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IMPROVING SUPERVISION

By FRANK CUSHMAN and ROBERT W. CUSHMAN

Improving Supervision

A Discussion of Human Relations Problems for Supervisors in Industrial and Business Organizations. 232 pages. 5 by 7½. Cloth.

By FRANK CUSHMAN

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FOR SUPERVISORS IN
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BY
FRANK CUSHMAN
AND
ROBERT W. CUSHMAN

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PREFACE

This book has been written for the purpose of making available to all supervisors, ideas which they can apply on their jobs, regardless of the nature of the industry or business in which they are employed. Special emphasis is placed on human relations problems. These are much the same everywhere. All the principles presented in the several chapters have been tested out sufficiently to justify the belief that they are fundamentally sound and that they will work well if given a chance.

In a very real sense, this book is a joint effort. It represents a blending of the results of two quite distinct types of experience in the same general field—that of improving supervision. On the one hand, the book reflects the viewpoint of a man who for many years has pioneered in the development of programs of education and training for foremen and supervisors in a wide variety of industries throughout the United States. On the other hand, the book also represents the judgment of a younger man who has had considerable experience conducting conference programs with supervisors in two U. S. Naval shipyards during World War II. In dealing on a conference basis with hundreds of different individuals from the several levels

of supervision, intensive continuing effort was called for. The program had to be put over then and there. No such thing as moving on to another plant where conditions might be more favorable was possible. Obviously, the viewpoint thus acquired is valuable when it is used to modify and supplement the judgment of one who has seldom worked with specific groups of supervisors in one place over an extended period of time.

The entire discussion is based upon the theory that supervisors on all levels are a part of management. Such being the case, the principal problem is how to assist them so that they can function more efficiently as such. The book should be valuable under any or all conditions where it is desired to improve supervision. If an organization has no training program for its supervisors, individual supervisors can read and study the book to advantage. It is also suitable for use in discussion groups. Most of all, however, the book should meet a longfelt need for good reading material for supervisors who enjoy the advantages of a program of supervisor conferences. It is believed that the various chapters can be used to best advantage as follow-up reading material after a conference has been held on a given topic. Under certain conditions, chapters can well be assigned for study in advance of conferences. In both of these situations the text material should serve effectively to supplement the work of skilled conference leaders.

Acknowledgment is made to Mr. Gustav Richard Stahl, Editor of *Supervision,* Supervision Publishing

Company, Inc., New York. Through his cooperation, numerous articles by Frank Cushman which have appeared in that magazine have been used as a basis for many of the chapters.

FRANK CUSHMAN
ROBERT W. CUSHMAN

Long Beach, California
December, 1947

FOREWORD

This book is built around a "boiled down" composite analysis of the responsibilities of foremen and supervisors in a wide variety of industrial and business organizations.

The first five chapters are a discussion of a basic philosophy of the whole problem of improving supervision. Chapter II, *Line and Staff Supervision,* deals with some of the problems which tend to develop in an organization as the need for staff specialists and functional supervisors increases because of advances in applied science and the complexity of modern industry and business.

Chapter VI, *Analyzing the Supervisory Job,* contains a sample list of fifteen typical responsibilities of supervisors. These are subsequently discussed and classified into seven principal groups: (1) stock, (2) tools and equipment, (3) operations and processes, (4) the working force, (5) information, (6) instruction and training, and (7) cooperation in management. Throughout the several chapters of the book, principal attention is given to matters associated with human relationships. Because of this, most of the discussion centers around the working force, instruction and training, and cooperation in management, with lesser

emphasis on some of the other classifications such as information, which is discussed in Chapter XII, *Written Orders and Information.*

The authors believe that there is ample justification for thus limiting the scope of the book. The principal reason is that the supervisor's job, as far as dealing with problems of human engineering is concerned, is essentially the same everywhere. The nature of the industry or business seems to make little or no difference in matters that relate to dealing with people. Human nature is much the same wherever people are employed.

From the preceding it would appear that but little attention is given in this book to the first three classifications previously mentioned, i.e., stock, tools and equipment, and operations and processes. It is therefore deemed appropriate to discuss briefly the reasons for this apparent omission.

A supervisor's responsibilities for stock vary widely and are dependent upon the nature of the work of the organization with which he is connected. Because of this, it would be impractical in a book such as this to present a detailed discussion of the supervisor's general responsibilities for stock. Some of the principles which relate to this field are, however, referred to in connection with such subjects as waste control and supervisory job planning. Another reason for the limited attention which is given here to this group of responsibilities is the fact that supervisors generally are probably better informed concerning such matters than they are regarding some other parts of their jobs.

Tools and equipment constitute another classification which is touched upon rather lightly for reasons similar to those mentioned regarding stock. Aside from pointing out that all supervisors *have* responsibilities for the care and proper use of tools and equipment, there is little of specific value that can be said in *general* terms about such responsibilities. Each plant has its own problems about handling stock. They can be dealt with most profitably in *specific* terms in each case, as a phase of programs for the improvement of supervision.

Operations and processes are constantly changing. Furthermore, items that would appear under this classification in an analysis would relate principally to the technical information which a supervisor in a specific industry or business should have. Because of this, general statements which might be included in a book such as this would have a limited value. Substantive material dealing with operations and processes should therefore be developed specifically for each plant or establishment where programs for the improvement of supervision are in operation. To illustrate the need for *specific* treatment of a supervisor's responsibilities with regard to operations and processes, and the nature of the technical information he would need, it should be sufficient merely to mention such industries as meat packing, Portland cement manufacturing, oil refining, paper making, and aircraft engine manufacturing.

Generally speaking, the fact that foremen and line supervisors are mostly promoted from the working

force constitutes presumptive evidence that they are quite well informed with respect to operations and processes which are carried on in the industry in which they are employed. Moreover, the dissemination of technical information is usually handled much more efficiently in most instances than are ideas regarding less tangible phases of the supervisor's job. The making available of new technical information regarding operations and processes is, of course, an important phase of the whole job of improving supervision. However, this phase is quite distinct from the subjects discussed in detail in this book.

The best results from any supervisor conference program are undoubtedly realized when all of the several phases of the supervisor's job are dealt with analytically through the consideration and discussion of actual cases. In this connection, real problems which, figuratively speaking, *are staring the supervisor in the face,* are of maximum value. Experienced conference leaders know the difficulties involved in conducting such conferences. One of these difficulties relates to the organization of supervisors' ideas concerning human relationships. It is believed, therefore, that appropriate chapters of this book will meet a very real need for follow-up reading material for supervisors. Following a great deal of hard thinking in connection with analyzing their jobs, such supplementary reading should help them to synthesize their ideas and thereby make what they know more usable to them.

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CHAPTER I

INDUSTRY'S UNNAMED CYCLE

A great deal has been written about business cycles in which periods of prosperity alternate with periods of depression. Cycles or recurrences of conditions after specific or indefinite intervals of time can easily be recognized in many fields. For example, one can readily recognize the yearly cycle of the earth in its orbit around the sun and the monthly phases of the moon. The recurrence of pay day and the appropriate dates for paying the monthly gas bill are other examples of cycles.

Cycle Affects Supervisors

This discussion is merely preliminary to pointing out that there is a more or less clearly defined cycle which often affects the jobs of supervisors, especially those employed in the larger industries. This cycle has not received a great deal of attention, and, so far as is generally known, it has no recognized name. It might perhaps be called the "lousy" cycle, as many organizations that have experienced its different phases have definitely gone through an experience which corresponds to the process of (1) getting "loused up" and (2) getting "deloused." This is how it usually

works: In an originally small shop, where the owner is his own foreman and works manager, the growth of the business makes it necessary, after a while, to designate a selected workman as foreman.

The Foreman's Duties

As the organization is still small, this foreman hires and fires, keeps track of jobs, functions as his own time clerk, does the necessary planning, passes on the quality of work turned out, originates orders for stock and supplies, determines work assignments and procedures, keeps the equipment in satisfactory condition, and sees to it that jobs are properly completed on time. He breaks in new employees and takes a personal interest in his men. He does these and innumerable other things necessary to get the work out and at the same time keep costs down. As the industry grows, the plant is organized into departments, each with a foreman in charge with possibly assistant foremen to help out. By this time the original owner is general manager and the organization usually has more than one owner. It has become a company. However, it has not yet become "loused up."

Subtraction of Duties Begins

At some point, management decides that the old-fashioned plan of permitting foremen to do their own hiring and firing is not so good, so the subtraction of this function from the foreman's job and the establishment of an employment office with an employment manager in charge are logical steps. Thus begins the

functionalization cycle. Little by little, matters for which the foreman had been held responsible are taken away from him and turned over to someone else. Eventually, conditions develop to the point where practically all of the responsibilities that had previously been assumed by the foreman have been taken over as *staff* functions. Curiously enough, however, even in the extreme situation, we still find a person on the job who is known as the foreman or supervisor. Why? If his job has evaporated, why is he still there?

The Foreman Still Has a Job

Some years ago this question was put to a plant executive. His reply was, "We couldn't run this place without him." When asked "What does the foreman do?" the executive replied, "Damned if I know, but he keeps things going." Here, the functional or "lousy" cycle had apparently reached its peak! Every phase of the foreman's job that could conceivably be assigned to a staff activity had been taken away. For example, the foremen in the manufacturing shops were not even responsible for the quality of the stuff turned out. It was some functional inspector's job to see to it that production standards were maintained and that excessive scrap was not produced—and so on down the line. The shops fairly swarmed with stock clerks, inspectors, checkers, tool engineers, speed bosses, set-up men, time study men, safety inspectors, maintenance crews, stock chasers, and others. Nevertheless, each department had its foreman! One of them admitted that he had *seventeen bosses* telling him what

to do! As he expressed it, "My job's all loused up and there's too damn much insect authority around here."

