reverse side of the scale calls for such additional information. See the reverse side of the scales, Figs. 66 and 68. Many current graphic rating scales provide space for this supplementary information.

11. In using a rating scale, all judgments should be based on observations of concrete actions. Mere guessing should be discouraged. Several rating scale forms supply a place for checking—"No opportunity to observe," or some similar expression. "Unable to observe" is used in the Wonderlic Rating Chart, Fig. 73.

The Graphic Rating Scale used by Dick Carlson of the Farm Credit Administration omits any definition of the trait being rated, but leaves space for "Comments" and for "No chance to observe," Fig. 74.

12. Only those traits should be rated on a rating scale that are of the greatest importance in the progress of the individual.

Recently there was issued by an industrial concern a list of 95 traits all said to be important in employees in industry. It was recommended that each employee should be rated as possessing or as not possessing each of these traits. It is impracticable to rate so many traits. The five most important are probably enough.

13. Only those traits should be subjectively evaluated on a rating scale that cannot be measured by an objective test.

Even though these traits listed below are on one or more rating scales, each of the traits is capable of objective measurements: accuracy, speed, volume of production, attendance, health, intelligence, and physical condition. It is apparent that all these traits, insofar as they can be measured by objective tests, should be stricken from that part of the rating scale that is subjectively determined.

14. The chief executives who are asked to rate their subordinates need to be "sold" by a brief statement issued by the president of the company. The following statement has been so used:

Through the use of the Rating Scale the department head or others can judge his subordinates more accurately than he can without it, and he can do so with less effort and with less expenditure of time. Vagueness of judgment is eliminated* his opinion is crystallized and made a definite matter of record; it is formed along certain specific lines, the same specific lines along which all the other department heads and executives are judging *their* subordinates. The Rating Scale ensures, consequently, a more uniform procedure throughout the Company.

15. Each supervisor or other employee who is to be rated needs to be "sold" also. The following statement has been so used:

The subordinate executive or supervisor being rated is assured of a deliberate analysis of his special abilities. He does not have to push himself forward to obtain recognition. There is an old saying "The squeaky hinge gets the oil." In many organizations the employee who makes the most noise, who devotes his effort to self-advertisement rather than to self-development, is the one who gets the increase in pay. The Rating Scale does away with that kind of unintentional injustice to the capable, but unspectacular, worker. His abilities are known as well as those of his more aggressive associate, and his promotions and advances in salary depend upon them. He is assured of a fair rating because he is rated by several superiors, not one.

When merit ratings are properly sold, investigators report that over 90 per cent of salespeople like to be rated and will give complete cooperation to any rating plan that they consider to be fair.

16. Every employee should have the protection and the advantage that comes from being rated periodically by three of his superiors who are in most intimate contact with his work. This requirement is met by many companies, but offenders are not hard to find.

17. Some firms use the Man-to-man Rating Scale complete. Some use the man-to-man comparison even though they do not make use of a master scale. In the *Suggestions as to the Best Method of Rating*, the Farm Credit Administration of Columbia, S. C., the following statement appears:

Begin by rating all of the members of one group on the first trait, considering that trait only; then rate all on the second, etc. When rating on a trait as, for example, "Volume of Work," it has been found the best practice to decide first who is the most rapid worker in the department without regard to accuracy, judgment or anything else, and to rate that person—probably giving him a rather high score. Next the slowest person is selected, and a rather low rating given in this one trait regardless of whether or not other traits may make that person valuable. Next a person about midway between is selected. This person will probably get a middle or "average-of-the-group" rating. The other employees are then rated by comparing with these three. This same plan should be followed for each trait.

18. • Users of the rating scale have more and more come to recognize it as a convenient instrument for improving morale. Specifically it is being used to encourage the rater to recognize the talents and to promote the interests of the ratee. The Armstrong Cork Company call their Graphic Rating Scale "A Review of the Service." The last item of the instructions to the rater is, "Remember that your opinions are also used as a measure of your judgment. Make your rating an accurate description of the one rated." When he has completed his ratings, he is asked to check the following:

2 3 4 R S O N N E L MANAGEMENT

How I Can Help Him To Be More Effective On His Present Job:

He should be given additional instruction on_____

Ha should be given additional experience on such jobs as_____

He should study such subjects as_____

He should change his attitude as follows_____

There is nothing more that I can do for him because_____

Remarks:_____

19. The rater should take the ratee into his confidence, show him his ratings, and discuss them with him. One purpose of employee ratings is to discover where further training is needed. When the employee knows that his ratings are low, he may regard further training as an opportunity and not as a burden. When he knows what traits or qualities are judged to be unsatisfactory, he has an added stimulus to seek self-improvement.

Another purpose of employee ratings is to secure a basis for salary adjustments. If the employee knows that his ratings are low, he will realize that his pay check can be increased only by self-improvement. When he sees that his immediate superiors agree in their judgments upon his qualifications, he may realize that advancement in the company is based on merit.

Summary.—Each one of these 19 procedures has been developed out of practical experience, and each one would probably increase the reliability of the rating scale that embodied it.

The rating scale used in the Army conformed to only a few of these procedures. It is not strange that its reliability was not high. However, it embodied numerous points of superiority not embodied in previous rating systems, and it was much more reliable than any rating system previously used in the Army.

Where good graphic rating scales have been used and where the ratings have been made by three or more trained raters, high reliability has been reported.

3. Classroom Merit-rating Schemes.—Merit ratings in the classroom have been quite universal for centuries. The pedagogue has not only made these merit ratings but has recorded them in permanent form. They have determined the scholastic progress of the pupil and have been almost the sole standard for promotion and graduation.

In the classroom not only were the pupils rated by the teachers, but the teachers were likewise rated by the principal.

There have been many systems for *making and recording* these merit ratings, made by the teachers and principals, but the most common probably have been and still are:

1. The adjective system:
Excellent, Good, Fair, Poor.
Excellent, Very Good, Good, Fair, Poor.
2. The letter system:
A, B, C, D
A, B, C
3. The ranking system:
First, Second, Third, etc.
Top 1 ninth, next 2 ninths, middle 3 ninths, next 2 ninths, bottom 1 ninth.
4. The percentage or numerical system.

For generations, these classroom schemes suffered but few changes. They were known to all the pupils and hence to the recruits in business. When, in business, judgments concerning human traits were made, they were usually made and recorded according to the procedure previously known in the classroom.

In the years immediately preceding our entrance into the World War, the "classroom" developed two new systems for rating teachers. These two new merit-rating systems might be regarded as the missing links between the classroom merit-rating system and the rating scale as we know it in the business world today. They appeared in 1915 under the caption "Methods for Measuring Teachers' Efficiency," as the Fourteenth Yearbook of the National Society for the Study of Education. These rating schemes were very elaborate and revolutionary, but they do possess certain practical features that have been embodied in the modern rating scale. No classroom rating system has yet been adapted to the rating needs of the business world so satisfactorily that it justifies special mention.

4. Weighted Descriptive Statements.—Weighted descriptive statements have been demonstrated as effective "tools" for measuring interests and attitudes. Various attempts have been made to use weighted descriptive statements, but in an improved form, in constructing rating scales for merit ratings. In the June, 1933, issue of *The Personnel Journal*, Drs. M. W. Richardson and G. F. Ktider published an article entitled "Making a Rating Scale that Measures." The following is an excerpt from that article:

Below are a number of statements that have actually been made about Procter and Gamble case goods salesmen. Read each statement, and put a plus (+) sign before it if it applies to this man. Put a minus sign (—) if it does not apply. Use a question mark (?) if you are not sure.

- _____ He is somewhat in a rut on some of his brand talks. 32
- _____ He tends to keep comfortably ahead of his work schedule. 56
- _____ He is a good steady worker. 46
- _____ He is weak on planning. 29
- _____ He is making exceptional progress. 69

Of the 36 (or more) sentences that constitute the scale, only five are here reproduced. The weight assigned to each sentence varied from 10 to 70. The figure placed after each sentence is its weighting.

Merit ratings based on weighted descriptive statements are still in the experimental stage. Such scales are not easily constructed, and data indicating their reliability and validity are not yet available.

Conclusion.—During the last 25 years, scientists and practitioners have been attempting to devise better methods for obtaining merit ratings. The progress made during these 25 years has demonstrated the great value of such ratings, has overcome difficulties that were met, and has led to the hope that even greater progress will be made during the next 25 years. However, it is not certain at this time whether the scale of the future will be based on a man-to-man comparison, on a graphic linear division, on a modified classroom rating system, on a check list of weighted descriptive statements, or on some entirely new principle.

Under the date of Aug. 24, 1940, a business executive wrote the authors as follows:

I believe that we have tried practically every type of rating scale that has come out. None of them has been entirely satisfactory, and any of them is definitely better than none. We have found that different supervisors have preferences for different types and in general it has seemed to us that the best results were obtained when the supervisor used the type of rating he liked best.

CHAPTER XX

JOB ANALYSIS, CLASSIFICATION, AND RATING

. **Relationship of Job Rating to Merit Rating.**—Job rating is the operation of evaluating a particular job in relation to other jobs either within or without the organization. In its simplest form, it may be merely a ranking of the various jobs, placing the particular job having the greatest sum total requirements at one end of the scale and the one with the least requirements at the other end of the scale, with the other jobs arranged between these two extremes according to their relative requirements. It should be noted that job evaluation or job rating is concerned with the requirements of the job itself and not the degree with which an individual meets these requirements. Job rating is undertaken primarily to discover the relative requirements of the respective jobs within the plant, to enable management to evaluate its present wages paid for the respective jobs, and to aid management in correcting any inequalities that may be found. Job rating serves as a guide in establishing a base rate for the respective jobs, whereas merit rating of the employee enables management to establish differentials for the various men filling the respective jobs. Job rating may be accomplished without rating the employee; conversely, the employee may be rated even though the jobs have not been rated. Each is independent of the other, yet each is complementary to the other in a well-integrated personnel program. Figure 75 illustrates the relationship of job evaluation to merit rating.¹

Definition of Terms.—Job evaluation and job rating have been defined above. They are used interchangeably. Job analysis, job description, and job specifications are terms that are used in practically all discussion of job rating. Occasionally, confusion arises in the usage of these terms. Job analysis is the process of critically evaluating the operations, duties, and relationships of the jobs.² Job analysis precedes the writing of job descriptions and job specifications. Scien-

¹ See Asa S. Knowles, "Merit Rating in Industry," *Bureau of Business Research, Bulletin* 1, Northeastern University, College of Business Administration, Boston, 1940, p. 3.

² "Job Evaluation for the Establishment of Salary Standards," *Life Office Management Association, Report* 1, Clerical Salary Study Committee, New York, 1938.

tific job analysis usually includes methods study and occasionally motion and time study. Job description is a written record of the duties, responsibilities, and requirements of a particular job. It should be noted that the job description is concerned with the job itself and not with the worker. The job specification is a written record of the requirements sought in the individual worker for a given job. The job analysis should be constructed before a job description is made. The job description frequently is not so detailed as the job analysis.

Objectives of Job Analysis and Rating.—Job analysis may be made as a part of a time and motion study program for the purpose of improving operations, or in connection with establishing time values for rate-

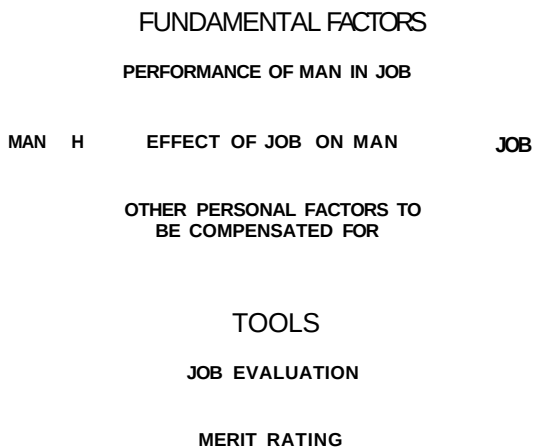


FIG. 75.—Chart showing the relationship between the merit rating and job evaluation in establishing an equitable rate for a job. [Reproduced by permission of Dean Asa S. Knowles from his *Merit Rating in Industry* (1940), p. 4.]

setting or production-control, for the purpose of aiding in establishing a logical training program, or as a preliminary step in preparing job specifications and job rating. Many institutions have job analysis without job rating. It is possible to have a crude form of job rating without job analysis; however, sound practice in job rating is based upon a carefully drawn job description that has been compiled from accurate job analysis. Not every phase of a job analysis is used in the job description; however, a job description that does not consider the job analysis may easily be superficial.

The primary objective of job evaluation is the discovery of the relative requirements of jobs for the purpose of establishing base rates for those jobs that satisfactorily reward the worker for the work performed. Job rating in and of itself does not establish rates. It merely

establishes relationships between jobs on which wage differentials may reasonably be based. It is true that some methods of job rating are in reality constructed in terms of rates paid, but this need not and, in the opinion of many, should not be the case. It should be noted, however, that job rating will not be of maximum use unless it is tied in with wages paid for the respective jobs. This will not determine the level of wages, but it will establish relationships of one job to another within the limits of the established level. In summary, the advantages of a job-rating plan, when carried to the logical conclusion of evaluating wages paid for the respective jobs, are as follows:

1. Shows the relative value of all jobs within the plant.
2. Tends to eliminate inequalities of wages for similar work in the same department or different departments.
3. Aids in determining the relative value of new jobs.
4. Aids in establishing a satisfactory wage level for all jobs within the plant.
5. In companies having more than one plant, job rating aids in maintaining a high degree of relative standardization even though the wage levels may vary between plants.
6. A by-product of job rating is standardization of jobs and accurate job descriptions that are valuable in pointing out lines of promotion and employee selection and training.
7. Serves as a basis of settling controversies over wages.

A sound wage policy necessitates a program of paying employees on the basis of output and the requirements of the job. It is not at all unusual to find that two similar jobs within the same plant pay wages differing as much as 25 per cent. In the same community, this variation may be as great as 50 or 100 per cent.¹

Job Analysis.—We have devoted an entire chapter to the subject of job analysis (see Chap. XI). At this point, it is sufficient to point out that job analysis is a prerequisite to scientific job rating. Accurate job analysis will include not only a careful enumeration of the requirements of the job itself but also a careful naming of the job. Standardization in job nomenclature is helpful in job rating. It may also be worth recalling that there may be two types of job analysis, one the carefully constructed analysis—that is a part of methods study—and the other one that is designed primarily for the use of the personnel department. This does not mean that a skilled personnel man may not use the more detailed methods of analysis. However, the personnel man does not require so much detail for his purpose as does the methods man. The job analysis used by the personnel man

*See H. Barrett Rogers, "What Is Your Job Worth?" *Proceedings of the Wage Conference, Industrial Management Society*, 1939, p. 13.

in preparing his job specification must include those items that are pertinent to proper job rating. It emphasizes the factors that are required of the employee who satisfactorily fills the job.

Types of Job Rating.—There are two general types of rating plans in use, namely, (1) the ranking, classification, or grading systems, and (2) the ranking according to some form of numerical weighting or point system.¹ Both these types make considerable effort to eliminate personal bias and strive to introduce scientific procedures. Either type of approach when properly used will give satisfactory results. The point system when properly validated by actual use is more likely to be capable of general use than the ranking system. Of course, there may be a third system that combines the ranking system with the point system, especially during the initial stages of the development of the program. After the program has been in use for some time, the tendency is to drop off the ranking phase and continue the use of the point system.

The Ranking or Grading System of Job Rating.—In its simplest form, the rating of jobs by the ranking system consists of arranging every job within the plant in some order, either from the simplest to the one with maximum requirements, or in the reverse order. Naturally, this system should be preceded by careful job analysis and the writing of accurate job descriptions before the rating process is undertaken. It is possible of course to take the jobs as they are found in the business enterprise and use the names as they are, without any attempt at standardization, and merely rank them according to the general over-all impression of the raters. Such a procedure is certain to fall short of what may reasonably be expected of job rating. Another procedure that is in reality merely a modification of the simple rating described above is to establish a series of grades or zones and arrange all the jobs in the plant into groups within these classifications or zones. A more common practice is to arrange all the jobs in the plant according to their requirements by rating them and then to establish the classifications or groups. The actual ranking of jobs may be done by an individual, several individuals, or a committee. If several individuals are working independently on the task, it will usually be found that in general they agree but that their rankings vary in certain details. A conference between these individuals, with each person giving his reasons why he rated a job higher than the other, usually produces agreement. The detailed job description is par-

¹ See H Barrett Rogers, "What Is Your Job Worth?" *Proceedings of the Wage Conference, Industrial Management Society*, 1939, p. 13; also in the same publication, Eugene J. Bengé, "Relative Salaries and Wages," p. 26.

ticularly helpful when there is disagreement among raters as to the ranking of certain jobs. It is not only possible but desirable to have workers participate in the construction of the job description and in rating the job.

In the actual mechanics of rating, frequently a series of key jobs that are well known throughout the plant are first rated and the other jobs roughly compared with these key jobs to establish a rough rating, after which each job is compared in greater detail to establish its exact rank in the scale. There is a tendency to consider the current wage being paid in establishing the relative rank of a given job. As far as possible, present wages should be ignored at the time of rating jobs by the ranking method, or the ranking will not be so serviceable in wage adjustments as it should be. Rating the jobs—by the ranking method—should also ignore the qualifications of the person filling the jobs at the time, since the ranking is of the jobs and not of the workers. The particular worker may have qualifications that are higher than those required for the job. The ranking of jobs is essentially a cut-and-try process requiring infinite patience and attention to details. In the final analysis, it will usually result in a compromise or pooled judgment of the relative worth of a job.

It should not be presumed in ranking jobs that various factors are not considered even though they may not be weighted by some point scheme. A well-developed ranking system of job rating is almost certain to compare job with job in terms of some agreed factors.. One of the best known and most carefully worked out ranking programs is that of the Kimberly-Clark Corporation.¹ Kimberly-Clark measured each job in comparison with other jobs in terms of the relative importance of the following six factors:

a. *Supervision and leadership of subordinates.*

b. *Cooperation with associates outside the line of authority:* exchange of opinion on controversial matters involving tact, diplomacy, appreciation of the other person's point of view; necessity for and degree of team work, exchange of information, etc.

c. *Probability and consequences of errors:* assuming that the occupation is filled by an experienced, conscientious employee, consider typical errors that are apt to be made and the consequences of each in terms of waste, damage to equipment, delays, complaints, confusion, spoilage of product, discrepancies, etc.

d. *Initiative and resourcefulness:* requirements concerning originality, creativeness, judgment, analysis of conditions and reaching independent decisions, planning, estimating, dealing with variables, etc.; extent to which supervision is received.

¹W. F. Cook, "The Technique of Wage Negotiation and Adjustment." *American Management Association, Personnel Series 30*, 1937.

e. Minimum experience requirements, including both preliminary experience and experience on the occupations; estimated time required for inexperienced but otherwise qualified persons to reach a satisfactory degree of proficiency.

f. Minimum education requirements: amount of schooling or study absolutely necessary to fill successfully the occupation.¹

Kimberly-Clark experimented with weighting these factors but finally settled on the plan of weighing the merits of each comparison on the basis of free discussions in the committee doing the ranking, without the use of a point system. This company rated some 700 hourly paid occupations spread over seven different plants by this system. It will be noted that *working conditions* were not listed as one of the factors of comparison. Working conditions were considered only in the case of two jobs that were considered equal in regard to the other six factors.

Advantages and Disadvantages of the Ranking or Grading System.

In the first place, this system is relatively simple and easily understood by both the workers and the lower level of supervisors. It is less theoretical and does not tend to the mechanistic in the same degree as the point or mathematical plans. Unless the comparison is made in considerable detail as in the case of the Kimberly-Clark system, the ranking plan may be accomplished in somewhat less time than the point systems; hence it may cost less to install.

The disadvantages are numerous and, in the minds of its critics, far outweigh the advantages. The first one that is usually pointed out is the fact that there is a tendency for the rankings to be made in an over-all manner without giving due attention to the factors causing the jobs to be different. In the second place, although the ranking system will tell that a job is higher than another one, it will not tell how much higher it is, thus still leaving considerable room for disagreement as to how much one job should carry as a base wage. A third criticism is that it may be relatively easy to compare similar jobs, but it is difficult to compare unlike jobs. Since management is interested in an equitable wage for all jobs regardless of their similarity, this is a serious criticism in many industries. This system assumes that existing rates are correct in general at least. Although the same criticism as to existing rates may be made of the point systems, it does not hold to the same degree.

The Point Rating Plans.—Although the point rating systems of job evaluation may differ in many details, they are all predicated upon the theory that it is possible to assign points to the respective factors considered pertinent in evaluating the individual jobs and that the sum

¹ W. F. Cook, *op. tit.*, pp. 9-10.

of these points will give an index of the relative significance of the jobs being rated. In the opinion of persons accustomed to thinking in mathematical terms, these systems seem to be more precise and exact than the ranking systems of job evaluation. Whether they are more reliable than the ranking system will depend to a considerable extent on the validity of the points assigned to the respective characteristics evaluated and to the individual characteristics selected as being indicative of the relative requirements of the jobs. As has been pointed out in the case of Kimberly-Clark, the ranking system may consider various characteristics of a job as well as the point system. However, it should be recalled that the ranking system does not necessarily have to break the job down into its various factors, whereas the point systems always attempt to do this. The factors considered may be the same in the case of both the ranking and the point systems.

Detailed job analysis and accurate job descriptions are no more necessary for the use of the point system than some of the more refined ranking systems of job rating. It would be possible to use the point system without careful analysis and job descriptions, but the authors are not familiar with any company that has tried to do so. The assigning of points to the various job characteristics encourages job analysis even though it may not be formalized. Since the advocates of the point systems claim scientific exactness for their programs, it is natural that they should make use of the scientific methodology of job analysis and job description.

Characteristics Considered in the Point Systems.—There has not been complete agreement among users of the point systems as to the particular factors that should be considered in job evaluation. The Industrial Management Society uses three major divisions under which it classifies the various job characteristics, namely, (1) job conditions, (2) physical ability required, and (3) characteristics that are chiefly of a mental nature.¹ Under each of these three main headings are listed the various factors with each factor clearly defined and under each factor a description of the degrees required, the number of points allotted to each degree, and examples of the various degrees required for the respective points allotted.²

The factors used in the job-rating plan sponsored by the National Metal Trades Association are grouped under four general headings, namely, (1) skill, (2) effort, (3) responsibility, and (4) job conditions. Under each of these four general headings are subheadings or

¹ Industrial Management Society, *Occupational Rating Plan*, 1937, p. 2.

² See p. 247 for a detailed listing of the various factors and the relative weighting of each factor.

factors bringing the total individual factors rated for each job up to 11.¹

Although the various point systems use slightly different factors for evaluating the job, most of them include the following five items:

1. Mental requirements.
2. Physical requirements.
3. Skill.
4. Responsibility.
5. Job or working conditions.²

Eugene J. Benge, an authority in this field, states, "The number of factors on which job judgment should be based should not exceed seven."³ In his *Factor Comparison Method of Job Evaluation*, he generally uses five factors, namely, (1) mental effort, (2) skill, (3) physical effort, (4) responsibility, and (5) working conditions.⁴ The General Electric Company uses six factors and the Westinghouse Electric and Manufacturing Company uses nine factors in evaluating their jobs. The exact number of factors used is not of major importance just so long as enough are used to give a fair picture of the requirements of the job and not so many that the task becomes excessively burdensome. It is conceivable that finer shades of differences may be shown when the factors are broken down into more basic elements; however, it is not the number of factors considered but the care exercised in the use of these factors that largely determines the relative efficiency of any particular system.

Number of Points Assigned to Characteristics Evaluated.—Just as the various systems have varied in the number of characteristics considered, so have they varied in the number of points assigned to each characteristic. Again, companies have differed as to the total number of points that the highest paid jobs would carry. One company rated the highest paid job at 85 points, and another company used 2,500 points for the highest paid job. In a few cases, the companies have definitely tied in their points assigned to a given job to the hourly rate paid for this job. The General Electric Company uses a base of 400 points for all jobs. These 400 points are added to all jobs, the total rating for an individual job being 400 plus the sum of the points assigned for the various characteristics evaluated.⁵ The number of points assigned for the maximum for the highest paid job is of no par-

¹ See National Metal Trades Association, *Job Rating* (not dated), p. 1.

² See H. Barrett Rogers, *op. cit.*, p. 14.

³ Industrial Management Society, *op. cit.*, p. 28.

⁴ *Ibid.*, pp. 29-30.

⁵ See General Electric Company, *Job Evaluation*, February, 1938, p. 2; see also

ticular significance, provided this total is not fixed in case a new job is developed that has a total requirement higher than the maximum in use. Some systems do have a maximum number of points that can

TABLE 3.—POINTS ASSIGNED TO VARIOUS FACTORS IN JOB RATING¹

Factors	First degree	Second degree	Third degree	Fourth degree	Fifth degree
Skill:					
1. Education	14	28	42	56	70
2. Experience	22	44	66	88	110
3. Initiative and ingenuity...	14	28	42	56	70
Effort:					
4. Physical demand	10	20	30	40	50
5. Mental or visual demand..	5	10	15	20	25
Responsibility:					
	5	10	15	20	25
	5	10	15	20	25
8. Safety of others	5	10	15	20	25
9. Work of others	5		15		25
Job conditions:					
10. Working conditions	10	20	30	40	50
11. Unavoidable hazards	5	10	15	20	25

Score range	Men's grades	Women's or boys' grades
-139		25
140-160		24
162-183	10	23
184-205	9	22
206-227	8	21
228-249	7	
250-271	6	
272-293	5	
294-315	4	
316-337	3	
338-359	2	
360-381	1	

be assigned to any one characteristic. This limits the application of these systems to jobs that come within the limits set and may work an injustice should the system be applied to a job in which a certain characteristic is more important relatively than the points assigned as a maximum limit. In comparing the weights assigned by different

P. W. Weed, "Job Evaluation/' *American Management Association, Production Series* 111, 1938, p. 5.

¹ Reproduced by permission of the National Metal Trades Association.

companies, Asa S. Knowles and Frederick C. Means found a wide variation in the relative importance given to the various characteristics.¹ Efforts of trade associations at standardization within a given industry would be a distinct contribution to that particular industry. The efforts of the National Metal Trades Association and the National Electrical Manufacturers Association are along this line.

Some Illustrations of Point Rating Systems.—We have selected two of the well-known systems for illustrative purposes. Each of these systems uses detailed descriptions of each characteristic with illustrations to aid in assigning point values to any new job being rated. Space will not permit the giving of these details.

1. *National Metal Trades Association.*—The National Metal Trades Association divides each factor into five degrees and assigns point values to each degree. This plan also establishes grades for various total point scores. This system has been widely used in the metal trades. This wide usage has added to its value in these trades for comparative purposes. The points assigned to the various factors and the key to the grades are given in Table 3.

2. *Industrial Management Society.*—The rating plan of the Industrial Management Society represents the collective effort of a special committee of industrial engineers of this association. Like that of the National Metal Trades Association, this plan has been widely used in America and to a lesser degree in foreign countries.

A. Job conditions.

A1 Responsibility.

A 1.1 Equipment.

A 1.2 Materials.

A 1.3 Safety of others.

A2 Supervision.

A2.1 Supervision received.

A2.2 Supervision given.

A3 Working conditions.

A3.1 Comfort.

A3.2 Health hazards.

A3.3 Accident hazards.

A3.4 Clothing spoilage.

A 4 Adaptation period required for an average experienced workman to adapt himself to new conditions of employment when changing companies.

B Physical requirements.

£1 Bodily requirements.

B1.1 Acuteness of senses.

£1.2 Strength.

¹ See *National Association of Cost Accountants Bulletin*, Vol. XX, No. 7, Sec. I, Dec. 1, 1938, p. 403.

- £1.3 Endurance.
- £2 Skill.
 - #2.1 Dexterity.
 - £2.2 Precision.
 - £2.3 Versatility.
- C. Mental Characteristics.
 - C1 Schooling.
 - C2 Knowledge.
 - (72.1 Equipment and tools.
 - C2.2 Methods.
 - C2.3 Materials.
 - C3 Judgment.
 - (74 Ingenuity.
 - (75 Initiative.¹

To illustrate the details of the I.M.S. system, the point values for a portion of the subheadings of one factor are given below. This factor is *responsibility*.

Responsibility is the dependence placed upon human characteristics that cannot be replaced by mechanical contrivance, but must be assumed by the individual. The degree of dependability required by the job is best expressed in terms of possible monetary loss or effect on others.

A 1.1 *Equipment* consists of the tools and machinery with which work is performed. The weight given for responsibility of equipment does not depend entirely upon the cost of the equipment, but also on the probability of its being damaged.

Description	Points	Example
1. \$0 up to \$100	0	Bench coremaker, crater, painter, crane follower
	1	Wood patternmaker, arc welder, hand milling
2. Over \$100 up to \$500	2	Toolroom milling, job-shop heat-treater, jig and fixture toolmaker
	3	Punch-press operator, boring-mill operator, drop-forger
	4	
3. Over \$500 up to \$5,000	5	Electrician, jig borer, die setter
	6	Stationary fireman, chauffeur
	7	Mixers of inflammables and explosives
4. Over \$5,000 up to \$20,000	8	Passenger-train engineer
	9	
	10	Power-plant engineer
5. Over \$20,000	11	
	12	
	18	Airplane pilot

¹ Summarized from Industrial Management Society, *op. cit.*, pp. 8-31.

A 1.2 *Materials* consist of the objects on which work is being performed. Responsibility for materials covers unnecessary losses, either from waste, damage, or misplacement over a period of one week. Here also, the probability of monetary loss should govern the weight allowed.

Description	Points	Example
1. \$0 up to \$50	0	Coremaker, counter, painter, dipper, repetitive machine operator
2. Over \$50 to \$100	1	Arc welder, bench molder, glazier
3. Over \$100 up to \$1,000	2	Grinder operator, engine-lathe operator, structural-steel layerout, electrician
	3	Metal-planer operator, millwright
4. Over \$1,000 up to \$5,000	4	
	5	
5. Over \$5,000 up to \$10,000	6	
	7	Maintenance electrician—high voltage
	8	Turbine repairman

A 1.3 *Safety of Others*: The value of this factor should be selected according to the probability of accident and degree of injury caused by some direct act or negligence.

Description	Points	Example
1. No possibility of causing injury	0	Cellophane wrapper, material inspector, bench hand, coremaker
	1	Dipper, milling machine, toolmaker
	2	Shaft grinder, engine-lathe operator, punch-press operator
	3	Crane follower, die-cast operator
% Considerable care required to prevent injury	4	Maintenance electrician
	5	Pipe fitter—high pressure
		Drop-forger
	6	Elevator operator
	7	Chauffeur
3. Great care required to prevent injury	8	Crane operator (bridge)
	9	
4. Responsible for equipment, methods, or personnel involving severe health or accident hazards	10	Railroad towerman
	11	
	12	
	13	
	14	
	15	
	16	Airplane pilot

A2.1 *Supervision received* determines to a large degree the responsibility placed on the individual—the less supervision involving the greater responsibility.

Description	Points	Example
1. Always available	0	Screw-machine operator, bench assembler
	1	Repetitive heat-treater, job-shop machine operator
2. Usually available	2	Lay-out, structural-steel shop assembler, floor molder
	3	Maintenance electrician, millwright, construction pipe fitter
3. Self-supervisory	4	Job-shop heat-treater, chauffeur
	5	Stationary engineer
	6	Inspector at supplier*

* Reproduced from *An Occupational Rating Plan for Hourly and Salaried Occupations*, by permission of the Industrial Management Society.

Use of Job Ratings.—As was previously stated, the primary objective of job evaluation is the discovery of the relative requirements of jobs for the purpose of establishing base rates for these jobs. The emphasis in job rating is on the requirements of the job itself and not on the individual worker on the job who may or may not meet these requirements. Merit rating concerns itself with rating the worker, whereas job rating pertains solely to the job. When jobs are accurately rated and rates are set for these jobs that are equal to or higher than the prevailing rates in the community, one of the major sources of labor strife is removed. Job evaluation has value even though the general average of the wages paid for the jobs may be somewhat lower than the community level. It removes inequalities in such wage scales and thus promotes contentment within the group even though the entire wage level, owing to an unfortunate competitive situation, may be lower than is desired. Job evaluation is particularly helpful in establishing rates for new jobs. Job rating also is a valuable tool in guiding the personnel department in establishing lines of promotion and in the selection and training programs.

Job evaluation has the same relative advantages for salaried positions as for the hourly or day-rate positions. It should be pointed out, however, that much more evaluation work has been done in the field of manual positions than in the office or salaried positions.

PART III

EDUCATION AND TRAINING

CHAPTER XXI

INTRODUCING THE WORKER TO HIS JOB

Selecting the worker for a certain kind of work and bringing him into a productive relationship with it are two entirely different things. In order to bridge the gap, we must introduce the worker to his work. We must impart to him that information, that confidence, and that point of view that will transform him from an accepted applicant who, nevertheless, is usually ill at ease, into a capable worker, confident and interested. There is no sharp line of demarcation between selection as a process and the introduction of the worker to his work. The two overlap. During the process of selection, the interviewer will naturally impart much information as to the company, its history, traditions, and product that will serve to establish confidence and interest on the part of the worker. But the process of introducing the worker to his work, of integrating him with his position in order to create a *well-balanced worker-in-his-work unit*, naturally carries on after the actual selection of the worker has been completed.

It is at this point that many industrial and business concerns fall down. They fail to pay sufficient attention to those influences for and against personal morale that have so much to do with the worker's attitude during the early days and weeks of his employment. Frequently, it is the practice to send the applicant immediately upon selection to the department head or foreman to be put to work.

First impressions, regardless of their reliability, tend to be lasting. A failure properly to introduce an employee to his work situation and to the company's policies may readily turn a worker with high ambitions and creative impulses into a routine worker with thwarted ambitions. This statement is particularly true during periods when jobs are scarce and workers feel that they must hold onto a job regardless of its appeal. Modern techniques for introducing a worker are designed to acquaint him not only with his particular task and plant regulations, but also with the entire organization and its purposes and

policies.¹ As intimated above, the induction process begins with the hiring interview and continues as long as the employee faces new situations even though he may be an "old-timer."

Objectives of the Introduction Process.—There are at least three objectives to be attained with respect to each worker during the processes of selection and of introduction to the work. First, give the new employee confidence in the company; second, give the new employee a complete account of the work he is to perform; and third, define the terms of service to the new worker. Unless these three objectives are clearly defined in the minds of those persons responsible for introducing the worker to his job, they are almost invariably neglected. These objectives are rather broad and applicable to most situations; however, the details involved in carrying them out will vary greatly not only with the central philosophy and organizational structure of the enterprise but also with different classes of persons within the enterprise. It is evident that the emphasis in a highly centralized organization will differ materially from that in one with decentralized responsibility. It is also apparent that the apprentice, production engineer, stenographer, tool and diemaker, and seasonal laborer will require somewhat different handling. In fact, there are many different procedures within a given enterprise even though they may follow a general pattern.

The Company Must Sell Itself to the Employee.—In the first place, the responsibility rests upon the personnel manager or his assistant to create personal confidence in the company on the part of the new employee. We must remember that the contract entered into between the new employees and the company is a mutual and reciprocal one. As we have pointed out, the applicant bears the same relation to the organization as the salesman who enters into an agreement with it to deliver goods of a more concrete nature than personal service. The worker is entitled to the same consideration, only in a far greater degree, since the value of the merchandise he offers to the company will necessarily be greater or less, according to the degree to which he himself is inspired by confidence and good will.

In short, although the applicant must sell his services to the organization, in no less degree the organization through its contacts must sell itself to the applicant. Failure on the part of the company to do so serves to contribute to an attitude of mind on the part of the new employee unfavorable to permanence of tenure.

¹" Induction Procedures for New Employees," *The Conference Board Management Record*, Vol. I, No. 12, December, 1939, p. 1.

It is natural, for instance, that the applicant should desire evidence as to the personnel policies of the company. He wants to know what the probabilities are of continuity of employment, what are the company's policies with reference to promotion and salary increase. He wants to know, although he may not express it so, whether the company entertains the commodity conception of labor or whether its personnel policies are governed by a more advanced and more human viewpoint. It is the direct responsibility of the interviewer to see that the applicant's questions on these points are satisfied so far as the facts make it possible to do so.

Furthermore, it is natural for the applicant to desire information about the working conditions within the company. The importance of these working conditions in his life is comparable to the importance of his home conditions. It is entirely proper that he should have confidence in the company's ability to provide him the right kind of working conditions, for it is to furnish the setting for nearly one-half his waking hours for presumably an indefinite period of time.

Similarly, it is proper that he should have reassuring information as to the moral and social environment that will be his as an employee of the company. He wants to know what opportunities there are for social intercourse, for self-expression, outside the work itself.

Should an impartial observer witness the employment practices in many otherwise well-managed concerns, what has just been said would by comparison appear to be a Utopian dream. The herding and "hurry-up" methods that have been observed in many employment offices are responsible for an initial bad impression upon the new employee that ultimately expresses itself in dissatisfaction, labor turnover, and the waste costs incident thereto. One of the most common failures to attain good practice in this regard arises from the mental attitudes of employment interviewers and examiners that eventuate from the repetition required in their daily work. While being inducted into the working force of a large automobile manufacturing concern, the writer was so impressed with the singsong, flat-voiced instructions of one of the examiners that he asked, "How many times have you said that today?" The answer was illuminating. "I don't know how many times I've said it today already," the examiner replied, "but I said it 806 times yesterday." It requires both intelligence and technique for an employment department worker under these circumstances to leave with each applicant an impression of personal interest.

Informing the New Employee about His Work.—It is of vital importance that the new employee be given a full and complete con-

ception of his work before he is actually assigned to it. Where the new employee is compelled to rely upon his own ingenuity to visualize the work to which he is to be assigned, there is every possibility of a disastrous reaction after he goes on the job. It is true, however, that there is a greater probability of this kind of reaction on the part of the employee when the personnel manager or his interviewer has failed properly to explain the nature of the work to him in the first instance. We must recall that interviewers are human and are frequently working under great pressure. It is owing to no conscious desire on their part that the new employee is sent to his work ill informed as to its nature and content. The fact that the interviewer is working under pressure does not justify the neglect; rather it provides an added reason for special care. In full recognition of this situation, it is coming more and more to be accepted practice to require the new employee to read, and to read carefully, the occupational description for the position to which he is about to be assigned. A hasty perusal will not suffice. The wise interviewer will see that the new employee has ample time and opportunity to study the occupational description and to assimilate its contents. This practice incidentally prevents those occasional individuals who put their trust in alibis from claiming afterward that the job "was misrepresented to them."

Where it is practicable to do so, it is sometimes desirable to arrange for the employee to see the work itself, the desk or machine, the room or shop in which it is performed, especially where such working conditions must, by the nature of the job, rank low on the scale of desirability. It is important for him to have a talk with his department chief-to-be; this has already been mentioned as one step in the adequate employment procedure. But this interview with the department head should be more than a one-sided conference in which the department head decides favorably or unfavorably upon the qualifications of the applicant. A real responsibility rests upon the department head, or his assistant, to supplement the efforts of the personnel manager by giving the individual as complete and as faithful a conception of his work as possible, without overemphasizing either its favorable or unfavorable features. It is naturally difficult for the busy operating chief to devote much time to this procedure that he naturally feels should be the responsibility of the personnel department. But we have already emphasized that true personnel work is not a departmentalized function but is a leaven permeating the entire organization. Because this is so, it must be exercised as a company policy by all those executives who supervise the workers in their work. So far as it is possible to do so, consequently, the personnel manager will impress

upon the operating executives the extreme importance of giving personal attention of this kind to the applicant and to the incoming employee.

It is probably true that, in attempting to describe the proposed work fairly to the new employee, the interviewer frequently neglects certain facts of importance. When selling the job to the new employee, for instance, the interviewer should not be unmindful of characteristics of the work that may have no direct reference to the pay envelope or to the nature of the duties to be performed. After all, these latter are only the more obvious aspects of any occupation. The new employee is often more concerned with his future than with his present, and a fair statement of the opportunities for promotion and for salary increase may do much to create an intelligent willingness on his part to accept the position when a consideration of the immediate duties and reward might lead him to reject it.

One of the best devices for assuring the interest of the new employee who is ambitious is to furnish and explain to him a *promotional chart* such as has already been described in Chap. XII.

The opportunity to explain rewards of other than financial nature is also very real at this point in the employment procedure. It is perfectly proper, for instance, to make reference to the importance of the work itself in the whole scheme of company production, to the social relationships that are opened up, to the qualities of manliness and leadership that the department chief may possess. Such facts as these, intangible as they seem to be, are legitimate arguments for the personnel manager to employ, provided, of course, he does not lay undue emphasis upon them. It is no infrequent occurrence for an employee to find happiness and satisfaction in a given position through the presence of such factors as these, when he might have been prevented in the first instance from entering the work at all by a consideration merely of duties and initial salary.

Defining the Terms of Service.—The responsibility rests squarely upon the personnel manager to establish a definite understanding with the new employee whereby he accepts his position with complete knowledge of the terms under which he is to serve. He should, for instance, have definite information as to the hours of work, as to the probability of overtime, as to the allowance made for sickness, and as to time off. He should have definite information concerning the wages he is to receive, when he is to receive them, and in what form. If a bonus is granted for superior work or for length of service or for attendance and promptness or for any other manifestation of interest and ability, he should have full information about it. In equal measure,

he should be informed as to the rules of conduct governing employees, specifically, those in his occupation. He should know in advance of the penalties attached to infractions of these rules. If smoking on the job is a capital offense or if intoxication off the job or persistent tardiness is regarded as a reason for dismissal, he should be so informed at the outset.

Items Covered in the Introductory Process.—The National Industrial Conference Board, Inc., study found the following items most frequently appearing in the various programs of introducing new employees:¹

1. History of the company—a brief description of the early history and growth of the organization. A history built around personalities is always more interesting than around events.

2. The product—a story of the original product and its evolution to meet competition and consumer needs.

3. Present company organization—a brief description of the present over-all company organizational structure with special emphasis on the organization to which the new employee belongs.

4. Industrial relations policies—a statement regarding compensation, promotion, retirement plans, insurance, collective efforts, etc.

5. Employee activities—a statement of the various programs and activities carried on by the employees such as recreation programs, mutual benefit society, credit unions, etc.

6. Company, plant and departmental regulations—a brief discussion of the rules and regulations covering attendance, working hours, advances in pay, sick leaves, patent assignments, and other items that are of importance.

7. Safety—special emphasis upon the responsibility of the individual for himself and others.

8. Job routine—requirements of the particular job of the new employee and the job to which this one may lead in the chain of promotion.

Although it is recognized that practically all the subjects listed above are important and have a place in the program of introducing a worker to his job, it must be admitted that it would be almost impossible to cover them all at one time. This leads us to the next major consideration, namely, timing the various phases of introducing the worker to his job.

Scheduling the Various Steps in the Induction Procedure.—All too often, in the past at least, employment officers have felt that certain steps were essential to a successful introduction of the worker and have crowded all these steps into one day. Such a procedure entirely ignores the fact that the amount of information that an individual can absorb at one time is limited. When all of this information is crowded into the first day when unfamiliar situations and fatigue are about all

¹ *The Conference Board Management Record, op. cit, pp. 2-3.*

the employee can cope with, it is little wonder that the effectiveness of the program is far from that desired. At one time, a well-known manufacturer desired to make certain that his new employees were well informed, so he gave each new employee, on being hired, six different bulletins covering different phases of the work situation.¹ One day a new employee on being presented with his bundle of booklets remarked to the employment man, "Why don't you furnish a book-case for us too?" Needless to say, this employer reevaluated his procedure. Some companies have arranged the timing of each presentation to fit more nearly into the employee's work experience and thus to increase the effectiveness of the effort expended. Proper timing also increases the possibility of presenting certain aspects of the program to groups rather than to individuals. Certain aspects such as the history of the product and the company are more effective when presented to a group than to an individual.

Who Should Be Responsible for Introducing the Worker to His Job?—As the programs of introducing the worker become more complete, there is a tendency to increase the number of people participating in carrying out the procedure. In one large firm having some 1,600 salesmen on the road, the president of the firm writes a personal letter to each new salesman setting forth in a friendly manner some of the policies and objectives of the firm. In many firms, the foreman, superintendent, and safety director participate in the induction program. Where more than one man participates, it is highly desirable that a detailed program be worked out so that the efforts of each man will supplement rather than duplicate the others'.

The Department Head's Part.—In the measure in which the personnel manager has been successful as a staff officer in giving a wholesome personnel viewpoint to the operating executives, in that measure will the department heads be prepared to carry on from this point the integration of the worker with his work. The same courtesy and consideration that has been shown to the new employee in the personnel department and in the lecture room and on his way to the work floor will be continued in the department to which he is assigned. Few executives are consciously discourteous, and few so lack the essentials of common sense as to be abrupt and rude to the new employee. Like the executives in the personnel department, however, the average operating executive is working under pressure. Important papers lie on his desk. Duties of major significance await his action. There is a great temptation for him unconsciously and without the slightest

¹ "-Placing and Introducing Employees," *American Management Association, Annual Convention Series* 18, 1925, p. 9.

intent to greet the new employee hastily and brusquely or to deny him those finer touches of courtesy that may seem of superficial importance to him but that loom up with immense significance in the mind of the new employee. It would probably surprise the foreman himself as well as other executives to learn that, in the case of a certain new employee going to work on a conveyor assembly line, the only two words spoken in his presence by the immediate foreman, during the first three days on the job, were the cryptic instructions to another worker, "show him." The brevity of this contact was such that, upon being forced at the end of three days to approach his immediate superior, the new worker did so with much hesitation and many misgivings as to the probable result of his enforced second contact.

There is no short cut for the solution of this problem; its solution lies partly in executive action on the part of the higher command and partly in the success of the personnel manager in his staff relationships with the operating chiefs.

The problem is to maintain a personal contact with him that will tide him over this critical period. In order to achieve this purpose, it is the practice of the well-organized personnel department to keep in touch with the new employee. In this connection, it is important that the activities of the personnel department in no way weaken the position of the foreman in the eyes of his employees. The function of the personnel department is to strengthen the line organization in personnel matters, not to weaken it. This position requires considered action and tact.

The Sponsor.—Many business institutions maintain a staff of employees of the proper personality and viewpoint, one or two in each department, who assume the responsibility, outside their own work, of looking after the new employees in their departments. In certain department stores, for instance, these persons are called "sponsors" and are organized into sponsors' associations to which it is held an honor to belong. The name of the new employee is sent, usually through the department head, to the sponsor in the department in which he is to work, and sometime during the first morning or at the beginning of the first lunch hour the sponsor introduces himself to the new employee and volunteers to escort him to the lunchroom, to show him around the building, to indicate where the toilet facilities are located, and to offer him that companionship without which the new employee might feel considerably at a loss. The need for choosing sponsors of the right kind of personality and ability is apparent. It is the usual practice to grant sponsors extra pay in addition to their regular wage for these added duties. The investment here is **slight**,

but the yield in terms of success in bridging this earlier period of pressure, doubt, and depression on the part of the new employee is great.

Another method is to have an interviewer, apparently bent on other business, stop for a moment's chat with the new employee at his desk or machine to ask him how things are going, to answer any perplexing points that may have arisen in his mind, to offer a word of general encouragement. A contact of this kind is usually made almost daily for the first few days until it becomes evident that the employee's uneasiness has disappeared and he is really happy and satisfied in his work.

Methods of Presenting Desired Information.—The methods used are influenced by the timing factor, the number of new employees being inducted into the organization, the organizational level of the new employees—such as laborers, toolmakers, engineers, salesmen, etc., and the formulated objective of the company in its induction program. Where the number involved is large enough, the lecture method or the conference is effective. Moving pictures are also used as well as sound slides. Written material is by far the most common medium of giving information to employees. This material may be included in one book, or it may be broken down into several booklets, each covering a single activity such as safety. These booklets may all be given out at one time or preferably at different times as the occasion arises. Trips through the plant are used at times to give the employee a picture of the organization as a whole. In large plants, departmental or divisional trips are often substituted for the plant trip. Some concerns supply all incoming workers with illustrated catalogues especially designed for their use. Another practice that has found favor in well-managed organizations is the use of boards, showcases, and paneled exhibits of the product in both its assembled and disassembled state. Where the product lends itself to such treatment, one of the best devices for acquainting the new employee with the products of the company is the cutaway assembly. Small models or full-sized samples of the finished product are cut apart so that construction, operation of interior portions, and the like can be seen. Many ingenious devices are often used in the preparation of such exhibits; for instance, in displaying the flow of two liquids through an apparatus, all passages for the separate fluids that can be seen through the cutaway portions are painted in different colors in order that the observer may follow more easily the respective relationships. Metal machines have been duplicated in glass, celluloid, or other transparent material for such exhibits.

The Personal Escort—a Person of Importance.—In considering the introduction of the new worker to his work, we must remember that he is usually in a peculiarly sensitive frame of mind. This may lead him to respond unwarrantably to facts and events of minor importance. This fact leads us to a consideration of the passing of the messenger boy as the new employee's escort from the personnel department to the department in which he is to work. It is becoming recognized in greater and greater degree that the individual who escorts the applicant or the new employee to his department is a person of considerable strategic importance. It is natural that the individual may question his escort en route as to working conditions, as to opportunities for advancement, as to the reliability of the information he has received from the personnel department, as to the personality of the executive he is about to interview. A negative suggestion or a false note here, and the constructive work already done in the personnel department may be undone. On the other hand, if the escort is properly qualified and trained, he can do much to reassure the new employee and reinforce his confidence. Personal courtesy, tact, loyalty, and enthusiasm for the company are qualities that should be present in every person charged with this duty.

The Difficulty of Maintaining Personal Contact.—The opportunity for informal personal contact between management and the workers is naturally greater in a small concern than in a large concern. Where relatively few persons are grouped together in a productive enterprise, these informal relationships exist as a matter of course. It is easier for management in such an organization to keep itself informed of the capacities and interests of the individual workers. It is largely a matter of personal observation. It is made possible by daily contact.

But it is probably true that many business concerns flatter themselves that personal contact between major executives and workers is a reality when the concern in fact has expanded beyond the logical point at which it is possible. Growth takes place gradually. Those who are in constant association with an organization during its growth sometimes do not appreciate that it is taking place. Because of this natural failure on the part of management to realize that its organization is growing slowly but steadily, we find that many concerns, in endeavoring to keep in touch with their employees and to know their qualifications and interests, are relying upon rule-of-thumb methods long after such methods have been outgrown by organization development. It is obvious that the difficulty of maintaining this personal contact with the workers increases proportionately with the size of

the organization. Occasionally, in a company of the first or second magnitude, an official will be heard to remark "management relies upon the department head and foreman to maintain that personal contact with the workers which previously existed between management and the workers directly." At times, this can be done with propriety. But, in most companies, the department head is quite unusual who is capable of getting out the work, of attending to the technical duties involved in his position, of working under high pressure, and at the same time giving time and conscious effort to the practice of such personnel policies as are described in this book. He must, in short, combine the capacities and interests of a technical expert in his line with those of a technical expert in the field of industrial personnel. This combination is hard to find. Nothing in this chapter should be interpreted as suggesting that the department head and foreman should not assume responsibility for the administration of the personnel in their departments. We have pointed out in a previous chapter that they are vested with great responsibility by virtue of their direct contact with the workers. The satisfaction and effectiveness of their *workers in their work* depend almost entirely upon the degree of leadership that they inject into their supervision.

The possibilities along this line that are open to the department head and to the foreman, however, do not remove the necessity for a staff personnel administration that will coordinate the efforts of the department executives in these respects and for a type of procedure that will bring the employee in touch with management through a channel other than that of direct authority.

In some concerns, owing to their size and scattered locations, the quantity and quality of personal contact suggested through the use of sponsors and interviewers may be impracticable. In such cases, there can be substituted an informal note from the personnel manager to the new employee inviting correspondence or a return visit to the employment department. Some concerns believe it to be good practice to address such communications to the new employees' residences. Another device that has found favor in large organizations, seeking to retain a fair degree of personal contact with all new employees, is the *appointment card* that is given at the time of employment or is sent to the new employee. This card lists one or more appointment hours when he is expected to present himself for a follow-up contact with the personnel department. Where such interviews or instruction classes are held on company time, the appointment card becomes the foreman's authority for relieving the employee from duty to meet the appointment.

The Presence of Perplexity and Fear.—To a degree not recognized by one executive in a hundred, the average worker is assailed by doubts and depressions that undermine his interest and efficiency. Fear is present in a degree that the ordinary executive does not recognize, although, paradoxically, he often harbors it himself. It seems to be present without cause in the case of most persons working for others. It is the fear that the individual is not making good, that there is no advancement ahead for him, or that he may lose his job.

This type of fear is detrimental, sometimes paralyzing, to personal efficiency. Because of its very nature, the employee shrinks from discussing it with his department head.

The worker would doubtless resent the term "fear" as something detrimental to his self-respect. The word, to be sure, is rather strong. Yet in its acute form this mental attitude is undoubtedly fear, and in its lesser forms it assumes varying degrees of perplexity, doubt, and hunger for reassurance.

Obviously, any constructive personnel procedure on the part of a company must reckon with these questionings, doubts, and fears if it is to develop effective worker-in-his-work units within its organization. The purpose of the follow-up interview as a part of an induction program, consequently, is that of ascertaining the mental status of the worker; if such fears are really present, to learn to what extent they are based on imagination rather than on fact; to explain them away in the case of the former, and to help the employee remove their causes in the case of the latter. In many instances, of course, fear is entirely lacking, in which case the problem is nonexistent. In many other cases, conversely, fear is present, and experience shows that in these instances the worker will talk more freely and with less reserve to a representative of the personnel department (provided the representative is qualified temperamentally for this important task) than he will with a superior in whose good graces he feels he would jeopardize himself by admitting such doubts.

When these facts are revealed in the interview, management is then enabled (either through action on the part of the personnel department or on the part of the department head) to offer such reassurances or to make such adjustments as will offset fears and, in consequence, bring the worker to a higher degree of confidence and personal efficiency.

Follow-up of Induction Program.—Some method of following up and evaluating the induction program is as essential as any other personnel activity. Like many other activities relating to human relations in industry, it is not easy to measure the effectiveness of a

particular endeavor. Oral or written tests have been used to check the accuracy of the information imparted. True and false and other written tests are not always adapted to the rank and file of workers. They are much more applicable to clerical staffs, engineering groups, salesmen, and others who usually have a higher educational training. An analysis of later personnel interviews and separation interviews may shed some light on the effectiveness of the induction program. A check on the number of mistakes that are made will provide a fair index on the effectiveness of a particular instruction covering the items involved. A special interview by a noninterested party with some of the recently inducted employees may shed some light on the program, particularly the attitude of the employees toward it.

Illustrative Procedure.—The program followed by the Western Electric Company in one of its plants is an excellent illustration of a well-organized procedure. It is natural that this program in its full formalized details would only be used when adding several new employees; however, in varying details, it is a part of the early training of all new employees. The National Industrial Conference Board, Inc., has summarized the Western Electric Company program as follows:¹

AN INDUCTION PROCEDURE

Definition.—The induction of a new employee to his job is that part of job training which consists of introducing him to his new surroundings and acquainting him with the things he needs to know about working conditions, relations with other employees, and company rules and regulations. It does not include instruction on how to perform his job, which is another distinct phase of job training.

Objectives:

1. To introduce the new employee to his job surroundings and acquaint him with working conditions and company regulations.
2. To foster a close relationship between him and his supervisor, and to create in him a favorable attitude toward the company.

Method.—The information referred to in Objective 1 is outlined below. It is to be imparted by interviews and frequent checkups by one or more of the new employee's supervisors over the first few weeks.

Some of these interviews are of such a nature that they must be handled individually, although at times when hiring activity is high, much of the information in the outline could be given to groups to save time. The exact method of handling and presentation must be left to each supervisor's judgment.

¹ *The Conference Board Management Record, op. cit.*, p. 185-187.

It is especially important that during the induction period the new employee be treated in a friendly and considerate manner in order that the relationships and attitudes referred to in Objective 2 may be attained. If these contacts are properly handled, and continued after the employee has passed the induction stage, he will be more quickly and completely assimilated into the organization.

Procedure:

FIRST DAY

1. Upon reporting for work the new employee is interviewed individually by the supervisor who gave final approval to his selection, usually the section or department chief. This should not be delegated to anyone whom the employee has not met or does not know. The following items of information are to be covered:

Getting to and from Work:

Inquire how he came to work and whether he had any difficulty.

Tell him what gate to use in entering the plant, and the best way of getting to his place of work.

Offer advice and information, if needed, regarding bus, railroad or auto routes.

If he plans to drive, explain parking facilities and regulations.

Hours of Work:

Explain again his hours of work:

Time of starting and quitting.

Lunch period.

Whistles.

Hours per week.

Pay:

Explain again the details of his pay:

Rate, basis of payment (hourly, weekly, piecework, etc.)

Day, hour and place he will be paid for each week's work.

Explain method of payment (cash and check).

(More about pay later on).

2. Hiring supervisor shows him where he will work (desk, bench, or machine) and introduces him to his first line supervisor and to all fellow workers he will come in immediate contact with. Turns him over to the first line supervisor who covers the following:

Locker:

Show him his locker.

Give him his key and show him how the lock works.

Have him sign card for the key.

Explain about charge for lost keys.

Gaution about keeping locked and explain risk of owner for loss.

Tell how to report theft.

Wash Room:

Show location, and tell him about rule on washing up.

Time Clock (Wait until the next day if card has not been received):

Show him his clockcard.

Show him how to register.

Tell him when to register (in and out).

Tell him about putting card in right place in rack.

Mention penalty for lates and failures to register.

Warn him against registering for another person.

Tell him to see supervisor in case of any irregularity.

Smoking:

Tell where permitted.

3. First line supervisor turns him over to the Unit of Safety Supervisor, who schedules him for the next talk on Safety and Accident Prevention.

4. First line supervisor turns him over to the instructor for job instruction.

5. Before lunch, first line supervisor covers the following:

Location of nearest restaurant and lunch counter.

Tell about noon-time recreational facilities.

Arrange for a fellow employee to accompany him first day.

Tell him that whenever he wishes to bring his own lunch he may eat it in the cafeteria. Before noon, it must be kept in locker, not at work location (to prevent possible contamination by poisonous substances).

6. Before quitting time the hiring supervisor returns to inquire as to his progress the first day; brings him his pass; explains the following:

Purpose of pass.

What "E" number is.

What to do if pass is lost or left at home.

Proper person in Department to call in case of absence.

How to put through the call.

SECOND DAY

1. Sometime during the second day the hiring supervisor interviews the new employee (individually or in groups) to cover the following:

More about Pay:

- Overtime and holidays.

Explain how adjustments are made.

Tell about rule prohibiting assignment of wages.

Medical Service:

Reasons for requiring physical examination.

Facilities in case of injury or sickness while on job.

Absence:

Intended absence must be arranged with supervisor in advance.

Unforeseen absence should be reported to the Department as soon as possible.

Repeated unexcused absences may result in dismissal.

Four successive days' absence without explanation will be regarded as having left the company.

Leaving Early:

When permitted.

Special pass required.

Package Pass:

Special pass for taking out personal property.

Inspection by Department Chief.

Medical Pass:

To hospital, or in and out of plant, in case of sickness or accident.

Personal Business:

None on Company time except by permission.

No selling tickets, etc.

No visitors.

Receiving personal mail in care of Company discouraged.

Miscellaneous Department Rules:

Washing up.

Windows and doors.

Lights.

Fire drill.

Etc.

THIRD DAY

1. Hiring Supervisor again interviews his new employees individually as to their progress and how they like their work. In groups, if desirable, he covers the following:

Organization:

Explain departmental organization chart.

Gives names of supervisors.

Explain in a general way what the department does and its place in the Works' set-up.

Explain in a brief general way the Works' organization.

Cashing Checks (Office Employees only):

How a check must be made out.

Limit of amount of each check.

Indorsements.

Where cashed.

Change of Address:

Notification required and reason.

Change of Marital Status:

1. Notification required and reason.

2. Calls attention to the Benefit Plan booklet given him by the Employment Department and tells him this plan will be explained in a later interview.

3. Assures the new employee he can come to his supervisor at any time with questions regarding his job or working conditions.

REMAINDER OF WEEK

1. Hiring Supervisor checks closely with the new employee as to his progress and how he likes his work. (This is an opportune time to give the new employee all the encouragement possible.) Tells him it is not yet time to worry about quantity, but rather to pay attention to quality. Reviews the quality performance set-up of the department and points out the employee quality performance records being kept.

SECOND AND THIRD WEEKS

1. Hiring Supervisor explains the following Company policies and activities (preferably to groups):

Vacation plan.

Benefit plan.

Insurance plan.

Upgrading plan.

Periodic Rate Review.

Credit Union.

The Employees' Club.

Recreational and social facilities.

Information on educational opportunities.

Stores.

Evening School.

2. Continues to make a close contact with the new employees individually and constantly reviews with each his job performance and progress.

The men who are to be responsible for the induction program receive help through coaching groups that give additional information and suggest effective methods of presentation. In addition to the outline of procedure given above, each leader has a detailed instructor's outline that indicates the particular points that should be emphasized. As aids in training, folders and booklets have been printed, such as "Western Electric and Its Place in the Bell System," "The Story of Western Electric," "Plan for Employee's Pensions, Disability Benefits and Death Benefits," "Employees' Ready Money and Savings Plan," "For Your Information." Together, the booklets cover all phases of the organization's work and its employee activities.

CHAPTER XXII

TRAINING WORKERS

Need for Training Nonsupervisory Workers.—We have recognized right along that there is no labor problem, but a multiplicity of labor problems, sometimes involving groups of workers but more often involving individual workers. In this sense, every worker presents to management an individual personnel problem. This is true because workers in shop or office differ in the things they're fitted to do and are capable of doing. Furthermore, they differ in their interests, aims, hopes, and fears. The necessity for recognizing these important differences leads naturally and inevitably to a careful consideration of education and training as a balance wheel in helping to bring about more harmonious adjustments between the individual worker and his work and to increase the effectiveness of the worker-in-his-work unit by increasing *capacities* and *interests*—especially *capacities*.

Not only is training important in the continued adjustment of the worker-in-his-work unit, it is absolutely essential to the successful absorption of new employees with a minimum of time and expense. There is a certain amount of labor replacement necessary in a well-managed industry even though labor relations and working conditions may approach the ideal. This labor turnover arises from normal separations due to death, physical incapacity through accident, disease, or superannuation, promotion within the organization, and change of occupation. These replacements amount to about 5 per cent per year under normal conditions.¹ In addition to the normal replacements, with an increasing population, industry has tended to increase in size, thus requiring additional men. New men, even though they may be experienced, almost invariably require some training in the special requirements of the particular enterprise. This training must be given in some manner. Inexperienced men must be given detailed training not only in the special methods of the individual enterprise but also in the basic principles of the particular trade or task.

Prolonged depression periods increase the need for the training of skilled workers for the obvious reason that there is a tendency for

¹ See *American Machinist*, Vol. 81, May 5, 1937, p. 363; see also O. F. Carpenter, "Detroit Trains," *Factory Management and Maintenance*, Vol. 94, July, 1936, p. 7.

industry as a whole to discontinue training programs during the depression when the supply of labor is in excess of demand, and for a secondary reason that the unemployed skilled workers tend to lose their skills when out of work over a period of years, and death still takes its toll regardless of depression. In 1941, a real shortage of skilled workers occurred, there having been relatively little training from 1930 to 1940.

In addition to the foregoing, there is the ever-present need for training men on the job to meet changing techniques or to improve old methods that are woefully inefficient.¹ Again, there remains the problem of adjusting to changing social conditions. Consultative supervision, arising out of various attempts to make industrial democracy really work, requires careful training and education in the fundamental principles motivating the entire organization.²

We know that it is difficult if not impossible to get just the right man for a given position. We know that an individual worker himself is never static. We know also that jobs have a way of changing. So it comes about that a well-planned educational and training program is needed to keep the balance between the *capacities* and *interests* of the workers on the one hand and the *opportunities* and *requirements* of the work on the other.

This dynamic point of view toward personnel problems stresses the importance of industrial education and training. We must avoid looking at training as an activity divorced from all the other personnel activities. *It must be viewed as an integral part of the whole personnel program with all its many activities functionally interrelated.* For this reason, we shall discuss the ways in which the personnel instruments described in this book can be utilized in carrying out educational and training programs.

Before we proceed to a description of these methods, it will be well to have before us in outline form the main agencies that must be depended upon to achieve the desired results. These agencies may be listed as follows:

1. Training on the Job. *a. By Experienced or Skilled Worker.*—

The new employee, or the employee transferred to work of a different nature, is broken in by an experienced or skilled worker. In employing this method, care must be taken to ensure three things: (1) that

¹ See Gordon S. Watkins and Paul A. Dockl, *The Management of Labor Relations*, McGraw-Hill Book Company, Inc., 1938, pp. 402-404.

² See the General Electric program as described in National Industrial Conference Board, Inc., "Training Solutions of Company Problems," *Studies in Personnel Policy* 18, New York, 1940, pp. 7-10.

the experienced worker is a *go'od teacher*, (2) that the experienced worker has an *effective incentive* and *sufficient time* for carrying out his teaching duties, and (3) that the experienced worker be provided with an *accurate account of the training needs of the worker* he is to teach.

b. Instruction by Supervisor.—In this case, the worker receives his instruction at the hands of the department head or foreman. It is necessary that the factors outlined in the preceding paragraph as essential be carefully observed if good results are to be achieved.

c. Training by Special Instructor.—Many companies have recognized the difficulty of securing satisfactory results through the foregoing agencies, and so they have placed reliance upon special instructors. The special instructor is chosen primarily because of *his ability to teach*. This is something entirely apart from trade skill and trade knowledge. It is now generally recognized that the skilled worker may not be, and seldom is, equally skilled in teaching. The special instructor is chosen secondarily because of his special skill in the work itself for which he is training others. All his time and energy are devoted to his teaching duties, a fact that accounts in part for the economy of such a training agency. Many coaches of all-star football teams were never star players themselves. It should not be inferred from the foregoing statements that the instructor need not be skilled in the manual arts that he teaches. By all means, he should be able to perform the tasks with accuracy at a normal speed, but it is not necessary for him to be the outstanding performer.

d. The Understudy System.—This method places the worker on a given task with the definite purpose that he shall serve as an understudy to the man on the work. This understudy may be taught by any of the three preceding agencies, usually, however, by the man actually working on the job to whom he is an understudy.

e. The Flying Squadron or "Utility Squad."—The flying-squadron idea arose to meet the necessity for developing workers possessing an all-round knowledge of the work in the various departments in order to have available men to take the place of members of the regular force who were absent because of illness, vacations, or any other cause. The flying-squadron program has been closely associated with the training of minor supervisors and college men. This phase of training will be discussed in the following chapter. The presence of a body of men in the organization who are capable of stepping into many vacancies eliminates the necessity of carrying excess men in each department. It results in an actual saving in the number of workers carried on the force. These men receive training usually from another worker when they are first placed in a department. Men chosen for this depart-

ment are usually selected from those who have shown considerable adaptability (other than when placed here for training to become supervisors). Men on the utility squad are often used as instructors of others when needed. At times there may be no call for these men, in which event they are often placed on a new job just to learn it in case they later may be called upon to fill a gap in production.

1. *The Apprenticeship System.*—Here is a time-honored institution. It is perhaps the oldest, and at one time the almost universal and sole training agency in industry. Although it is true that industrial methods have been completely revolutionized since the days of the medieval guilds when apprentice training blossomed forth as a systematic method of training, still apprenticeship training has persisted. In fact, it is probably one of the most common forms of industrial training in existence today. It has persisted in spite of the splitting up and the subdividing of general trades into highly specialized kinds of work. This phase of training has been more highly organized and systematized than any of the other five methods mentioned above. Because of this fact, it will be described in considerable detail later in this chapter.

The six foregoing agencies or methods constitute the typical modes of training *on the job*. Now let us turn our attention to training methods that may be classified as schools.

2. **Training in Company Schools,** a. *Vestibule Schools.*—Vestibule schools set up and operated by individual companies have arisen to meet the training problems created by the increasing subdivision of labor. It is astonishing to learn that perhaps the vast majority of machine production jobs are to be classed as semiskilled operations requiring an incredibly short training period. Furthermore, skill in one specialized task does not qualify a worker to take up another specialized job in the same or in another company without additional Specific training. This is true not only of mechanical occupations but also of office work. Evidence derived from labor turnover analyses (other than during periods of depression) is startling in that it reveals not only a high turnover rate for such positions, but an excessive turnover rate when attention is confined to recently employed workers. In other words, management must face the fact that the average length of service of recently employed workers on these semiskilled jobs is alarmingly short. This means that the quickest possible education of the worker to a point of productive efficiency must be attained if that employment is to be profitable to both the worker and the company. The vestibule school, where the training of such workers is centralized, systematized, and supervised by expert teachers, is one

of the best methods available to management for meeting the problem. Such a school not only helps to make the employment of short-term workers on semiskilled jobs profitable, but it also aids in increasing the average length of service of the newly employed worker. This means a reduction in the labor turnover rate for such workers, brought about by quickening the process of bringing the worker to standard production efficiency, thus ensuring normal earnings in a shorter time than would otherwise be the case and avoiding the discouragement resulting from the more prolonged period of less than normal earnings.

The vestibule school is usually located in a separate room or workplace frequently adjacent to or near the regular production area. It has certain advantages over training on the job as a part of regular production: namely, (1) more efficient use can be made of the instructor's time and skills in that he has his students more conveniently located and under closer supervision; (2) regular production is less impeded by learners who cannot hold up their end of the work; (3) the general atmosphere is more favorable to learning in that there is not so much confusion to the beginner unacquainted with machine production; (4) since production is of secondary importance, emphasis can be laid upon those phases of the work where the learner is weakest without disrupting production; (5) usually instructors more highly skilled in the art of teaching are used since they are so located that more effective use of their time can be made (this does not always hold); (6) the vestibule school is well adapted to training regularly employed workers for promotion.

The disadvantages of the vestibule school are claimed to be as follows: (1) with the passage of time there is a tendency for the instruction and equipment of the vestibule school to lag behind the actual situation in the shop; (2) the emphasis in the vestibule school tends to be upon successful completion of a task with too little attention to the time element involved, a condition that is definitely unrealistic; (3) a retraining period is required on transferring the employee to the shop in order to orient him to production speeds and operating conditions; this period frequently is a discouraging one in the absence of the sympathetic instructor and results in a heavy turnover on the part of men on whom the company has already spent considerable money.

The vestibule school is best suited to an industry having a relatively constant need for a large number of new men to do one of a few different kinds of jobs.¹ It found great favor during the World War

¹ National Industrial Conference Board, Inc., *op. cit.*, p. 68.

(1914-1918). It also played an important role in the rearmament program of 1940-1941.

b. *Company Schools*.—There is an increasing tendency for modern industrial and commercial companies to establish courses within their organizations for the purpose of giving specific or general training to selected groups of workers already on the job. This may be done by conducting special courses to meet some emergency or to meet the needs of some particular group of workers. Such training courses are usually designed to fit the employee for larger responsibilities either in his present position or in different work. It is not in order to list here all the possible specific and general courses that have been developed in various companies. Mention of a few of many courses will indicate their scope: shop mathematics courses for mechanical workers, stenographic courses for typists who wish to become stenographers, salesmanship courses for prospective or present salesmen, management courses for foremen and department heads, etc. Some few companies have developed such courses, both formal and special, to a point where the list rivals the crowded curriculums of our foremost colleges. The work is organized and placed in the hands of a large corps of instructors who conduct their classes in a school building completely provided with classrooms, laboratories, apparatus, and equipment. In short, these educational activities seem, at times, almost to constitute a real industrial university.

These schools may be entirely financed and controlled by the company, by the employees, or by both jointly. Regardless of the formal organization, it is highly desirable to tie the employees into the program in an intimate manner over and above the mere receiving of instruction. One important pitfall to be avoided is the building up of false hopes on the part of the students in these classes.

It is obviously necessary to have a carefully planned program designed to fit the needs of each company. Since no hard and fast program can be drawn up that would be applicable to all companies even though they be in the same industry, it is obvious that a well-developed personnel department will be able to do much in the way of determining the needs in the company for special kinds of ability that must be met by such training, as well as locating and identifying the individual workers who would be most benefited and who most desire particular courses.

c. *Safety Instruction*.—Management is responsible for safe working conditions. In order to meet this responsibility, the creation of an educational program embracing instruction in the prevention of accidents, as well as first-aid methods in case of emergencies, is necessary,

Inextending safety instruction to workers, the material should be presented in simple nontechnical terms so that the rank and file of workers can thoroughly understand and take the necessary precautions against the hazards under which they may be working. Various methods, such as the use of lectures stressing habits of caution, instruction in the prevention of occupational diseases, and motion pictures contrasting the right and wrong way of doing a job and illustrating the means of accident prevention are some of the devices used to educate employees in safety work.

No matter how comprehensive the safety program, however, some accidents will happen, particularly in work of a hazardous nature. Workers should be prepared to meet such emergencies. Power companies have for a long time used extensive educational methods whereby workers are given instruction in first-aid work and resuscitation so that if one worker is overcome by an electrical shock another can intelligently attempt to revive him immediately. Mining companies similarly stress emergency drills in an attempt to train workers in what to do in case of a serious explosion or the like.

The safety program for an organization depends upon the nature of the jobs within that concern; however, to be successful, a safety program of any sort cannot be separated from the personnel program as a whole. Safety is as important and should receive as much careful attention as any other distinctly personnel activity. It is customary to have a variety of committees, working on safety from different angles, under the leadership of a trained safety director.

d. Americanization Courses.—The discovery of the large number of foreign-born workers (and of natives born in certain parts of this country, too, for that matter) who had failed to learn to read and write the English language, though they may have learned to speak English fairly well, led many companies during the early twenties to organize what have come to be called Americanization courses. It is recognized that the term "Americanization" is not wholly suitable; still, it does serve to identify those educational efforts designed primarily to reduce the illiteracy that at present characterizes certain portions of the working population. With the passage of time since immigration has been restricted, and with an increase in publicly supported classes for adults, there has been a marked decrease in Americanization courses supported by industry.

The four agencies listed above give us a bird's-eye view of the training and educational work being conducted by various individual companies under what may be classed as schools. They represent organized activities away from the job, whereas the agencies listed in

section 1 represent training activities on the job. In the subsequent portion of this outline, we shall mention briefly certain agencies that may be thought of as supplementary to those already mentioned.

3. Publicity, *a. Lectures and Conferences.*—Lectures for departmental groups covering operations in the department, the interrelations of those operations, and the relation between the work of a given department and the work of other departments and divisions have been found of much value in bringing about a better *esprit de corps* and in solving production problems requiring a high degree of cooperativeness between groups of workers. Lectures for occupational groups, divisional groups, etc., are of value in increasing the effectiveness of the work done by the groups involved. The success of the lecture method depends, of course, upon the relevancy and intrinsic interest of the topics presented and upon the ability of the speaker to convey his ideas. The speakers may be either men from within the company who have been unusually successful in some project or outside specialists who can present matters of real informational value. The lecture method is frequently conducted as a group conference with ample opportunity for questions and answers. Some have increased the success of such lecture and conference meetings by arranging for a luncheon or dinner either in the company restaurant or in a hotel.