Caught on a Seesaw

Although this situation is extreme, many supervisors will recognize that the tendency toward overfunctionalization of the supervisory job involves practical disadvantages as well as theoretical gains in efficiency. Thus it would seem that seesawing back and forth between too much and too little functional staff supervision is a subject worthy of more careful study than it sometimes receives.

A short time after the incident mentioned, orders in that particular plant fell off badly. Management then decided that the overhead was excessive—there was too much non-productive labor. Soon thereafter practically the whole functional set-up went overboard. This was the "delousing" phase. Thus, many of the supervisory responsibilities that had been taken away from the foremen were restored to them. Only a few staff functions such as the employment office survived. Later on, however, the cycle began all over again!

Foremen Maintained Morale

At the point of maximum functionalization, what the foremen mostly did was to maintain morale. They kept the organization from going "sour." This, as all experienced supervisors know, is no small job. Furthermore, it is a job which cannot successfully be

accomplished by remote control, as, for example, by a personnel expert. Although it is true that enlightened company policies and the efficient handling of routine personnel matters can contribute much to plant morale, the fact remains that it is the supervisors on the job who make management's policies work. It is through the supervisors that such policies are interpreted and their application is made effective. The degree to which constructive outcomes are realized depends, more than is sometimes appreciated, upon the skill, good judgment and understanding of the line supervisors who, as representatives of management, stand next to the workers on the job.

Tendency Toward Functional Supervision

We have sketched here the course of functionalization and defunctionalization. Many organizations do not experience the extreme phases, but there is, nevertheless, a tendency for functional supervision to grow until an organization becomes top heavy. Such growth is generally associated with periods of rapid expansion. Later, the need for simplification and economy of operation usually causes it to be cut down.

It is quite probable that the difficulty experienced by management in securing a sufficient number of really competent foremen to handle the supervisory job during boom periods is one of the reasons for breaking down the job into parts and distributing the parts among various and sundry specialized functionaries. This distribution of supervisory functions re-

sults in what is sometimes called "multiple effect" supervision.*

Competency of Supervisors an Important Factor

Although it is management's responsibility to decide at any given time the degree to which the supervisory job should be specialized and subdivided, the decision is likely to be influenced by the competency of the available supervisors. It follows, therefore, that in order really to fill his job and thereby to reduce the probability of having part of it taken away from him, the supervisor should take advantage of every opportunity to improve his ability and add to his knowledge of his job. In proportion as he continues to *grow* in his job, he makes himself more valuable to his employer, derives more satisfaction from his work, and is happier on his job.

Human Engineering Lags Behind

The transformation of American industry brought about by the great advances made in recent years in science and technology has virtually created a new world in which human beings work. At the same time, human nature has changed but little, if at all, in many thousands of years. In the new setting, the employer tends ever to become more impersonal, and the employee also tends more and more to become an impersonal unit of the working force. Under these condi-

* See *Foremanship and Supervision*, Chapter XVI, second edition, 1938, John Wiley & Sons, New York.

tions, how are the deep-seated desires * of human beings for such fundamentally important things as *security, recognition, self-expression,* and *new experiences* to be satisfied so that the people who do the work will be reasonably happy in their jobs?

The answer to this question is not simple, and some suggestions as to how progress can be made are discussed in subsequent chapters of this book.

Some Functional Supervision Essential

In view of the developments previously mentioned, it is probably too much to expect that line supervisors will be so well informed in all the principal fields related to their work that specialized functional supervisors will not be needed at all. With the growing complexity of present-day industry and the ever-increasing applications of science in practically every field of endeavor, it is entirely logical for certain responsibilities of supervision to be assigned to staff specialists. Even so, however, good organization requires that such specialists discharge their responsibilities without breaking down or interfering with the proper relationship of the line supervisor to the employees for whose work he is responsible. After all, it is the line supervisor who most directly represents management to the working force.

In subsequent chapters of this book specific suggestions are made as to how supervisors can further de-

* For a discussion of these four fundamental human desires, the reader is referred to pages 193–197 of *Training Procedure,* John Wiley & Sons, New York, 1940.

velop their ability to apply, in their day by day contacts with employees, some of the more important principles of good supervision. To deal with human beings constructively and to exercise real leadership are two of the most vital needs of management. And, to a degree greater than is often realized, management must depend upon its supervisors and foremen for the performance of these functions.

CHAPTER II

LINE AND STAFF SUPERVISION

Supervision is a broad term. It may relate not only to the work of foremen and supervisors who direct the efforts of workers on the job, but also to many activities of executives on all levels of management, clear to the top. For the purposes of this chapter, however, such a broad interpretation is not desirable. It might tend to obscure some of the important points which should be clearly recognized. The authors believe that full realization and understanding of the ideas and principles brought out in this chapter are absolutely essential in connection with planning, organizing, and operating any program the purpose of which is to improve supervision. The discussion therefore is based upon the assumption that the term *supervision,* as here applied, refers to the work of (1) *line* supervisors whose jobs are close to the working force and who are immediately responsible for production or operation, and (2) *staff* or *functional* supervisors who furnish technical or other special services to supplement the work of line supervisors and thereby facilitate production or operation. The ideas discussed, however, apply to both line and staff supervision on many of the higher levels. On all levels the results secured depend upon

the degree to which all parties concerned know their jobs and work together cooperatively.

It should be pointed out that no attempt is made in this chapter to present information regarding different kinds of organization, such as line, functional, and combination types. Such information is readily available in numerous books on management. For the purpose, therefore, of bringing out points which appear to be important in connection with suggestions for the improvement of supervision, the word *organization* as used here means a typical line and staff set-up. This is the type of organization which is most common.

Two Kinds of Supervisors

From the preceding paragraphs it is apparent that there are two principal kinds or types of supervisors in business and industrial organizations.

1. Line supervisors—those who have executive responsibility and authority within their departments for production or operation, and for the direction and control of the working force. Line supervisors are an integral part of executive management.
2. Staff or functional supervisors—those who have special technical knowledge, skill, or ability in some particular field. They are not directly responsible for production or operation, but, within their special fields, they contribute thereto.

Especially in large organizations, staff specialists or functional supervisors are necessary because it is very seldom that an individual in the position of line super-

visor can be expert in all of the special fields that directly relate to the work for which he is responsible. Recognition of this fact prompted the late Dr. F. W. Taylor to advocate, more than forty years ago, the functionalization of shop management. A line supervisor should have an appreciative understanding of the several fields of knowledge which relate to his work, in addition to possessing expert "doing ability" so far as performing his duties and discharging his direct responsibilities are concerned. This understanding is necessary in order that he may work cooperatively with functional supervisors and use to full advantage the services which may be rendered by staff specialists. On the other hand, staff specialists and functional supervisors should always keep in mind that they are primarily either advisors or specialists and that they should not "mess around" in the jobs of line supervisors. Neither should they assume line authority over production workers.

Some Causes of Friction in an Organization

Many of the difficulties which arise in connection with functional supervision are due to causes or conditions such as the following.

1. Supervisors, both line and staff, may not clearly understand the nature and scope of their responsibilities. Therefore, confusion tends to develop and workers begin to think they have several bosses.

2. Line supervisors resent interference in their jobs. To have staff specialists who are not respon-

sible for production or operation assume direct authority over their subordinates is usually regarded by them as interference.

3. Resentment and shortsightedness on the part of some line supervisors often tends to cause them to neutralize and make ineffective the valuable contributions which staff specialists or functional supervisors can make to production or operation.

4. Most staff specialists are well qualified in their own technical fields. However, as many of them have never analyzed their jobs, they frequently do not have a clear understanding of their place and function in the organization. This tends to inhibit real cooperation.

5. It is a natural tendency for people to seek power over other individuals and groups. If a staff specialist has a dynamic personality, he may tend to overawe and confuse a line supervisor. Eventually he may even crowd him out of his job.

6. Many staff specialists have had engineering or technical school training as contrasted with the practical training that most line supervisors have secured by coming up from the working force. When staff specialists indicate by their manner and conduct that they feel superior to line supervisors who have reached their jobs by working up from the bottom, conditions are not favorable for good cooperation.

7. Failure to recognize fundamental differences between the job of a line supervisor and the job of a staff or functional supervisor is a prominent cause

of difficulty. Technical experts, except in certain specialized fields such as personnel management and training, are concerned principally with material things and ideas relating to inanimate things. Line supervisors are concerned very largely with matters which relate chiefly to dealing with *people.* Although they necessarily have definite responsibilities for stock, tools and equipment, and operations and processes, their big job is to lead and supervise a working force of men. They have to keep the human organization functioning.

Types of Functional Supervision

In a small organization there is limited need for staff specialists or functional supervisors. Many times line supervisors "double in brass." They perform staff functions that would, in larger organizations, be taken care of by specialists. As an organization grows, it frequently becomes expedient to add specialists and hold them responsible for certain phases of the work. The employment manager was, historically, one of the first functional supervisors to appear in the picture, as Chapter I of this book points out.

Functional supervision may develop in at least two principal forms within an organization. First, in periods of rapid and extensive expansion, the line supervisor may, for example, become "bogged down" because of the large number of new employees to be broken in on the job. Thus one of his responsibilities—that of training new employees—is made a delegated duty of a functional supervisor, the training man. The line

supervisor, however, still is *responsible* for the training. Later on when the period of expansion ends, the training man, who was in fact a functional supervisor, is no longer needed. The *function* of training men on the job does not end. It continues. It is the job of the functional supervisor—the training man—which is reabsorbed into the job of the line supervisor. It is the *individual,* not the function which he performed, that disappears. Thus it is that there is an ebb and flow to this kind of functional supervision.

Many industrial and business organizations have found it to be highly advantageous to maintain a functional supervisor of training for the organization as a whole, even though much of the actual training is decentralized under line supervisors. In such a situation the training supervisor or director functions as a *service man* to the line executives. At any given time it is the responsibility of management on the higher levels to see to it that functional supervisors of the kind that take over part of the line supervisor's job are not too numerous. In each situation it is a specific managerial problem which has to be solved. The guiding principle is to get the desired results at the least cost.

The development of functional supervision also occurs in another form. In manufacturing organizations the operations and processes that are carried on are often very complex. Special technical knowledge is called for frequently in order that operations may go forward and result in a product that meets the requirements in all respects. For example, in a glass works,

the efforts of the production foremen have to be supplemented by the technical knowledge of engineers and chemists. What the latter know about how to proceed, in order to turn out glass objects that will meet certain specific requirements, really supplements what the production foreman—a practical glass worker—knows about how to handle the mix and direct his men in actually making the objects or articles. The chemists and engineers do not direct the work of the men, they supply the information that the foreman must have in order to turn out the work. Also these specialists, who in effect are functional supervisors, apply their special technical knowledge and skill in devising or applying appropriate technical controls so that the production foreman will have the benefit of these aids in connection with the work for which he is responsible. Although functional supervisors and specialists have a great deal to contribute to the successful performance of technological operations, the fact should not be lost sight of that the production foreman is the man who has the direct responsibility for getting the work done.

Staff specialists or functional supervisors contribute to the successful operation of an organization in extremely important ways. The value of their participation is, however, heavily discounted when they begin to "mess around" in fields of responsibility other than their own. Intelligent cooperation on the part of *both* line and staff supervisors is the *key* idea. Cooperation is always important wherever men work together. It is *essential* where any functional supervision prevails.

To a considerable extent, functional supervisors such as technical specialists, engineers, and chemists come from technical and engineering schools. Because of this they are quite well fitted to perform their technical duties. For the most part, however, they are not so well equipped to function properly in dealing with people. Especially those of lesser experience tend to interfere with the authority and prerogatives of line supervisors and foremen. In general, staff men such as technical specialists should limit their participation to their own special fields. They overstep the scope of their jobs not because of any intent to cause trouble but because they have never had the scope of their jobs and the nature of their responsibilities made clear to them by management on higher levels. Like line supervisors, every functional supervisor should *analyze his job*. He should have a clear idea of just what his duties and his responsibilities are. Moreover, he should clearly understand his place in the organization, and his relationship to others, especially line supervisors with whom he comes in contact, and he should develop the ability to work harmoniously and cooperatively with others.

It is quite probable that this ability can best be developed and extended by having functional supervisors participate in conferences of line supervisors, especially when problems directly related to their staff functions are being considered. For example, when problems relating to safety and accident prevention are under discussion, the safety supervisor should participate. When problems of maintaining quality of production

are considered, the inspectors should participate. When problems of labor turnover are up for discussion, the employment supervisor should be present. The need for effective cooperation between such functional supervisors and the line organization and vice versa is so great that anything that can be done toward the promotion of mutual understanding and interest in the whole job of the organization should yield big dividends in terms of better cooperation and team work.

Summary

For the most part it appears that functional supervisors and staff specialists should serve principally as advisors and service men with respect to the line organization. Such service, when well performed, is invaluable and is highly regarded by line supervisors. It is when technical specialists get busy *outside* of their proper fields that trouble and confusion start to develop. Most line supervisors naturally resent interference but welcome real cooperation. How to proceed so that cooperation and not interference will be characteristic of joint effort is one of the basic problems of supervision.

As is pointed out elsewhere in this book, the solid vertical lines on an organization chart denote authority from the top downward and accountability in the reverse direction. Along these lines, cooperation must work both ways if the best results are to follow. Staff agencies or functions are usually connected with levels of line authority (mostly near the top) by solid lines. These lines mean authority and accountability as does

the main stem—the line organization. Dotted lines usually indicate cooperative relationships at different levels somewhat lower down. Where real cooperation prevails in an organization, however, such dotted lines merely suggest a condition which should prevail. In an ideal situation line supervisors cooperate with one another and with staff specialists in the interest of the job as a whole, and staff supervisors cooperate with one another and with line supervisors throughout the organization. They cooperate not because they have to in order to hold their jobs but because they want to. To create such a condition is a problem of management, the importance of which cannot be overemphasized.

CHAPTER III

THE SUPERVISOR'S PLACE IN MANAGEMENT

It is common practice nowadays to refer to foremen and supervisors as a *part* of management. Such a statement sounds all right, but is it anything more than a euphonious verbalism? What does it mean? If the supervisor is actually a part of management, what does he do about it? How does he actually function as such?

Distinction Between Supervision and Management

While many fine distinctions have been made between supervision and management, the two functions are so interrelated that it does not appear to be worth while to enter into an academic discussion regarding such differences as may exist. Briefly stated, the word supervisor, by derivation and by common usage, means a person who oversees. In a narrow sense therefore the supervisor may properly be regarded as an overseer, a person who keeps track of what is going on, on the job. It is the supervisor who sees to it that the work is done—that production is maintained.

The word management is definitely associated with the conducting of business affairs with economy. It implies control of the cost of getting work done. It

means the application of sound business principles to the operation of an enterprise. To the extent therefore that a supervisor cooperates with management by having the work for which he is responsible performed economically and with minimum waste of material and labor, he functions as a manager in his own field.

In view of this basic distinction between supervision and management, it is easy to understand why supervision has been more definitely associated with the work of the foreman who gets the job done, while the term management has come to mean more and more the general administration and control of a business, the determination of costs, and the keeping of accounts. In normal times the two phases of any supervisor's job—supervision and management—are so closely associated that it is unprofitable to attempt to separate them. However, under the abnormal conditions which prevailed during the recent war the managerial function of reckoning costs became relatively unimportant to the foreman as compared with the supervisory or overseeing function of getting out quantity production in the shortest possible time.

War Production Conditions Abnormal

During World War II it often happened in the course of a supervisor training program that when the conference leader attempted to bring out the fact that foremen and supervisors have important managerial functions to perform, eyebrows were lifted and someone in the group would mumble "Oh yeah?" The attitude of mind thus reflected was undoubtedly due to the pres-

sures and tensions which naturally developed under abnormal war-time conditions. Plant facilities were greatly expanded; new supervisors had to be made overnight with little or no time for training them; thousands of workers, many of them unskilled, had to be hired and trained for their jobs as war workers; management was constantly harassed by the ever-increasing flow of government regulations and the paper work required to comply with them; priorities had to be obtained for practically everything needed to keep the plant in operation; and tomorrow's job was usually supposed to have been completed yesterday. It is no wonder then that many problems had to be handled by top management in a more or less arbitrary manner, leaving the supervisors pretty much in the dark as to why this or that or the other thing was or was not done. The insulation between the several levels of management became even more impermeable than before. As a natural result, many supervisors developed the attitude that they were just "errand boys" without any real authority or any recognizable status as a part of management. Their main job was to follow orders and turn out the work! It is a very simple thing to tell supervisors who have been through such experiences that they are identified with the management of the concern that employs them. It is quite another thing to help them to see how they can function as representatives of management *within their own fields of responsibility* and to provide conditions under which they will be able to function in this relationship.

Costs Must Be Watched Now

Now that industry has changed over to peace-time operation, the importance of producing the things that are needed for civilian consumption, both in this country and in the world market, is clearly apparent. The innumerable articles that society needs must be turned out in great quantities. Quality must be maintained in order that demand may continue under competitive conditions. For each and every article made, however, the *cost* of producing it becomes increasingly important. To keep costs down, waste must be eliminated. *The control of costs is the essence of management.* To the extent that foremen and supervisors contribute to cost control in the areas for which they have responsibilities, they *are* management.

Progress in Preventing Waste

Remarkable progress has been made in the prevention of waste so far as most of the factors entering into production are concerned. Chemists and engineers have learned how to use innumerable materials which, a few years ago, were thrown away to clutter up the ground, foul up the waters of streams, and pollute the air. One example of this is the recovery of valuable substances from the waste fumes of a large smelter. These substances were formerly allowed to poison the air for miles around. When it rained, vegetation was killed and the surrounding area was blighted. The value of the dust recovered from these waste fumes was more than sufficient to justify the cost of recovery.

The particles of arsenic and other poisonous substances were collected by a network of highly charged electric wires and plates located in the stack. This abatement of a public nuisance proved to be a good investment. In other words, it was an example of good management.

Has corresponding progress been made in preventing waste of manpower? Does not wastage of manpower, because of poorly conceived plans and clumsily operated facilities for dealing with human engineering problems, tend to *poison* the whole field of employer-employee relations? Is it not conceivable that supervisors, as an important part of management, can become so *charged* with a sound philosophy, together with practical and workable ideas about dealing with people and also the ability to apply them, that relationships between employers and employees will show an upward trend? When individual employees are dealt with by their supervisors on all levels, intelligently, understandingly, and justly, will not the over-all situation be favorably affected? Is there any other means of dealing with human relations in industry and business that is more fundamental, or that offers more promise, than to work toward better mutual understanding and more justice on the job day by day? So far as is known, these aims can be attained only through skilled and intelligent supervision backed up by enlightened management on the higher levels. Surely they cannot be secured by an act of Congress, any more than Congress can take the squirt out of grapefruit by enacting a law ordering it stopped.