The conference in many respects is superior to the lecture in that it provides more intensive participation and thinking on the part of the participants. On the other hand, the number of persons involved in a conference should not exceed 20 or 30, whereas hundreds may listen to a lecture. The General Electric Company, Erie Works, conducts informative meetings of its hourly rated employees.¹ This is an interesting procedure and holds considerable promise to other companies which have highly integrated personnel programs. A limited number of employees, such as three, is selected from each department by the foreman or superintendent to attend each meeting. One of the selected employees from each department is carried over to the next meeting to give continuity to the group. Current problems of interest to the employees are discussed, such as rates, working schedules, etc., but do not cover grievances that are handled by separate procedures. Minutes of the meeting are provided the participants and also posted on the bulletin boards, thus being made available to all employees. Other companies have similar programs, but few of them hold such regular meetings.

b. Company Paper.—The company paper, or house organ, as it is frequently called, can be used to great advantage in educating

¹ National Industrial Conference Board, Inc., *op. cit.*, pp. 7-10,

the workers concerning an almost unlimited number of topics. Safety work, health and hygiene, wage questions, company history, plant processes, economic principles applicable to the particular business, etc., are all matters upon which the workers need enlightenment. The company paper, if judiciously managed, is an excellent medium for much effective educational and training work. It must be edited in an interesting manner, however, for "the employees must *want* to read it if management is to convey its message to them.

If the company paper is to be read and thereby serve as a medium for education, it must make a special appeal to the workers. There is probably no better way to interest the workers than by featuring as many personal items as possible. It seems to be almost a universal desire to see one's name in print. A mistake is often made in giving too much space to executives' vacation trips. This may be a serious error if workers are not also given vacations. In any event, the description of a worker's vacation has more appeal to the rank and file than the same amount of space devoted to the travels of an executive unless the particular executive is very popular. The educational value of the house organ will be largely proportional to the care and ingenuity used in planning such a program. Plant processes may be described and illustrated by pictures of various operations. Company policies form a valuable subject if clearly and forcibly presented. Suggestion awards and the awarding of service pins may well be featured in the company paper. Articles on health, sanitation, good housekeeping, and safety may serve a real educational purpose.¹

c. *Bulletins*.—The bulletin board has long been a means whereby management can talk with the workers. That it, as well as the other agencies we have been discussing, has been abused and its usefulness thereby impaired goes without saying. Many companies have posted on their bulletin boards notices having to do solely with rules and regulations, prohibitions and penalties, ignoring the splendid opportunity offered for communicating with the employees along educational and inspirational lines. In most companies, the value of the bulletin board can be greatly increased by proper attention to its educational and training possibilities.

The bulletin board has been largely employed heretofore in connection with the necessary educational work that must be done in carrying out a consistent safety-first campaign. Its use in accident-prevention work has undoubtedly been effective. No doubt there are other educational programs that could be helped by a more liberal use

¹ See Gordon S. Watkins and Paul A. Dodd, *op. cit.*, 446-458, for an interesting chapter on "The Employee Magazine."

of well-planned bulletins. The use of the bulletin board in this way can be supplemented by carefully prepared leaflets and pamphlets on subjects that require further elaboration than is possible in a bulletin placard. Figure 76 is an example of the attractive and effective use of the bulletin board for educational purposes as used in one concern.

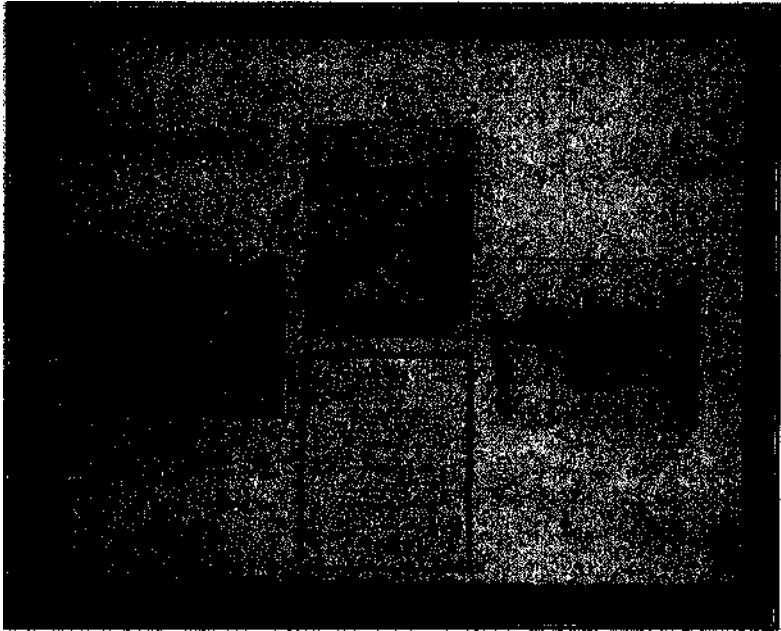


FIG. 76.—Example of bulletin board used in one company.

The bulletin reads:

Through Fire and Flood. Here's our Number 1 Engine—built in 1882—before some of us were born. It's had its troubles too. For 30 years it ran continuously and then the Carr and Brown Mill was burned down to the ground. One picture shows Number 1 in the ruins defiantly poking its governor out as if to say, "I'm still on the job." It a s cleaned up and again went to work for a couple of years. Then the flood came and Number 1 was buried under 15 feet of water and thick yellow mud. But something had been built into Number 1 that fire and flood couldn't touch. In a short time it was back on the job and even today Number 1 is in perfect running order as shown by the photograph taken last week. And we're still putting the same quality in all our engines—if you are *'putting it in the part you make.*

The most severe criticism of the use of the bulletin board is the failure to keep it up to date. It is not unusual to see notices left on the

bulletin board 2 or 3 weeks after the event that the notice announced. A bare bulletin board is to be preferred to one filled with dead material. Certain insurance companies, the National Industrial Safety Council, Inc., and other private agencies have a bulletin-board service that they send their clients or subscribers. Many of these services are eminently worth while and may be adapted to the peculiar needs of the individual plant.

d. Motion Pictures.—Industrial motion pictures will probably play an increasing role in the educational and training programs of the future. Undoubtedly the visual method of teaching is very effective for a large proportion of the population, and hence the moving picture can be utilized to advantage in a variety of ways. The newly employed worker can be given a general impression of the scope and nature of his company. Not only such general impressions but also detailed, vivid accounts can be given concerning the whole productive process, from the obtaining of the raw materials to the finished article in use. Furthermore, such pictures can be used advantageously in teaching a worker many complicated mechanical processes that could scarcely be conveyed in any other way. "Slow" motion pictures reproducing action at a fraction of its real speed are especially enlightening for some processes. The "cartoon" technique makes it possible to portray graphically operations, such as the "insides" of an internal-combustion engine, that cannot readily be reproduced photographically. Extensive use of this invaluable educational and training aid has not been made because of the lack of suitable films. In part, this has been due to the expense involved, but we may confidently expect that larger use of the motion picture as an educational device will lower the cost of production, and this in turn will increase the demand for such pictures.

The use of talking pictures for industrial education and training has already been demonstrated as a very practical method. Although talking pictures have as yet not found general application, special use of them has been made for purposes of distributing information to salesmen. Instead of assembling salesmen from all sections of the country at one large convention, the sales manager of a company prepares an educational talk concerning the product, or whatever the subject may be. This is then distributed in the form of a talking picture to all the various sales districts over the country. All the district salesmen are gathered at a meeting at some convenient point in their respective local districts, and the information is given to the entire sales force of an organization simultaneously, without their leaving their various districts. The possibility of the talking picture as an educational device along this and similar lines is unlimited.

Belonging in the same category with the motion picture are the sound slide pictures, a device that synchronizes slides with a record on which the desired message has been recorded. This equipment is somewhat less expensive than the moving picture and serves essentially the same purpose unless actual motions are desired. One of the largest banks in Chicago has made extensive use of this method of instructing its employees in the proper use of the telephone.

e. Public-address Systems.—The public-address system popularized in recent years in public schools, and to a lesser degree in department stores, offers possibilities for educational development. At least one manufacturer employing 2,000 people housed in three factory buildings has been making use of this system to speak directly to the employees.¹ The Sunbeam Electric Manufacturing Company of Evansville, Ind., uses such a system in addition to the bulletin boards, plant newspaper, etc. Recorded music may be played during the lunch period or at any other desired time over this system. Routine announcements may be made and policies may be explained over the system. It provides a means of direct contact between top management and the workers.

The agencies listed above under publicity are important devices. The fact that we shall not further extend our discussion of these agencies should not lead the reader to underestimate the importance that must be attached to each of them in the actual carrying out of training programs.

4. Indirect Agencies, *a. Company Reading Rooms.*—Companies that maintain rest rooms, clubrooms, or reading rooms for their workers frequently fail to realize that such rooms afford an excellent opportunity for placing educational material in the hands of the workers. It is obvious that much care must be exercised in the selection of material that will be truly educational and at the same time attractive enough to compete on its own merits with the newspapers, magazines, and books that should be available in the reading rooms.

b. Company Library.—An increasing number of companies realize the opportunity for extending their educational programs by maintaining company libraries where recreational and instructional books can be secured by the employees. Such company libraries are often linked with the public libraries so that a wide assortment of books is made available, changes being made as rapidly as the circulation of given books ceases. There is usually a provision whereby a worker can apply for a book in the morning, and the book can be secured from the

¹ *The Management Review*, March, 1940, p. 95, quoting the N.A.M. Letter, Jan. 19, 1940.

public library during the day if it so happens that the book is not in the company library. Reports from company libraries are reassuring not only from the point of view of the surprisingly large number of employees who use the library facilities but also from the point of view of the large number of technical books withdrawn for study.

The general library may develop a special division to render specialized service of a technical or business nature, or the company may establish a special library of this nature. With the widespread growth of public libraries, it would seem logical that private company libraries would become increasingly of the special type designed to render a special technical service. This library may render valuable service to the technical divisions of the industry and employees interested in technical and business matters. Librarians of special libraries have a professional association of their own, the Special Libraries Association, with headquarters in New York.¹

c. Cooperation with Schools and Colleges.—The educational and training program within a company can be tied up in many ways with the public-school system, colleges, and universities. Continuation schools in some instances, for example, are mandatory under the state laws to continue the general education of youths from fourteen to sixteen years of age during part of the working week. Under the Smith-Hughes Act passed in 1917, funds for the training, maintenance, and payment of teachers have been established that are prorated among the various states under certain conditions laid down in the act itself and under the supervision of the Federal Board of Vocational Education.

The George-Ellsey Act of 1934 and the George-Deen Act of 1936 increased the Federal appropriations for vocational education and widened the scope of the Federal-state cooperation in education. Extensive programs in vocational education are being carried on in practically all cities or towns of any size, and in state-supported colleges and universities. In many communities, the business interests are closely cooperating with the schools. The public schools frequently provide the instruction required in the apprentice training programs, the students' being released from the shop to attend the classes at certain times during the week. Shop practice and business subjects are being taught with increasing efficiency in vocational classes in public schools. Part-time programs are being worked out in some cases. These have been more successful in colleges than in high schools. Progressive schools and colleges are realizing the importance

¹ *The Management Review*, May, 1940, pp. 190-191.

of preparing students more adequately for industrial activity. The cooperative plan of education in operation at the University of Cincinnati, at Antioch College, Drexel Institute, Massachusetts Institute of Technology, Georgia School of Technology, Northwestern University Technological Institute, and some 16 other colleges and universities are outstanding examples of educational endeavors in this connection. Under the cooperative plan, students alternate between periods of academic work in college and periods of work on various jobs in industrial concerns. In this way, the academic and industrial work is related in an attempt to give the student a well-balanced education including adequate theoretical as well as practical preparation for any industrial pursuit he may elect to follow.

Some concerns make a practice of encouraging promising employees to take courses in various sorts of schools. They offer as an incentive part payment of the tuition beforehand, or, through the educational refund plan, they pay part tuition after the employee has successfully completed an approved course of study in an approved school. Some organizations do likewise for employees taking correspondence courses or courses in the local Y.M.C.A. or Y.W.C.A.

A noteworthy step toward further cooperation between industry and school is the University Extension Plan, which provides for instruction, under university control, to be given to students unable to attend regular courses of instruction. This plan has great possibilities from an industrial viewpoint if industry will but expend the effort to inform the educators of the industrial conditions so that they in turn can direct their students how to become more effective workers. This sort of cooperation and coordination should result in enriched apprenticeship training methods, for the schools can emphasize those things that will enable the apprentice and future skilled worker to become a better citizen, and industry can supply him with the training that will enable him to become a more effective worker.

i. *Night Schools.*—Advantage of the many night schools, private, semipublic, and public, can also be taken by those responsible for company training programs. Encouragement to take advantage of such opportunities can be given to those workers who would really benefit from such supplementary instruction. Care should be taken, of course, to prevent the lamentable waste of time and money on the part of those workers whose ambitions lead them to persist in night-school work and correspondence courses, yet who are taking courses that are demonstrably beyond their abilities and capacity to learn. On the other hand, personnel administration has an equally strong obligation to instill in the worker of unusual ability the desire and ambition to fit

himself for positions of greater skill or responsibility by attendance at a well-conducted night school.

e. *Correspondence Courses*.—What is true of the preceding agency is perhaps also true of the usefulness of correspondence courses as an indirect agency in education and training. It is, of course, probable that a smaller proportion of individuals possess the persistence and industry to undertake and complete a correspondence course. This means that personnel managers who utilize such courses as part of their training methods need to give unusual thought and attention to the capacities and interests of the employees whom they are considering for such courses. Recognition of the difficulties and accumulation of facts about those who succeed and those who fail (when given the opportunity to pursue such courses) should lead to more and more accurate decisions in individual cases. The Minnesota Employment Stabilization Institute found in its study that only 6 per cent of the persons starting correspondence courses finished them.¹

Some companies that have many plants or branches or salesmen far from the home office have organized correspondence courses for their own employees, writing special materials adapted to their own use. Both Swift and Company and Armour and Company have such courses. The incentive to complete correspondence courses initiated and given by the company is greater than when there is no follow-up by the employer.

Modern Apprenticeship Training.—As was previously stated, the apprenticeship form of training dates back to the Middle Ages. With the rapid expansion of machine production and high wages for machine operation during and following the World War (1914-1918) the popularity of this type of training fell off, not only with young men, but also with employers. In comparison with the number of skilled all-round mechanics formerly required for a given volume of production, the new techniques required fewer skilled artisans. Nevertheless, many of the larger companies continued their programs even through the depression days of the early thirties. When production began to approach normal in 1935, a shortage of skilled men was felt. Renewed interest in this form of training resulted in the establishing by law in 1936 in the Department of Labor of a permanent Federal Committee on Apprenticeship Training. This committee has aggressively promoted apprenticeship training in cooperation with the state committees on apprentice training in each state and with local committees

¹ Donald G. Paterson and John G. Darley, *Men, Women, and Jobs*, University of Minnesota Press, Minneapolis, 1936, pp. 53-54; see also Dale Yoder, *Personnel and Labor Relations*, Prentice-Hall, Inc., New York, 1938, pp. 178-179,

in many communities. Minimum standards have been established in keeping with the needs of each particular industry. The length of time required for this training varies with different trades. Briefly, the minimum standards set by the Federal Committee on Apprenticeship Training are as follows:

1. The minimum age of an apprentice shall be sixteen years.
2. The training period shall not be less than 2,000 hours nor more than 10,000 working hours.
3. Initial wages paid the apprentice shall not be less than 25 per cent of the wages paid journeymen.
4. Not less than 144 hours of instruction under public authorities must be provided.

The Federal Committee on Apprenticeship Training recommends that a signed agreement be executed for each apprentice. A large number of industrial concerns have used various forms of apprentice agreements. The form suggested by the Federal Committee on Apprenticeship Training is given in Appendix C.

The modern program for apprentice training calls for a predetermined schedule for the apprentice. The present plan is designed to provide a broad training in the various aspects of the particular trade and at the same time not keep the learner for too long a period as a worker at a low rate of pay. There is no question that many of the apprentice training courses could be shortened by effective instruction and careful supervision. It is doubtful whether the new impetus to apprentice training will do much to shorten this training period. Custom is a powerful stabilizer. Most of the men in charge of apprentice training have themselves served the traditional training period and are not particularly interested in shortening it.

The most pathetic phase not only of apprentice training but of all industrial training is the low standards of instruction. Many of the instructors have no special interest in teaching the learner. Recently, (1941) in one of the best known shops in Chicago, an alert apprentice was kept an entire week on a shaper under the guidance of another apprentice who did not know so much about the operations as the beginner himself. At the end of the week, the supervisor criticized the beginner for not getting up speed and for not taking deep enough cuts. The truth was that the beginner was doing exactly what he had been told. It will take a long time to eradicate such conditions, but it is a terrific loss to industry to tolerate it. A special supervisor of apprentices who is not responsible to the line supervisors but who calls on each apprentice daily will tend to eliminate some of the abuses.

Practically all the larger corporations have well-established apprentice programs. Many of the executives of some of the older concerns have come up through the organization through the apprenticeship route. The Brown and Sharpe Manufacturing Company of Providence, R. L., has a long tradition behind its well-organized program. It has dormitories and recreational facilities and has developed an *esprit de corps* similar to a college. The Allis-Chalmers Manufacturing Company of Milwaukee has a similar program. Other well-organized and widely known programs are to be found in the following plants: Ford Motor Company, Chrysler Motor Corporation, Carnegie-Illinois Steel Corporation, General Electric Company, and the Western Electric Company.

Elements of Good Teaching.—There are certain fundamentals that are common to all adult instruction whether it be general or vocational in nature. The following items should be kept in mind by teachers of adults either in groups or as individuals on specific jobs:

1. The instructor should convey to the learner an attitude of patience, painstaking effort, and good will. Such an attitude tends to become reciprocal and begets confidence.

2. The instructor should have clearly in mind a definite objective for the individual lesson or conference. This should be definite, or else there will be much wasted time and effort.

3. The instructor should carefully analyze the particular subject or task into its instructional factors.

- a. These factors should be arranged in their logical sequence for teaching purposes.

- b. Having determined the logical sequence of the steps to be presented, the instructor should develop a plan of presentation for each step in order to ensure effective results. The skill of a conference leader is measured by his ability to direct the conference along carefully planned lines.

4. The actual teaching should be carried on with the major objective in mind and in keeping with the organized plan. The lecture may be used for imparting information, but the conference is more productive of constructive thinking on subjects concerning which the group has had experience, or about which it has previously studied.

5. In teaching one of the skills such as operating a machine, the following steps should be followed after the instructor has made adequate preparation:

- a. *Explain* to the worker the nature of the work, hazards to be avoided, value of the equipment and product, the use of any special tools, specifications, gauges, etc.

- b. *Demonstrate* the work with the learner in the position, as nearly as possible, that he himself will be when he performs the same task. The first demonstration may well be at the normal production speed. The second demonstration should be performed slowly enough for the worker to see each step in the operation in detail and the relationship of each operation to its succeeding operation. The "why" of each operation should be explained as well as the "how."

- c. After the learner has had ample opportunity to familiarize **himself with** the details required, he should be allowed to make his initial *trial* under the direct guidance and supervision of the instructor. (Scientifically, the desired skill and speed will be acquired more quickly if the learner from the beginning completes the entire operation at standard production speed. From a practical standpoint, this is seldom feasible where the value of the equipment or material is high, since the scrap and breakage under such a procedure is excessive.)
- d. *Correction* by the instructor should accompany the initial trials as well as later ones. This should be carried out by suggestion and demonstration.
- e. *Follow-up* is essential not only during the early part of instruction but also as the learner progresses in order to avoid the formation of bad work habits. The one best known method is the one that should be taught and adhered to until a better method is devised, when the new method becomes the one taught.

Retraining Programs.—The retraining program in industry is merely one phase of the important industrial training program. It has one peculiar feature in that it largely concerns old employees in terms of service, and not as a rule new employees. The retraining of employees may arise out of several conditions, namely:

1. Technological changes may abolish the job on which an employee is working, and the company desires to retrain the employee rather than discharge him.
2. An employee because of illness, accident, or incapacity due to age no longer can carry on his share of the task that he performed when in normal health and strength.
3. Depressions or cyclical variations in production create conditions where, in part, employment stabilization may be achieved by having a versatile work force capable of performing more than one job.
4. Some employees are engaged in a confined phase of a particular task and lose their all-round skills in their particular trade. Retraining is often necessary to keep active their all-round skills as a reserve in case of need.

The retraining program is prompted by sound economic motives, since it pays to keep older employees whose loyalties have been proved, but it is also supported by social approval especially with respect to the older, crippled, or physically incapacitated employees. The depression period of the thirties has added to retraining problems. Unemployment taxes with merit-rating provisions have also provided an added incentive for desiring to retrain employees whose jobs have run out, rather than to hire new men already trained, thus losing the favored merit rating.

Use of the Mental-alertness Tests in Training.—The two chief ways in which the mental-alertness tests can be used to assist the training work are: as a device for selecting those best fitted for a training course that makes much demand upon mental alertness or ability to learn, and as a device for classifying workers into homogeneous groups

on the basis of learning ability. In either case, it is necessary to determine the extent to which mental alertness facilitates progress in assimilating the course in question. In those courses where mental alertness is important, we find that the test results are valuable aids in getting maximum results in minimum time. For such courses, it is ordinarily a fairly simple research problem to determine the mental-alertness standard below which it becomes useless to attempt to instruct a worker. This problem has to do with the usefulness of the tests as a means of selecting workers for the course. The problem of classifying the workers into groups according to ability to progress in the course is also a fairly simple research problem. This can be done most advantageously, of course, only where there are sufficient numbers to warrant separate groups. In classes for foremen, in Americanization classes, and in management classes particularly, the mental-alertness tests can be used for grouping the students on the basis of ability with excellent results.

Need of Classification in Factory Schools.—As industry attempts to conserve its man power and attempts to make effective the potential ability of each employee, it will increasingly organize effective training courses. With the establishment and operation of such courses, the principles mentioned earlier in this chapter must be adopted if the educational program is to be successful.

As illustrative of the way mental-alertness tests can be utilized in carrying out this modern educational principle of classification according to ability to learn, we here present the results of an experiment conducted by a group of consultants and the educational department of a large industrial concern.

There is a 3-year course in this plant designed to train factory employees for minor executive positions. These employees have been selected to learn all the major production operations in the plant and are instructed in the principles of management. An attempt is made to classify these men into three groups according to their ability to learn.

The first basis for this classification was the public-school record of each man. High-school graduates or men of equal ability were placed in section A. Grammar-school graduates or men of equal ability were placed in section B. Men having less than 8 years of schooling were placed in section C.

As time went on, it became apparent that this system of **classification** was unsatisfactory. It was found, for example, that, after **considerable** time, some C men with only fifth-grade schooling **were really able to do the work** of the men in section B. **It was then necessary**

to transfer them to section B. Some in section B were found at a later date to be really qualified to do section A work. It was also discovered that some with a high-school education were able to do only B work although they had previously been placed in section A. Some who had been placed in section B, because of previous schooling, needed to be placed in section C. Such shifting and transferring from one section to another after the course was partly completed was undesirable because it wasted the time of the instructors and students and also brought about unnecessary discouragement to those who had to be demoted.

The instructors desired to determine if the mental-alertness tests would provide a more satisfactory basis of classification. The results

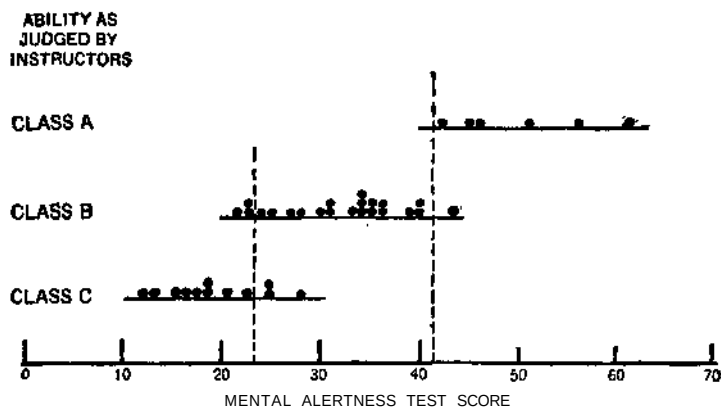


FIG. 77.—Graph showing the relation between known ability of men in a factory school and mental-alertness test score.

are shown in the graph illustrated in Fig. 77. Each student employee's score is represented by a dot. The students were classified by the instructors, who were unaware of the students' mental-alertness score in Classes A, B, or C, according to the progress they had made in the course.

Mental-alertness Tests as a Basis for Classification.—The test scores above divide the students with remarkable exactness. All Class A students scored over 41 points in the tests. Only one Class B student scored more than 41 points, and the instructors stated that he might be a Class A man if he applied himself. All Class C students except three scored less than 23½ points.

The highest scoring C man according to the instructors might be a B man if he applied himself—the other two C men scoring more than 23½ points were doing better work in the school than the average C

men were doing. These class limits seem to be adequate for the classification of students in this particular course.

Such limits cannot be used by other courses or schools for the purpose of classification. In each case, it is necessary to determine the class limits that will yield the most satisfactory basis for classification. With that accomplished, a training course can better meet the needs of its individual students and thus effect a desirable economy of teaching.

CHAPTER XXIII

TRAINING THE EXECUTIVE AND SUPERVISORY FORCE

The Need for Training Executives and Supervisors.—From time immemorial, there has been some form of training for executives. It has not always been formal; actually, formalized training programs are of relatively recent origin. The ancient programs, if we are justified in designating them programs, were largely by the *absorption process* or understudy system. The responsible head of the enterprise recognized that inevitably someone must succeed him. His successor usually followed the footsteps of his superior, first serving an apprenticeship to acquire the technical information and then taking on responsibilities as the superior was willing to release them. This was largely the system followed in single proprietorships and small enterprises. Business was largely carried on in its traditional form. The learning of the accepted traditions and customs constituted a large part of the training; even as it continues to be important today to learn the customs and traditions within a given enterprise. Constructive thinking of the type required in modern complex business was not required in most instances.

Consultative supervision, the securing of the collective suggestion and thought of the supervised, was almost unheard of until recent years and has not received wide acceptance even today.

With the rapid expansion of business during the twentieth century, it became apparent that some method other than the informal training program was necessary. This was particularly true during the rapid expansion and transition of industry during the World War (1914-1918) and the expansion period of the twenties. Many of the leaders in business had grown with the expansion of their enterprises learning as the business expanded. These men, by virtue of the very nature of their careers, were capable of assuming great burdens and formulating policies supported by a rich background of experience and a wide knowledge of details. Their sons or successors were denied the privilege of watching the enterprise grow from a humble beginning and of securing the intimate knowledge and understanding that comes from close association with every detail of the business. They had to take hold, in its full-grown state, of a business the magnitude of which even its founders often did not fully comprehend. This situa-

tion demanded a new technique. A more careful use of the understudy system for the top executives was the result. For the minor executives at first there was little change from the old apprentice system and the feeling that a man who knew how to do a job himself knew how to direct others in doing the same thing. The World War also gave emphasis to the personnel requirements of industry. Many of the older foremen knew only the techniques of the line officer who commanded and discharged if his orders were not carried out. The first formal training programs for the minor executives were largely for foremen and their assistants. These men were being forced to face new situations in handling men for which they were not adequately equipped. They were experts in technical processes and equipment but deficient in handling men under the changing social order. Most of the early foremen-training programs were largely devoted to the problems of handling men from the standpoint of company policies. These programs met with a fair measure of success. With the advent of the New Deal legislation of 1933, followed by the National Labor Relations Act, many company policies and supervisory techniques had to be adjusted. Those companies that had established supervisory training programs were in an excellent position to effect this transition by making use of proved methods of disseminating company policies.

During the early years of the thirties, the training of new men for supervisory positions was in many instances curtailed or eliminated. Industry was faced with a contracting problem rather than one of expansion. With improved conditions, renewed interest was shown in training men for promotion. Practically all the better managed industries of any magnitude are now interested in some form of executive and supervisory training.

Executive training is a function that must be performed whether it is carefully planned or not. The training by absorption may suffice for a small organization, but it almost never results in a succeeding generation of executives that are superior to the current ones, for the understudies tend to absorb the bad as well as the good features of their sponsors. A carefully organized and planned training program, or training by *intention*, will tend to raise the general level of the supervisory and executive personnel, since this program will emphasize the best characteristics of the various leaders and provide checks to avoid the less desirable features.¹

¹ See National Industrial Conference Board, Inc., "Training Solutions of Company Problems," *Studies in Personnel Policy* 15, New York, 1939, p. 70, for a most stimulating discussion of this important subject. This report presents case studies of several well-organized programs.

Objectives of Executive Training.—An excellent guidepost for establishing an organized executive training program is the formalized statement or definition of the scope and objectives of the program. It is seldom enough to start the program from a feeling that there is need for more trained men. This may be the immediate motivating force, but the program will be immeasurably more effective and avoid much wasted effort and even institutional tragedies if the program is an integrated part of the institutional policies and procedures. The original concept behind executive training programs was the imparting of information regarding the techniques of handling men in the terms of the companies' policies. In many organizations, this stage has been supplemented by another factor, namely, to serve as a management method for the control and direction of the organization. In a few institutions that have embraced the philosophy of "discipline by consent" and "consultative supervision," executive training has added a third step, the securing of group thought in modifying or formulating company policies. The need for imparting information to new executives is self-evident and needs no discussion. In a dynamic society, business conditions are constantly undergoing change and require changed techniques. The executive training conference provides an excellent medium for disseminating the required changes in methods and controls. Information may be both given and received by management in these conferences. When properly handled, these training conferences may provide a meeting ground where the participants apply constructive group thought to the solution of problems and thus not only learn of the company policies but also participate in the formulation of policies that pertain to the internal direction of the enterprise.

As a training program progresses, it may be modified from time to time to meet changing conditions. When this is done, it is advisable to incorporate this modification in the statement of the objectives. It should be frankly admitted that this is seldom the practice; however, this failure in practice is no argument against its desirability. To check an innovation carefully enough to incorporate it into the statement of the objectives of the executive training program requires the careful evaluation of the change and at times will serve to reject, *si* program that looks good on the surface but that does not stand up under careful scrutiny. Thus mistakes and unnecessary waste may be avoided.

The Placing of Responsibility for Executive Training.—The size of the organization, the objectives behind the training program, the over-all organizational philosophy and to a limited extent the inters

of the major executives determine the place of the training program in the organization. Regardless of the exact form of the training program, the major executives must be intimately tied in with the training if it is to be effective. This contact may be through a functional officer specifically charged with the supervision of the training program; it may be direct in that the chief executive personally sits in on one or more of the master conferences where the details of the training program are worked out, or it may be a combination of either of these extremes. Of course, there may be the untenable situation where an individual is assigned the task of training the executives and then goes his way as best he can without major executive guidance. Such a program inevitably results in working at cross purposes or a failure to get the desired results.

In large organizations, it is highly desirable that a functional officer, usually a staff member of the personnel department, be assigned the duties of supervising and correlating the policies of the executive training program. This is true even though the actual training may be carried on by the regular line supervisors.¹ In some organizations, the actual training is carried on by staff members of the training department with the aid and guidance of the line supervisors. It is unusual in a large organization to find a major executive who has the time, training, and inclination to initiate and carry on the details of an executive training program.

Organization of the Training Program.—As indicated above, the responsibility for the training program belongs to the operating officers even though functional assistance may be provided. In some organizations, this responsibility is assumed by the line officials and not delegated to anyone. Where the line supervisors can be induced to spend the necessary time and energy to discharge this function adequately, this type of organizational training program is to be preferred. The difficulty lies in the fact that it is one of the duties that can be so easily slighted, especially when an executive is being hard pressed by operating problems and has no special aptitude or liking for the training duties. Where there is a coordinating staff officer who aids the line officials in preparing their subject material and conferences and who sits in on the regularly scheduled training conferences, the regular operating staff is more likely to carry on a systematic program. Even under such favorable circumstances, the quality of the training program may not be so high as where specially trained men are in charge. On the other hand, the operating super-

¹ See National Industrial Conference Board, Inc., *op. cit.*, pp. 44-58, for the discussion of a training program conducted by the regular supervisory staff.

visors give reality to the program that is often lacking when the program is solely conducted by the staff specialist. Another indirect advantage is the fact that the operating supervisor himself learns quite as much or more than the men he is supposed to be training. A great deal of this last advantage may be realized when the supervisor who would otherwise lead the training conference participates in the conference yet does not assume the responsibility for conducting it. It must frankly be admitted that the task of following through a systematic training program is a real burden for many supervisors who may be efficient executives in their respective fields yet who have had little training in leading conferences.

Some training programs are organized as functions separate from the operating units with special staffs selected for this purpose. This program has the advantage of specialization and singleness of purpose. When the specialists are not overburdened with training duties and have time to keep in close touch with operating problems even though not responsible for operations, an efficient program should result. The one danger from the training standpoint is that the program will not adjust so quickly as the conditions for which the training is devised. Where the operating officials accept the executive training program as an integral part of the operations and use it not only for imparting training information but also as a medium of control, the separate staff will retain vitality and be accepted by the trainees in the same light as the direct supervisors. This balanced relationship is a delicate one that can be realized in the long run only if it is a vital part of the clearly defined training objectives. It requires painstaking effort on the part of the training staff, for it is so easy to use the old material and not to vitalize the program with current practice.

The Vick Chemical Company created by a vote of its stockholders in 1938 an executive personnel committee consisting of the chairman of the board of directors, the president, and a third member selected from the board of directors by the chairman of the board and the president.¹ This committee was empowered to designate as management staff executives, executives of 15 years' service or more whose "exclusive job will be the 'finding, training, and gradual promotion of *young and coming minds*'" in the organization. One of these seasoned management staff executives is placed over each department for the sole purpose of training potential executives. In order that these executives might devote their undivided interest to the training program, the executive personnel committee is empowered to offer

¹ See Vick Chemical Company, *Annual Report*, Sept. 20, 1938, and Exhibit A amending the by-laws submitted with the *Annual Report*.

"any management staff executive" who "has demonstrated outstanding ability in the training and appraising of personnel" a permanent contract of employment with a salary "not less than the average annual salary, excluding bonus, for the five full years of active service, preceding the contract; provided, however, that whenever any general reduction is made in the executive salaries of the corporation, such contract salary shall be diminished proportionately during the period of such reduction."¹ This program is unique in the annals of management and illustrates the importance placed upon the executive training program by the management. It is an in-service training program with fixed responsibility for the results.

Methods Used in Training Executives.—The objective behind a particular training program will influence the method adopted. Should a company bring out an entirely new product and desire to use many of its seasoned executives in the manufacture of its new product, the problem will be largely one of imparting technical information and skills. The conference method, so largely used in recent years in executive training, is not suited to this task. Lectures, demonstrations, sound-slide pictures, movies, and correspondence are particularly desirable in such cases. Should the skill element be very high actual on-the-job training or intensive laboratory work may be used. Where only a few executives of proved ability are being trained, the flying squadron, the progressive departmental internship, and the understudy may be used in addition to the methods listed above.

There are two broad classifications into which most of the executive training programs may be divided from the standpoint of purpose, namely, *in-service training of present executives* to increase their effectiveness on the present job using present techniques, to impart new information to meet changing conditions, and to prepare them for promotion; and *the training of new men* for executive positions. In practically all companies, the in-service group is numerically the largest group being trained. The conference method is best suited for upgrading executives in those matters with which they have had experience. The lecture, correspondence, and demonstration are preferred where new information is to be imparted. The new executives need both information and training in executive techniques and skills. If they are the product of the shop, they will not require much additional training in the technical processes but considerable instruction in company policies and procedures. If these men are new recruits from colleges, they will require technical training in the

¹ Vick Chemical Company, Exhibit A, *op. cit.*

company processes and a broad training in company policies and the techniques of handling executive situations.

1. *The Understudy System.*—The understudy system is well adapted to training a few men who have been carefully selected for their special positions. Where the institution is large enough, this system may be an integrated part of the organization with each key position's having an understudy. The understudy may have no regular duties in his own right but have some such title as *assistant to the superintendent* and perform any duties specifically assigned. On the other hand, the understudy may have regular duties for which he is solely responsible such as the general foreman and still be in training as an understudy to the superintendent. In this case, the general foreman will usually assume the duties of the superintendent in case the superintendent is absent. As stated earlier in this chapter, the understudy system does not tend to upgrade the organization, since it is unusual for the understudy to rise above his mentor in performance unless he is a superior person. The understudy system does offer one advantage. It provides a specific incentive for the understudy. This incentive will be strong or weak in proportion to the reasonable likelihood that the understudy will be called upon to fill his superior's position in the not-too-distant future. To be effective, the understudy system requires absolute honesty on the part of management. Under no circumstances should this system be used as a threat to the man being understudied. Should this fallacious practice be used, it is natural that the man being understudied will not go out of his way to help his understudy. It is good practice to give the man being understudied a voice in the selection of his understudy.

2. *The Flying Squadron.*—The flying squadron is used to train workers for various tasks with no expectation of promoting them to executive positions as well as for training prospective executives. The varied experience gained by workers on the flying squadron is usually supplemented by systematic classroom instruction at stated hours during the week. Such supplementary instruction may deal with business English, commercial arithmetic, shop mathematics, technical information, history of the particular industry and the particular company, principles of economics, business administration, and industrial management. This training agency has proved very useful, as shown by the number of industrial organizations, offices, banks, and department stores utilizing this method of training.

Most of the training groups that go under such names as "flying squadron," "service squad," and the like, have as their primary object the training of minor executives and prospective foremen:

however, the same method is used to train men for higher executive positions. Concerns select a group of college graduates or promising men of experience from within the organization to form a training group. These graduates are routed from one department to another, so that they cover all the most important elements of the business. In addition, the members of the training group attend regular classes and lectures where they are given a comprehensive knowledge of the plant, its raw materials, products, policies, and purposes, as well as instruction concerning the broad problems of management and administration. The electrical industry has for a long time been one of the leaders in the development of extensive educational programs for graduate students leading to executive, technical, and research positions. Goodyear Tire and Rubber Company, the United States Rubber Company, and many other companies have used the flying squadron as one means of executive training.

The *progressive departmental internship* is in some respects a modification or refinement of the flying squadron, utility squad, or whatever name may be used. The internship has been used in the training of college men and other specially selected trainees for executive positions. It differs from the flying squadron in that the trainee is assigned to one department until he has mastered the requirements of that department before proceeding to the next department. It is more systematic than the average flying squadron. The output of the trainee is of secondary importance in the internship, whereas with the flying squadron, production is important. The flying squadron, when carefully controlled, will approach the internship in training effectiveness when the man in charge assigns as far as possible the same man to a given department until he has fairly well mastered it. Such a program requires careful planning and control. Nearly always in the internship and occasionally in the flying squadron the trainee is required to write a report of his experiences and observations for each department as he progresses. These reports are often read by the works manager and usually by the divisional superintendent and the foreman of the department. In some of the larger industries, the trainees live in dormitories, have special clubs or junior engineering organizations, and are essentially graduate students of manufacturing or commerce.

3. *Lectures, Movies, and Sound-slide Pictures.*—Lectures, movies, and sound slides are used primarily for imparting information. They are well adapted to giving the executive trainee an over-all picture of the company processes and policies. They are also well suited to informing the trainees regarding the importance and functions of

related departments or divisions with which he is to have contacts, but in which he will not be trained. Department heads of the institution frequently are called upon to explain the functions of their respective departments not only to the new men in training for executive positions but also to the regular foremen and other supervisors as a part of their regular in-service training.

4. *Correspondence Courses*.—Correspondence courses have not found general favor with leaders in executive training programs. It is difficult to maintain interest, and they lack personal inspiration. Group instruction is to be preferred where the number being trained justifies the expense. However, training programs have to be adjusted to meet the needs of particular situations. The U. S. Army is making extensive use of correspondence courses in the training of reserve officers. Some companies, such as the meat packers, have a large number of branch houses scattered throughout the country. Both Swift and Company and Armour and Company have used correspondence courses with success in their training programs. Harold North, Director of Personnel of Swift and Company, has stated that approximately 70 per cent of their employees enrolling in correspondence courses complete them. This performance record is many times higher than that of the regular commercial correspondence courses.

5. *Committee Service or Multiple Management*.—McCormick and Company, manufacturer of flavoring extracts, spices, teas, and drugs, has popularized a technique that is both a training program and a means of managerial control.¹ This company has created a junior executive board of directors consisting of 16 members who are department heads or assistants or who have duties executive in nature. Twice a year, the junior executive board elects 10 of its members to serve for the ensuing half year. The 10 members so elected constitute a membership committee that elects the remaining six members of the board. The six members of the old junior executive board have their names placed in nomination for the board together with other eligible persons. The membership committee can elect only three members of the six. The remaining three members are chosen from persons who have not served during the last period. This ensures rotation in the membership of this coveted assignment. Any recommendation that the junior board makes to the senior board must have the unanimous approval of the junior board. The junior executive board considers practically all phases of the business. McCormick and Company also has a factory board of directors consisting of 15

¹ See National Industrial Conference Board; *Inp.*, *op. cit.* pp. 15-23.

active members and three "associates." The associates serve for a period of 3 months with all privileges of the regular members save that of voting.¹

Abbott Laboratories of North Chicago, 111., has also developed the committee idea of management. Its program differs in many details from that of McCormick and Company, but the central idea of group control is similar. Other companies have committee programs that provide excellent opportunities for in-service training. Full advantage of the training possibilities has often not been realized in the use of the committee. Like other devices, the effectiveness of the committee as a training medium will depend in part upon the definiteness of the objective and the interest of top management in its success.

6. *Outside Schools and Colleges.*—Many industries are located in communities where evening classes are given in the high schools and colleges. These schools usually are glad to cooperate with the local industries in offering courses that are valuable in the training of executives. Courses are offered in industrial management, personnel management, time and motion study, cost accounting, budgeting, and many other subjects related to the executive's problems. These courses, by the very nature of the circumstances, do not fit the specific needs of a particular company but deal with general principles and typical cases. With the increased use of the case method of instruction, real situations are approached in the classroom. These courses are supplementary to the executive training program and are not designed to take the place of an effective training program within the business enterprise itself. Individual enterprises that are too small to employ a trained supervisor of executive training find the colleges particularly helpful. Some of the state-supported colleges and universities have specialists who conduct extension courses in communities not easily accessible to the colleges. These specialists are supported in part by Federal aid. It is interesting to note that it is not necessary that there be colleges in the immediate community in order that industry take advantage of the evening classes. Students often drive 50 to 75 miles to attend these classes. For instance, in one evening class in industrial management at Northwestern University, there were students from South Bend, Ind.; Rockford, and Peoria, 111., and Racine, Wis. These men came in once a week to attend the regular 2-hr. class sessions. Two of these men were superintendents of manufacturing plants, each employing something more than 400

¹ See Charles P. McCormick, *Multiple Management*, Harper & Brothers, New York, 1938, for a complete description of this program.

men. This situation can undoubtedly be duplicated in many other universities.

In some instances, the firm pays all or a part of the tuition expenses of the students taking these courses. In many cases, the personnel department gives advice to the students as to the particular courses that are of value to the student in improving his efficiency in his present position or in providing for promotion. In some of the larger schools, a complete 4-year engineering or commerce course may be taken in evening classes.

7. *Company Schools.*—Several of the larger corporations such as General Motors, Chrysler, Western Electric, and General Electric have regularly organized schools, a part of whose functions is the training of executives, especially on the lower levels. Some of these schools hold state charters. The General Electric and Chrysler schools are essentially graduate schools for young college graduates. These young men spend a part of their time in shop work and attend classes after work, or, as in the case of the General Motors Institute of Technology, they work in the respective plants a certain number of weeks and attend school a certain number of weeks. The students are usually divided into two groups, one being at work in the plants while the other is attending school. Although teaching the technical aspects of manufacturing, these schools usually lay more emphasis on the managerial problems than the regular engineering or commerce schools.

Content of Executive-training Courses.—The content of an executive-training course should be such as may reasonably be expected to meet the needs of the organization. It is surprising how few companies have checked their specific needs before inaugurating their training programs. If the program is primarily one of training new men for executive positions, the content of the course will naturally be designed to give the new men an over-all survey of the managerial policies and technical details of the specific positions for which the men are being trained. These programs are more likely to meet the needs of the corporation than the in-service training of the present executives. A survey of personnel grievances, production errors and delays, budgetary failures, accidents, labor turnover, etc., will reveal weaknesses that need strengthening. If a list of these weaknesses is submitted to a group of responsible executives, they will select the topics that need immediate attention. They may add items not submitted on the list. If this list in turn is presented to the in-service men in training, they will arrange them in the order of importance to them. This may well be the basis of the initial training program. It is very common to find

the following topics included in the in-service training programs. These are listed without regard to any particular sequence.

1. The supervisor's place in the organization.
2. The supervisor's responsibilities.
3. The supervisor's analysis of his job.
4. The supervisor's responsibility for training his men.
5. Principles and practices of instructing on the job.
6. Techniques of influencing men.
7. The supervisor and the National Labor Relations Act.
8. The supervisor and the Fair Labor Standards Act.
9. The supervisor as an interpreter of company labor relations policies.
10. The supervisor's relationship to the suggestion system.
11. The supervisor's relationship to safety.
12. The supervisor's responsibilities in wage and salary administration.
13. The supervisor's relationship to the time and motion study department.
14. Time and motion analysis (sometimes a complete course is given in this subject).
15. The supervisor's responsibility for the budget.
16. The supervisor's relationship to cost control.
17. Cost records and cost accounting.
18. Direct labor costs.
19. Indirect labor costs.
20. Direct material costs.
21. Indirect material costs.
22. The supervisor's responsibility for quality.
23. The function of the inspection department.
24. Production planning and control.

The foregoing topics by no means exhaust the field covered by various executive training programs. One company spent an entire year studying various angles of department management, a second year on outlines of industrial economics, a third year on the history and development of industrial processes, and a fourth year on industrial management.

The question as to whether or not printed material should be used in training programs is ever a live one. Practically all the professional agencies engaged in this work make use of printed material. Some companies prepare their own text material that is developed to meet their own particular needs. The use of printed matter has the advantage of avoiding the omission or misinterpretation of policies and items covered and also serves as a manual for later reference. Whether or not formal printed matter is distributed prior to the executive training conferences, it is highly desirable to make minutes of these conferences and distribute them to the persons attending the conferences. The use of texts promotes uniformity of interpretation of a given topic and

tends to aid in the retention of the decisions reached. The minutes of the meetings are particularly helpful in the retention of the conclusions.

The Eastman Kodak Company has intimately tied its material used in the supervisory training program to its company policies and line officers.¹ The material is first prepared by the training staff and experts in the field to be treated. It is then submitted to the steering committee for approval. The steering committee is composed of the works manager, and his two executive assistants, three general superintendents, the heads of the departments of engineering and maintenance, accounting, personnel, and industrial engineering. This material is then used in conference with the interdepartmental leader groups. Notes from these conferences are then consolidated by the training staff, after which the entire material is again referred to the steering committee. From the steering committee the material is turned over to the interdepartmental leader groups where any questions raised by the other groups or management are reviewed, after which the material is ready for use in the foreman groups. This program intimately connects the major executives with the training program and avoids certain pitfalls that arise when the training program does not harmonize with the accepted company policies.

Problems Arising in Training Programs.—After formulating the objectives of a training program, problems immediately begin to present themselves when an attempt is made to carry out these objectives. Some of these problems requiring basic decisions have previously been discussed. A few of the other problems that must be decided are as follows: shall the training conferences be held on company time or the employees' time, and how often shall the conferences be held; shall men of different executive levels be included in the same training conference; how many men shall be included in one group conference; how can the effectiveness of the training program be measured; how can the cost of the training program be computed, etc.

1. *Time for Holding Conferences.*—Where operating conditions permit, it is usually found advantageous to hold the training conferences on company time. Such a program gives added emphasis to the training and does not appear to be another frill tacked on to see if it works. In some of the smaller organizations, it is not always possible to hold these conferences during working hours. In case the conferences are held after work or on Saturday mornings in the event of a 5-day week, the problem of overtime pay arises for those employees who come under the Fair Labor Standards Act and who have worked

more than the allowed time per day or week. All these questions have to be settled in terms of the basic policies of the company and in keeping with statutory regulations.

Some conferences are held once a month. This seems to be too far apart. Weekly conferences are more systematic and tend to get and hold the interest of the executives more readily. Conferences are frequently suspended during the week between Christmas and New Year's Day, as well as during the warm summer months when vacations are being taken.

2. *Shall Men of Different Executive Levels Be Mixed?*—One argument against the mixing of men of different levels is the fear that the minor executives will hesitate to express themselves freely in the presence of their superiors. The other side to this question is the fact that some executives hesitate to compete with many of their subordinates in fields not directly related to their specialties. Each of these views has merit; however, the extent to which either one of them is controlling depends largely upon the open-mindedness of the executives. The author of this chapter has conducted conferences in which the plant manager drawing \$15,000 per year sat alongside one of his inspectors whose salary was \$1,500. The plant manager was an excellent man even though he had only an eighth-grade formal training, whereas the particular inspector was a college graduate. Both men entered freely into the discussions with mutual benefit. The plant manager sat in each of the six conferences held weekly in his plant and frequently expressed the opinion that it was time well spent, since it gave him an excellent opportunity to be known by his men and to know them.

Other organizations have striven to group their men according to executive levels and found such an arrangement satisfactory. Still other organizations have gone so far as to group men not only according to executive levels but according to related divisions of work. After all, it is not the formal organization of the training program but the effectiveness of the leadership that counts in the long run.

3. *The Size of the Training Group.*—The method used in the training group largely determines the size. For lectures, movies, and to a limited extent demonstrations, the group may vary from 10 to hundreds. For the conference, it is desirable to have from 10 to 20 and under special conditions as many as 30. The conference group should not be so large that each member is unable to participate freely in the discussions.

4. *Measuring the Effectiveness of the Training Program.*—If a careful survey has been made prior to the establishing of the training

program, this survey provides a basis for measurement. The number of labor grievances before and after the program has been well under way is a partial measure. Employee morale as measured by one of the many techniques is another measure. Suggestions for improvements of processes and procedures may offer another index. Performance as measured by the attainment of budgetary standards is another measure. None of these indexes is conclusive in itself, yet each will shed some light upon the effectiveness of the program.

5. *The Cost of Executive Training.*—As with industrial research, the question is often not one as to whether or not a given enterprise can afford the costs, but whether it can afford not to have such a program. A few of the measurable costs may be determined by computing the total cost of the time of the men spent in the training conferences or sessions. Add to this the cost of the time of the training supervisor and others actively engaged in the training program, and the salary costs may be determined. The costs of mimeographing minutes, text materials, and the cost of the room used for training purposes are readily determined. It is well to compute the costs of the training program from time to time, not so much for the purpose of eliminating the activity, but primarily as a check against the effectiveness of the program.

PART IV

EMPLOYEE INCENTIVES

CHAPTER XXIV

INFLUENCES OTHER THAN THE MONETARY WAGE

The Nature of Work,—The ordinary person thinks of work as the expenditure of human energy for direct remuneration or pay. There is frequently associated with this concept an idea that work consists to a considerable extent of the expenditure of energy that would not otherwise be expended were it not for the reward. Closely related to this is the opinion that work itself is somewhat distasteful, that it is not desired as an end in itself. That much of the world's work is distasteful in a limited degree is undoubtedly true; yet this should not lead to the conclusion that all work or even most work is unpleasant. It is largely a matter of time and degree. Many people thoroughly enjoy the feeling that comes from the expenditure of energy just so long as the time devoted to this is not excessive. The term "excessive" does not infer that it need be harmful. Workers, either mental or physical, usually have private interests and hobbies to which they desire to devote considerable time. When their regular work leaves time and energy to follow private interests, the work is usually not considered excessive.

Although an immediate reward is usually associated with work, this need not be the case. The reward expected may be one that cannot be realized save at some future date such as a year or even longer. The student who in a very real sense strives to prepare for a career is working. If he is studying merely for the pleasure of the learning process, his endeavors would be classed as play and not work. However, if the student labors at his task with the expectation of deriving some reward, either material or immaterial, he is working. The apprentice usually is paid for his work in part, yet many of them would pay for the privilege of learning if they could afford to do so and could not learn their trade any other way. The incentive that motivates most people to work is some form of reward either in the present or at some reasonably expected future. This reward may be

expected in the form of some service, aesthetic value, or material. Play is different from work in that play is essentially the end in itself, whereas work is a means to an end. The incentive to play is the pleasure itself derived from the playing of the game or whatever it may be.

The Preferred Life.—The preferred life for most animals is one in which they have adequate food, drink, and shelter from the rigors of the elements. A similar state seems to be desired by the most primitive tribes. As man develops his culture and economic status, his wants increase both in magnitude and number. He may not want more food, but he does desire a greater variety. He is no longer content with mere shelter from heat and cold. As his culture expands, custom frequently decrees that he have different dress for different occasions. From the early stages of cultural development, the individual acquires status in the group. A man without an approved status is an outcast and frequently is the open prey of any other person who has status. The struggle of individuals and groups to maintain status in the social structure is basic in the nature of socialized man. The influence of this struggle is closely related to the struggle for physical existence. It is not infrequent that an individual will endanger his physical existence or even sacrifice it in his struggle to maintain his social position in the eyes of the group. Savages distort their noses and ears because the group approves the appearance thus attained. Not so long ago women virtually tortured themselves to secure the wasplike waistline.

Man's economic status has long given him social prestige. The changing economic complexion contributed much to the downfall of the feudal social and governmental order. The struggle for economic competence has markedly influenced man's activities for ages. In the older countries where wealth has been transmitted largely through inheritance, the possession of wealth without work has tended to cause the higher economic and social group to look with scorn upon those persons who had to work. In America and the more recently settled regions where man has been in a position to hew out his own destiny by the sweat of his brow, work has held a higher place in social approval. Actually, those who do not work are looked upon as social parasites in many communities. In other words, it is the accepted thing in America, for men in particular, to engage in some form of productivity. Even in America, certain types of work are held in higher esteem than others. The "white-collar" worker is usually esteemed higher than the man who works with his hands. In recent years, this separation of workers into manual and white-collar

workers has lost some of its social appeal, yet it still prevails. In the case of women, the social status of the factory worker is still lower than her sister who works in an office or clerks in a store, even though the factory worker often earns more money. Within groups of workers, there are also certain occupations or trades that carry with them special social approval. The railroad engineer, airplane pilot, toolmaker and patternmakers are aristocrats among workers. The bricklayer considers himself to be economically and socially superior to his helper. Each industrial enterprise is not only an economic institution but also a social institution. A failure of management to recognize the social structure has precipitated some of its most perplexing problems. Workers strive not only to maintain their economic and social status but as a rule to improve this status. This urge serves as a strong incentive to performance. Frequently workers oppose the replacement of hand skill by a machine even though there is no reduction in wage for the individuals concerned. This opposition often arises from the fear of losing social status by becoming machine tenders rather than skilled artisans.

Incentives.—In the memory of most managers today, the financial wage has been considered the strongest incentive to performance. In the absence of an adequate wage in comparison with other wages in the community, it is futile to rely upon other incentives to motivate workers; on the other hand, a satisfactory wage frequently fails to get the desired result where other incentives are lacking. If a given wage is sufficiently higher than the prevailing wage in the community, it may, with proper checks to see that quantity and quality are up to standard, serve as the sole incentive necessary to motivate workers. Even under the foregoing conditions, the wage is not the sole desirable incentive. For many people, industry provides not only a means of earning a livelihood, but is a vital part of life itself. In many respects, it is a way of life. The more satisfactory the industrial relationships become, the stronger are the nonfinancial incentives.

Incentives may be classified as positive and negative. Positive incentives are those agreeable factors associated with a work situation that prompt a worker to strive to achieve or excel the standards or objectives set for him. (In some instances, he may participate in the establishment of these standards.) Negative incentives are those disagreeable factors in a work situation to avoid which the worker strives to meet the standards set for him. Positive incentives include the wage, expected promotion, continuity of employment, preference in case of layoff; approval of the supervisor, fellow workmen, and the community; competition with others and the worker's own previous

record; the worker's own sense of fair play and honesty in relation to rendering a just service for the total consideration given him by his employer, associates, and the community. Negative incentives include fear of layoff, discharge, reduction of wage, disapproval of employer and fellow workmen, and the sting of the worker's conscience for not having lived up to his expected possibilities. Z. Clark Dickinson has classified the incentives to work as follows: "(1) desire for livelihood and fear of want; (2) desire for approval of master and fear of punishment; (3) desire for praise and fear of being despised; (4) impulse to activity or joy in work and dislike of inactivity; and finally (5) the moral command and fear of conscience."¹

In this chapter, we are particularly interested in those positive and negative incentives not included as a part of the regular wage. Group pride as manifested in increased production when two gangs are competing with each other is an illustration of the nonfinancial incentive. The increased production may carry with it increased compensation, but when the production is increased as a result of group competition, it is highly probable that the strongest motivating force is not financial. Competition may serve as a stimulus for desired goals other than mere increased production, such as accident reduction, waste elimination, improved quality, suggestions for improvements, etc. The desire for approbation is a strong incentive for most people. The approval of the supervisors and executives exerts a strong influence upon most persons. This is especially true when these supervisors and executives are respected by their men. It is worthy of note that most supervisors of average ability are respected by their subordinates unless they have done something to destroy this respect. As a rule, men like to look up to their leaders. The sensibilities of the group are offended when its members feel that their leaders have "let them down."

Special Privileges.—Special privileges frequently make their strongest appeal through the almost universal desire for status within the group. The practice is quite common to have employees check in and out of an organization by punching a time card, picking up or dropping a check, displaying a badge with a special number on it, etc. In general, this practice facilitates control for record-keeping purposes and is not resented. Certain employees are frequently exempt from this practice. These employees are usually ones who have achieved special recognition in the organization in that they have responsible positions, are of long service, or are thus rewarded for some special

¹ Z. Clark Dickinson, *Compensating Industrial Effort*, The Ronald Press Company, New York, 1937, p. 9, summarizing the classification of Adolph Wagner*

purpose. Frequently, there are two or more classifications for payroll purposes, such as factory, office, and executive. Often additional prestige is attached to being on the office or executive payroll. The mere transfer of an employee to one of the preferred groups frequently is more desired by the employee than a change in his income. These special classes of employees are at times entitled to wear a special company button that enables its wearer to go from department to department or to enter the plant without a special pass.

Special groups of employees have additional privileges such as vacations or longer vacations in case the vacation program applies to all employees. The recent trend to give all workers a vacation has in part removed the special privilege that office employees formerly held. Even at present it is not unusual for the factory workers to get 1 week and the office employees 2 weeks' vacation. Other organizations attach much significance to seniority in such matters as layoff, recall, profit sharing, vacations, sick leave, and to a limited degree, promotion. Where seniority is considered, it makes a special appeal to the employee's desire for security in addition to the other desired prerogatives.

Some institutions have promoted the suggestion program largely through an appeal to nonfinancial incentives.¹ Such programs call for notation on the employee's employment record of all suggestions made and the resulting savings from these suggestions. In addition to recording on the employee's record all suggestions made, due publicity is usually given to the employee in the company paper. This publicity and official recognition makes use of the individualistic appeal to the employee. •

Reasonable Security.—During the decade of the thirties, much has been said about the worker's desire for security. That the worker desires reasonable security is a truism that needs no discussion. There is a difference, however, between reasonable security and security in anything like the absolute sense. The worker's interest in the security of his job is greatly magnified during periods of depression when jobs are hard to get. During normal periods of business activity when a worker can get another job in case the one he has gives out or is not to his liking, job security to him is basically the knowledge that he *can* get another job. Employment interviewers, who spent thousands of hours during the twenties trying to persuade men that it was to their interest to "stick by" a steady job rather than to leave, are fully aware that many men are not so interested in the security of a given job as they are in the feeling of confidence that they are secure in

i *Ibid.*, p. 393,

the opportunity to get another job if they so desire. These same interviewers recognize the fact that in general the age of the worker and his family ties and responsibilities greatly influence his desire for security in a given job. Alongside the desire for security in a given job is the desire for new experiences, the desire to take chances for the big stakes, the pioneering spirit.

Fully recognizing the fact that there has been a serious labor surplus during the past decade and with it keen competition for the available jobs and a sincere desire on the part of the worker for security in his job, we should not confuse this situation with a permanent state of mind. Such has not been the tradition in American industry. It is conceivable that men may give more thought to job security in the future than they have in the past. This is probably to be expected as a result of our "coming of age" nationally. The unusual emphasis in recent years upon seniority is an outgrowth of the desire to hold onto the job by whatever legitimate means may be at hand. Seniority in and of itself can scarcely be called an incentive for anything other than sticking to the job. As a matter of fact, seniority rights when rigidly followed may constitute a damper on individual effort above the average. The highest type of security incentive is probably that that arises out of a feeling that opportunity and job security will go to those whose performance merits promotion and continuity of employment. A feeling on the part of workers that loyal and meritorious service will be recognized provides a strong incentive to positive action. Nothing will destroy this confidence quicker than nepotism, internal politics, or any type of special favoritism. Management can well inaugurate a program of promotion and tenure on the basis of merit. It is not sufficient that this be the announced policy. Procedures must be established and records maintained in order to make such a program a reality. A recognition that an employee is not an employee of a given department but of the firm will go a long way toward promoting employment security, particularly when this program is supplemented by a program of training to secure versatility.

Working Conditions.—Working conditions comprise all of those environmental factors, material as well as nonmaterial, that influence the worker's happiness in his work situation. Equipment, sanitation, heat, light, ventilation, production control, standardized materials and operations, group spirit, factionalisms, rest periods, night and day shifts, shift rotations, in fact the entire relationship of the worker and his work directly influence his reaction to his job and are a part of his

working conditions. The regard in which a worker is held by his associates is a very important phase of his working conditions. Recently a group of students was visiting a large plant internationally known for its equipment, technical skills, and product. As the students were leaving the plant at the noon hour, they saw considerable commotion in the driveway between the buildings. It looked like a mob scene. On investigation, the students received a firsthand exhibition of one phase of working conditions. Six men, surrounded by cheering fellow workmen, were forcibly ejecting the leader of a rival union from the plant. They were carrying him bodily and not too gently with his face down, each arm and each leg firmly gripped by stalwart huskies. The group had come from another department during the noon hour to the department where the leader of the opposing faction was eating his lunch and captured him unaware of any impending danger. Needless to say, the ejected man and his associates in the minority group were working under very unfavorable working conditions even though this plant is a model as far as physical environment is concerned. Employees in a very real sense are as keenly interested in peace among themselves as they are in a friendly relationship with their supervisors. Harmonious relationships between workers as individuals and groups and between workers and their supervisors provide a strong incentive to workers both to desire to work within a given organization and to work effectively for that organization. Industrial unrest is both a cause and an effect in relation to working conditions. Unsatisfactory physical environment, hours of work, shifts, etc., may promote industrial unrest. On the other hand, unsatisfactory personal relationships will produce unsatisfactory working conditions in spite of a satisfactory physical environment. As between physical environment and unsatisfactory personal relationships, it is highly probable that the physical environment is the less important in creating a satisfactory working condition.

The Group and Personal Satisfaction.—As may be inferred from the discussion above, there may be a lack of harmony between the individual and his group, between groups within an organization, and between the leaders and the group as a whole or certain members of the group. Any of these situations tends to minimize both group and individual satisfactions. In every organization, there are the service objectives of the organization to be harmonized with the personal objectives of the individual workers. It must be frankly recognized that in the short run these two objectives do not always coincide. The problem of integrating the interests between the company's service

objectives and the individual's personal objectives is a vital one for creating a positive incentive to bridge temporarily diverging interests.¹ This can be achieved only by a recognition that personal objectives of the employees within the organization can be realized by the continuing success of the company in its service objectives. This integrating of interests results from a frank effort on the part of management to take the workers into its confidence during smooth sailing and prosperity so that mutual respect will bridge the gap during times of stress and strain. When workers understand the need for sacrifices, they usually are willing to make them. Morale may even be on a higher plane when individuals identify their individual interests with that of the organization to overcome organizational difficulties than at any other time. This is manifest when a utilities' service crews are making great personal sacrifices to keep the service open during periods of storms and floods. The big factor is to convey to the working force honestly and frankly the need for the projected action. Men like to identify their interests with the organization when they can see the reason for so doing.

¹ See Ralph C. Davis, *Industrial Organization and Management*, Harper & Brothers, New York, 1940, pp. 503-505.

CHAPTER XXV

WAGE AND SALARY CONTROL

Generals—In the previous chapter, we discussed *influences other than the pay envelope* and explored somewhat in detail some of the incentives that motivate men to action. In an earlier division of our book, we examined the techniques and instruments of record used in *rating the job* as well as *rating the employees*. In our next chapter, we shall discuss various wage plans as viewed from the standpoint of the personnel manager. At present, we are interested in the actual functioning of the wage system and are assuming the existence of the necessary systems to make wage and salary controls effective.

Personnel Budget.—Budgeting and controlling personnel needs and costs has become an important factor in scientifically managed businesses. Without centralized control of personnel needs and costs there are a great many bosses giving orders as to how many or how few people are needed to perform the operations of their respective departments, and, when production costs begin to run too high, the excuse is offered that the department was undermanned. By budgeting the personnel needs and costs, the difficulties and confusion arising from such a situation are eliminated. Management budgets beforehand the approximate number of employees and the amount of money necessary for each department; the figures being based on the sales or production for the current period. Such a plan, if well operated, materially reduces operating expenses and promotes flexibility in the personnel force of the organization.

It is not to be assumed that the personnel budget is a budget constructed by the personnel director in any sense separate from the general institutional budget. The personnel director may not be responsible for constructing the personnel requirements other than for his own department, yet, in any case, he should be consulted in his capacity as a staff advisor. In the construction of the master budget, general agreement is reached as to the anticipated production. Each department in cooperation with the budget director specifies the number of men of each type required for the volume agreed upon. Frequently the budget is what is known as a "step budget" or an estimate of the requirements for more than one level of produc-

tion. The personnel director, even though he may not have participated in its construction, immediately becomes an interested party to the budget when the requirements call for more or fewer employees. Should the scheduled budget require a material addition of skilled or semiskilled men of whom there is a current shortage, it may be necessary to undertake a training program that must start considerably ahead of the date when they will be required for full production. At times, there may be an increased demand in one department and a decrease in another. Such a situation may call for a transfer of men from one department and an initial training period in the other department. It is even possible that personnel considerations may lead to a modification of the production budget, advancing it in one instance and cutting the schedule of the other department. It may even involve temporary building up of a finished-goods inventory in order to shift employees from one department to another. Merit-rating allowances in unemployment compensation in some states have introduced economic factors that cannot be ignored in budgeting personnel use. It is the function of the personnel director to be on the alert to protect the interest of both the employees and the employer in such cases.

Some form of visible index is desirable for accumulating data concerning personnel needs and expense. Ordinarily, a separate card, providing for a monthly posting of estimated and actual employment needs and expenses, is kept for each department of the business. It is also desirable to use some form of progressive signal on the visible index of the record card. This signal may be moved back and forth on the index at the end of each month in order to show graphically the actual monthly expense percentage in relation to the estimated expense. When the actual expense equals the estimated expense, the signal would be placed directly over the figure 100. A position farther to the right or left would indicate how much the actual expense had increased or decreased beyond the estimated expense. Figure 78 shows a typical record card.

Such records not only stimulate operation with the greatest efficiency, but also make for greater flexibility in the personnel force and avoid overmanned or undermanned conditions in the various departments.

In actual practice, the line executives usually bring prompt demands upon the employment department to correct undermanned conditions. This is not always true of an overmanned department, however, because of the tendency upon the part of the immediate line executive to hold his organization together against greater future demands.

DEPT. *ScrewMachine*

NUMBER 22

DEPARTMENTAL EMPLOYMENT EXPENSE BUDGET

1941												
MO.	ESTIMATED EMPLOYMENT EXPENSE		ACCUMULATED ESTIMATED EXPENSE		ESTIMATED NUMBER OF EMPLOYEES	ACTUAL EMPLOYMENT EXPENSE		ACCUMULATED ACTUAL EXPENSE		ACTUAL NUMBER OF EMPLOYEES	MONTHLY % OF ESTIMATED EXP.	ACCUMULATED % OF ESTIMATED EXP.
JAN.	3750	00	3750	00	25	3450	95	3450	95	23	92	92
FEB.	3750	00	7500	00	25	3600	39	7051	34	24	96	94
MAR.	3900	00	11400	00	26	3605	83	10657	17	24	92	92
APR.	4200	00	15500	00	28	4051	15	14708	32	27	96	94
MAY	4500	00	19900	00	30	4385	07	19093	39	27	97	95
JUNE	4500	00	24400	00	30	5400	65	24494	39	36	120	103
JULY	4450	00	28800	00	27	5410	39	29804	44	36	121	103
AUG.	4000	00	32850	00	25	3925	73	33730	22	34	98	102
SEPT.												
OCT.												
NOV.												
DEC.												
1942												
JAN.												
FEB.												
MAR.												
APR.												
MAY												
JUNE												
JULY												
AUG.												
SEPT.												
OCT.												
NOV.												
DEC.												
NAME OF DEPARTMENT												
PAINT SHOP-PLANT 4												
EXPENSE												
100 5 10 15 20 25 30 35 22												

WAGE AND SALARY CONTROL

Also, it is natural on the part of any executive to avoid the disagreeable function of getting rid of workers. One of the most helpful staff functions that a personnel department can render is to relieve the line executive of an overmanned condition and at the same time more effectively serve another line executive by transferring workers already in the service of the concern to fill his needs. This does not mean that the line executive is not responsible for the distribution of his men. The personnel director is usually only a staff officer and can function most advantageously as a rule by calling the attention of the line executive to the situation, rather than by assuming the responsibility for the surplus or distribution of the men. In practice, it frequently works out that a great many intra-unit transfers can be made. The personnel director is in a strategic position to be of real service to the line executives in such matters. By such adjustments, individual workers may occasionally receive promotions or at any rate may have greater security in employment.

The Difficulties Involved in Salary Control.—There is a certain kinship between the technique of discovering and remedying weak spots in the organization and the technique of maintaining a balanced salary situation throughout the organization. The control and distribution of wage expenditure plays a part of vital importance both in the economic soundness of the institution itself and in the wholesomeness of the relationships between the workers and their work.

So far as the former is concerned, the ideal situation is one in which the payroll lies safely within the budget. Each department's wage expenditure is proportionate to the service it renders. The salary or wage paid to each individual is adjusted accurately to the importance of his work and to the effectiveness with which he performs it.

It is extremely difficult in actual operation to achieve this kind of balance in the wage program of a company.

In the first place, pressure is constantly being exerted from below by executives, supervisors, and employees. Unrestrained or uncontrolled, this pressure would serve in short order to boost the wage expenditure of the company over the funds available for the payroll. And not only that, it would result in glaring injustices, for the rewards that belong properly to the efficient workers would be granted instead to those who could "press" the hardest. There is also the aggressive department head. He possesses in an unusual degree that commendable loyalty to his people that prompts him to take a belligerent stand with reference to salary increases for them. The well-balanced organization will not be materially influenced by belligerency of this kind. But here again the human element enters; we find that

almost inevitably the salary committee will yield more often to the department head who is aggressive in the defense of his recommendations than to the department head who defends his with less ardor.

Of course, where a departmental budget system is in effect, a counterinfluence serves to offset, at least in part, this constant pressure from below. On this basis, if a given department threatens to exceed the budget allowed it, the department head is immediately thrown on the defensive and compelled to explain the reasons for the threatened departmental deficit. Furthermore, he feels that the economical administration of his department will give him credit in the eyes of the higher command. This feeling in itself is not an unwholesome influence, provided the executive interprets the word "economical" in its true sense as implying *the ratio between expense and departmental output* rather than having to do solely with expense.

It is surprising, however, to what extent, at times, this misapprehension of the word exists on the part of some managers. In an effort to keep expenses down, they veto increases for deserving employees. The ultimate result of such a policy is to waste money rather than to save it, through destroying the morale and efficiency of the members of a department. An investment in increased salaries, granted wisely, is frequently the best remedy for a department that is running at a loss.

There is, however, need for yet another influence to combat incessant pressure from below. In the average organization, this influence is exercised by a salary committee or other rate-setting agency that is in a position to visualize the salary situation of the company as a whole, to see the relative value and effectiveness of the several departments, and to appreciate their particular problems. This broader viewpoint is automatically denied the department head whose jurisdiction extends only to his own department. He does not have the opportunity to compare the situation within his department with that existing within other departments. If he is worth his salt, he is inclined to feel that his department is one of the most important departments in the company—whether it is or not. This loyalty to his people, this pride in his own organization naturally leads him to seek monetary rewards for them that seem justified in the light of his departmental vision, but are not justified when the merits and needs of all the other departments are considered as a whole. The salary committee, by virtue of its central position and available records, can readily serve as a much needed brake upon the supervisor whose wage scales are definitely higher than is justified by sound company practice and as a spur to the supervisor who is constitutionally opposed to

paying a higher rate than his employees force him to pay. Sound practice in wage administration requires raising wages that are too low as well as curtailing those that are too high.

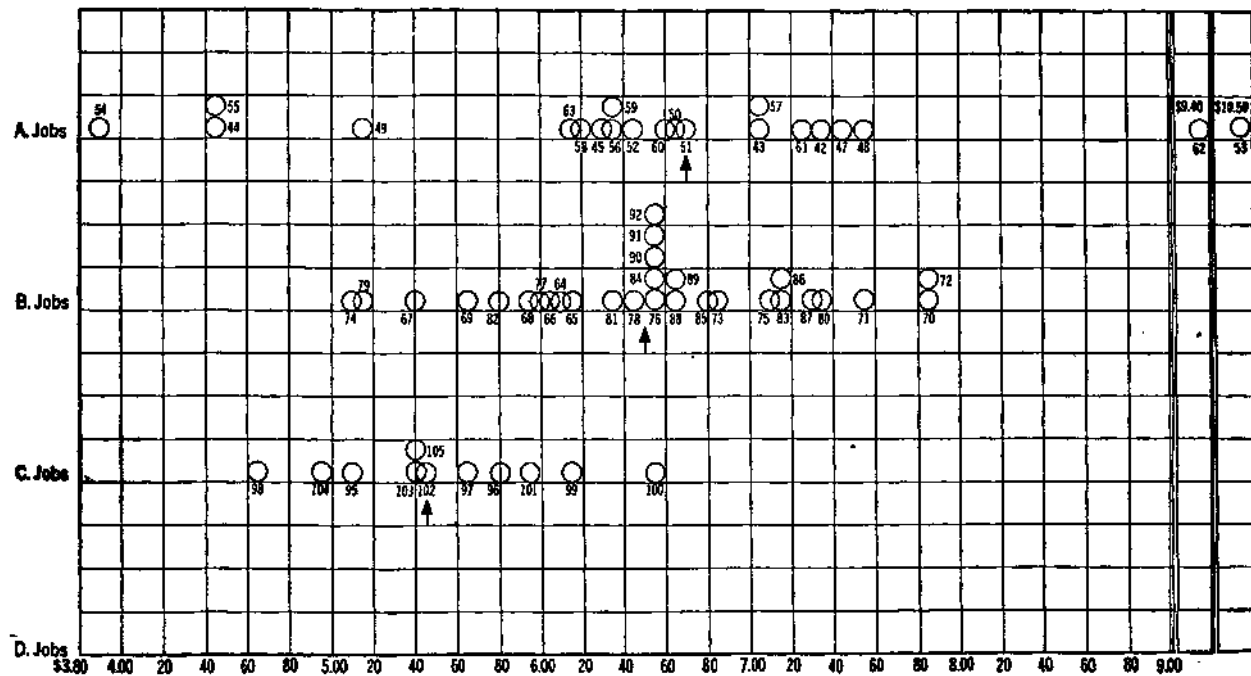
The Occupational Budget.—A second difficulty that exists in maintaining a balanced wage-expenditure situation throughout a company is that concerned in maintaining an *occupational budget*. The performance of each kind of work in an organization is worth a certain amount of money.¹ What this estimated total is in the case of each occupation is difficult to ascertain. The performance of each kind of work *actually costs* a certain amount of money; it is usually difficult to determine this actual cost. If there is an approximate coincidence between the worth and the cost, then from an occupational standpoint a proper balance exists in the wage scale. This important fact is frequently lost sight of by management, owing principally to the apparent difficulty of obtaining the necessary information. Yet, without the means of maintaining this balance, it is almost unavoidable for a situation of unbalance to arise in which the employees performing one kind of work will receive in the aggregate more than it is worth, and employees engaged in another kind of work will receive less.

Sound practice in wage and salary administration recognized the need for a direct tie-up between performance and reward. In this balance between the individual's value to his company and the reward he receives from his company lie, in the first place, economic justice and, in the second place, a powerful incentive to all members of the organization to excel in their work.

Many managers confess, quite innocently, that they have solved this problem. As a matter of fact, however, it has never been solved perfectly, and, in the great majority of companies, there are serious inconsistencies in the wage scale that are often far more apparent to the employees in the ranks than to the department heads and officers.

Figure 79 indicates some of the glaring inconsistencies, not apparent to management until after a survey of the wage situation was made, that were found to exist in one company. Figure 79 classifies piece-worker's earnings according to the grade of the job. We find on the extreme left of the graph an A-grade worker earning \$4, an amount less than any of the C-grade workers receive, whereas one C worker, indicated near the center of the graph, is receiving \$6.60, a sum slightly more than the average earnings, indicated by the arrow, of the B group. It simply does not make sense to have an A-grade worker make as little as this graph shows. Such a situation demands attention from management. Frequently, it will be discovered that proper

¹ See Chap. XX for a more detailed discussion of this subject.



instruction will bring the submarginal worker up nearer to the average. Again, it may be found that a particularly low performance of a worker is in reality not bad, but that the job has been improperly rated and classified.

When Action Must Be Taken.—The rewards rightfully paid to an employee depend upon two things:

1. The value of the work in which he is engaged as represented by a monetary range.
2. The effectiveness of the individual's performance of that work as expressed by his proper locus on the personnel control chart within that monetary range.

Consideration must be given to monetary range and individual rate:

1. When the development of the work makes it necessary to create a new occupation or to extend an occupation to a department in which it does not now exist.
2. When it is proposed to change the minimum or maximum rates for an occupation (its salary range) in order to maintain a proper balance with the ranges for other kinds of work or in order to accommodate changes in duties and responsibilities involved in the occupation or in order to take cognizance of the changes in cost of living and supply of labor, etc.
3. When it is proposed to change the rate of pay of an individual employee within his occupation as a result of demonstrated efficiency or demonstrated inefficiency.
4. When it is proposed to transfer the employee to the same occupation in another department.
5. When it is proposed to transfer or promote him to another occupation in the same department or in another department.

In many of the foregoing situations, the problem is relatively simple if all the jobs within the plant have been carefully rated and classified and each employee has been properly rated. The job rating will fix upper and lower limits for the particular classification, and the employee's rating will place him somewhere between these limits. Of course, where an employee is being paid on a piece-rate basis and his performance is higher than the limits set, his particular earnings may be higher than the normal maximum.

In addition to these individual changes and adjustments, action must be taken at times in a partial or complete change in the entire wage structure of a plant or industry. Such general reductions or increases are usually due to general economic conditions that have brought about a change in what is commonly called "real wages." The expression "real wages" has to do with the purchasing power of the dollar. It is plain that if a dollar will purchase two sacks of flour when formerly it purchased only one, real wages are twice as high as before. Conversely, when the cost of living rises to the point where

the dollar will again purchase only one sack of flour, real wages have been cut in half. At times, therefore, it is necessary to make complete readjustments in the wage scales. When this occurs and the jobs are properly rated and classified, they will still retain the same relative position to each other. In the case of raising the wage level, it may be on a percentage basis or merely by adding a flat amount to the base rate for each classification. The method of lowering the wage scale may be the same as that for raising it. The percentage basis will raise the higher rates in the absolute more than the lower rates. This may or may not be desirable, depending somewhat upon the prevailing wage in the community. The percentage basis is more likely to be used, at least in a modified form, in lowering rates than is a flat cut. This gives the lower rates a smaller reduction than the higher ones.

Length of Service as a Factor in Wage Determination.—Some institutions pay for services rendered without regard to length of service and reward service by special considerations such as vacation privileges, insurance policies, profit-sharing allotments, special sick-leave allowances, etc. This practice is not uncommon where the basis of payment is the piece rate. Salaried employees, hourly rated employees, and others paid on a time basis are frequently paid, to some extent at least, with service as a factor even though it may not be controlling. Sound arguments can be presented both for and against the consideration of length of service in rate determination. Where service is considered, it is usually wise to count service for a limited period such as 5 or 10 years rather than to add a flat percentage or rate for each year. Other things being equal, it is doubtful whether a man with 10 years' service should be paid more for doing the same job than a man with 5 years' service. It may be more logical to reward the 10-year man by special consideration other than his salary or wage.

Procedure in Wage Adjustment and Salary Changes.—Conditions are continually arising that make it necessary to consider increasing the pay of individual employees. Let us suppose that the employee has progressed steadily in value and effectiveness since his last wage increase. He is capable of greater individual output than formerly. He is given work involving greater responsibility. He develops attributes of character that exercise increasingly a wholesome stabilizing effect upon his associates. The supervisor or department head is aware of such developments in the individual before anyone else in the organization. This is natural, owing to his daily contact with the worker. The initiative for the increase, consequently, ordinarily comes from the department itself. The group head or subexecutive has discussed the employee with his department head, and together,

in all probability, they have agreed that his salary rate should be increased by a given amount. This decision reached, the department head communicates the recommendation to the salary committee.

A special form, upon which the department head gives the name and clock number of the employee, the occupation to which he is assigned, his present salary and the salary it is recommended he be allowed, the employee's rating (when individual employee rating is used), and the department head's reasons for the recommendation, is used for this purpose (see Fig. 80a). This "increase blank" is sent to the personnel department for consideration at the next meeting of the salary committee. In the personnel department, the qualification card for the individual is withdrawn from the file together with the

REQUEST FOR SALARY INCREASE

Name _____ Date employed _____
 Department _____ Position _____
 Proposed salary: % _____ Per _____
 Present salary: \$ _____ Per _____
 Proposed increase: \$ _____ Per _____ Effective Date-
 Last increase: \$ _____ Date _____
 Reason for increase: _____

increase
 -This will decrease payroll \$ _____ Per _____

Approved: _____

Submitted: _____

(Secretary, Salary Committee) _____ Department Head _____
 Date _____ Date _____
 Entered by Payroll Dept _____ Date _____

IMPORTANT—BE SURE TO FILL IN REVERSE SIDE OF THIS FORM

(Adapted by permission from Booz, Hamilton, Allen, and Fry)

FIG. 80a.—Request for salary increase (front).

occupational description for his position, showing the facts bearing on the situation. Then the personnel manager reaches his own decision as to whether the recommendation is justified. Here the *periodic ratings* assume great importance. The personnel manager is concerned with the employee's standing in each of the qualities provided for in the rating scale. He is even more concerned in the degree of improvement or lack of improvement shown by the employee in these qualities during recent months. He considers the employee's education, his special training, the efforts he is making personally to acquire further training in his work. Similarly, the personnel manager has reference to the

personnel control chart and identifies the color pin that represents the employee. He visualizes the effect the proposed increase would have upon the other employees in the same group and in allied work throughout the organization.

RATING OF JOB AND EMPLOYEE

Qualifications	Required for the job	Rating of the person	Qualifications	Required for the job	Rating of the person
1. Knowledge of the job			12. Expression		
2. Experience			13. Initiative		
3. Character			14. Application		
4. Education			15. Rate of work		
5. Health			16. Care and exactness		
6. Personality			17. Sense of economy		
7. Loyalty			18. Cooperation		
8. Dependability			19. Developer of assistants		
9. Outside interests			20. Executive ability		
10. Intelligence			Total rating		
11. Judgment			General suitability		

Key to rating

1. Extremely unsatisfactory. 2. Noticeably unsatisfactory. 3. Satisfactory.
4. Noticeably satisfactory. 5. Extremely satisfactory.

FiG80b.—Request for salary increase (back).

If his reasoning leads him to agree with the department head's recommendation, he sends the recommendation to the salary committee together with the qualification card and occupational description for the position. If his judgment does not agree with the recommendation of the department head, he arranges a conference with that executive at the earliest possible moment and points out the grounds on which his disagreement seems to rest. In this conference, the likelihood that the departmental chief and the personnel manager will come to an agreement is great. At least they have the opportunity to learn and to weigh each other's reasons. If they reach an agreement, their joint recommendation is then made for the consideration of the salary committee.

If, on the other hand, it is impossible for the personnel manager to establish an agreement with the department head, it is customary

for the personnel manager to submit the department head's recommendation to the salary committee, but to present with it a memorandum of his own opinion on the subject.

The salary committee ordinarily meets periodically and takes up one by one the recommendations that have been received since the last meeting. Where there is no difference of opinion between the department head and the personnel manager, the committee ordinarily takes action accordingly, except, of course, where discussion may disclose some unseen factor that seems to reverse the combined judgment of these two executives. Where the recommendation is thus unanimous, the salary committee is governed largely by the facts yielded by the personnel control chart. If the employee's pin is below the median line for the occupation, the committee will have less hesitancy in granting the proposed increase. If, on the other hand, it is above the median line, the committee will demand evidence of especial merit on the part of the employee.

In order to make certain that deserving employees are not overlooked in granting wage increases, some companies make it a practice to review the salary or wage of each employee at stated intervals such as every 6 months or once a year. Where employees are rated at regular intervals, these salary reviews frequently for convenience coincide with the time of rating. The mere fact that an employee is considered for a raise at a specific time does, not guarantee that he will receive one at that time, nor does it preclude his receiving a raise at any time other than when he is being considered as a matter of routine. It merely is a procedure for guaranteeing that employees will be given systematic consideration and not be overlooked merely because their work is not spectacular or because they are not persistent in demanding a raise. Periodic reviews of the wage status of employees have much to commend them to management.

It should be pointed out here that great importance is necessarily attached to the manner in which the increase is granted. Some companies seek to avoid at all costs the development of a situation in which the employee has to request a salary increase to which he is entitled by excellence of performance. One manager says that his company is seriously at fault if an employee has to ask for a deserved increase. The soundness of this contention will become apparent on a moment's consideration. If management claims that it has established a tie-up between performance and reward, it is quite out of order that the employee should have to ask for an increase if the increase is properly due him. The fact that, in order to get it, the employee has to ask for it is a flat denial that such a tie-up exists. The company will have a hard time convincing its workers that its personnel control

is operating as it claims, if the initiative must rest with the employee to get what is rightfully coming to him.

Then consider for a moment the effect of the salary increase itself upon the worker—quite apart from its implication of reliability or unreliability on the part of the company's wage-setting procedure. Here we deal with some very elemental reactions. The worker who waits for an increase in pay, then has to ask for it, has the feeling almost inevitably that he made the company come through with what was due him. The fact that "he made the company come through" strikes from the transaction all that inspiration to excel in his work in even greater degree in the future that always results from the wage increase properly handled. He goes on with his work, but he does so with a feeling that his efforts have not been appreciated, sometimes with an ill-defined sense of grievance against management.

On the other hand, if management, in recognition of his good work, increases his salary on its own initiative without any request on his part, the psychological effect on the worker is unfailingly stimulating: He attacks his work with renewed zeal, confident that management is cognizant of his efforts—and management, as well as the worker, reaps the rewards.

When a wage increase is voted an employee, a splendid opportunity is offered management to stimulate the factor of *interest* and to assure the employee that his *opportunities* in general are only limited by his *capacities*. Some concerns make the mistake of letting the employee find it out for himself "in the pay envelope." This is undoubtedly the easiest way. It is also a wasteful way. The employee will react favorably, it is true, but not in the measure he will if the boss calls him in, congratulates him on the good work he has been doing, thanks him for his part in the success of the department and tells him man to man that his salary is to be increased "from now on" to such-and-such a higher figure. This is intelligent, constructive personal work that takes cognizance of the elementary desire we all have for a personal acknowledgment of our work, together with the impersonal increase in pay.

This principle holds good throughout, whether we are speaking of the office boy, the clerk, the machine operator, the advertising manager, the production superintendent, or the chief engineer.

Of course, in any organization, requests for salary increase will be made by individuals whose work does not entitle them to it. How are these to be handled?

Some concerns avoid such requests as they would the plague. This is unfortunate. Such requests, although not indicative of increased *xapacity*, nevertheless indicate live *interest* capable of harnessing.

Each such request, impossible of fulfilment through the inadequacy of the worker's performance to date, automatically offers an opportunity for the personnel manager or the department head to explain to the employee *just why* the increase cannot be granted *now*. If the company's technique of wage control is operating properly, there is a good reason for it. Here is management's opportunity to present the facts, to discuss the occupational description and the qualification card, to explain just why in terms of *capacity*, *interest*, and *performance* the employee is not at the moment entitled to an increase in salary and to point out how in the next succeeding months he can qualify for advancement in pay. This calls for diplomacy, for care, for a study of the individual's temperament, state of mind, and probable reactions,. But when well done, this procedure almost inevitably makes for renewed energy on the worker's part and for increased productiveness that, at the right time, can properly be recognized by an increase in salary.

CHAPTER XXVI

WAGE-PAYMENT PLANS

In the preceding chapter, we considered the problem involved in *wage and, salary control*. We shall now turn our attention to some of the details involved in the particular systems that have at some time or other in recent industrial history held the center of the stage. Space will not permit a consideration of many of these systems; however, we shall discuss typical systems, the modifications of which have produced the many other systems.¹

The problem of how much and by what method workers should be rewarded for their contribution in a productive enterprise is of major importance in personnel management. The complexity of this problem is evidenced in the persistent search by scientific managers for the one best wage-payment system, a kaleidoscopic history of constant change in the past 50 years. Maintaining a satisfactory wage system over a period of time, particularly over periods of fluctuation of the business cycle, is no simple accomplishment.

Factors to Be Considered in a Satisfactory Wage Plan.—Innumerable wage systems have been attempted, only to be abandoned and replaced by others in an effort to find one that will be a panacea for the industrial conflict over the division of rewards of a business enterprise. The owners of capital, management, and the workers are the three contenders. However, the fact still remains that no one plan, no matter how admirable, has yet proved to be the best plan for ensuring perpetual peace among the contenders.

Wage plans vary according to the nature of the industry and the vagaries of management. Any plan, regardless of how perfectly it is worked out, will fail to stimulate workers to the maximum output unless it is intelligently administered.

The first question that naturally confronts an organization earnestly desiring to solve its wage-payment problem is, "What constitutes a

¹ For a more detailed discussion of various wage systems, see Richard H. Lansburgh and W. R. Spiegel, *Industrial Management*, John Wiley & Sons, Inc., New York, 1940, pp. 415-450; Dexter S. Kimball and Dexter S. Kimball, Jr., *Principles of Industrial Organization*, McGraw-Hill Book Company, Inc., New York, 1939; and Charles W. Lytle, *Wage Incentive Methods*, The Ronald Press Company, New York, 1938.

fair or a just wage?" A fair day's wage is one thing in one organization and an entirely different thing in another. A wage may be fair in one community and unfair in another, or it may be just today and unjust tomorrow. To define a fair day's wage absolutely once and for all is as yet a goal unaccomplished. Dickinson says, "Most of us agree in principle that a fair *wage* is simply the full competitive rate which the work will bring in the market and time where it is offered."¹ To this concept we might add that a fair wage usually results from a consideration of all the available factors in relation to the work in question and an agreement between the parties involved.

Two elements enter into the determination of wage payments: first, the constituents of a day's work, *i.e.*, the definition of the quantity and quality of work each worker is to render and likewise the conditions, materials, and equipment the employer is to supply; second, the price to be paid for the work done.

As to the factors to be considered in wage determination—they are innumerable. Workers' capacity and age, material costs, education necessary, length of service, hazards, promotional possibilities, cost of living, standard of living, the prevailing wage in the community, stability of employment, demand for the product, and profits of the business—these are merely the most obvious factors, but no factor concerning the organization, the work, and the worker should be neglected.

All the work of equalizing existing rates, of correcting standards of performance, and of standardization, including time and motion study, quality specifications, written practice instructions, inspecting, training, and the like, must have already been completed before a sound wage plan can be inaugurated. Then, when management is convinced of the merits of a plan, it will seek the workers' cooperation and see that the interests of all parties are fairly considered. The interested parties are the consumers, the general public in the immediate community, the owners of capital, management, and the workers. The consumers are interested in securing a product at a reasonable price. The public is interested in the standard of living of the workers. Capital is entitled to a fair return commensurate with the risks involved. Management is entitled to a fair reward for its contribution, and the workers should be rewarded for their output. The actual selection of a certain plan, or combination of plans, for a given department, plant, or industry should be preceded by an estimate of the probable effect of a number of plans under consideration. In this

¹ See Z. Clark' Dickinson, *Compensating Industrial Effort*, The Ronald Press Company, New York, 1937, p. 65.

way, some plans will be eliminated at the start. A great deal of judgment is necessary in deciding upon the best plan. The two things always to be kept in mind are the effect of the plan upon the relationships between the parties involved in the wage agreement and the quantity and the quality of the work paid for.

Each wage-payment plan has claimed for it certain special advantages. These advantages are characteristics that are desired either by the workers or management. Any system that would include the following characteristics would embrace the ideals of practically all the better known wage-payment plans:

1. **The wage** should be related to the individual's output with differentials for various factors such as skill, versatility, class of work, working conditions, etc.
2. The wage plan should be easily understood by the employee.
3. The wage program should be easily related to the budget and cost-control system.
4. The wage system should facilitate the comparison of the efficiencies of the various departments.
5. The wage plan should make adequate provision for learners.
6. It is desirable that the wage program should not involve excessive clerical detail.
7. **It is desirable** that the worker be given a guaranteed minimum wage to protect him against conditions over which he has no control.

Basis of Wage Payments.—In the succeeding discussion of the payment plans, it is well to bear in mind the fact that in many cases it has been found that the plans offering a higher direct labor price have secured a lower unit cost. The plans as listed are not in chronological order but are arranged according to a general classification as to type. All wage-payment plans may be divided into two main groups: those based on measured time and those based on measured product.¹

Payment on the basis of time is the oldest form of payment used in modern industry and possibly the oldest form used in free enterprise. In the final analysis, time payment does not ignore output, for the high producer usually is paid a higher wage than the low producer. Time payments do emphasize the time element, and care must be exercised or the worker will tend to consider time as the major factor. Care must also be given to reward the high producer on the time basis, or he will be underpaid on a comparative basis with the low

¹ A possible exception to this generalization is to be found in the special method of paying certain foundry labor, notably puddlers, in the Amalgamated Association of Iron, Steel, and Tin Workers. In this group, the wages are computed periodically on the basis of the selling price of the product; nevertheless, it is still a payment for measured product with a fluctuating base.

producer. Since the high producer is seldom rewarded in most time-payment systems in proportion to his production, the tendency is for the capable worker not to produce up to capacity. Measured day rate, to be discussed later, largely overcomes this handicap. Since the ordinary time basis of wage payment seldom rewards the efficient producer in proportion to his output, it is not unusual to find them leaders in the union movement that appears to them to be their only hope for raising their wages. In view of this situation, it is natural that unions in general favor payment on a time basis rather than on the basis of output.

There are three schools of thought concerning the plans based on measured product. One school of engineers holds that *excess direct earnings* above a set standard *should be shared in various ratios* between the *production workers* and the *owners* of the business. Another group believes that the *direct excess should be divided* between the *production workers* and the *owners*, but that the workers should receive more than straight piece rate by virtue of the fact that the owners automatically participate in the profits of the excess by having the overhead expenses reduced. Still another group of industrial engineers holds that the *direct excess should be distributed* between the *production workers*, on the one hand, and the *nonproduction workers and managers*, on the other, leaving to the owners all the profits that such greater production automatically brings about through reduced overhead expense. It is necessary to point out one factor often overlooked in discussing payment on the basis of output, namely, time is a factor in the original determination of payment for output even though the output may be the base when once the standard is established. In other words, in the original setting of output rates, the time required per unit largely determines the rate per unit.

WAGE-PAYMENT PLANS NOT BASED ON CAREFULLY PREDETERMINED STANDARDS

The Time Plan.—The time plan is one of the oldest forms of wage payment. It amounts to nothing more than paying a worker a given sum for being at his place of duty a certain period of time; it may be hourly, daily, weekly, monthly, or yearly. The difficulty of measuring output for many types of work accounts for the prevalence of this method. Although it is true that the time-rate plan presupposes a variable amount of work done, and there is usually a more or less arbitrary minimum amount of output below which brings correction and a continuing minimum above which brings promotion, it considers the workers' *time* primarily without immediate penalties or rewards.

The essential feature of the time-rate plan is that the returns **are** constant while production may fluctuate. During peak periods, the worker receives no more per unit of time worked than in slack periods, and penalties or rewards are not immediate as is the case in piece-rate or bonus plans. Although the time-rate plan offers no immediate or direct remuneration as a reward for excellence, the constancy of returns in itself is a reward and, in many cases, a fine incentive for inducing a worker to exercise his best efforts and create the finest work of which he is capable; however, "Time is for use: it is not for sale."

Payment on a time basis simplifies payroll procedures, is easily understood by workers, but makes labor cost predetermination difficult. Payment on the time basis is especially advantageous, where (1) the work is unstandardized; (2) the volume of work is largely beyond the worker's control; (3) where quality is especially important; (4) where the volume of a particular work is highly diversified and of short duration; and (5) where the work requires considerable ingenuity and planning such as maintenance and millwright work.

Symbols Used in Wage Formulas.—To facilitate the expressing of various wage plans in the terms of an algebraic formula, the following symbols will be used:

S = the standard or allowed time for completing a particular operation or task. To illustrate, if a particular operation should be completed in 6 min. and a given operator completes 12 pieces in 1 hr., his S is equal to 1.2 hr., even though his actual time is only 1 hr.

T = actual time worked.

R = rate per hour or piece as the case may be.

N = number of pieces produced.

p = premium percentage.

E = employee's earnings.

The Halsey Premium Plan.—The Halsey plan was one of the earliest attempts to create a direct wage incentive. It has been used more extensively in England than in the United States. Under this system, a definite time is determined for a certain task, and any saving of time is divided in various ratios between the employer and the worker. A time wage is guaranteed. The time allowed for completing the task is set from records of *previous performance* rather than by time and motion studies¹ that were later introduced by Frederick W. Taylor. The amount of time saved multiplied by the hourly rate forms the sum that is shared between the worker and the owners according to

¹ Time studies could be used with the Halsey system, yet they seldom have been used.

the ratio agreed upon, usually one half to each. The standard length of time for doing a job, not being derived through the use of time and motion study, is usually greater than would be the case under more scientifically measured procedure.

The uneven requirements of various jobs done by the same worker, with the resulting temptation for the worker to take time from a difficult job and distribute it among others, thus obtaining premiums on other jobs at the expense of one particular job, is one of the chief inadequacies of the plan, whereas its simplicity and ease of introduction, requiring no drastic change in method or conditions, are its leading merits.

The formula for computing the employee's earnings is

$$E = RT + p(S - T)R.$$

The Rowan Premium Plan.—The Rowan wage plan originated in Glasgow, Scotland. It has also been used more widely in Great Britain than in the United States. Wages above standard are increased by a percentage equal to the percentage that the worker has saved on the standard time allowed for the particular job. The premium is a percentage of the time worked rather than the time saved. The day rate is guaranteed. An analysis of the formula given below shows that the premium of the Rowan plan can never equal the guaranteed day rate, for the fraction $(S - T)/S$ can never equal unity unless T is equal to 0. The Rowan premium is usually larger than the Halsey premium. If the Halsey premium is 50 per cent, the Rowan premium is larger up to 50 per cent of the time saved. The formula is

$$E = RT + \frac{S - T}{S} (RT).$$

The Rowan plan is difficult for the employee to understand and involves considerable clerical detail. Labor cost predetermination is difficult in the case of both the Halsey and Rowan plans.

Piece Rates.—Piece rates are the simplest of the incentive systems. When not based upon carefully established time standards, there is considerable likelihood that there will be a conscious limitation of output by the workers for fear of rate cutting by the management. This temptation for management to cut rates is greater for piece rates than for either the Halsey or Rowan plans, since the worker in these premium plans shares with management the gains above standard. Piece rates are easily understood by the workers and are simple to compute for payroll purposes, facilitating labor cost predetermination

within reasonable limits. Piece rates set on the basis of previous non standardized daywork performance may reasonably be expected to increase production by approximately 50 per cent. The day rate may be guaranteed in a piece-rate system, but such a guarantee is not inherently a part of the system. The guaranteed day rate when used is frequently 33 per cent lower than the expected piece-rate earnings. Piece rates are particularly severe on beginners unless special provision in the form of a flat day rate or some other equalizing factor is used. The formula for computing piece-rate earnings is

$$E = RN.$$

WAGE RATES BASED UPON CAREFULLY PREDETERMINED STANDARDS

Piece Rates.—Piece rates based upon carefully set standards are not subject to the same criticism of limiting output that was discussed above. The worker may still bear risks of the failure to achieve his standard through no fault of his own unless he is protected by a guaranteed base pay. In the absence of a guaranteed base pay, the piece-rate system places a special burden upon management to keep working conditions such that the worker can earn at least the equivalent of a guaranteed day rate under practically all conditions. There is little temptation for management to cut rates under carefully set standards for piece rates. Unit costs are fairly well cared for under piece rates, yet there is not the same urge to make the standard as in some of the premium bonus plans. There is a tendency for workers to take the attitude that they alone are the losers if their production is below standard, forgetting that it is not unusual for overhead costs to be as great as the direct labor costs. It is not unusual for some supervisors to be so lacking in their understanding of the fundamentals of costs as to agree with the workers that it is no major concern of anyone other than the worker if the worker does not make standard. Adam Smith was of the opinion that workers "are very apt to overwork themselves" when they were liberally paid by the piece.¹ There is little evidence to support this contention. Piece rates have been widely used in many industries. They are still very popular.

Taylor Differential Piece Rates.—Frederick W. Taylor's idea of relating wages to production may be summarized as follows:

1. The task should be clearly defined and carefully circumscribed.
2. Conditions should make it possible for the worker daily to make his task.
3. The worker should receive high pay for achieving task and low pay in case of failure.

¹ *Wealth of Nations*, Book I, Chap. 8.

Taylor advocated two piece rates, a high one where the worker equals or exceeds task and a low one when he fails to equal task. For instance, if the standard called for 100 pieces per day at 7 cents per piece, the rate in case of failure to make task would be lower, such as 6 cents. In such a situation, the worker would earn \$7 for making task and only \$5.94 in case he fell short of task by one piece. This differential exerted a powerful pull on the worker to exert himself constantly to make task. Taylor's task standards were carefully established so that an average man who was properly instructed and consistently followed instruction could make it. There was no guaranteed day rate. This placed a heavy burden on management to keep conditions standard so that the worker would not be unjustly penalized. This plan was manifestly too severe on the workers unless management consistently did its part. It never received wide use. The formula for computing the worker's earnings was the same as any other piece-rate system but used two rates, namely,

Below task, $E = RN$. (1)

At or above task, $E = R'N$, (2)

in which case R' was higher than R .

The Gantt Task and Bonus Plan.—H. L. Gantt, a former associate of Taylor, designed his wage plan to accomplish the same results as Taylor but contrived to eliminate the most objectionable features of Taylor's system. Gantt guaranteed a day rate and paid on the basis of standard time instead of the piece. The worker was stimulated to finish his task within the standard time by the payment of a liberal bonus for successful performance. If he fell below task, he was paid his day rate. The principle of Gantt's system would permit various percentages for bonus payments; however, he often used $33\frac{1}{3}$ per cent. Gantt paid the worker for all he did above task. The formulas for computing a worker's earnings are

Below task, $E = RT$. (1)

At or above task, $E = 1\frac{1}{3}RS$ (2)

or $E = RS + pRS$,

in case a percentage other than $33\frac{1}{3}$ is used.

Both the Gantt and Taylor systems were relatively simple to compute. Both systems aided in labor-cost predetermination. Both Taylor and Gantt paid a bonus to the foreman. Gantt paid an additional bonus to the foreman if all his men attained their tasks. Gantt's system is equivalent to a day rate below task and a high task rate for task or better. Although Gantt expressed his rate in terms of standard

time, it was equivalent to a high piece rate and exerted a strong pull to get the worker to achieve task. Since the workers were paid largely in terms of standard hours, it was possible to compare the efficiencies of departments by comparing the standard hours of each in relation to the actual hours worked.

Emerson Efficiency Wage Plan.—Harrington Emerson, a contemporary of Frederick W. Taylor, the founder of scientific management, constructed his wage plan on the basis of paying for the standard time worked plus a bonus for performance above task with a guaranteed day rate with a sliding scale of bonuses for performance from 66% of standard up to standard. Emerson developed this sliding scale of bonuses empirically. The premium scale ranged from 0 at $66\frac{2}{3}$ per cent efficiency to 20 per cent on reaching standard. His program was predicated on the theory that carefully predetermined standards would require an increase of production approximately equivalent to 50 per cent over the old unmeasured day-rate performance. With this in mind, using the measured standard as a base, he gave an initial bonus when the worker exceeded the old day-rate performance, which was $66\frac{2}{3}$ per cent of the measured standard. This served to spur the worker to increase his efforts to reach standard and was not so discouraging when he fell short of standard performance. The Emerson bonus was computed on the basis of the performance for the pay period and not for a particular day or hour. This aspect of the Emerson plan, in all probability, causes it to exert less pull to equal standard performance at a given time than the Taylor or Gantt systems. It does, however, tend to exert a steady pull to reach standard performance. The Emerson plan is difficult for the worker to understand and involves considerable clerical detail. It is customary to post daily the worker's efficiency or earnings for the previous day's performance. This practice reduces somewhat the criticism that the plan is difficult for the worker to understand. The Emerson system is fairly satisfactory as an aid to labor cost predetermination.

The formulas for computing a worker's earnings are as follows:

From 66% per cent of task up to task, $E = RT + p(RT)$. (1)

The value of p is taken from a table constructed empirically as discussed above.

At or above task, $E = RS + 0.20RT$. (2)

It will be observed from the formula above that the worker receives full pay for all his standard time above task but that the premium is computed on the basis of actual time worked rather than standard

time. In effect, this is equivalent to a high piece rate even though it is computed on the time basis.

The Wennerlund or General Motors plan is similar to Emerson's system in that it guarantees a day rate, but the premium begins at 75 per cent efficiency and follows an empirical curve until 100 per cent efficiency is reached, at which point the premium is 20 per cent of the day rate. Above task, Wennerlund pays for the standard time worked and the premium of 20 per cent applies to the standard time instead of actual time as in the case of Emerson.

The 100 Per Cent Time Premium Plan.—The 100 per cent time premium system of wage payments guarantees the worker his day rate and pays him in full for all he does over and above his measured standard. The basis of payment is the standard hour above task instead of the actual time worked. It is in substance equal to a straight piece rate above task. In many respects, it is the forerunner of *measured daywork* to be described below. A task time is set for each operation. The rate paid the worker may be based either on the worker himself or the job on which he is working. It is simpler when the worker has a given rate attached to him regardless of his job. When the rate attaches to the task, a worker may have more than one rate during the day. In case the rate is attached to the job rather than the worker, each job usually carries a guaranteed base rate. Regardless of whether the rate attaches to the worker or the job it is expressed in terms of standard time. The sum total of the total standard time worked on each job gives the worker's allowed time for the day. The 100 per cent time premium plan of wage payment has the advantage over straight piecework in that, in the case where the rate attaches to the worker, rate changes may be made by merely changing the worker's base rate without changing a series of piece rates. It simplifies the record-keeping problem in the case of rate changes and also has certain psychological advantages. The formulas for computing the worker's earnings are

At or below standard work, $E = RT.$ (1)

Above standard task, $E = RS.$ (2)

Under close supervision, labor costs can be predetermined with a fair measure of accuracy.

Measured Daywork.—Measured daywork embraces practically all the features of the 100 per cent time premium system with specific consideration of certain other factors that may or may not be included in the latter. A standard time and rate attaches to each job classification. This remains constant as long as there is no change in the job or

basic wage level. In addition to the rate that attaches to each job classification, each employee receives special inducements based upon his versatility, quality of work, dependability, quantity of production, and length of service. The exact number of factors used to make up this additional reward may vary with different companies using the system. This system requires careful job rating as well as rating of the employee. At the beginning, the employee is usually rated about once a month to establish his additional reward. When the system is generally accepted and firmly established, the worker is usually rated every 3 months when his rate may remain the same, be lowered, or raised on the basis of his record. This requires the keeping of accurate records of the worker's attendance, quality of work, productivity, etc., to make possible the evaluation of the relative value of the worker to the company.

Measured daywork lays a special burden upon supervision to keep the worker's production up to standard volume. For mass-production industries using mechanical conveyors that set the pace, this is not so serious a problem as it might seem at first. Clerical work is considerably less than that for many of the incentive systems; however, the keeping of the necessary records for accurately evaluating the worker's efficiency is practically as great as for straight piecework. Little friction arises as long as the worker's rating is not reduced, but considerable friction may readily arise when a worker's rating is lowered. This system has received a great deal of publicity and wide use in principle at least in the automobile industry in recent years.¹ The system makes possible fairly accurate labor-cost predetermination.

The Bedaux Plan.—The Bedaux point system reduces all work to a common denominator, *man minutes*, required to perform the task. The amount of work a man will do per minute is known as a B. Each job is rated in terms of the number of B's allowed for its performance. The Bedaux system is measured in time units. The worker is guaranteed the base rate for each job and is paid a bonus for performance above standard. This bonus in most installations is somewhat less than the full standard in excess of actual time, most frequently being 75 per cent of the time saved, although it might be any percentage.

¹ See W. R. Howell, "Measured Day Work vs. Wage Incentives," *Society for the Advancement of Management Journal*, Vol. 111, No. 1, January, 1938, pp. 54r-57; R. H. Rositzke, "Measured Day Work," *Factory Management and Maintenance*, Vol. 95, No. 2, February, 1937, pp. 45-46; Charles W. Lytle, *Wage Incentive Methods*, The Ronald Press Company, New York, 1938, p. 422; Richard Lansburgh and W. R. Spriegel, *Industrial Management*, John Wiley & Sons, Inc., New York, 1940, p. 429.

In some of the recent installations, the workers have been paid the full time saved. The allowed or standard time for a worker for a given time is determined by dividing by 60 the number of J3's that he has been allotted as a result of work accomplished. The system makes possible the comparison of the efficiency of one department with another, since all the work is reduced to a common denominator. The formula for computing the worker's earnings is: $E = RT$ plus $p(S - T)R$. The system is used extensively in industry today. Labor-cost predetermination is fairly easy by this system.

One of the objections raised to this plan is the difficulty experienced by the production workers in verifying the pay received with the amount they think is due them. Its author calls the 25 per cent taken from the excess production and distributed to others the zone of cooperation.¹ If management has not taken the proper amount of care in intelligently administering the plan so that the workers understand it, or if they do not understand it, so that they have enough faith in the management to behave that they will get their just reward, it is possible for the production workers, suspicious of management's motives, to think of it as the zone of deception. Like any other form of wage payment, it is not of itself an efficiency creating device, but depends upon the workers' reaction to it for its effectiveness..

SALARY AND WAGE PLANS FOR SPECIAL GROUPS AND OTHER WAGE CONSIDERATIONS

A Comparison of Wage-payment Plans.—The wage-payment plans discussed here are by no means all the methods and procedures used to remunerate employees for their services in a productive enterprise. On the other hand, a number of the plans we have mentioned are minor ones and not generally used in industry at the present time. These plans have been mentioned more for completeness of discussion than because they apply in specific cases.

We wish to emphasize the fact that no one wage system of itself is the sole instrument for developing efficiency and that the value of every plan depends upon its administration. The problem of wage payment, like the tariff, is a local issue. Thus it is possible that a certain wage plan with seemingly many undesirable features that tend toward inefficiency may prove to be successful through intelligent administration and create the necessary incentive in a particular instance.

A recent survey by L. C. Morrow, editor of *Factory Management and Maintenance*, illustrates the wide use of various wage plans on the basis of certain broad classifications as follows:

¹ p, as most frequently used by Bedaux, was 75 per cent.

TABLE 4.—USE OF INCENTIVE SYSTEMS*
(133 plants)

Incentive system	Percentage of plants using to some extent	Average percentage of employees being paid by this method	Range in actual percentage
Straight piecework	45.86	47.40	½ to 100
Individual bonus	45.86	46.30	¼ to 100
Group bonus	34.60	28.66	1 to 100
Measured daywork	6.80	52.33	2 to 100
Straight daywork	86.47	45.11	3 to 100

* Source: *Factory Management and Maintenance*, Vol. 9.5, No. 10, p. 75.

It is not surprising to find straight daywork widely used, since there are many operations in plants that are peculiarly suited to this system. Neither is it surprising to find the incentive systems in such wide use. They illustrate a tendency to pay the worker in relation to his output.

TABLE 5.—TYPES OF WAGE-PAYMENT PLANS IN USE IN 231 COMPANIES

Payment plan	Number of firms	Number of employees
1. Straight time	173	,469,746
2. Straight piece rate	80	523,825
3. Gang piece rate	51	398,169
4. Piece rate (guaranteed minimum)	91	545,934
5. Gantt task and bonus	26	139,662
6. Premium plan (Halsey, Rowan, etc.)	17	65,321
7. Emerson—Increased efficiency	10	40,050
8. Wennerlund group bonus	27	168,505
9. Taylor differential piece rate	8	48,000
10. Point premium (Bedaux, Haynes, etc.)	24	173,149
11. Contract method	6	82,000
12. Sliding scale	1	2,500
13. Measured day rate	23	146,399
14. Other plans*	40	296,468

* Under this heading, such plans as a "combination of the most well-known plans depending upon operation requirements," "weekly rate," "standard hour plan with variations including individual and group bonuses," "100 per cent time premium plan," "salary plus commission," "direct hourly pay carefully adjusted on the basis of performance," etc., were included.

Table 5 illustrates the distribution of various wage systems in 231 companies employing a total of more than 1,790,057 men. This

particular survey was a part of a study made in connection with current practices in personnel management, the details of which are presented in Appendix A.

The curves representing the percentage of wages according to the percentage of production for 17 different wage plans given in Fig. 8!

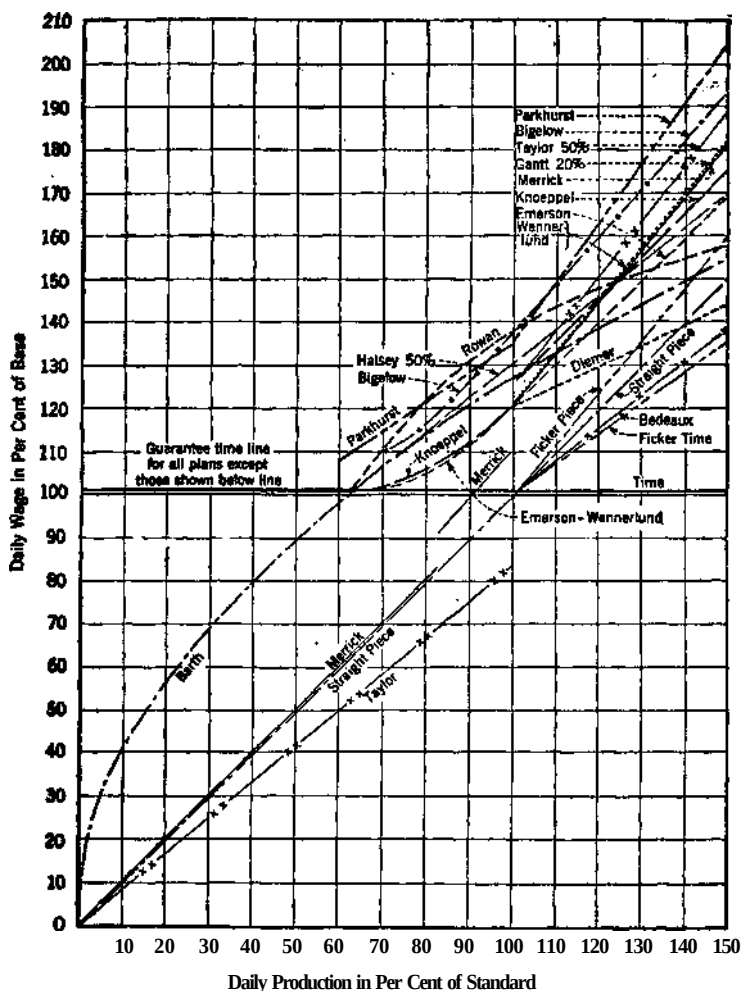


FIG. 81.—Graph showing the percentage of wages according to the percentage of production for 17 wage plans. (Courtesy of The Ronald Press Company, New York City.)

bring to light significant facts concerning some of the more standard plans. We see immediately that some of the curves go to the right of the line indicating straight piece rate; whereas others go to the left

of this line. The former pay less than the straight piece rate for production above a certain standard, whereas the latter pay more for increased production.

The plans paying below the straight piece rate for production above standard are predicated upon the thought that if the worker exceeds a certain standard the owners have contributed in part; therefore, there should be a division of the excess earnings. Such plans as the Manitt and Bedaux are based upon this general principle of division but make the division between the productive workers on one hand and the non-production workers on the other, the entire gain from reduction of overhead accruing to the owners.

All the plans that result in a payment of some amount greater than the straight piece rate take into consideration the fact that when workers exceed the standard set, the owners immediately participate indirectly in the excess through a relative reduction of overhead. It should be plain that overhead costs may be cut in half, for example, if the workers in a plant are expected to complete 50 machines in 1 month, but produce 100 instead. The owners have paid for the 100 machines only half as much foremen's and executives' salaries, and half as much on investment, light, heat, depreciation, and the like. Therefore, owing to such reduction in cost, workers may logically be paid an amount in excess per piece (unit) of the straight piece rate. A study of the graph (Fig. 81) comparing the wage-payment plans will at once call attention to the fact that engineers like Parkhurst and Taylor applied one theory to wage payment, whereas Bedaux and Ficker applied another.¹

Group Wage Payments.—The payment of workers on the basis of the group output introduces no new principles in wage payment other than the group feature. Most of the wage plans discussed in this chapter are capable of being adapted to the group-payment basis. Piecework and bonus plans are readily changed to the group basis. In the case of group piece rate, the group is paid a given amount per piece. The total amount earned by the group is then divided on some predetermined basis among the members of the group. This basis may be a day rate for each worker or any other scheme that may be acceptable to all parties concerned. Most of the other programs may be likewise adjusted to the group. It is highly desirable that the record-keeping department issue daily reports to the group so that the members of the group may know what they have earned.

¹ See Charles W. Lytle, *Wage Incentive Methods*, The Ronald Press Company, New York, 1938, for a discussion of wage plans mentioned but not discussed in this chapter.

Group payments are particularly desirable when the individual success of workers is dependent upon others. To pay persons as a group who can, by their efforts or lack of effort, directly influence the total output of the group is to make it not only desirable to cooperate but profitable to do so. The authors have seen a janitor who was a part of a large group stop his sweeping and help a trucker unload parts when the line was falling behind because of a shortage of parts. Such a thing might happen if there were no group payment, but it is not likely to happen. Group payments tend to encourage workers to take the necessary steps of their own volition to eliminate "bottle-necks." They also tend to aid the supervisors in keeping what might otherwise be loafers steadily on the job. The foregoing is predicated on the assumption that the group is small enough so that workers can see the results of their efforts. Groups of from 10 to 20 men possess most of the desirable characteristics as far as cooperation and individual incentive is concerned. Some groups have been as large as 600 or more. This may work satisfactorily when speeds are controlled mechanically, but most of the desired characteristics other than payroll or clerical advantages are absent from such large groups. The unofficial leader, present in nearly all groups, cannot function effectively when the group is much larger than 20.

Unless special provisions are made, the group may resent the introduction of the beginner. In a large group, a learner may not pull down the earnings of the group materially, but, in small groups, the payment of a beginner out of the group earnings becomes a real problem. Under such conditions, the learner may not share in the group earnings at first but be paid a fiat day rate.

Wages for Salesmen.—Straight salary is still paid salespeople in many instances, yet the same principles that have prompted the payment of industrial workers on an output basis are equally applicable to selling. The payment of salesmen on a straight commission basis has the same disadvantage as straight piecework for factory workers. This is especially true of the lower paid salesmen. Where the incentive system of rewarding salesmen is used, a basic salary or drawing account is customary. A quota is frequently assigned for which a flat salary is paid with a bonus for sales above this quota. When salesmen are on straight commission with a drawing account, drawings in excess of the commission earned are charged against the salesman's account to be paid back later out of commissions earned above his drawings. **Over long** periods of reduced sales such as the depression of the thirties, these excess drawings are frequently written off by the company **particularly for regular** salesmen who have been with the firm for

some time. There is no one best system for all conditions of selling. The wage plan should be adjusted to the needs of the particular situation. These adjustments may include special provision for collections, calls on new prospects, calls on regular customers whether or not sales are made, securing prospects for other departments than the one represented by the salesman, etc. Straight salary has the advantage of permitting the company to transfer the salesman to any part of the store or to any territory, without special detriment to the salesman, thus permitting greater flexibility.

An illustration of the need for adjusting the method of payment to the needs of the situation is the case of the household furnishings department of a large Midwestern department store. There were three women and one man in this department. They were on the same wage basis, a salary plus a bonus for sales above a given quota. The women consistently earned more than the man. An investigation of the cause disclosed the fact that the women called upon the man to get small furniture, large garbage cans, etc., from the stockroom whenever one of their customers wished to take his* purchases with him. This was a natural thing to do, but it seriously handicapped the man's sales. An adjustment was made to allow for this extra work performed by the man whose record from that time was thoroughly satisfactory.

Wages for Clerical Workers, Supervisors, and Executives.—Clerical workers are customarily paid on a weekly basis. The preferred social status of clerical workers and the resultant relatively excess supply tend to make the wages of clerical workers lower than factory workers of equal ability and responsibility. Factory workers have also as a rule been more highly organized than clerical workers, which may have contributed somewhat to this situation. In the past, clerical workers have had certain other advantages such as vacations with pay, steadier work, etc. Clerical workers have been placed on incentive wage systems in some cases where there were enough of them to justify the expense of establishing the necessary standards and caring for the details involved. Large insurance offices, banks, mail-order houses, and other institutions having a large volume of clerical work have frequently made use of incentive systems for output of clerical workers, particularly typists, file clerks, etc.

Supervisors in general are paid on a straight salary basis. Inspectors and assistant foremen are frequently paid on an hourly or day rate and at times are included in the group wage. These supervisors are supposed to represent management, yet the wages paid them, the continuity of their employment, etc., are so often the same or nearly the same as the regular workers that in fact their attachments and

outlook on life are not with the broader management approach but rather with the restricted worker view. The social prestige and economic status of a supervisor definitely influences his effectiveness. This whole field is as yet unsatisfactorily explored and inadequately solved by management. Recent attempts of foremen to organize themselves into unions in order to improve their status in some of our larger and so-called "better managed " corporations is a silent reminder that management has not solved this problem. Regular foremen are nearly always paid on a straight salary basis. At times, they receive a bonus based either on profits earned or the efficiency of their departments. Supervisors above the rank of foremen are almost universally paid on a monthly or yearly basis. The higher their rank the more frequently they participate in bonus or profit-sharing programs. Executive salaries are usually strictly private, and data are not available to the general public in most instances regarding them. Some companies, but relatively few,¹ have done some constructive job rating for salaried employees. This field is commanding increasing attention in management circles at present.

A comparison of governmental salaries and business salaries for corresponding work may be made in general as follows: (1) salaries for the lower grades of service tend to be higher in governmental agencies than in industry," (2) salaries in the average or medium levels tend to be somewhat higher in governmental agencies, and (3) salaries in the upper supervisory levels tend to be definitely lower in government service than in corresponding work in business.

¹ The United States Steel Corporation has worked out a plan for inventory and appraisal of executive personnel. See *Harvard Business Review*, "Executive Compensations Compared with Earnings," January, 1936, and "Compensation of Executive Officers of Steel Companies," July, 1937; John C. Baker, *The Compensation of Executive Officers of Retail Companies*, 1928-1935, Harvard University Press, Cambridge, 1937; see also John C. Baker, *Executive Salaries and Bonus Plans* McGraw-Hill Book Company, Inc., New York, 1938.

CHAPTER XXVII

FINANCIAL AIDS TO EMPLOYEES

INSURANCE, CREDIT UNIONS, MUTUAL BENEFIT ASSOCIATIONS, AND THE COMPANY STORE

General Considerations.—Attitudes of management, labor leaders, and workers vary in relation to their reaction to financial aids to employees. A few of the strong individualistic types are strongly opposed to anything other than the payment of a high wage for services rendered, on the assumption that the employee is fully capable of making any desired provisions for his keep and later maintenance without any assistance from his employer. The president of a large manufacturing concern stated his views recently as follows: "Our policy is to put as much in the pay envelopes as possible and not divert it to these other activities."¹ In spite of this statement of the president, this manufacturer's employees have the benefit of group life, accident, and sickness insurance, and, through its employees' association, the company operates a store and makes loans to needy employees. Such statements as the one above by the chief executive in all probability represent a general attitude not to be interpreted too literally, for most large concerns have some forms of aid for their employees other than the wage.

In this chapter, we are not interested in *profit sharing* and *stock ownership* or the various *pension plans*, since these are discussed later in chapters devoted exclusively to these items. We are interested in certain aspects of these plans insofar as they are intimately tied in with employee mutual benefit associations or insurance plans.

Financial Aid Defined.—In this chapter, we are concerned only with voluntary financial aids not prescribed by state or Federal law. This naturally eliminates pension contributions to the social security fund, unemployment compensation, or workmen's compensation provided by the respective state laws. Financial aid to employees would include unemployment compensation, workmen's compensation for accidents or sickness, and pensions over and above those required by law. We conceive a financial aid to the employee as including any plan that results in an increased income other than the regular wage,

¹ Harold Dermody, *Financial Aids to Employees* (a master's thesis, Northwestern University, School of Commerce, 1940, unpublished).

decreased expense, or other advantage that can be measured in terms of money. Savings and investment programs, educational opportunities, medical and dental service, hospitalization programs, recreational facilities, building and loan associations, company stores, company loans to needy employees, health, life, and accident insurance other than that required by statute, dismissal wages, company pension plans, etc., meet the requirements of our definition.

Objectives of financial Aids to Employees.—By definition, we have eliminated the regular wage or bonuses attached to the wage as a financial aid. Wages are supposed to recompense workers for services rendered. Why, then should other aids be given employees? The answer to this question has its roots in economic and humanitarian motives. In other words, such activities as those listed above actually, in the minds of their sponsors, pay for themselves either in increased production, improved morale with its attendant effect upon efficiency, favorable public opinion that often forestalls onerous regulation and taxes, or reduced hidden costs. There is nothing inherently contradictory between long-run good business as interpreted in its broadest economic and sociological sense, and enlightened selfishness. The business enterprise that lives well within the social mores of the community usually attracts unto itself good will of both the consuming public and employees. Viewed from the humanitarian standpoint (managers are neither more nor less humanitarian than other individuals of similar educational and social background), management likes to do for its corporate employees the same things that it would do for persons working for the management representatives as individuals. For instance, there is a normal impulse to keep aged workers long after they have ceased to be efficient. This situation often results in hidden costs. When adequate pensions are available, this temptation to hold onto the older employees is largely removed. In case there is no formal pension plan, the same humanitarian and economic motives often prompt special informal pension allowances.

Many managers remember all too vividly their own experiences when the "hat" was passed to help the family of a deceased fellow worker. This gave rise to mutual benefit associations of the employees and insurance plans. The company store selling company-made products arises out of a desire to make available to the men who help make the product these products at special discounts. It arises out of a feeling of community of interests.

Mutual Benefit Associations.—Mutual benefit societies arose, as was suggested above, out of the custom of passing the "hat" to aid a needy fellow worker or his family. If the "hat" were passed on pay-

day or soon thereafter, the contribution was large, but, if it were immediately preceding payday, the gift was usually small. Sometimes the hat might be passed more than once during a pay period. This soon became a burden upon the contributors. The mutual aid organization placed employee self-help on a systematic basis. This type of organization is one of the oldest employee cooperatives in America. A survey in 1931 showed that 8 societies out of a total of 312 answering a questionnaire were fifty years old or older. This same study showed that the average age of the 312 societies was twenty-one years and that the largest number of associations in any one age group was found in the 10- to 14-year age group.¹ The National Industrial Conference Board, Inc., found 692 active associations and 59 discontinued associations in a study of 2,452 companies.²

Mutual benefit associations in the early days arose largely out of employees' efforts supported by the employer. In recent years, the employer has often taken the lead in initiating the program, working through the employees and the personnel department. At least three different types of organizations from the standpoint of control are found, namely, those entirely controlled by the employer; those entirely controlled by the employees; and those controlled jointly by the employer and the employees. Even in those associations entirely controlled by the employees, it is not unusual for the employer to aid either by direct contributions in money or indirect contributions such as free* clerical help and office space, deduction of dues from payroll, and advice from the personnel department. Regardless of the formal setup as far as responsibility for control is concerned, sound personnel practice suggests cooperative employee-employer operation as far as possible. Membership may be either voluntary or compulsory. Voluntary membership is usually to be preferred; however, where there is collective bargaining, compulsory membership arising out of the bargaining contract may be reasonably expected to cause less dissatisfaction than would otherwise be the case. Eligibility varies widely. Some groups have no limitations other than a preliminary waiting period; others bar both the very young and older workers above a given age. An initiation fee may or may not be required; in any event, it is usually small. Membership is usually forfeited when the employee leaves the firm. Dues may be uniform, ranging from 50 cents to \$1.50

¹ Dean K. Brundage, "A Survey of the Work of Employees' Mutual Benefit Associations," *Public Health Reports, Reprint* 1506, Vol. 46, No. 36, Sept. 4, 1931 (U. S. Treasury Department, 1931), p. 3.

² National Industrial Conference Board, Inc., "What Employers Are Doing for Employees," *Research Report* 221, New York, 1936, p. 11.

per month for each employee, or they may be graduated according to classes of employees and their respective earnings. Benefit payments correspond in general to the monthly dues and benefit-payment experience. There is often a waiting period of 1 week or more before benefit payments are made. When the incapacitated employee has been absent from work for the required period, the benefit payment may be made from the time he was first absent, or it may not include the waiting period. Benefit periods may extend from a relatively short period to as long as 1 year, 10, 13, 16, and 26 weeks being popular periods. Death benefits are usually paid, \$150 being a common payment. Naturally only those funds can be paid out that are received from the employees or from contributions from the employer. Relatively high contributions from employees and employer with low illness, accident, and death experience result in liberal payments. It is not unusual for an association to build up a surplus in excess of the normal requirements for the benefits being paid. Under such conditions, benefits are often increased either by extending the period of payments or paying more per week, or the monthly dues may be reduced for the time being. Benefits are usually paid for accidents occurring outside of employment, sickness, and death.¹

Mutual benefit associations have occasionally extended their activities to include social, recreational, educational, medical, and other fields. The Chrysler Industrial Association, a nonprofit employee organization incorporated under the laws of Michigan, has two divisions, namely, the mutual benefit division that promotes insurance, welfare, social, and recreational activities, and the stores division that sells employees certain items, the profits from which go to the carrying out of the activities of the association. A prerequisite for membership in the Chrysler Mutual Benefit Division is that a written application for group insurance must be made. This group insurance is carried by an outside concern. Employee representation plans have often grown out of the mutual benefit association. This case illustrates the direction in which mutual benefit associations may develop.

Group Insurance.—As indicated above, group insurance has developed in many cases out of the mutual benefit association. As a matter of fact, many of the original mutual benefit associations were merely local mutual life, sickness, and accident insurance associations. These associations often did not meet the rigid actuarial requirements of the regular insurance companies.

¹ See National Industrial Conference Board, Inc., "Health Insurance Plans. A. Mutual Benefit Associations," *Studies in Personnel Policy* 9, New York, 1938, for an excellent survey of the entire problem of mutual benefit associations,

Group insurance may be classified under four general headings:

1. Group life insurance.
2. Group health, hospitalization, and accident insurance.
3. Group accidental death and dismemberment insurance.
4. Group pensions and annuities.

Group insurance enables employees to purchase protection usually at a lower cost than they could individually purchase the same protection.¹ Group insurance is usually written under a master policy that is issued to the employer by the insurance company.² The contract with the company usually provides that a specified proportion of the employees must participate before the insurance becomes effective. Group insurance introduces the economies of wholesale buying into the insurance field, since tens of thousands of persons may be covered by a single master policy. The first group life insurance policy was issued in 1911 to the Pantasate Company, a small company with less than 100 employees. Montgomery Ward and Co., Inc., in 1912 was the first large company to purchase group insurance.³ In 1939, more than 10,000,000 employees in the United States were covered by group life insurance in somewhat more than 25,000 concerns.⁴

Group accident and health insurance is also of early origin. Recent years have witnessed a rapid growth in this form of insurance and the total amount of benefits provided by these policies.⁵ Group hospitalization for the employee and his family is a more recent development in the United States, especially on a large scale. Group accidental death and dismemberment insurance is also of more recent origin. This type of insurance is nearly always sold only in combination with group life or group accident and health insurance. A survey made by the National Industrial Conference Board, Inc., in 1936 covering 2,452 companies employing 4,502,608 persons showed that 58.7 per cent of the companies employing 2,727,311 people had group life insurance and that 30.7 per cent of the companies also had health and accident insurance.⁶

¹ See National Industrial Conference Board, Inc., "Recent Developments in Industrial Group Insurance," *Research Report* 203, New York, 1934, p. 1; see also *Studies in Personnel Policy* 9, 10, 11, 16, and 17 for extensive surveys in this general field.

² Each employee participating in the group insurance is issued a certificate setting forth his rights.

³ Harold Derrnody, *op. cit.*

⁴ *Bests' Insurance News*, Life Edition, Feb. 1, 1940, p. 703.

⁵ National Industrial Conference Board, Inc., *op. cit.*, p. 2.

⁶ National Industrial Conference Board, Inc., "What Employers Are Doing for Employees," *Research Report* 221, New York, 1936, p. 11.

Group insurance premiums are usually paid by the company monthly. In case the employee pays part or all of the premium, a payroll deduction is made by the company for each employee. The group insurance may be under any one of three plans, namely, (1) non-contributory where the company pays all costs, (2) contributory where the employees and the company share the cost on some predetermined basis, and (3) where the employee pays the entire cost. Nearly always the company pays the cost of handling the plan and in many cases pays a portion of the premium. In practically all the plans, the company reserves the right to discontinue the plan.

Group life insurance policies are a form of term insurance and have no cash surrender value. The employees are not required to take a physical examination. On leaving the employ of the company, the employee usually may convert his policy into an individual policy without examination at a premium consistent with his age at the time of conversion. The waiving of physical examination enables many employees to get insurance who would otherwise be unable to secure protection.

Occupational accidents are usually covered by workmen's compensation laws and are not included as a rule under group accident and health insurance as we are discussing it.¹ The average plan calls for continuing disability payments for 13 weeks.² The amount of the benefit payments may either be a flat rate for all employees or may be graded according to classes. Malingering has not presented a serious problem save in isolated cases. There is an increasing tendency to extend the privileges of hospitalization to the members of the employee's family. Health insurance is receiving increased attention in government circles. There are many advocates of compulsory health insurance under governmental control.

There is still another form of insurance that is offering certain advantages to employees, namely, *salary allotment insurance*. The chief characteristics of this insurance are: that it may cover any of the standard forms other than term insurance; deductions from the employees' pay are made and remitted to the insurance company; medical examinations may be waived at the discretion of the company, at least for amounts up to \$5,000 or \$10,000, and a simplified exami-

¹ See Industrial Relations Section, Princeton University, *Company Sickness Benefit Plans for Wage Earners*, 1936, for an excellent discussion of the entire subject.

² National Industrial Conference Board, Inc., "Health Insurance Plans. B. Group Health Insurance Plans," *Studies in Personnel Policy* 10, New York, 1939, p. 5.

nation may be provided when the examination is not waived. The advantages claimed for salary allotment insurance are: (1) less time is lost in securing the insurance, taking examinations, and making payments; (2) insurance is granted to individuals who could not pass a physical examination but are unaware of defects (any known disability would be disclosed by the insured on answering the questions asked by the insurance company); (3) in some instances standard rates are not increased by occupational hazards; (4) some savings in rates are effected, since the deductions may be made from the employee weekly and the company pays the insurance monthly or even quarterly.¹ A few of the companies offering this type of insurance to their employees are the E. I. du Pont de Nemours and Company, General Electric Company, and the Western Electric Company.

Medical Aid.—Free medical service for employees for minor ills such as colds and for accidents on the job is a common practice in companies employing 500 or more persons. Physical examinations are usually given prior to employment and may be given before a transfer or at periodic intervals for employees who may be subject to occupational diseases.² This service is usually free to the employees. In coal mining, employees pay a monthly fee for medical service that is extended to the miners' families. The company may or may not contribute to this service.³ A few industrial companies also extend their medical facilities to the members of the employees' families; however, this practice often encounters opposition from the local doctors. In some cases, medical aid is given through a group arrangement with the local medical association or a group of doctors or hospital. Dental aid is much less common than medical assistance. A few companies do have dentists who extract teeth and make necessary fillings. Frequently the actual costs of materials used are charged the employees. A few companies and several employers' associations maintain hospitals for the care of major injuries and, occasionally, of employees who are sick. Group hospitalization for employees and their families has increased in popularity during recent years. The employers may or may not contribute to this program; in any event, they make payroll deductions for the employees to pay wholly or in

¹ Harold Dermody, *op. cit.*

² See National Industrial Conference Board, Inc., "Medical and Health Programs in Industry," *Studies in Personnel Policy* 17, New York, 1939, for an extended discussion of this subject.

³ See Industrial Relations Section, Princeton University, *Group Purchase of Medical Care by Industrial Employees*, 1938, for an excellent discussion of this entire subject.

part for this service. Another practice has grown up in recent years of requiring key executives to take a thorough physical examination annually. One large automobile factory sends many of its major executives each year to a nationally known clinic for a complete physical check.

Company Loans.—Informal company loans to certain employees have been made for centuries.¹ A large Midwestern concern expressed its policy toward personal loans to its employees by saying that they are made "when there is a real need for help because of financial emergency or distress which the employee cannot meet because of lack of funds, and where the expense of securing the money from other sources will be prohibitive or there are other conditions which make it difficult to secure, the amount needed." Funds loaned employees may come from regular cash resources or from a special fund set aside from profits or surplus or even from donations by officers of the company. The basis of loans is nearly always *need*, but the amount available to any employee may be influenced by the employee's length of service and rate of pay. This type of loan, however, is seldom governed by any rigid rule, each case being determined on its own merits. Many of the personal loans carry no interest, which may be due either to the desire of the company to help the employee or because the company charter does not permit the lending of money at interest. Increased financial facilities for employees, especially the credit union, will probably cause the company loan to decrease in importance; however, special cases will probably continue indefinitely to be handled on a personal basis.

The Credit Union.—A credit union is a financial institution established by persons having a common interest or bond, such as employees of the same company, members of a labor union or some other organization, or citizens of a community, for the purpose of providing credit for themselves and a convenient joint savings institution.² Frederick William Raiffeisen, mayor of Flammersfeld, Germany, is given credit for having established the first credit union in 1848. Alphonse Desjardins experimented with the credit union in Levis, Quebec, in **1900**. The first credit union was established in the United States in 1901. Massachusetts passed a law in 1909 legalizing the credit union and provided a working model for other states to follow. The movement grew slowly. By 1921, only four states had "effective laws

¹ Metropolitan Life Insurance Company Policyholders' Service Bureau, *Company Loans to Employees* (undated), p. 1.

² See National Industrial Conference Board, Inc., "Savings Plans and Credit Unions in Industry," *Research Report* 225, New York, 1936, pp. 27-28.

containing **190** credit unions with a membership of **72,310** and resources of \$10,084,862." ¹ During the twenties, rapid progress was made under the impetus provided by the late Mr. Filene, the Boston merchant, and his associates in the Credit Union National Extension **Bureau**. The **73rd** Congress (1933) authorized the organization of Federal credit unions and established a bureau in the Farm Credit Administration to supervise them and encourage their promotion. By August, 1939, there were, in the United States

. . . approximately, 7,200 credit unions organized under the laws of forty-two states and two Federal acts applicable to the United States as a whole and the District of Columbia respectively. Of these about 2,700 were Federal credit unions with assets of around \$26,000,000 and nearly 4,500 state credit unions with some \$95,000,000 in assets. The total membership of these organizations was estimated at 2,100,000.²

Credit unions have been established in practically every type of business enterprise as well as among public employees, teachers, etc.³ The employer frequently provides free office space and sometimes gives clerical assistance and legal advice, and makes payroll deductions. The credit union itself is a separate institution, owned and operated by its members. Rates of interest charged employees vary from 5 to 12 per cent. Dividends paid the members on deposits vary from 0 to 10 per cent with the prevailing rate at present (1941) being from 3 to 6 per cent. Since the members of the credit union know each other and the costs of operation are low, the losses are relatively insignificant, the safety of the principal is high, and the return on deposits is above what the depositors could ordinarily get in the banks. In many cases, these credit unions serve a real need for the employees.

Pension Plans.—Many employers who are in a sufficiently strong financial position to do so pay their older employees a retirement allowance or pension. These are often informal and have no certainty behind them. Other employers may not actually retire their older employees but assign them to minor tasks and pay them a wage in excess of the value of their services. Such assignments in substance may be classified as hidden pensions.

The most satisfactory type of pension from the employee's standpoint is one that is a part of a published agreement on the part of the

¹ Roy F. Bergengren, *Cuna E'merges*, Credit Union National Association, Madison, Wis., 1935, p. 19.

² Metropolitan Life Insurance Company Policyholders' Service Bureau, *The Credit Union* (undated), p. 1.

³ "Credit Unions for Employees in Various Industries," *Monthly Labor Review*, June, 1938.

employer in which a specific sum is allocated to pensions on an actuarial basis. It is usually more satisfactory when this fund is in fact separated entirely from the business and placed under the control of an insurance company or trust company. The employer may pay the entire cost of these employee annuities, or the employees may participate in defraying the cost. There are strong arguments in favor of employee participation. Now that the old-age annuities are available through Federal regulation, some companies may feel that their contribution for those employees earning less than \$3,000 is adequate but continue to make contributions to pensions for employees on the basis of that portion of salaries above \$3,000.¹

Educational Aid.—As an added incentive to employees to improve themselves, many companies have inaugurated company schools teaching subjects of special interest to the employees. A few of these schools are sponsored by employee organizations, but most of them are completely financed and controlled by the management. Other companies that have no company schools and even some companies that maintain company schools aid their employees in financing their attendance at evening college or high-school classes. The practice in this aid is by no means uniform. Some companies pay all or part of the tuition only for courses that give some promise of increasing the employee's efficiency on his present job or one for which he is preparing. This qualification is often interpreted rather liberally. Other companies pay a part or all the tuition for employees taking courses of any general nature in approved schools. In a few cases, part tuition for correspondence courses may be paid on satisfactory completion of the course. As a matter of fact, tuition aid is in nearly all cases predicated on the satisfactory completion of the course.

Recreational Aid.—Company programs for employees' recreation are in general more important in companies located in small towns or rural communities; however, they have been eminently successful in some of the large cities such as Chicago, Detroit, and Akron. The Hawthorne Works of the Western Electric Company of Chicago has an elaborate program, financed largely by the employees themselves, but supported in part by the company through the provision of buildings and grounds. The Chrysler Motor Corporation has a similar program. Goodyear Tire and Rubber Company is another company that has fostered a successful recreational program. It is not unusual for the corporation to provide a recreational director in the personnel department who aids the employees in organizing their recreational activities. The major part of the expenses are defrayed through

¹ See Chap. XXXIV for a further discussion of pension plans.

admission charges to dances, basketball games, bowling, etc. In large cities, the regular facilities of the city are often used, yet certain large corporations have built club facilities, athletic fields, etc. In the smaller communities, the company frequently has to take the initiative in providing facilities.

Vacations with Pay.—Vacations with pay for wage earners are largely a development of the twentieth century.¹ The Bureau of Labor Statistics survey showed that 253 plants adopted paid vacations from 1910 to 1919.² The period 1920-1929 showed an increase of 638 plants. From 1930 to 1934, vacations with pay received a temporary setback due to depression conditions. Since 1934, vacations with pay for wage earners have almost tripled.

In the same survey by the Bureau of Labor Statistics, 95 per cent of the salaried employees received vacations with pay, and approximately 40 per cent of the manual workers received vacations with pay. In spite of the high percentage of salaried workers receiving paid vacations, somewhat more than one fifth of the companies did not give salaried workers vacations. These companies were largely found among the cigar factories, textile plants, and similar highly competitive industries. It is well to observe that, in comparing practices between salaried workers and wage earners, the work of salaried employees is usually absorbed by other salaried employees or waits for the return of the salaried worker, whereas this practice is seldom possible in the case of the manual worker. Again, in the past, overtime has not usually been paid salaried workers, and vacations have been looked upon as payment in part for this overtime. The fact that salaried workers have so generally received vacations with pay has provided a strong argument for extending this privilege to manual wage earners.

It should not be concluded hastily that vacations with pay will not in the long run affect the monthly or yearly wage. Unless the vacation increases the productivity of the worker while on the job enough to make up for the time he is away from the job (a fact by no means as yet demonstrated particularly in view of the tendency toward the 40-hour week), in the long run the vacation with pay will in all probability result in the pay's being somewhat lower than it otherwise would have been. This statement is a logical deduction from the marginal productivity theory of wages and is equally applicable to unemployment compensation, workmen's compensation, and certain other financial aids granted employees. In spite of this fact, it is

¹ U. S. Department of Labor, Bureau of Labor Statistics, "Vacations with Pay in Industry," *Reprint Serial* 903, 1937, pp. 7-9,

² *Ibid.*, p. 8.

highly probable that vacations with pay will tend to increase rather than decrease. In the long run, it may in effect become a form of forced saving during the year to care for a vacation.

Vacations are usually associated with length of service; at least, a minimum service is required for eligibility. Manual workers as a rule are given 1 week's vacation with pay, this being increased in some instances to 2 weeks after 5 years' service. Salaried workers generally receive 2 weeks' vacation, with some of the higher executives receiving 3 or 4 weeks. Employees are generally required to take advantage of the vacation. In a few instances, employees are permitted to take extra vacation pay in lieu of time off when their services are needed in production.¹ Nearly always vacations must be arranged to suit the requirements of the industry rather than to be taken solely at the convenience of the employee. Some companies spread the vacation period over several months, whereas a few shut the entire organization for 1 or 2 weeks to take their vacations.

Dismissal Wages.—Dismissal compensation is the payment of a sum of money in addition to the regular salary or wage to the dismissed employee in recognition of service rendered. Dismissal payments are nearly always made only in case the employee is released at the instigation of management and usually because there is no employment available to the worker. Occasionally, however, dismissal payments are made to a long-service employee because of physical impairment, but such payments are frequently at a somewhat reduced rate from the regular dismissal plan.² A few companies have paid dismissal wages to employees for extended layoffs.³

The theory behind dismissal payments is that the money be used to aid the employee while he is seeking new employment and becoming adjusted to his new employment. Payments are made both in a lump sum and on a weekly or monthly basis with occasional combinations of both bases. 'Those who oppose the lump payments do so on the theory that the employee is likely to spend his money recklessly and thus defeat the major objective of the plan.

There are two general types of dismissal compensation payments: the graduated compensation type in which the amount varies in some predetermined ratio to the length of service of the employee, and in some cases to the age of the employee; and the uniform payment type,

¹ U. S. Department of Labor, Bureau of Labor Statistics, "Vacations with Pay in Industry" *Reprint Serial* 903, 1939, p. 23.

² See National Industrial Conference Board, Inc., "Dismissal Compensation," *Studies in Personnel Policy* 1, New York, 1937, p. 7.

³ *Ibid.*

in which the employee is given a uniform payment of 1 or 2 weeks' wages on being discharged.¹ There is no great uniformity in the payments of dismissal compensation under the graduated compensation type. Each company usually sets up a schedule in keeping with its interpretation of the needs of the employees and local conditions.² Where the age of the employee is considered, this schedule may become quite complicated. For instance, an employee of 10 years' service who is thirty years old may receive a 3 months' dismissal allowance, whereas an employee of the same service but fifty years of age may receive twice that amount. Such differentials are predicated on the theory that it will take the older employee longer to find employment and make the necessary adjustments.

Dismissal compensation was primarily a product of the depression of 1930-1935; however, the Delaware and Hudson Railroad paid a dismissal wage in 1922, Hart, Schaffner and Marx paid a dismissal wage to some of its cutters in 1926, and the United States Rubber Company paid a dismissal wage in 1929. Many European countries have recognized the dismissal wage by statute. Several Latin-American countries likewise have laws requiring dismissal compensation according to a specific schedule.

Just what effect unemployment compensation will have upon the tendency to pay dismissal compensation is difficult to predict. The Bureau of Labor Statistics found in a survey in 1938 that the attitudes of 88 companies were expressed as follows:³

No change contemplated.	18
No change made.	26
No change made, but contemplated.	15
Change made, but no relation to Social Security Act.	11
Change made related to Social Security Act.	15
Plan discontinued.	3

A few companies have plans whereby they pay employees laid off through no fault of their own an allowance for the "waiting period" required by the state unemployment law. This program may or may not be classified as a dismissal wage plan, but it is closely related to it, and the amount paid is frequently determined by the employee's length of service. The Armstrong Cork Company has such a program.

¹ *Ibid.*, p. 5.

² See Dale Yoder, *Personnel and Labor Relations*, Prentice-Hall, Inc., New York, 1938, pp. 457-461.

³ Everett D. Hawkins, "Dismissal Compensation in American Industry" U. S. Department of Labor, Bureau of Labor Statistics, *Reprint Serial 908*, 1939.

Company Stores.—In most manufacturing enterprises, company stores, when they exist, are inaugurated as a convenience and financial aid to the employees. Company stores have existed for years in coal-mining operations and logging camps. Many of these stores have been run as a convenience to the employees but also at a profit to the employer. In some instances, the profit may have been excessive. In this chapter, we are essentially interested in the company stores or employee purchase arrangements that have as their objective the providing of a convenience to employees and aiding them to purchase goods at a reduced price.

Company stores arose in many instances during the World War of 1914-1918 and shortly thereafter to protect in part the employees against rapidly rising prices of goods and other necessities. With the fall of prices from the war inflation, the reason for the existence of the company stores was largely removed. Company stores, although making a definite appeal to employees, have almost universally encountered local dealer opposition. Dealers argue that they are entitled to the normal business that would come from the company employees. This dealer opposition has contributed considerably to the decline in company stores in recent years.

Company stores have frequently been owned and operated by organizations of the employees such as the mutual benefit association. In such cases, profits go to some worthy employee activity. In many other cases, the stores are operated by the company. When prices to the workers are substantially lower than prices of the same products purchased on the outside, it really matters little who owns the stores; however, if prices are comparable to prices on the outside, employee participation is highly desirable for the good-will effect.

Although the sale of general merchandise and food products is common to most company stores, many of them confine their efforts to small items and products manufactured by the company. Dealers oppose the sale of company products as well as other products. Often the company sells only its own products without maintaining a regular store, merely receiving orders in the morning, having some department such as stores fill the orders during the day, and permitting the employees to pick up their purchases at the close of work. Other companies do not maintain a regular store but sell employees such items as paint, fertilizer, and many items handled by the buildings and grounds or maintenance department. Still many other companies give a part or all of their employees access to purchases through their purchasing department, thus making available to their employees, in part at least, the savings of large-scale purchases. This type of aiding the employees

is of considerable value in the purchase of items for the home. It would seem that under normal business conditions convenience items related to the employees' comfort at work, and the company's own products are about all that have any special claim upon the company store. Dealers as a rule are opposed even to these items being sold by the companies engaged in other activities.