The Five M's

Productive industry has been described as consisting of five principal elements, i.e., materials, manufacturing methods, machinery, men, and management. Although there may be some danger of over-simplification in this grand generalization, it seems worth while to point out that the progress that has been made in the improvement of the first three of these factors far exceeds (1) the ethical growth of the human beings involved, and (2) the wisdom displayed in dealing with *people.* It is probably no exaggeration to state that the wise and efficient utilization of manpower, together with the management of human relationships in industry, is now the field in which real progress *must* be made as we move forward in this period of great peacetime industrial and business expansion. Improvements in materials, manufacturing methods, and machinery have left human engineering far behind. In this field, foremen and supervisors are key men. To the workers they represent management. In practice they *are* management.

The Foreman as a Manager

If it may be assumed that the foreman's responsibilities as a manager are concerned with all of the things that affect the cost of getting out a product, it becomes clear that there is a large field for profitable activity in studying the foreman's job from the standpoint of cost control. The cost of running a business establishment of any kind is the sum total of the costs of operating

and maintaining all of the several departments into which the organization is subdivided. Each subdivision is under the immediate control of a foreman or supervisor. It therefore follows that if the cost of running *each department* or *subdivision* is well managed by the supervisor in charge of it, the entire business will be well managed and production costs will be effectively controlled. Among the more apparent things that affect the cost of operation and are wholly or in part under the control of supervisors are accident prevention, labor turnover, waste of manpower due to having employees working on jobs for which they are not well fitted, waste due to poor or inefficient training of employees, excessive scrap, dissatisfaction, loafing, carelessness, waste of material and supplies, absenteeism, tardiness, and failure to meet production schedules.

Importance of High Grade Supervision

It is of course true that all of the things that contribute to the cost of operation cannot be wholly controlled by first-line supervisors. It is also true however that there is a great deal that supervisors on all levels *can* do. Experience has demonstrated that the efficient operation of any organization depends largely upon the quality of the supervision that obtains. It is when the line supervisors are in full control of their jobs that things run smoothly. Whereas much progress has been made in the control of both quality and quantity of materials and production by means of intricate mechanical and electronic devices, no auto-

matic contrivance for managing groups of men has yet been invented. Furthermore, neither centralized control of portions of the supervisor's job nor functional supervision has wholly solved the problem. The only answer that has thus far been found is to develop further the *art of supervision* in human beings. Supervisors must therefore continue for a good many years to function in their field of responsibility as an important and probably indispensable part of management.

CHAPTER IV

THE SUPERVISOR'S JOB

If it is true (1) that the responsibilities of foremen and supervisors can be discharged with varying degrees of efficiency, (2) that the costs of production or operation are affected favorably or otherwise by such variations in efficiency, and (3) that no other group can discharge the responsibilities of foremen and supervisors as well as they themselves can, if indeed certain responsibilities of supervision can be otherwise discharged at all, it logically follows that effort directed toward improvement in the performance of the supervisory function will pay either directly or indirectly, in terms of lower production or operating costs.

Supervision at Minimum Cost

The first two of the above premises are axiomatic. The third, however, is far from being universally accepted as true. Because of this fact, foremen and supervisors have, from time to time, been relieved of some of their responsibilities, especially those which some management expert believed could be better taken care of by someone other than the foreman or supervisor. Practically every possibility has been ex-

plored and endless experimentation has been carried on in subdividing the supervisory job. This is commonly known as *streamlining* the organization. Almost without exception these efforts have been directed toward finding some new means whereby the function of supervision could be performed at minimum cost.

An alternative plan, which is really based upon the acceptance of the third premise, is to concentrate principal effort upon the improvement of supervision by means of education and training for foremen and supervisors. Here the theory is that most supervisors will do some growing on their jobs when conditions are favorable. The performance of their functions, which admittedly can be carried out with varying degrees of efficiency, will therefore progressively improve. This improvement should result in smoother operation of the organization and in reduced costs.

Essential Responsibilities

Experience up to the present time indicates very strongly that the latter plan is the better of the two. However, the best results are secured when a program for improving supervision is based upon a good analysis and critical evaluation of every phase of the supervisory function. This should indicate those responsibilities which nobody but the line foreman or supervisor can discharge, as contrasted with supervisory responsibilities which may, under certain conditions, be advantageously taken over by *functional* supervisors.

The supervisory responsibilities which a foreman or line supervisor *must* discharge himself and which no one else can discharge for him are *de facto* and not *de jure*. Although it may be *theoretically* possible to break down the supervisory job into parts and have planning experts provide for the coverage of *all* of the foreman's responsibilities and functions, the theory does not work out well in practice. The question naturally follows then, *Why is this so?* An attempt is made to answer this question, at least in part, by considering the managerial functions of line supervisors from three standpoints (1) production or operation, (2) human relations, and (3) management as a whole.

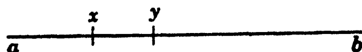
All Situations Cannot Be Anticipated

In many lines of effort scientific and technical control of operations and processes has reached a point where practically every variable has been identified, evaluated, and provided for. Engineers have devised formulas, procedures, and intricate devices for keeping operations under full control. In spite of all this, however, the control formula or plan is necessarily expressed in *general* terms. In operating under such a plan, innumerable situations develop which cannot be accurately anticipated. These must be dealt with by the supervisor in immediate charge of the operation. Such a condition is illustrated by the job of a train dispatcher. He has his train schedules from which the theoretical position of any train on the system can be ascertained. The correct speeds for different sections of the track have been determined in advance with

reference to all the important elements such as grades, curves, weight of steel, and condition of the roadbed. Nevertheless, in doing the job of getting a train over the road under varying conditions of weather, with automobiles trying to beat the train at grade crossings, livestock getting onto the right of way, and other contingencies, problems not included in the general plans of the train dispatcher must be faced by the engineer. If the dispatcher could forsee *all* the detailed problems to be encountered, there would be no need for having an engineer of long experience and mature judgment in the cab.

Importance of Supervisor's Participation

In the accompanying sketch the line *ab* is intended to represent the whole plan for the control of production or operation of a unit of a working organization.



Everything necessary for the successful and complete control of the work is supposed to be included in this plan. In actual practice, however, it is necessary to visualize a segment or section of this line, namely *xy*, to represent the controls which, though essential, cannot be foreseen. To the extent that complete technical control by engineering methods and devices is realized, *xy* will be small. Also, to the extent that conditions develop which were not reckoned with when the planning was done, segment *xy* will be larger. It is within the limits of the segment *xy* that the foreman or line

supervisor discharges those responsibilities connected with production or operation which no one else can take care of. If and when the segment xy can be made to disappear, foremen will not be needed. The idea that it can be eliminated parallels the idea of a *completely* automatic machine. If such a machine has been invented, the fact is not yet a matter of common knowledge. The variable section xy will of course differ in magnitude as between industries and businesses, but there is probably some xy wherever foremen and supervisors are employed. If xy disappears from the picture the supervisor's job has evaporated!

How the Supervisor Participates

To illustrate the xy section further from the standpoint of production or operation, the job of "pouring off" in a typical iron foundry may be considered. Under technical control, every detail of charging the cupola is provided for in order that the castings produced may have pre-determined characteristics. The temperature of the molten iron can be determined accurately before the cupola is tapped. However it is probable that a variety of molds will be poured. Some of the castings may be thin and light, similar to a waffle iron. These must be poured quickly with what foundrymen call "sharp" (very hot) iron. Other molds for castings of heavier cross section may well be poured more slowly with iron that is approaching dullness. Now, the iron starts to cool just as soon as it is tapped from the cupola. It cools down more in the ladles and it takes time to pour off a lot of molds. The deter-

mination of the details of procedure necessary to secure the greatest number of good castings from any given "heat" of iron is a problem for the foundry foreman. It is a part of the *xy* segment so far as the management of the foundry is concerned. So far as is known, no one has ever made the *xy* segment of the line *ab* shrink much toward the vanishing point in connection with operating an ordinary iron or steel foundry. In fact the persistence of the *xy* segment appears to be inescapable, at least at the present stage of industrial development.

Two Types of Problems

In general, foremen and supervisors have to deal with production processes on the one hand and with men on the other. Thus it is that the segment *xy* may be regarded as including *two* types of problems. Certain production problems that belong in this segment have already been mentioned. Other problems of the human relations type will now be discussed.

Referring back to the sketch, the line *ab* may be regarded further as including all the plans, procedures, and formulas for dealing with the human relations problems of employees. These plans are necessarily expressed in general terms. No formula has yet been worked out by which human behavior in specific situations can be accurately predicted. Individuals are all different and there are wide variations in attitudes, emotions, and mental traits. It is true that certain general formulas can be used as guides. For example, a general guide for promoting morale is that deserved

praise is better than undeserved criticism. Another generalization is that all men prefer a square deal to a crooked deal.

Human Relations Problems Are Specific

Human relations problems do not come up before supervisors in any *general* form. They are always specific cases, such as a collision of ideas between an employee and his supervisor, or a "crack down" on an employee by a foreman or supervisor who has reached the limit of his patience and resources.

Theoretically, all such problems can be adjusted and "oiled up" by a functional agency such as the personnel department. Practically, all a personnel specialist can do is to function in a manner similar to that of a doctor who patches the victim up after an accident. He was not present when the accident occurred.

How the Supervisor Functions Here

To illustrate further, dissatisfaction probably causes more turnover than any other factor that has been identified. Dissatisfaction is a state of mind, which may develop in an individual more or less independent of the actual apparent facts. Thus an employee might become dissatisfied and thereby discount his value as a worker several weeks before a personnel specialist would know anything about it. He might find out about it through an exit interview. The first-line supervisor, however, is in a position to know the situation. Hence, if he functions properly on his job, most cases of dissatisfaction are recognized and dealt with

by him directly. The personnel specialist may never hear anything about them. Thus the supervisor functions in his *xy* segment in dealing with human relations problems.

In this connection it should be pointed out that for certain types of personnel problems, such as cases of dissatisfaction where the employee feels that he is being dealt with unjustly by his immediate supervisor, there is an important managerial function which might well be performed by a personnel specialist or a functional supervisor, if the difficulty cannot be adjusted without help from outside the immediate line organization. This sort of situation illustrates the importance of making a thoroughgoing analysis of the supervisory function in order to determine what definitely *belongs* to the *xy* segment of the line *ab*, and what should be assigned to a functional staff agency.

It is probably true that the *xy* segment of the line is proportionately greater with respect to the handling of human relations than it is with reference to production problems. Although psychologists know in a general way how the human mind works under many different conditions, there is no one who knows how Smith's mind would work in Jones's situation. Therefore, obviously, all of the situations that develop in dealing with employees cannot be anticipated.

Within the segment *xy* it is the foreman or supervisor who, by the exercise of judgment based upon his knowledge, experience, and native intelligence, must deal with situations that cannot be predicted in advance.

Components of Management

The line *ab* has been referred to in two ways: (1) as the whole plan for the control of production or operation of a unit of a working organization, and (2) as all of the plans, procedures, and formulas for dealing with the human relations problems of employees. Obviously, under both of these interpretations, the plans and their execution are important components of the whole function of management. The fact that management in a broad sense includes other matters with which supervisors are but indirectly concerned is irrelevant to the present discussion. The important fact is that there is a portion or part of the whole job of management that is actually carried on by foremen and supervisors. Unless this part of the managerial job is done, and done well, the efficiency of management as a whole is heavily discounted. There is a weak link in the chain.

The *xy* Segment Always There

If it may be assumed therefore that the line *ab* may, from a *third* viewpoint, represent the whole function of management, it follows that there will again be an *xy* segment in the line. This segment is variable, depending upon such things as the nature of the industry or business and the size of the organization, but it is definitely there. It represents the foreman's or supervisor's part of the whole function of management.

If a power circuit is overloaded a fuse usually blows out. The proper procedure then is to clear the short

circuit or do whatever is necessary to reduce the load, and then insert a new fuse. The practice of putting a "jumper" around the fuse and then going ahead until trouble breaks out somewhere else is only a temporary expedient, which may do more harm than good. Many fires have been started by such practices.

In a similar manner, the line *ab* may be regarded as an electric wire carrying current. If a supervisor working in the *xy* segment or section falls down on his job, the result is similar to a blown fuse. The current is interrupted. By-passing the supervisor by assigning some of his responsibilities to a functional man corresponds to putting in a "jumper" around a blown fuse. It does not cure the trouble, it merely circumvents it. Assigning multitudinous parts of the supervisory job that logically belong in the segment *xy* to functional individuals or agencies corresponds to building up a network of "jumpers" in an electrical system. The organization chart begins to look like a cobweb. The "wires" soon get crossed, fires are started, and conditions become increasingly favorable for widespread confusion, misunderstandings, discontent, industrial unrest, and possibly a great strike. It is not an exaggeration to state that many crises in industrial relations grow from such small beginnings.

Improved Supervision Fundamental

From the preceding discussion it should be perfectly clear that the foreman or supervisor on the line has a most important and significant function to perform *as a part of management.* The conclusion therefore

is inescapable that the improvement of supervision should be one of the most important objectives of American industry and business as we face a new era. Such an approach will strike at a conspicuous source of many present difficulties. It should yield results in better human engineering and help to carry this nation forward toward industrial peace and prosperity.

CHAPTER V

THE DEVELOPMENT OF SUPERVISORS

According to ancient mythology, Minerva, the goddess of wisdom, was the daughter of Jupiter. She was said to have leaped forth from his brain, mature, and in complete armor.

In some instances, top management's attitude toward the development of supervisors suggests that reliance is placed upon some similar miraculous series of events to produce supervisors for them. In such situations, the plain fact is that management is doing little or nothing to build up its manpower so that there will be a sufficient number of well-trained and thoroughly competent supervisors to assure continuous, smooth, and efficient operation. Closely associated with this condition is the practice of looking outside of the organization when it becomes necessary to fill important supervisory jobs. The logical results are low morale, widespread dissatisfaction, and high operating costs. It is the purpose of this chapter to discuss constructively the problem of developing new supervisors. Is there anything that top management can do that is more important than to make certain that its supervisors understand their jobs well enough to function

properly in relation to all phases of the management *of which they are a part?*

The Science and the Art of Supervision

Supervision is both a science and an art. It is a *science* because it is essential for a really competent supervisor to possess a considerable fund of accurate information about the business with which he is connected. He must ascertain facts and deal with those facts intelligently. In his work of dealing with production and personnel problems and making decisions, he follows the scientific method: he secures or determines all the essential facts, weighs the facts, and then decides what to do. Supervision is an *art* because to become a first class supervisor *skill* is required. Skill in the practice of any art, whether it be the art of supervision or the art of playing the violin, can only be acquired by long hard practice.

That part of a competent supervisor's *stock in trade* which consists of facts and other information can be made available to prospective supervisors in many different ways such as books, lectures, motion pictures, magazine articles, and serving as an understudy to an experienced supervisor. These things can be learned. That part however which comprises the *art* of supervision can be acquired only through experience in practicing supervision. In acquiring some degree of mastery of this art, it is highly advantageous for a beginner to work as an understudy to one who is highly skilled in the practice of the art. Furthermore, when an experienced supervisor takes on an understudy, he

increases rather than diminishes his own stature as a supervisor. While he can no more *give* or impart his skill to the understudy than Fritz Kreisler can give his mastery of the violin to a tyro, he can favorably influence the understudy's development by, so far as possible, guiding him in the light of his own experience and giving him the benefit of his ideas.

Stinginess with Ideas Unprofitable

Some individuals are so constituted that they become convinced that a good way to make themselves necessary, if not indispensable, to the organization which employs them is to hold back a certain amount of special knowledge or information which they have acquired. They probably feel that if they can maneuver themselves into a position where no one else knows the details of *their* jobs, they will enjoy some kind of super security. Such an attitude toward one's job is little more than a hang-over from the medieval idea of guarding trade secrets. When a person draws back into his shell like a clam, he may temporarily hide a few tricks or some special information, but he also isolates himself from those from whom he might gain far more than he is hiding.

Someone has said that the more ideas we give away the more we have. To illustrate: I have one good idea and you have one also. I give you my idea and you give me yours. Now I have two ideas and you have two. Both of us are better off for having given away our respective ideas. How different this is from exchanging dollars! If I have a dollar and you have

a dollar, we can exchange dollars if we wish to. Now, however, both of us are just where we were to start with. We each have one dollar. From the preceding illustration it should be clear that giving away good ideas is advantageous to an individual, especially when he has a job that involves skill and judgment. Supervision *is* such a job. Foremen and supervisors simply cannot afford to be stingy with their ideas.

How Does a Supervisor Learn His Job?

In view of the fact that there is no standard method by which supervisors receive preparatory training for their jobs, it may be worth while to review some of the more common practices and to restate some of the principles regarding such training, which experience indicates are sound.

It is probably no exaggeration to state that a great many, probably a majority, of all of the supervisors now on the job learned to perform their supervisory functions the hard way. For the most part they were selected and "pitchforked" into their jobs because they were good workers and showed potential ability for leadership. What they know about supervision, as such, they learned mostly by the trial and error method.

Many foremen and supervisors now employed have received some training in supervision through company training plans, engineering extension classes, correspondence school courses, and public as well as private vocational school opportunities. In many of these facilities, principal effort has been exerted in

meeting the needs of foremen and supervisors already employed in those capacities, with less emphasis upon preparatory training for younger workers who aspired to become supervisors. There is ample justification for this policy. For example, to train an ambitious employee for a supervisory job when there is no opportunity for him to get such a job may result in ruining the attitude of an otherwise valuable employee. It may make him dissatisfied with his present job and unfit him for any other job within his reach. Moreover, "cold-storage" training is seldom desirable. Theoretically, the best time to train a man for a supervisory job is just before he gets such a job. This timing is seldom possible where the training for prospective supervisors is provided by an outside agency. For this and other reasons, the difficult job of training prospective supervisors is best handled when the responsibility for such training is assumed by the *employer*, not by an outside agency. In providing this training the most highly skilled supervisors connected with the organization can render services which it would be difficult if not impossible to supply otherwise. Some suggestions as to how an understudy may be trained are discussed in the following paragraphs.

Advantages of Training an Understudy

There are numerous advantages which accrue to the supervisor who trains an understudy, as well as to the organization in which he works. When a supervisor has an understudy, it is possible to have his job covered at all times. If the supervisor is sick or absent from

his post for other reasons such as vacations, the continuity of supervision will not be broken. This is a good thing for the supervisor as it keeps his job from getting "balled up." It is also a good thing for the company because it makes for smooth efficient operation with a minimum of confusion and mistakes.