Miscellaneous Aids.—The number of financial aids for employees other than the ones discussed above are many. For instance, the health and safety programs have been extended to include group hospitalization for the employee and in some cases the members of his immediate family. Nearly always the employee pays a part or all of the direct cost of such programs. Other companies have at times fostered building and loan associations to promote thrift and to aid their employees in acquiring homes. Some companies have directly participated in housing programs for their employees to their financial advantage. A growing practice calls for the payment of a fixed sum or for a given number of hours to employees who report for work and find that there is no work available. Unsecured loans without interest are made to General Motors employees during layoffs for model changes according to a prescribed schedule. Certain annual wage guarantees have characteristics in part related to financial aids. Limited legal aid is granted employees by certain firms. This program seldom calls for appearance in court for the employee. Aid is often given foreign-born employees in getting their citizenship papers. One large chain department store pays its employees a bonus of \$1,000 on the completion of 20 years' service.

The foregoing are only a few of the miscellaneous financial aids that are given by some companies to meet the needs of a given situation. Many of these aids are relatively insignificant when compared with the total wage cost and therefore may not even in the long run influence the normal wage. The situation, however, is quite different in the case of such items as workmen's compensation insurance, unemployment insurance, pensions, vacations with pay, etc. *In toto*, these items become a real cost that cannot reasonably be expected to be borne solely out of profits. Since most of them do not increase the workers' productivity, it is reasonable to assume that they will generally be paid out of what would otherwise be in the long run a part of the wages paid directly to the workers. This is not necessarily a criticism of these programs. It may be desirable to provide certain services collectively rather than leave it to the individual who seldom will deny himself sufficiently to achieve the desired end.

CHAPTER XXVIII

EMPLOYEE STOCK OWNERSHIP AND PROFIT SHARING

Private Capitalism and Democracy.—The mere mention of private capitalism and democracy in the same sentence arouses a series of emotions in many persons in various walks of life. These so-called "emotional sets" are by no means classifiable in terms of economic status. Although it may be true that the advocates of extreme action to redistribute wealth have proportionately a larger representation among the "have-nots" than among the "haves/' nevertheless a large cross section of our working population is firm in its adherence to the right of private property; on the other hand, it is not uncommon to find many individuals among professional groups, the upper middle class economic groups, and even managerial groups who, in theory at least, contend that the right to private property is not basic to the individual but one granted him by the state. Some go so far as to contend that private capitalism as it has existed traditionally among English-speaking peoples is fundamentally opposed to political democracy. Extremists either for or against the right to private property are fond of making dramatic use of the well-known logical fallacy of the "favorable case" method to prove their points. In spite of definite trends to question the existing order, as yet in America we have found no incentive quite so strong as the desire of individuals to acquire goods and services that they can call their own. The real trend is toward broadening the base of ownership rather than a change in the nature of ownership. It is to appeal to the basic desire for ownership and its hoped for resultant interest in the thing owned that profit sharing is directed. It is assumed that, if a worker or executive comes to realize that he shares on some equitable basis the profits of a business enterprise, he will strive to maintain this enterprise as a going concern and to direct his efforts toward increasing its effectiveness.

Does it necessarily follow that control or a major share in control must accompany profit sharing to make it truly effective? Those whose major interest is an extension of the democratic process as an **end** in itself usually answer this question in the affirmative. Others who sincerely believe in the democratic process in those matters that directly affect the worker in his work situation, his working conditions, **etc., believe that** there is no necessary correlation between a proprietary

interest and participation in the control of the major business decisions. They point to the fact that many persons prefer to provide capital for a business enterprise and take preferred stock or bonds to active participation in the management. It may be true that these persons are interested in the security and certainty of the expected returns. On the other hand, it would be foolish to infer that these same persons were not vitally interested in the success of the enterprise. It is very doubtful as to the desire of the rank and file of employees for active participation in the determining of major business policies other than those that directly affect them. It is undoubtedly true that workers like to have a voice in the determination of the hours of work, wages, working conditions, etc., especially in those situations where management's action is less satisfactory than the workers may reasonably expect.

What Is Profit Sharing?—The International Cooperative Congress in Paris, France, in 1889 defined profit sharing as

... an agreement freely entered into, by which the employees receive a share, fixed in advance, of profits. In the discussions of this Cooperative Congress, profits were further defined as being the actual net balance or gain realized by the final operations of the undertaking in relation to which the scheme existed, and the sums paid to the employees out of the profits were directly dependent upon the profits.¹

This conception further stipulated that an appreciable fraction of employees must be profit sharers,—not less than 75 %.²

Most writers on the subject have limited their discussions to some such definition as the one given above both as to the meaning of profit sharing and as to those plans covering a given percentage of employees.³ The National Industrial Conference Board, Inc., in its survey in 1937, included "only those plans that provide to participating employees payments in cash, stock, or future credits that bear some definite relation to the profits earned by the company during a definite period."⁴ This definition did not restrict profit sharing to a large group but was applicable either to large or small groups. The Senate Survey quoted above took a broad view of the entire field and included practically

¹ See *Senate Report* 610, 76th Congress, 1st Session, *Survey of Experiences in Profit Sharing and Possibilities of Incentive Taxation*, p. 53, quoting from the report of the International Cooperative Congress in Paris, France, 1889. This is a comprehensive survey of profit sharing in the United States.

² Z. Clark Dickinson, *Compensating Industrial Effort*, The Ronald Press Company, New York, 1937, p. 331.

³ See U. S. Department of Labor, Bureau of Labor Statistics, "Profit Sharing in the United States," *Bulletin* 208, 1917.

⁴ National Industrial Conference Board, Inc., "Profit-sharing and Other Supplementary-compensation Plans Covering Wage Earners," *Studies in Personnel Policy* 2, New York, 1937, pp. 5-6.

every phase of rewarding the employee above the going rate. It embraced two main divisions—*e.g.*, "Percentage profit sharing and welfare and benefit payments."¹ Mr. Ford's payment of a minimum wage of \$5 per day in 1914 is included in the definition as accepted by the Senate Committee.² The approach of the Senate Committee has much to commend it in actual industrial situations. It is somewhat doubtful if all these forms of profit sharing, even though in a very real sense *they truly constitute profit sharing*, have equal pulling power in attaining the major objectives of this program. We prefer to think of *profit sharing as being the payment to employees in cash, stock, or future credits some amount over and above the normal remuneration that would otherwise be paid to these employees in the given situation*. From this viewpoint, the payments do not have to be derived from the current period involved but may be taken from an earned surplus from prior periods of operation. Neither would this definition require an agreement fixing the percentage in advance, although it is believed that such an agreement is desirable. This definition does not preclude a relationship between the amount allotted above the going wage and profits, for it is assumed that the payments will be either from currently earned profits or prior profits.³ Payments from prior profits would naturally be made in anticipation of the return to profitable operations. Payments could be made from current profits without any prior agreement, although it is believed that the morale-building effect would be greater if these payments were made in conformity with a well-organized plan. Our definition would include that portion of Mr. Ford's wage payments that were in excess of the going rate in the community or in excess of what he would have paid for the same work had he not desired to share in part his profits. On the other hand, certain bonus payments made to employees, particularly executives, would be, according to our concept, partly wages and partly a share in profits. For instance, it is not uncommon to pay an executive a base salary sufficient to care for his normal living costs and to pay him a bonus depending in part upon the volume of business or profits. In such cases, it is often expected that a substantial part of the salary will be

¹ *Senate Report 610, op. cit.*, p. 54.

² *Ibid.*, p. 55.

³ See Richard R. Deupree, president of Procter and Gamble Company, in the *Senate Report 610*, p. 55, who said, "Our contribution is not distinctly related to profits, it is made regardless of the profits of the corporation. We ask the employee to make a contribution and we add a profit-sharing credit running from 5 to 15 **per** cent of his wage depending upon length of service." Of course, this statement is not to be interpreted that profits would be shared over a long period of time, **unless they were earned**.

in the form of a bonus and that the salary would be higher were there no bonus. The profit-sharing portion in such a situation would be: *total remuneration* minus the normal salary that would have been paid were there no bonus.

What Are Profits?—The terms "gross profit" and "net profit" are familiar to the student of business." Disputes frequently arise between the economist and the accountant as to the nature of profits. These disputes arise largely out of the definition of their terms. In this text, we are essentially interested in profits viewed from the standpoint of business enterprise of the corporate form. We are also primarily interested in net profits, since they are the only ones that are available for distribution. In reality, for the purpose of profit sharing as we have conceived it, the foregoing statement should be modified to include *net profits that would remain after deducting from income all expenses for land, labor, and capital as figured on the basis of the market rate for each.* Net profits as thus conceived would be somewhat different from the accountant's net profit in cases where management deliberately paid a wage higher than the necessary market rate. In such a situation, management would be distributing in the form of wages a portion of the profit as we are thinking of profits. On the assumption that all expenses correspond to the prevailing expenses that would normally be encountered in a given situation, *net profits would equal total income minus the expense of securing the income.* It is evident that there may be no net profit unless the income is greater than the expenses. It is the fleeting nature of profits that has caused some representatives of labor to oppose profit sharing. For instance, management may, if it so elects, pay itself a wage considerably higher than the market value of its services and thus by increasing expenses reduce what would otherwise be a profit to a loss. It is to avoid this possibility that some collective-bargaining contracts specify that managerial salaries shall not exceed a given amount.

There is one fact that is frequently overlooked by people who are sincerely interested in preserving private capitalism and widening its base, but whose major interest is in improving the standards of living of the great mass of workers, namely, profits can be distributed only when they exist. They also forget that even during prosperous years many corporations have deficits rather than profits. Dickinson using data compiled by the Federal Trade Commission shows that, for the period 1920-1930 inclusive, somewhat more than one third of the corporations, covered by the commission's *Report on National Wealth and Income*, had no profit but a deficit.¹ The tendency for the man in

¹ Z. Clark Dickinson, *op. cit.*, pp. 339-340.

the street is to think only of the spectacular profits of a few concerns that have been highly publicized, forgetting entirely that many others even in the same industry have had only meager profits and that still others have been forced to close their doors. When they admit that some business institutions fail, they usually associate failure with the small concerns, forgetting that the Reo Motor Company, the Lincoln Motor Company, the Hupp Motor Company, and many of the large railroads have had serious financial reverses. When the fact is forcibly brought home to a group of employees, by a failure to receive a customary share of profits, that there are no profits to be distributed, it should make them more specifically conscious of proprietary interests or property rights. Such a realization will tend to give them a greater appreciation of our economic system and their relationship to it.

Not only are there great variations within a given industry with respect to profits but there are also marked variations between industries for a given year and over a period of years. For instance, the rubber-tire industry as a whole made a relatively poor showing during the latter twenties in comparison with the automobile industry. An entire industry may by virtue of its high productivity per man and its competitive situation not only pay a high annual wage to its employees but also be in a position to share its profits with its employees, whereas another industry during the same period may be unable to pay a wage anything like as high as the first one and have no profits whatsoever to share. The individual employees and management may work as hard in the second industry as in the first. Profits do not arise alone from the efforts of an individual or single enterprise in many instances, but frequently from economic forces and competitive conditions quite beyond the power of the individual concern to control. This inherent nature of profits has caused many serious students of the subject to conclude that, since profits are a residual after paying the normal costs of doing business and that since the owners are the last of the factors of production to be paid, the owners are primary risk bearers and as such should receive the profits, if there be any, as a reward for risk bearing.

The classic interpretation of profits as a reward to the entrepreneur for risk bearing naturally raises the question as to whether or not the entrepreneur is the sole risk bearer. Viewed from the standpoint of the financial investment in equipment and material, those who provide the funds for initiating and maintaining the enterprise are the primary risk bearers. It must be recognized, however, that material and equipment do not produce a going enterprise. There must also be employees, from the hired manager to the humblest workmen. At the beginning, the employees bear relatively little risk in comparison with

the suppliers of finance; however, over a period of years, the employees do in a very real sense share in the risks of the enterprise. A tire builder who has devoted 20 years of service to a given enterprise is vitally interested in the continuing success of the enterprise and has during his period of service in fact shared a considerable part of the risks of the institution. In proportion to his ability and capacity, he has often shared even a greater risk than many of its larger stockholders. This statement is in no way based upon a communistic or socialistic philosophy. It merely recognizes a factual situation. To recognize this relationship and to share in part the profits of industry is one of the soundest methods of perpetuating our capitalistic system.

Objectives Sought in Profit Sharing.—Various motives have prompted management to inaugurate profit-sharing programs. W. R. Ilietz of the I.L.G. Electric Ventilating Company of Chicago has classified them as follows:¹

1. As an incentive to increase production.
2. For purely social reasons.
3. To promote employee security.
4. the improvement of employer-employee relations.

Z. Clark Dickinson has enumerated the purposes sought by profit sharing as follows:²

1. To promote efficiency, when measurement of individual results or close supervision is impossible.
2. To prevent waste.
3. To prevent labor turnover.
4. To promote industrial peace.
5. To promote effective management.
6. To ensure the continuance of management.
7. For humanitarian purposes.
8. For the stabilization of employment.

An analysis of the foregoing reasons shows that they have both social and economic implications. Increased production, elimination of waste, reduction of labor turnover, and the promotion of effective management are all factors that have a direct economic connotation. It is true that these objectives also have broad social implications. Employee security, stabilization of employment, industrial peace, and humanitarian purposes are essentially social in their major emphasis. These factors also directly or indirectly affect the economic status of

¹ W. R. Rietz, "Profit Sharing," *Proceedings of Wage Conference, Industrial Management Society*, Chicago, 1939, p. 3.

² Z. Clark Dickinson, *op. cit.*, p. 334.

employees as well as the company. There might with considerable logic be added still another objective, namely, *to broaden the base of our economic structure of ownership and thereby tend to perpetuate the institution of private capitalism.* In America, at least, we are definitely committed to the principle of majority rule. The will of the majority may not always approve of private capitalism if that same majority does not participate knowingly in the fruits of that system. There need be little fear of the destruction of private capitalism as long as a majority of the people participate in the fruits of the system and have a feeling of proprietary interest. One objective of profit sharing is to develop in the minds of the participants a feeling of mutuality of interests between the employers and employees. When this feeling becomes a reality, the other objectives will tend to be realized as a by-product.

Stabilization of employment is an objective that is frequently not included as one aim of profit sharing. *Profit sharing affects stability of employment only indirectly.* It provides a means of rewarding employees in keeping with the ability of the enterprise to pay without incurring fixed costs in the same sense as if the amount were distributed as a part of the regular wage. If there are no profits, they naturally will not be distributed, and that portion of the remuneration given the employees for the previous period is not a cost that has to be recovered in the selling price of the product. Such a condition gives the manufacturer increased flexibility in meeting competition and, other things being equal, tends to stabilize the employment of his employees. It is true that a similar condition would result from a reduction of wages; however, anyone familiar with employees' psychology knows that it is a difficult problem to reduce wages. Some may say that, if all industry participated in profit sharing, the advantage claimed above would not be realized by a given manufacturer, since there would be no advantage in comparison with his competitors. This criticism is only true in part, since the industry that had shared profits having been in a more advantageous position than the one that had no profits to share would tend to remain in a more advantageous position unless other factors were introduced that had no relation to the wage costs. It is also highly probable that the economy as a whole would not have such violent cyclical swings if it were capable of adjusting more readily to changing costs.

Historical Background of Profit Sharing.—Profit sharing in some form or other antedates our industrial economy. Farmers for ages have shared the crops of their fields with those who cultivated them. Fishermen often receive their pay as a share of the catch. Charles

Babbage, the English economist, in 1832 wrote regarding "product sharing" as follows:¹

These extraordinary cases, are, perhaps, of more advantage to the owner of the mine than even to the men; for whilst the skill and industry of the workmen are greatly stimulated, the owner himself derives greater advantage from the improvement of the vein. This system is introduced by Mr. Taylor into the lead mines of Flintshire, into those at Skipton in Yorkshire, and into some of the copperanines of Cumberland; and it is desirable that it should become general because no other mode of payment affords to the workmen a measure of success so directly proportionate to the industry, the integrity, and the talent which they exert.

Le Claire, the Parisian house painter, introduced profit sharing in 1842.² His success was phenomenal, and his firm continued the essential features of his program until modern times.

It is recorded that the success of the "Le Claire" plan was due to the fact that Le Clairpe knew his craft and the men who practiced it; he knew their temptations and their difficulties; he knew their weaknesses and their impulses and he constructed his plan in such a way as to govern, control, and protect men against themselves. . . . John Stuart Mill held up M. Le Claire as an example of employers of labor, and most subsequent writers on political economy, in England and America, have agreed with Mr. Mill. Professor Jevons and Professor Fawcett distinguished themselves by earnest advocacy of industrial partnerships.³

Albert Gallatin introduced profit sharing in America in his glass works at New Geneva, Pa., in 1794.⁴ Horace Greeley inaugurated a profit-sharing program for the employees of the *New York Tribune*. Pillsbury Flour Mills Company of Minneapolis introduced a profit-sharing plan in 1882. In 1884, the B. & O. Railway Co. introduced a "pension relief savings plan." Procter and Gamble Company began its program in 1886.

Gradually other companies adopted profit sharing, prominent among them being the Simplex Wire & Cable Co., of Cambridge, Mass., in 1901; Hibbard, Spencer, Bartlett & Co., of Chicago, in 1902; the R. J. Reynolds Tobacco Co., Winston-Salem, N. C., with 15,000 employees; and the Eastman Kodak Co., with some 24,000 employees, in 1912; the Edison Electric Illuminating Co. of Boston, in 1913; the California & Hawaiian Sugar Co., of Crockett, Calif., in

¹ Charles Babbage, Esq., A. M., *On the Economy of Machinery and Manufactures*, Charles Knight, London, 1832, pp. 178-179.

² See Z. Clark Dickinson, *op. cit.*, pp. 329, 370, 371, 374.

³ U. S. Senate Report 610, *op. cit.*, p. 71.

⁴ See U. S. Senate Report 610, *op. cit.*, pp. 72-77, for the source of material used in this paragraph.

1914; the Cleveland Twist Drill Co., of Cleveland, in 1915. Of the more significant plans inaugurated in later years, we find in 1916 the Sears, Roebuck Co., of Chicago, having a normal employee group of over 30,000, initiated a plan under which the company pays 5 per cent of its net profits which has prevailed against war period and depressions. Even in 1931 this company paid \$1,000,000 into its profit-sharing funds.¹

Profit sharing has not grown with spectacular rapidity, but it has steadily increased in favor among business enterprises both large and small. The sponsors of the Senate Committee's investigation had in mind securing factual data to support "compensatory tax exemptions" for corporations having profit-sharing programs. Business representatives were not in agreement as to the advisability of compensatory tax exemptions. The staff making the survey did not recommend to Congress that tax exemptions be made. This committee did, however, make suggestions to Congress to encourage profit sharing.

Labor's Attitude toward Profit Sharing.—Organized labor has traditionally been opposed to profit sharing. It has been frankly suspicious of what it terms a "mistaken idea in the minds of employees that such plans make them 'partners' in industry." The Senate Committee reported the opinion of the president of a prominent American labor union as follows:²

We are emphatically opposed to any form of so-called profit sharing because it creates the mistaken idea in the minds of employees that such plans make them "partners" in industry and divert their attention from unionism. It seems to become a substitute for collective bargaining. These plans are used to keep salaries and wages at status quo and even lower levels. Such minor returns as employees have received have been unimportant in comparison to increase, dignity, and independence gained through organized unionism.

In the same report, William Green, president of the American Federation of Labor, is quoted as saying:³

Labor is not opposed to principles involved in profit sharing, but it is opposed to the way in which it has been developed and operated—recognition of real partnership and frank acceptance of the privileges and rights derived therefrom would be the greatest incentive to sustain efficiency in work that industry could devise—if the earnings of the industry would justify an equitable distribution of the profits of industry between investors, management, and employees let it be done, with a full understanding and in full cooperation with the representatives of the workers. The one trouble about profit sharing, as practiced by a number of corporations, is that it has created suspicion and

¹ *Ibid.*, p. 73.

² *Ibid.*, p. 91.

³ *Ibid.*, p. 92.

distrust, because the workers know nothing about the basis upon which the profits were distributed . . . there is a great need of frankness and open dealing between the management and the workers today. Let the workers know the truth.

John J. Stanley, a representative of Local 16, United Office and Professional Workers of America, in a letter to one of the authors, July 5, 1939, enclosing a copy of a contract that included a profit-sharing provision, said:

May we suggest that in utilizing this example of labor relations, you point out that labor unions are generally opposed to profit-sharing schemes. This is because the incentive of profit-sharing is often used by employers to "speed-up" the employees, and also because ordinary profit-sharing schemes do not provide against excessive officers' salaries, administrative expenses and the like which reduce true profits.

From the viewpoint of the labor union, profit-sharing plans can be approved only when there is a large measure of certainty regarding the "good faith" of the employers and where reasonable safeguards exist either within the contract or outside it against speed-up and against the diversion of profits.

It is apparent that organized labor's opposition is based essentially on distrust of the motives of management. In part, it may be due to a fear that if the employees in fact embrace the partnership idea there will be less class-consciousness and possibly less feeling on the part of the workers that they need the protection of the union. In this connection, it might be observed that management would be unwise if it originated a profit-sharing program for the purpose of preventing the organization of its employees or to weaken the existing organization of its employees' choice.

The Relationship of Profit Sharing to Wages.—In theory, *profit sharing*, as we have defined it, is that part of the employee's remuneration over and above what he would otherwise receive if he were paid the going rate in the community for the services rendered. It is common practice, though by no means universal, to relate the particular share that an individual employee receives to his earnings. It is not unusual to consider length of service in the total allotment, but, even when this is considered, it is usually tied to the employee's wage as a basis of computation. In the case of ordinary workers, it is highly improbable that the regular wage is materially lower under normal conditions than it otherwise would be if profits were not being shared. This certainly would be the case when the company followed the practice of paying the going wage in the community. The situation may be somewhat different in the case of some of the higher executives. In

the first place, it is more difficult to establish what is the going rate for executives. Since executives are usually in a better position to influence profits, it may be reasonable to remunerate them in a greater degree through profit sharing than the regular workers. Executives are also as a rule in a better position to bear the risks of not receiving their expected amount in profits, if these expected profits are considered in determining their base salaries. To illustrate, it might well be the policy to pay an executive \$12,000 a year as a base salary plus a predetermined share in expected profits. It might be that the board of directors in reality estimated that the executive would ordinarily receive a total remuneration of \$30,000 including his share of profits. Such a situation is more tenable for an executive than it would be for an ordinary worker to receive anything like such a proportion of his total remuneration in the form of profit sharing. It does not follow that the executive's salary in the illustration above would have been set at \$12,000 had there been no profit-sharing program. It would most probably have been considerably higher than that amount.

At least one company, the Westinghouse Electric and Manufacturing Company, ties the base payroll to the average monthly net income for the 3 preceding months.¹ For instance, if the average monthly net income for the preceding 3 months were \$600,000, the base rates would hold. Should this monthly net income exceed \$600,000 for the period by a given amount, 1 per cent would be added to the payroll. Should the excess be twice the specified amount, the payroll addition would be 2 per cent, etc. The number of employees on the payroll would influence the amount that the monthly net income would have to exceed \$600,000 to result in a 1 per cent payroll increase.

Basis of Profit Distribution.—As in the case of wage-payment plans, the variations may be almost as great as the companies participating in the profit-sharing program. In general, the various plans may be classified under one of the following headings or a combination of two or more of them:²

1. A fixed per cent is first allocated to the owners based upon the book value of the stock, the excess being shared in some definite ratio.

2. A fixed amount is first allocated to each share of stock, the excess being then shared in some definite ratio.

¹ See National Industrial Conference Board, Inc., "Profit Sharing and Other Supplementary-Compensation Plans Covering Wage Earners," *Studies in Personnel Policy* 2, New York, p. 6; see also "How Industry Looks at Profit Sharing," *Factory Management and Maintenance*, February, 1939, p. 44.

² National Industrial Conference Board, Inc., *op. cit.*

3. An agreement to share profits if there be any on a definite percentage basis.
4. Similar to either 1, 2, or 3 above, but the excess allocated by the board of directors at the time and not according to a predetermined ratio.
5. Similar to 1, 2, or 3 above and sharing profits with employees on some sliding scale that is predetermined.

As indicated earlier in this chapter, the individual employee's share is frequently related to his earnings for the current period or some specified period that may be longer than the period under consideration. The waiting period before an employee is entitled to participate may be anything from 0 to 5 or more years.

Some General Observations.—Profit sharing as an incentive to increased effort is not so effective as many of the wage-incentive plans that can be directly related to the individual's efforts at the time. When profits are paid in cash, they are likely to be spent for current items and not to serve to increase the employee's security. Cash-profit payments are also more likely to be considered a part of the regular wage and will thus fail to carry the desired "partnership idea." The failure to pay expected cash profits may readily serve as a morale destroyer especially when the worker has come to look upon the cash payment as a part of his wage. When profits are distributed to the workers in the form of annuities or some such form as preferred stock that is held to build up an estate, they probably serve as a weaker incentive to the worker in the beginning of his career or of the profit-sharing program than when the distribution is in cash; however, the motivating effect of annuities, etc., tends to increase with the passage of time and the accumulation of an estate. The requiring of an employee to contribute some of his own earnings to a profit-sharing program should be carefully guarded so that the employee's contribution is safeguarded and earns a reasonable return. A failure to do this may readily defeat the fundamental purpose of profit sharing when depressions cause the employee's contribution to be worth less than he originally invested.

Profit-sharing programs, although meeting with marked success in many instances, are by no means universally supported either by management or by the workers. In view of the uncertainty of profits and the fact that their sharing involves considerable waiting, if their major objectives are to be achieved, profit sharing seems to offer a stronger incentive to executives and supervisors than to the rank-and-file worker.¹ Just what the effect of a continued growth of labor unions will have upon profit sharing is problematical.

¹ *Ibid.*, p. 16.

Senate Committee's Recommendations.—After an exhaustive study, the Senate Committee reported by way of summary and conclusion in part as follows:¹

It was first demonstrated that out of a group of 774 companies with and without profit-sharing plans, the companies that had some plan, in which labor shared, achieved superior results in the matter of strikes over companies without plans and over companies that had plans for executives or plans in which labor did not share. By isolating companies that had only one plan, and labor shared in that plan, it was demonstrated that the companies that had profit-percentage plans achieved better results than those companies with other types of plans. It was then demonstrated that companies having plans that created the partnership interest, either alone or in combination with some other plan, had a better record than did those companies having only a plan of the nonpartnership-interest type. It was then demonstrated that various combinations of pension and bonus plans showed no significant changes in the employer-employee relations unless the plan was in combination with some partnership-interest plan. Having demonstrated the superiority of the profit-percentage type of plan it was then shown that there was reason to believe that the profit-percentage plan, wherein the workers' share is saved for the future, achieved the best results of any single type of plan or of any combinations of plans. . . .

Among bonus plans, the formal (preannounced and predetermined) showed to a good advantage over the informal bonus plan. This might be expected as the formal bonus plan approaches and has several aspects of the profit-percentage plan where cash is distributed. . . .

The intensive study and analyses, hereinbefore presented, of the employee-relations policies operative in hundreds of businesses and commercial and industrial institutions throughout the United States lead us to certain definite and unalterable conclusions, to wit:

1. A profit-sharing plan, based upon percentage sharing wherein the "partner in interest" consciousness is established, is the most effective of all formulas for creating the capitalistic conception with its approval and allegiance to the profit system.

2. The formula of "percentage sharing" definitely creates the partnership relation which in turn promotes a closer, friendlier, and cooperative attitude on the part of the employee toward his employer.

3. Profit sharing on a percentage basis naturally developed the same selfish desire in the employee for the enjoyment of profits as actuate the employer, hence there is established the "common interests" reflecting itself in increased personal interest for company success and in doing all those things which have an influence upon the making of profits.

4. The "conflict of interest" which centers in the wage question whereby the employee's interest and concern is concentrated in the one desire for "higher wages" is unquestionably tempered and modified by the introduction of profit

¹ *Senate Report 610, 76th Congress, 1st Session, "Survey of Experiences in Profit Sharing and Possibilities of Incentive Taxation,"* pp. 159-160,

sharing as a "differential" which establishes *two* sources of income, causing the employee to look in two directions for personal financial betterment.

5. There appears to be far greater effectiveness for satisfaction, peace of mind, removal of fear of the future, and in the stimulating of ambition by the system of accumulation of funds for the creation of an estate for old-age security, than by regular distribution of the cash resulting from the sharing.

Employee Stock Ownership.—Employee stock ownership is ~~clo~~**Bely** related to profit sharing in its objectives and administration. As a matter of fact, the objectives may be said to be almost identical. Advocates of stock ownership by employees feel that it promotes thrift, a feeling of ownership or partnership in the company, employee security, and increased efficiency of the employee in that he feels that his efforts are in part for himself. Stock has been made available to employees on various bases, namely, (1) purchase at market price, the company financing the purchase and deducting specified amounts from the employee's pay until the stock is paid for, (2) purchase at a price 'somewhat lower than market and paid for by the employee the same as above, and (3) given to the employee outright as a part of his share in a profit-sharing program. In other words, the employee may pay all, part, or none of the market price of the stock depending upon the policy of the company. During the twenties, it was common practice to sell the stock to the employees at a price somewhat lower than market. The particular stock sold the employees may be either the regular common stock, preferred stock, or a special stock issued for the purpose. Occasionally, the company would pay the employee a special bonus such as \$2 extra for each share of stock he held for a period of 5 years or some agreed period. Most of these purchase programs progressed nicely as long as the market value of the stock remained above the purchase price to the employee. When the market price fell below the worker's purchase price, it tended to have a morale-depressing effect rather than a morale-building effect, particularly if the employee had not paid in full for his stock and especially if the market price fell below the amount he still owed on his stock, a situation that arose at times. Of course, if the stock had been given to the employee as a share in profits, the depressing effect was not so great, yet even in such cases the employee would frequently ask himself, "How much better off would i have been if I had sold my stock when the price was up?"

The tendency for common stock and, to a lesser degree, preferred stock, to fluctuate in price creates a situation not favorable to stock ownership by most workers. As a rule, they are not in a position to bear the risks involved in stock ownership. This is doubly true when

it is recalled that these depressions in stock prices usually come at a time when the employee has reduced earnings or in some cases no earnings at all. The desired security is not present if the employee is forced to sell his stock at a loss when he is laid off. Another fundamental in investment is also violated, namely, diversity in holdings. If both the employee's investments and his wage come from the same "basket" he has usually placed too much of his "hoped for financial security" in one place. Some companies may be in such a stable financial position that they guarantee the employee's investment, but, such companies are rare.

Helen Baker of the Industrial Relations Section of Princeton University has summarized the status of employee stock ownership as follows:¹

In weighing the experience with and opinions on employee stock purchase plans, it is apparent that such a plan must be hedged about with many guarantees to give to it the double assurance of security and liquidity that is essential to any sound employee savings plan. Many companies have questioned the wisdom of assuming this responsibility or of their absolute ability to do so. More than a majority of companies giving an opinion do not wish to renew such a plan—especially not for rank-and-file workers. About half of the continuing plans are for the sale of preferred stock, a few are for stock not sold on the market, and six are for offerings to higher-salaried employees only. From a comparison of executives' comments on experience and the stock price ranges, it is evident that management is often inclined to underestimate the possible losses to employees. Although there are a few executives who still feel that employee's stock ownership is valued by the workers and that it is an excellent method of gaining their interest in the company's success, the predominant opinion is that this interest may be gained in other ways and the employee savings encouraged in a much less hazardous program.

¹ Helen Baker, *Employee Savings Programs, An Analysis of Recent Trends*, Industrial Relations Section of Princeton University, Princeton, 1937, pp. 28-29.

CHAPTER XXIX

SAFETY, HEALTH, AND RECREATION

The History of the Workmen's Compensation Movement.—The first theory of compensation, developed in Europe, gave the injured or disabled employee the right to claim damages if he could establish the proper evidence that the accident was due to some personal fault or negligence of the employer. If the employer could plead "contributory negligence," *i.e.*, show that the workman himself or another worker contributed to the accident in any way, or that, through the exercising of ordinary care, he could have avoided it, no damages could be claimed. Likewise, an employer could disclaim responsibility on the grounds that the accident was due to the inherent hazards of the job and that the employee had knowingly agreed to assume the risk. Still further, the employer could protest workers' claims for damages when injury or accident was caused through the negligence of fellow workers, for example, a bricklayer could make no claim for compensation from the employer if he were injured by the collapse of a scaffolding erected by the workers themselves. Relatives of workers killed on the job were not entitled to damages.

It is not difficult to see that in the very nature of things it was possible in only a very few cases to show that accidents were the fault of the employer. The result was a rapid increase in litigation, with little benefit to the injured workman. As the problem became increasingly serious, particularly in the more hazardous industries, it attracted the attention of European legislators.

Early remedial efforts were directed at a change of the burden of proof, *i.e.* they attempted to make the employer show that the accident had occurred without negligence on his part, rather than requiring the worker to establish the negligence. The next step was to make the employer responsible for accidents due, not to negligence on the part of either, but to inevitable hazards of the job. However, even these concessions did not cover nearly all the accidents and failed to give satisfactory treatment to workers.

The movement for compensation legislation in the United States began about 20 years later than it did in Europe. Here, as in Europe, the principles of "contributory negligence," "fellow worker," and "assumption of risk" made employers' liability very unfavorable for

the employee. For years, legislative efforts to increase the liability of employers were bitterly resisted, and only a few accidents were compensated at all. However, near the close of the last century, a change in thought took place, and by 1900 legislation favoring workers' compensation appeared. In most states, the question of negligence is now eliminated; and the right of workers injured or disabled on the job and of relatives of the workers killed to claim damages, irrespective of the cause, is established.

One way of handling workmen's compensation is for the state to establish a fund administered by an appointed board and to require every employer in the state with five or more employees to pay into this fund a percentage of his annual payroll. The percentage of payments varies for different employments, being higher for those jobs that are more hazardous and should, therefore, bear a relatively higher portion of the costs of industrial accidents. For example, an employer having a punch-press department is exposing employees to a greater hazard than one employing office help only. One important feature of the better type of such plans is that each employer is given a rating, and, even though the concern may be engaged in a hazardous project, the "accident experience" is taken into consideration in setting the amount paid annually into the fund. Hence, there is a financial inducement for every employer to safeguard the workers.

In some states, the workmen's compensation funds are not actually handled by the state authorities, but the employers are required under the law to provide adequate accident insurance through insurance companies. Some states permit the employer a choice of contributing to the state fund or providing proper protection through the insurance companies.

All that has been said in the foregoing, as applied to industrial accidents, is applicable to such cases as result in the death of the worker. The following case is illustrative of the difficulties involved in administering workmen's compensation. A college dean was invited to make the baccalaureate address at a high school. During the exercises he was handed a bouquet of roses. A thorn pierced his finger **and** he died of blood poisoning therefrom. His widow claimed compensation and was refused by the compensation board. The case was taken to the courts. They overruled the board on the ground that it was part of a college dean's duty to address graduating classes of **high** schools; therefore, his death was compensable since it occurred in line of duty. The current tendency is for compensation boards **to** interpret the cause for compensation liberally in favor of the **injured workmen**. **It is presumed that industrial accidents are a charge**

against the industry in which they occur and can best be compensated for, as far as this is possible, on an insurance basis spreading the risks to be paid by the employer on the basis of the total persons employed by a particular firm rather than to have the injured employee bear the burden as was formerly the case.

The first successful workmen's compensation law was passed by the state of Washington in 1911.¹ Up to the present time (summer, 1941), a total of 47 states have passed laws covering workmen's compensation, Mississippi being the only state without such a law. These laws vary in many details such as: the extent of coverage required according to the number of employees, special exemptions based on hazards; whether or not an employer or employee may elect to come under the provisions of the act (suits for damages are open to injured employees if they are not covered by the act; in a few states, suits for damages under certain conditions will be entertained even though the employee is covered by the act); the waiting period before the injured employee begins to draw compensation; the amount and length of period that compensation is paid; the amount and method of payment of death benefits; total disability, partial disability, second accidents, etc.²

Industrial Hazards.—Fifteen thousand five hundred workers in industry within the United States were killed during the year 1939. This showed a decrease of 3 per cent from the 1938 record in spite of increased industrial activity during 1939 over that of 1938. Permanent disabilities for 1939 numbered about 50,000, and the temporary disabilities were approximately 1,250,000 for 1939. The direct cost of these accidents as measured in terms of wages lost, medical expense, and the overhead cost of insurance was in the neighborhood of \$600,000,000.³ This direct accident cost is by no means the only or the major cost. H. W. Heinrich has estimated that the indirect costs of accidents are approximately four times as great as the direct costs. He lists the following factors as constituting items in the hidden or indirect costs to the employer for injuries to his employees:

1. Cost of lost time of injured employee.
2. Cost of time lost by other employees who stop work.
 - a. Out of curiosity.
 - b. Out of sympathy.

¹ See Dale Yoder, *Personnel and Labor Relations*, Prentice-Hall, Inc., New York, 1938, p. 368.

² See *Monthly Labor Review*, March, 1940, "Principle Features of Workmen's Compensation Laws, as of Jan. 1, 1940" for a detailed discussion of the various provisions of the respective state laws.

³ See National Safety Council, Inc., *Accident Facts*, 1940.p. 16.

- c. To assist injured employee.
- d. For other reasons.
- 3. Cost of time lost by foremen, supervisors, or other executives as follows:
 - a. Assisting injured employee.
 - b. Investigating the cause of the accident.
 - c. Arranging for the injured employee's production to be continued by some other employee.
 - d. Selecting, training, or breaking in a new employee to replace the injured employee.
 - e. Preparing state accident reports, or attending hearings before industrial commissioners.
- 4. Cost of time spent on the case by first-aid attendant and hospital staff, when this time is not compensated by insurance.
- 5. Cost due to injury to the machine, tools, or other property, or to the spoilage of material.
- 6. Cost due to interference with production, failure to fill orders on time, loss of bonuses, payments of forfeits, and other similar causes.
- 7. Cost under employee welfare and benefit systems.
- 8. Cost in continuing the wages of the injured employee in full, after his return—even though the services of the employee (who is not yet fully recovered) may for the time be worth only about half his normal value.
- 9. Cost due to the loss of profit on the injured employee's productivity, and on idle machines.
- 10. Cost of subsequent injuries that occur in consequence of the excitement or weakened morale owing to the original accident.
- 11. Overhead cost—the expense of light, heat, rent, and other such items—that continue while the injured employee is a nonproducer,¹

Using Heinrich's ratio of indirect costs of accidents, the total cost to industry for the accidents of 1939 would be slightly less than \$3,000,-000,000. This is an appalling figure, especially when it is recalled that this is largely avoidable waste in human energy and suffering. The only bright side to this dark picture is the fact that the *frequency rate*² of industrial accidents has decreased 69 per cent and the *severity rate*³ has decreased 50 per cent since 1926.⁴

Justification for the Safety Movement.—There are two logical bases for an active managerial interest in safe working procedures, namely, humanitarian and economic. The humanitarian aspects of

¹ H. W. Heinrich, "Cost of Industrial Accidents to the State, the Employer, and the Man," *Monthly Labor Review*, Vol. 31, No. 5, November, 1930; also see National Industrial Conference Board, Inc., "Medical and Health Programs in Industry," *Studies in Personnel Policy* 17, New York, 1939, pp. 24-25.

² The frequency rate of accidents is the number of disabling injuries per million man-hours worked.

³ The severity rate of accidents is the number of days lost per thousand man-hours worked.

⁴ See National Safety Council, Inc., *op. cit.*, p. 18.

safety have long been recognized, but relatively little was done about it until it was pointed out that not only should industry be interested in the safety of its workers because it was the socially and morally correct thing to do but that efforts expended in this direction paid in dollars and cents.

Practically every phase of human relationships in industry has received increased attention during the past decade. The search for security has demanded national consideration. Safe working conditions are a vital part of the security sought. The unfortunate victim of an accident not only suffers physical pain and diminished earning power with a resultant lowering of the standard of living for himself and dependents but also a lowered morale that at times is even worse than either of the other two. The lowering of morale not only affects the individual worker and his family but also his associates in the workplace. The morale effect of unsafe working conditions permeates the entire industrial community and definitely influences public relations and the public attitude toward the industry with a poor record. Morale that is depressed by unsatisfactory working conditions is a real factor in increased production costs.

Using the estimated cost of the 1939 accidents to industry as a basis and applying the percentage decrease in frequency and severity, it can be seen that, had the same ratio of accidents prevailed in 1939 as in 1926, the cost to industry would have been slightly less than \$6,000,000,000. The savings accruing to industry through the efforts to eliminate accidents can thus be seen to be approximately \$3,000,000,000 per year. This figure is so large that it is difficult for one to grasp its significance fully. The United States Steel Corporation reduced its disabling accidents by 88 per cent from 1912 to 1936, and the General Motors Corporation reduced the frequency of its accidents 80 per cent and the severity rate by 44 per cent from 1927 to 1938.¹ Reducing these costs to the average cost for each compensable injury, it would appear that each injury costs approximately \$1,230 when indirect costs are included. Although the hazards of different industries vary, a sheet-metal industry working 500 men each 2,000 hr. a year on the 1939 average would have 10.5 disabling injuries. The total cost of these accidents would be approximately \$12,915. A reduction of 50 per cent in these accidents would result in a saving of \$6,457.50. This is a simple illustration of possible savings in an industry that already has a good record in comparison with previous performances.

¹ W. H. Cameron, Managing Director, National Safety Council, Inc., June 15, 1939.

Charles R. Hook, president of the American Rolling Mill Company, said:

You may be interested to know that at almost every meeting of the Board of Directors, the company accident report is read and explained by the vice president and general manager. The Board members recognize that the accident report is an important barometer of organization effectiveness and if this index is not where it should be, then the general management had better get busy.¹

Judge Elbert H. Gary, chairman of the board of the United States Steel Corporation, which spent over \$100,000,000 in safety work in 10 years, said, "It pays in dollars and cents as a net result in profits during the year to make the most liberal expenditures in protecting the lives and persons of employees."

The American Engineering Council conducted an investigation in an attempt to ascertain the connection between safety and productivity in manufacturing or industrial establishments. This survey, too comprehensive and involved to give the details here, included 13,898 industrial companies, giving a complete cross section of American industry. The statistics forming the report of this survey show a positive connection between safety and production, there being ample evidence to indicate that -the industries progressing in regard to production, improving in method, and getting more productive working hours are also improving in regard to safety. In other words, efficient factories are the safe factories and vice versa.

Organization for Safety Work.—It is highly desirable that one man be made responsible for the over-all safety activities in an industry. This does not mean that his responsibility relieves the line officers of their duties. In the final analysis, the operating department heads are primarily responsible for safety in their respective departments. The director of safety, safety engineer, or whatever title he may bear, is a functional officer whose duty is to supplement the efforts of the line officers with specialized skills. This type of organization is merely an extension of the staff principle making use of the efficiencies of specialization. The exact location of the safety department within an organization will depend largely upon the other organizational structures. The safety function is an important one in many industries, and the responsible functional officer should report to an important official such as the director of personnel, plant superintendent, or

¹ Charles R. Hook, "Industrial Safety, Its Relation to Business of Today," as reported by the National Safety Council, Inc., *Silver Jubilee Safety Congress*, 1938, p. 21.

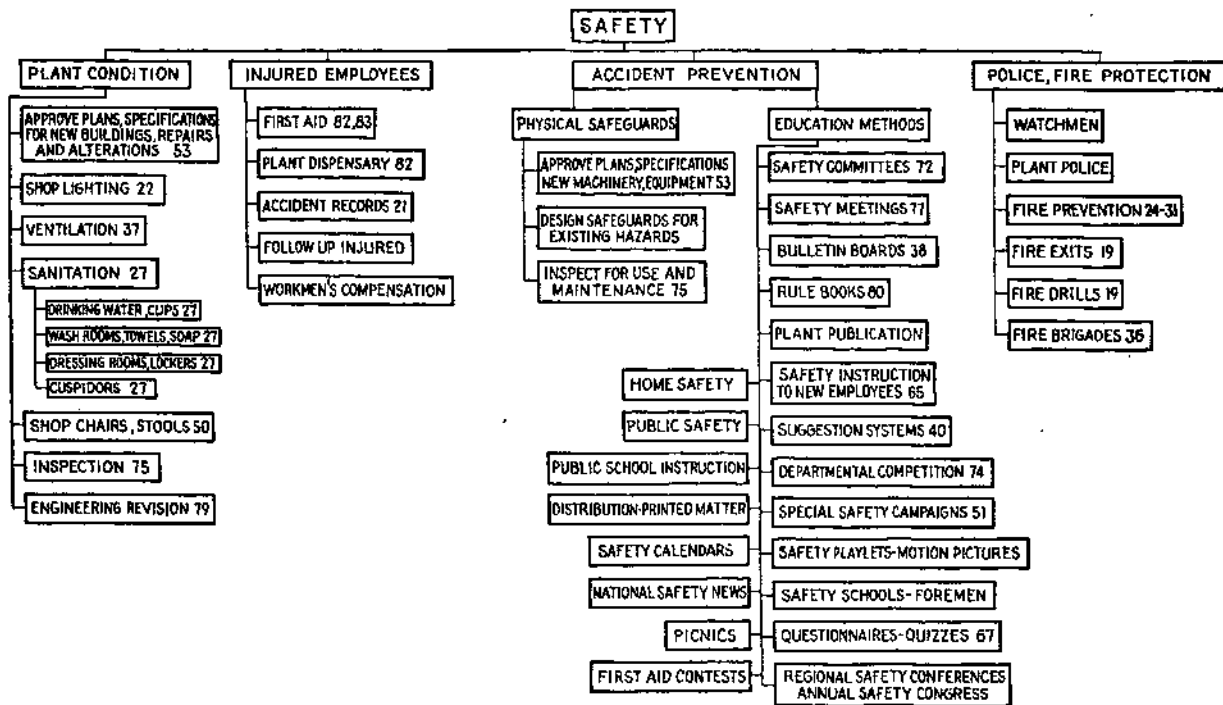


FIG. 82.—Chart of activities of typical safety department. (Reproduced by permission of the National Safety Council, Inc., from *Safe Practices Pamphlet 42, "Organizing a Complete Industrial Safety Program,"* 1939, p. 3.)

general manager. In the Western Electric Hawthorne Plant, the safety activities are assigned to the public relations department. In smaller organizations that cannot support a full-time safety director, this function may be delegated to the plant superintendent, employment officer, general foreman, or some other responsible executive.

Even though there may be a full-time safety engineer, the safety organization may well include one or more safety committees. One of these committees should include foremen and major supervisors with the ranking executive as chairman and the director of safety as secretary of the committee. This committee should serve as a policy-determining committee with power to pass upon most of the proposals that may come before it. There may also be departmental or divisional employee safety committees, the membership of which is rotated from time to time to get varied viewpoints and to act as an educational medium. The employees' safety committee may well make periodic inspections and recommendations regarding safe practices and procedures.

Figure 82 is a suggested organization chart for a safety department. It is evident that this complete organization is not feasible in the small plant. The police and fire protection may logically come under the safety department as shown in the organization chart. However, police and fire protection frequently come under the service division of the plant along-with maintenance, janitor service, internal transportation, etc. The medical department, with its first-aid stations, may come under the safety department, yet it more frequently comes under the personnel department or as a separate department reporting to the general manager. Even though the medical department and the police and fire departments are not directly under the safety department, there must be close cooperation between these departments if each is to discharge its responsibility most effectively.

The organization of the safety department naturally grows out of the function to be performed by the department. These functions briefly summarized are: (1) to focus the attention of management upon the advantages of safe practices and the waste inherent in any deviation from such practices; (2) to develop in the entire working force a wholesome regard for safety in operations and regard for sanitary working conditions; (3) to study the experience of the organization in safety and to devise ways and means of improving unsatisfactory performance; and (4) to be ever on the alert for new devices and safeguards to improve conditions even though for the moment these conditions may seem to be satisfactory in the light of the known techniques.

Health of the Worker.—Data that are in any sense comparable to the statistics of industrial accidents have not been collected regarding the industrial waste arising out of illness due to the worker's occupation. This situation is readily understandable. Records are not difficult to compile regarding most accidents in the plant. The cause of these accidents is more easily established than the cause of a particular illness. The worker is present in the plant when most accidents occur, but he is nearly always absent when sickness occurs. Studies that have been made of this subject are meager. Some estimates place the lost time arising from disabling illness as high as 2 per cent and that for every person incapacitated because of illness at least two others were handicapped because of prevalent or chronic diseases to the extent of 10 to 50 per cent of their efficiency.¹ The few studies that have been made public show that lost time due to illness and nonindustrial accidents is in the neighborhood of twelve times as great as the lost time due to industrial accidents.² Absenteeism due to industrial or occupational diseases probably does not exceed 3 per cent of the total absenteeism; nevertheless, neglect associated with occupations may be a contributing factor to illness not directly associated with the occupation. Medical service is more productive in rendering preventive aid than in curing the patient once afflicted.

It is an almost universal practice for large companies to use a physical examination as a prerequisite of employment. This is the first step in health protection and conservation. By the use of physical examinations, management has in mind the following objectives:

1. The elimination of those who are unfitted for the job and the elimination of those with communicable diseases.
2. The detection and prescription for remediable defects.
3. The proper placement of those unfitted for one type of work but entirely fitted for another.
4. The maintenance of the health of those who are healthy when employed.

Employees often have serious objections to medical examinations, in communities where physical examinations have not been customary believing that they are used as a method for unjust discrimination. Thus it is up to management to remove such doubts from the workers' minds and assure them that the examination is for protection and not for abuse.

¹ National Industrial Conference Board, Inc., *Studies in Personnel Policy*, 17, "Medical and Health Programs in Industry," New York, p. 21; also see W. S. Rankin, "The Economics of Medical Service," *American Journal of Public Health* April, 1929, p. 360.

² National Industrial Conference Board, Inc., *op. cit.*, p. 21. '

Initial examinations at the time of employment should later be followed up by periodic examinations. In hazardous occupations, these reexaminations are particularly important and necessary in order to prevent industrial accidents and diseases. With proper records, these examinations also point out the dangerous spots in the industry and lead directly to suggestions for the safety engineer. Whole departments have been reorganized by virtue of the fact that the medical department discovered certain hazards unrecognized before.

In carrying out a health program, every effort to secure the cooperation of the foremen and the rank-and-file workers has to be made. They must come to understand and sympathize with the program so that they will have some desire to protect their own and the health of others. It is also necessary to cooperate with the community and local health agencies, for the relation between industrial health and the local water or milk supply, or sewage systems, for example, is obvious.

Health Service.—The work of educating employees as to how to protect and preserve their health falls short of its objectives if a company does not provide adequate health-service facilities for the workers. Hospitals and dispensaries for employees temporarily indisposed while on the job and full-time physicians for prescribing beneficial treatment can save many hours of time by enabling the employee to return to the job. Required dental examinations and prompt dental service may prevent serious physical ills, such as rheumatism and the like. Optical service may likewise prevent illnesses or accidents.

A nurse to administer treatment in case of accident and to give counsel and instruction on health problems, not only to employees but to their families as well, plays a large part in the health program. However, it is difficult to establish a proper attitude on the part of the employees in regard to the visiting nurse. It is her duty to visit all employees absent from work and to report the conditions she finds. If she finds illness and distress, she can render the most valuable assistance and be of service. If, however, she finds no sickness and discovers that an employee is out for other reasons and so reports, she is immediately looked upon as a truant officer trying to meddle into the employees' private affairs. Her position is extremely difficult, and she must of necessity be a person with an unusual amount of tact and the ability to invite confidences if she is to render service to workers in the promotion of health within the organization and outside as well. **The prime function of the visiting nurse is to aid the employee in preserving his health. Any other activity should be purely incidental if the nurse is to be of maximum service.**

Although the medical department can only give instructions and advice about proper diet and food values, the company can actually provide proper and healthful food for the employees. The development of factory lunchrooms or cafeterias was definitely an outgrowth of the realization on the part of management that properly cooked, healthful, and nourishing food supplied to employees makes for a healthy and, hence, a more efficient working force.

Lunchrooms are especially desirable where the plant location is such that workers either have to bring their own lunches or eat at various places that may have grown up near the premises. Getting away from the working environment and eating in clean and comfortable lunchrooms also has a good mental effect upon employees. Company lunchrooms are not usually operated to make profit; food is ordinarily served at a nominal price, covering little more than the cost of the food. Lunchrooms are definitely a health service, and management furnishes the overhead, such as floor space, heat, light, etc., free of charge.

The Place of the Medical Department in the Organization.—By virtue of the professional requirements of the personnel of the medical department, or first aid in case there is not a trained physician, it is customary to have this a separate department reporting to the office manager, personnel director, plant manager, or executive of the grade of general manager. According to the survey of the National Industrial Conference Board, Inc., there has been a definite trend to place the medical department under the general supervision or direction of persons of high executive rank. This survey shows that the medical departments in 1920 were under the industrial relations or employment manager, office manager, etc., in 47.0 per cent of the cases and under an executive of the grade of general manager in 31.5 per cent of the cases studied, whereas in 1938 the percentages had changed to 20.0 and 66.4, respectively.¹ This trend sheds considerable light on the shifting emphasis being placed upon the importance of the medical department in recent years. It is by no means certain that such a change meets the requirements of good organization. The personnel director is basically a functional officer whose interest should cover every phase of the employees' activities other than actual production itself as far as it affects employee relationships. There is no function of a medical department that can be better performed by having it under the general manager rather than under the director of personnel, provided the personnel director has a place in the organization that is commensurate with the natural functions that logically fall under his

¹ National Industrial Conference Board, Inc., *op. cit.*, p. 8.

supervision. The trend in sound organizational procedure is to group like functions under divisional heads and to have these divisional heads report to the general manager rather than to have a large number of unrelated departments report to the general manager. In the case of the medical departments, this principle is apparently being violated.

No matter how extensive and complete the safety and health programs, some accidents and illnesses will take place. This being the case, training and facilities for emergencies are essential. Through the organization of a first-aid staff in a company, workmen, including the supervisors, can be given instruction and practice as to how to render first-aid treatment to fellow workers. In this way, one employee can do a great deal toward the quick recovery of another worker or even save his life.

Where the occupations are unusually hazardous, regular classes of workers from each department, meeting periodically for first-aid instruction, are desirable. In the less hazardous industries, pamphlets, bulletin-board material, and talks or illustrated lectures may be used to give such information and to impress the workers with the importance of first-aid treatment.

Most large companies provide suitable first-aid stations or dressing rooms, equipped to take care of major as well as minor injuries. In some companies, there is a central station or hospital, as well as first-aid equipment distributed at various points throughout the plant. Some industrial accidents are very serious. However, there are a great number that take place continually that are of a much less serious nature, but these should have attention nevertheless. The presence of a first-aid station near the workplace has a tendency to facilitate the employee's having minor injuries treated and thus reduce infections. Reports for 1939 show that one out of every twelve compensated injuries was an infection case. If infection had been avoided, many of these cases would not have been compensable. The typical infection case is a neglected scratch or puncture that, if properly cared for at the time, would not have caused any lost time other than the time out for having the wound treated.¹

To meet the requirements of industrial practice, the industrial physician should have the same technical background as the private physician with added training in the general principles of personnel administration, unemployment and workmen's compensation, and a general understanding of the industrial processes as they affect the health of the employees. A large part of the industrial physician's service is in preventive medicine and consultation with employees

¹ National Safety Council, Inc., *Accident Facts*, 1940, p. 26.

Workers frequently reveal things to the physician that are of general concern to the management. Without violating confidences, the industrial physician frequently becomes the medium of solving difficult problems in industrial relations.

Educational Aspects of Safety and Health Service.—Any educational program, to be of maximum service, should be adjusted to meet the needs of the particular situation. This is almost a truism, yet the number of cases in which this principle is violated is legion. To plan an educational program for safety and health maintenance requires an understanding of the facts of the situation needing to be improved. The facts usually can be secured if time and effort are expended on the task instead of engaging in the pastime of wishful thinking. The facts usually are revealed from a careful analysis of the records.

1. *The Use of Records in Health Maintenance and Safety.*—One of the major functions of the first-aid station or the doctor's office is the careful recording of all cases treated. The frequency of cases from the various departments should be studied from time to time both by the medical department and the safety director. A careful investigation of the cause of each accident of any consequence will often reveal conditions that demand immediate correction. Accidents may be classified according to three main groups, namely,

- a. Those due to mechanical causes, unguarded machinery, defective equipment, and the like.
- b. Those due to physiological causes, such as overfatigue and nervous strain.
- c. Those due to mental causes, inexperience, carelessness, emotional disturbances, and ignorance.

An analysis of accidents in the three main groups frequently suggests the remedy. The same situation prevails with respect to occupational diseases. All persons are not subject to the same reaction to working conditions. Some individuals are allergic to eggs, whereas others thrive on them. Some individuals are highly sensitive to the presence of certain chemicals, whereas others are seemingly unharmed by these same chemicals. An alert physician frequently can detect these cases of unfavorable reaction to a given situation and recommend a transfer to another job suited to the individual. A careful analysis of the follow-up records in comparison with the initial hiring physical examinations will frequently reveal certain defects that have no special influence upon the worker's efficiency and others that are a danger signal for certain occupations.

A simple illustration of the use of records in the safety program is suggestive. A large Midwestern meat packer having plants in many cities had long been engaged in safety promotion. The safety director was proud of the

record of the plants and the various publicity programs and contests that had been conducted. One day a representative of the central personnel department was to visit one of the plants some four hundred miles from Chicago. He asked the safety director of the entire organization if there was anything he would like to have him check for him while on this plant visit. The reply was, "Yes, we have had eight cases of hernia out there in the past two years and we do not seem to be able to do anything about it. ' We have had first aid competition, bulletin boards, and departmental contests but the record is still bad." After caring for his other duties, the personnel representative asked the plant manager about the hernia situation. The reply was, "Well, we have just had tough luck. One cannot always tell ahead of time when a man has a predisposition to hernia." The personnel man asked to see the records of all of the hernia cases. On examination, it was found that four of these cases had occurred in the beef-cutting department and four in the curing cellars. Further investigation showed that the men in the beef-cutting department had all been injured on the same job, which was lifting a can filled with bones. The other four men in the curing cellar also had been injured on the same job, namely, a trucking job. On walking through the plant with the plant manager for an inspection of these two jobs, it was found that someone had had an idea that if larger cans were used for the bones the cans would not have to be emptied so often. The cans in use simply were too heavy for one man to lift. Needless to say, the proper sized cans were immediately secured. In the curing cellar, it was found that the accidents had all occurred at the bottom of a small ramp where the floor had sagged. The truckers who had been hurt were moving by hand a two-wheeled truck loaded with about 1,000 pounds of meat. When the truck hit these holes, the trucker would be subject to a sudden strain. The floor was immediately repaired, and no other cases were reported from this plant for a 4-year period. These records had been available to the management all the time, but they had relied on safety campaigns rather than a little constructive analysis.

2. *Educational Devices.*—The foregoing illustration might cause the uninitiated to discount safety campaigns. Such should not be the case. A sound safety program does not rely upon contests to take the place of scientific management, but it does recognize the usefulness of safety contests, publicity programs, and any other means of developing a safety consciousness on the part of employees. One danger that must be guarded against in safety contests between departments is the tendency on the part of department heads to pad their records by keeping men on the job doing half a man's work just to avoid having a lost-time accident charged up against the department. This situation is merely a management defect and does not have to exist. Whole-some rivalry between departments with a graphic record of performance posted in a conspicuous place develops a sense of safety awareness in the organization. These sporadic efforts do not take the place of

detailed instruction and follow-up on the job, which is a continuing responsibility of the management. Moving pictures of safe practices may be used effectively. Bulletin boards, when kept up to date, provide an excellent medium of safety education. Departmental inspection by committees of employees is also used effectively in developing safe practices and in discovering potential hazards.

An important phase of safety education is the training of the supervisors. Many of these men themselves have risen from the ranks and are not "sold" on safe practices, especially the caring for abrasions, small cuts, and punctures that cause most of the cases of infection. The executive training program should have the subject of safety as an item of special consideration from time to time. This conference should be built around factual analysis of departmental records and not merely an interest-creating meeting. The cold facts, when presented analytically, will be both interesting and challenging.

Recreational Activities.—The range of organized employee activities, such as recreational, social, and athletic organizations, is as wide and the types as numerous as the ingenuity of the various executives, personnel manager, and recreation directors can devise. We find methods all the way from the informal procedure of presenting a sack of flour to a newly married employee to the maintenance of recreational buildings and parks for formal, organized activities.

^x Some concerns spend a great deal of time and effort in building up athletic teams and in promoting both company and intercompany leagues for baseball, basketball, bowling, and the like. Others concentrate their efforts on the development of minor games and contests, such as pool, horseshoe pitching, and what not. Still others have musical organizations, orchestras, bands, drum corps, and some firms have extended employee activities to dramatic and literary clubs. On the other hand, some concerns confine activities of this type to one large annual picnic to which all employees and their families are invited. The size of the community and community facilities often influence the nature and extent of recreational activities. In the smaller communities, it is not unusual for a large corporation to promote more elaborate recreational programs than is customary in larger cities. Nevertheless, large corporations in our metropolitan areas frequently have comprehensive programs. The Western Electric Company, Hawthorne Plant, Chicago, and the Chrysler Motor Corporation of Detroit are two good illustrations of such programs in large cities.

Most organized employee recreational activities serve to build or maintain health and also come under the general head of morale-

building endeavors. When properly organized, they serve the purpose of making the employees' social and recreational lives more interesting and complete. These activities also serve a particular purpose in assisting the new employees in getting acquainted and finding outlets for their particular social or recreational interests.

However, morale-building devices are not necessarily confined to such organizations. A device found to be most efficient in some cases is the service insignia. This takes many forms, ranging from the service stripe, such as the gold arm band worn by uniformed railroad employees, to the elaborate bejeweled lapel button, showing the number of years of service.

This brief mention of employee activities is merely an attempt to point out a few of the many and varied methods and procedures employed in advancing morale—a more friendly feeling between the employer and the employee.

Administration of Service Activities.—As has been previously suggested, the administration of service activities depends not upon their intrinsic value alone, but to a far greater extent upon the degree in which the employees are willing to accept, cooperate, support, and thus benefit through their use. Many of these service features are extremely personal and intimate in character; because of this fact, the slightest suggestion of paternalism on the part of management is likely to create indifference or even resentment on the part of the workers.

Employees do not wish to be merely parts of an organization that doles out certain measures to protect their welfare; they want rather to feel that they belong to the organization and that they are actively taking part in protecting their own welfare as well as that of their fellow workers. To accomplish this, a most democratic attitude toward service activities is necessary on the part of management. This is true to an even greater extent in connection with recreational activities. For example, a group of employees will undoubtedly be far more enthusiastic about a tennis court that they have planned and helped to build and pay for, than one that the company laid out and merely handed over to them. Similarly, a professional theatrical performance presented to the employees under the auspices of management might be infinitely better than one given by the employees themselves, yet the latter performance usually will be more appreciated and enjoyed.

Thus, it may be that the most extensive and elaborate recreational activities administered paternalistically, or if not so administered if workers have that impression of them, may be far less effective in attaining the desired loyalty and cooperation of the employees than

the simpler activities democratically administered and allowing for employee initiative and responsibility.

The House Organ.—Closely related to employee recreational activities in morale building is the company paper.¹ There are two types of company publications; one is addressed primarily to the customers and the sales organization, and the other is directed to the employees. Both types strive to develop good will. We are primarily interested in the internal paper published for and at times by the employees. The plant publication should serve the social needs of the economic unit to which it is directed. The business enterprise is in a very real sense a social unit. The employees are interested in news items about their various activities and will read the plant paper if it contains items about themselves and their associates, about their work and the relationships between the various departments, and company items in which they are interested. The company paper provides an excellent medium for informing the employees of changes in company policies or of restating established policies. Care must be exercised not to develop the plant paper into a propaganda sheet for a particular partisan philosophy, or it will not be read. Well-edited articles on company operations and processes will be read by the employees, since they like to read about activities in other departments as well as about their own work. Such articles are often taken home to be read by members of the workers' families. Timely articles on safe practices, health preservation, special holidays, etc., have a place in the house organ. Articles describing the educational programs available to the employees and the promotion of deserving employees will be well received. Balance is the key to a successful plant paper. Employees will read instructional articles, provided they are interspersed with items of a personal interest. First of all, they are interested in themselves. Personal items of a family or social nature command immediate interest. Most people like to see their names in a paper. These same people will read every word in a paper in the hope that their names will appear. The larger the number of different names that appears in each issue, the more widely will this issue be read. The publication of the names of persons who have made suggestions is flattering to the individuals and gives favorable publicity to the suggestion system. A well-edited house organ serves as an educational medium and is a strong factor in developing favorable morale.

¹ See Melvin Greenstein, "An Analysis of Employee Publications," *News Bulletin*, School of Business of the University of Chicago, Oct. 25, 1940.

PART V

INDUSTRIAL DEMOCRACY AND SOCIAL CONTROLS

CHAPTER XXX

EMPLOYEE REPRESENTATION

There have been many interpretations of the meaning of employee representation. Some have sought to restrict its meaning to include only those programs in which the employees are in a position to enforce their collective desires with a fair measure of success. We are not concerned with the effectiveness of any representation plan from the standpoint of force but with any type of plan that enables the employees to express their desires to management. Our usage of the term will include the committee form of representation, the industrial democracy type of representation, the company union, the independent non-affiliated union as well as the independent union affiliated with one of the federations such as the American Federation of Labor or the Congress of Industrial Organization, or any other form for representing the collective will of the employees. It may concern itself only with those activities that have a direct bearing upon the *worker-in-Ms-work unit*, or it may include representation of the workers on the board of directors.

Theory and Purpose of Employee Representation.—We have studiously avoided such terms as capital vs. labor, which imply a group concept, and have attempted to fix in the reader's mind a concept of the workers as individuals, each and every one possessed of capacities and interests, engaged in productive labor, employing the property of the owners, and directed by managers as the representatives of the owners. It should be plain, of course, that one individual might actually be and perform the function of owner, manager, and worker at the same time, or function in any one of these relationships at various times. For example, a master plumber may own his shop, employ others, and work himself. Ordinarily, however, in mass production the three functions of ownership, management, and manual effort are performed by separate groups of individuals. The separation is commonly physical, but, more important, it is often widely psychological.

Theoretically, management is supposed to act as a go-between for transmitting the policies, projects, and purposes of the owners to the workers and, conversely, to communicate the capacities and interests of the workers to the owners in such a manner that all the workers, including the managers themselves, will find their best opportunities.

The broad policy of the owners is to make a profit; the specific projects of the owners are directed at profit; the purpose of the owners is the continuation of the enterprise at a profit. Everything we have said and everything we expect to say recognizes and agrees with the concept of private property and the profit principle of industry, a factor too often overlooked entirely or at best made subsidiary in the preachings and teachings of industrial specialists. In a discussion of employee representation, it is especially easy to be so diverted by enthusiasm for social justice that the profit purpose of an industrial enterprise may not receive its due emphasis. It should not be forgotten that, up to the present at least, social justice has existed in the highest degree in those countries that recognize the individual's right to private property and the free use of that property so long as he does not infringe upon the mores of the community.

The common stockholders elect representatives known as directors. The directors in turn appoint their representatives, the managers. The managers then appoint submanagers, who in turn employ the manual workers. When an enterprise is small, the lines of communication to and fro between the workers and the owners may be simple, open, and direct. When the enterprise is large, however, the lines of communication are complicated, obstructed, and indirect. Employee representation is the short line between the industrial terminals. Misunderstandings between the employer and the employees largely tend to disappear when they have close personal contact with each other. The larger the enterprise the more difficult it becomes to maintain these personal contacts. Misunderstandings lead to industrial disputes that result in great social and economic waste. Employee representation plans are designed to bring the employer and his men closer together for the benefit of both. To the extent that this is accomplished, such a program *actually pays*. It should be frankly admitted that ulterior motives may be behind some such plans either on the part of the employer or the employees or both. It is possible for the employer and his employees mutually to agree to an action that is not for the public good. This situation may arise in a monopoly.

In the succeeding discussion of the mechanics of employee representation plans, it is most important to realize that a poor plan

operated with intelligent sincerity has better chances of success than a good plan in which sincerity and right intentions are lacking in the least degree among either of the contracting parties to the plan.

General Classification of Employee Representation Plans.—Each specific employee representation plan has some special characteristics designed to meet the individual circumstances and needs of the enterprise using it. Nevertheless, even though striking differences as to organization exist, all plans, no matter what they are named or how they are officially constructed, can be classified according to the degree of control that management actually surrenders to the workers. This classification by no means implies that the authors think that worker control is essential to a satisfactory relationship. An advisory relationship in one case may be more satisfactory than a control relationship in another.

First, there is that group of employee representation plans, usually having shop committees, that furnishes opportunity for the workers' representatives to confer with management and tell them what the workers want on matters strictly pertaining to working conditions (and living conditions where the concern owns workers' residential property). Under this plan, much of the conference time is taken up in discussion of safety, health hazards, physical working conditions, and the like.

The second group of plans extends the workers' control to allowing them to participate in the actual determination of the minor policies, those concerned with working conditions, but does not give the employee representatives a voice in the determination of the broader or major executive policies of management.

The third group of representation plans turns over to the representatives of the workers and of the owners the determination of practically all the policies of the enterprise. In this case, the employees are represented on the board of directors and have an active part in determining the policies not only concerning working conditions, but those dealing with the administrative and executive phases of the business as well.

The fourth group consists of a few plans in which the owners completely surrender all the prerogatives previously thought to be inherent in their representatives—management. The representative of the workers and management have full and complete authority in the determination and execution of all the policies; the owners retire from active control entirely. The workers run the business, the only **stipulation from** the owners being that the business must be conducted **at a profit.** As long as it is **successful and** pays dividends, **the owners**

in no way interfere with any of the rulings or policies set up by their own representatives and the representatives of the employees.

The fifth group of plans are those recognizing labor unions. It concerns acknowledging organized labor, the workers employ union representatives, usually an outside person not connected with the concern. These hired representatives, ordinarily called business agents, and the representatives of the owners, management, negotiate and frame the policies regarding working conditions.

Many other classifications are possible. For example, one that has been presented by a student of the subject, consists of four groups:

1. Those plans granting advisory power only.
2. Those providing recourse to arbitration.
3. Those granting employee representation on the board of directors.
4. Those taking a sympathetic attitude toward labor unions.

Still another classification may be made, namely:

1. The committee or works council plans.
2. The industrial democracy type.
3. The independent or company union.
4. The outside union.

Historical Background of Employee Representation.—Employee representation in some form dates back to the middle of the nineteenth century. Such plans were proposed in the Industrial Commission of the German Constitutional Assembly in 1849. Works councils appeared in England during the early part of the twentieth century. These councils enjoyed a phenomenal growth during the World War (1914-1918) when the organized trade unions did not seem at the time capable of meeting the rapidly changing conditions. These English Whitley councils will be discussed in greater detail later in this chapter. In America, the Filene Cooperative Association of 1898 had certain characteristics of an employee representation plan. In 1904, the American Rolling Mill Company formulated its plan for employee representation. In 1911, the much publicized Hart Schaffner and Marx plan of employee-employer representation was inaugurated. The Philadelphia Rapid Transit Company started its program in 1910. The International Harvester Company's plan was approved by its employees by a secret ballot in 1919. Not all these well-known plans were alike. Some of them, like the Hart Schaffner and Marx plan, provided machinery for collective effort between the employer on the one hand and an organized trade union on the other. In the case of the International Harvester Company, the program was organized entirely within the framework of the corporation and was between the company

and its employees without the intermediary of an outside organization. The mere fact that different types of organizational structures were developed does not detract from the fact that each plan strove to bring about a mutual understanding and respect between the management and the workers. Partisans either on the part of management or labor are at times prone to confuse form with substance.

In America as in England, the World War gave impetus to the development of plans of employee-employer representation. The Federal government created a number of organizations whose major functions were to facilitate cooperation between management and men to the end that the entire national effort would be concentrated on winning the war. With patriotic fervor, management and men learned to cooperate in a way that neither was accustomed to prior to this time. A few of the commissions or boards that were thus created were: the National War Labor Board, the United States Railroad Administration, and the Emergency Fleet Corporation. The program of employee-employer cooperation not only grew during the World War, but even greater growth took place during the years immediately following the War. Independent unionism, which according to our definition may be included in employee representation, reached its peak in 1920 and declined until the thirties. Paralleling the growth of independent unionism was the growth of representation plans confined to the employer and his workers. Some authorities believe that the so-called company plans were developed to forestall or counteract independent unionism. Although this was undoubtedly true in many instances, it was by no means universally the cause. The World War had given *scientific management* its golden opportunity. Scientific management as one of its *primary fundamentals of organization has due regard for the personal equation*.¹ Both men and management had learned from their war experiences that cooperation pays. It was natural that this realization should result in an expansion of various forms of employer-employee representation. Even as today there is no unanimity of opinion as to the best form that this cooperation should take, it is not surprising that many forms of employee-employer representation should develop.

Whitley Councils.—Since the Whitley Councils exerted a profound influence upon the employee-employer representation movement, they deserve further consideration. The rapid changes in England brought on by industries' concentration upon war production created a situation with which the traditional union leaders and established union

¹ See Richard Lansburgh and William R. Spiegel, *Industrial Management*, John Wiley & Sons, Inc., 1940, p. 62.

techniques were not capable of coping. Works councils had already been tried out to a limited extent prior to the war. Out of the confusion of the war, shop stewards began to assert themselves. Mr. Whitley, speaker of the House of Commons, headed a committee to study the situation and make recommendations to the end of increased cooperation for the purpose of facilitating the production of war necessities.¹ The Whitley Committee reported early in 1917. Three things were recommended, namely, (1) that a national joint industrial council composed of representatives of management and workers be created, (2) that district councils similar to the national councils be created to deal with regional matters, and (3) that works committees or councils be created within each company to deal with local matters arising between management and the workers. A later report recommended that a permanent arbitration council be created but that arbitration be optional and not compulsory. The establishment of these joint industrial councils was to be optional. The exact form of the local works councils was to be worked out by each individual enterprise. The Whitley Councils did not receive universal acceptance; however, they met with approval in many industries. In 1921, some 4,000,000 employees were participants in these councils. These employees were employed in some 80 different industries.² The number of employees embraced within these councils declined somewhat during the twenties. By 1932, there were still approximately 3,800,000 employees covered by these works councils.³ Dorothy Sells reported in 1938 that the Whitley Councils represented approximately 20 per cent of all the gainfully employed workers in England in 64 industries.⁴ In practice, these works councils usually have written constitutions and bylaws covering their organizational structure and fields of activities. Most of the problems of industrial relations are covered by these councils in their deliberations.

It will be seen from the British experience that it is possible for the works councils to develop side by side with the independent unions and that they may embrace the fundamentals of employee representation just as truly as the independent unions. In America, the independent

¹ See Dale Yoder, *Personnel and Labor Relations*, Prentice-Hall, Inc., New York, 1938, p. 473, and *Labor Economics and Labor Problems*, McGraw-Hill Book Company, Inc., New York, 1939, p. 603; see also Gordon S. Watkins and Paul A. Dodd, *The Management of Labor Relations*, McGraw-Hill Book Company, Inc., New York, 1938, pp. 670-676.

² See Dale Yoder, *Personnel and Labor Relations*, *op. cit.*, p. 474.

³ See Gordon S. Watkins and Paul A. Dodd, *op. cit.*, p. 672.

⁴ See Dorothy Sells, "Collective Bargaining in Great Britain," *American Federationist*, March, 1938, pp. 258-263.

unions as a rule have been violently opposed to the works councils; however, these independent unions do in some cases provide committees that perform many of the functions of the works councils.

Works Councils in America.—In the United States, the works council idea has developed along different lines from that in England. The actual structural organization within individual plants and companies having more than one plant has been, according to the desires of the individual enterprises, similar to the British experience; however, in America we have not developed the district or the national councils. The fundamentals of the works council plan provide for representatives of employees and representatives of the employer to sit as a committee to consider items of interest primarily of a personnel nature. In the case of large organizations, there may be departmental or divisional councils to handle items of interest to these divisions and plant councils to handle items of plant-wide interest. Companies having more than one plant may or may not have a joint company council to represent the joint company-wide interest of employees and management. Since the basic concept behind the works council is cooperation, most of the items of interest to employees are confined either to their division or plant and do not in general extend to plants located at a distance from their home plants.

The works council has one definite factor to commend it that is not always found in some of the other plans. The representatives of men and management meet together and get better acquainted with each other's views than when represented by outsiders or than when they meet separately as in the case of the *industrial democracy type of representation*. Many of the grievances of management or workers have no foundation in fact and automatically disappear when they are brought face to face with each other around the council table.

The works council program may or may not provide a mechanism for appeal in the case of a stalemate in the works council. As a matter of fact, the works council type of employee representation is capable of expansion to include arbitration and mediation just the same as an employer-employee relationship with an independent union affiliated with one of the large federations.

In the case of voting, the works council quite generally votes by having the representatives of management and the representatives of the workers vote separately but in the same room as a part of the committee. A majority of each group would decide the vote of that group. Of course, it would be possible to require a two-thirds, three-fourths, or any other proportion of the group to be the deciding vote of either group. Usually, the works council is composed of an equal number of

representatives from both management and workers. To constitute a quorum, a majority of the representatives of each group would be required.

Industrial Democracy Type of Representation.—Some of the attempts at employee representation have been developed along the lines of our state or Federal government. In the industrial democracy type, there usually is a lower house or *house of representatives* made up of delegates selected by the workers, an upper house or *senate* composed of supervisors such as foremen, and the *cabinet* composed of representatives of the top management. A proposal usually can be originated in either house and after being approved by both houses is submitted to the cabinet for final approval or veto. The cabinet may refer the proposal back to both houses with recommended changes.

The industrial democracy type of representation is more formal than the works council. Since the representatives of workers and management do not meet together, the industrial democracy type has the disadvantage of lacking the personal contacts that frequently are more productive of mutual understanding than the representation itself. Certain persons who are strong advocates of industrial democracy as an end in itself have been ardent proponents of the industrial democracy type of representation. These people believe that workers, when meeting face to face with representatives of management, are not free to express themselves for fear of losing their jobs because of their advocacy of a program not approved by the management. Unquestionably this situation could arise, yet the fact that honest management and sincere workers have for years operated the works council successfully is evidence that this need not arise. Although the English-speaking peoples are definitely committed to the principle of the democratic process and majority rule, we should never forget that individual rights may suffer by a majority rule unless there is due regard for the fundamental rights of the minority. It requires no stretch of the imagination to visualize situations in which a majority of workers would vote to exclude negroes, Chinese, and women (particularly married women). The foregoing statements do not imply that we should not try to make the democratic process work, but it does point to the fact that there are dangers even to majority rule. Good faith and a fundamental regard for the integrity and rights of individuals is more important than any formalized organizational structure. It is a well-known fact that certain well-organized independent unions bar certain racial groups from membership.

The Company Union.—Formerly, either the works council or the industrial democracy type of representation may have been rather

loosely called a company union. The National Industrial Recovery Act of 1933 contained a special clause, Section 7a, that gave legal approval to the fight of employees to select their own representatives for collective bargaining. Under the terms of this act, many of the forms of employee representation as they had grown up could no longer qualify, since management had taken an active part in their affairs. This did not mean that these systems were discontinued at once, but it did give a definite pattern that was followed in the creation of new forms of representation. It is probably no exaggeration or criticism to say that a majority of the American employers in 1933 preferred to deal with representatives of their own employees chosen from among these employees rather than to deal with outsiders. Section 1a of the N.I.R.A. gave great impetus to the organization of employee representation plans that were limited to company membership. There is little doubt that management looked with favor upon this development. However, this preference on the part of management does not imply that in most cases the relationship was not entered into in good faith. The term "company union" has now quite generally come to mean an independent union of the workers whose membership is limited to the workers of the particular company, out of which the union is formed. With the Supreme Court's approval of the National Labor Relations Act in 1937, company unions have definitely taken the form of employees' organizations organized for and by the employees without company aid or dominance. This is necessary in order to comply with the regulation of the National Labor Relations Act. This does not mean that all company unions meet these requirements but that most of the new ones created do follow these regulations and that many of the ones in existence have tended to adjust their programs to conform to these regulations. We prefer to use the term "company union" to mean only those that are in accordance with the National Labor Relations Act. A company union is a form of employee representation, but many forms of employee representation are not company unions. There need be no stigma whatsoever attached to the term "company union" when used in the sense that these unions are independent unions whose membership is confined to one employing firm. It is natural that the affiliated unions with their present philosophies should be opposed to the independent company union. The independent company unions do not pay dues to the federations or affiliated organizations, nor are they subject to the discipline of these larger groups.

The National Labor Relations Board has granted recognition to independent company unions that meet their requirements of non-

company dominance or interference. The largest single case to date of certification by the National Labor Relations Board is that of the Consolidated Edison Company of New York involving some 31,000 workers.¹ This is a famous case in which the A. F. of L. had a signed contract that the C.I.O. contested through the Labor Board. The Supreme Court upheld the A. F. of L. contract, but the C.I.O. continued its efforts to win membership away from the A. F. of L. The tactics of both the A. F. of L. and the C.I.O. antagonized a large number of the employees and resulted in the formation of an independent company union. In 1940, the Labor Board conducted an election to determine the appropriate bargaining agency. Two weeks before the election, the A. F. of L. eliminated itself by withdrawing its name from the ballot. The election gave a clear margin in favor of the independent union in both the production group and the "white-collar" section that voted separately. Independent company unions that meet the requirements of the Labor Board to be placed on the ballot for the determination of the appropriate bargaining agency have made a creditable showing.²

Just what the future of the independent company union will be it is difficult to predict. In the early days of the National Labor Board's administration, a goodly number of friends of collective bargaining were of the opinion that the days of the independent company union were numbered. There are many ardent labor unionists who would like to outlaw it by statute. It is still very much alive and makes a definite appeal to many workers who desire collective action, yet who do not care to go along with many of the factional fights and jurisdictional disputes that have characterized many of the activities of the large affiliated unions during the past few years. Not all the labor leaders of the federated unions are opposed to the independent unions, since some of them feel that they, like other forms of employee representation, serve as a training school for "true unionism," as they term it, when the workers are ready to embrace the philosophy of large-scale collective bargaining. When viewed from an impartial standpoint, it would seem that there is no special reason why the independent company union should not develop side by side with the so-called "outside" or "independent" unions in the United States. The real test should be, "Do they meet the requirements of their membership?" Probably the one greatest hazard to the independent company union is proposed legislation to outlaw them as appropriate agencies for

¹See John Collins, "Independent Unions—Three Years After," *Personnel*, May, 1940, pp. 183-191.

²See John Collins, *op. cit.*, pp. 189-190.'

collective bargaining. There seems little likelihood of such legislation at the present time, but this type of legislation has its advocates and one can never safely predict where the political aspects of the labor movement will lead.

The question is often asked, "Will the independent unions form federations, while still retaining their identities as independent company unions, using the federation as a clearing house for disseminating information and the securing of professional advice?" As yet none of these attempts has been successful. It is possible that the very nature of the independent company unions is not conducive to federation.

Federated Unions.—The independent labor union has a history in America that dates back to the period prior to the Civil War. The movement assumed considerable stability with the formation of the American Federation of Labor in 1886. The railroad brotherhoods form another large group of unions that have functioned successfully. In 1935, the present Congress of Industrial Organization began its phenomenal growth. There are other independent unions not directly affiliated with any particular company, but the three named are the largest and most powerful. The A. F. of L. is primarily organized along the lines of crafts, although it does have some industrial unions. The C.I.O. is primarily organized along the lines of the industrial union. These large unions and many other smaller ones seek to represent their membership in collective bargaining with employers. As a rule, they would prefer to sign trade agreements with employers' associations for an entire industry either for a community, state, or entire area. In many instances, employers are not organized; hence, it becomes necessary for the unions to negotiate with each employer separately. The history of employee representation through the duly organized independent unions representing employees of many firms is replete with many successes of long standing as well as a goodly number of cases of strife. Recent strife between the C.I.O. and the A. F. of L. has caused much concern to those who advocate the independent type of union. Whether or not these two branches of the labor movement ever again affiliate, it is to be hoped that they will drop their open antagonism and strife, which is detrimental not only to the welfare of the workers and the industries involved, but to our entire economic and social structure.

The exact form that employee representation takes under the large independent unions depends largely upon the particular union and the business enterprise involved. If the employers are organized, it may take the form of a trade agreement that will be discussed below. **Where the union or unions deal with an individual employer, the size**

of the enterprise, the number of plants, and the number of unions enter into the situation. In some of the larger corporations in America today, in their various plants they may be dealing with A. F. of L. unions in one plant, the C.I.O. in another, an independent company union in a third, an employee representation group on a works council basis in a fourth, and with no organized group but on an individual basis in still another plant. In each of these plants, there may be harmonious relationships. In each of these plants where there is an organized union, there may be a signed agreement setting up the procedure to be followed in settling grievances and setting forth the terms of the agreement and the length of time it is to run. Frequently, there will be a shop steward who represents the men in all dealings within a given department or division with provisions for appeal in case of a failure to agree. Provision is often made for arbitration of disputes that cannot be settled by the grievance machinery setup. There is no one pattern followed in the relationships between these unions and the employers. The actual program followed is often the result of collective bargaining. These agreements frequently cover every phase of the personnel relationship—wages, hours, working conditions, seniority rights, apprentice training, the closed shop, dues, checkoff, etc.

The advocates of the independent union not restricted to an individual employer contend that this is the only form of employee representation that can really place the employee on an equal footing with the employer to enforce his rights. If the relationship is to be one of force rather than mutual understanding and respect, there is no question that this argument is largely valid. However, a relationship that rests upon force is not likely to be a very happy one. It would seem that the better argument for the independent union would be that, if the employees prefer this type of representation, if it enables them to realize their maximum satisfaction in their work situations, then the independent union is the one they should have. This statement may seem to be too idealistic, but happily it is a type of idealism that works and makes for industrial peace and social advancement. Many of the independent unions can be checked against this measuring stick and be found to meet the requirements of employee satisfactions. Such unions usually have a record of harmonious relationships with their employers. Their collective agreements arise out of mutual respect and confidence. In such situations, neither the employer nor the employees' representatives seek to take unfair advantage of the other.

Some Principles Underlying a Sound Representation Plan.—All that has been said above regarding the independent unions can be said

with equal force about the independent company union, the works council, or the industrial democracy type of representation. An organization forced upon a group of employees either by the employer or an outside agency is not likely to command the loyalty of its membership or fill a real need in their lives. However, if the representation plan grows out of a feeling on the part of the employees that it fills a need in their work situation, it has the first requisite of success. Such an organization will grow and facilitate industrial peace if dealt with intelligently by the employer.

The employer has a responsibility in any form of employee representation: These programs are not automatic, be they limited to the individual company or a part of an industry-wide trade agreement. Enlightened cooperation and leadership are just as essential on the part of management in dealing with an independent union as in the case of no representation plan whatever. Employers frequently complain about the type of labor leader with whom they must deal. As a matter of practical fact, they usually get the type of labor leadership that they themselves help train. If the employees attitude is one of antagonism, he will usually be faced with a belligerent labor leader, since this will be the only type who can compete with him. On the other hand, if the employer recognizes the right of his employees to be represented by men of their own choice, he will usually find that the employees select intelligent leaders. This does not mean that the employer must take the demands of labor organizers lying down. He should have a sound economic and social philosophy and stand squarely upon it, having due regard for the rights of others. Suspicion on the part of either the employer or the representatives of the employees breeds suspicion in the other. Mutual trust and respect commands trust and respect. There is no one formula for industrial cooperation and peace, but whatever formula is used must have as its starting place sincerity and a desire to seek an equitable solution, or it is unlikely that the proposed program will be satisfactory to either party to the relationship.

Trade Agreements.—Trade agreements can seldom be consummated unless employers as a group are banded together in a strong association, and the employees of the particular industry are well organized. A signed company agreement may be consummated between an individual company and the independent company union of that company. It is possible for a company to have a written agreement with its employees under a works council or an industrial democracy type of employee representation, but such agreements are seldom found. The trade agreement involves more than one com-

pany and, as such, tends to bring a measure of stability to the industry. This is one of the arguments often advanced for the independent union. Trade agreements in the United States seldom are negotiated on an industry-wide basis. Most frequently they are on a regional or city-wide basis. The anthracite coal industry is covered by one trade agreement. Bituminous mining is covered by regional trade agreements; however, collective bargaining has for many years been conducted on a nation-wide basis.¹ The Full-Fashioned Hosiery Manufacturers of America, Inc., and the American Federation of Hosiery Workers now negotiate trade agreements covering a major portion of the northern section of the Atlantic coast.

City-wide agreements are more common than regional ones. These are particularly common in the building trades and related industries. Trade agreements as a rule cover every phase of industrial relations such as wages, working hours and overtime, working conditions, seniority rights, vacations, procedures to be followed in the adjustment of grievances or in interpreting the agreement, etc.

It is possible for trade agreements to be reached even though all of the employers in a given city or area are not a party to it, provided of course the leaders in the industry are parties thereto. Unless the agreement covers a substantial portion of the industry involved, the trade agreement is in substance little, if any, more effective than individual agreements with the respective employers. Trade agreements tend to stabilize those phases of an industry that pertain to labor relations. Minimum standards are desirable in labor relations as in processes and materials. An individual employer is not prohibited by the trade agreement from having standards for his employees that are more advantageous to his employees than those specified by the agreement. It should be observed, however, that the standards established by the trade agreement tend to be the established practice and that there is little incentive to go beyond them, particularly if the employer be a party to the agreement. The trade agreement is especially advantageous from the union viewpoint and to a lesser degree from the employer's viewpoint where there are a large number of employers involved. The total number of employees covered is not particularly important. If all the workers in the needle trades are covered by a trade agreement in a given city, they may be less in number than the workers covered by one contract signed by one of the large automobile or steel corporations. In the needle trades,

¹See Helen S. Hoeber, "Collective Bargaining With Employers' Associations," *Monthly Labor Review*, August, 1939, for other instances of industry-wide agreements.

as an illustration, there may be hundreds of small enterprises, which creates a real administrative problem if individual agreements are to be negotiated. In the case of the automobile or steel industries, individual agreements do not present such a serious administrative problem. It might well be noted that, even though employers have long had their trade associations, few of them are empowered to sign trade agreements for their members. It is not unusual for a separate association to be formed for the specific purpose when it is agreed among employers that they will enter into collective trade agreements. The traditional employers' association is a rather loose organization with relatively few powers.

The Relationship of the Personnel Manager to Employee Representation.—Under the works council or the industrial democracy type of employee representation, the personnel director played an important role both in the reaching of agreements and in the carrying out of the agreements. He was often the moving spirit behind the initiation of the program and devoted much time to fostering the program and making it work. In the case of the modern independent company union or the independent union not confined to a particular company, the personnel manager may still negotiate with representatives and strive to make effective any agreements, but he can have nothing to do with the formation of the union if the organization is to receive the approval of the National Labor Relations Board as an appropriate bargaining agency. There is a division of opinion among successful personnel directors as to the personnel manager's place in negotiating union agreements. In some instances, personnel managers take an active part in negotiating labor agreements. In a few cases, these personnel men actually "negotiate these agreements. Other personnel men are of the opinion that a personnel director should not participate in the negotiating of a union agreement; that operating management is largely responsible for carrying out the details of a union agreement; hence they should be solely responsible for the details with the personnel director's rendering advice as to principles but not taking an active part in the actual agreement; that the personnel manager's responsibility is to aid in the carrying out of the signed agreement along with his other personnel responsibilities, but that his effectiveness in this relationship is impaired if biased by being a party to the agreement itself. This is the view recently expressed by one of the most successful personnel directors in the Middle West whose company employs more than 60,000 men in some 30 different plants and branches. This particular personnel director, from an organization standpoint, reports directly to the chairman of the board of directors of his corpora-

tion. It is highly probable that the organizational philosophy of the particular enterprise will largely determine the exact role to be played by the director of personnel in collective bargaining.

There is an extreme viewpoint held by very few employers that there is no place for a personnel director or a personnel department in union management cooperation. One large Chicago manufacturer says that the union looks after all matters that commonly come under the jurisdiction of the personnel division. They do not even have an employment officer. When a department needs a man, the department head makes out a requisition that is signed by the plant superintendent. The requisition is either mailed or phoned to the union or given to the shop steward. The union provides the man, and the payroll department makes out all employment records. Such a philosophy as this has not permeated American industry as a whole. Most employers feel that it pays to have a specialized department care for the personal relationships that mean so much to industrial contentment and efficiency.

CHAPTER XXXI

THE NATIONAL LABOR RELATIONS ACT AND STATE LABOR RELATIONS ACTS

Background of the Act.—The Norris-LaGuardia Act of 1932, frequently referred to as the Federal Anti-injunction Law, clearly sets forth the principle that public policy approves the right of the workers to bargain collectively "free from the interference, restraint or coercion of employers of labor or their agents in the designation of such representatives or in self-organization or in other concerted activities for the purpose of collective bargaining or other mutual aid or protection" In 1933, the National Industrial Recovery Act was passed containing Section 7a, which reads as follows:

Employees shall have the right to organize and bargain collectively through representatives of their own choosing, and shall be free from the interference, restraint or coercion of employers, or their agents, in the designation of such representatives or in self-organization, or in other concerted activities for the purpose of collective bargaining or other mutual aid and protection.

. No employee, and no one seeking employment, shall be required as a condition of employment to join any "company union" or to refrain from joining, organizing, or assisting a labor organization of his own choosing.

Under Section 7a, there was rapid growth both of the independent unions of regional and national scope and employee representation plans confined to a single employer. Active membership campaigns of the independent unions, instead of encouraging industrial peace as was the intent of the law, actually resulted in bitter industrial strife. Various labor boards were established for the purpose of trying to solve the labor difficulties. The Automobile Labor Board, the National Steel Labor Board and the Textile Labor Board are three of the best known of these boards. These boards were created by executive order of the President of the United States. Later, the President created a temporary National Labor Board of seven members with Senator Wagner as chairman. This gave way to a three-man board that was appointed as a result of Joint Resolution 44 passed by Congress for the purpose of making the provisions of Section 7a work. This three-man labor board was organized July 9, 1934, and continued **its work until May 27, 1935**, when the National Industrial Recovery

Act was declared unconstitutional. This three-man board appointed regional boards and developed a body of procedures and principles that have been expanded under the present National Labor Relations Board, which was authorized by the National Labor Relations Act of July 5, 1935. It will be noted that Congress lost little time in enacting a new act to take the place of Section 7a of the National Industrial Recovery Act, which was declared void May 27, 1935. Such speed would have been impossible had not the sentiment in Congress been strong to ensure the rights of collective bargaining to the workers.

The Railway Labor Act of 1935 is another act that does for the railway and air transport industries essentially what the National Labor Relations Act does for other industries engaged in interstate commerce. The three acts, the Norris-LaGuardia Act, the Railway Labor Act, and the National Labor Relations Act, serve as the backbone of the Federal attempt to guarantee the right of collective bargaining by law.

Provisions of the National Labor Relations Act.—To set forth the many provisions of the act would require the repeating of the act itself. For our purpose, it will suffice to point out the most important provisions that have a direct bearing upon the promotion of collective bargaining that is the objective of the act.

1. *Policy*,—Section 1 reads; in part as follows:

It is hereby declared to be the policy of the United States to eliminate the causes of substantial obstructions to the free flow of commerce and to mitigate and eliminate these obstructions" when they have occurred by encouraging the practice and procedure of collective bargaining and by protecting the exercise by workers of full freedom of association, self-organization, and designation of representatives of their own choosing, for the purpose of negotiating the terms and conditions of their employment or other mutual aid or protection.

This section guarantees to the worker freedom in the selection of representatives for collective bargaining and sets forth the policy that the worker is entitled to collective bargaining with his employer should the majority of the workers desire this form of relationship. This was not a new statement of the principle. It had in substance been promulgated previously by both statute and judicial pronouncement. The National Labor Relations Act not only reestablished the principle but provided a mechanism for protecting the worker in the exercise of this right.

2. *Board*,—The act provides for a National Labor Relations Board of three members to hold office for a period of 5 years at a salary of \$10,000 per year. The term of the original appointees was so arranged

that more than one vacancy in the board would never occur in one year save in the case of death or resignation of one of the members. This provision is designed to give stability to the board.

3. *Rights of Employees.*—Section 7 states:

Employees shall have the right to self-organization, to form, join, or assist labor organizations, to bargain collectively through representatives of their own choosing, and to engage in concerted activities, for the purpose of collective bargaining or other mutual aid or protection.

The entire act is designed to guarantee to the workers the free exercise of this right.

4. *Unfair Labor Practices.*—Section 8 enumerates five specific acts on the part of employers that are prohibited. In substance, these unfair practices are:

a. Employers must not interfere with their employees in the exercise of their right to self-organization, to form or to join labor organizations and to bargain collectively through representatives of their own choosing.

6. Employers must not dominate or interfere with the formation or administration of any labor organization or contribute financial aid to the support of such labor organization.

c. Employers must not encourage or discourage membership in any labor organization by discriminating in hiring, discharge, or in any other condition of employment. This does not forbid a closed shop when the closed shop is determined by collective bargaining with duly authorized employees' representatives.

d. Employers must not in any way discriminate against employees who file charges against the company under the act or who give testimony before the board under the act.

e. Employers must not refuse to bargain collectively with duly accredited representatives of their employees.

5. *Selection of Representatives.*—Section 9a states:

Representatives designated or selected for the purpose of collective bargaining by the majority of the employees in a unit appropriate for such purposes, shall be the exclusive representatives of all the employees in such unit for the purposes of collective bargaining in respect to rates of pay, wages, hours of employment, or other conditions of employment: *Provided*, that any individual employee or a group of employees shall have the right at any time to present grievances to their employer.

6. *Unit for Collective Bargaining.*—Section 96 states: "The Board shall decide in each case whether . . . the unit appropriate for the purpose of collective bargaining shall be the employer unit, craft unit, plant unit, or subdivision thereof."

7. *Enforcement of the Act.*—The act empowers the board to determine the facts in a given situation with the right to summon witnesses

and records, to take testimony and to issue cease and desist orders in case an employer is found to be guilty of unfair labor practices. The board is further empowered "to take such affirmative action, including reinstatement of employees with or without back pay, as will effectuate the policies of this Act."¹ This is a very broad power and the one upon which the board relied to order the Fansteel Metallurgical Corporation to reinstate employees who had been discharged because of taking over the plant by force and holding it by a "sit-down strike." The Supreme Court overruled the board in this extreme stand but did sustain the board in most of its other findings in this case.² The courts seem inclined to sustain the board in any reasonable action to "effectuate the policies of the act."

In case an employer fails to comply with the board's order, the board may seek compliance by petitioning the Circuit Court of Appeals for the enforcement of the order and for appropriate temporary relief or restraining order. If the court interprets the board's acts as being within the law, the petition will be granted. A failure of the employer to comply places him in contempt of court.

Organizational Structure of the N.L.R.B.—The National Labor Relations Board is composed of three members appointed by the President and confirmed by the Senate. The Washington office has the following divisions arranged largely on a functional basis for administrative purposes: administrative, legal, trial examining, economic research,³ and information.⁴ The *administrative division* under the general supervision of the secretary is responsible for the coordination of all the divisions of the board and also for the administrative activities of the board in both Washington and the regional offices.

The *legal division* under the direction of the general counsel has charge of all legal matters under the two general headings of *litigation* and *review*. The *litigation section* supervises the regional attorneys in the presentation of the board's case in administrative hearings, repre-

¹ Section 10c of the N.L.R.A.

² *Fansteel Metallurgical Corp. v. N.L.R.B.*, 306 U. S. 240.

³ On June 29, 1940, the National Labor Relations Board changed the name of the Division of Economic Research to the Technical Service Division. This division had come under severe criticism in the Congressional Committee investigating the activities of the National Labor Relations Board. Congress, in the fall of 1940, by a rider attached to a supplemental appropriation bill, abolished this division. "A proviso attached to this bill, however, enables the Board to continue some of the functions of this Division by assigning them to other departments of the Board."

⁴ See *Fourth Annual Report* of the National Labor Relations Board for the year ended **June 30, 1939**, p. 11, for details of the material in this paragraph.

sents the board in all judicial proceedings before the Circuit Court of Appeals for the enforcement of the board's orders, and collaborates with the Department of Justice in the presentation of arguments before the Supreme Court in cases in which the board is interested. The *review section* aids the board in the analysis of the hearings in the regions and before the board in Washington. The review section, under the supervision of the board, on receiving opinions, decisions, directions, and orders from the board, formally drafts these into written form for issuance.

The *trial examining division* is separate from the legal division and operates under a *chief trial examiner* who assigns trial examiners to hold hearings as agents of the board. These trial examiners preside over hearings on formal complaints and petitions for certification of representatives, prepare intermediate reports containing findings of fact and recommendations for submission to the parties, and also prepare informal reports to the board.

The *information division* answers inquiries and makes available to the public press releases regarding the activities of the board.

The United States is divided into 22 regions in each of which there is a *regional office* presided over by a *regional director* who is the active administrative officer of the board in the region. The regional attorney acts as counsel for the regional office and as counsel for the board in the conduct of regional hearings. To each regional office is attached a number of *field examiners* who aid the regional director in his investigations and efforts to secure compliance, in holding elections, and in other nonadministrative activities.

There has been much criticism directed at the organization of the board in that it is both the prosecuting attorney and impartial trial judge. The organization of the *trial examining division* and the *legal division* as distinct units to a limited extent minimizes this criticism, yet it still remains true that both divisions are directly responsible to the one board in the final analysis. To say that this same relationship is held in the Federal Trade Commission and other governmental boards is not particularly pertinent, for there is probably no human relationship fraught with so much bias as the philosophy of unionism, with the possible exception of religion, and in many cases unionism is the religion of some of the extremists. There is little wonder that in "a relationship surrounded with deep-seated emotional bias there should* arise criticism of an organizational structure that can easily be warped even though in fact it may not have been.

Employees' Rights under the National Labor Relations Act.—The first and foremost right guaranteed the employees under the act is

absolute freedom from interference from their employer in selecting representatives for collective bargaining and the second is a corollary of the first, namely, the employees are guaranteed the right to bargain collectively with their employer in matters pertaining to "grievances, labor disputes, wages, rates of pay, hours of employment, or conditions of work." The employee is protected from discharge for filing a complaint, giving testimony, or going on a legal strike against an employer in connection with a charge of unfair labor practices. The mere fact that an employee is absent from his job because of a strike does not deprive him of his "property rights in his job" or his standing as an employee. The act specifically states [Section 2, (3)]: "The term employee shall include . . . any individual whose work has ceased as a consequence of, or in connection with, any current labor dispute or because of any unfair labor practice and who has not obtained any other regular and substantially equivalent employment. . . ." The board has repeatedly awarded back wages to employees who have been discharged because of their union activity or affiliation. This right is not inherent in the act but is granted the board to enable it to "effectuate the policies of the act."¹ The board has held that the act not only protects employees in their right to affiliate for collective bargaining, but in substance it protects persons that are not employees in that an employer cannot refuse to hire a man because of his union affiliation. In at least one case, the Waumbec Mills, Inc., of Manchester, N. H., the company was ordered to pay back pay to two men who had never worked for them and to offer both these men jobs. The United States Circuit Court of Appeals sitting in Boston Aug. 20, 1940, sustained the board's order. It is safe to say that the employee is protected in any reasonable activity in which he may engage as a part of his union affiliation for collective bargaining. As previously explained, in order to "effectuate the policies of the act" the board in the *Fansteel Metallurgical Case* sought to protect the employee in his right to his job even though he had participated in a "sit-down" strike. The Supreme Court did not sustain the board in this extreme stand. However, the Circuit Court of Appeals in the Third Circuit has held, "We cannot conclude that rights given to employees under the National Labor Relations Act are destroyed because of violence of a type as common to labor disputes as a fist-fight upon a picket line."² If this doctrine is upheld, it would seem that the worker's right to hold his job during a strike under the National Labor Relations Act is not forfeited by violence on the picket line of the fist-fighting nature but

¹ Section 10c of the National Labor Relations Act.

² See *Fourth Annual Report*, National Labor Relations Board, p. 128w.

that it may be forfeited if he engages in an act such as the "sit-down strike," which is thoroughly repudiated by public opinion. It should be observed that, although the workers are protected in their rights to select their own representatives from interference from their employer, they are not protected in this right from interference from another labor organization. It is a well-known fact that warring labor organizations may interfere with the individual rights of a worker even to the point of using violence; however, the act as it has been interpreted concerns itself only with protecting the workers against their employer in the exercise of the right of collective bargaining. The employee may now vote not to be represented by any labor organization, although in its early days the board denied this right.

Employer's Rights under the National Labor Relations Act.—The act is not designed to give the employer any rights, and it takes away from him only those rights that pertain to his influencing his employees as to their choice or choice of representatives for collective bargaining. In a board hearing to determine representation, the employer may be heard; however, this right is denied the employer under the Railway Labor Act. The National Labor Relations Act does not deny the employer the right to petition the board for a determination of the appropriate agency with which he is to bargain; nevertheless, the board itself denied this right to the employer for about the first three years of its administration. At present, under certain circumstances, the board will entertain a request from an employer to certify to him the agency that is entitled to represent his men in collective bargaining. In case an employer feels that the order of the board is unjust, he may file a petition with the Circuit Court of Appeals in the district in which the unfair labor practice was alleged to have been engaged in, praying that the order of the board be modified or set aside (Section 10/). The employer may still hire or refuse to hire any person he desires, provided of course the person is seeking employment with the employer; he may discharge any employee, transfer him, promote him, or lay him off in the same manner that he has always been able to do, provided the cause for such action is not the employee's union activity or affiliation. There is one exception to the foregoing statement, namely, the employer may establish a closed shop through collective bargaining with duly certified representatives of his employees, in which event he may make a prerequisite to employment the applicant's joining the union possessing the closed-shop agreement.

In reality, the act does not grant the employer any specific rights other than the right of appeal from the board's decisions in case the

employer feels that he has been unjustly treated. The act was not designed to protect the employer in any of his rights but to protect the employees in collective bargaining. Neither does the act itself take away from the employer any rights that enlightened management principles would have him use. The interpretation of the act may have taken away from the employer some basic "rights in the relationship of employer to employee, but it is not in the act itself. One of the most controversial issues is what constitutes interference, restraint, coercion, and dominance on the part of the employer in relation to his men's attempt to form a union or in their union membership in case they have a union. Many of the cases coming before the board are so clear cut that it is inconceivable how an employer of intelligence would think that he was entitled to do the things he had done even though there was no act protecting the employees. The right of an employer to advise his men who seek his advice regarding a given organization is not quite so clear cut. The right of an employer to bargain individually with his employees when the employees as a whole are on a strike is another situation that is on the border line. The right of an employer to post a notice that he will not agree to a closed shop is another situation that is not so clearly an unfair labor practice. The safest practice for the employer is to proceed on the theory that in relation to his employees' selecting their bargaining agent he has no rights whatsoever, but that he is required by law to bargain with representatives chosen by his employees.

Rights of an Independent Union.—The rights of an independent noncompany dominated or sponsored union are the same whether the union be confined to a single employer or be national or international in scope. The union is entitled by peaceful means to solicit members. A union may engage in a labor dispute even though it cannot claim the right to represent employees of a concern in that it does not have a majority of the employees involved. As far as the National Labor Relations Act is concerned, an outside union may picket a plant in which it does not have a single member. In numerous cases, pickets have carried banners proclaiming that a particular company is "unfair to organized labor" when the employer was perfectly willing to negotiate with the duly constituted representatives of his employees, but the employees themselves did not care to join the particular union. Section 2 (9) defines a labor dispute as including "any controversy concerning terms, tenure or conditions . . . regardless of whether the disputants stand in the proximate relation of employer and employee." A union has the right to file charges of unfair labor practices against an employer with the regional director of the board in the region in which

the unfair labor practices have allegedly been committed. The charges preferred by a person or union must be in writing and sworn to by the person filing same. A union is entitled to representation in the hearing of a case brought by the union and may submit testimony with the consent of the board's agent in other cases not initiated by the union but in which 'the union has an interest. This situation may readily arise where more than one agency seeks to represent the employees. The union does not have the right to institute proceedings in court to enforce orders of the board that have been entered by the board in favor of the union seeking the enforcement. The Supreme Court has said, "It is the Board's order on behalf of the public that the court enforces. It is the Board's right to make that order that the court sustains." The order and the decree are both directed at the prevention of unfair labor practices. The court said that "*if the decree of enforcement is disobeyed, the unfair labor practice is still not prevented. The Board still remains as the sole authority to secure that prevention."¹ Since the act is specifically designed to protect the employees in their right to collective bargaining and since the union is the commonly accepted organization for this purpose, it is entitled to act through its representatives for the employees in all relationships that normally come under collective bargaining between an employer and his workers.

The Determination of the Appropriate Bargaining Agency.—Section 9a states that "Representatives designated or selected for the purposes of collective bargaining by the majority of the employees in a unit appropriate for such purposes shall be the exclusive representatives of all of the employees in such unit for the purposes of collective bargaining. . . . " In the determination of the agency entitled to represent the employees of an appropriate bargaining unit, the board, according to Section 9c, "may take a secret ballot of employees or utilize any other suitable method to ascertain such representatives." The board may at its discretion certify a given agency as entitled to represent a particular group of employees by examining the membership cards submitted by the union, provided these cards show that a majority of the employees in a unit involved belong to the particular union and no serious question as to the authenticity of the union cards submitted is raised. In case of reasonable doubt as to the appropriate bargaining agency, the board may direct that the agency be determined by a

¹ See *Monthly Labor Review*, "Court Decisions of Interest to Labor," May, 1940, quoting the Supreme Court in *Amalgamated Utility Workers v. Consolidated Edison Co. of New York*, 60 Sup. Ct. 561.

secret ballot conducted under the supervision of the representatives of the board.

In the event an election does not disclose a majority of the votes cast for any particular union, the board will conduct "run-off elections" eliminating the union receiving the lowest number of votes each time until the employees select one union or indicate that they do not wish to be represented by any union.

The timeliness of holding an election is frequently a moot question. The stated policy of the board is that it "attempts to hold an election at a time when the balloting will accurately reflect the untrammelled desires of the employees."¹ If it has been found "that the employer has engaged in unfair labor practices, it usually postpones the election until some future time after its decision, when the effects of the unfair labor practices will have been dissipated."² However, in such cases as the foregoing, the board will direct that the election be held forthwith when requested to do so by all parties involved.

Employees eligible to vote in an election to determine the appropriate bargaining agency are designated by the board. The policy of the board is to extend "the privilege of voting to the largest number possible, consistent with the policies and purposes of the act. . . ." " . . . all employees on the payroll used to determine eligibility shall be entitled to vote, including employees who did not work during this pay-roll period because they were ill or on a vacation or had been temporarily laid off, and including employees who have been temporarily laid off since the pay-roll period."³ This rule may definitely bar employees hired during a strike from voting and grant the privilege to persons on a strike who have retained their status as employees. Certain supervisors who are members of the union may be entitled to vote, but they are specifically barred from using their influence in favor of their own union, or their employer may be found guilty of an unfair labor practice.

For a union to get its name on the ballot it must convince the board that it represents a substantial number of employees in the unit voting. The name of a company-dominated union will not be placed on the ballot if the board has ruled on the status of the union.

In the minds of many, there is considerable question as to the board's interpretation of the words, "majority of the employees in a unit appropriate for such purposes." The board has construed this

¹ *Fourth Annual Report*, National Labor Relations Board, p. 77.

² *Ibid.*

³ *Ibid.*, pp. 77-78.

to mean a majority of those voting rather than a majority of the employees eligible to vote. To support the board's ruling, one can of course point to the fact that in governmental elections of officers this practice is followed. The answer to this argument is advanced that, in the case of governmental agencies, some such action is a necessity if our form of government is to be carried on; yet in the case of collective bargaining there is no necessity for such action, for we have had successful employee-employer relationships for years without such an arrangement, and, in further support of the lack of necessity, the fact is pointed out that the board itself now permits employees to vote "not to be represented." The supporters of the board in substance answer that after all the act is designed to encourage collective bargaining, that to require a majority of all persons eligible to vote would definitely handicap the selecting of appropriate bargaining agents, and that those who did not vote have no one to blame but themselves if they did not register their choice. This answer carries considerable weight; however, it must be admitted that although this may be the intent of Congress it is not what the act says, and it would be well for Congress to specify exactly what is intended in the form of an amendment. For instance, it might be well to change the wording to read "a majority of the votes cast provided this majority is at least equal to one fourth of the total number of employees eligible to vote."

The Determination of the Appropriate Bargaining Unit.—Section 96 designates the board as the agency for determining whether "the unit appropriate for the purposes of collective bargaining shall be the employer unit, craft unit, plant unit, or subdivision thereof." In deciding upon the appropriate unit, the board is supposed to decide each case in such a manner as to "insure to employees the full benefit of their right to self-organization and to collective bargaining and otherwise to effectuate the policies of this Act." Craft unionists have at times been very bitter in their denunciation of the board's decisions, since they are usually in a minority when included in the entire vote of the industry. The factors considered by the board in determining the appropriate unit when all the unions involved in the proceedings agree upon the appropriate units or unit are as follows:¹

1. The history, extent, and type of organization of the employees in the plant.
2. The history of their collective bargaining, including any contracts with their employer.
3. The history, extent, and type of organization, and the collective bargaining of employees in other plants of the same employer or of other employers in the same industry. *

¹ *Ibid.*, p. 83.

4. The skill, wages, work, and working conditions of the employees.
5. The desires of the employees.
6. The eligibility of the employees for membership in the union or unions involved in the proceeding and in other labor organizations.
7. The relationship between the unit or units proposed and the employer's organization, management, and operation of the plant.

Where both a craft union and an industrial union claim the right to represent employees, one claiming an industrial unit and the other claiming a craft unit, the board examines the unit or units in the light of the factors enumerated above. During recent months, the board has, with certain exceptions, followed the policy of permitting the employees themselves whose inclusion in a craft unit is desired by a craft union to determine whether or not they shall have a separate unit.¹ This trend in the board's decisions seems thoroughly sound in the light of the traditional development of trade-unionism. It also recognizes the desires of the men involved. It is a known fact that steam fitters and other skilled tradesmen have more in common with other members of their trade than with the production workers. A union composed of a homogeneous group of men may readily supply social values to its members quite as important to the membership as the mere economic advantage of collective bargaining. Collective bargaining may arise once a year or less, whereas the social needs of the workers continue without interruption. The question of collecting dues in a union held together by common social interests and traditions of their occupation seldom becomes a factor, for the men pay because their institution really functions in their¹ daily lives. On the other hand, many of the workers in an industrial union have no interests in common whatsoever other than the fact that they work for the same employer and would like to get as high a wage as possible. It should be admitted, however, that for the sole purpose of collective bargaining the industrial union may have some advantages over the craft basis. In spite of this one fact, it is encouraging to see the board give special consideration to the wishes of the employees who are most vitally concerned.

Procedures Followed by the N.L.R.B.—In facilitating collective bargaining, the board has two main functions to perform, namely, to prevent unfair labor practices and to designate authorized bargaining agencies and appropriate bargaining units. In suppressing unfair labor practices, any interested person or union may file charges under oath before the regional director of the National Labor Relations Board or his agent. These charges are filed, unless special permission

¹ *Ibid.*, p. 86.

is granted to file direct with the board, in the region in which the practices are alleged to have taken place. If from the facts as available to the regional director he thinks a complaint should be issued, he will issue a formal complaint in the name of the board and serve same upon both the person or organization filing the charges and the employer being charged. In case the regional director does not think that a complaint should be issued and does not issue one, the person or organization filing the charge may obtain a review of the regional director's action by filing a request with the board in Washington. The original complaint issued by the regional director sets forth the charges and contains a notice of a hearing to be held before a trial examiner within 5 days from the time of the service of the complaint. The respondent may file an answer within 5 days from the service of the complaint specifically admitting, denying, or stating that he has no knowledge of the facts complained of. A failure to deny or to state that no knowledge is had of a specific charge is construed as admitting it. The trial examiner or the board may amend a complaint any time before the order is issued covering same, in which case the respondent is granted time to amend his answer.

Hearings on the facts in the case are conducted by the trial examiner. Motions may be made and testimony taken. In these hearings, the rules of evidence prevailing in courts of law or equity shall not be controlling. Any member of the board or any representative of the board may issue subpoenas requiring the attendance and testimony of witnesses and the production of documentary records at the hearing. After the hearing, for the purpose of taking evidence, the trial examiner prepares an *intermediate report* to the regional director issuing the complaint. This "report shall contain (a) findings of fact, separately stated and numbered and (b) recommendations as to what disposition of the case should be made. . . ."¹ The regional director transmits the *intermediate report* to the N.L.R.B. at Washington and serves a copy of same upon the parties to the proceedings. The regional director also transmits a complete record of the hearing to the board. Any party to the proceedings may file exceptions to the intermediate report within 10 days of the receipt of the report with the board. Ordinarily no matter not included in the statement of exceptions may thereafter be objected to before the board. The board may reopen the case to take further testimony if it deems this necessary. Otherwise, the board may issue its order on the basis of the records before

¹See National Labor Relations Board, *Rules and Regulations, Series I*, as amended, Apr. 27, 1936.

it. In case the employer complies with the order of the board, the case is closed; otherwise the board may petition the Circuit Court of Appeals in the region in which the alleged unfair labor practices occurred for the enforcement of its order and for appropriate temporary relief or restraining order. Before the court the findings of the board as to the facts are conclusive.

The procedure in reference to certification of representatives is similar to that of a hearing on unfair labor practices, modified of course to meet the changed situation. An *intermediate report* is not filed, but a complete record of the hearings before the trial examiner is forwarded by the regional director to the N.L.R.B. in Washington. From a consideration of the record, the board may designate the organization entitled to represent the employees, or it may direct that a secret ballot of the employees be held to determine the appropriate agency, or it may make other disposition of the matter. In case the board directs that an election be held, an agent of the board conducts the election and prepares an *intermediate report* that is served upon the parties to the proceedings. These parties may file with the regional director an objection to the ballot or intermediate report. The regional director may direct a trial examiner to hold hearings on the objections. In the event hearings are held, these are reported with findings and recommendations to the regional director who forwards them with the *intermediate report* to the board. The board then takes whatever action the facts as presented to it warrant.

State Labor Relations Boards.—Following the passage of the National Labor Relations Act in 1935, five states, Wisconsin, Massachusetts, New York, Pennsylvania, and Utah, passed state labor relations laws similar to the Federal statute. These laws were designed in the main to bring to intrastate employees not covered by the National Labor Relations Act the same protection in collective bargaining as the employees engaged in interstate commerce enjoy. The Massachusetts act specifically classified the "sit-down" strike as an unfair labor practice. The state acts generally require a majority of all eligible votes to select a bargaining agent in contrast to the National Labor Relations Board's prevailing practice of requiring a majority of the votes cast.¹ These state acts in the main provided the same general administrative procedure as the national act. The state boards are empowered to hold elections to determine appropriate bargaining agencies or to specify the appropriate bargaining unit. The Wisconsin act

¹ See Dale Yoder, *Personnel and Labor Relations*, Prentice-Hall, Inc., New York, 1938, p. 498,

conferred upon the board mediatory powers. The New York act gave the employer the right to petition the board to certify the proper bargaining agency.

Violence and extreme action engaged in by some unions from 1936 to 1938 produced not only dissatisfaction on the part of many with the administration of the National Labor Relations Board but positive action on the part of several states that definitely restricted certain types of activities of labor unions, although in no case did they restrict the basic right of employees to engage in collective bargaining through representatives of their own choosing. The state of Oregon, by initiative and referendum, approved Nov. 8, 1938, an act that defined a "labor dispute" so as to include

only an actual bona fide controversy in which the disputants stand in proximate relation of employer and the majority of his or its employees and which directly concerns matters directly pertaining to wages, hours, or working conditions of the employees of the particular employer directly involved in such controversy.

The act specifically ruled out disputes between different organizations for the right to represent the employees as constituting a labor dispute. The act outlawed the secondary boycott and forbade picketing save in the case of a bona fide labor dispute as defined in the act. The act further limits initiation fees and dues to that required for lawful purposes of the union and requires accurate accounting of receipts and expenditures and the making of the books available to the members of the union for inspection at all reasonable times.¹ Section 5 of the Oregon act protects the worker or applicant for work from molestation either directly or indirectly by any person, organization, or association.

In 1939, Wisconsin passed a new labor relations act creating an employment relations board of three members to administer the act. The law guarantees to the employees the right to engage in collective bargaining or the right to refrain from collective bargaining. A major-

¹ In the case of *A. F. of L. v. Bain*, the Supreme Court of Oregon, Oct., 22, 1940, held most of the sections of this act unconstitutional in that it violated the freedom of speech and freedom of the press, which rights are guaranteed by the Federal constitution. The court, however, did not invalidate Section 4, which prescribes regulations as to the collection of dues from union members and the keeping of records of the receipts and expenditures of dues. In this connection it is interesting to note that the Supreme Court of Wisconsin, Nov. 8, 1940, in the case of the *Hotel and Restaurant Employees' International No. 122 v. the State Labor Relations Board of Wisconsin*, upheld the Wisconsin Act. The court in this case held that "the right of the individual to freedom of speech is, by the terms of the act, left unimpaired. It is the right to concert of action that is regulated." These two court decisions in many points are conflicting.

ity of the votes cast in the determination of the right of representation conveys the right to exclusive bargaining for all the employees in the unit covered. The secret ballot is used in determining representation. Employees as well as employers may be guilty of unfair labor practices. It is an unfair labor practice for an employer to "check off" union dues for employees unless authorized to do so in writing by the employees concerned. The employer is guilty of unfair labor practices if he is guilty in any manner of dominating or influencing his employees in their free choice of representatives for collective bargaining, or if he refuses to bargain collectively or violates the terms of a collective bargaining agreement. An employer may not grant a closed shop save when three fourths of his employees in the unit involved have voted for the closed shop in an election conducted by the Employment Relations Board. Employees may be guilty of unfair labor practices by engaging in coercion or intimidation, mass picketing, secondary boycotts, violation of collective agreements, picketing or boycotting unless a strike has been called by a vote by a secret ballot of a majority of the employees involved, or by engaging in a "sit-down" strike. The act requires the union to keep records of all financial transactions and to make reports to its members. The anti-injunction law applies only to labor disputes in which an employer is involved with a majority of his employees in a collective-bargaining unit. Under the old law, it was not necessary that there be any dispute between the employer and his men; an outside group could picket because they wanted the men to join their union, and this constituted a labor dispute.

Pennsylvania also modified its law in 1939 prohibiting unfair labor practices by employees as well as employers. The "checkoff" is forbidden unless the employer is authorized by a majority vote of his employees and by the individual authorization of each employee. "Sit-down" strikes were outlawed as well as attempts of employees to coerce or intimidate other workers in the selection of a union or a representative for collective bargaining. The anti-injunction law no longer applies to a "sit-down" strike, a labor dispute in violation of an existing labor agreement, or a labor dispute where a majority of the employees have not joined a labor organization or where two or more labor organizations are competing for membership of the employees.

Minnesota and Michigan also passed laws in 1939 that were protests against some of the excesses engaged in by some extreme labor unions. Both states forbid unfair labor practices by both employers and employees. Both states outlaw the "sit-down" strike and forbid intimidation of workers to get them to join a particular union. Both states provide for mediation and conciliation. Employers are

restricted from coercion or intimidation of their employees in the free choice of representatives for collective bargaining.

Summary of National and State Labor Relations Acts.—These acts have been sustained by the supreme courts involved. Collective bargaining is established as a basic right, and at least one state act recognizes also the right not to participate in collective bargaining. The National Labor Relations Board has also recognized the right of employees to vote not to be represented. The National Labor Relations Board to date has not concerned itself with excesses of labor unions but has strictly limited its activities to promoting collective bargaining. Labor, in some cases by its extreme tactics, particularly in the cases of violence in mass picketing, overturning automobiles, milk trucks, stopping the trains, and at times the United States mail, has exceeded its rights and definitely infringed upon the rights of the public. It would be better by far for labor to restrict its activities to approved legal methods rather than to have them regulated by law. At present, labor unions are somewhat in the position that employers were prior to the National Labor Relations Act. If they fail to recognize the rights of others in their new-found legal privileges, an indignant public will insist upon their being regulated by law. As a matter of fact, the restrictions placed by Oregon, Wisconsin, Michigan, Minnesota, and Pennsylvania do not take away from labor unions any rights that they ever had.¹ They will in no manner restrict the legitimate activities of the workers in selecting representatives of their own choosing for collective bargaining. At times these regulations will promote the untrammelled expression of the workers, for it must not be forgotten that minority labor groups by the use of force and intimidation can influence the choice of workers' representatives quite as effectively as unfair labor practices on the part of the employer. It is to be hoped that both the employers and labor will develop techniques of mutual cooperation and learn to use collective bargaining in those cases where the employees desire it.

¹ See U. S. Department of Labor, *Labor Bulletin*, Vol. VI, No. 9, September, 1939, pp. 10-11, for a summary of the labor legislation of Wisconsin, Pennsylvania, Minnesota, and Michigan, and also the respective statutes of the states mentioned.

CHAPTER XXXII

FAIR LABOR STANDARDS ACT

The personnel manager is charged with the responsibility of aiding the line officers in maintaining harmonious relationships with their employees regardless of whether the motivating force for a particular activity proceeds from management, the workers, or a statutory regulation. We have just considered the National Labor Relations Act and similar state labor relations acts and the personnel manager's relation thereto. We could not with certainty point out that the personnel director should take an active part in the actual collective bargaining under the National Labor Relations Act, for some very able and successful personnel directors feel that their efforts are most effective if they stay in the background on the actual collective bargaining and become active in carrying out the details of the collective agreement, once it is arrived at. The situation is somewhat different in the case of the Fair Labor Standards Act. The act is not one subject to collective bargaining save in one minor point. This act prescribes certain very specific rules and regulations governing working hours, length of the work week, minimum wages, and child labor.

By the very nature of the situation, the personnel manager must be actively concerned with this act if he is to be interested in the ovqr-all personnel relationships in the plant and labor costs. For instance, the plant educational program is usually under the direct supervision of the personnel director. Many educational activities have been conducted after working hours. The Fair Labor Standards Act, as it has been interpreted, places a serious burden upon certain of these programs. By restricting hours worked unless overtime is paid, the act places a special problem before the personnel director in his providing man power for production needs. In figuring the labor budget for a production schedule, the personnel director must not only consider the Fair Labor Standards Act but also the unemployment insurance costs arising out of state enactments to conform to the Social Security Act. We shall first consider the Fair Labor Standards Act and then the unemployment insurance in the following chapter.

Theory behind the Fair Labor Standards Act.—There are two phases to the arguments advanced for this type of legislation, those

dating back over a number of years and the more immediate arguments advanced at the time of the passage of the act. The historical arguments are in substance that it is a function of government to protect the weak, particularly women and children, against the exploitation of unscrupulous employers. More careful students and less rabid partisans of this type of legislation would not use the terms "exploitation of unscrupulous employer," but substitute the argument of protecting women and children from the harshness of economic competition for which no one employer but the entire social and economic structure is responsible. These persons recognized the fact that the supply of this class of labor was nearly always in excess of the demand for it and that, in the absence of any effective organization of this type of labor, it was almost impossible for the laborers themselves to reduce, by collective agreement, the number of hours worked. Another argument nearly always advanced is the fact that the long hours complained of were detrimental to the health of the future and the present mothers of our race as well as to growing children; hence the number of hours worked should be restricted under the police powers of the state to protect the health and safety of the people. The foregoing arguments were not necessarily in favor of a 40-hr. week but against the 50- and sometimes 60- or even 72-hr. week. On the basis of health alone, it would be difficult to show that a 40-hr. week was especially to be preferred to a 44-hr. week.

Most of the early proposals were for the shorter week for women and children on the basis of health. It was a logical step to go from hours of work to minimum wages to support the women on a standard in keeping with common standards of decency. The arguments were then expanded to include health, decency, and public morals. Advocates of minimum wages and maximum hours of labor for women and children seldom did so on the basis of the "lump of labor theory." This theory was usually advanced when it was advocated that the law include men. Most of the advocates of this legislation recognized that, if the hours were reduced so that the available supply of women and children would be in demand, they would have to be reduced to such a ridiculously low level by comparison that there would be no hope for its passage or if passed, women and children would be placed at such a disadvantage in seeking employment that the legislation would be a serious handicap.

The "lump of labor theory" bulked large in the discussions immediately preceding the passage of the Fair Labor Standards Act in 1938 and its predecessor the National Industrial Recovery Act in 1933. It will be recalled that a severe depression created a serious

unemployment situation in 1933 when the N.I.R.A. codes limited the number of hours of work with the avowed purpose of spreading the work. The same situation prevailed in 1938. Labor unionists and social reformers argued that since there was only so much work to be had anyway, it was socially desirable and economically sound to limit the hours that any one person could work, thus to spread the work among as many people as possible. The fallacy of this argument will be discussed in the following chapter on Stabilizing Employment.

Still another argument for shorter hours is the socioeconomic one that, since employees are after all the largest group in the consuming public, hours must be shortened in order to give the workers time in which to consume the articles or services that they produce. The absence of logic to support this contention did not restrain its advocates, for after all it must be remembered that logic is obnoxious to pleaders of *causes* unless it can be applied to further the *cause*. Their argument in this case presupposes that workers now have a surplus that they cannot find time to spend, which is patently contrary to fact.

Historical Background of Maximum-hours and Minimum-wage Legislation.—In 1892, Congress established an 8-hr. day for laborers and mechanics employed on public works either directly by the government or by private contractor. In 1911, a rider to a naval appropriation bill providing for the construction of and the machinery for battle-ships and torpedo boats prescribed an 8-hr. day for all employees to be engaged on this work. In 1912, the same principle was extended so as to require every Federal contract to contain a stipulation that no laborer or mechanic was to be permitted to work more than an 8-hr. day, with certain exceptions. In 1913, the act of 1892 was extended to include all workers engaged in dredging or rock excavation in rivers and harbors of the United States.

The first Federal act establishing wage standards for employees engaged in government work was passed in 1931. The Bacon-Davis Act of that date provided that every government contract above \$5,000 for the construction, alteration, and repair of any public building of the United States was to contain a provision requiring the payment of prevailing community wage rates for similar work as determined by the Secretary of Labor. This act was extended in 1935 to apply to contracts in excess of \$2,000. The Walsh-Healy Act of 1936 provided that any agency of the United States contracting for the manufacture or furnishing of materials, supplies, articles, and equipment above \$10,000 should stipulate that:

1. All persons employed by the contractor will be paid not less than the prevailing minimum wage for such work in the community as established by the Secretary of Labor.
2. No employee will be permitted to work more than 8 hr. in one day or 40 hr. in any one week unless paid for overtime.
3. Males under sixteen years of age and females under eighteen years of age will not be employed.
4. Convict labor will not be employed.¹

In 1907, the Hours of Service Act established maximum hours varying from 9 to 16 under different conditions for railroad employees. The Adamson Act of 1916 provided an 8-hr. day for railroad employees and further provided that wages should not be reduced because of the shortened day, pending the report of a commission created to investigate the situation. The Supreme Court upheld this act in the case of *Wilson v. New* [243 U. S. 332 (1917)]. In 1914, Congress prescribed a maximum 8-hr. day and 48-hr. week for women in the District of Columbia. In 1918, an act was passed establishing a minimum-wage board for the District of Columbia empowered to establish minimum wages for women and children at such a rate as to meet the "necessary cost of living" and "to maintain them (women and minors) in good health and to protect their morals." The Supreme Court declared this act unconstitutional in the case of *Adkins v. Children's Hospital* (261 U. S. 525), Apr. 9, 1923.

The Interstate Commerce Commission was given power by the Motor Carrier Act of 1935 to set maximum hours of work for "common and contract carriers and if need be found for it, of employees of private carriers as well."² The N.I.R.A. of 1933 made provision for the establishment of maximum hours and minimum rates of pay. This act was invalidated by the Supreme Court. However, the Supreme Court sustained the minimum-wage law for women of the state of Washington in the case of *West Coast Hotel Company v. Parrish* (300 U. S. 379), Mar. 29, 1937, in substance reversing or modifying its ruling in the *Adkins v. Children's Hospital* case, thus pointing the way to the present Fair Labor Standards Act, which became law June 25, 1938.

State Minimum-wage Legislation.—The first minimum-wage law passed by any state became effective in Massachusetts July 1, 1913. The movement did not grow rapidly. The Supreme Court's invalidating of the minimum-wage law of the District of Columbia in 1923 left considerable doubt as to the constitutionality of state laws. At the beginning of 1933, the year in which the National Industrial Recovery

¹ See *First Annual Report of the Wage and Hour Division of the U. S. Department of Labor*, 1939, pp. 1-3, for much of the data presented in this paragraph.

² *Ibid.*, p. 3.

Act was passed, only nine states, in some of which the laws were inactive, had minimum-wage laws.¹ The National Consumer's League² sponsored a standard bill that did not attempt to regulate wages generally but provided for an investigation to be made whenever a substantial number of women and minors are receiving less than a subsistence wage, to "determine whether the wages are fairly and reasonably commensurate with the value of the service or class of service rendered." During 1933, six states³ passed laws similar to the one sponsored by the National Consumer's League and a seventh one, Utah, also passed a minimum-wage law but not similar to the other six. Massachusetts passed a law similar to the one sponsored by the National Consumer's League in 1934, as did Rhode Island in 1936. As of Jan. 1, 1940, 26 states,⁴ the District of Columbia, and the territories of Alaska and Puerto Rico had minimum-wage laws.

In only a few cases, Arkansas, Nevada, South Dakota, Alaska, and Puerto Rico, do the laws establish a fixed minimum wage. In most of the states, a wage board, commission, or some other agency establishes the minimum after investigation. Some of the states establish their minimum wages on the basis of the cost of living, and others consider wages in relation to their being "fairly and reasonably commensurate with services rendered." In addition to considering services rendered, Rhode Island "permits the wage board to consider what the industry can afford to pay."⁵ There is much to commend the program of establishing minimum wages by a board or commission, particularly when the board is empowered to change the rates with changing economic conditions. The fixing of minimum rates by statute creates an inflexible condition that may work real hardships should the general price level take a serious drop. Most of the provinces in Canada have flexible rates. The Fair Labor Standards Act of the United States fixes the minimum by statute.

Most of the state minimum-wage laws apply only to women and minors. The first state to include men in the provisions of its law was

¹ See *Monthly Labor Review*, April, 1940, p. 891. These states were California, Colorado, Massachusetts, Minnesota, North Dakota, Washington, and Wisconsin.

² See *Monthly Labor Review*, *op. cit.*, p. 891.

³ Connecticut, Illinois, New Hampshire, New Jersey, New York, and Ohio.

⁴ See *Monthly Labor Review*, *op. cit.*, for a summary of these laws. The states are: Arizona, Arkansas, California, Colorado, Connecticut, Illinois, Kansas, Kentucky, Louisiana, Maine, Massachusetts, Minnesota, Nevada, New Hampshire, New Jersey, New York, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Dakota, Utah, Washington, and Wisconsin,

⁵ *Monthly Labor Review*, *op. cit.*, p. 893,

Arkansas in 1937. The supreme court of Arkansas invalidated that portion of the act that applied to the wages of men; however, that portion of the act that regulated hours for men, women, and minors, as well as wages for women and minors, was left intact. Connecticut's reenacted law of 1939 included men in its provisions. In Alaska and Nevada, the law applies only to women.¹ From the standpoint of the protection of health and viewed in the light of the tendency to work a shorter day aside from legislation, it would appear that there is more logic to applying maximum-hour legislation to women and minors than to men.

Provisions of the Fair Labor Standards Act.—When viewed from the standpoint of coverage and administrative responsibility, there are three main divisions of the Fair Labor Standards Act, namely, (1) minimum-wage standards, (2) maximum-hours regulation, both of which come under the Wage and Hour Division of the Department of Labor, and (3) the child-labor provisions that come under the Chief of the Children's Bureau in the Department of Labor. It is the declared policy of Congress under

... its power to regulate commerce among the several States, to correct and as rapidly as practicable to eliminate . . . labor conditions detrimental to the maintenance of the minimum standard of living necessary for health, efficiency, and general well being of workers . . . without substantially curtailing employment or earning power.²

1. *Coverage.*—Since Congress is empowered to legislate in such matters only in its capacity of regulating interstate commerce, it naturally follows that only persons engaged in interstate commerce are covered. Section 6 requires an employer to pay a specified minimum wage to "each of his employees who is engaged in commerce or in the production of goods for commerce/' Section 7 limits the number of hours an employer may "employ any of his employees who is engaged in commerce or in the production of goods for commerce" after Oct. 24, 1940, to 40 hr. during any work week, with the exception of certain enumerated conditions. The Wage and Hour administrator has said:

From the use of the words "each" and "any," sections 6 and 7, it is clear that the question of coverage can be determined only in given instances depending upon the nature of the employment of a particular employee and not necessarily upon the nature of the employer's business. Consequently, some employers in the same industry may be subject to the act with respect

¹ *Ibid.*

² Fair Labor Standards Act, Section 2 (a) and (6).

to some of their employees and not others; finally, still other employers in the industry may be subject to the act with respect to all employees except those specifically exempt.¹

If an employee by the nature of his work comes under the provisions of the act, it makes no difference whether the work is performed in his home, at the factory, or elsewhere. The housewife in the South, who makes candlewick bedspreads in her home on contract for an employer who sells them across the state line, comes under the provisions of the act. Home workers in the foregoing illustration are considered employees rather than independent contractors. The act itself does not make this classification, but the administrator acting on the advice of his general counsel has so ruled.² In this connection, it seems to be a fair evaluation of the administration of the act to say that the administrator has to date construed the act as broadly as possible without undue violence to the wording of the act in order to extend its coverage to as large a number of persons as possible. This statement is intended as neither criticism nor commendation but appears to be factual. To illustrate, an employee who attends of his own free will and accord meetings or lectures sponsored by the employer must be considered as being at work while in attendance at such meetings if the meetings or lectures "are directly related to the employee's work."² The act's coverage is not limited to workers paid by any particular wage plan. It applies to pieceworkers, day workers, or salaried workers.

The coverage of employees, as far as coming under interstate commerce is concerned, is very broad in the act itself. Section 3 (j) defines *produced* as follows:

Produced means produced, manufactured, mined, handled, or in any other manner worked or in any State, and for the purposes of this Act an employee shall be deemed to have been engaged in the production of goods if such employee was employed in producing, mining, handling, transporting, or in any other manner working on such goods, or in any process or occupation necessary to the production thereof, in any State.

A tool and die manufacturer who sells his product solely within the state to a manufacturer who uses the tools and dies to produce goods for interstate commerce comes under the provisions of the act. An owner of a building who rents space to a manufacturer whose products move in interstate commerce must conform to the provisions

¹ *First Annual Report, Wage and Hour Division, op. cit.*, p. 14.

² *Ibid.*

of the act, since the janitors, elevator operators, maintenance men, etc., who service the building, even though paid by the owner of the building, are nevertheless providing a service to a manufacturer who is engaged in interstate commerce.

2. *Exemptions.*—The act provides certain exemptions from the provisions prescribed. These exemptions may be classified under the following headings: (1) complete exemption from all provisions of the act, (2) complete and partial exemption from the hours provision, (3) exemptions pertaining to agriculture and the processing of agricultural products, and (4) exemptions from the minimum wages under Section 14.

Complete exemption is provided in the case of:

1. "Any employee employed in a bona fide executive, administrative, professional, or local retailing capacity, or in the capacity of outside salesman (as such terms are denned and delimited by regulations of the Administrator)" [Section 13, *a* (1)].

2. "Any employee engaged in any retail or service establishment the greater part of whose selling or servicing is in intrastate commerce" [Section 13, *a* (2)].

3. Seamen [Section 13, *a* (3)].

4. An employee of a carrier by air subject to the provisions of title II of the Railway Labor Act [Section 13, *a* (4)].

5. Persons actively engaged in fishing and closely related activities of loading, unloading, and preparing for-canning. [Section 13, *a* (5)].

6. Agricultural employees.

7. Employees of weekly or semiweekly newspaper of a circulation less than 3,000 the major portion of which is in the county where it is published. [Section 13, *a* (8)].

8. Local street-railway or motor-bus employees.

9. Persons engaged in the first processing of agricultural products in their raw or natural state in the area where produced. [Section 13, *a* (10)].

10. Learners, apprentices, and handicapped workers [Section 14].

Space will not permit an elaboration of each of these exemptions. "An employee receiving \$30 or more a week whose duties involve a combination of management, direction, authority to hire and fire, and the exercise of discretionary powers" is classified as being exempt. An employee to be classified as engaging in professional work must be engaged in work that is intellectual, varied, requiring exercise of judgment, is subject to neither standardization nor active direction and supervision, and is based upon educational training in a specially organized body of knowledge.¹ Barber shops, garages, and laundries are classified as service organizations and therefore are exempt from

¹ See *First Annual Report*, Wage and Hour Division, *op. cit.*, pp. 19-29, for illustrations of exemptions and definitions of terms.

the act, but banks, telephone companies, and gas and light utilities are not.

Exemption from the hours provision only are made in the following cases:

1. Drivers covered by the Motor Carrier Act [Section 13, (6)].
2. Employees subject to the Interstate Commerce Act.

Partial exemption from the hours provision only of the Fair Labor Standards Act is provided in Section 7 (b) (1) and (2) as follows:

1. To employers guaranteeing their employees an annual wage, provided this annual wage agreement is made with employees through their representatives certified as bona fide by the National Labor Relations Board. This agreement must provide that the employees shall not be employed more than **2,000** hours during any period of 52 consecutive weeks. Employees under this agreement may be worked up to 12 hours a day or 56 hours a week without overtime.

2. Employees may in pursuance of an agreement made as a result of collective bargaining as outlined immediately above, yet without the guaranteed annual wage, work up to 12 hours a day or 56 hours a week during any period of 26 consecutive weeks.

3. Section 7 (6) (3) provides that, in industries found by the administrator to be of a seasonal nature, employees may work for a period or periods of not more than 14 work weeks in the aggregate in any calendar year, may work 12 hours in 1 day or 56 hours in any work week provided overtime of one and one half times the regular pay is paid for all time in excess of 12 hours per day or 56 hours per week.

In the case of the guaranteed annual wage and the 2,000-hr. limit, these limits are *absolute*. If either the 2,000-hr. or 1,000-hr. limit is exceeded the employer will be held to "have violated the act throughout the work period during which he worked his employees in excess of the standard number of hours without payment of wages at the rate of time and a half."¹

Section 3 (a) (10) provides complete wage and hour exemption to individuals employed within the area of production (as defined by the administrator) in processing certain agricultural products. One definition of the administrator provides that the plant shall have not more than seven men and that the materials worked should come from the general vicinity of the plant. "The other definition provides that an individual must work on materials all of which come from farms within a radius of 10 miles of the establishment and the establishment must be located in the open country or in a city or town of less than 2,500 population."² Meat-packing operations, as ordinarily carried on in packing houses, come under the exemption provisions of Section 7 (c) of the act,

¹ *First Annual Report, Wage and Hour Division, op. cit., p. 26.*

• *Ibid.*, p. 28.

Section 14 enables the administrator to establish regulations On issue orders permitting learners, apprentices, and messengers employed exclusively in delivering letters and messages to work at wages lower than the minimum wage applicable in general as prescribed in Section 6. The administrator may likewise issue certificates enabling handicapped workers to be exempt from the minimum-wage regulations. In both of the foregoing situations, the administrator's actions are predicated upon the principle of not curtailing "opportunities for employment." These exemptions cover wages only. The hours provisions still prevail.

3. *Child Labor*.—Section 12 (a) forbids the shipment of goods in interstate commerce that have been produced in a plant in which "any oppressive child labor has been employed." By definition [Section 3 (1)], oppressive child labor includes all labor of children under the age of sixteen and of an employee between the ages of sixteen and eighteen in any occupation that the chief of the Children's Bureau in the Department of Labor shall find and by order declare to be particularly hazardous or detrimental to their health or well-being. The chief of the Children's Bureau may provide for the issuance of certificates to children between the ages of fourteen and sixteen to work in occupations other than manufacturing and mining, provided the work does not interfere with the schooling of the children and is not detrimental to their health and well-being. To illustrate the provision as to hazardous employment for minors between the ages of sixteen and eighteen, the chief of the Children's Bureau has ruled that a motor vehicle driver and his helper are engaged in a hazardous occupation. In this ruling, a helper is considered anyone other than the driver whose work requires riding on a motor vehicle in connection with the transportation and delivery of goods.

4. *Hours and Wages*.—As of Oct. 24, 1940, the act restricts the number of hours worked in any one work week to 40 unless, at the least, time and one half is paid for all time in excess of 40 hr.; or, under conditions discussed under *exemptions* above, the employees are on a guaranteed annual wage working not more than 2,000 hr. or are under an agreement for 26 weeks and not working in excess of 1,000 hr.; or in the case of seasonal industries so declared by the administrator (Section 6).

The minimum-wage provisions require not less than 30 cents **per hour** beginning Oct. 24, 1939, and continuing for 6 years thereafter. After Oct. 24, 1945, the act requires a minimum wage of 40 cents **per hour**. **During** this 6-year period, the administrator, on the **recommendation** of an **industry** committee, may establish minimum **rates**

not in excess of 40 cents per hour for the industry in question. The industry committee shall consist of an equal number of representatives of labor, the public, and management.¹ This committee shall hold hearings open to the public and make recommendations that "(1) will not substantially curtail employment in such classifications and (2) will not give a competitive advantage to any group in the industry" [Section 8 (c)]. The act specifically forbids the fixing of a minimum wage solely on a regional basis; however, the industry committee may consider in establishing minimum wages, (1) the "competitive conditions as affected by transportation, living, and production costs, (2) the wages established for work of like or comparable character by collective labor agreements negotiated between employers and employees by representatives of their own choosing, and (3) the wages paid for work of like or comparable character by employers who voluntarily maintain minimum wage standards in the industry" [Section 8 (c)]. The industry committee's recommendation and administrator's order may bring to a particular industry the advantages of the 40-cent minimum prior to the date when this becomes the rate fixed by law. The administrator has said, "In the competition among communities for industries, the act outlaws the lure of substandard wages and long working hours."² There is little question that the successful competition of the South for industries was a vital factor in securing the passage of the act. Most of the industry committees appointed as reported in the *First Annual Report* are those related to the textile or apparel industries in which the competition of the South was keenest.³

5. *Penalties*.—An employer who willfully violates the act may be subject to a fine of not more than \$10,000 and on a second conviction may be fined not more than \$10,000 and imprisonment for not more than 6 months [Section 16 (a)]. In addition to the fine and imprisonment, the employer is liable to his employees for all unpaid overtime and for all underpayments on the minimum wage and in addition an equal "amount as liquidated damages" [Section 16 (6)]. The court, in an action to recover wages due, "shall in addition to any judgment awarded to the plaintiff or plaintiffs, allow reasonable attorney's fee to be paid by the defendant, and costs of action."

Summary.—The Fair Labor Standards Act is a part of the social legislation arising out of the depression of the thirties as well as the competitive advantage enjoyed by certain areas in luring industries to

¹ See *First Annual Report*, Wage and Hour Division, *op. tit.*, for a detailed discussion of the functioning of the industry committee.

² *Ibid.*, p. xi.

³ *Ibid.*, p. 74.

their regions because of low labor costs. The administrator, in his first report in setting forth the objectives of the act, said:

It seeks to protect workers from excessively long hours of work and to create additional opportunities for employment by setting a maximum work week beyond which employers may not work their employees without being restrained by the necessity of paying overtime compensation. It seeks to* bring about a wider diffusion of that mass buying power upon which industry itself is dependent.¹

This reference to "additional opportunities" sounds very much like the "lump of labor theory" and the rest of the quotation is definitely a part of the "distributing the wealth program." Few people will disagree with the objectives of raising the standard of living of the lower economic group. This law in many cases will undoubtedly raise the wages of the marginal workers in some of the more prosperous industries and to some extent the general level of wages in entire industries in certain localities. It will undoubtedly slow up the migration of industries to the South, especially those industries that move because of a wage that may be lower than the specified minimum. It may readily work to the disadvantage of women in certain factory operations, such as tire building or related operations, where in general men are preferred anyway. On the other hand, in industries where there is no particular preference for men or women, the Fair Labor Standards Act or the respective state minimum-wage or maximum-hours laws may have no appreciable effect other than to cause management to substitute machinery for labor if the marginal labor will not earn the required wage. These acts may also force management to institute improved methods.² Having a fixed minimum wage may work no general hardship as long as our general price level does not fall below the level of 1934-1938. Should it fall materially below the level of 1932-1933, the law would certainly result in severe dislocations. As to the logic of specifying 40 hr. instead of 44 for a 5½-day week or 48 for a 6-day week, there does not seem to be any, unless one accepts the principle that there is now and will continue to be only so much work to go around, and this should be spread as far as possible. It certainly has not been established that an 8-hr. day is detrimental to the health of employees. These minimum-hours restrictions may place us at a disadvantage in competition for world trade or even in the case of national defense, as France learned to her sorrow. In

¹ *Ibid.*, p. xi.

² See "The Effect of Minimum-wage Determinations in Service Industries," U. S. Department of Labor, Women's Bureau, *Bulletin* 106, 1938, pp. 3-32.

principle at least we would be in a more advantageous position if our national law permitted a board to establish the maximum hours, setting for instance the 40-hr. limit as the minimum below which the board could not go. The same principle might well apply to the minimum-wage provisions. The Canadian laws are largely of this type.

CHAPTER XXXIII

STABILIZING EMPLOYMENT

Background.—Even persons whose sole contact with the suffering arising from unemployment is the daily newspaper, community-chest drives, church affiliations, and related activities recognize that the unemployment problem is one of great social and economic significance. It is not a new one, but one that has challenged man's efforts for centuries wherever he has lived in cities. It was not formerly and even today is not so pressing in rural communities inhabited by owner-operated or tenant farmers. It does present, however, a serious problem to certain areas like California where a large migratory group of farm workers has developed. The operating farmer is faced with seasonal peaks in his work but usually plans his work so that he does his repairs and product processing as far as possible during the off season when crops are not being planted, cultivated, or harvested.

Industry and commerce have appropriated the methods of the farmer to a limited extent, particularly the smaller enterprises in that they have striven to make repairs and changes during slack periods. Even the public schools in certain areas have started in July after the crops were laid aside and then suspended activities during the harvesting period. During the first two decades of the twentieth century, relatively few intensive attempts were made on a large scale to cope with the problem. During the twenties and particularly during the era of the prolonged depression of the thirties, serious attention was directed to the solution of this problem both by the government and by private industry.

Causes of Unemployment.—As was intimated above, in the case of the farmer, a great amount of unemployment arises out of the changing seasons that influence buying habits as well as productive processes. Again, there are the cultural and technological factors, the cyclical factors, and to lesser degree the personal instability or incapacity of certain workers.

1. *Seasonality.*—Climatic conditions definitely restrict or handicap building construction, the building of highways, bridges, and water transportation that in turn restricts the activities of industries depen-

dent upon water transportation such as the ore mines of the Lake Superior region, etc. Climatic conditions limit the growing season largely to the spring and summer; hence the great bulk of the processing of fruits, vegetables, and to a less marked degree, meat is confined to a 3- to 6-month period. Changing temperatures require different protective covering for man; hence the clothing manufacturer has definite seasonal demands. Coal used for household purposes increases manyfold during the winter season. The whole social structure is influenced by seasonal changes. During the hot summer months, retail sales drop off. People are not particularly concerned with buying new things but are trying to keep cool. Of course, the manufacturer of electric fans and refrigerators has his peak demand in the spring and summer; on the other hand, he has little demand during the winter. In all probability, the greatest single cause of employment fluctuation is the changing seasons.