Another advantage of training an understudy is that it helps the supervisor himself. There is a lot of truth in the old saying, "By teaching one is doubly taught." A supervisor, in training an understudy, necessarily has to explain *why* he does this or that the way he does. This forces him to justify what he does and if and when he realizes that something which is common practice for him cannot be satisfactorily explained or justified, he may voluntarily change his tactics. There is no more effective way for a man to find out how much or how little he knows about a subject than to try to teach it to someone else.

A value definitely associated with the preceding advantage is the possible effect upon the supervisor's own status in the organization. If he demonstrates his ability to develop *men*, someone higher up in the organization will probably notice it. This is the kind of ability that management on the higher levels is looking for, and a promotion for him may logically follow. In addition to this and other advantages that accrue to the supervisor who trains an understudy, there is one outstanding advantage so far as the *employer* is concerned. It is that this method of developing new supervisors is the best that has thus far been devised. By this means the employer secures the kind of super-

visors he needs in order to carry on the managerial function efficiently at the level where the work is done.

From the standpoint of self-interest it is advantageous for a supervisor to have an assistant to take care of details. This gives the supervisor time for planning and for getting around so that he will have first-hand information at all times on what the status of the job is. Many of the details of a supervisor's job can be taken care of just as well by an understudy as they can by the supervisor himself. It is generally recognized that for maximum efficiency in the use of manpower, every man should, so far as possible, work on the highest class of work that he is able to do. It follows, therefore, that an experienced supervisor should not have to spend any considerable amount of his time in looking after details that can just as well be taken care of by an understudy.

Suggested Procedure

Taking care of the instruction and training of employees on the job is one of the recognized responsibilities of supervisors, regardless of the nature of the work of the organization in which the supervisor is employed. In discharging this responsibility, it is common practice for supervisors to deputize one or more workers to carry out the details of instruction, especially the breaking-in of new employees. Thus it is that a skilled worker actually becomes an understudy of his supervisor. It is, of course, essential that the skilled worker so selected should be trained to teach what he knows and can do, either just before assum-

ing the duties of an on-the-job instructor, or concurrently with his assignment to such duties. *In a good instructor training course, the foundation is laid for supervision.* An instructor has the same kind of job that the supervisor has. So far as employees in a training status are concerned, he *is* their supervisor. Any or all of the type problems and situations that are discussed in the other chapters of this book may develop with one or more employees while they are in a training status and responsible to the instructor. For example, an instructor, in order to function well on his job, must be able to arouse and maintain the interest of trainees, he must train them in safe working practices, he must maintain discipline, he must give orders and directions, and he must evaluate work performance. There are indeed few responsibilities associated with supervision that are not also found in some form in the job of an instructor.

The idea of training a prospective supervisor first as an instructor and then assigning him to instructional duties under the guidance of the foreman or supervisor to whom he is responsible is not new. It has been used and tested sufficiently to justify the assertion that it is probably the best known procedure for developing the kind of ability that a young supervisor needs. One effective way to *prevent* such a plan from working properly is to make an on-the-job instructor responsible to someone other than the supervisor of the shop or department where the instructor works. That mistake has been made over and over again enough times to have established the fact that

it *does not work.* An outside agency may well provide instructor training for workers who are to be placed in line for promotion to supervisory positions later on, but that is where the outside agency gets off. When the instructor starts to work, he *must* be a part of the shop, office, or division where he tries to function. He *must* report to the line supervisor of that department.

An instructor who is correctly placed in a department is the logical person to "pinch hit" for the supervisor on the occasions when the latter is, for any reason, absent from the job. By substituting in addition to performing his regular instructional duties, he continues to grow on his job. If and when he is promoted to the supervisory level, the transition is an easy one, because he has been given a genuine opportunity to prepare for the job ahead. In this connection it should be emphasized that no amount of information *about* supervision, gained either from books or by listening to lectures, can give equivalent preparation.

When an instructor is advanced to the rank of supervisor, he should by all means begin to participate in supervisor conferences where problems of supervision are analyzed and supervisors think out their problems. Thus he will continue to grow on his job. He will have been given an opportunity to become a confident well-adjusted man *himself.* For a foreman or supervisor, it is of outstanding importance that this should be so.

A good training program anywhere and at any time is directed toward three over-all objectives: (1) to equip an individual to *do* the things required on the job he is to do, (2) to give him the necessary working

command of the things that he must *know* in order to do intelligently what he has to do on his job, and (3) to help him to *become* a well-adjusted individual who derives satisfaction from his job and is reasonably happy in it. If the procedure outlined in this chapter is followed, the supervisor himself will have been helped in these three ways toward becoming well fitted to perform the duties of a supervisor.

CHAPTER VI

ANALYZING THE SUPERVISORY JOB

It is a very simple matter to tell a supervisor that he ought to analyze his job. It is not, however, so simple for him to carry out the suggestion. Working out a fairly complete and reasonably accurate job analysis involves a lot of hard work—a lot of thinking. That thinking is hard work was pointed out many years ago by Thomas A. Edison when he said that there seemed to be no limit to the resourcefulness of man in devising ways in which to avoid the painful process of thinking.

Thinking Is Required

To make an analysis of a supervisory job necessitates thinking the job through. This calls for analytical thinking—taking the job apart and finding out what it really consists of. As a result of such effort, a supervisor gets a "slant" on his job which he may not have had previously. He gets to see his job objectively—he identifies its component parts. He examines, evaluates, and classifies the elements of his job. As a result, he develops a clearer understanding of just what his job is.

Responsibilities Become Clearer

Most supervisors run into considerable difficulty in their attempts to identify the component parts of their jobs. The supervisory job is made up of *responsibilities* and supervisors are not always clear in their own minds just what those responsibilities are. The degree to which a supervisor may be fog bound in this respect is often not realized until a job analysis is attempted. As matters are clarified and the analysis grows, attention is directed to many things that the supervisor had not fully realized were included in his job. Thus, under competent leadership and guidance, job pride is stimulated. At the same time, consideration of the many job elements forces recognition by the supervisor of his own deficiencies and shortcomings. When he becomes convinced *as a result of his own thinking* that there is, for him, a lot of room for improvement on his own job, he is then in the proper mental condition to derive maximum value from participation in a program of supervisor conferences. This point is so important that it will bear repetition. It may be emphasized, therefore, that when the supervisor's thinking has brought him to the point where he knows (1) that he is uncertain as to what many of his responsibilities are, (2) that he lacks considerable functioning information that he should have in order to be a first-class supervisor, (3) that he has unconsciously acquired some poor habits of thinking and of doing, and (4) that it would be a good thing if he could develop a higher order of skill in carrying out his responsibilities,

the law of *readiness,* generally known as the first law of learning, has been satisfied.

Not a One Man Job

In the great majority of situations it is practically impossible for a supervisor to develop much of an analysis of his job by working alone. At least one other person is needed to discuss questions with him and to force him to think his analysis out in specific, concrete terms. A person who understands job analysis and who has had some experience in that field obviously can be of maximum help. In addition, it is probable that numerous questions will have to be referred in some appropriate manner to persons on higher supervisory and executive levels in order to secure correct definitions of the nature and scope of specific responsibilities of supervisors on lower levels.

Distinction Between Duties and Responsibilities

Sometimes a distinction is made between a supervisor's *duties* and his *responsibilities.* When this distinction is made, a supervisor's duties are the things that he actually *does.* At the same time, however, he is, of course, *responsible* for them. Hence his *duties* may be regarded as those responsibilities which are discharged by first-hand action of the supervisor himself. Such responsibilities are not delegated to some person or persons whose work he supervises. On the other hand, his *responsibilities* are those things for which he is responsible but which may be carried out by some designated member or group of the working force. To

illustrate, a supervisor, let us say, is responsible for the rating (evaluating the work performance) of his subordinates. This responsibility would normally be discharged by the supervisor personally—it would not be delegated to a subordinate. It should, therefore, be regarded as a *duty*. At the same time, however, it is also a responsibility.

The same supervisor would probably include in his list of responsibilities the item "to keep equipment in satisfactory operating condition." In discharging this responsibility, he would most likely delegate the actual duties to be performed to subordinates. His job would be to see to it that the equipment was maintained in proper condition, but he would probably not personally perform any of the detail work necessary to that end.

To cite another illustration, the captain of a ship is fully responsible for the navigation of his ship. If it is a small vessel and he is his own navigator, he discharges his responsibility by determining his ship's position and setting the course himself. In this case the navigation of the ship is a duty for him as well as a responsibility. In a larger ship, although the captain would still be responsible for the navigation job, the responsibility would be delegated to the navigating officer and the work incident thereto would be performed by him rather than by the captain. In this connection, it cannot be emphasized too strongly that whereas the performance of the work or action necessary to the discharging of a responsibility *can* be delegated, the responsibility itself *cannot* be evaded.

Identification of Some Responsibilities May Be Difficult

It often happens that a supervisor, in working out his job analysis, finds himself in doubt as to whether some specific item should properly be included in his list of responsibilities. The best way to resolve this question is to determine whether or not the supervisor could fairly and justly be "called down" by his superior if the item were either ignored or improperly attended to on the job. If, after careful consideration (on higher levels if necessary), it is determined that the answer is *yes* the item should, of course, be included. If *no* it can be eliminated.

Types of Responsibility Analyses

A number of different plans have been devised and used for making analyses of supervisory jobs. One of the most complete of these appears in the book *The Foreman and His Job* by the late Charles R. Allen.* Readers who may be interested in going into the matter further will find that this book presents what is probably the most complete discussion of the subject that has thus far been published.

Advantages of Simple Plan

Generally speaking, a simple pattern for analyzing supervisory jobs is to be preferred. When it is recognized that the training values resulting from the *effort*

* J. B. Lippincott Co., Philadelphia, 1922.

made by a supervisor to analyze his job are worth far more than the analysis itself, it becomes clear that the law of diminishing returns may well apply to job analysis. To state it differently, if the making of a complete and accurate analysis is set up as the principal objective, other values, somewhat intangible, but none the less real, may be lost.

First Step, Develop a List

Following a simple pattern, the first step is for the supervisor to make a list of all the responsibilities of his job so far as he can think of them. It is more important at this stage to *make up a list* than it is to hesitate and wonder if the list is going to be accurate. It can be revised and corrected later. The incomplete sample list that follows should have a suggestive value.

Sample List of Supervisory Responsibilities

1. Maintaining quality of production.
2. Assignment of jobs to workers.
3. Preventing waste of material.
4. Efficient utilization of available manpower.
5. Supervisory job planning.
6. Maintaining morale of working force.
7. Preparation of reports as required.
8. Observance of safe working practices.
9. Keeping equipment in good operating condition.
10. Efficient management of department (control of costs).
11. Training of employees.

12. Evaluation of work performance records of employees.
13. Recommending promotions, transfers, and separations.
14. Knowing the status of all work or jobs for which he is responsible.
15. Handling plant information.

Experience has shown that the average first line supervisor can identify (in his first attempt) from 25 to 50 or more items representing responsibilities involved in his job.

The Items Should Be Classified

Having developed an inventory of responsibilities as suggested, the next step is to examine the list and classify the items according to some plan. A simple plan which may be useful in helping the supervisor to proceed one more step in getting a perspective view of his job follows.

Classification Heading	Explanation
I. Stock	The items appertaining to the materials worked upon and the supplies used. Numbers 1, 3, 5.
II. Tools and Equipment	Items relating to all machinery, tools, fixtures, and special equipment used. Numbers 8, 9.
III. Operations and Processes	Items concerning work done on stock and/or the processing of material. Numbers 5, 8.
IV. The Working Force	Items referring principally to relationships with, and supervision of, workers. Numbers 2, 4, 6, 8, 11, 12, 13.

Classification Heading	Explanation
V. Information	Items concerning the handling and exchange of information, including records and reports. Numbers 7, 15.
VI. Instruction and Training	Items directly associated with the breaking in, upgrading, and job improvement training of employees. Numbers 4, 11, 12, 13.
VII. Cooperation in Management	Items indicating general responsibilities as a representative of management. Numbers 8, 10, 14, 15.

NOTE: Numbers in the second column refer to items on the preceding sample list of supervisory responsibilities.

Classification Under More Than One Heading

In classifying responsibilities such as those listed, it is probable that some of the items will seem to belong under more than one heading. For example, in the sample list on page 53, number 8, *Observance of safe working practices,* may concern (1) the working force —prevention of injury to individuals due to carelessness or lack of proper instruction, (2) operations and processes—carrying on work so as to minimize injury to workers due to poor planning of operating procedures, or (3) tools and equipment—having equipment in safe operating condition with all appropriate safety devices in good order. In making his analysis, the supervisor should not worry about items of this sort that may appear in his analysis. He should list them in more than one category if, after careful consideration, he is satisfied that they belong there.

Work Toward Specific Responsibilities

As the analysis develops it will become increasingly apparent that many of the responsibilities as originally listed are quite general and too all inclusive to mean very much. Therefore an essential step for individual supervisors is to examine each of the items, revise as necessary, and develop specific statements of responsibilities which represent, with reasonable accuracy, their *own* responsibilities. This job of going back, reconsidering, revising, correcting, and restating is quite sure to be discouraging. At this stage the supervisor will be in the midst of thinking his way through his job. This is always a grueling experience but it is worth the effort.

Evaluation of Responsibilities

Having finally developed an adequate classified list of supervisory responsibilities in reasonably specific terms, the supervisor should next evaluate them in at least two principal ways. First, with respect to the degree to which they are delegated, and second, with respect to the degree of difficulty, trouble, or worry involved in discharging them. Information as to how to make such ratings or evaluations is available in Chapter XII of Cushman's *Foremanship and Supervision,* and hence it need not be repeated here.

The suggestions in this chapter should be helpful to training directors and conference leaders as well as to individual foremen and supervisors. It is a hard task to analyze your job, but that it is worth while to do so has been quite generally recognized for a long time.

CHAPTER VII

SUPERVISORY JOB PLANNING

Ability to plan is an attribute of the successful supervisor. Many supervisors do considerable planning, often without realizing that they are engaging in anything that is particularly noteworthy. They do it simply because it seems to be, and is, a necessary part of the job. Practically all jobs call for *some* planning if the work involved is to be done efficiently. For simple jobs that require only routine repetitive operations, the necessary planning is mostly done by the supervisor rather than by the operator. However, as jobs involve more and more skill and increased responsibility is placed upon the worker, more and more ability to plan ahead is required. Skilled mechanics necessarily do a considerable amount of planning in connection with their work. Because of their experience, they know how easy it is to run into difficulties on almost any job if someone has not thought out and planned certain things in advance. To illustrate, an expensive casting or forging may be ruined by performing the necessary machining operations in the wrong sequence. Again, poor planning or lack of planning on a construction job may result in unnecessary delays and cost increases due to such things as

shortage of material when needed, lack of proper tools and equipment, and interferences between different groups or gangs of workers.

Planning an Essential Part of Leadership

Good leaders always plan ahead. As supervisors have definite responsibilities for leadership, a fair degree of proficiency in planning may therefore be regarded as essential. Supervisors who plan their work and then work their plan are usually on top of their jobs. They have imagination. Because of planning ahead they are not only better equipped to handle their jobs; they have time really to function as supervisors. On the other hand, supervisors who do not make the effort necessary to think and plan ahead usually are rushed to death, or, to use a crude expression, they are "all tore out." Their jobs have them on the run instead of their being in the driver's seat in full control of their jobs. Also, they are probably swamped with details, many of which might have been anticipated and provided for by adequate planning and the delegation of minor or routine responsibilities to subordinates.

Factors in Planning

As is true with many things, supervisory job planning, though it is based upon a few easily understood principles, may be made to appear so complicated and involved as to be almost beyond the comprehension of the average first-line supervisor. This attitude is not necessary, and one of the purposes of supervisor

conferences on planning is to remove the cloak of mystery that sometimes surrounds the subject.

In planning any activity, whether it be a fishing trip, constructing a building, or assembling a machine, there are certain essential points that are always considered—that is, if a good job is done. For example, a person who plans a fishing trip must know such things as:

1. Where he is to start from.
2. Where he is going.
3. How he is going to get there.
4. What he will need en route.
5. What difficulties may be expected in making the trip.
6. Where he will be at any given time with respect to his starting point and final destination.

In a similar manner, a supervisor who is responsible for getting a job done must know corresponding things such as:

1. The status of the job at all times from start to finish.
2. The requirements to be met in the finished job.
3. The material, men, supplies, tools, and other things that will be needed as the job progresses.
4. The difficulties or obstacles that may be encountered at different stages of the job.
5. The decisions that will have to be made from time to time as the job progresses.

Such items as those listed are not at all confusing to any supervisor. All of them are just common sense statements of fact with which all supervisors are familiar. Supervisory job planning becomes complicated and baffling principally because of elaborate blueprints, specifications, and endless paper work concerning details. It is when the basic ideas have become obscured because of elaborate paper work and a top-heavy system for making estimates and progress reports, that the supervisor feels like throwing up his hands.

Two Principal Types of Planning

At least so far as first-line supervisors are concerned, there are two principal classes of planning: (1) hand-to-mouth planning, and (2) advance planning.

Hand-to-mouth planning is the kind of planning that a supervisor does on the job where conditions force him to improvise some sort of plan of procedure. Such planning is hastily done when the supervisor is confronted with a problem that requires him to make a decision of some sort. In many practical situations, important decisions often have to be made quickly, as in emergencies, in construction and repair work, and in many other circumstances where it is difficult if not impossible to anticipate in detail what may happen. However, if some planning has been done in advance, it is probable that such special situations will be handled better than they would be if no particular thought had been given to the matter.

Advance planning involves thinking ahead and anticipating problems and difficulties that are likely to be encountered tomorrow, next week, or even months or years ahead. It is quite obvious that problems or difficulties due to such things as a shortage of material or supplies, insufficient work ahead to keep the department busy, the wearing out of equipment, or an inadequate supply of competent workers can be given consideration well in advance of the time when something *must* be done about them. Another illustration of good advance planning is found where a supervisor notices a dangerous condition and plans what action is necessary to correct the situation *before* some employee is injured or killed. The hand-to-mouth planner would probably wait until an accident had occurred. He would say to himself, "No accident has happened as yet on that job so why worry about it?" After one had occurred, he would then begin to plan to prevent another one. He exercised too much hindsight and too little foresight!