2. *Technological and Cultural Influences.*—Using the term *culture* in its broadest sense to include the mores of the people, the changes arising from this source in general are gradual. However, certain aspects of it may be rather sudden, taking place within 1 or 2 years. For instance, the length of women's skirts may be shortened 4 or 5 in. in 1 year. Taken collectively, this may reduce tremendously the quantity of cloth required for their dresses. On the other hand, the shortening of skirts will tend to increase the number of stockings required. Again, the shift to anklets occurring at the same time as the shortening of skirts reduces *in toto* the clothing required. The invention of rayon and the cheapening of silk or rayon stockings produced a rapid shift from cotton stockings. The radio in a short time almost drove the talking machine off the market. Duco took the place of varnish on automobiles and greatly reduced the production time and men required. The flat-built tire replaced the core-built tire for passenger cars and doubled the output per worker. Cultural changes and technological developments will continue unless we approach a static social state in which there is practically no social progress. It must be admitted that the present state brings some social suffering, yet the social advantages far outweigh the disadvantages. Certain ameliorating efforts will be discussed below.

3. *Personal Instability or Incapacity of the Worker.*—Even during the business peak of 1928-1929, there were considerably more than a million unemployed workers. Many of these were only temporarily unemployed for reasons discussed above, such as seasonality and technological change. On the other hand, many of them, 0.35 per cent according to the 1930 census, were not working because of ill

health, accidents, and temperamental or emotional conditions.¹ The persons suffering from temperamental and emotional disturbances may have been employed intermittently during the year, but, being the so-called "problem employees," their coming and going or labor turnover is high. Persons of this type will often be hired in the case of an acute labor shortage, but will usually be the first to be let out during a layoff and have real difficulty in finding employment during periods of work shortage. Such individuals are not static. Some of them show up at times when they have had a long successful record behind them. They may have developed a psychopathic complex that will disappear if properly handled. Unfortunately, few of our industries are in a position to handle such cases. A mental illness is just as bad, if not worse, than a tangible physical disease and frequently responds to treatment.

The physically handicapped person, either congenitally or as the result of disease or accident, is often one of the unemployed. Two Federal statutes recognize this problem; the Fair Labor Standards Act makes provision for waiving the minimum-wage requirements, and the Social Security Act of 1935 makes available additional funds for vocational training or rehabilitation of the physically handicapped. Over against these two laws is the unemployment insurance requirement that tends to cause employers to hesitate to employ such persons when there is any likelihood of their not succeeding.

4. *Managerial.*—Management cannot change the seasons or do very much about those cases of personal instability, yet it can plan its activities to mitigate the fluctuations arising from seasonal changes and to a considerable degree influence the fluctuations arising from technological changes. A failure of management to recognize the possibilities in employment stabilization and to take effective action to place these remedies in use is a contributing cause of employment instability.

Analysis Preceding Any Planned Attempt to Stabilize Employment.

Scientific management is predicated on the use of facts in determining a particular course of action. In no relationship is the use of facts more pertinent than in an attempt of an employer and his employees to evolve an arrangement to stabilize employment or its near equivalent, the stabilization of employee income. Incongruous though it may seem to be, relatively few industries have accumulated usable data portraying the monthly fluctuation in production over a period

¹ See Dale Yoder, *Personnel and Labor Relations*, Prentice-Hall, Inc., New York, 1938, p. 442, for an excellent discussion of this subject; see also *Report to the President of the Committee on Economic Security*, 1935, p. 1.

of 5 or 10 years. Many of them have records from which this information could be derived but have not summarized it into usable charts to show their exact performance. It must be admitted that the past is not a positive index of the future, yet it is by far the best indicator of possible trends that is available. The outstanding example of the use of facts is the much publicized Procter and Gamble case. A study of their sales showed extreme fluctuation during the year, yet the same study revealed a remarkably stable total annual sales by volume with a normal increase in unit volume sales per year. This factual data lead to a further analysis of channels of distribution that pointed the

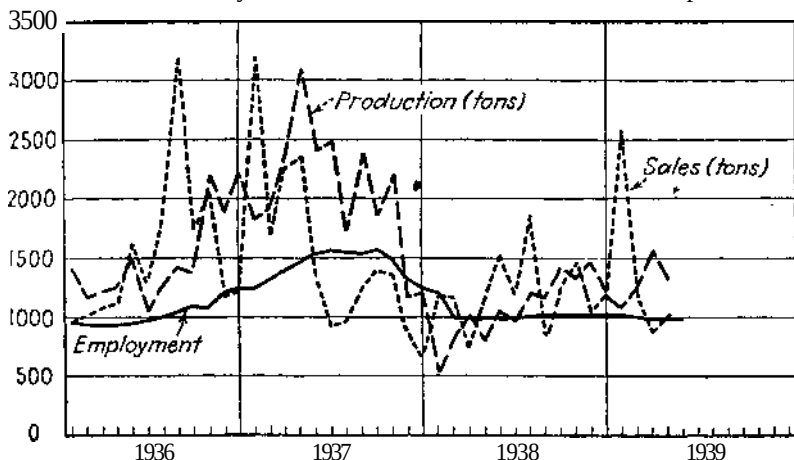


FIG. 83.—Chart showing the fluctuations of employment, sales, and production of a pipe-fitting company. (Reproduced by permission from *Employment Regularization*, National Association of Manufacturers, New York, 1940, p. 28.)

way to the solution that has meant so much to its employees, the community, and undoubtedly the company.¹ It must be recognized that the stability of sales in consumers' goods, such as soap and food products, is greater than in the case of producers' goods, yet the case of the manufacturers of producers' goods is by no means a hopeless one. An analysis of previous experience of the individual concern may readily show the degree within which stabilization may reasonably be expected to be attained. In nearly every case, unless the concern has been working on a stabilization program, such analysis will point to possible improvement. It is of course conceivable that a shortage of funds to carry the needed inventory adjustment, in case increased seasonal inventories are a part of the adjustment program, may prohibit the inauguration of the program. On the other hand, a knowledge of

¹ See Franklin E. Folts, *Introduction to Industrial Management*, McGraw-Hill Book Company, Inc., New York, 1938, pp. 334-346.

the possibilities of the stabilizing program may readily lead to its adoption when and if funds are available.

Figure 83 is a graphic illustration of the actual performance of a pipe-fitting manufacturing company. This manufacturer reports:

We manufacture for stock, try to estimate the probable year's sales in advance and plan a uniform weekly output to produce that much material. Up and down fluctuations in demand to be absorbed by inventory subtractions and additions. Naturally that requires pretty large inventories at times and an ample supply of cash. If we guess wrong as to demand, and pile up too much inventory, that upsets the apple cart. The success of the whole scheme depends upon our ability to guess the trend, and, of course, that is beyond human power, more so these days than ever.

Methods Used in Attempts to Stabilize Employment.—Having analyzed the situation with respect to employment fluctuation, an individual employer or a group of employers can formulate a program that most nearly fits their individual situation. The following plans have been tried and to a limited extent have been found successful in individual cases.

1. *Diversification of Product.*—Diversification of product so that the peak demand for the one will dovetail with the slack season of the other is the program that has been much talked of and practiced to a limited extent. The familiar coal and ice company has often been used to illustrate this possibility. With the decline in ice sales, a few enterprising coal companies serving a prosperous neighborhood have turned to landscape gardening and the care of lawns in the summer. Such combinations as furnaces and ice boxes or refrigerators, radios and electric refrigerators, automobile parts and oil burners, etc., have been successfully used, but there simply is not enough of such combinations to solve the problem. Again the introduction of these supplementary lines creates a management problem that is not always readily solved by many concerns. Often the men are available but the equipment is not suitable for manufacturing both products. It is not at all unusual that the marketing channel for one is distinctly different from the other. This method presents an attractive solution when the various factors can be harmonized. This program is desirable, where practicable, in the case of an individual concern and in the long run socially, yet it must be recognized that it creates certain dislocations. If company A increases its total production in order to keep its men steadily employed by producing a part of the expected output of company B, the result is less employment for the workers of company B. This increased efficiency on the part of company A may force company

B to make a part of company *A*'s major product to stay in business or merely to be content with a reduced volume of business. In the long run, society will profit by increased productive efficiency, yet, in the short run, total unemployment may be increased by reducing partial unemployment.

2. *Increasing Distribution Efficiencies.*—It is relatively easy to sell coal to a householder when a blizzard is raging and his coal bin is empty, but his interest in coal is not very great in July or August when he is struggling to keep cool enough to be comfortable, yet someone must buy coal in the summer if the coal miner is to be regularly employed. The same situation applies to sweaters, men's overcoats, automobile tires, automobiles, bathing caps, and bathing suits. If workers are to be kept busy during the season when their product is not generally being used, it is necessary that the product be stored by someone. In some cases, this is done by the manufacturer. In others, it must be done either by the dealer or the consumer. The consumer is not going to purchase a product in the off season unless it can be demonstrated to him that it is to his advantage to do so. This advantage may be conveyed to him through intensive advertising campaigns and through price differentials. Provident householders will buy coal in the summer if the saving is sufficiently great to cause them to invest their money in advance of need. The saving has to be truly worth while, or it will not motivate the householder to action.

This suggests a consideration that has been almost entirely ignored, namely, in order to reduce the price during the slack season to offer a real inducement to the buyer, not only can the operator in the case of the coal mine afford to reduce his unit profit, but so may the workers well consider a lower unit wage for the same period. Such a cooperative program between an individual operator and his men may offer a means of stabilizing employment. It should be noted in this connection that this solution does not stabilize employment in the industry as a whole; at least it does not in the short run, for the coal sales made to householders in the summer would not be made in the winter, thus reducing the total amount of tonnage available to the industry in the winter. However, this situation in substance holds for all programs of diversification to stabilize employment by an individual employer. Such a program would in the long run be socially desirable, whereas in the short run it would work some hardship on some members of the industry but would improve the status of the more efficient operators and men who initiated the program.

3. *Securing Advanced Orders.*—The automobile tire industry and others with a distinct seasonal demand for their products have experi-

mented with taking orders in advance, particularly in the slack seasons. These orders are to be filled on or before the date when customer demand begins to increase. The product may be shipped in September to a Florida dealer who will be billed for payment in December or January when the tourist trade causes the demand to increase. The same situation may hold for Alabama shipping in October or November and billing for payment in February or March. The same program is followed as the season progresses, making shipments to states farther north. Under this program, the dealer provides the storage, and the manufacturer finances the inventory. For nonstyle products where the unit value of the product is not excessive, this program offers opportunity for employment stabilization. Automobiles cannot be handled in this manner very satisfactorily for two reasons: one, the product is so large that it creates a real storage problem for the dealer, and the other, the unit value is so great that the capital investment is excessive.

4. *Planned Production Control through Budget Estimates.*—Planned production control through the use of budgetary estimates may become effective through several methods, namely, (1) producing the estimated annual requirements on an annual basis, distributing the total somewhat equally by months and storing the excess over demand during the slack season and shipping from stock largely during the rush season (this method is commonly referred to as production for stock), (2) careful production scheduling in keeping with demand but increasing or decreasing the number of days in the work week or the number of hours in the work day, or both, and (3) careful production control of monthly requirements so as to avoid sudden rush orders even though the production may not be leveled as in case (1). Naturally careful production control [case (3)] is presumed in the first or second method named above; however, for those companies that do not have careful production control, this method offers an improvement. Effective production control is closely related to carefully budgeted sales control.

Production for stock on a large scale is limited to articles that are not subject to violent style changes, articles of not too great bulk, and to companies with sufficient capital or credit to finance the accumulated inventories. This method *in toto* or in a modified form has been successfully used by many companies. Naturally this system requires careful forecasting and accurate inventory control, or the program may prove very expensive.

Increasing or decreasing the length of the work day or work week formerly was more satisfactory than at present under the Fair Labor

Standards Act that limits the work week in covered industries to 40 hr. and requires overtime payments in excess of 40 hr. It should be noted, however, that the act provides a means of suspending this weekly requirement when the employer and representatives of his workers have an agreement that is sanctioned by the administrator of the Wages and Hours Division of the Department of Labor. It is to be hoped that wise labor leaders and intelligent management may make increased use of this provision in the act. This method has its limitations other than the legal requirements. Should the work week be reduced to less than 30 hr., the older employees are almost certain to complain except during prolonged depression periods. The older employees have seniority rights and would not lose their jobs by reducing the force; hence they are prone to complain of the reduced work week if it drops much below 30 hr. Spreading the work is satisfactory for short periods but raises serious problems for long periods. Union leaders tend to favor it, partly on a humanitarian basis and partly for the sake of union solidarity and dues collecting. Members out of work often have their dues suspended; hence it is to the interest of union leaders to keep as many men working as possible even on part time.

5. *Developing New Markets.*—The American manufacturer in his quest for expansion is ever on the alert for opportunities to expand his market. New markets provide an attractive means of expansion. New markets as such may not improve the stability of production; however, new markets in South America, Australia, and South Africa are opposite to ours as to seasons and provide excellent outlets for our products that have a seasonal demand. From a production standpoint, these markets south of the equator are not exactly opposite ours in relation to time, but nearly so. Factually from the standpoint of manufacturing, they are opposite ours less 1 month, which time is required for shipments and distribution when they reach the country to which they are shipped. Even in our own country, our Southern states, particularly the ones along the Gulf, are outlets in January and February for many products that are sold along the Great Lakes in June and July. This is especially true of items such as clothing and building materials. Building construction may continue throughout the winter in the South; whereas it almost comes to a standstill in the North during January, February, and March. A manufacturer who cultivates these regional markets that supplement his normal area of distribution may do much to stabilize his employment. It must be recognized of course that such sales involve additional costs in shipment and therefore are likely to be highly competitive.

6. *Technological Changes*.—Changes in design and methods of production cannot always be delayed by an individual manufacturer to cause the least disturbance in employment. Competition may force a manufacturer to introduce a new product or a new process before he would normally do so. By agreement, entire groups of manufacturers may introduce new models at a time that minimizes labor dislocations. The automobile manufacturers have moved back the date of announcing their new models to the early fall, thus throwing the shut-down period at a time that causes the least distress as well as increasing the sale of cars during the fall and winter months. One manufacturer who also has a leveling wage program has announced, "As a protection against wiping out the savings account in case of unusual prolonged slack periods, we will withhold for certain lengths of time from the market, new products which we have developed, and they will be released only to stimulate sales during the slack periods."

There is little that a manufacturer can do to change the whimsical choices of persons buying a style product other than to be on the alert to detect trends and to adjust his program accordingly. Advertising may direct the style movements to a limited extent. The employer who is fortunate enough to lead in research may materially influence trends and thus be in a position to bring to his employees a higher degree of employment stability than his less fortunate competitors. At best the problem is a difficult one to which no one satisfactory solution has been found.

Annual Wage Plans.—Annual wage plans and special loan programs might well have been covered under Methods Used in Attempts to Stabilize Employment, since the objective is essentially the same even though the approach is somewhat different. There are sufficiently unique characteristics to justify separate treatment. Employment stabilization is focused on the work factors, whereas annual wage plans are focused upon the stability of income. Professor Balderston classifies the various approaches to the problem as follows: "One is to guarantee both full and regular employment to all or part of the organization; another is to let specified groups of employees draw, on a 'drawing account' basis, full pay or a fraction thereof, in regular amounts as long as they are retained, or until the end of a specified period."¹ Several companies have used the guaranteed employment basis, guaranteeing full or partial employment, notably the Procter and Gamble Company, Swift and Company, McCormick and Com-

¹ C. Canby Balderston, "Annual Wage Plans and Regularization of Employment." Reprinted from *American Management Association, Personnel Series 39, 1939, p. 28.*

pany, and the Upjohn Company. Swift and Company began experimenting with employment stabilization in 1911, guaranteeing 75 per cent of the work week which was then 60 hr. Today they guarantee 32 hr. per week to their regular employees in the meat-packing division, which is 80 per cent of the 40-hr. week.

Procter and Gamble began their program in 1923 and are still using the basic features of the original plan with modifications to meet the requirements of changing conditions including statutory regulations. The guarantee that Procter and Gamble has been using since 1936 is as follows:

To the employees . . . whose pay is computed on an hourly rate and who have had at least 24 consecutive months of employment immediately preceding the application of this plan to their employment, the undersigned company hereby guarantees regular employment for not less than 48 weeks (or its time equivalent) in each calendar year less only the time lost by reason of holiday closings, vacation with pay, disability due to sickness or injury or voluntary absence or through fires, floods, strikes, or other emergency whether like the foregoing or not, and subject to the following provisions:

a. Regular employment shall be understood to mean employment for not less than the hour week established from time to time by the company as the standard hour week at each of its factories.

b. When an employee first comes under this guarantee after January 1 of any calendar year, the company guarantees to him under the terms and provisions outlined herein that he shall not be unemployed in excess of four weeks (or its time equivalent) during the remainder of the calendar year, plus time lost for reasons herein stated.

c. The company reserves the right under the guarantee to transfer any employee to work other than that at which he is regularly employed, and to compensate him the same in accordance with the wage rate that prevails for the work to which he has been transferred.

d. Upon authorization from the board of directors and without changing the established hour week, the hours of work for employees coming within the terms of this guarantee may be limited to 75 per cent of the established hour week less time lost for reasons stated above, whenever in the opinion of the board of directors such action seems justified.

e. The right to discharge any employee at any time is reserved to the company employing such employee.

This guarantee of employment has been established because the company believes it to be sound business practice and a desirable protection for its employees. It is the intent of the company to maintain it, but the company must and does reserve the unqualified right, to be exercised in its sole discretion, to withdraw this guarantee at any of its factories, or to terminate or to modify this guarantee at any time.¹

¹ The Procter and Gamble Company, "Revision of Guarantee of Regular Employment to Procter and Gamble Employees/" Dec. 1, 1936.

Before a company can guarantee full employment, it must have established by careful study and analysis a program that is based upon previous experience. Unless the company is reasonably certain of its program, it may be better not to guarantee the employment until the feasibility of the program has been established. This does not mean that all phases of the program other than the guarantee should not be put into effect. Public utilities and certain other individual employers give regular employment without the guarantee. The Nunn-Bush Shoe Company, like Swift and Company, does not guarantee full-time employment. Nunn-Bush guarantees 52 pay checks per year.

The Nunn-Bush Company, prior to the beginning of their operating year, estimates the number of working hours per year that the plant will operate. Each employee's annual salary is initially determined by multiplying the hourly rate by the budgeted hours it is planned to work the plant. The yearly salary is divided by 52 to get the employee's weekly salary.¹ At the beginning of each year, a group salary fund is established. "This fund is the agreed upon percentage of the wholesale value of the estimated volume of business." From this fund weekly payrolls are taken. If as the year progresses the total weekly salaries exceed the proportionate amount set aside and it becomes apparent that the fund will not be in balance at the end of the year, the weekly payments are reduced. Any surplus remaining in the fund is distributed to the employees at the end of the year.² The George A. Hormel & Co. has a plan that budgets the work of each department for the year and allocates the number of men required for same on the basis of a 40-hr. week with vacations and sick leave allowed. If at the end of the year a department has produced less than its budgeted volume, the members of the department individually and collectively are "indebted to the company for producing that much work at the first opportunity."³ If the production is in excess of the budget, bonuses are paid the employees on the basis of what it would have cost if extra employees had been added to perform the volume of work in excess of the budget. The plan is operated on a departmental basis, it being optional with the employees of a department as to whether or not they come under the plan.

The General Motors Corporation's *income security plan* guarantees neither a given volume of work nor a specific wage but makes it possible

¹ See *Monthly Labor Review*, July, 1938, "Annual Wage and Guaranteed Employment Plans."

² See *Monthly Labor Review*, *op. cit.*, for further details of this plan.

³ See *Monthly Labor Review*, *op. cit.*

for an employee of 5 years' service or more to assure himself of an income of 60 per cent of 'his standard weekly earnings. Any time at which such employee's earnings fall below 60 per cent of his "standard weekly earnings," he may borrow from the company without security and without interest "the difference between his actual earnings and 60 per cent of his standard weekly earnings, less any Unemployment Compensation to which the employee may be entitled." These advances to the employee may be repaid "only through an opportunity to work." "Whenever the employee's subsequent weekly earnings are in excess of 60 per cent of the standard, one-half of the excess shall be applied to the reduction of such Advances, until same have been repaid."¹ A similar program applies to 2-year service employees on a 40 per cent basis instead of 60 per cent with a limit as to the maximum advance equivalent to 72 hr. pay at his latest earned hourly rate.

The International Harvester Company established May 1, 1940, an *Employee Savings and Extra Compensation Plan* that provides for a *Security Fund* from which an employee of 3 years' service or more may make withdrawals whenever his weekly earnings are "less than 60 per cent of his normal full-time earnings, including any earnings from other employment and amounts received from governmental unemployment benefits for such week." These withdrawals, provided the amount standing to the employee's credit is sufficient to cover same, may be made in sufficient amounts to bring his weekly earning up to 60 per cent of his normal full-time earning. This plan is designed to encourage thrift and to provide a means of making available to the employee an income equal to 60 per cent of his normal wage. Space will not permit a detailed description of this system. Suffice it to say that the company makes contributions on a predetermined basis to the security fund corresponding in part to the employee's savings as well as from earnings when they exceed \$3 per share on issued common stocks after meeting the requirements for the dividends on preferred stock.

In evaluating the various attempts to stabilize employment or employee income it must be recognized that only a relatively few employers are in a position by the very nature of the industry to stabilize employment. The number is somewhat greater who may stabilize income. The ability of an employer to stabilize income is largely dependent upon his successful forecasting of his annual production and the willingness of his employees collectively to enter into agreements to work at times longer than their pay would indicate and to be paid at other times more than their work would call for. In con-

¹ General Motors Corporation, 1939 *Employee Benefit Plans*, November, 1938.

sumers' goods, where the cyclical and seasonal fluctuations are slight, it is easier to stabilize actual employment. In most producers' goods and in certain consumers' goods where the unit price is relatively high and the size of the product prohibits mass storage for several months, actual stabilization of employment is difficult. In such industries, some form of stabilization of income is more practical. In industries in which the labor cost in relation to the total cost of the product is relatively low and the product is not too large to produce for stock, regularization of employment is feasible when funds are available to carry the inventory, and the style element is not a serious factor. Many employers simply do not have available funds to carry the necessary inventories to produce for stock on an annual basis, to provide income drawing accounts, or to stabilize the income by paying an even salary, spread over the year (unless the program is started at a time production is greater than the wage being paid, in which event either the employees or the employer would jointly provide the funds for carrying the program depending upon the exact place in the fluctuations at which the program is started). Employees will seldom object to being paid on an annual basis, provided it starts at a time when the pay will be greater than they are currently receiving. They will not be so ready to agree to working longer hours at the time of starting such a program and receiving less pay than the hours call for, neither are they so willing to waive by collective agreement the overtime charge. Successful solution of this problem requires cooperation between the employer and his employees. An even wage or a relatively stable one is socially desirable even though the total annual wage may not be greater than under the violent seasonal fluctuation basis.

UNEMPLOYMENT COMPENSATION

Our foregoing discussion of employment stabilization efforts described private industry's attempt to solve the problem. We are now primarily concerned with governmental attempts to encourage stabilization and to provide unemployment compensation to persons unavoidably thrown out of work.

The Social Security Act.—The Social Security Act was originally passed by Congress in August, 1935. It was upheld by the Supreme Court of the United States and was later broadened by amendments in 1939. The act itself might well be classified as an *omnibus bill*, since it covers so many different subjects.

In this chapter we are concerned only with those phases of the act that pertain to unemployment compensation. The act imposes a 3 per cent tax upon employers whose business comes under interstate

commerce. This is a payroll tax and applies to that portion of each employee's salary that is \$3,000 or less. The act was so designed that 90 per cent of the total would be deductible in those states that have an unemployment compensation law, the contents and administration of which meet the requirements of the Social Security Board. Originally the law imposed a flat tax on the entire payroll without regard to the size of a particular salary. Some of the states whose laws were patterned closely after the major provisions of the Federal law still impose a tax on the total payroll. Section 301 of the Social Security Act as amended by the act of Apr. 17, 1939, provides the sum of \$80,000,000 to be allocated by the Social Security Board to the several states to assist them in administering their unemployment-compensation laws.¹ The board's allocation is largely based on the following considerations: (1) the state's population, (2) the number of persons covered by the state law and the cost of administering the law, and (3) such other factors as the board finds relevant. The regulations laid down by the board are designed to secure efficiency, eliminate political preference as to the selection of personnel and in the administering of the act, and to secure the carrying out of the objectives of the act.

State Unemployment Insurance Regulations.—All 48 states, the District of Columbia, Alaska, and Hawaii have laws regulating unemployment compensation. The details of coverage and administration vary in many respects as between the several governmental units, yet they have much similarity arising out of the provision in the Federal Social Security Act requiring approval of the Social Security Board if the states are to participate in the use of the funds allocated for the purpose of aiding in the administration of their laws. The Federal act covers employers of eight or more employees. The state acts at least meet the Federal requirements, but many of them cover employers of less than eight employees. The Federal tax is 3 per cent with a provision of rebating to the states 90 per cent of this amount. All the states require a contribution of 2.7 per cent with the exception of Michigan, New York, and the District of Columbia, which require 3 per cent.² Space will not permit detailed discussion of these respective laws. A few items of general interest are given below:

¹ The tax provisions were originally provided in the Social Security Act itself. February, 1939, the provisions that levy this tax were included in subchapter C of Chapter A of the Internal Revenue Code. This subchapter of the code was also amended by the social security amendments of 1939 and is now referred to as the Federal Unemployment Tax Act.

² *Significant Provisions of State Unemployment-compensation Laws*, Feb. 1, 1940, prepared by the Social Security Board.

1. *Types of Funds.*—The most common type of fund is the *pooled fund* in which funds from all employers are lumped and from which payments are made to eligible applicants. At least one state has a separate fund for each employer. A pooled fund may or may not be used in connection with provisions for merit rating.

2. *Merit Rating.*—The laws of 39 unemployment-compensation jurisdictions provide for some form of merit rating.¹ The details of these merit-rating provisions vary in different states; however, they have one item in common, namely, they seek to encourage the employer to stabilize his employment by granting him certain concessions, usually a reduction in his tax, if he meets certain requirements laid down.

3. *Coverage.*—There are two aspects to coverage; one pertains to the employers or types of industries covered, and the other relates to the size of the work force to come under the provisions of the law. In general, the state laws exempt the same type of work as specified in Section 1607a of the Internal Revenue Code as amended Aug. 10, 1939, namely,

- a. Agricultural labor.
- b. Domestic service in private home or local college club, fraternity, or sorority.
- c. Casual labor not in the course of the employer's trade or business.
- d. Members of the crew or officers of a vessel on navigable waters in the United States.
- e. Children under the age of twenty-one in the employ of their parents or any individual in the service of his son, daughter, or spouse.
- f. Employees of the United States government or of the several states or political subdivisions thereof.
- g. Employees of charitable, religious, educational, or scientific organizations.
- h. Certain other special groups such as newsboys, employees of foreign governments, medical interns, etc.

The coverage provisions involve the length of time worked by employees to come under the act as well as the number of employees. Most regulations include only those persons who have worked 20 weeks in the calendar year. Twenty-eight jurisdictions cover only employers of eight or more employees, whereas ten cover employers with one employee who works the required length of time. A few of the states have what might be termed "multiple qualifications." For instance, New Mexico's law applies to employers having a \$450 payroll in 1 quarter or one who employs two or more persons for 13 weeks. The joint condition of size of firm and length of employment results in some employers' being exempt even though they have more

¹ See David R. Craig, "Experience Rating and Employment Security," *Employment Security Review*, May, 1940, p. 9.

than the required number of employees. Summer resorts and canneries may come under this group. Other industries that otherwise would be covered are exempt, because they do not have the required number of employees. This last group is often found in retailing firms. Most of the state laws conform to the national law in that the tax applies only to that portion of wages up to \$3,000. It is reasonable to believe that in time all state regulations will conform to this standard.

4. *Employee Contributions.*—Relatively few states require contributions from employees. Alabama levies a 1 per cent tax, California a 1 per cent tax, Kentucky a 1 per cent tax, New Jersey a 1 per cent tax, and Rhode Island a 1 per cent tax; each state on the wage not to exceed \$3,000. In California and Kentucky, the amount paid by the employee does not exceed in any case 50 per cent of the amount paid by the employer. In Louisiana the employee pays 0.5 per cent.

5. *Employer Contributions.*—The standard rate in most states is 2.7 per cent of the payroll up to \$3,000 for each employee. Michigan has a 3 per cent rate. In those states having merit rating the individual employer's contribution may be considerably less depending upon his experience.

6. *Benefits and Waiting Period.*—Three states have no minimum benefit; however, most states pay a minimum of \$5. North Carolina pays a \$1.50 minimum; Alabama a \$2 minimum; Arkansas, Florida, Maine, New Mexico, South Carolina, and West Virginia pay a \$3 minimum. Illinois and a few other states have a \$7 minimum.

The common waiting period is 2 weeks with longer periods for those who have been discharged for a cause for which they were responsible and could have reasonably avoided or for those who have quit their jobs. In most cases, men on a strike may not participate, and in others the waiting period is longer.

In all states, the number of payments to which an employee is entitled is dependent upon his previous work experience or record during the period from which his payments are drawn.

Partial unemployment benefits may be drawn by employees in several states. For instance, if an employee earning \$30 a week regularly was reduced to \$8 a week in a state with \$16 maximum benefit, the employee could draw \$8 partial unemployment benefit, provided of course he would have been entitled to the \$16 benefit had he been totally unemployed. In some states, the employee gets the difference between his actual earning and his maximum total benefit plus \$1 or \$2. In Illinois, for instance, in the case above, the employee would have received \$8 + \$2, or \$10 partial unemployment benefit.

In all cases, recipients of unemployment benefits must be registered **at** the public employment office and be available for work to draw benefits. The refusal of a recipient to accept an appropriate job will cancel his benefits.

Few states exclude persons who would otherwise come under the law solely on the basis of the amount of salary received. A few states exclude salaried workers receiving annual salaries of \$2,500 or more. Other states include persons receiving very high salaries. Baseball players receiving salaries in excess of \$6,000 have collected unemployment compensation in at least one state during the winter months when they were not working. Since unemployment insurance is not charity but a legal right for which employers and in some cases employees pay, the baseball players were entirely within their rights. It must be admitted that the law was not designed for such cases; however, as long as the payroll covering such employees is taxed and and as long as the program is looked upon as a right purchased for employees, there can be little logic marshaled against the practice. It might be well to amend the law to exempt from taxation the salaries of all persons earning \$2,500 or more and to exclude them from the benefits.

Summary.—Unemployment compensation has now been established as a part of the basic law of our land. Many of the claims for it made by its original sponsors, as is to be expected in a democracy, have not been realized and will not be realized. On the other hand, the program as practiced in most states has undoubtedly mitigated the suffering of persons thrown out of work. As observed above, the minimum benefits might well be raised, the waiting period might well be reduced, and partial benefits might well become a part of the programs of all states. The 16-week limit in most states would seem to be adequate as well as the maximum of \$16 in most states. A balance should be striven for, and serious consideration should (be given to the reduction of the tax if the present collections are in excess of needs. It is to be hoped that extremists either in advocating a return to the old or in promoting change toward increased state control will not prevail. Reforms can come too fast as well as be delayed too long. It takes time for a people to adjust to the changed conditions and to incorporate into their mores the new. It is not merely a mathematical relationship that is involved. It is an economic, social, psychological (in the case of the extremist almost a religious), and political relationship. When any one of these factors gets too far in advance or behind **the** other, an unhealthy state exists.

CHAPTER XXXIV

PENSION PLANS

The Problem.—Men, like machines, grow old in service. In the case of machinery, provision is made for replacement by writing off the annual depreciation as an expense. At the expiration of the productive life of a machine, it is scrapped and replaced by a new one. The problem of further maintenance is not involved. In the case of the worker, the situation is somewhat different. At the expiration of his industrial productive life, a reserve has to be established by some person or agency to care for him for several years. According to the traditional American way of life, the worker as an independent agent is supposed to make provision for his old age. The employer is supposed to pay the worker while he works the economic value of his labor. If the employer does this, he has discharged his economic responsibility to his worker. There is little argument against the logic of these statements. The only flaw is that the workers simply did not make provision for their old age, and in many instances the employer did not pay the full economic value of the employee's services. Even in cases where the employee does receive the full economic value of his services, the situation is essentially the same; he simply cannot or does not make provision for his old age. Many employees try but make unwise investments and fail because of forces over which they have no control. This situation is by no means confined to the manual worker. The same applies to foremen and supervisors. The General Motors Corporation inaugurated a program in 1940, following the example of other well-managed corporations, of providing a contributory retirement plan for employees receiving salaries in excess of \$250 per month.

In spite of the argument, which has been held in the past both by some representatives of organized labor and management, that the employer should pay the full economic wage and that the employee should make provision for his old age, the facts of everyday life definitely point to the need of some provision other than mere reliance upon individual effort and thrift. Many employers who have in theory subscribed to the philosophy of individual responsibility have in practice first placed older employees on jobs on which they were

paid more than the value of their services warranted and then pensioned them outright when they could no longer come to work. In other words, the human sympathies have been stronger in many instances than a logical philosophy. Of course, these practices have as a rule prevailed only in industries that were in a comparatively satisfactory competitive position, yet some industries that were not paying dividends to the common stockholder have continued the payment of voluntary pensions to some of their older employees. As industries with voluntary nonfunded pension plans matured and a larger proportion of their employees became eligible for pensions, the burden became in many instances greater than they could bear and still compete with some of their newer competitors in the industry whose working force was still relatively young. This situation encouraged the formation of funded plans in some of which the employee participated by making contributions in some ratio to the employer's contribution.

Although the discussion above represented the approach of many employers and labor leaders, there grew up side by side with it another philosophy that in the end has prevailed, namely, the care for the aged industrial worker is a legitimate charge against industry and should be included in production costs in the same sense that depreciation of machinery and equipment is handled. This approach in substance recognizes that the employer cannot pay the employee the same wage that he would otherwise pay him were he not providing for him a pension, unless of course he was paying him too little in the first place. Employers who had come to the place that they were paying pensions anyway readily embraced this second approach to the problem. Trade-unions in some cases established their own cooperative programs to which employers contributed in some instances. Municipalities, utilities, and some states embraced this second approach. Finally the United States in substance wrote this philosophy into the Social Security Act in 1935.

Voluntary Pension Plans.—Industrial pensions are periodic payments, usually for life, to a beneficiary who has been retired because of age, accident, illness, or for other cause approved by the company. Formal pension plans usually set forth in advance the requirements as to the length of service, age to be attained, etc. It is not unusual for men and women to have different retirement ages. Informal pensions scarcely deserve the name of a pension plan. They are granted at the will of the employer to worthy employees and financed usually out of current income. It is true that an enlightened employer who is in favorable competitive position may do as well for his employees

on an informal basis as another one on a well-organized actuarially sound pension plan. In such a case, there is still lacking that feeling of certainty and security that accompanies a sound formal program.

Some writers distinguish between annuities and pension by classifying pensions as those payments made to retired employees who made no direct contributions to its cost, and annuities as those payments made to retired employees, the cost of which the beneficiary has borne wholly or in part.¹ In practically all cases, the employer bears a part of the expenses of contributory pension even though it may be in a very few cases no more than the administrative costs of payroll deductions and other expenses pertaining to the carrying out of the plan. In some cases, the employer bears all the cost of the pension plan. The contributory pension plans are frequently managed by an outside trust or insurance company. The noncontributory plans formerly were largely handled by the company granting the pension. Many of these plans were not on a sound actuarial basis. The recent trend has been to place the funds with an insurance company that protects the interest of the employees and gives greater stability to the plan. We shall first consider the noncontributory plans.

1. *Typical Plan.*—It is impractical to discuss in detail all the various types of more formal pension plans that have been developed and that are in use at the present time. The description of a typical procedure that follows should suffice. The system described below is by no means the one that is followed in detail by most companies. It is merely illustrative. Individual companies may vary details to suit their particular needs or their conception of what their needs will be. In this description it is presumed that a separate fund has been established and that this fund is administered by a board that holds the funds as trustee for the employees for whom it was created. This qualification is by no means universal. Unfortunately, where this precaution has not been taken, a merger may occur and wipe out all the expected rights of long-service employees.

The pension fund is administered by a board consisting of five members who are officers or employees of the company. This board, subject to the approval of the directors, may make and enforce such rules as it deems advisable for the efficient administration of the fund that is created by the company and invested in interest-bearing securities approved by the board.

Those eligible to obtain pensions at the discretion of the board are male employees who have been in the service continuously for 25 years

¹ See Murray Webb Latimer, *Industrial Pension Systems*, Industrial Relations Counselors, Inc., New York, 1932, pp. 9-10.

or longer and have attained the age of sixty, female employees in the service 25 years and who have attained the age of fifty, and employees in the service 15 years, who have worked up to the age of sixty-five years or are permanently incapacitated for work through no fault of their own. The amount of pension for employees retired on account of age and length of service is one half the average annual salary or wage for the 5 years preceding retirement. The pensions for those retired on account of permanent incapacity for work are computed on the basis of the number of years of service times $1\frac{1}{2}$ per cent of the average annual salary or wage for the 5 years preceding retirement. In no case, however, are pensions to exceed 50 per cent of the annual salary or wage. The maximum pension is \$5,000 per year, and the minimum \$360 per year.

Widows of retired employees may receive a pension of years times three fourths of 1 per cent of the average salary or wage of the husband; if there is no widow, then the children under eighteen are allowed one half the pension of a deceased father. Upon her decease, if she has not remarried, the widow's pension may be paid to the children. As they attain the age of eighteen or marry, the pensions terminate.

The board for administering the pension fund may at any time increase or decrease the amount to be paid to dependents of deceased pensioners; they may also suspend or terminate pensions in case of misconduct or any other cause deemed sufficient to warrant such action. Also, they may reinstate the pension of any person whose pension was suspended or terminated.

A pensioned employee is not barred from engaging in another business, provided it is not of the same or of a detrimental character to that of the company.

The amount of the pension is nearly always related to the length of service of the employee as in the typical case above and the average salary over a specified period. Thus a large Midwestern company's noncontributory plan established in 1908 pays an annual pension to its employees equal to 1.25 per cent of the average highest 10 consecutive years of pay, times the years of service, with a maximum of \$2,500 and a minimum of \$360.

2. *Growth of Pension Plans.*—The first noncontributory pension plan in the United States was that of the American Express Company, established in 1875. By 1929, 421 plans had been established, but 28 of these had been discontinued. Of this number approximately 23 per cent were **contributory and the others noncontributory**.¹ The

¹ *Ibid.*, pp. 31-39.

congressional survey of profit sharing in 1939 listed the names of 415 firms that had pension plans.¹ The group-annuity plan is of relatively recent origin. In 1924, there were approximately 24 group-annuity plans administered by life insurance companies out of an estimated 400 formal retirement plans then in force.² The National Industrial Conference Board, Inc., found in its study that 610 group-annuity plans covering 584,248 employees were in effect in 1938.³ This growth in both kinds of pension plans has been gradual even during the depression periods.

3. *Types of Funded Pension Plans Purchased from Insurance Companies.*—There are two well-known types of funded pension plans, namely, (1) the *definite plan* or *unit purchase plan*, in which the amount of the annuity or pension purchased and the employee's contribution are fixed, whereas the employer's contribution is the variable factor, and (2) the *money purchase plan*, in which the employee's and the employer's contributions are fixed and the amount of the annual pension is the variable factor. A study made by the National Industrial Conference Board, Inc., in 1939 showed that 84 per cent of the group-annuity plans were of the definite-benefit type.⁴ On inaugurating a funded pension plan, the retirement benefits usually provide for payments for prior service as well as for future service. The employer usually pays for the cost of the past service annuities, and the future service annuities are usually financed jointly by the employer and the employee.⁵

4. *Influence of Social Security Act on Industrial Pensions.*—Contrary to the opinion of many persons who originally opposed the passage of the Social Security Act, this act has not caused any wholesale abandonment of company pension plans. The National Industrial Conference Board found that about one out of ten of the companies studied had discontinued its pension plans because of the act.⁶ This same study showed that about one fourth of the 220 active plans studied had been adopted since the act was passed and that only 85 of the 220 companies had revised their plans to take the provisions of the act into account. In some cases, the company adjusted that portion of its pension plan that applied to the employee's income below

¹ "Survey of Experiences in Profit Sharing," 76th Congress, 1st Session, *Senate Report* 610, June 19, 1939, pp. 193-197.

² National Industrial Conference Board, Inc., "Company Pension Plans and the Social Security Act," *Studies in Personnel Policy* 16, New York, 1939, p. 7.

³ *Ibid.*

⁴ *Ibid.*, p. 9.

⁵ *Ibid.*, p. 8.

⁶ *Ibid.*, p. 24.

\$3,000, reducing it wholly or in part to correspond to the company's contribution to the Federal plan and leaving that portion of the plan that applied to the salary above \$3,000 the same as it was. The new plans developed since the passage of the Social Security Act seem to be largely underwritten by insurance companies.¹

Management's Appraisal of the Results of Pension Plans.—In December, 1939, the National Industrial Conference Board published the result of a survey of "Company Pension Plans and the Social Security Act." In this survey, the following tabulation appears showing managements' reasons for inaugurating their programs:

TABLE 6.—MOTIVES UNDERLYING THE ADOPTION OF PENSION PLANS

Motives Underlying the Adoption of Pension Plans	Frequency of Appearance (weighted according to order of importance)
1. Rewards for long service	715
2. Relief of need	470
3. Improvement of plant morale	441
4. Increased economy of operation, due to removal of aged workers	332
5. More aggressive working force, due to promotion of younger employees	235
6. Reduction in labor turnover	140
7. Supplement to Social Security Act	79

The weighting used in this table was 7 points for a characteristic given first place, 5 points for third place, and 1 point for seventh place, with other positions decreasing in point value as they increased in rank from first to seventh. These answers conclusively demonstrate the importance of the human interest motives in contrast to the utilitarian. In the same study, a companion tabulation of the answers from 173 companies gave their answers to the values received from their pension plans. These answers are as follows.:

TABLE 7.—OFFSET COSTS OF PENSION PLANS

Costs of pension plans offset by	Number of companies	Percentage of 173 companies
<u>Increased economy of operation</u>	59	34.1
<u>Better morale of working force</u>	128	74.0
<u>More aggressive organization</u>	68	39.3
Fulfillment of social responsibilities	137	79.2

¹ *Ibid.*

Again these replies emphasize the influence of social relationships rather than the purely materialistic values.

Some manufacturers are of the opinion that pension plans tend to reduce labor turnover. This may be true, but the pull to stay on the job in the case of pension plans comes largely from the older employees in point of service who are not the ones who would normally cause much labor turnover even if there were no pension plan.

In industries where the pension plans are on a sound actuarial basis, there is a definite trend for both the employer and the employees to contribute to their establishment. This is a thoroughly sound trend and will tend to give stability to the program.

State Insurance Plans.—Most of the early state plans were predicated upon need and were optional with county or smaller governmental units. The principle of building up a fund by the agency employing the recipients developed slowly among municipalities as the result of enabling acts passed by legislatures. Later, state employees enjoying Civil Service status were included in certain states. Teachers, firemen, and police officers are groups most commonly covered by pension systems. In a large number of states today, teachers have retirement pension programs. Even in those states having state-wide pension programs for teachers, in many cases cities above a certain size are exempt from the state provisions provided they maintain their own programs.

Today all the states have some form of old-age pensions based upon the factor of need. These pensions are referred to appropriately as "old-age assistance" and are not granted as a matter of right that has been purchased by the recipient but are a part of the state's effort to participate in the funds made available by the Federal government in the Social Security Act. The 1939 amendments to the Social Security Act provide that the Federal government will match dollar for dollar the state's grant in aid to aged needy up to \$20 per month. In other words, if the state grants an aged person \$20, the Federal grant through the state will also be \$20, making a total of \$40. On the other hand, should the state grant \$25, the Federal contribution will still be only \$20, bringing the total up to \$45. Should the state grant the needy aged only \$10, the Federal grant will likewise be \$10, making a total of \$20. These grants in aid are designed to cover the needs of persons who are not eligible for old-age pensions for which they have built up a reserve during their work lives. The sad part about many of these state laws is that the funds made available are wholly inadequate to meet the needs of these aged persons. This is particularly true in several of the less prosperous states.

Federal Social Security Pensions.—As enumerated in our previous chapter, the Social Security Act of 1935 and as amended in 1939 provides for many different phases of social aid. In this chapter, we are interested only in pensions for the aged, and, in this particular section of our chapter, we are interested only in pensions under Title II—Federal Old-age and Survivors Benefits. These pensions are purchased as a matter of right and are available to the persons covered by the law who meet the requirements as to age and employment regardless of need. It is not entirely factual to say that "these pensions are purchased as a matter of right" if it is meant, that the recipients have paid funds to justify the payments that they receive, for many of the earlier recipients beginning Jan. 1, 1940, will receive a benefit allowance all out of proportion to their contributions to the fund. These excess payments to certain aged persons will have to be made up either from general taxation, or others will later receive in return less than they pay into the fund. As a matter of fact, both these situations will prevail.¹

However, as a matter of the law, these pensions are due the aged recipients as a right and may be claimed irrespective of need. From the standpoint of personnel management, we are not particularly interested in the fact that tens of thousands of persons during the next 5 or 10 years will receive benefits in excess of their contributions, but the fact that this program provides a means of giving a fair measure of security to these aged workers and relieves management of the humanitarian responsibility of finding jobs for them or providing pensions for them even though management may have already discharged in full its economic responsibility. The problem of retiring the aged worker will certainly be easier than formerly. In connection with the administration of the act, management also has certain definite responsibilities as to record keeping and reporting and may be very helpful in aiding the aged retiring worker and his widow or dependent children in filing requests for the benefits to which they are entitled under the law. In order to understand management's responsibilities, obligations, and opportunities, some of the major provisions and regulations under the law will be examined.

1. *Coverage.*—Every employer in the United States of one or more persons except in the case of certain excluded employments is required to pay a payroll tax to aid in establishing and maintaining the pension system as provided in Title II of the Social Security Act. The worker

¹See Prof. Paul Haensel, "A Social Security Tax? Or Insurance," in *Taxes—The Tax Magazine*, June, 1940, pp. 351-355, for a critical evaluation of the inequities in the law.

also has deducted from his pay by the employer an amount equal to the employer's tax, which also goes into the Federal Old-age and Survivors Insurance Trust Fund.

The excluded occupations are essentially the same as those excluded from the provisions of the Unemployment Compensation Act with the exception of the fact that the unemployment compensation according to the Federal act applies only to employers of eight or more persons, whereas the old-age pensions apply to employers of one or more persons. In general, agricultural labor, domestic servants in a private home or in a college fraternity, casual laborers not engaged in work in the course of the employer's trade or business, seamen not on an American vessel when outside the United States, employees of the United States or state governments or subdivisions thereof, employees of religious and charitable organizations as well as educational institutions, railroad workmen, certain groups of fishermen, and a few other special classifications are not covered by the act.

Not only are the individual workers in the covered occupations protected by the benefit provisions of the act, but the parents, children under sixteen or under eighteen if in school, wives, and widows are also beneficiaries under certain conditions as outlined below under the heading of eligibility.

2. *Qualifications for Eligibility.*—There are two classifications of eligible workers, (1) "fully insured" and (2) "currently insured."

To be fully insured a worker must have a specified number of "quarters of coverage" depending on the length of time he might have been in employment covered by this system. A "quarter of coverage" is a calendar quarter year in which the worker has received \$50 or more in wages for covered employment. In general, a worker is "fully insured" when he has "quarters of coverage" equal to half the quarters elapsing after 1936 (or his twenty-first birthday if it is later) and up to the quarter in which he reaches 65 or dies. A minimum of 6 quarters of coverage is necessary. After a worker has 40 quarters of coverage, he is "fully insured" for life, regardless of whether he is in covered employment thereafter.¹ A currently insured worker is one who has received \$50 or more in wages in at least 6 of the 12 quarters immediately preceding the quarter in which he died.²

For a worker to receive benefits he must have reached the age of sixty-five years and be fully insured and not be engaged in employment covered by the program that pays him wages of \$15 or more in

¹ 100 *Questions and Answers on the New Social Security Program*, Social Security Board (not dated but issued early in 1940, following the amendments to the act in August, 1939), p. 5.

² *Ibid.*, p. 12.

any month that he receives the monthly benefit. When a worker reaches sixty-five and is entitled to benefits, each of his children under sixteen years of age or under eighteen years of age if attending school is entitled to benefits equal to one half of his father's primary benefit. Each child of a "currently insured" parent who dies prior to the age of sixty-five is also entitled to the same benefits under the same conditions as just stated for the "fully insured" parent who attains the age of sixty-five. The wife of a "fully insured" worker will receive one half her husband's primary benefit when he reaches the age of sixty-five and retires, provided she too has reached the age of sixty-five. If in the foregoing illustration the wife is younger than sixty-five, she will not be entitled to benefits until she too reaches the age of sixty-five. The widow, aged sixty-five or older, of a "fully insured" worker will receive three fourths of her husband's primary benefit. A widow of a "fully insured" worker is not entitled to benefits in her own right until she reaches the age of sixty-five. She may, however, receive the widow's benefit provided she has in her care a child of her deceased husband who is entitled to benefits. A widow who receives benefits because of a child in her care as previously stated forfeits her right to the benefit as soon as the child marries or reaches the age of sixteen or eighteen, as the case may be. The widow of a "currently insured" worker having one or more children in her care is entitled to three quarters of her husband's benefits as long as any one of the children receives benefits. These benefits to the widow of a "currently insured" worker go to the widow regardless of her age and are forfeited by her regardless of her age when the child's benefits stop. The widow of a "currently insured" worker does not receive benefits from her husband's insurance on reaching the age of sixty-five, but the widow of a "fully insured" worker does receive such benefits.

In addition to the foregoing beneficiaries of a deceased "fully insured" worker, provided the worker leaves no widow or children entitled to receive benefits, every parent having reached the age of sixty-five and being fully dependent upon the deceased "fully insured" worker at the time of his death is entitled to receive one half of the deceased child's primary benefit. The marriage of a parent entitled to a parent's insurance benefit cancels the parent's right to such benefit. The marriage of a widow entitled to benefits from her deceased husband likewise cancels her benefits.

3. *Amount of Benefits Due the Worker or His Beneficiaries.*—The maximum total benefits accruing to the insured worker and his beneficiaries is described in Section 203a of the Social Security Act. In no case will it exceed \$85, or an amount equal to twice the primary

benefit of such individual, or an amount equal to 80 per cent of his average monthly wage (as defined in Section 209), whichever of these three amounts is least. In case the total benefits accruing to a worker and his wife and children exceed the maximum as specified above, that portion to which the wife and children are entitled is proportionately reduced to bring the total to an amount equal to the specified maximum; however, in no case will the proportionate reductions operate to bring the total to less than \$20, nor do the upper limits apply to benefits totaling \$20 or less. If the total monthly benefits or the monthly benefit is less than \$10, it will be increased to \$10.

The worker's benefit and his dependent's benefits are related to his "primary benefit." The worker's *primary benefit* is computed by adding (1) 40 per cent of the first \$50 of the worker's average monthly wage, and (2) 10 per cent of the amount by which his average monthly wage exceeds \$50, but does not exceed \$250. The total of these two amounts is increased by 1 per cent for each year in which the worker is paid wages of \$200 or more for covered employment.¹ The average monthly wage is computed by dividing the worker's total wages earned in covered employment by three times the number of his expired quarters. "Expired quarters" include the number of calendar quarters elapsing after 1936 and before the quarter in which the individual died or reached the age of sixty-five; however, quarters worked prior to the quarter in which the individual reached the age of twenty-two during which he received less than \$50 in wages are excluded.²

A worker who attained the age of sixty-five in January, 1940, whose earnings were:

1937—\$1,080

1938—\$1,200

1939—\$1,320

would have a total earnings credit to his account of \$3,600. Dividing \$3,600 by 3 times the 12 quarters covered gives \$100, the average monthly earnings. The worker's *primary benefit* would then be 40

¹ 100 Questions and Answers on the New Social Security Program, *op. cit.*, p. 8; also Section 209 (a) of the Social Security Act.

² See Section 403.302, Regulations 3, (Part 403, Title 20, Code of Federal Regulations, 1940 Supp.) "Federal Old-age and Survivor? Insurance, Under Title II of Social Security Act as Amended and Effective January 1, 1940." Quarters worked by persons prior to 1939 after they had attained the age of sixty-five are also excluded. After 1939, persons may accrue credits even though they have passed the age of sixty-five. This provision was one of the **amendments effective Jan. 1, 1940.**

per cent of the first \$50 average monthly earnings or \$20; plus 10 per cent of the remaining earnings above the first \$50 but not above \$250 or in this case 10 per cent of \$50 or \$5; plus 1 per cent per year for each year of covered employment in this case 3 years or 3 per cent of the two previous amounts, *i.e.*, 3 per cent of (\$20 + \$5), or \$0.75; making a total primary benefit of \$20 + \$5 + \$0.75 or \$25.75. In case the worker's wife had also reached the age of 65 at this time, she would receive a supplementary benefit of one half of \$25.75 or \$12.875 bringing the total family allowance up to \$38.625. Each child in the family being used as an illustration that meets the requirements as to age and school attendance would likewise be entitled to one half of the father's primary benefit or \$12.875. In no case, however, can the total benefits to any one family exceed the maximum discussed above. In this case, the total family income could not exceed twice his primary benefit, or \$51.50.

In order to protect the program from exploitation in that young women would marry old men approaching the pensioning age, by definition, a wife must have been married to her husband prior to the date upon which he attained the age of sixty or is the mother of the individual's son or daughter. In other words, a sixty-year-old woman could marry a man just before he reached his sixtieth birthday and be eligible to receive a wife's supplementary benefit when her husband reached the age of sixty-five; however, she would not thus be eligible if she married him after he attained the age of sixty. On the other hand, a young woman might marry a man prior to his sixtieth birthday and draw a supplementary wife's benefit when she reached the age of sixty-five.

A widow of a "fully insured" or a "currently insured" worker, to participate in a widow's benefits, must either be the mother of such individual's children entitled to benefits or have reached the age of sixty-five and have married him prior to the beginning of the twelfth month before the month in which he died [Section 209 (15) (j)]. As explained above, a "currently insured" worker's widow is not entitled to benefits in her own right but only through her children's receiving a benefit. A stepchild or an adopted child may receive a child's benefit provided the adoption or marriage to the stepchild's mother occurred prior to the father's reaching the age of sixty and prior to the beginning of the twelfth month before the month in which he died.

Lump-sum payments are virtually abolished under the amendments effective Jan. 1, 1940; however, under Section 202 (g), in the case of the death of a fully or currently insured worker who leaves no surviving child, widow, or parents entitled to receive monthly benefits, a

lump sum equal to six times the monthly primary benefit of the deceased will be paid to the widow, children, parents, or whatever persons are equitably entitled to same.

4. *Workers Social Security Number.*—Each worker is assigned a social security number against which all of his earnings as reported by his employer quarterly are credited. This social security number follows the worker throughout his work life and is a vital part of his employment record. The worker *should keep his social security account number card in his own possession*, merely giving his employer the number. The employer is required by the 1939 amendments to the act to furnish the employee periodic written statements showing the employee's wages and taxes in a form suitable for the employee to keep as a receipt.

5. *Taxes.*—A tax is levied in equal amounts on both the employer and employee in covered employments on the wages of individuals up to and including \$3,000. The employer deducts the tax from the employee's wages and pays both the employee's tax and his own to the Federal government. The tax rate, as amended in 1939, is as follows (Section 1400 of the Internal Revenue Code as amended):

1. **Calendar years 1939-1942**, inclusive—1 per cent.
2. **Calendar years 1943-1945**, inclusive—2 per cent.
3. **Calendar years 1946-1948**, inclusive—2½ per cent.
4. **After Dec. 31, 1948**—3 per cent.

Should an employee work for two different employers during the same year, each employer would be required to deduct the tax on the employee's earnings up to \$3,000. Such a situation makes it possible for a worker to pay an income tax on more than \$3,000 in a year. The worker may recover from the government all taxes paid in 1 year in excess of the regular amount paid on \$3,000 by filing an application for a refund.

6. *The Employer's Responsibility.*—The primary responsibility of the employer in connection with the Old-age and Survivors Insurance is to withhold from the worker's wage his contribution to the fund and to pay to the Internal Revenue Department of the U. S. Treasury the worker's contribution as well as the employer's own contribution accompanied by complete and accurate records of the wages paid each employee; in addition to furnishing each employee with periodic statements of his taxable wages.¹ In keeping with current personnel practice to render employees services in financial matters, many employers

¹ See John J. Carson, "Some Questions and Answers About Old-age and Survivors Insurance," *Personnel* Vol. 17, No. 1, August, 1940, pp. 42-51,

assist retiring employees in filing their applications for the old-age benefits for themselves and dependents. In the case of the death of the insured worker, the employer is in a position to aid the surviving dependents, at a time when it is most appreciated, to file claims for benefits. It is often necessary for the employer to provide the employee or his dependents with a record of his earnings for the most recent quarters that have not as yet been reported to the Social Security Board or have not as yet been credited to the employee's account. The personnel department may also be of service in aiding the employee to secure evidence required to support his claims, such as proof of age of himself, his wife and children, proof of marriage, etc. The employer may also advise the employee with respect to his rights in accepting other employment in noncovered types of work.

Railroad Retirement Act of 1937.—Railroads had long provided some form of pensions for aged employees. By 1932, approximately 40 per cent of railroad employees were protected by old-age retirement programs.¹ The depression of the early thirties and the declining income of railroads due to truck competition placed a heavy burden on railway finances and seriously endangered the private pension programs. Under pressure from the railroad workers, who have long enjoyed an influence over Congress all out of proportion to their numerical strength, Congress passed a retirement law for railroad employees in 1934. This act was soon declared unconstitutional. Congress then passed two acts, the Railroad Retirement Act of 1935 and its companion Taxing Act to provide funds for the retirement program. It looked as if these two acts would likewise be voided, so the President of the United States requested the railroad management and railroad workers to formulate a program that each was willing to support. This was done, and the Railroad Retirement Act of June 24, 1937, became the law. This act covers railway employees at present and differs in some details from the Old-age and Survivors Insurance of the Social Security Act but provides essentially the same protection.

Incidence of Pension Costs.—The exact incidence of pension costs depends somewhat upon the particular plan and nature of the particular industry involved. In the case of private plans, it is reasonably accurate to say that in the long run the workers themselves will bear the ultimate cost. Temporarily the cost of the pension plan may not cause a reduction in the wages paid the workers; however, in the long run, wages will tend not to rise so high as they would otherwise rise

¹ See Gordon S. Watkins and Paul A. Dodd, *The Management of Labor Relations*, McGraw-Hill Book Company, Inc., New York, 1938, p. 587.

were it not for the additional cost of pensions, unless of course the pension plan causes an increase in product the efficiency equal to the cost of the plan, a causal relationship that is unlikely to exist. In the case of the Federal plan by statute, the workers bear one half the taxes collected for the specific purpose. The portion of the tax that is levied against the employer was expected by the lawmakers either to be borne by the employer or to be passed on to the consumer in the form of increased prices. In certain industries, where the elasticity of demand for the product will permit, it is possible that a portion or all the cost may be passed on to the consumer; however, in the long run in most industries, this will not occur, particularly in those industries for whose products there is a substitute product, the cost of which has a relatively lower proportion of labor cost. Since the tax is specifically a payroll tax, there will be the tendency as far as is economically advantageous to substitute machinery for labor. Again, unless the tax can be passed on to the consumer, there will be a tendency for wages not to rise so high as they otherwise would rise were it not for the tax. Unless the tax in the long run increases the effectiveness of labor, it will largely fall upon the workers as a group. Of course, in those industries that are so favorably situated competitively that they could have and/or would have paid a pension either direct or hidden in the case of giving a higher than economic wage to aged employees, the employer may absorb a portion or all of the tax, yet, even in such cases, the employer might reasonably have been expected to have paid a relatively higher wage were it not for the tax. The fact that workers in general will bear the cost of the tax does not mean that each worker will share in the cost in proportion to his benefits. The lower wage group of workers, as has been shown by Prof. Haensel,¹ receive more in benefits than they pay in, whereas the unmarried men and the higher wage group receive relatively less than they contribute.

It should not be considered a criticism of the social security program to point out the incidence of the tax to provide old-age pensions and survivor's benefits. After all, it is perfectly logical for the persons who benefit by a program to pay for it. In a way, it forces individuals to save for their old age. The program is also beneficial to the self-respecting children of the aged persons who would otherwise be forced to support their parents out of filial affection and respect if not by law. This burden upon children of destitute parents usually falls upon the children at a time when their own families are just growing up and it is most difficult to help their aged parents. In other words, the principle of contributory old-age pensions is thoroughly sound. It is not

¹ see Paul Haensel, *op. cit.* p. 352,

quite so clear that one group of workers should receive more than they pay for and another group should receive less. If the one group should receive more than they pay for, it would probably be more equitable to make up the difference by general taxation. However, this is a minor consideration when compared with the over-all benefits of the entire program.

PART VI

SPECIAL PROBLEMS IN INDUSTRIAL RELATIONS

CHAPTER XXXV

WORKERS DEMANDING SPECIAL CONSIDERATION

General.—In our previous discussion, we pointed out the fact that there are *problem employees* who demand special treatment. These persons usually are defective mentally, emotionally, or physically; some may have two or more of these handicaps. There are other groups that may not legitimately be called *problem employees*, but they do create *problems* demanding special attention, namely, women, children, the aged, and the physically handicapped. A part of the difficulty arises from restrictive legislation allegedly passed for the purpose of protecting the weak, and still another part of the problem arises from the employer's failure to analyze his work situations and plan to make use of his aged workers.

The Aged Workers.—There are two major problems involving the aged worker: (1) the problem of the employer to find suitable jobs for his workers who have grown old in his service and who can no longer efficiently carry on their work in their accustomed occupations, and (2) the problem of the older worker who finds himself out of employment and is faced with opposition to reemployment because of his age. Both these problems are social and economic in their implications. The first one is primarily an economic one for the employer with social and humanitarian responsibilities. The second one is basically social in its larger aspects, but it is fundamentally economic for the aged employee.

The passage of the Social Security Act providing pensions **for** covered employees reaching the age of sixty-five does not solve the major problem, for old age begins with many employees long before they reach the age when they are entitled to retirement annuities **from** the government. From an employment standpoint, just when **is a** worker considered *aged*? For persons **currently** employed, **the term would be applied to them regardless of their specific calendar age whenever they could no longer perform their accustomed tasks or**

whenever they are no longer available for transfer to new tasks because of the slacking of former tasks arising from technological changes or any other cause, the reason for such inability being directly ascribable to age. Viewed from this angle, some persons are aging at forty and others are still going strong at sixty-eight.¹ One famous chief of the United States Air Corps was still flying when he was retired at sixty-five. Other pilots have been forced to retire from active flying from causes directly ascribable to the passage of time when they were only forty or even younger. This condition especially is likely to arise in relation to eyesight. There is no one age that is applicable to workers that classifies them individually as to being young or old from the standpoint of work. Individual differences are controlling and not calendar years.

Viewing *age* from the standpoint of an applicant looking for work, the situation is somewhat different. A survey of 224 employers having 387,826 employees made by the Bureau of Labor Statistics revealed that 71 of these concerns employing 108,475 persons had maximum age limits for hiring as follows: 4 had limits under forty, 41 under forty-six, and 26 plants had limits of forty-six or over.² The employment managers in the 153 plants reporting no age limits admitted that relatively few men over fifty were hired. Although generalization is hazardous even when supported with considerable statistical evidence, it would seem that in general workers are classified as older workers when they have passed the middle forties or at the maximum age of fifty. Workers past these ages may have no difficulty holding down their jobs whatsoever, yet there is a tendency for them to encounter difficulty in finding new jobs if they lose their jobs at this time in life.

Table 8, page 471, illustrates the problem of employment for the older worker. It will be noted that the largest single group of male workers out of employment was that group between the ages of twenty and twenty-four. When interpreted in the light of the particular year, this is as would have been expected. These young men had come of the work age at a time when the depression was taking its toll and had not been able to establish themselves in industry or to secure seniority rights. The next largest group of the unemployed was the oldest one, sixty to sixty-four. The groups then follow in order of age until the forty-five to forty-nine age group is reached. In the case of women,

¹ The author of this chapter has seen workers past sixty-five **holding their own and asking quarter from** no one on the Ford Motor assembly line.

²See "Management Policies" U. S. Bureau of Labor Statistics, *Bulletin* 616, p. 456.

the same general situation prevailed with the added exception that the decline in age group was steady down to the twenty-five to twenty-nine year group. This again is what one might reasonably expect, for older women encounter even more difficulty in securing positions than do men.

TABLE 8.—PERCENTAGE OF NONFARM WORKERS WHO WERE TOTALLY UNEMPLOYED OR EMPLOYED ON EMERGENCY WORK (1937)*

Ages	Male	Female	Both
All ages	19.4	24.7	21.0
20-24	25.2	24.1	24.7
25-29	16.3	19.5	17.4
30-34	13.8	20.0	15.7
35-39	14.0	22.4	16.4
40-44	15.0	23.3	17.0
45-49	16.7	24.1	18.4
50-54	18.4	23.5	19.4
55-59	22.2	26.2	22.9
60-64	23.5	24.0	23.7

* Source: *Unemployment Census*, Vol. 14, p. 50, also *Report to the Secretary of Labor*, by the Committee on Employment Problems of Older Workers, for release Mar. 19, 1939.

Causes of Prejudice against the Older Worker.—It is difficult to say that any one factor is solely responsible for a continuing attitude such as there is against older workers. In many cases, the prejudice is wholly without foundation in fact, and, in other cases, there is substantial justification for it. Where it is justified in individual instances, of course the facts speak for themselves. The sad part is that the actions of a few definitely tend to classify the entire group. Probably the greatest single factor is the mental set or lack of adjustability that some older workers manifest. The prejudice is by no means confined to manual workers. Men who had had successful careers in managerial capacities found it very difficult to get started again during the depression even though they were perfectly capable and willing to work in positions lower than the ones formerly held. It is not uncommon for an ambitious high-school principal or superintendent of a small school system to return to a university to take his doctorate only to find, when he successfully achieves his ambition, that the gates of opportunity are locked against him because of his age. In the case of the executive, it is not infrequent that the person having the opening into which the older applicant might readily fit is younger than the applicant, which creates at times a mental and social barrier founded in part upon fear of competition and in part grounded on tradition.

The following reasons have from time to time been given in justification of the discrimination against the older worker:

1. The announced policy of promoting all employees from within the organization.
2. Lack of flexibility of the older workers.
3. Higher mortality rate of older workers.
4. The normal retirement age of sixty-five or at times even sixty.
5. Added costs of pension plans where these are in use

The announced policy of promoting from within an organization definitely establishes a barrier to the employment of older workers at levels higher than the beginning status. In the case of skilled workmen in a plant having an adequate training program, the hiring of a skilled older worker may bar an apprentice who has almost finished his training from the opportunity for which he has been working. The same may be true in the case of office workers and executives; however, this is often offered as an excuse and may not bulk large in the failure to hire the older workers. The question of flexibility is one of individual differences rather than calendar years. Some men at thirty are more set in their attitudes and ways than others at fifty. The older employee with a wider experience may even be more flexible than the younger one. Mortality rates of older workers may be higher than younger ones, yet the accident rate of older workers compares favorably with the younger workers. With the advent of the social security pensions, the fear of having to pension the workers is largely removed.

In connection with these complaints of older workers, both the workers themselves and management have responsibilities. From the management standpoint, there is the responsibility to offer opportunity to the worker to learn to do new tasks from time to time and thus to avoid becoming a narrow specialist incapable of adjusting to new situations. This usually can be accomplished by transferring the men from time to time to new jobs. From the worker's point of attack, he must be willing to undergo some inconvenience, possibly the acceptance of a slightly lower rate for a time in order to learn new tasks when opportunity presents itself. The worker must also consciously strive to maintain an interest in changing conditions. It is natural that the older worker should be somewhat depressed when faced with mounting responsibilities and unemployment, yet this very outlook on life and the defeatist complex are two of his most serious handicaps. It is generally recognized that all older workers will not thus face the future, but, just to the extent that they do, they handicap not only themselves but all the middle-aged workers who are looking for employment.

In those cases where there is opposition to hiring older workers because of increased group insurance cost, it would be preferable to charge the older employee a higher rate than to bar him from employment because of age. The Committee on Employment Problems of Older Workers¹ reported: "The employer's share of the cost of life insurance is ordinarily so small that in our estimation, it should not influence employers to establish hiring age limits."

Unfortunately, and when viewed from the social standpoint, probably the most inexcusable prejudice against the aged worker is governmental restrictions as to age limits for many positions, both under Civil Service and departmental regulations. Federal, state, and municipal agencies criticize private employers for discriminating against the older worker, and yet their own standards are frequently more severe than the private employer's. The committee referred to above recommended a revision of governmental regulations so that employees would be selected solely on the basis of qualifications without regard to an upper age limit. The government retirement system could be adjusted to absorb the portion of the workers' annuities accruing under the Social Security Act, or the entire governmental retirement program might well be absorbed by the Social Security Board with any adjustments as to the upper brackets that were deemed desirable.

Unless industry meets its obligations to the older employees, there is certain to arise a demand for further governmental regulations to cover it. At least one state has already passed such a law, even though it does not have many teeth in it.² It is to be hoped that this problem can be handled satisfactorily without further governmental interference in labor relations.

Any policy, private or governmental, which arbitrarily discriminates against employees or applicants on the basis of a fixed age is undesirable from the point of view of employees, employers, and the public as a whole, and is not justified by the findings of this committee.

Finally, we wish to call attention to the fact that employees themselves can help to break down the prejudices against older workers, and that in some instances the problem has been successfully dealt with through union contracts.³

¹ *Report to the Secretary of Labor*, by the Committee on Employment Problems of Older Workers, for release Mar. 19, 1939, p. 3.

² The State of Massachusetts passed *An Act Prohibiting Discrimination Against Certain Persons in Employment on Account of Their Age* in 1937. Section 24G of this act provides for the publishing of the name of any employer who after a hearing has been found guilty of dismissing from employment or refusal to hire a "person between the ages of forty-five and sixty-five because of his age."

³ Committee on Employment Problems of Older Workers, *op. cit.*, p. 7.

Since our working population is definitely growing older, the problem of the older worker in industry will become increasingly a more pressing one.¹ Massachusetts, Connecticut, New York, California, and other states have recognized this problem and made exhaustive studies of the causes, effects, and possible solutions. The dispelling of erroneous ideas is one of the major suggestions for correction.

Wadsworth-Rochester Plan.—The Industrial Management Council of Rochester, N. Y., formulated their policy relative to older workers on Mar. 24, 1939, as follows:²

The policy of the members of this Industrial Council has been to maintain a balance between older and younger groups approximating the working age groups of the community. In this way no discrimination can exist against any one age group.

The problem of employment of the middle-age or older worker can most effectively be approached from the long-time view through policies which take into consideration (1) hiring, (2) retention in service, and (3) retaining for continued gainful employment within the plant or company in which the individual has built up his service.

Hiring: Sound employment policy must take various qualifications into account, not age alone.

Retention in Service: When business conditions necessitate a reduction in force, the selection of workers for lay-off should take into consideration the same factors as in hiring, to which should be added that of comparative length of service.

Retraining: To give practical effect to a policy of retention in service, a program of retraining and reassignment of older workers is desirable. Such a program should include:

- (a) Determination of jobs of limited requirements which workers of decreased productivity in their regular occupations may perform with reasonable efficiency without loss of individual or group morale.
- (b) Retaining of workers so far as practicable.
- (c) Counsel incapacitated workers to take advantage of all present and future rehabilitation facilities, either public or private.

This plan is thoroughly sound and has attracted nation-wide comment and commendation. Several employers have extended the principle of having their work force representative of the population group

¹ See Dale Yoder, *Labor Economics and Labor Problems*, McGraw-Hill Book Company, Inc., New York, 1939, pp. 307-311.

² See *Legislative Document* 80, 1940, of the State of New York, "Final Report of Joint Legislative Committee on Discrimination in Employment of the Middle-Aged," pp. 131-132, for the setting of this plan. This entire survey is an excellent report and disproves many of the current fallacies relative to the capacities, adaptability, accident record, etc., of the middle-aged.

to include not only the factor of age, but as far as possible, the physically handicapped. Henry Ford has long been noted for his efforts in this direction.

THE WOMAN WORKER

Aside from the natural differences between men and women arising through the factor of sex, most of the problems created by the employment of women are man-made rather than being inherently a part of their employment. The old fallacy of women being the "weaker sex" and therefore needing protection has long since been exploded, as far as its general application is concerned. It is true of course that women in general are not physically so strong as men as far as their ability to lift heavy weights is concerned. However, the weight-lifting ability of women is not of any major significance, since they are rarely used on jobs requiring unusual physical prowess. The defenders of women are seldom the women themselves who work, yet innumerable working-women are thoroughly capable of defending their sisters, should occasion arise for special defense.¹ The advocates of special protective legislation are often motivated by a reform complex, and some are frequently not so much interested in the protection of women as they are in removing women from competition with special groups of men. Regardless of the desirability of restrictive legislation covering women workers, the facts of the situation cannot be ignored; women in many ways are restricted by statute with respect to certain types of activities and the conditions under which other tasks may be performed. These restrictions create problems for the employer who would hire women.

The attitudes toward women workers that have resulted in these employment restrictions are not new. A part of them have their roots in the chivalry of the courts of the Middle Ages, when women were supposed to be protected from the realities of life. The concept that the place for women is in the home usually carries with it a moral injunction that she should have a home and bear children whether or not she wants them or is financially in a position to give these children the standard of living that her ideals would demand. It is only one step from this concept to its corollary, that when a woman marries she should be compelled to give up her job. Certain employers have often regarded women as cheap labor and not particularly desirable and thus offered little opposition to discriminatory legislation. Men workers usually recognize that women workers offer them stiff competition, and nothing builds prejudice quicker than what is felt to be

¹ *The Proceedings of the Midwest Conference, Business and Professional Women, Chicago, Feb. 10, 1940* (unpublished).

unequal competition. Men-dominated unions often bar women from membership; however, in the needle trades and in most industrial unions today, this bar has been removed. Again, large numbers of women who have elected a home career for themselves subscribe to the theory that the place for women is in the home and are, in part through jealousy, delighted to see their working sisters forced to give up their jobs and thus be deprived of the luxuries and comforts that a few of the married workingwomen enjoy.¹

The Status of Women in Industry.—In spite of the attitude of many that women as members of the so-called "weaker sex" should be protected, the fact remains that women have always worked as far back as history records. Women's tasks in the past have often included work in the fields, side by side with men, and, in some instances, the women were almost solely the tillers of the soil, while their men engaged in hunting, fishing, and warfare. In Europe today, women work in the fields quite regularly. The practice of women working in the fields is not so common in America, but it does prevail in a few communities. In *handicraft production*, *domestic production*, and *cottage production*, women played an important role as helpers to their men, and, in the case of the weaving and spinning trades, they were masters.

Wherever heavy industries calling for men are located, a golden opportunity exists to establish industries providing employment for the wives and daughters of the men thus employed. To this complementary situation is largely due the continuing tendency to pay women less than men. The supply of women workers is nearly always in excess of the demand. It is true that the lack of stability of women workers also tends to depress their wages. By lack of stability it is not meant that women as individuals are less reliable than men in general, but that the average working girl is merely marking time until she marries, or, if married, she is planning to work only long enough to help her husband buy a home and get started. Relatively few workingwomen enter the business world with the avowed intention of establishing for themselves lifetime careers. Again, many of the younger women live at home and are not entirely dependent on their earnings; hence they are content to work for less. Women in general have been less inclined to join unions and add collective strength to their wage bargaining. The tendency of women to be less regular in attendance (this is not always a demonstrable fact, but the general opinion never-

¹ See Dale Yoder, *Labor Economics and Labor Problems*, *op. cit.*, Chap. 13, "Social Problems of Women Workers," for an excellent discussion of the entire problem.

theless prevails) also depresses their wages. The multiplicity of governmental regulations covering women in fact places an additional employment cost upon the employer of women, thus depressing their wages even in cases where they work on the same jobs with men. The general higher turnover among women also adds an additional cost to the employment of women. Since women in general do not expect to remain in industry, they seldom enter trades requiring long periods of training or apprenticeship, which places women as a group in the unskilled class that nearly always receives low wages. Even when they in large numbers enter occupations requiring a high degree of skill, such as needle trades, these occupations as a rule are already overcrowded and ones for which the skill of the worker is closely related to household skills, for which women have traditionally been trained. No one of these factors is controlling, but, when taken collectively, they exert a profound influence upon the wages of women. The relationship of supply to demand is probably the strongest single factor.

The ratio of the number of women workers gainfully employed in America to the total female population has been gradually increasing for more than a half century. For instance, in 1880, 13.1 per cent of all women were gainfully employed; in 1900, 20.6 per cent of all women were thus employed; the status for 1910, 1920, and 1930 was respectively 25.4, 23.7, and 24.8 per cent.¹ The slight decline in 1920 and 1930 does not establish a change in the trend but must be interpreted in the light of the special conditions prevailing at the time. In 1920, there was a slight depression, and great pressure was being made to make room in industry for returning war veterans. In 1930, the depression of the thirties was well under way, and, as is customary, women were being laid off to make room for men. A corollary to the increase in the employment of women in relation to the total female population is the fact that of the total working population, men are proportionately less than formerly. This does not necessarily mean that fewer men are employed in the absolute sense but that the total persons gainfully employed has increased.

The economic consequences of women in industry have caused much controversy and have motivated much of the restrictive legislation regarding women, although most of the advocates of such legislation claim lofty motives and would readily disclaim any selfish interests. The increased supply of women willing to work at lower wages than men in the same industry with men undoubtedly does lower the wages of men doing the same work. The fact that the supply of women workers is more elastic for a given locality than the supply of men also

¹ *Ibid.*, p. 351.

tends to accentuate this situation, particularly during periods of depression when many women enter the work market because male members of their families have lost their jobs or have reduced earnings. Under such conditions, women workers do tend to reduce the wage ratio in general in the markets they enter. On the other hand, they also tend to increase the total employment and encourage business revival, because the reduced operating costs offer increased opportunity for profitable business operations.¹ Rigidities of labor costs definitely retard business recovery during depressions. Society gains from the reduced costs of women workers as well as from the increase in total productivity because of women workers. The concept that women in the long run take work away from men is predicated upon the discredited "lump of labor" theory.² (It must be admitted that in a given situation in the short run men may be displaced by women unless the men are willing to meet the wage competition of women.)

Attitudes of Business and Professional Women toward Restrictive Legislation.—As was pointed out above, the women actually engaged in commerce and industry are seldom the ones who advocate protective legislation for women as a class. These women know too well what much of this type of legislation does to opportunity. They, as a rule, are not opposed to protective legislation where needed to protect all workers both men and women, but they object to being singled out for special consideration and thus being placed at an economic disadvantage in competition. The *Report of the Resolutions Committee* of the Midwest Conference of Women in Business and Professions held in Chicago, February, 1940, which is reproduced in part below, clearly portrays the opinion of this group.

PREAMBLE. We are deeply conscious of the difficult economic problems concerning unemployment, women in industry, the maintenance of a decent minimum wage and a proper standard of living, engendered by a conflict of interest between capital and labor, employer and employee; women in competition with men; single women in competition with married women who have other income; married women without additional income in competition with single women with additional income, affecting both men and women in the pursuit of their daily lives.

The Bill of Rights of the Constitution of the United States makes no distinction between the rights of men and women. As women who work, we stand on that premise, and oppose prohibitive and restrictive legislation affecting us.

¹ *Ibid.*, pp. 359-360.

² *Ibid.*, pp. 237, 359, 360.

WHEKEAS it is the consensus of opinion of women who work that they no longer need protection so much as they need unrestricted opportunity to advance,

Now THEREFORE BE IT RESOLVED that legislation of this type, which discriminates against married women, establishes a dangerous precedent and paves the way for further legislation which will eventually eliminate all women from the economic world;

WHEREAS the surveys of the Women's Bureau of the United States Department of Labor and the National Industrial Conference Board reveal that it is now the policy of 23 % of the reporting companies to dismiss women office employees upon marriage, as compared with about 8 % placing the same restriction upon factory workers; followed by insurance firms with 84 %, banks with 65 %, public utilities, 03 %, as compared with 14 % of the manufacturing concerns and 11.5% of the mercantile establishments,

Now THEREFORE BE IT RESOLVED that the social consequences of policies and legislation discriminating against women on account of their marital status would be extremely deleterious and alarming.

. . . and whereas any legislation making it mandatory on the employer to dismiss women upon marriage will greatly increase their difficulty in finding any employment, not to speak of the impossibility of their ever reaching any executive or supervisory positions;

. . . that all such legislation will naturally result in permanently limiting women to the lowest income jobs, leaving no opportunity for advancement into supervisory or executive position, and should be strenuously opposed.

A sound policy for employment managers would be to remove any conditions that might reasonably be the subject of further discriminatory legislation for women, thus to protect both themselves and women workers from the undesirable economic and social consequences of further legislative restrictions. It will behoove women to be on the alert critically to evaluate proposed legislation for their protection regardless of the avowed lofty aims of such legislation and to insist that all such legislation be enlarged to include all workers rather than a special group.¹

CHILD LABOR

Child labor formerly presented a much more serious problem to employers than it does since the passage of the National Industrial Recovery Act with its codes restricting child labor and its successor the Fair Labor Standards Act as well as the many state regulations governing workers under eighteen. The Fair Labor Standards Act

¹ See Florence P. Smith, "State Labor Laws for Women," *Bulletin of the Women's Bureau*, 156, Dec. 31, 1937; see also "State Labor Laws for Women," Part II, *Bulletin of the Women's Bureau*, 156, II, Mar. 31, 1938, for a summary of various types of restrictive legislation.

only covers children employed in industries whose products move in interstate commerce. There are, of course, many employers whose activities are not governed by this act. Most states have laws requiring school attendance while school is in session for all children under fourteen, whereas 12 states as of Jan. 1, 1940 have a basic minimum of 16 years for employment.¹ A goodly number of states require special permits for workers between the ages of sixteen and eighteen and bar these workers from certain occupations and nightwork.

From the employer's standpoint, these various restrictions definitely limit the use of child labor. As a rule, employers do not object, since there is a general feeling that child labor is not desirable. Until the passage of the National Industrial Recovery Act and later the Fair Labor Standards Act, employers in states with high standards as to child labor were often placed at a disadvantage in interstate competition with other manufacturers whose plants were in states in which child labor was not restricted. Many of the manufacturers in states permitting child labor frowned upon the practice but were sometimes placed in a bad competitive position by other marginal producers who would resort to almost any practice to survive. In general, manufacturers look upon child labor, particularly when used on occupations unsuited to children, as constituting an unfair labor practice. The Fair Labor Standards Act establishes a minimum age of sixteen for child labor with the age limit of eighteen for certain occupations declared *hazardous* by the director of the Children's Bureau of the Department of Labor.

State regulations frequently prescribe that apprentices and others who have *work certificates* be permitted to attend school a certain number of hours per week. When these hours come at times when the workers otherwise would, be employed, it presents a difficult problem of adjustment. Children under certain prescribed ages are also barred in most states from nightwork.

The disadvantages of child labor are both economic and social. The chief economic disadvantage is payment of extremely low wages for products sold in competition with adult labor. These wages in many instances are not only low in comparison with the wages paid either men or women, but also below the economic value of the services rendered. When it is recalled that the 1930 census reported 167,856 children employed between the ages of fourteen and fifteen, and 972,770 persons between the ages of sixteen and seventeen gainfully

¹ See *Monthly Labor Review*, January, 1940. These states are Connecticut, Massachusetts, Montana, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Utah, West Virginia, and Wisconsin.

employed in nonagricultural pursuits, the child labor factor becomes an important one economically. By far the most important result of child labor is the social impact of this labor upon the health, safety, education, and future opportunities of the children who may work under unfavorable conditions. Not all employment of children is undesirable. A well-regulated apprentice program, properly synchronized with educational opportunities, may offer greater long-run opportunities than many of the regularly organized schools. Employers providing this type of employment for young men and women have no difficulty in getting work certificates for qualified learners.

It is gratifying to note the decline in child labor during the past fifty years. The following table indicates the trend, although it should be recognized that the years 1920 and 1930 may be somewhat distorted due to the peculiar situation in these years. Child labor tends to decline or increase with the general labor situation. The causes of child labor are deep seated in the customs and mores of the people,

TABLE 9.—GAINFULLY EMPLOYED CHILDREN, TEN TO FIFTEEN YEARS OF AGE (1890-1930)*

Year	Number	Percentage
1890	1,503,771	18.1
1900	1,750,178	18.2
1910	1,621,726	15.0
1920	1,416,684	11.3
1930	667,118	4.7

* Source: Census Bureau, *Occupational Statistics*, 1932, p. 86.

namely, (1) poverty of the parents who need the income of the children to supplement the family earnings, (2) attitude of certain parents who think that their children should work to aid the family income regardless of the absolute need, (3) desire of many children to work to earn money and escape a school life that is not particularly suited to their temperaments or capacities, and (4) the attitude of certain employers who are seeking cheap labor. Most of these causes are social in nature and can be removed only by social action, which has already made itself felt in state and Federal legislation.

The Federal Child Labor Amendment.—Congress approved the following proposed amendment to the Constitution, June 2, 1924, to be submitted to the several states for ratification:

Section 1. The Congress shall have power to limit, regulate, and prohibit the labor of persons under 18 years of age.

Section 2. The power of the several states is unimpaired by this article, except that the operation of State laws shall be suspended to the extent necessary to give effect to legislation enacted by Congress.

As of June 1, 1941, a total of 28 states had ratified this amendment.¹ Kansas rejected the amendment in 1925 but approved it in 1937. The Supreme Court has ruled, July 5, 1939, that Congress alone has the power to determine how long a proposal to amend the constitution is subject to ratification.² Since the constitutional requirement is three fourths of the states for ratification, this amendment will require the approval of eight more states to make it effective. The need for this amendment is not so great at present under the Fair Labor Standards Act, yet its proponents are anxious to have it ratified. Just what the future course will be, no one can safely predict.³

¹ Arkansas (1924); Arizona, California, Wisconsin (1925); Montana (1927); Colorado (1931); Illinois, Iowa, Maine, Michigan, Minnesota, New Hampshire, New Jersey, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Washington, West Virginia (1933); Idaho, Indiana, Utah, Wyoming (1935); Kansas, Kentucky, Nevada, and New Mexico (1937).

² *Coleman v. Miller*, 59 Sup. Ct. 972. See *Monthly Labor Review*, July, 1939, p. 142.

³ See Dale Yoder, *op. cit.*, pp. 342-344, for a discussion of the opposition to this amendment.

CHAPTER XXXVI

INDUSTRIAL UNREST, WORKING CONDITIONS, AND LABOR TURNOVER

In this chapter, we are interested in those factors that influence the ebb and flow of the working force other than the seasonal and cyclical determinants. It might be well to consider *working conditions* first, since these are frequently within the control of management. However, we have deliberately chosen to discuss industrial unrest first, because this social phenomenon is often one that responds in part only to enlightened managerial treatment. Industrial or social unrest is a larger force than that confined to one employer. It may arise from social, economic, or political restraints. Again, it may be the result of false leadership preying upon the emotions of masses that are not in fact suffering from any restraints. We are interested in labor turnover as a manifestation of labor unrest as well as from the economic implications of unnecessary labor turnover. We are also interested in working conditions as they affect the happiness of the workers in their work unit and their influence upon labor unrest and labor turnover.

Industrial Unrest.—Industrial unrest manifests itself in a more or less continuing state of uncertainty, uneasiness, and aimless activity arising out of unaccounted-for fears or unsatisfied longings. Vague rumors and restrained emotional excitement often accompany early stages of so-called "inarticulate" social or industrial unrest. These rumors and manifestations of emotional restraints are not confined to the workers themselves but are transmitted to their wives and children. After a time, the entire process of contagion becomes distinctly a group or social phenomenon. Individuals may then come into such a group with a high degree of self-confidence and certainty only to succumb to the group influence in a relatively short time.

When the unrest becomes sufficiently organized that it takes form for the expression of open protests and petitioning for requested change, it is out in the open and has become *articulate*. There is little difficulty in recognizing unrest when it reaches this stage. Its outward manifestations are the parade, strike, boycott, etc. Leadership is a requisite of this phase of unrest. The leadership may be intelligent

and make only reasonable demands, or it may be merely keen and demand much with no expectation of getting all that is asked. The articulate stage of industrial unrest is the only phase that most managers know about. As a matter of fact, this stage is no more important than its predecessor, the *inarticulate* unrest. If inarticulate unrest can be minimized and the individuals and group find satisfaction in their work situations, the more vocal and active stages will seldom arise.

To seek something better is not to be frowned upon either on the part of individuals or on the part of groups. Wise leaders recognize that change is a requisite of progress. Change is not merely confined to technological matters. As a matter of fact, technological change requires social adjustment to appropriate the benefits of the material development. The attitudes of people differ markedly with reference to change. Some persons are constitutionally opposed to change. They desire security even on a low level if necessary and look upon change as endangering that security. Other people seem to be constitutionally eager for the new and untried. To this group youth predominantly belongs, and yet many older persons likewise like to experiment with the unknown. The economic class to which an individual belongs may often influence his reaction to change. The "have-nots" may dream of abundance if the promises of the advocates of change come true. They have relatively little to lose and as a rule do not react so violently to suggested changes. Those who are faring well at the time are usually contented with the *status quo* and oppose change that nearly always is advocated as a policy of taking away from those now enjoying an abundance and giving to those who have not. The great middle class occupies the sound position. It is neither opposed to all change nor in favor of radical changes. As was pointed out above, individuals in all these economic groups may not conform to the group tendency. A millionaire's son may be a communist and a butler's son may be ultraconservative. When either group at the extreme forces its will upon the other over long periods, there is likely to be unrest. Radical change is difficult for the masses to adjust to even though they may have advocated it at the time of its initiation. Gradual change is more in keeping with man's natural temperament.

What does all this mean to the personnel manager? It means that he will strive to interpret unrest while it is still inarticulate and avoid the stresses and strains of correction when it becomes articulate. It means that he will strive to keep abreast of movements within and without his plant or industry and to acquaint his managers with these

movements so that they will be familiar with them should they have to face them unexpectedly. It means that management will recognize that social changes are just as immutable as technological change. It means that management must devise techniques that are adequate to cope with industrial unrest before it becomes active. The Hawthorne experiment in counseling, previously described, is directed to this end.

In general, workers like to look up to their supervisors and respond readily to straightforward, scientific treatment. Of course, this last statement can be made only of the great mass of American workers who are imbued with the traditional American philosophy and not to minority groups whose religion is communism. Such groups are definitely committed to class struggle and will try to interpret decent treatment as a sign of weakness and to magnify the severity of the strong hand where it is used. Fortunately, the influence of this group is slight when management discharges its responsibilities intelligently.

Working Conditions.—Working conditions include *all those factors, physical, social, and managerial, that directly affect the worker's adjustment to his work situation.* All too often persons think only of the physical aspects, the cleanliness, light, heat, ventilation, physical energy required, the length of the work day, the irregularity of the work hours such as night shifts or the rotation of shifts, physical hazards, exposure to possible industrial diseases, and similar conditions when thinking of working conditions. There is no question but that each of these factors exerts an influence upon the worker's happiness in his work, yet these alone are not the sole factors.

The social influence upon a worker is more difficult to measure than the physical, and each worker may react somewhat differently to the same social environment. Individual or group reaction to a particular social situation is largely influenced by the mores of the particular group that is by no means uniform in different sections of our country or within different segments of people within the same local geographical area. For instance, the manufacturer who would insist upon white and negro workers' sitting down at the same table to eat lunch in the deep South would almost certainly be inviting trouble. Again, the employer who would collaborate with a bare majority of his workers in forcing a closed shop upon the other 49 per cent of his workers is creating an untenable situation, particularly where unionism has not established itself as a part of the traditions of the people. The forcing upon a group of a rule of action supported by only a slight majority is fraught with grave social consequences, particularly when the action taken involves deep-seated emotional bias. The **inaugura-**

tion of a second shift in a plant that works from Monday through Friday with the rotation of shifts may cause unusual dissatisfaction in a community in which there are many people who observe Saturday as their Sa'bboth, beginning at six o'clock on Friday and running to six o'clock on Saturday. A minority group in a department may be exceedingly unhappy if the two groups are bitterly divided over some subject such as a lodge or religious membership. The same people may get along very satisfactorily if neither is in the majority and the total group is sufficiently large that the numerical strength and factional differences between the two otherwise opponent groups are relatively unimportant to the larger group as a whole.

Casual observers often overlook managerial aspects of working conditions and merely ascribe to management the physical responsibility of the plant. The regularity of work for workers reporting for work exerts a profound influence upon workers, particularly when they are paid on an output basis or some incentive plan. Even though the worker is not penalized for the absence of work, slipshod methods of scheduling and production control tend to break down morale. A well-paid, busy group of workers have few grievances to magnify. On the other hand, a group of workers waiting aimlessly for work can readily manufacture problems even though their pay is relatively satisfactory. Of course, a domineering supervisory force directly affects working conditions, even though the physical factors may be satisfactory. The reverse of this is likewise true; a supervisory force that has difficulty in knowing what it wants and whither it is going breaks down worker morale.

There are at least two other factors that closely influence working conditions that are worthy of further consideration, even though they have been inferred by the foregoing discussion, namely, *rotating shifts* or *hours of work*, and *monotony and fatigue*.

1. *Hours of Work and Rotating Shifts.*—The 12- or 14-hr. day is no longer a major problem in industry as a whole, particularly in interstate commerce since the Fair Labor Standards Act and the respective state regulations in the main prohibit such hours. There still remains, however, the problem of irregular hours in certain industries and night or shift work. Local transportation companies have, in general, two peak periods, one when workers are going to work in the morning and the other when they are going home at night. If sufficient men are on the job to handle the peak periods, there are more than are needed during the period from about nine until three. The result may be that one group works from five in the morning until nine, and then is off until the afternoon when they again work from three until seven.

There are, in general, two main groups of enterprises when viewed from the standpoint of operations—the continuous and the noncontinuous. Continuous industries may be operated continuously because of the nature of the processes or services such as the blast furnaces, certain food processing, certain chemical processes, and the utilities such as the public light and water companies. Other companies may operate two or more shifts because of conditions requiring a volume of production that cannot be turned out on one shift with the available equipment. Again, a company may deliberately elect to operate more than one shift in order to reduce the unit cost of the product by spreading the machinery burden over a larger number of units of product rather than to install enough equipment to care for the production on the day shift alone. Regardless of the cause, multiple-shift operations are frequently causes of unrest. Not infrequently some departments may be on a two or more shift basis and other departments on only a one-shift basis. Construction work and major maintenance work are nearly always on a single-shift basis even in continuous-process industries with the exception of the emergency maintenance man.

TABLE 10.—POLICY IN ASSIGNMENT OF EMPLOYEES TO SHIFTS*

Policy	Companies with	
	Con- tinuous operation	Noncon- tinuous operation
Employees permanently assigned to particular shifts	2	51
Employees rotated between shifts	19	33
Each policy in effect in some departments..	5	20
Frequency of change under shift rotation		
Weekly.	19	21
Biweekly.	3	16
Semimonthly.	0	
Every four weeks	1	
Monthly.	0	
Quarterly.	0	
Frequency varies.	1	

* Source: National Industrial Conference Board, Inc., *Studies in Personnel Policy* 3, New York, 1937, p. 4.

† In one company, if nightwork lasts long.

Companies working multiple shifts may either hire all new men on the second or third shift as the case may be and promote them to the

day shift strictly on a seniority basis, or they may establish rotating shifts, each group working a certain number of days on each shift and then being transferred according to an established schedule.¹ The table on page 487 gives some idea of the prevalence of shift rotation as far as the sample is illustrative of general practice.

From this table it will be seen that approximately 40 per cent of the companies have a permanent assignment to a particular shift. The others rotate on some basis. Of those that do rotate, slightly more than half rotate on a weekly basis. Employees are by no means uniform in their preference as to rotation or no rotation. As would be expected, the older employees whose service would give them the day shift usually prefer the permanent assignment. Many other employees prefer permanent assignments or at least rather long shift assignments. Rotation on a weekly basis causes much discontent among many employees who claim that they just get adjusted to sleeping days when they have to shift to another time. The author of this chapter has worked under the system of permanent assignments and also weekly shifts. He prefers a longer assignment such as 2 months to either plan. He has heard many individual workers express a similar view; however, he knows of no statistical study involving a large number of employees who have had experience under both plans to verify or refute his observations. It would be an interesting experiment if entered into freely by the employees involved to try out a 2 months' rotation plan for a year, which would give experience under different weather conditions, to let the employees decide which method was preferred. Shift rotation is frequently given by employees as a reason for leaving a firm.

The National Industrial Conference Board, Inc., survey quoted above showed that 90 firms paid no additional compensation for night-shift work, against 40 companies that paid an additional wage for nightwork. The most common practice when additional compensation was allowed was to pay from 2 to 4 cents per hour additional for nightwork. Some companies offered the inducement of paying employees working nights for their lunch period, more frequent opportunities to work overtime, smoking privileges granted night employees, etc.

The acceptance as a matter of course of opposition to nightwork is often influenced by the traditions in the community. In rural areas unaccustomed to nightwork, there is likely to be keen opposition. In

¹ See National Industrial Conference Board, Inc., "Multiple-shift Operation," *Studies in Personnel Policy* 3, New York, 1937, p. 3.

other areas, where nightwork has long been practiced, it is frequently accepted as a matter of course,

2. *Monotony and Fatigue.*—*Monotony and cumulative fatigue* tend to produce discontent and in the long run may result in or be contributory factors to industrial unrest. Fatigue is essentially a physical reaction to work, yet it may readily be influenced by monotony. A feeling of boredom often interpreted as fatigue may arise almost solely from monotony. Cumulative fatigue is nearly always the result of prolonged overwork or its counterpart, the lack of sufficient rest. The only cure for cumulative fatigue is more rest or diversion in case it may in part be due to monotony. Individual differences are as pronounced in the reaction to so-called "monotonous" jobs as anywhere else. Some persons enjoy repetitive operations requiring little or no initiative. Others are bored by such operations. Mayo and others have studied the effects of work described as monotonous.¹ In general, monotony is affected by the following conditions: (1) increased when the operation requires the worker to be constantly on the alert, yet there is not sufficient care required to keep the mind fully occupied; (2) not likely to arise in the ease of an operation that is completely automatic and the individual is free to let his mind wander at will; and (3) tends to be decreased in operations requiring a high degree of concentration.

Rest periods and the changing of operations, such as a worker's leaving her sewing machine to deposit finished parts on a rack and to get a new supply of work, tend to reduce both monotony and fatigue. The imparting of full information on the relationship of a given operation to the finished product often gives meaning to an operation and reduces the monotony of its performance. Properly spaced rest periods on monotonous jobs not only improve the morale of the workers, but also increase production. With improved morale, industrial unrest arising from fatigue or monotony tends to be eliminated. Scientific management is giving increased attention to the elimination of monotony and cumulative fatigue.

Strikes.—When labor unrest reaches the state of open defiance such as slowing down the work, actual stoppage of work, and an attempt by persuasion or force to keep others from work, it has reached a critical stage. The strike on the part of employees and the

¹ See Elton Mayo, *Human Problems of an Industrial Civilization*, The Macmillan Company, New York, 1933; see also H. M. Vernon, *Industrial Fatigue and Efficiency*, George Routledge & Sons, Ltd., London, 1921, for detailed discussion of both monotony and fatigue.

"lockout" on the part of employers are not always clearly differentiated. Employees on a strike are likely to claim that they are in effect not striking but victims of a vicious lockout by the employer. They use any device at their command, often with little regard for the truthfulness of the facts, to influence public opinion in their favor. A favorable public opinion is much more prone to grant strikers extra legal means for enforcing their demands. To infer that striking employees hold the truth lightly and that employers always tell the facts without special coloring would certainly not be true. Some employers have resorted to tactics wholly unworthy of them; however, modern social controls can easily check upon the employer's claims and often do so. They could also check upon the employee's claims, but there is, as a rule, no particular agency of the government to expose employees' claims, particularly if the employees are struggling for union recognition. Somewhere between the claims of the employer and his striking employees is likely to be the true situation.

TABLE 11.—RESULTS OF STRIKES ENDING IN 1939*

Results	Strikes		Workers involved		Man-days idle	
	Number	Percentage of total	Number	Percentage of total	Number	Percentage of total
Total	2,639	100.0	1,177,883	100.0	18,520,503	100.0
Substantial gains - to workers	1,048	39.7	493,149	41.8	8,874,685	48.0
Partial gains or compromises	852	32.3	397,776	33.8	6,896,797	37.2
Little or no gains to workers	494	18.7	209,478	17.8	1,951,930	10.5
Jurisdiction, rival union, or faction settlements.	156	5.9	49,539	4.2	633,634	3.4
Indeterminate	40	1.5	24,805	2.1	143,526	.8
Not reported	49	1.9	3,136	.3	19,931	.1

* Source: *Monthly Labor Review*, May, 1940, "Strikes in 1939," p. 22.

The strike has legal status in the United States at present. Peaceful picketing by striking employees is also permitted in most jurisdictions. Peaceful picketing, in fact and theory, certainly is compatible with democracy; however, a great deal that is claimed to be peaceful mass picketing cannot possibly be so classified by anyone who has the

TABLE 12.—RESULTS OF STRIKES ENDING IN 1939, IN RELATION TO MAJOR ISSUES INVOLVED*

Major issue	Total		Sub- stantial gains to work- ers	Strike results				Not re- ported
	Number	Per- cent- age		Partial gains or com- pro- mises	Little or no gains to work- ers	Juris- diction, rival union, or faction settle- ments	Inde- nate	
	Strikes			Percentage of strikes				
All issues	2,639	100.0	39.7	32 3	18.7	5.9		1.9
Wages and hours	099	100.0	46.2	43.2	10.3			
Wage increase	441	100.0	41.7	48 3	9.8			
Wage decrease	131	100.0	65.6	20.6	13.0			
Wage increase, hour de- crease	97	100.0	43.3	50.5				
Wage increase, hour in- crease	8	100.0	25.0	25.0	50.0			
Hour increase	8	100.0	50.0	50.0				
Hour decrease	14	100.0	35.7	50.0				
Union organization	411	100.0	43.6	30.8	25.1			
Recognition	360	100.0	45.3	16.1	37.8			
Recognition and wages. .	272	100.0	41.5	39.0	19.1			
Recognition and hours. .	11	100.0	45.5	9.0	45.5			
Recognition, wages, and hours	242	100.0	50.8	30.6	18.2			
Strengthening bargain- ing position	2.5	100.0	48.0	28.0	24.0			
Closed or union shop. . .	324	100.0	35.5	43.2	21 3			
Discrimination	127	100.0	48.0	26.8	24.4			
Other	50	100.0	46.0	30 0	22.0			
Miscellaneous	529	100.0	20.8	21.7	12.9	29.5		
Sympathy	48	100.0	18.7	18.7	20.8			
Rival unions or factions	81	100.0				100.0		
Jurisdiction	75	100.0				100.0		
Other	276	100.0	36.6	38.4	19.2			
Not reported	49	100.0			10.2			
	Workers			Percentage of workers involved				
All issues	1,177,883	100.0	41.8	33.8	17.8	4.2	2.1	0.3
Wages and hours	351,703	100.0	18.8	40.7	40.5			
Wage increase	133,758	100.0	25.9	67.2	6.9			
Wage decrease	36,007	100.0	58.7	30.3	10.8			
Wage increase, hour de- crease	43,113	100.0	14.5	72.4				
Wage decrease, hour in- crease	127,064	100.0	1.3	1.6	97.1			
Hour decrease	9,932	100.0	17.7	79.6	2.7			
Hour increase	1,829	100.0	36.2	63.8				
Union organization	641,298	100.0	63.3	30.6	6.0			
Recognition	29,751	100.0	40.3	31.8	26.4			
Recognition and wages. .	68,468	100.0	43.6	45.9	10.3			
Recognition and hours. .	1,200	100.0	73.5	19.5	7.0			
Recognition, wages, and hours	32,535	100.0	27.5	65.4	7.1			
Strengthening bargain- ing position	62,667	100.0	5.9	84.3	9.8			
Closed or union shop....	423,674	100.0	81.0	16.5	2.5			
Discrimination	16,288	100.0	31.9	49.6				
Other	6,635	100.0	46.1	39.4				
Miscellaneous	184,882	100.0	11.1	31.6		26.8		
Sympathy	12,065	100.0	3.2	73.5				
Rival unions or factions.	40,868	100.0				100.0		
Jurisdiction	8,671	100.0				100.0		
Other	120,239	100.0	16.7	41.4	23.5		18	t
Not reported	3,039	100.0						94

* Source: *Monthly Labor Review*, May, 1940, "Strikes in 1939," p. 23.
 † Less than a tenth of 1 per cent.

PERCENT OF STRIKES

FIG.84.—Major issues involved in strikes 1927-1939. (*From Monthly Labor Review*
May, 1940, "Strikes in 1939.")

simplest understanding of the term "peace." Herein lies a realm in the labor movement that has not been satisfactorily solved. Several of the states have established rules that will tend to reduce violence on the picket line. Individuals and groups should guard jealously any infringements on our civil rights, yet persons who are deliberately taking away the safety of the person of others and blocking free egress or ingress to a plant cannot claim that they are respecting the rights of others. An outraged public is most certain to turn on violence and in its anger it may swing further than it should in the opposite direction.

Causes of Strikes.—The Bureau of Labor Statistics of the Department of Labor, through its wide clipping service and in cooperation with various state agencies, particularly the employment offices handling unemployment compensation, keeps a close record of all labor

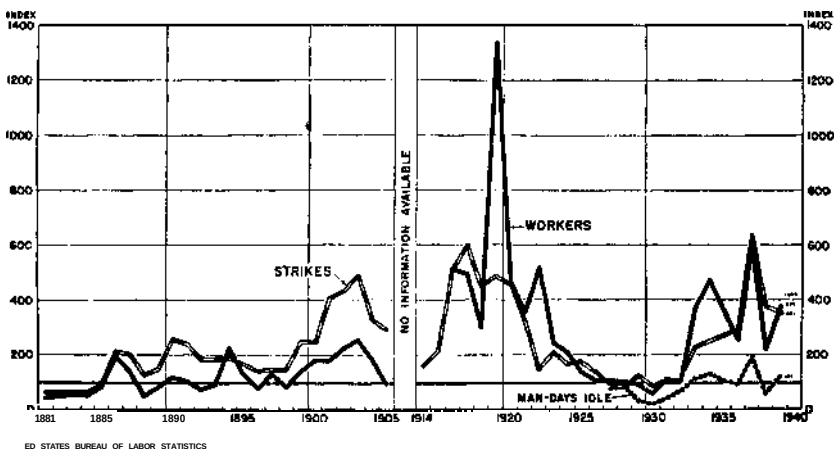


FIG. 85.—Trends of strikes 1881-1939. (From *Monthly Labor Review*, May, 1940, "Strikes in 1939.")

disputes in the United States. The unemployment insurance divisions of the public employment offices are especially helpful, since they are charged by statute not to send a man out on a job where a labor dispute is in progress. The bureau not only keeps a record of the strikes as such, but the number of employees involved, the issues or causes of the strike, the duration of the strike, and the results of each strike. Table 11, page 490, gives the bureau's analysis of strikes for 1939 from the standpoint of the results. These results are now reported not as to whether or not the workers won or lost the strike, a question that is often debatable, but as to *substantial gains*, *partial gains* or *compromise*, *little or no gains*, *factional settlement*, *indeterminate*, or

not reported. Table 11 shows that of the strikes in 1939 workers made a substantial gain in approximately 40 per cent of the cases and partial gain in nearly one third of the cases.

Tables 11 and 12 portray the results of strikes during 1939 from the standpoint of causes and end results, giving both the number of strikes and the number of employees involved.

It will be observed from Fig. 84 that *union organization* has become more important both as to the number of strikes and further that wages and hours have decreased in importance.

Trends.—Some observers seem to find a high correlation between business activity and the number of strikes in that the number of strikes increase with business activity and decline when business declines. An inspection of Fig. 85 does not verify this conclusion in its entirety. The low level for strikes was during the period of business prosperity 1925-1929. On the other hand, the boom war period of 1914-1920 showed a peak in strikes. Professor Dale Yoder suggests that sudden changes in price levels may be more influential in strikes than mere business activity.¹ The war period witnessed rapid advances in prices both of labor and the cost of living, but the cost of living outran the increase in wages. Strikes were engaged in to raise wages to keep up with the cost of living. On the other hand, during the twenties, prices fell off gradually, and business activity and wages remained high. The data from which Fig. 85 is constructed are presented in Table 13.

Seasonality.—As illustrated by Table 14, strikes for 1939 followed the usual seasonal trend, increasing in number during the spring months, maintaining a fairly high level during the summer and fall, and then diminishing in number with the advent of winter. This is a perfectly natural situation. Labor leaders will not call a strike ordinarily when business is falling off and the employer is not needing production very badly. Production in general is greatly influenced by the seasons, followed in the main by the frequency of strikes.

Strikes represent an acute phase of industrial unrest. They are used by workers as an offensive weapon as well as one of defense. Strike tactics leave much to be desired from a social viewpoint. Regardless of who wins a strike, the community usually loses, since the same end could ordinarily have been attained by peaceful means. Workers are rightfully jealous of their right to strike, yet the future of **both** management and labor is not on the picket line but around the counsel table solving mutual problems.

¹ See Dale Yoder, *Labor Economics and Labor Problems*, McGraw-Hill Book Company, Inc., New York, 1939, p. 87.

TABLE 13.—STRIKES IN THE UNITED STATES, 1881 TO 1905 AND 1914 TO 1939*

Year	Number			Index (1927-1929 = 100)		
	Strikes	Workers involved	Man-days idle	Strikes	Workers involved	Man-days idle
1881	477	130,176	X	64	42	+
1882	476	158,802		64	51	+
1883	506	170,275	+	68	55	+
1884	485	165,175	+	65	53	+
1885	695	258,129	X	93	83	++++
1886	1,572	610,024	X	211	196	+
1887	1,503	439,306		202	141	+
1888	946	162,880	\	127	52	+
1889	1,111	260,290	X	149	84	+
1890	1,897	373,499	X	255	120	X
1891	1,786	329,953	X	240	106	
1892	1,359	238,685	X	183	77	++++
1893	1,375	287,756	X	185	93	
1894	1,404	690,044	!	189	222	X
1895	1,255	407,188	!	169	131	++++
1896	1,066	248,838		143	80	+
1897	1,110	416,154	!	149	134	+
1898	1,098	263,219	X	148	85	+
1899	1,838	431,889	+	247	139	+
1900	1,839	567,719	+	247	182	X
1901	3,012	563,843	+	405	181	+
1902	3,240	691,507	+	435	222	+
1903	3,648	787,834	+	490	253	
1904	2,419	573,815	X	325	184	
1905	2,186	302,434	X	294	97	!
1906-1913	X	X	X	X	X	+
1914	1,204	X	+	162	!	+
1915	1,593	X	+	214		+
1916	3,789	1,599,917	X	509	514	+
1917	4,450	1,227,254	X	598	395	+
1918	3,353	1,239,989	X	451	399	
1919	3,630	4,160,348	+	488	1,337	
1920	3,411	1,463,054	+	458	470	
1921	2,385	1,099,247	X	321	353	
1922	1,112	1,612,562	X	149	519	
1923	1,553	756,584	+	209	243	+
1924	1,249	654,641	+	168	210	+
1925	1,301	428,416	+	175	138	+
1926	1,035	329,592	+	139	106	+
1927	707	329,939	26,218,628	95	106	178
1928	604	314,210	12,631,863	81	101	86
1929	921	288,572	5,351,540	124	93	36
1930	637	182,975	3,316,808	86	59	23
1931	810	341,817	6,893,244	109	110	47
1932	841	324,210	10,502,033	113	104	71
1933	1,695	1,168,272	16,872,128	228	376	115
1934	1,856	1,466,695	19,591,949	250	472	133
1935	2,014	1,117,213	15,456,337	271	359	105
1936	2,172	788,648	13,901,956	292	254	94
1937	4,740	1,860,621	28,424,857	637	598	193
1938	2,772	688,376	9,148,273	373	221	62
1939	2,613	1,170,962	17,812,219	351	377	121

* Source: *Monthly Labor Review*, May, 1940, "Strikes in 1939."

The number of workers involved in strikes between 1916 and 1926 is not known for a portion of the total. However, the missing information is for the smaller disputes, and it is believed that the total here given is fairly accurate.

X No information available.

TABLE 14.—TREND OF STRIKES, 1933 TO MARCH, 1940*

Year and month	Number of strikes					Workers involved in strikes		Man-days idle during year
	Continued from preceding	Beginning in month or year	In progress during month	Ended in month	In effect at end of month	Beginning in month or year	In progress during month	
1933		1,695				1,168,272		16,872,128
1934		1,856				1,466,695		19,591,949
1935		2,014				1,117,213		15,456,337
1936		2,172				788,648		13,901,956
1937		4,740				1,860,621		28,424,857
1938		2,772				688,376		9,148,273
1939		2,613				1,170,962		17,812,219
1939:								
January	120	203	323	184	139	51,159	72,427	513,460
	139	204	343	204	139	68,252	88,267	553,138
March	139	210	349	199	150	43,337	64,660	618,147
	150	281	431	255	176	396,166	425,748	4,902,238
May	176	258	434	272	162	95,239	457,407	3,547,868
June	132	245	407	269	138	62,534	127,474	958,127
July	128	251	389	216	173	175,542	211,548	1,168,382
August	173	275	448	272	176	79,670	118,772	1,101,419
September	176	197	373	222	151	36,846	103,538	892,485
October	151	205	356	217	139	106,628	139,608	1,508,120
November	139	178	317	201	116	43,239	130,341	1,654,574
December	116	106	222	128	94	12,350	37,122	384,261
1940:								
January	94	101	195	106	89	23,964	38,311	238,909
February	89	136	225	135	90	27,000	38,000	300,000
March	90	155	245	145	100	25,000	45,000	400,000

*Source: Bureau of Labor Statistics, "Strikes in January, 1940," *Monthly Labor Review*, May, 1940.

† Strikes involving fewer than six workers or lasting less than 1 day are not included in this table or in the following tables. Notices or leads regarding strikes are obtained by the bureau from more than 650 daily papers, labor papers, and trade journals, as well as from all government labor boards. Letters are written to representatives of parties in the disputes asking for detailed and authentic information. Since answers to some of these letters have not yet been received, the figures given for the late months are not final. This is particularly true with regard to figures for the last two months, and these should be considered as preliminary estimates.

LABOR TURNOVER

Measurement of Labor Turnover.—There is no complete agreement as to what turnover is or how it should be measured, yet, stated in the simplest terms, labor turnover is nothing more than the shifting of a working force into and out of an organization. As to the measurement of this phenomenon, there are at least 17 different formulas for computing it, each one of which takes into consideration a variety of

factors. Out of this number, many are fairly complicated and for this reason have not come into general use.

Net labor turnover is probably the most commonly used measure of turnover at present. It is defined as the number of replacements per 100 workers in the average working force. Expressed in terms of a formula,

$$\text{Net labor turnover} = \frac{\text{total replacements}}{\text{average working force}} \times 100, \quad \text{or} \quad T = \frac{100R}{W}.$$

An analysis of this formula and definition will disclose that the *net labor turnover rate* is identical with the *accession rate* or *separation rate*, whichever is smaller. During periods of expansion in business, the *separation rate* and *net labor turnover rate* are equal. During periods of business contraction, the *net labor turnover rate* corresponds to the rate of accession. During a period of normal business when the working force is remaining stationary as to totals, the *accession rate*, *separation rate*, and *net labor turnover rate* are all the same.

Labor Turnover Based upon Separations.—The term "labor turnover" has so many uses as far as mathematical determination is concerned that it is unwise to use it when speaking precisely, unless its particular use is defined. Probably most people, in thinking of labor turnover, unless it is otherwise defined, have reference to the ratio of separations to the total working force, usually the average for the period in question. This measure is fairly accurate for most purposes. The separation rate was the rate used by the Bureau of Labor Statistics as the labor turnover rate in its reports prior to 1929.¹ As a measure of labor stability that is controllable by attention to the basic considerations of personnel other than employment stabilization, the labor turnover separation rate is not very satisfactory because seasonal or cyclical layoffs magnify the situation. The net labor turnover rate is more representative than the separation rate when taken alone. The formula for the labor turnover rate based upon separation is

$$T = \frac{\text{total separations}}{\text{average working force}} \times 100, \quad \text{or} \quad \frac{100S}{W}.$$

Either the labor turnover rate based upon separations or upon replacements may have numbers that in a way should not be included

¹ See Dale Yoder, *Personnel and Labor Relations*, Prentice-Hall, Inc., New York, 1938, p. 212.

in that they are unavoidable from a management standpoint, such as persons leaving because of death, marriage in the case of some women, prolonged illness, conscription into the Army or Navy, etc. A more refined rate may be established by deducting from the base used for computation the cases of unavoidable separation. Thus the adjusted *net labor turnover rate* would be

$$T = \frac{100(R - U)}{W}.$$

In this formula, *U* stands for the unavoidable separations, and the other letters are the same as have been used in the other formulas.¹

Bureau of Labor Statistics Reports on Labor Turnover.—The Bureau of Labor Statistics in the Department of Labor publishes monthly data concerning:²

1. Number of separations during the period:
 - a. Number of quits.
 6. Number of discharges.
 - c. Number of layoffs.
 - d. Miscellaneous separations.³
 - e. Total separations (*a* + *b* + *c* + *d*).
2. Accessions—persons hired:⁴
 - a. Rehired.
 - b. New hires.
3. Number of factory workers on payroll:
 - a. At the beginning of the period.
 - b. At the close of the period.

These data are secured from approximately 5,800 representative firms employing more than 2,550,000 workers as of April, 1940. A total of 135⁵ different industries are included in this survey. The

¹ Either of the labor turnover rates may be expressed as decimal or whole number and decimal as the case may be, without establishing it on the basis of 100 employees, if it is so desired.

² See "Handbook of Labor Statistics," *Bulletin* 616, Bureau of Labor Statistics, U. S. Department of Labor, Washington, 1936, p. 804, and current releases of the bureau.

³ Miscellaneous separations, such as deaths, permanently disabled, retired on pensions, etc., have been reported separately since January, 1940. Such separations were formerly reported under the classification "Quits and miscellaneous separations" (June, 1940, News Release).

⁴ Beginning January, 1940, accessions have been separated into two classifications; rehires, which include workers hired after a separation of 3 months or less, and other employees hired (June, 1940, News Release).

⁵ Previous to April, 1940, the reports specified 144 industries. Following the latest census classification 9 minor industries were combined with other industries (April 1940, News Release, No. 9388),

data also provide detailed information for 36¹ different industries and 30 different states. Since the bureau's monthly reports give the detailed rates in terms of the items listed in the outline above for 36 different industries in 30 different states, an employer in any one of these industries or in one similar to one of the specially reported industries may compare his plant's record with the experience of the industry.² Although the average of an industry may not be a particularly desirable standard for a well-managed enterprise, it does establish a **norm** above which the progressive enterprise may constantly strive to keep its records by a fixed ratio.

Although labor turnover rates are usually computed monthly or weekly, they are usually on an annual basis unless otherwise specified. Because of the variation in the number of work days in the various months, it is not logical to compare one month with another unless it has been adjusted for the difference in the number of days. Each month may be converted to an *equivalent annual rate* by multiplying the actual monthly turnover rate by a factor equivalent to 365 divided by the number of days in the given month.³

The Cost of Labor Turnover.—Unfortunately, for every person who quits his job or leaves his organization for a reason that is socially or economically sound, there are hundreds who leave for reasons that are basically wrong or fanciful or for no reasons at all. Each person who leaves his job unnecessarily in this way creates an economic loss that society as a whole must stand and, were it possible to estimate it, the amount of this loss in the aggregate would be staggering. In the first place, management is losing the services of a man whose skill in his work has been developed at considerable expense. This necessitates the breaking in of a new man and the cost of giving him the necessary training to bring him to the same degree of efficiency as the man he replaces. During this period of training, loss, scrap, and waste, both in material and time, are necessarily far greater than would have been the case had the former incumbent carried on. And with the new **and** untrained man on the job, production is necessarily lessened, **not** only in the work itself, but in all other occupations that in a routing sense are dependent upon it. Furthermore, departmental produc-

¹ In 1936, there were 12 distinct industries reported. They have been gradually increased until the June, 1940, report lists 36 industries.

² See *Monthly Labor Review*, July, 1937, "A Review of Factory Turnover, 1930 to 1936." The bureau ceased to publish the net labor turnover rate in December, 1934, and now publishes the detailed information from which this or other ratios may be computed.

³ This factor is 11.77 for 31 days; 12.17 for 30 days; 12.62 for 29 days; and **11.04 for a month with 28 days.**

tion as a whole is lessened as a result of the disorganizing effect of the exchange upon the other persons in the department.

The cost of labor turnover per employee varies with the type of work done by each employee. The office cost of hiring, record adjustment, physical examination, etc., will approximate \$10 and in some cases will be much higher. Added to the employment office cost, of course, are the losses listed in the previous paragraph. These costs will range all the way from \$50 to \$500 or more. Again, there are the unemployment-compensation costs in states having experience ratings, which may run as high as 2 per cent of payroll costs for an enterprise with a poor service experience.

Why Labor Turnover Is Significant.—We are not so concerned with labor turnover in itself as we are with the causes for labor turnover. There are in any organization a number of varying influences, some making for heightened morale, for contentment, for effectiveness, for stability; others making for discontent, disaffection, lack of interest, and inefficiency. Management's natural aim is to strengthen the former and do what it can to defeat the latter.

Labor turnover may be regarded as an indication of the relative strength of these negative, unfavorable influences as against those that are positive and favorable. The very factors, the very causes, the very influences that tend to create those attitudes of mind that lead employees to quit inevitably react unfavorably upon the mental attitudes of those, who remain, undermining interest and morale and destroying efficiency. It is apparent from this that management is interested in labor turnover not only from the point of view of the cost of replacing the men who leave, but also from the point of view of the cost of lessened interest and effectiveness throughout the organization.

Any study of the causes of labor turnover, consequently, that [leads](#) to constructive action is an attack upon both instability and malingering on the part of those who remain.

At the present stage of industrial development, it is quite impossible to look for anything like maximum stability in the average company. By the practice of well-thought-out personnel policies, it is true that certain isolated concerns have been successful in reducing their labor turnover to a remarkable degree. These exceptional cases cannot be considered in determining a normal or an average turnover rate. As a matter of fact, what might be a normal rate for a given company this year might have been extremely low last year and may, in fact, be unwarrantably high a year hence.

Turnover Is a Small Whirlpool in a Large Pond.—Even where labor turnover is high, it is true that the majority of employees are stable.

In nearly all plants there is a nucleus of employees who could not be separated from the payroll with TNT. Around these are others perhaps less rigidly affixed to the payroll, but nevertheless inclined to "stay put." These relatively stable employees comprise, in most instances, by far the greater part of the total number employed. The others, the unstable ones, however, normally stay such a short period of time in their positions that each is responsible for as many as three or four separations a year. From this it is apparent that, although in the average company the great majority of the employees may be permanently settled in their work, the labor turnover for the company as a whole may exceed 100 per cent.

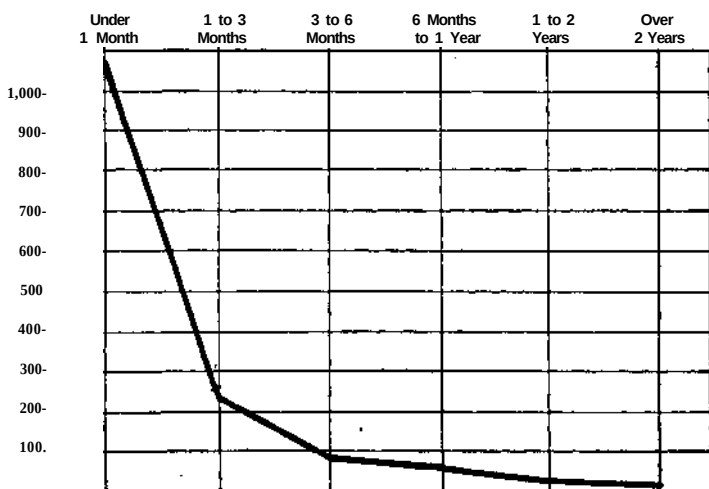


FIG. 86.—Graph showing trend in labor turnover in one company.

This general trend is shown in Fig. 86 made up from the turnover figures for one company in the East. Here it is apparent that the labor turnover for those persons under 1 month of service was **1,062** per cent. This percentage declined swiftly as the length of service progressed until, for those employees having been with the company over two years, we find the labor turnover is only 11 per cent.

Mental Alertness in Relation to Turnover.—The average manager would hesitate to admit the probability of relationship between mental alertness and labor turnover, yet a study has shown that labor turnover under certain circumstances depends in a very direct way upon mental alertness. In two different companies, for instance, experiments were made to trace this relationship. In both companies, the mental alertness of the employees was (j)etarmed by test **and was** found to have a direct relation to stability. **In these two companies,**

however, the relation was quite different. Figure 87 illustrates the way mental alertness was found to affect the stability of women clerks in Company A and the stability of men clerks in Company D. The mental-alertness scores are represented on the base line, and the percentage of employees leaving is shown in the vertical line. The curve for Company A shows that about 40 per cent of the clerks hired who have a mental-alertness test score between 15 and 30 leave within 6 months. This percentage decreases rapidly with the higher test scores until the greatest stability is found among clerks scoring between 35 and 50. For clerks scoring more than 50, the percentage of persons

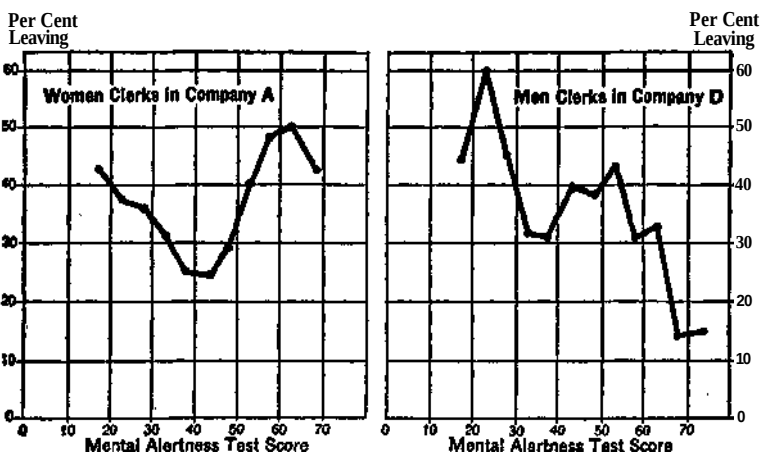


FIG. 87.—Graph showing comparison in two companies of stability in relation to mental-alertness test score.

leaving rises again rapidly until, for those making the highest scores, the instability is even greater than for those making the lower scores. This was a serious matter for Company A, since it had already been demonstrated in this company that high-score employees are of the greatest value as workers.

The attention of the management in this instance was at once directed to the necessity for developing a promotional policy for the company that would so serve to take care of the employees of superior mental alertness that they would continue to serve the company on a more permanent basis in work of greater and greater importance.

The curve for Company D shows a very different situation. As in Company A, the turnover rate among the employees making low mental-alertness scores was high. The percentage, however, dropped sharply as far as the score of 30 when there was an obvious rise in labor

turnover that was maintained over 15 points of the mental-alertness scale. Then, as the highest scores were reached, those exceeding 50, there was a pronounced increase in stability, a condition quite contrary to that of Company A. This curve of the labor turnover in Company D, in relation to mental alertness, revealed a peculiar wage situation that was causing instability among the middle-high employees. - This influence has now been corrected.

These curves show that it is not simply the average or general run of employees who leave. They show that mental alertness plays a real part in labor turnover—a part that is naturally undetected in any ordinary analysis of employees' reasons for leaving. Curves of this kind give information that can be used in specifying mental-alertness requirements for various occupations. They also point out conditions of employment that exercise a negative influence in the matter of holding desirable employees.

It became evident in this study that mental alertness is a factor in labor turnover for two reasons. In the first place, men are assigned to jobs they are mentally incapable of doing. In the second place, instability, dissatisfaction, and desire for change of work are aroused, because the difficulty and responsibility of the work does not provide an outlet for the more mentally alert worker.

Turnover among Common Laborers.—Common laborers are not ordinarily thought of as lending themselves readily to scientific research. The tendency is frequently noticeable on the part of management, even at times on the part of the personnel manager, to exempt the common laborers from policies and decisions that have to do with the personnel procedure of their companies. Because he is unskilled and untrained, there is a tendency to think of the common laborer as standardized, as identical in powers with his co-laborer. The educational factor is absent, the special training factor is absent, factors of personality are largely absent; it seems at first glance that physical capacities are all that must be considered. This point of view, if indulged in, is apt to lead astray. The common laborer is just as **human** as his trained brother in the shops and his educated brother in the offices. He is not perhaps susceptible to such fine adjustments as **his** more fortunate brethren, but the basic principles of personnel administration are applicable to him as well. As an example of the **possibilities** of estimating labor turnover for workers of this classification, it is interesting to refer to the experience of two metal-parts **manufacturing** companies in the Middle West who joined in the study of the **importance of age** in its influence on the length of service of **common labor**.

Figure 88 shows at a glance the close similarity between the curves for the two companies. These figures refer only to men who had completed their term of employment. In all, 591 cases were available for study. These were distributed about equally between the two companies. The vertical lines at the left show the effect of marriage upon duration of employment. It is important to note that age seems to play a more important part in affecting length of service among common laborers than does marital status. This study demonstrates the possibility that men of under twenty-five years of age are probably assigned frequently to work for which they are not physically competent. It suggests that supervision must be of a character suited to

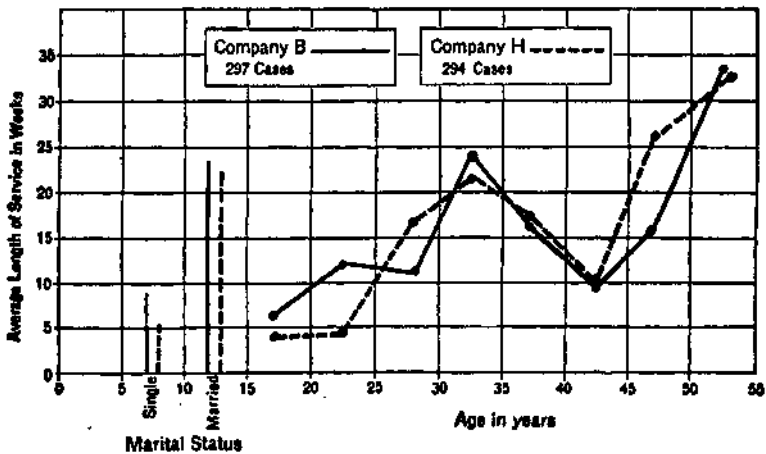


FIG. 88.—Graph showing average length of service of common laborers according to marital status and age.

young men of this age.' The members of the supervisory force should be made aware of the evident constitutional differences between men under twenty-five and between men from twenty-five to forty years of age.

In the second place, it is desirable in choosing common labor to give preference, if possible, to men whose ages are between thirty-one and forty. The greater length of service for men of this age indicates that greater stability is to be expected.

In the third place, the sharp drop in the length-of-service curve for men from forty-one to forty-five calls for exacting study. No obvious reason exists for this phenomenon. It is possible that men of this age have reached the point where they feel the need for establishing their **permanent** working connection. There may be an inclination to feel **that if they are ever going to** make a change, this is the time **to do it**

before they get too far along; again it may be true that men in this age group who have not so far secured permanent employment may have a natural tendency toward instability. Yet, again, it may be that although these men appear to be as vigorous as men 10 years younger, they have actually passed the prime of life and are not as capable as they were when younger for handling heavy and strenuous work.

In the fourth place, the greater length of service of men over fifty-one suggests the desirability of capitalizing their stability by setting aside certain light work as "old men's work" and taking care that the assignments are made accordingly.

Effects of Labor Turnover.—Labor turnover is the expression of all the specific diseases within an organization that, separately or together, serve to discourage employees from continuing in its employment. Its remedy lies, of course, in an attack upon those specific diseases that are most virulent, but this in turn calls for the development of an effective personnel control in all its parts. The success of a company in keeping its people is one measure—and a good one—of its success in developing the wholesome personnel situation that, of course, is the objective of personnel administration.

Disregarding that form of turnover that makes for a living rather than a stagnant type of working force, it is probably safe to say that excessive labor turnover is a symptom of some sort of maladjustment.

Aside from all the specific factors, such as costs and the like, that we discussed in this chapter, are the less tangible but nonetheless important underlying psychological factors. Employees quitting for reasons of dissatisfaction invariably have an emotional reaction, one that has been gradually accumulating with the contemplation of leaving the job. This emotional reaction is not necessarily confined to the worker himself; some of it is very likely to be communicated to fellow workers, both during the anticipation of leaving and the actual quitting of the job. In cases of layoffs and dismissals, this emotional reaction is especially likely to be evident, particularly if the remaining employees feel that there was some injustice in the dismissal. Consequently, the loss of efficiency due to factors such as these, if it were possible to measure them, might be greater than those that can be specifically calculated.

CHAPTER XXXVII

MEASURING EMPLOYEE MORALE AND GROUP OPINION

The Meaning of Morale.—Morale is manifest by a somewhat continuing state of mind or attitude of individuals or groups having a sufficiently common objective to provide a focal point for action. Professor Ralph Davis has defined morale as "a mental condition which leads individuals and groups willingly to subordinate their personal objectives, temporarily and within reason, to further the company's service objectives."¹ Morale is usually associated with individuals in terms of confidence, courage, zeal, and the "will-to-do." Morale is an intangible force that enables a group to achieve the unexpected when marshaled in behalf of a specific goal. Morale is not a thing to be sought in itself; rather it is a by-product of satisfactory group relationships. Group morale may be thought of as group attitude. The group morale in general may be of a high type, yet certain segments of the group may manifest a low level of morale. For instance, the entire enterprise may have a high morale index, whereas a few departments have a low ratio. A given department composed of long-service employees who have had many years of satisfactory service may have intense loyalty to the organization as a whole yet be definitely antagonistic to the current departmental supervision. Such a situation, however, would be unusual, for the group ordinarily identifies the immediate supervisors as the company and relates satisfactions and disaffections alike to the "boss." Individuals may have a general attitude or morale, and they also may have specific attitudes toward different aspects of their relationships. To illustrate, a group may be well satisfied with the wages paid yet be thoroughly dissatisfied with the opportunities for promotion for members of the group.

The Significance of Morale.—"A morale-building organization tends to utilize fully the skill, initiative, judgment, and training of its members, and through such utilization succeeds in building up these and other qualities in everyone, so that the abilities of all constantly expand, and the organization thus is able to succeed and grow.

¹ Ralph C. Davis, *Industrial Organization and Management*, Harder & Brothers, New York, 1940; p. 101. Reprinted by permission of Harper & Brothers.

² Richard H. Lansburgh and William R. Spiegel, *Industrial Management* John Wiley & Sons, Inc., New York, 1940, p. 102. Reprinted by permission of John Wiley & Sons, Inc.

Success and growth are accompaniments of a positive morale. It might be said that morale development is almost certain to accompany successful operations where the individuals can relate their respective endeavors and objectives to the success of the enterprise as a whole. The corollary to this is that a group possessing a high type of morale will utilize the skill, initiative, and training of its members to further the success of the enterprise. Required supervision will be minimized, and collective ingenuity, thought, and effort will replace the necessity for force. Such a situation naturally minimizes waste, increases efficiency, reduces costs, and increases quality, one of the goals of every enterprise.

Scientific management strives to eliminate waste, increase efficiency, reduce costs, and to increase quality, at the same time giving each of the factors of production its just share of the fruits of production. Much time, effort, and money is expended to this end. If a positive morale will contribute to this end, and it is believed by students of the subject that it will, then it is important from the managerial standpoint to know just what the status of the group morale is. There is probably no phase of the industrial program in which there is more "wishful thinking" than that indulged in by managers as to the attitudes of their employees toward their company.

Fortunately, from the standpoint of scientific management, techniques have been developed during the past decade to enable the manager, who strives to create positive morale conditions, to evaluate the effectiveness of his efforts. Relatively few enterprises have availed themselves of the tools at their command for this purpose, yet, with increased knowledge concerning them, it is reasonable to believe that their use will increase.

Methods of Measuring Employee Attitudes or Morale.—Various devices have been used from time to time by different individuals to evaluate group attitudes or morale. The oldest form of endeavor to appraise group morale is the analysis by the group leader of his personal observations made during the discharge of his executive duties. This is an important phase of every executive's duties, yet it cannot be said to be accurate unless the group is small and the leader makes a conscious effort to observe and record items of importance upon which to formulate his opinion. A second method is the interpretation of labor turnover, productivity per worker and per group, waste, absenteeism, tardiness, and any other objective data that may be accumulated. Other methods fall into the same general classification as direct methods and have been listed by Dr. H. H. Remmers of Purdue University as follows:

1. The "listening in" or "impressionistic" method.
2. The unguided interview.
3. The guided interview.
4. The question blank.
5. Attitude scales.
 - a. Specific scales for measuring particular attitudes.
 - b. Generalized attitude scales for measuring any one of a large number of attitudes in a given area.¹

1. *Supervisor's Impressions.*—Along with the supervisor's impressions might well be classified that of all the line officers. Relatively few executives are trained observers of morale. They usually know how to get things done according to the methods they have been taught, but few of them have had any special training in evaluating morale as such. Many executives are inspirational leaders and capable of developing morale, but few even of these are trained in observing and evaluating morale standards. Executives should be encouraged to strive to sense the morale situation and should be aided in this * attempt by more accurate information than their impressions.

2. *Analysis of Statistical Data Related to Plant Operations.*—For many years, data have been collected on labor turnover, and attempts have been made to analyze the causes of labor turnover.² Labor turnover is a fair index of labor unrest or morale, particularly during a period of labor shortage. It may be a fair means of comparing group attitudes as between similar groups even during normal periods of business activity; however, labor turnover may not reveal anything but intolerable conditions during severe depressions, for workers will hold onto their jobs under such conditions even though they may be greatly dissatisfied. An analysis of complaints and grievances may give some measure of group morale. Excessive absenteeism or tardiness may also serve as an index of general or specific morale conditions, particularly where certain departments have an especially unfavorable record. Other objective data such as waste, seconds, lost time waiting for materials, etc., may be analyzed and interpreted in terms of causal relationships, a part of which may reflect morale conditions. This type of analysis at best is difficult and is not always reliable as an index of morale. It may show managerial deficiencies that are not directly interpretable in terms of morale unless employees are penalized because of them.

¹ See Dr. H. H. Remmers, "The Analysis of Employee Attitudes," *Proceedings of the First Personnel Institute*, Ohio State University, Columbus, May 12, 1938, p. 4.

² See Chap. XXXVI for a discussion of the analysis of labor turnover.

3. *The "Impressionistic" or "Listening-in" Process.*—Whiting Williams has popularized a technique of interpreting employees' attitudes by associating with them at their work and play. He personally possesses the required characteristics to make his observations largely objective, something that is unusual in men who might be available for such work. There is no place in this type of attitude measurement for persons with pronounced biases. Herein lies one of its major defects. It is difficult to secure individuals who possess the required scientific approach to do this work. Such observers are prone to report what they think their employers want them to find rather than the true situation; or they may be prompted to report very unsatisfactory situations that in fact do not exist in the hope that their services may be continued in the capacity of working observers. The latter illustration has been claimed to exist in situations where the observers were classed as "labor spies." As a whole, this type of discovering the morale status of employees is not satisfactory.

4. *The Unguided Interview.*—This approach to employee attitudes is predicated upon the theory that, if employees are placed in a position to talk freely, they will reveal a true situation not so much by the exact thing complained of or discussed as by the interviewer's ability to relate what is said to basic causes. It is further assumed that, if the employee himself is permitted to talk through a given problem or work situation, he usually will become aware of the logic or lack of logic in the situation and choose for himself the appropriate line of action. The employee's having chosen his own line of conduct he is more likely to accept the results. This method of employee-attitude analysis is designed both to correct an unfavorable situation and to secure information regarding the status of morale within the group. This approach is intriguing and in the hands of skilled interviewers promises desirable results.¹ By its very nature it is a more expensive method of measurement than the questionnaire method. On the other hand, this method not only provides a means of interpreting morale but at the same time is used to build morale. Its effectiveness is dependent upon the effectiveness of the interviewers. Special training and objectivity are essentials of successful interviewing of this type. Since these interviews are strictly personal, they have to be conducted on an individual basis.

5. *The Guided Interview.*—The guided interview is designed to explore the respective regions in which the interviewer is interested.

¹See W. J. Dickson, "Employee Education and Counseling Programs," *American Management Association, Personnel Series 35, Understanding and Training Employees*, pp. 4-19.

Before undertaking a study of group morale by means of the guided interview, the responsible person makes an analysis of those factors that he deems indicative of the presence or absence of the desired morale. With this in mind, he constructs a series of questions designed to bring to light the status of the particular item being explored. This series of questions is usually rather large. The interviewer seeks to direct the interview in such a manner as to secure the answers that will reveal the desired information. This list of questions may be written, and the interviewer may make notations on the list as the interview proceeds, or the questions may be merely kept in mind by the interviewer to be asked more or less spontaneously as the interview proceeds. The written list of questions is somewhat more formal, but it has the advantage of being more uniform. The strictly informal procedure is more natural but introduces more variables in recording the result of the interview. The success of this method, like the unguided interview, is largely dependent upon the skill of the interviewer in soliciting answers and his objectivity in evaluating the results of the interview. The cost and time element for the guided interview are likely to be somewhat less than for the unguided interview, yet they are immeasurably greater than the collectively answered questionnaire. On the other hand, the interview is more personal than the questionnaire and may be able to reveal conditions that would not be brought out by a questionnaire.

6. *The Questionnaire Technique.*—There are several forms of the questionnaire in use, namely, (1) those that ask a specific question and give room on the form for a written answer, (2) those that ask a question and give a series of suggested answers, one of which is to be selected by the person filling out the questionnaire, the multiple-choice type, (3) those that can be answered by "yes" or "no" or by marking a column for "yes" or "no," and (4) combinations of two or more of the foregoing.

The simple technique of asking a question and having the employee answer it has the advantage of not suggesting any particular answer to the employee, but it is difficult to evaluate, and many employees have difficulty in expressing themselves on paper. Research workers, engineers, and other employees possessing a high degree of education may reveal finer shades of meaning on this type of questionnaire than in the case of the multiple choice. Another disadvantage of asking the employee to do much writing is the fear of some employees of having their identities revealed by their handwriting peculiarities even though they do not sign the questionnaire.

The multiple-choice questions permit considerable shading of meaning when carefully constructed, are much quicker to answer, and are

readily measurable by statistical methods. The multiple-choice method supplemented by a few "yes" or "no" questions has found wide use in mass investigation of employee morale. Since this method has received much attention in recent discussions, we shall discuss its use a little more in detail.

a. *Construction of the Questionnaire.*

A study of employee attitudes to be of greatest value to the management of an employing organization should provide (1) for a measure of over-all general job morale, (2) for the opportunity on the part of the employee to express his attitude on a large number of specific points concerning his job, working conditions, his relationship to his fellow employees, his relationship to his superiors, his understanding of managerial policies, and so on, and (3) for an evaluation of the specific attitudes and beliefs in terms of their correlation with general morale.¹

If the questionnaire is to reveal the three phases as listed above, it is necessary that the battery of questions be designed to measure over-all plant or departmental morale and to provide in addition a large number of specific questions covering the desired fields.

The individual questions should be objective in form, permitting the employee to indicate his preference merely by checking any one of several possible answers. Some questionnaires provide space for the employee to qualify his answer. In questionnaire construction as in many other things, only one idea should be included in one question. This will necessitate a large number of questions, but this is to be preferred to brevity at the expense of clarity.

The various shades of meaning can be indicated by the exercise of care in the construction of the questionnaire. Richard Hull of Houser Associates has used the following illustration;

To the question designed to indicate the general feeling of the employee toward the company, "*In your opinion, are there other companies in (this city) which treat their employees better than (this one) does?*" the following multiple choices were given;

- () All of the others are better.
- () Most of the others are better.
- () About the same.
- () This company is better than most others.
- () This company is best of all.²

¹ Arthur Kolstad, "Employee Attitudes in a Department Store," *Journal of Applied Psychology*, Vol. XXII, No. 5, October, 1938, p. 470.

² Richard L. Hull, "Measuring Employee Attitudes—A Proving Ground for Personnel Policy and Practice," *The Conference Board Management Record*, National Industrial Conference Board, Inc., New York, November, 1939,

Other typical questions designed to develop specific attitudes are illustrated by the following:

When there is a better job vacant, how often do you feel that the best-qualified person gets promoted to it?

☐ Rarely	☐ Usually
☐ Sometimes	☐ Almost always
☐ Always	

How much instruction do you get when you are given new work or new methods on the job?

- ☐ Practically no instruction at all.
- ☐ Not nearly as much as I would like.
- ☐ Almost as much as I would like.
- ☐ All that I could wish for.

When difficult problems come up in your work, how free are you made to feel about asking questions?

- ☐ Not free at all.
- ☐ Reasonably free.
- ☐ Completely free.

If you were to give your boss a good suggestion for a new and better way of doing a job, how likely would you be to get credit for it?

- ☐ I would never get credit for the suggestion.
- ☐ I probably would not get credit.
- ☐ I probably would get credit.
- ☐ I would be sure to get credit.

How do you feel that your pay compares with the pay for work of about the same importance or difficulty in other jobs in this company?

- ☐ Lower than for most of the other equally important jobs.
- ☐ About the same.
- ☐ Higher than most.
- ☐ Higher than any.

If you had any cause for dissatisfaction what would your chances be of getting a fair hearing and a square deal?

- ☐ Very little chance if any.
- ☐ Poor.
- ☒ Fair.
- ☐ Reasonably good.
- ☐ Very good.

b. Evaluating the Results of the Questionnaire Survey.—If the questionnaire is given to the employees of one department at a time,

or, if there is a place on the questionnaire to write the department number, the results may be compiled on a departmental basis. The questionnaire may provide for the indication of sex; married or single; age groups such as under 21, 22-25, 26-30; length of service, under 3 months, 4-6 months, 7-12 months, 2-3 years, 4-5 years, etc.; earnings groups; and other factors of interest. With breakdowns similar to these, it is possible to study the influence of any of these factors on morale. On comparing departments, it is frequently detected that a particular department has a low morale score, whereas the enterprise as a whole is relatively high. An analysis of the specific questions will ordinarily indicate the source of discontent, and remedial action may be taken; or, if it is not possible to remove the source of friction, a frank explanation of the reason for the inability to make the desired improvement will often have a salutary effect upon the departmental morale.

Statistical treatment of the answers to the questionnaire will enable the analyst to assign numerical values to various statements. If the same attitude scale is applied to a number of companies, it is possible to make comparisons between companies. The average personnel manager is not trained in the use of statistical devices¹ nor does he usually have access to the morale scores of other companies. This situation lends support to the advisability of securing the advice or help of trained consultants particularly in making the first morale survey by the questionnaire method.

An analysis of the morale of various groups may reveal wholly unexpected results. For instance, the rank-and-file workers may score higher than the minor executives, a condition that may indicate to top management that they have taken too much for granted in connection with their treatment of these minor executives. Employees of from 5 to 10 years' service may show a lower morale score than shorter service employees. Older employees with the same length of service as younger employees often show a higher morale score than the younger employees.² These results are not always easily explained. However, a determination of the facts may lead to further investigation as to causes that will lead to corrective measures either in initial employment and training or in the handling of long-service employees.

¹ See Harold B. Bergen, "Finding Out What Employees Are Thinking," *The Conference Board Management Record*, National Industrial Conference Board, Inc., New York, April, 1939, pp. 54-58, for some values assigned and a brief discussion of the statistical devices; see also Arthur Kolstad, *op. cit.*, pp. 470-479.

² See Harold B. Bergen, *op. cit.*, pp. 3-4; Arthur Kolstad, *op. cit.*, p. 478.

c. *Administering the Questionnaire Test.*—If employees are to answer a questionnaire honestly, they must be assured that their identities will not be revealed, or fear of reprisals will prevent absolute honesty in matters that may be unfavorable. In case an outside consultant is used, the management should introduce the man in charge of the survey, explain briefly the objective, and then withdraw. The actual meeting of the employees may be held in the department involved, or the employees may be assembled in a cafeteria or other convenient meeting place. The man in charge may well assure the employees, in case he is an outsider, that they should answer all questions freely, since no one can possibly be identified. He may then ask for aid in distributing the questionnaires among the employees, pointing out the fact that under such circumstances it would be impossible to identify any questionnaire by any secret code, since no one knows to whom any particular questionnaire is given. It may be well to ask some employee to collect the completed questionnaires or to have them deposited in a box. In case the representative of the company conducts the survey, he should also take special care in assuring the employees that they cannot be identified. If there is some form of employee representation, the representatives may do the distributing and collecting of all questionnaires. They may also participate in tabulating the results. It is well to conduct the survey of the entire plant as rapidly as possible so that the score will be as representative as possible of the situation at a given time.

d. *Order of Significance of Specific Attitudes.*—Many persons labor under the impression that employees are influenced more by pay than anything else when it comes to group morale. Labor leaders nearly always emphasize pay, since it presents a tangible something to talk about and ask for. The absolute level of a wage scale is often of less importance than the relative treatment of individuals within the group or the treatment of groups within the enterprise. The tabulation given on page 515 presents the relative significance of specific attitudes of the nonselling employees of a large department store. Although this ranking may not be identical to that which would be found in every large department store or in a particular industry, there is reason to believe that it illustrates in general the fact that many of the human relationships are more important than the level of the wage scale.

Uses of Employee-attitude Studies.—As has been indicated on many occasions throughout this book, personnel practices should grow naturally out of the work situations, and checks should be inaugurated to test the effectiveness of current practices. It has also been pointed out that personnel management is neither originated nor is it solely

TABLE 15.—ORDER OF SIGNIFICANCE FOR MORALE OF SPECIFIC ATTITUDES OF A TYPICAL GROUP OF WORKERS*

	Rank
Receiving help necessary to get results expected by management.	1
Being encouraged to offer suggestions and try out better methods.	2
Being able to find out whether work is improving.	3
Reasonable certainty of being able to get fair hearing and square deal in case of grievance.	4
Certainty of promotion going to best qualified employees.	5
Encouragement to seek advice in case of real problems.	6
Being given information about important plans and results that concern the individual's work.	7
Being given reasons for changes that are ordered in work.	8
Not being actually hampered in work by superior.	9
Not getting contradictory or conflicting orders.	10
Being given to understand completely the results that are expected in a job..	11
Pay-assurance of increases when deserved.	12
Being invited to offer suggestions when new plans are being considered. . .	13
Feeling that superior understands all about the difficulty of the individual's job.	14
Being given to understand completely the general methods that the superior wants followed.	15
Complete definition of duties.	16
Not being responsible to too many different superiors.	17
Knowledge of other jobs in the organization that the individual feels capable of handling and would prefer.	18

* J. David Houser, "Methods or Results: Profit Motive or Ego?" *Harvard Business Review*, Volume XVI, No. 3, 1938, p. 294.

carried out by the personnel department but is a major responsibility of operating management. The personnel department is primarily a functional department rendering specialized services to the operating departments to make their work more effective. This being true, one of the major services that can be rendered by a personnel department is to conduct researches into every phase of personnel relations to discover the effectiveness of current practices, points of irritations needing remedial action, and to formulate suggested programs based upon these findings.

Employee-attitude studies provide one of the most valuable methods of determining the current status of personnel relations.¹ These studies may reveal that supervision is satisfactory but working conditions are not in keeping with the employees' desires, that wages are satisfactory but that supervision is entirely inadequate, that the training program is not meeting the requirements of the employees,

¹ See Harold B. Bergen, "Employer Employee Relations in the Office—and the Importance of Employee Attitude Determination," *American Management Association, Office Management Series 87*, New York, 1939, p. 8.

that promotions in the eyes of the employees are not being made on merit, or many other aspects of personnel management that are vital to effective operation of the enterprise. It is difficult to reconcile management's care in the expenditure of money for material things with the recklessness in spending money for intangible values without adequate checks. The probable answer is that management is skilled in the material aspects of industry and is thoroughly capable of measuring these activities but is inadequately trained in the techniques of measuring human attitudes and traits. Management as a rule is desirous of doing the right thing for its employees but is often baffled to know what is the right thing to do and what the employees' reactions are to what is being done. Studies in employees' attitudes provide the necessary data upon which to formulate personnel practices. These studies require specially trained analysts to be effective. Many of the personnel activities have been discredited not so much because the idea behind the practice was wrong but because the persons charged with its execution were incapable of carrying it out effectively. Certain phases of personnel relations require specialized training in every sense equivalent to that of the chemist, engineer, or plant physician. Small organizations may not be able to support a full-time physician, psychologist, or attitude analyst, but these smaller institutions may profitably use the professional services of specialists in these fields on a part-time basis. Personnel management is increasingly appropriating the services of the scientific specialist, yet the great bulk of the work is performed by the general practitioner who is thoroughly familiar with the plant operating processes and has a genuine interest in human relations. The morale or attitude survey of employees supplements the labor audit in very much the same sense as the physical inventory aids in the financial audit. Many industries do not have a regular personnel audit. Although the morale survey will not take the place of a thorough personnel audit, it will provide a valuable check in the absence of the labor audit.

APPENDICES

APPENDIX A

THE STATUS OF PERSONNEL MANAGEMENT IN 231 CONCERNS

In connection with the Second Edition of this book, Stanley B. Mathewson made a survey of the status of personnel procedures as of 1930. The results of this survey were presented in Chap. XXVIII. In order that we might check the extent of the use of the principles set forth in this revision as well as indicate in part the trend in personnel procedures over the 10-year period, this second survey was undertaken.

The Statistics of the Survey.—In preparing the list of concerns to whom this second questionnaire would be sent, it was decided to include all the original firms whose answers were included in the first study. Recognizing the fact that some of the original companies had merged or ceased operations and that some of them might for various reasons not care to answer the questionnaire, additional companies were added to the list in order, if possible, to get a wider distribution. A total of 308 questionnaires were sent out, and answers from 231 companies were received.

It should be acknowledged that in all probability the results of this survey are somewhat biased in favor of companies with fairly well defined personnel policies, since it is reasonable to assume that companies who had little or no interest in personnel problems would not take the time to fill out a detailed questionnaire. We do not imply, of course, that all concerns who failed to answer our communications have failed to develop personnel management to a high degree. One firm replied that it would like to cooperate, but that it had a policy that it would refuse to answer all questionnaires and could not see its way clear to make an exception in this case. In spite of the known exceptions, it is our belief that the figures herein presented may be in part at least more favorable than would be the case should we have had information from those companies that did not answer our questionnaire. This favorable bias is probably only slight and may not exist in fact.

It is believed that the answers from the 231 companies employing somewhat more than 1,795,000 employees located in 25 different states and including 47 different types of business activity are fairly indicative of personnel practices if not conclusive. The comparisons on a percentage basis between the practices in 1930 and 1940, as set forth in the graphs, indicate probable trends. These comparisons were originally made on the basis of only those companies that were included in the original study but were found to be so nearly like the result of the 231 companies replying to the second questionnaire that it was decided to present the results of the entire 231 companies in the graphs

rather than only those that were originally included in the first survey. The range of size of the firms in terms of the number of employees in this survey is from 12 to 265,000.

The Questionnaire.—The questionnaire used in this survey was largely the same as that used in the 1930 survey, being modified to the extent required by the known changes such as the Social Security Act and other recent legislation. The following statement preceded the questions:

This questionnaire is arranged as a simple check list on your policies and practices of personnel management. It has been subdivided for statistical purposes into six groupings: employment, maintenance, payment, security, development, and research control.

The authors of *Personnel Management* hereby assure all cooperating concerns that no individual replies will be made available to others, and only the summarized results will be published.

In the following list, check all items used in your concern. For example, if you use an application blank, place a check mark after the word "yes." If you do not use an application blank, place a check mark after the word "no." If your answer to the question is "no," then it is not necessary for you to check the subheads under the question pertaining to forms of application blanks. Throughout the questionnaire, if you check the word "no" to the main question, the subheadings of that question need not be answered. If, however, you check the word "yes," please check the subheadings of the questions pertaining to the practices in your concern.

The specific questions asked in the questionnaire and the answers to same are presented in Tables 18 to 23 inclusive.

The geographical distribution and the classification of the concerns included in this survey are shown by Tables 16 and 17, respectively.

Comparisons.—There are some interesting comparisons between the results of the present study and the one made 10 years ago, also as between certain personnel practices and others. For instance, in the present survey, 99 per cent of all the companies used an application blank, whereas only 70 per cent of these same companies used an employee qualification card. The respective tables portray most of these interesting comparisons. The charts that accompany each table present these data graphically. The charts that compare the present study with the former one show the changes in emphasis that have taken place over the 10-year period.

1. *Employment.*—Table 18 and its accompanying chart (Fig. 89) illustrate the current personnel practices in relation to employment. It will be noted that in most cases the applicant fills out his own application blank (68 per cent); that in practically all cases an interview is required prior to hiring; that only 49 per cent of the employers require written-references, and that 39 per cent of them have a special form for this purpose; that in 66 per cent of the cases the personnel department has full authority to hire rank-and-file employees; that 82 per cent of the employers have a formal program for introducing new employees to their jobs; that physical examinations are used by 75 per

cent of the employers; that 66 per cent of the employers use tests in some form as an aid in selection; that public employment offices are used occasionally in 70 per cent of the cases; and that in half the cases a general practice is made of securing applicants through foremen, employees, friends, and miscellaneous sources. In comparing present practices with those of 10 years ago (Fig. 90),

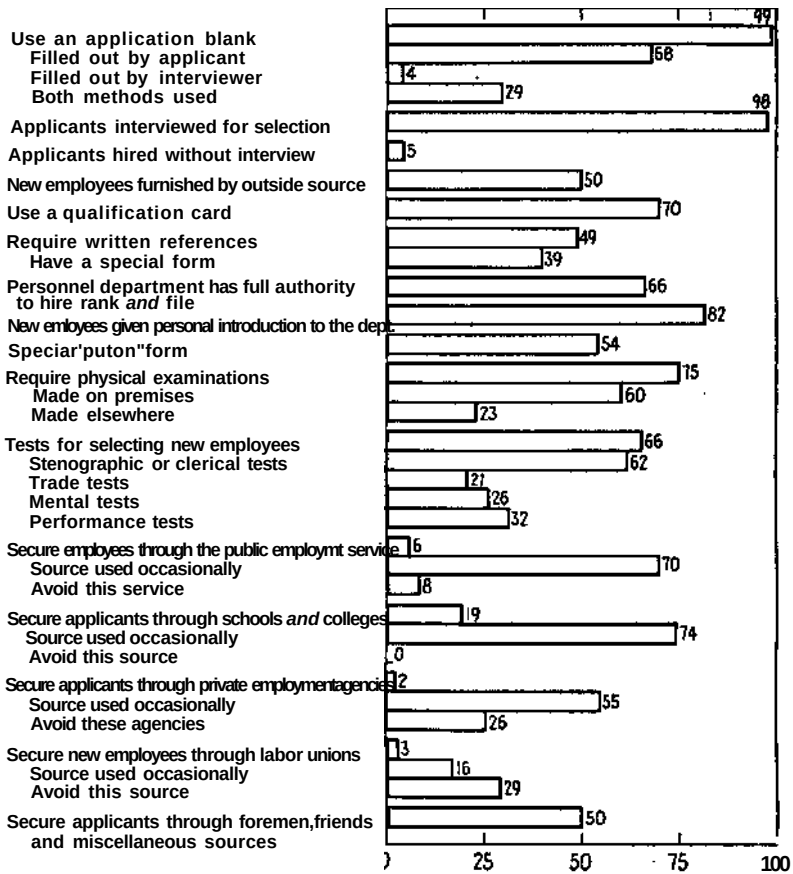


FIG. 89.—Employment procedures. (Source of data: Table 18.)

it will be noted that written references have declined in popularity from 82 to 49 per cent of the cases; that trade tests have decreased from 27 to 21 per cent, whereas psychological tests have increased from 17 to 26 per cent of the cases and clerical and stenographic tests have increased from 46 to 62 per cent; that physical examinations have increased in use; that the qualification card has decreased in use from 83 to 70 per cent of the cases; and that personal introduction of the new employee to his department has shown a marked increase.

2. *Maintenance*.—Table 19 and Fig. 91 show the present status of personnel procedures designed to maintain an adequate supply of workers. In terms of

TABLE 16.—GEOGRAPHICAL DISTRIBUTION OF 231 CONCERNS

1. California	3
2. Colorado	2
3. Connecticut	7
4. Delaware	1
5. District of Columbia	3
6. Georgia	1
7. Illinois	45
8. Indiana	10
9. Iowa	3
10. Kentucky	5
11. Maryland	4
12. Massachusetts	11
13. Michigan	11
14. Minnesota	5
15. Missouri	4
16. New Jersey	8
17. New York	37
18. Ohio	27
19. Oklahoma	1
20. Pennsylvania	21
21. Rhode Island	1
22. South Dakota	1
23. Texas	2
24. West Virginia	1
25. Wisconsin	11

231

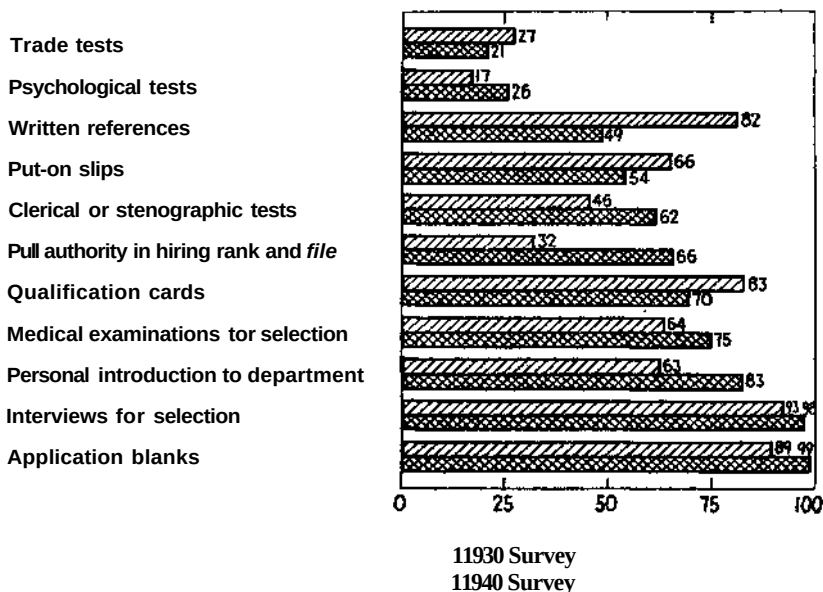


FIG. 90.—Comparative chart of employment procedures.

TABLE 17.—CLASSIFICATION OF 231 CONCERNS BY TYPES

1. Advertising	1
2. Aviation	3
3. Automobile manufacturers	7
4. Automobile-body manufacturers	6
5. Automobile-equipment manufacturers	4
6. Building-supplies manufacturers	6
7. Chemical manufacturers	3
8. Clothing manufacturers	14
9. Coal and fuel	2
10. Distilleries	1
11. Electrical-equipment manufacturers	11
12. Farm-equipment manufacturers	3
13. Financial institutions	4
14. Food products	16
15. Fountain-pen manufacturers	2
16. Furniture manufacturers	3
17. Glass manufacturers	2
18. Governmental agencies	1
19. Heavy machinery equipment manufacturers	5
20. Household supplies and equipment	3
21. Insurance	4
22. Machine-tool manufacturers	16
23. Mail-order houses	3
24. Market analysts	1
25. Meat packers	5
26. Metal manufacturers	8
27. Metal-container manufacturers	1
28. Miscellaneous equipment manufacturers	3
29. Musical-instrument manufacturers	2
30. Newspapers	2
31. Office-equipment and supply manufacturers	6
32. Optical equipment and supplies	3
33. Paint manufacturers	4
34. Petroleum	5
35. Pharmaceutical supplies	8
36. Public utilities	7
37. Publishing houses	4
38. Pulp and paper manufacturers	5
39. Radio manufacturers	3
40. Retail drug and department stores	24
41. Rubber manufacturers	7
42. Silver manufacturers	1
43. Soap manufacturers	2
44. Tobacco	1
45. Transportation companies	2
46. Ventilating and air-conditioning-equipment manufacturers	3
47. Watch and clock manufacturers	4

practices most frequently followed, the following items appear in more than 50 per cent of the cases: one or more first-aid stations (94 per cent); rest rooms for employees (82 per cent); formal safety program (78 per cent); lunchroom (76 per cent); follow up new employees (75 per cent); magazine for employees (57 per cent); free medical and health instruction (52 per cent). In addition to the foregoing, the following items appear in at least 40 per cent of the cases: employees' library (47 per cent); recreation room (47 per cent); legal-aid

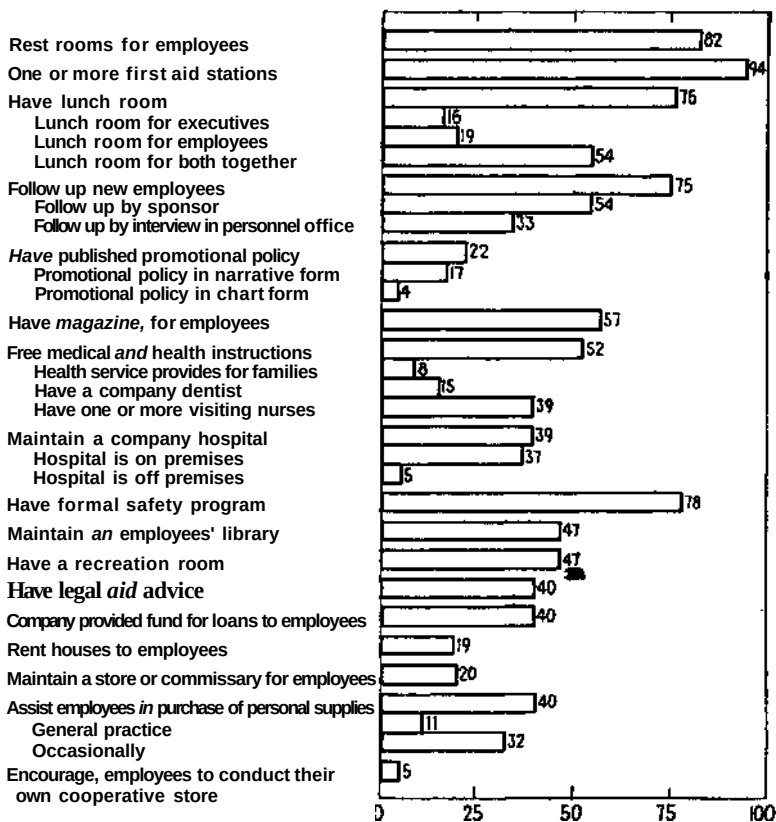


FIG. 91.—Employee maintenance. (Source of data: Table 19.)

advice (40 per cent); company loans to employees (40 per cent); assist employees in the purchase of personal supplies (40 per cent). It is also interesting to observe that 19 per cent of the companies rent houses to employees and that 20 per cent of the firms maintain a store or commissary, also that 39 per cent of the companies maintain a company hospital. The changed status of personnel practices is less marked in the case of maintenance than in any of the other phases (Fig. 92). The practice of publishing promotional policies has decreased from 65 to 22 per cent; the renting of houses to employees has decreased from 27 to 19 per cent; whereas the practice of following up new

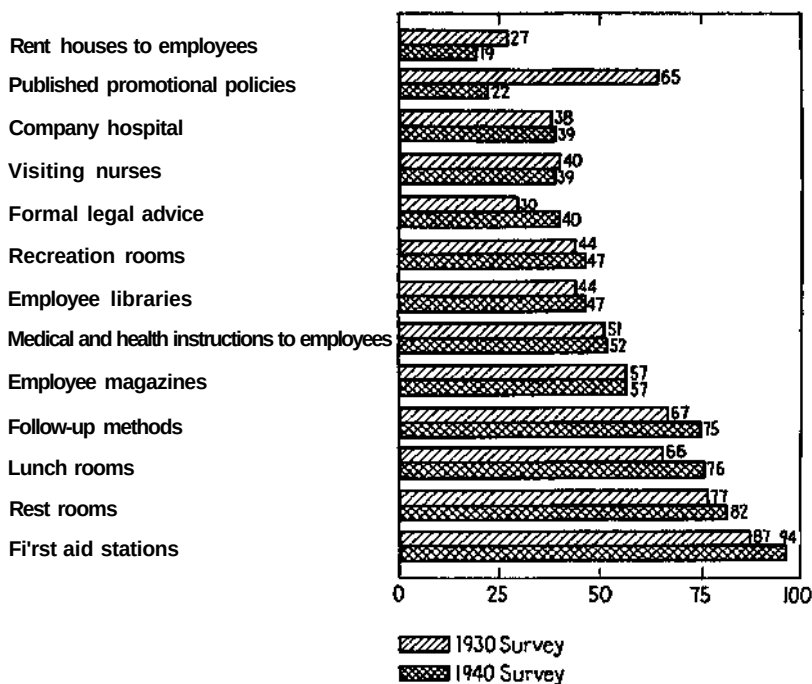


FIG. 92.—Comparative chart of employee maintenance.

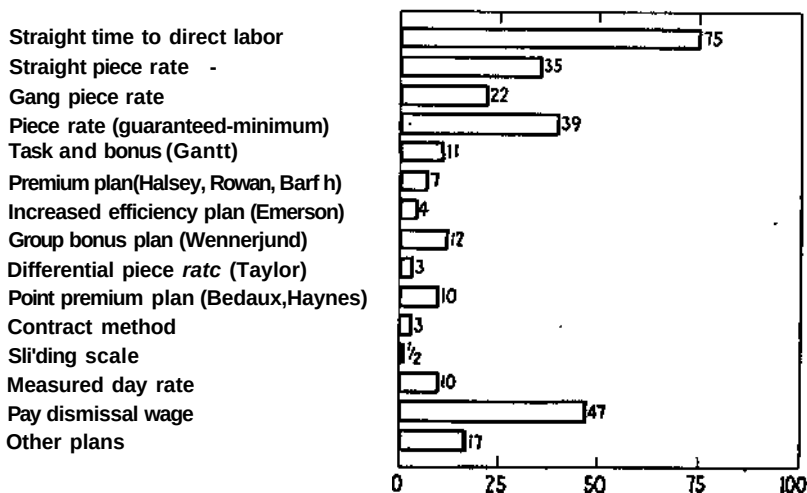


FIG. 93.—Methods of wage-payment plans. (Source of data: Table 20.)

TABLE 18.—EMPLOYMENT PROCEDURES

	Yea	No	No answer
1. Do you use an application blank?	228	3	0
o. Is it filled out by applicant?	157	4	70
6. Is it filled out by interviewer?	0	111	111
c. Are both methods in use?	68	109	54
2. Are applicants interviewed for selection?	226	3	2
3. Are any applicants hired without an interview?	11	213	7
4. Are any new employees furnished by an outside source?	116	101	14
5. Do you use a qualification card other than a mere roster or payroll record for each employee?	161	64	5
6. Do you require written references?	114	108	9
a. Do you have a special reference form of your own?	90	80	61
7. Does your personnel department have full authority to hire rank and file?	152	74	5
8. Are new employees given a personal introduction to the department where they are to work by a foreman or member of the personnel department?	191	36	
9. Do you send a special "put-on" form to the department (with perhaps copies to other departments) for each new employee?	124	97	10
10. Do you require physical examinations for selection?	174	53	1
a. Are they made on the premises?	138		
6. Are they made elsewhere?	54		
11. Do you have any tests for selecting new employees?	153	71	7
a. Are they stenographic or clerical tests?	144		
b. Are they trade tests?	48		
c. Are they mental (psychological) tests?	60		
d. Are they performance tests?	75		
12. Do you make a general practice of securing applicants through the public employment service?	15	205	11
a. Do you use this service occasionally?	163	30	28
6. Do you avoid this service?	19	156	56
13. Do you make a general practice of securing applicants through schools and colleges?	43	174	14
a. Do you use these sources occasionally?	171	13	47
b. Do you avoid these sources?	0	146	85
14. Do you make a general practice of securing applicants through private (fee) employment agencies?	5	211	15
a. Do you use these sources occasionally?	128	50	43
b. Do you avoid these agencies?	61	92	78
15. Do you make a general practice of securing new employees through labor unions?*	6	213	12
a. Do you use this source occasionally?	37 j	123	71
b. Do you avoid this source?	66	78	87
16. Do you make a general practice of securing applicants through foreman, employees, friends, and other miscellaneous sources?	115	108	

employees and giving legal advice has increased approximately 8 and 10 per cent, respectively.

3. *Wage Payment*—Table 20 and Fig. 93 give the current program of methods used in wage payments. By far the most commonly used plan is the payment of straight time to direct labor (75 per cent). Piece rate with a guaranteed minimum is the next most popular plan (39 per cent), followed closely by straight piece rate (35 per cent). Gang or group piece rates are

TABLE 19.—EMPLOYEE MAINTENANCE

	Yes	No	No answer
1. Do you have one or more rest rooms (exclusive of toilets) for employees?	189	41	1
2. Do you have one or more first-aid stations?	218	12	1
3. Do you have a lunchroom?	175	50	6
a. For executives?	38	13	180
b. For employees?	44	6	181
c. For both together?	124	33	74
4. Do you follow up new employees?	174	25	32
a. Is it done by a sponsor or selected person who goes through the department to see how the new employee is progressing?	124	53	54
b. Is it done by calling the employees into the personnel office for periodic interviews?	77	92	62
5. Do you have a <i>published</i> promotional policy?	51	154	26
o. Is it in narrative form?	39		
6. Is it in chart form?	10		
6. Do you use a "house organ" or magazine for <i>employees</i> ? .	131	96	
7. Are employees given free medical and health instructions (other than first-aid and safety instruction) ?	120	103	
a. Does this health service provide also for the families of employees?	19	161	51
6. Do you have a company dentist?	35	162	34
c. Do you have one or more visiting nurses?	90	112	29
8. Do you maintain a company hospital?	89	135	7
a. Is it on the premises?	85	7	139
b. Is it off the premises?	11	32	188
9. Do you have a formal safety program?	180	48	3
10. Do you maintain an employees' library?	109	117	5
11. Do you have a recreation room (other than rest rooms)?	108	118	5
12. Do you have a legal-aid service?	93	135	3
13. Do you have a company provided fund for loans to employees?	92	128	11
14. Do you rent houses to employees?	43	181	7
15. Do you maintain a store or commissary for employees?..	46	182	3
16. Do you assist employees with the purchase of personal supplies?	93	125	13
a. Is it a general practice?	26	47	158
6. Is it done only occasionally?	74	8	149
17. Do you encourage employees to conduct their own "coop- erative stores" and the like?	11	203	17

used by 22 per cent of the firms, whereas group bonus plans are used in 12 per cent of the cases/ The Gantt Task and Bonus plan is used in 11 per cent of the-concerns, and measured daywork as well as the point premium plans are

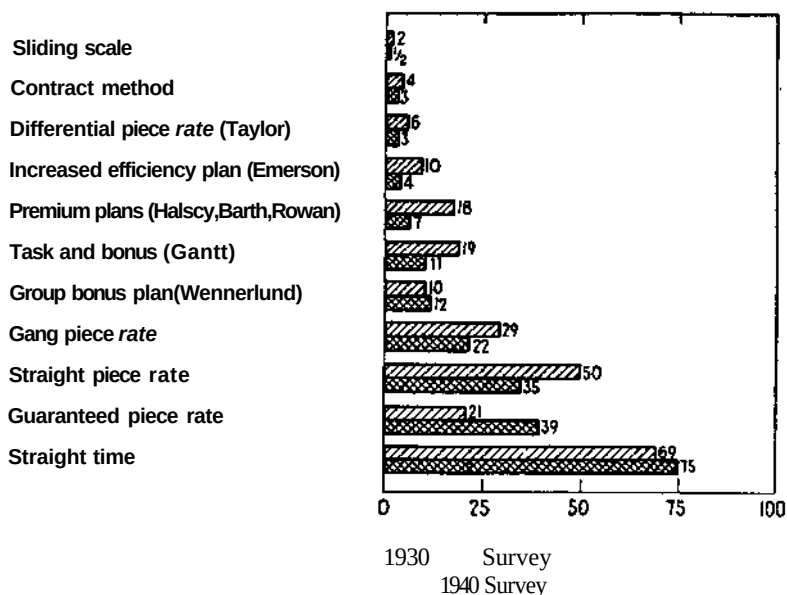


FIG. 94.—Comparative chart of wage-payment plans (direct labor).

TABLE 20.—METHODS OF WAGE-PAYMENT PLANS (DIRECT LABOR)

	Yes	No	No answer
1. Do you pay straight time to direct labor?	173	29	29
2. Straight piece rate?	80	87	64
3. Gang piece rate?	51	102	78
4. Piece rate (with a guaranteed minimum)?	91	79	61
5. Task and bonus rate? (Gantt)	26	124	81
6. Premium plan? (Halsey, Barth, Rowan, etc.)	17	136	73
7. Increased efficiency plan? (Emerson)	10	139	82
8. Group bonus plan? (Wennerlund)	27	128	76
9. Differential piece rate? (Taylor)	8	139	84
10. Point premium plan? (Bedaux, Haynes, etc.)	24	134	73
11. Contract method?	6	138	87
12. Sliding scale (selling price of product, etc.)?	1	143	87
13. Measured day rate?	23	126	82
14. Do you pay a dismissal wage to employees permanently discharged through no fault of their own?	109	98	24
15. Any other system than above?	40	76	115

used by 10 per cent of the firms. Figure 94 portrays the change in wage plans over the 10-year period 1930-1940. Only two plans show any marked increase, namely, piece rate with a guaranteed minimum and the straight time basis. To these two might be added a third one that did not appear in the original study, namely, measured day rate.

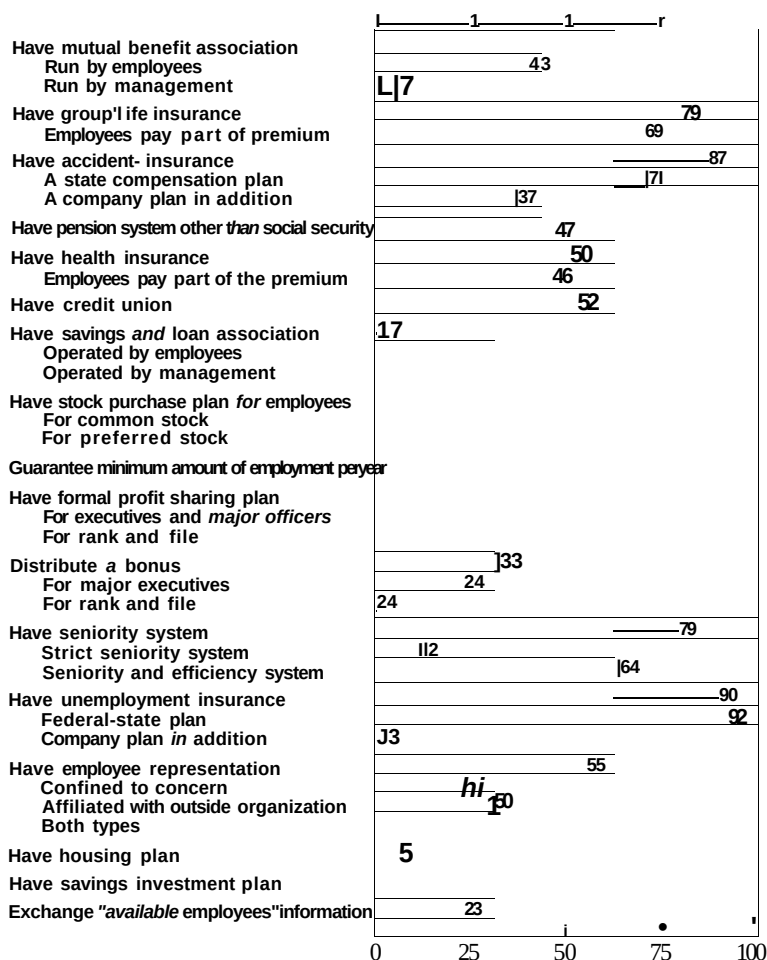


FIG. 95.—Employee security programs. {Source of data: Table 21.}

4. *Employee Security*.—Table 21 and Fig. 95 give the current practice in attempting to provide security to employees. Items appearing in at least 40 per cent of the cases are as follows: unemployment insurance, Federal-state plan (92 per cent); accident insurance (87 per cent); group life insurance (79 per cent); seniority system (79 per cent); employee representation in some form (55 per cent); credit unions (52 per cent); health insurance (50 per cent);

pension system other than social security (47 per cent); mutual benefit associations (47 per cent). Other items of interest are: formal profit sharing (18 per cent), bonus distribution (33 per cent), and a savings and investment plan (17 per cent). Figure 96 gives a comparison of present plans and those in use 10 years ago. It will be observed that employee ownership of both preferred and common stock as well as savings and loan plans have markedly decreased. The same holds true with respect to mutual benefit associations. On the other hand, health insurance has increased approximately 8 per cent, group life

TABLE 21.—EMPLOYEE SECURITY PROGRAMS

	Yes
1. Do you have a mutual benefit association?.....	108
a. Is it run by the employees?.....	99
b. Is it run by the management?.....	16
2. Do you have group life insurance?.....	183
a. Do employees pay any part of the premiums?.....	160
3. Do you have accident insurance?.....	200
a. Is it a state (workmen's compensation) plan?.....	164
b. Is it a company plan in addition to the state workmen's compensation?.....	85
4. Do you have a pension system other than the Federal Social Security?....	108
5. Do you have health insurance?.....	115
a. Do employees pay any part of the premium?.....	107
6. Do you have a "credit union"?.....	121
7. Is there a savings and loan association?.....	40
a. Is it operated by the employees?.....	32
b. Is it operated by the management?.....	11
8. Do you have a stock-purchase plan for employees?.....	20
a. Is it for common stock?.....	17
b. Is it for preferred stock?.....	6
9. Do you guarantee any minimum amount of employment per year?.....	13
10. Do you have a formal profit-sharing plan?.....	41
a. Is it for executives and major officers?.....	23
b. Is it for rank-and-file employees?.....	27
11. Do you distribute a bonus (other than a direct production bonus and formal profit-sharing plan) after profitable periods?.....	76
a. Is it for executives and major officers?.....	55
b. Is it for rank-and-file employees?.....	56
12. Do you use a seniority system in laying off and rehiring employees?.....	183
o. Is it a strict (like some railroads) seniority system?.....	28
6. Is it a "seniority and efficiency" system?.....	147
13. Do you have unemployment insurance?.....	207
a. Is it a Federal-state plan?.....	213
b. Is it a company plan in addition to the government plan?.....	7
14. Do you have employee representation?.....	126
a. Is it confined to your concern?.....	53
b. Is it affiliated with an outside organization?.....	69
e. Do you have both types?.....	30
15. Do you have a housing (home-ownership) plan for rank-and-file employees?.....	11
16. Do you have a savings investment (other than a stock ownership) plan for rank-and-file employees?.....	37
17. Do you exchange "available employees" information with other employers (Rochester plan)?.....	54

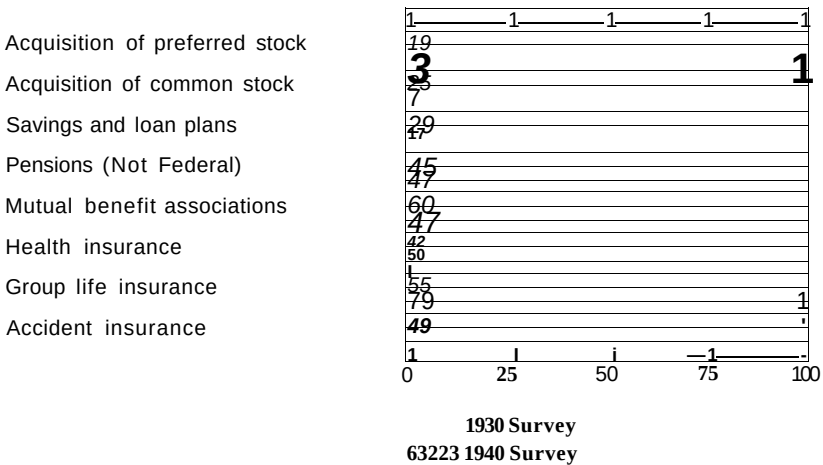


FIG. 96.—Comparative chart of employee security programs.

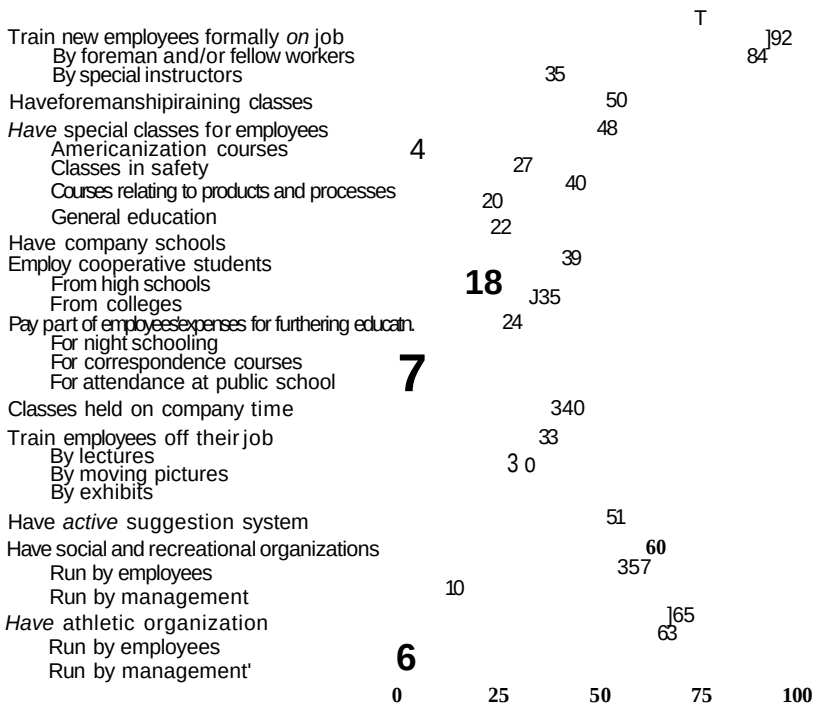


FIG. 97.—Employee training and development, {Source of data: Table 22.)

insurance has increased 24 per cent, and accident insurance has increased from 49 to 87 per cent.

5. *Employee Development.*—Table 22 and Fig. 97 present a picture of present practices in the training and development of employees. Strictly on the training side of personnel procedures, the most frequently recurring practice is the formal training of new employees on the job (92 per cent), followed by foremanship training classes (50 per cent), and special classes for employees (48 per cent). Other practices are as follows: employ cooperative students (39 per cent); training employees off their jobs (33 per cent); the payment of a part of the employees' expenses in furthering their education (24 per cent);

TABLE 22.—EMPLOYEE DEVELOPMENT AND TRAINING

	Yes	No	No answe
1. Do you formally train new employees <i>on the job</i> ?	212	15	4
a. Is it done by foremen and/or fellow workers?	193	5	33
b. Is it done by special instructors?	81	71	79
2. Do you have foremanship training classes?	116	101	14
3. Do you have any special classes for employees?	111	104	16
a. Are they Americanization courses?	10	81	140
b. Are they classes in safety for the rank and file? . .	62	34	135
c. Are they courses of instruction relating to your products and processes?	93	19	119
d. Are they for general education?	47	52	132
4. Do you have company schools?	50	162	20
5. Do you employ cooperative students?	89	123	19
a. Are they from high schools?	41	31	159
b. Are they from colleges?	81	3	147
6. Do you pay any part of employees' expense outlay for, furthering their education?	55	165	11
a. Is it paid for night schooling?	38	11	182
b. Is it paid for correspondence courses?	16	26	189
c. Is it paid for attendance Upon public school or other outside classes?	23	24	184
7. Are any classes held on company time?	92	124	15
8. Do you train employees off their job?	76	129	26
a. Is it done by lectures?	70	4	157
b. Is it done by moving pictures?	53	5	173
c. Is it done by exhibits?	53	10	168
9. Have you an active suggestion system?	118	105	8
10. Do you have any social and recreational organizations (other than athletic)?	138	81	12
a. Are they run by employees?	132	9	90
b. Are they run by the management?	21	67	144
11. Do you have an athletic organization?	151	67	13
a. Is it run by the employees?	146	3	82
b. Is it run by the management?	15	73	143

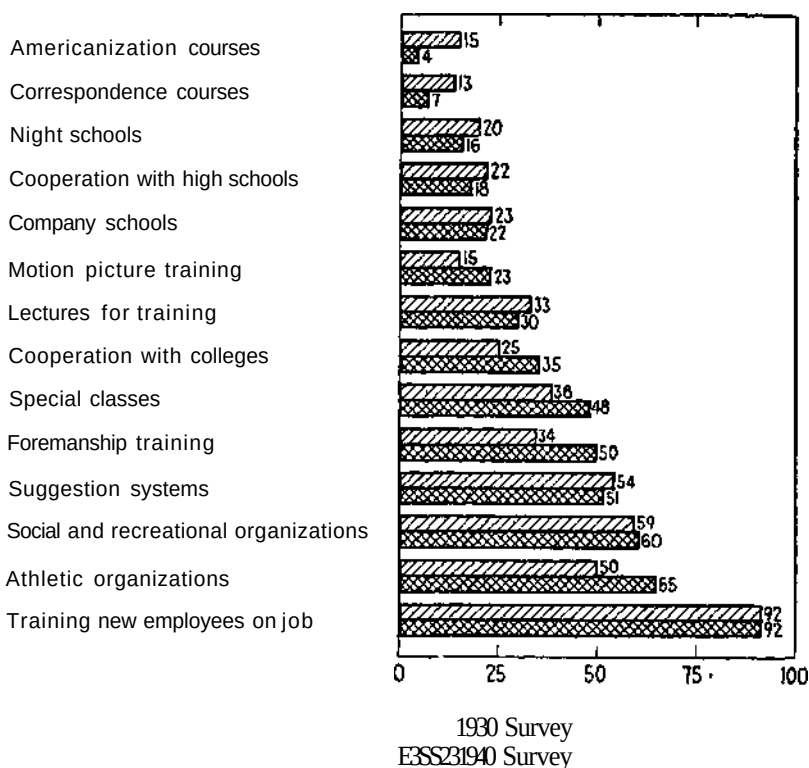


FIG. 98.—Comparative chart of employee training and development.

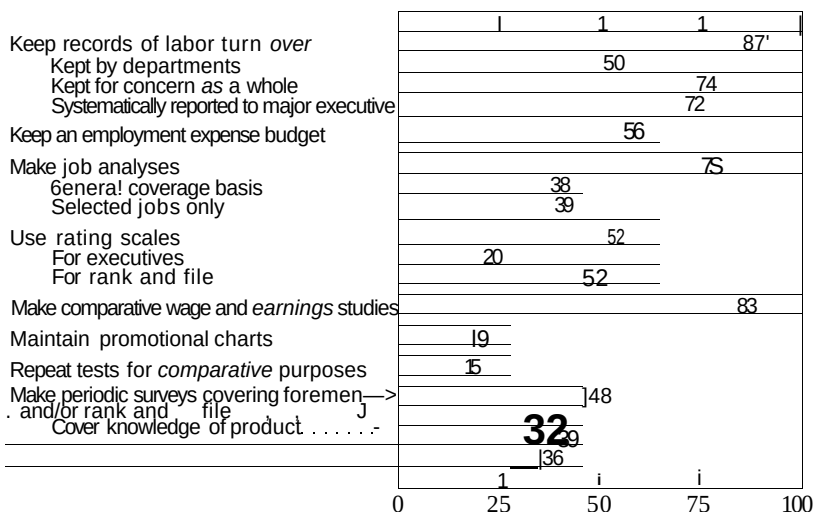
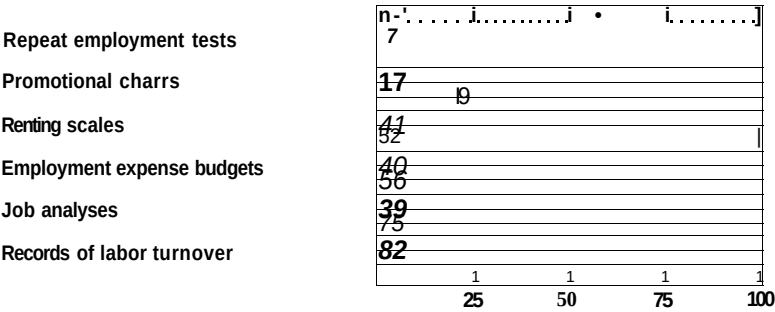


FIG. 99.—Chart of personnel research and control. {Source of data: Table 23.}

company schools (22 per cent); and formal suggestion systems (51 per cent). Social and recreational organizations are found in 60 per cent of the firms and



1930 1940 Survey
FIG. 100.—Comparative chart of personnel research and control.

TABLE 23.—PERSONNEL RESEARCH AND CONTROL

	Yes	No	No answer
1. Do you keep records of labor turnover?	202	28	1
a. Are they kept by departments?	116	47	68
b. Are they kept for the concern as a whole?	171	11	49
c. Are they systematically reported to a major executive?	166	21	44
2. Do you keep an employment expense budget?	129	88	14
3. Do you make job analyses?	174	49	8
a. Are they made on a "general coverage" basis?	88	35	108
b. Are they made only for selected jobs?	91	35	105
4. Do you systematically use rating scales?	119	103	9
a. Are they for executives?	46	55	130
b. Are they for rank-and-file employees?	121	6	104
5. Do you make periodic comparative wages and earnings studies?	192	32	7
6. Do you maintain for research purpose any promotional charts?	44	159	28
7. Do you repeat employment or other tests for comparative (progression) purposes?	34	169	28
8. Do you make periodic surveys covering your foremen and/or rank-and-file employees?	112	102	17
a. Do they cover knowledge of product?	73	18	140
b. Do they cover company policies?	89	12	130
c. Do they cover safety regulations?	83	17	131

65 per cent have athletic programs. Figure 98 gives the comparison between 1930 and 1940. Foremanship training has markedly increased, as have

special classes for employees and cooperation with colleges. The use of suggestion systems has shown a 3 per cent decrease. Athletic organizations showed an increase of 15 per cent in the number of firms reporting, whereas social and recreational activities have increased only 1 per cent.

6. *Research and Control*.—The status of research practices is shown by Table 23 and Fig. 99. Research and control activities arranged in the order of their frequency are as follows: records of labor turnover (87 per cent); comparative wages and earnings studies (83 per cent); job analyses (75 per cent); employment expense budget (56 per cent); rating scales (52 per cent); periodic surveys of personnel (48 per cent); promotional charts (19 per cent), and repeat tests for comparative purposes (15 per cent). In comparing the changes that have taken place during the 10-year period as shown by Fig. 100, the most outstanding increase is that of job analyses increasing from 39 to 75 per cent. None of the research activities decreased. Expense budgets increased in use 16 per cent, whereas rating scales increased in use only 11 per cent.

COMPANIES PARTICIPATING IN THE SURVEY¹

Abbott Laboratories, North Chicago, 111.
 Abraham and Straus, Inc., Brooklyn, N. Y.
 Acme Steel Company, Chicago, 111.
 Adam, J. N., and Company, Buffalo, N. Y.
 Addressograph-Multigraph Corporation, Cleveland, Ohio
 Allegheny Ludlum Steel Corporation, Brackenridge, Pa.
 Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
 Aluminum Cooking Utensil Company, Pittsburgh, Pa.
 American Blower Corporation, Detroit, Mich.
 American Optical Company, Southbridge, Mass.
 American Rolling Mill Company, Ashland, Ky.
 American Rolling Mill Company, Middleton, Ohio
 American Seating Company, Grand Rapids, Mich.
 American Telephone and Telegraph Company, New York, N. Y.
 Armour and Company, Chicago, 111.
 Armstrong Cork Company, Lancaster, Pa.
 Atlantic Refining Company, Philadelphia, Pa.
 Atlas Car and Manufacturing Company, Cleveland, Ohio
 Auburn Automobile Company, Connersville, Ind.
 Ayers, L. S., Company, Indianapolis, Ind.

Baker, Walter, Company, Dorchester, Mass.
 Baltimore Enamel and Novelty Company, Baltimore, Md.
 Bamberger, L., Company, Newark, N. J.
 Barnes, Wallace, Company, Bristol, Conn.
 Bauer and Black, Chicago, 111.
 Bauer Brothers, Springfield, Ohio
 Bausch and Lomb Company, Rochester, N. Y.
 Black and Decker Manufacturing Company, Towson, Md.
 Borden Company, The, New York, N. Y.

¹ This list does not include a few of the names of participating concerns that specifically asked that their names be omitted.

- Borg**-Warner Corporation, Chicago, 111.
Bowser Tank Company, Ft. Wayne, Ind.
Bridgeman-Russell Company, Duluth, Minn.
Brown and Williamson Tobacco Corporation, Louisville, Ky.
Brown and Sharpe Manufacturing Company, Providence, It. I.
Buckeye Steel Castings Company, Columbus, Ohio
- Campbell Soup Company, Camden, N. J.
Carnation Company, Milwaukee, Wis.
Carrier Corporation, Syracuse, N. Y.
Caterpillar Tractor Company, Peoria, 111.
Century Electric Company, St. Louis, Mo.
Chase Brass and Copper Company, Waterbury, Conn.
Cheney Brothers, New York, N. Y.
Chicago Flexible Shaft Company, Chicago, 111.
Chicago Mail Order Company, Chicago, 111.
Chicago and Northwestern Railway Company, Chicago, 111.
Chicago Tribune, Chicago, 111.
Chrysler Motor Corporation, Detroit, Mich.
Cincinnati Milling Machine Company, Cincinnati, Ohio
Cluett, Peabody and Company, Troy, N. Y.
Colorado Fuel and Iron Company, Denver, Colo.
Columbia Conserve Company, Indianapolis, Ind.
Commonwealth Edison Company, Chicago, 111.
Consolidated Gas, Electric Light and Power Company of Baltimore, Baltimore, Md.
Container Corporation of America, Chicago, 111.
Continental Can Company, Inc., Chicago, 111.
Continental Casualty Assurance Company, Chicago, 111.
Continental Illinois National Bank and Trust Company of Chicago, Chicago, 111.
Corning Glass Works, Corning, N. Y.
Crosley Corporation, Cincinnati, Ohio
Cudahy Packing Company, The, Chicago, 111.
Cutler Hammer, Inc., Milwaukee, Wis.
- Davenport Locomotive and Manufacturing Corporation, Davenport, Iowa
Dennison Manufacturing Company, Framingham, Mass.
Detroit Free Press, Detroit, Mich.
Donnelley, R. R., and Sons, Chicago, 111.
Douglas Aircraft Company, Inc., Santa Monica, Calif.
du Pont de Nemours, E. L., and Company, Wilmington, Del.
- Eastman Kodak Company, Rochester, N. Y.
Elgin Watch Company, Elgin, 111.
Employers' Fire Insurance Company, Wausau, Wis.
Endicott-Johnson Company, Endicott, N. Y.
Evinrude Motors, Div. of Outboard Marine and Manufacturing Company,
Milwaukee, Wis.
- Fairbanks**, Morse and Company, Chicago, 111.
Famous-Barr Company, St. Louis, Mo.

APPENDIX A

Farm Credit Administration, Washington, D. C.
Filene, Wm., and Sons Company, Boston, Mass.
Firestone Tire and Rubber Company, Akron, Ohio
Ford Motor Company, Dearborn, Mich.
Foxboro Company, Foxboro, Mass.

Gates Rubber Company, Denver, Colo.
General Electric Company, Lynn, Mass.
General Electric Company, Schenectady, N. Y.
General Foods Corporation, New York, N. Y.
General Railway Signal Company, Rochester, N. Y.
Gimbel's, Pittsburgh, Pa.
Goodrich Rubber Company, Akron, Ohio
Goodyear Tire and Rubber Company, Akron, Ohio
Gotham Silk Hosiery Company, Philadelphia, Pa.
Graybar Electric Company, New York, N. Y.
Great Atlantic and Pacific Tea Company, The, Chicago, Til.
Gruen Watch Company, Cincinnati, Ohio

Hall, W. F., Printing Company, Chicago, 111.
Halle Brothers Company, Cleveland, Ohio
Halsey-Stuart and Company, New York, N. Y.
Hamilton Watch Company, Lancaster, Pa.
Hammermill Paper Company, Erie, Pa.
Hansen Glove Company, Milwaukee, Wis.
Hart, Schaffner and Marx, Chicago, 111.
Hecht Company, Washington, D. C.
Heinz, H. J., Company, Pittsburgh, Pa.
Hendy Machine Company, Torrington, Conn.
Hengerer, William, Company, Buffalo, N. Y.
Hershey Chocolate Company, Hershey, Pa.
Hey wood-Wakefield Company, Gardner, Mass.
Holeproof Hosiery Company, Milwaukee, Wis.
Hoover Company, N. Canton, Ohio
Home, Joseph, Company, Pittsburgh, Pa.
Houde Engineering Company, Buffalo, N. Y.
Household Finance Company, Chicago, 111.

I.L.G. Electric Ventilating Company, Chicago, 111.
Indianapolis Water Company, Indianapolis, Ind.
Ingram-Richardson Manufacturing Company, Beaver Falls, Pa.
International Harvester Company, Chicago, 111.

Jeffrey Manufacturing Company, Columbus, Ohio
Jewel Tea Company, Barrington, 111.
Johns-Manville Corporation, New York, N. Y.
Johnson and Johnson Company, New Brunswick, N. J.
Johnson, S. C. and Sons, Racine, Wis.
Joseph and Feiss Company, Cleveland, Ohio
Junket Folks, The, Little Falls, N. Y.,

Karpen and Brothers, Chicago, 111.

Kearney and Trecker Corporation, West Allis, Wis.

Kelly Springfield Tire Company, Cumberland, Md.

Kimberly Clark Company, Neenah, Wis.

Koppers Coal Company, Pittsburgh, Pa.

Kroehler Manufacturing Company, Naperville, 111.

LaBlonde Machine Tool Company, Cincinnati, Ohio

Landers, Frary and Clark, New Britain, Conn.

Lazarus, F. and R., Columbus, Ohio

Leeds and Northrup, Cambridge, Mass.

Lever Brothers Company, Cambridge, Mass.

Lilly, Eli, and Company, Indianapolis, Ind.

Link-Belt Company, Chicago, 111.

Lloyd Manufacturing Company, Menomonie, Mich.

Lockheed Aircraft Corporation, Burbank, Calif.

Lone Star Gas Company, Dallas, Tex.

Lord and Taylor, New York, N. Y.

McGraw-Hill Book Company, Inc., New York, N. Y.

Macy, R. H., and Company, Inc., New York, N. Y.

Magnolia Petroleum Company, Dallas, Tex.

Marshall Field Company, Chicago, 111.

Mead Corporation, The, Chillicothe, Ohio

Merck and Company, Rahway, N. J.

Meredith Publishing Company, Des Moines, Iowa

Metropolitan Life Insurance Company, New York, N. Y.

Minnesota Mining and Manufacturing Company, St. Paul, Minn.

Mishawaka Rubber and Woolen Manufacturing Company, Mishawaka, Ind

Monroe Adding Calculator Company, Orange, N. J.

Monsanto Chemical Works, St. Louis, Mo.

Montgomery Ward and Company, Inc., Chicago, 111.

Morgan Construction Company, Worcester, Mass.

Morrell, John, and Company, Sioux Falls, S. D.

Munsingwear, Incorporated, Minneapolis, Minn.

Murray Body Corporation, [Detroit, Mich.

Nash-Kelvinator Corporation, Kenosha, Wis.

National Cash..Register Company, Dayton, Ohio

National Lead Company, Brooklyn, N. Y.

Neilson, A. E., Company, Chicago, 111.

New Departure Manufacturing Company, Bristol, Conn.

New England Confectionery Company, Cambridge, Mass.

Nunn-Bush Shoe Company, Milwaukee, Wis.

Oklahoma Gas and Electric Company, Oklahoma City, Okla.

Oliver Farm Equipment Company, Battle Creek, Mich.

Oneida, Ltd., Oneida, N. Y.

Packard Motor Car Company, Detroit, Mich.

Paine Lumber Company, Ltd., Oshkosh, Wis.

Pennsylvania Company, The, Philadelphia, Pa.
 Peoples' Gas Light and Coke Company, Chicago, 111.
 Philadelphia Transportation Company, Philadelphia, Pa.
 Phoenix Hosiery Company, Milwaukee, Wis.
 Pillsbury Flour Mills Company, Minneapolis, Minn.
 Pittsburgh Plate Glass Company, Pittsburgh, Pa.
 Pogue, H. S., Company, Cincinnati, Ohio
 Pratt and Lambert, Inc., Buffalo, N. Y.
 Procter and Gamble Company, Cincinnati, Ohio
 Pure Oil Company, Chicago, 111.
 Purina Mills, St. Louis, Mo.

R. C. A. Manufacturing Company, Camden, N. J.
 Real Silk Hosiery Mills, Indianapolis, Ind.
 Rich, M., and Brothers, Atlanta, Ga.
 Rike-Kumler Company, Dayton, Ohio
 Robbins and Myers, Inc., Springfield, Ohio
 Roebling, John A., Trenton, N. J.

Seagram, Joseph E., and Sons, Inc., Louisville, Ky.
 Seaman Body Corporation, Milwaukee, Wis.
 Sears, Roebuck and Company, Chicago, 111.
 Seiberling Rubber Company, Akron, Ohio
 Seymour Manufacturing Company, Seymour, Conn.
 Sheaffer, W. A., Pen Company, Fort Madison, Iowa
 Smith, A. O., Corporation, Milwaukee, Wis.
 Smith, L. S., and Corona Typewriters, Inc., Syracuse, N. Y.
 Socony-Vacuum Oil Company, Inc, New York, N. Y..
 Square D. Company, Milwaukee, Wis.
 Squibb, E. R., and Sons, New York, N. Y.
 Standard Sanitary Manufacturing Company, Louisville, Ky.
 Stein way and Sons, New York, N. Y.
 Stern Brothers, New York, N. Y.
 Stetson, John B., Company, Philadelphia, Pa.
 Stewart-Warner Corporation, Chicago, 111.
 Strawbridge and Clothier, Philadelphia, Pa.
 Stromberg-Carlson Telephone Manufacturing Company, Rochester, Y
 Studebaker Corporation of America (factory), South Bend/Ind.
 Studebaker Corporation of America (office), South Bend, Ind.
 Swift and Company, Chicago, 111.

Thompson, J. Walter, Company, New York, N. Y.
 Toledo Scale Manufacturing Company, Toledo, Ohio
 Travelers Insurance Company, Hartford, Conn.
 Tremco Manufacturing Company, The, Cleveland, Ohio
 Twin Coach Company, Kent, Ohio

Union Carbide Company and affiliated companies, New York, N. Y.
 Union City Chair Company, Union City, Pa.
 Union Oil Company of California, Los Angeles, Calif.

United Airlines Transportation Corporation, Chicago, 111.
United States Gypsum Company, Chicago, 111.

Vick Chemical Company, New York, N. Y.

Walgreen Company, Chicago, 111.
Waterman Pen Company, Newark, N. J.
Western Clock Company, La Salle, 111.
Western Electric Company, New York, N. Y.
Westinghouse Air Brake Company, Wilmerding, Pa.
Westinghouse Electric and Manufacturing Company, Pittsburgh, Pa
Wile, M., Company, Buffalo, N. Y.
Wilson Brothers, Chicago, 111.
Wilson and Company, Chicago, 111.
Wilson Foundry and Machine Company, Pontiac, Mich.
Wood Mosaic Company, Louisville, Ky.
Woodward and Lothrop, Washington, D. C.
Wurlitzer, Rudolph, Company, The, De Kalb, 111.

Zenith Radio Corporation, Chicago, **111.**

APPENDIX B

COOPERATIVE RESEARCH PROGRAMS IN TESTING

So far as industry is concerned, the period since 1933 to the present may with propriety be spoken of as the cooperative research period in testing.

During these years, several important programs have been followed having to do with testing as applied to selection, placement, guidance, transfers, and promotions.

A. *The Employment Stabilization Research Institute* was organized on the campus of the University of Minnesota and was supported by:

1. State funds and the facilities of the university.
2. The Rockefeller Foundation.
3. The Carnegie Corporation.
4. The Spellman Fund.
5. The Minnesota Industrial Institute.
6. The State Public Employment Service.

The institute retained a staff of 102 persons, several of whom were distinguished psychologists. Numerous employers, particularly those of Minneapolis, Saint Paul, and Duluth cooperated with the institute.

In July, 1933, the institute published a booklet entitled *A Manual of Selected Occupational Tests for Use in Public Employment Offices*. In a single "tryout," these tests were given to 3,500 unemployed persons in the three cities mentioned.

The institute devised and revised tests for various occupations. For example, tests for selecting policemen were tried on the staff of 124 policemen in Duluth. The test ratings correlated well with the ratings made by the superior officers of the force and resulted in further refinements of the tests.

B. *The Experimental Studies of Human Relations* were conducted primarily in Chicago at the Hawthorne Works of the Western Electric Company.

These studies were subsidized or administered by:

1. The Rockefeller Foundation.
2. Harvard University—especially the Graduate School of Business Administration.
3. The officials of the Western Electric Company.
4. The management at Hawthorne.

These studies and the researches that led up to the studies are reported in many scientific journals, and the following books deal exclusively, or in a large part, with the Hawthorne experiment:

1. Elton Mayo, *The Human Problem*, 1934.
2. E. J. Roethlisberger, *Management and the Worker*, 1934.

3. E. J. Roethlisberger and W. J. Dickson, *Management and the Worker* 1940.

4. T. N. Whitehead, *The Industrial Worker* (2 vols.), 1938.

The Western Electric Company uses tests in selecting employees and has test coverage for roughly 85 per cent of the applicants hired in a normal employment period. In these studies, the psychological tests were merely one of the factors that revealed the necessity of regarding each worker not as an economic unit but rather as a social unit. The group relationships of the workers may be either so stimulating or so inhibiting that they distort the anticipated effects of temperature, humidity, ventilation, fatigue, monotony, rest pauses, refreshments (coffee, soup, and sandwiches), working hours, supervision, or aptitudes as revealed by psychological tests.

Because of this new conception of an industrial organization as a social system, the Western Electric Company in 1936 instituted a new type of personnel counseling to enhance the morale of the workers by improving their social status.

So far as testing is concerned the conclusion is that the maximum results from tests for selection can be secured only where plant conditions are such that employees work up to their maximum efficiency—only when there is a balance between capacities, interest, and opportunities.

C. *The National Occupational Conference* and its contributions to *Occupational Adjustments*.—The National Occupational Conference was organized in New York City in 1933. General Robert I. Rees of the American Telephone and Telegraph Company was, until his death, the chairman. His successor has been J. Walter Dietz, personnel relations manager of the Western Electric Company, New York City. The personnel of the NOC consisted of 70 of the leaders in personnel work in industry, commerce, education, welfare, labor, Civil Service, and Federal agencies. Generous financial support (over half a million dollars) was provided by the Carnegie Corporation.

The tangible achievements of the NOC include:

1. The creation, the editing, and the publication of a magazine entitled *Occupations, the Vocational Guidance Magazine* (circulation 6,500).

2. The *Occupational Index*, having to do with current literature describing occupations (over 5,000 titles).

3. *Occupational abstracts* of available literature issued in pamphlet form (more than 60 titles).

4. *Job Satisfaction*, by Robert Koppock, 1935.

5. *Books about Jobs*, by Willard E. Parker, 1936.

6. *Aptitudes and Aptitude Testing*, by Walter V. Bingham, 1937.

Although the NOC gave much attention to mental-alertness tests in these published magazines, pamphlets, and books, the point of view of the NOC is **that** the value of these tests has now been established, and the time has arrived when the tests should be "put to work" and the major emphasis should be **placed** on bringing other types of tests and other personnel tools and methods **up to the standard already** attained by intelligence testing.

At the time of its founding, it was understood that the NOC should continue for only a few years but that it should establish types of activities that would continue indefinitely. Accordingly, it was liquidated in 1939, but practically all phases of work begun are now continuing under other auspices.

D. The Mental Measurements Yearbook. A cooperative nonprofit service for test users, Rutgers University, New Brunswick, N. J.—This yearbook first appeared in 1934 and under the title *Educational, Psychological and Personality Tests* of 1933 and 1934. In 1938, the annual appeared under the title *The 1938 Mental Measurements Yearbook*. In this publication, mental measurements is a term used to embrace aptitude, educational, intelligence, personality and psychological tests, questionnaires, and rating scales. The current edition entitled *The 1940 Mental Measurements Yearbook* consists of 700 pages and contains 512 reviews of tests, also extracts from 856 reviews of tests and books on testing from 178 American and foreign journals.

Those cooperating in this venture include:

1. Rutgers University by providing quarters and workers.
2. Oscar Krisen Buros by providing editorial services.
3. Carnegie Corporation by providing financial support.
4. The 250 experts in mental measurements listed in the last edition.
5. The Works Progress Administration of the State of New Jersey by providing financial support.

E. American Management Association, Personnel Division, New York, N. Y.

The personnel division publishes:

1. *Personnel*, a quarterly containing original articles by leaders in personnel work.
2. *Personnel Series*, a series of pamphlets published irregularly from 1930 to 1932 and annually since 1933. Each issue presents one important topic of some phase of personnel, and frequently a discussion by several authors.

In these publications appear reports of the successful use of various types of tests in industrial organizations. Such reports began in *Personnel* in the late twenties, but no such reports appeared in *Personnel Series* until a decade later. The first number of the *Personnel Series* to recommend psychological tests was Number 43, which was published in April, 1939.

The personnel division holds annual conferences for its members. At each of the recent conferences, there have been reports and discussions on the use of tests.

F. The American Association for Applied Psychology.—This association was organized in 1937 and during the first three years increased its membership to over 500. The membership is subdivided into four occupational classes: clinical section, consulting section, educational section, and industrial section.

The first publication of the association is *The Journal of Consulting Psychology*.

Most of the members of the association are interested in some phase of a testing program. At the 1940 annual meeting of this association (jointly with the meeting of the American Psychological Association) more than 40 papers were presented having to do with testing programs.

G. Occupational Research Program of the United States Social Security Board, Washington, D. C.—This program was begun in 1934 as one of the activities of the United States Employment Service and continued to be a function of this organization until July 1, 1939, when the United States Employment Service became the Employment Service Division of the Bureau of Employment Security of the Social Security Board.

The work has been guided by a technical Board that included among its members six persons nominated by the Social Science Research Council, eight persons nominated by the National Research Council, and approximately eleven members who represented, principally, various governmental agencies.

The fundamental philosophy behind the Occupational Research Program is that the essence of the employment service task is its individual nature. That is, there are individual differences among the people who are being considered as applicants, and also no two jobs are exactly alike. As a consequence, it becomes necessary to equip the service with tools that will enable it to discover the differences, both among people and jobs, in order to facilitate adequate matching. These tools include oral trade questions, proficiency tests, aptitude tests, and job descriptions.

The following publications have been developed by this organization:

1. *Job descriptions* for the following industries have been published, or are in preparation:

Automobile Manufacturing; Cleaning, Dyeing, and Pressing; Construction; Hotels and Restaurants; Job Foundries; Job Machine Shops; Laundry; Retail Trade; Lumber and Lumber Products Industries; Bakery Products Industry; Garment Manufacturing Industry; Confectionery Industry; Cotton Textile Industry; Personal Service Occupations; Domestic Service Occupations; Grain and Feed Milling Industry; Hat and Cap Manufacturing Industry; Knit Goods Industry; Office Occupations; Industrial Service and Maintenance Occupations; Boot and Shoe Manufacturing Industry; Leather Manufacturing Industry.

The above publications may, as published, be purchased from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C.

- 2 *Dictionary of Occupational Titles*, 1939, available as above.

This dictionary defines 17,452 separate jobs, known by 29,774 job titles, and gives occupational classification code numbers for each job.

3. *Occupational Counseling Techniques*. It provides the job title, alternate titles, duties and responsibilities, equipment and material used, relation to other jobs and specialized qualifications, and special information.

This volume by Stead, Shartle and Associates published by the American Book Company, New York City, 1940, presents the results of the studies that were conducted to understand better the work characteristics required

for occupations and to devise means of estimating or measuring these essential characteristics.

In addition to these publications, the program has carried on such cooperative activities as the following:

1. The Occupational Research Program has developed a most helpful cooperation with the various state employment services. At the Illinois State Employment Service in Chicago approximately 2,000 applicants are tested monthly. In this office, the tests are provided by the Occupational Research Program but are administered by the expert staff of the Illinois State Employment Service.

2. The Occupational Adjustment of Youth Program is a series of community research projects—begun in 1938—and carried out primarily through the agency of the American Youth Commission of the American Council on Education and supported by foundation funds. Accordingly, community center projects were established at Providence, Baltimore, St. Louis, and Dallas. In these and other centers, an occupational testing and analysis service was established as part of the activities of the Occupational Research Program. This program is carried on cooperatively with the State Employment Service.

3. The work of the Occupational Research Program is carried on not only in cooperation with the state employment services but also in closest cooperation with the Bureau of Unemployment Compensation.

H. The Personnel Research Federation, New York City.—The Personnel Research Federation is an association of industrial and commercial companies, trade and technical associations, research institutions, government establishments, social agencies, and individuals. Its chief objective is to aid in the cooperative solution of problems of personnel.

Services of the federation include:

1. Planning and conducting open or closed conferences of men and management.

2. Reporting on the experiences of companies on any subject connected with personnel.

3. Maintaining a staff at the federation for consultation, advice, reference, etc.

4. Publishing the *Personnel Journal*. Reports of the valuable use of tests in industry have been published in this journal every year since 1933.

I. The Psychological Corporation. This corporation was founded as a business organization and not as a membership society. It is a nonprofit organization and accepts no subsidies, but it does administer certain subsidies. Profits, if any, are used to promote research. Although incorporated in 1921, the corporation did not develop into a major institution till about 1933.

The officers and directors serve as such without pay. A regular salaried staff is retained at 522 Fifth Avenue, New York City, and at 310 South Michigan Avenue, Chicago. Recently the staff numbered 45 individuals of whom at least 20 would be recognized as skilled, applied psychologists. In addition to the full-time staff members, approximately 200 psychologists par-

to participate in various ways in the activities of the corporation. There are 21 officers and directors of the corporation, and 15 of them are starred in the *American Men of Science* as "distinguished" psychologists.

The Psychological Corporation has done much to develop testing programs that are scientific and practical by preparing, editing, publishing, and distributing books on tests, periodicals dealing with tests, and printed test forms and test materials.

Among the publications of the test division of the Corporation are:

1. *A Bibliography of Mental Tests and Rating Scales*, by Gertrude Hildreth, 1939. (Lists over 4,000 references.)
2. *An Index of Periodical Literature on Testing*, by Earl Bennett South, 1937.
3. *A Dictionary of Terms in Measurement and Guidance*, by Earl Bennett South, 1939.

Although the corporation does not assume full authority for publishing a periodical, it cooperates in the publishing of several—particularly the *Journal of Applied Psychology*.

In the catalogue of the test division, the corporation lists for sale more than 200 tests or batteries of tests. Only a small number of the tests offered for sale were constructed by the corporation. The total sales from this catalogue of the test division amount to two million copies of tests sold during 1940.

The corporation devises, publishes, sells, and administers tests of its own but also cooperates with others in every phase of testing programs. It applies scientific methods to the selection, training, and productivity of sales, office, and factory personnel.

At the headquarters in New York and at the branch in Chicago, consulting service and part-time service is provided by the staff on a fee basis. A *Report on the Activities of the Psychological Corporation* appeared in the April, 1941, issue of the *Journal of Applied Psychology*. The author was P. S. Achilles.

1. *Life Office Management Association, Hartford, Conn.*—This association at present consists of about 150 insurance companies in the United States and Canada as active members, and a dozen or more companies from foreign countries as associate members. The organization has done cooperative work on several personnel problems, among them that of tests for clerical workers.

In 1936, there was formed a standing committee to devise tests that might be used in the selection of clerical workers—"clerical" in this sense being used to designate nonselling groups. Through cooperative work, five tests have been devised and are in use by about half of the cooperating firms.

The first mental-alertness test, L.O.M.A. No. 1, a time-limit group test, was born of a long line of distinguished ancestors. Its immediate ancestor was Bureau Test VI, drawn up in 1919 by the Bureau of Personnel Research at Carnegie Institute of Technology. The immediate ancestor of Bureau Test VI was Army Alpha, which was devised by a group of distinguished psychologists in 1917 and administered to 1,700,000 soldiers and probably to as many more civilians. One of the ancestors of Army Alpha was the battery of tests devised in 1916 by the Bureau of Salesmanship Research, also at Carnegie

Institute of Technology, and given to applicants in 30 of the leading business organizations in America. The immediate ancestor of this Bureau of Salesmanship Research test was the battery of tests devised in 1915 and given to employees in about ten large business organizations. This earliest battery had as its natural ancestor the tests on individual differences that were devised by a score of psychologists between 1905 and 1915. This particular test, L.O.M.A. No. 1, was standardized by the Life Office Management Association, and measures, to a fair degree of accuracy, teachability, or promotability, of an office group.

The general character of these tests can be correctly inferred from a statement made by Dr. M. A. Bills which appeared in the May, 1939, issue of *Personnel* under the title "Present Trends in Selection for Employment:"

"The tests are in use in a fairly large percentage of the companies represented by the Life Office Management Association.

"Perhaps the work of this organization is chiefly noteworthy for representing a cooperative effort among a group of companies to work out from a scientific and critical viewpoint a set of tests useful to their own field."

K. Life Insurance Sales Research Bureau, Hartford, Conn.—The membership of the bureau consists of something over 100 life insurance companies in the United States and Canada. These companies represent over 85 per cent of the ordinary life insurance business done in the two countries.

In 1916, a few United States corporations, among them three or four life insurance companies, began in a small way to create a cooperative scientific research program for selecting salesmen. The organization was originally called the "Bureau of Salesmanship Research," and later its broader operations were implied in the change of its name to the "Bureau of Personnel Research." So interested were the life insurance companies in the research program that in 1922 an independent bureau was created whose sole purpose is to study the distribution problems in life insurance.

In 1932 the Life Insurance Sales Research Bureau began the creation of the Aptitude Index for selecting life insurance salesmen. The index is an eight-page leaflet. One page provides a rating chart for evaluating the personal history of the candidates. Six pages provide tests for determining the personality characteristics of the candidates. All parts of the index are scored by the use of stencils. The scoring is based entirely on factual information and on the applicant's answers to questions, but not at all on the opinion of the person scoring the blank. No estimates or guesses are called for in any part of the rating process. (See Fig. 23, page 102.)

Following an extensive period of successful experimentation, the Aptitude Index was made available to the member companies of the research bureau in December, 1938. Since that time, about 80 of these companies, including nearly all the larger companies, have begun to use it.

The firms using the index have found that it increases the accuracy with which the future success of new agents can be predicted. The probability of success is much higher for men with high ratings on the Aptitude Index than for those with low ratings.

The activities of the bureau are restricted to the sales department and to the salesmen of the companies. Some of the firms use general intelligence tests as supplementary to the Aptitude Index in selecting salesmen.

Rating charts and tests to determine personality characteristics are very important but are very difficult to devise, to administer, and to validate. Previous experiments to rate personal qualifications other than mental alertness and special abilities have frequently failed. Certainly such tests have not been generally regarded as dependable standard practice in the selection of salesmen. However, those who are in closest touch with the experiment of the Life Insurance Sales Research Bureau believe that this work is creating an epoch in selecting salesmen.

APPENDIX C

APPRENTICE AGREEMENT

THIS AGREEMENT, entered into this _____ day of _____, 194____, between
_____ hereinafter referred to as the EMPLOYER and

(Name of employer)

-born _____ (and if a minor),

(Name of apprentice)

-hereinafter referred to as APPRENTICE, and here-

(Name of parent or guardian)

inafter referred to as J B M I N .

WITNESSETH that the EMPLOYER, the APPRENTICE and his PARENT (or GUARDIAN) are desirous of entering into an agreement of apprenticeship in conformity with the standards of the _____ Committee on Apprentice Training; and therefore, in consideration of the premises and of the mutual covenants herein contained, they do hereby mutually covenant and agree as follows:

THAT the EMPLOYER agrees to employ the APPRENTICE for the purpose of enabling said APPRENTICE to learn and acquire the trade, craft or business of _____, upon the terms and conditions contained in the schedule marked "A" on the reverse side of this agreement and made a part hereof.

THAT the APPRENTICE agrees to perform diligently and faithfully the work of said trade, craft or business during the period of apprenticeship, complying with the training program contained in the said schedule.

THAT the PARENT (or GUARDIAN) covenants with the employer that the apprentice will duly perform all obligations undertaken herein.

THAT the apprenticeship term begins on the _____ day of _____, 194____, and terminates upon the completion by the apprentice of _____ (years or hours) of employment for said employer in said trade, craft or business, as stipulated in the said schedule.

THAT this agreement is subject to the approval of the State Committee on Apprentice Training; that after approval, annulment will be made by said Committee only upon the mutual consent of all parties to the agreement or by the said Committee upon its own motion after notice to the parties and opportunity to be heard. During the probationary period set out in Schedule "A" such annulment may be made by the Committee without the formality of such notice or hearing.

THAT in the event any disagreement or difference in relation to the agreement shall arise between the parties hereto, it shall be referred to the said

State Committee for arbitration and the decision of such Committee shall be final and conclusive upon the parties.

I N WITNESS WHEREOF the parties hereunto set their hands and seals:

_____(SEAL)_____(SEAL)

(Apprentice)

(Employer)

By _____(SEAL)

(Address)

(An officer of the firm)

.(SEAL)

(Parent or guardian)

(Address)

Approved by the State Committee on Apprentice Training by _____
on _____, 194

SCHEDULE A¹

1. Extent of the period of the apprenticeship and of the probationary period
2. Schedule of processes to be learned. 3. Outline of approved instruction
4. Compensation to be paid
5. Hours of work and hours of approved instruction
6. Special provisions

¹ Prepared and distributed by the Federal Committee on Apprentice Training.

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