Scope of the Planning Job

For most supervisors the planning job may have two principal aspects: (1) departmental planning, and (2) organizational planning. Departmental planning includes the planning a supervisor does with respect to the organization and operation of his own department. Organizational planning includes whatever he does to cooperate with management on higher levels in developing plans that relate to the work of the organization as a whole. In some organizations, line supervisors,

especially on the lower levels, have very limited contact with general organizational planning, especially where production control is a part of functional supervision and management. Where this relationship prevails, the supervisor's participation may be limited to supplying data and miscellaneous information as requested. In some plants all the general planning is done at the top and the supervisors learn what the plans and policies are when they receive their orders. In view of these conditions, it appears that, whereas both aspects of the planning job may be of interest to many supervisors, practically *all* supervisors are concerned with the job of supervisory job planning for their own departments. The discussion that follows therefore relates entirely to departmental planning.

In doing his planning the supervisor will be in an advantageous position if he has made an analysis of his responsibilities, as described in Chapter VI. Having identified and evaluated his responsibilities in the way there suggested, he requires but one additional step to plan for adequate coverage of his job, or in other words, to plan for budgeting his time. In this connection it should be realized that it is inadvisable for any supervisor to budget *all* of his time. Some reasonable margin, say 20 to 25 per cent, should be allowed to provide for unexpected contingencies and matters that cannot be anticipated. Also it may be pointed out that a supervisor who has developed an inventory of his responsibilities and made a real attempt to evaluate them has already made a good beginning in supervisory job planning.

Planning as a Topic for Supervisor Conferences

Supervisory job planning is an excellent subject for consideration in supervisor training programs. Like most other subjects, it may be handled in numerous ways. At one extreme there might be *conferences* where the supervisors would consider the scope of their responsibilities for planning, analyze their planning job, and identify ways in which they could most effectively meet their responsibilities. This treatment of the subject should result in (1) application on the job of the ideas developed, and (2) increased and continuing effort on the part of the supervisors to do a really good job of planning.

At the other extreme, the subject could be handled on the informational basis by a lecturer, possibly using text books or other prepared material. The outcome of such a lecture or series of lectures would be that the supervisors would have been *told*. No matter how excellent the information presented was, much of it would probably not "stick" very well. The supervisors would have to generate their own ideas as to how to apply to their own jobs the principles expounded. They would have been passive listeners rather than active participants, and consequently most of the values that result from doing some thinking for themselves would be non-existent.

Between the two extremes it would of course be possible to deal with the subject on some sort of intermediate basis, as for example an informational presentation followed by questions and discussion.

This might be the thing to do if the objective was to acquaint the supervisors with the work of the planning department and thereby encourage better cooperation.

The Supervisor Functions as a Part of Management

To the extent that a supervisor does a good job of planning *on his own level* with respect to (1) the work of his immediate department and (2) the functioning of the organization as a whole, he becomes an integral part of the management of the company which employs him.

Discussion of this and other phases of the supervisor's job should bring into prominence the fact that a first line supervisor has the same kind of job that the plant superintendent or general manager of a business has. The difference is not in the *nature* of his responsibilities but in the *scope* of them. A full appreciation of this fact is one of the important outcomes of a supervisor conference program.

CHAPTER VIII

WASTE CONTROL

In other chapters an effort is made to point out specific ways in which a foreman or supervisor can function as a manager in his own department. Those chapters deal with wastage of manpower due to such undesirable things as excessive labor turnover and the placement of men on jobs for which they are not well fitted. In this chapter attention is directed toward some of the supervisor's responsibilities for preventing waste in the use of material and supplies. To state the problem differently, how can a supervisor contribute to efficient management without getting himself into trouble or becoming a disturbing factor in the organization?

Wasteful Practices Widespread

In a broad sense, or from the standpoint of practical economics, there are many ways, other than those which have been mentioned, in which manpower is wasted. For example, unemployment itself is one of the extravagances which society as a whole can ill afford—even in this rich and prosperous country. Labor conflicts constitute another form of wastage of manpower which eventually has to be paid for by

everybody. Lack of reasonable standardization, resulting in a multiplicity of designs and sizes, which serve no useful purpose but increase costs and waste great quantities of material and labor, is another illustration. Although many of these wasteful practices are beyond the scope of an individual foreman or supervisor, it may not be amiss to refer to some of them here in order to supply a background for a more specific consideration of forms of waste that *can* be controlled or at least partially eliminated by first-line supervisors.

A Practical Problem

It often happens that more stock is ordered for a job than is actually needed. The usual result is waste of material. The practice of furnishing plenty of stock may be justified to some extent by the claim that it is cheaper to have extra material on the job so that all the men will be busy than to skimp on material, run short, and thus cause idleness on the part of some of the men. However that may be, having too much material lying around often does encourage wasteful practices. On the other hand, the establishment of reasonable limits on the amount of stock available for a job tends toward the practice of economy in the use of material. Where does "cheese paring" begin and where should it end?

Too Much Planning?

When *too much* planning is done, the result may appear to be all right—at least superficially. For ex-

ample, management may decide that as a measure of economy inventories must be reduced. Too much stock on hand represents too much capital tied up. Orders are therefore issued to the effect that *no* material may be held in reserve by any supervisor. Material must not be hoarded! Under such conditions the foreman, in view of his responsibilities for getting jobs completed, is tempted to cache material that is hard to get, in order to meet unforeseen conditions. In one plant, an emergency job involving several days' work was completed on the same day that the stock which had been ordered for the job arrived in the shop. Did this foreman really cooperate with management or should he have been disciplined for having concealed some material which made it possible to get the emergency job done in good time? Incidentally the stock that was received the day this job was completed was hidden away for the next hurry-up job. Is it good management or is it something else that forces foremen to do such things?

Misuse of Material

Where a desirable degree of control over the use of material is not exercised, there is always the possibility that material that is not suitable for a given job may be used. If stock of superior quality—higher than that which is needed—is used, the waste or misuse of good material is obvious. An illustration of such waste is found where lumber suitable for pattern work is used for making crates; the fact that the higher grade stock is nicer to work on tempts the man to use

it. Perhaps equally important is the waste involved in using stock of lower quality than should be used for a given job. Excessive time spent in utilizing the inferior material and the sub-standard quality of the finished job both reflect waste. Practically all foremen and supervisors will be able to recall instances where the misuse of material has resulted in waste. Partly because of such violations of good management as those here mentioned, it is now common practice, especially in large organizations, for all stock, material, and supplies to be purchased on specifications and in relatively large lots. A purchasing agent or supply officer is usually responsible for such purchases, but, after the stock is delivered to the job or to the shop, it is the responsibility of the foreman or supervisor to see to it that it is used properly and economically. Of course in mass production industries, the misuse of material is less likely to occur than it is in job shops or on work done outside the shop.

Deterioration of Stock

Poor storage facilities for stock are often responsible for wastage. Exposure to the weather may cause rust and corrosion of metal parts or destroy the value of electrical supplies. Poor and careless piling of lumber may seriously impair its value and make it both difficult and expensive to work it up into the final forms for which it was intended. Then there is the waste that comes from the careless cutting of stock. In a shoe factory the value of the shoe cutter is based not only upon the number of pieces he cuts but also upon

the degree to which he cuts those pieces with a minimum wastage of expensive material. Poor or careless work in this field may easily eat up profits to the extent of making it impossible for the company to continue in business under competitive conditions.

A Few Other Examples

Other forms of waste involve such things as the improper use of tools and equipment and the thoughtless or careless use of heat, light, and power. All of these things are, to some degree, under the control of foremen. To use a 24″ lathe, for example, to turn out lathe jobs 2″ or 3″ in diameter may be a waste of manpower, of equipment, and of power to run the machine. To permit work to be carried on where the illumination is below that which is required to provide good working conditions may not only result in a waste of time but also be the real cause of an accident, in addition to increasing the probability of turning out scrap instead of a job that meets the requirements.

Possibilities of This Subject

These and many other conditions that might be mentioned indicate the remarkable possibilities of the subject of waste control for continued study by foremen and supervisors. In one plant, the consideration given to the question "How can we cut down the waste of lubricating oil and grease?" resulted in a saving of $200 per month. This result would probably not have been realized if top management had merely issued an order to cut down on the cost of these supplies.

The opportunities for constructive work in this field are practically unlimited. The prevention of wasteful practices is not only good and desirable in itself; it benefits the entire industry by making it possible to realize the profits necessary for the payment of wages, and, incidentally, to continue in business and thereby contribute to satisfying the economic needs of society.

Real and Apparent Economy

To permit the continuance of any practice that is *actually* wasteful is clearly poor management. Some things that *appear* to be wasteful may be economically sound, and, on the other hand, some things that appear to embody sound principles of management may actually encourage waste and inefficiency both in the use of men and material.

Don't Be a String Saver

Some people are born "string savers." They hate to throw things away. They are uncomfortable if they see material of any kind wasted. At home, it may be all right to save bits of string and other junk. The time spent in working with odd bits of material is not chargeable to any job, and hence a man can do as he pleases. He may get some real satisfaction from saving things to suit himself. On his job, however, he should not allow such idiosyncrasies to influence him too much, especially if he is a supervisor. As a part of management, he should decide questions of economy in connection with the work for which he is responsible, on a strictly business basis. Figuratively

speaking, he should not permit his men to use five dollars' worth of time saving ten cents' worth of string.

In general, the answer to the question of whether the carrying out of a detail involved in getting a job done is actually wasteful or otherwise is found by comparing the *value* of the results secured with the *cost* of securing them. To illustrate: if a carpenter engaged in "boxing" or "boarding in" a frame building drops a tenpenny nail onto the ground, the value of the time it would take him to pick it up would probably far exceed the value of the nail. To forget the nail therefore would really be only an *apparent* waste of material. The cost of erecting a frame building would be less if a few nails were apparently wasted in this way than it would be if men paid $1.50 an hour were to spend any appreciable amount of time in picking them up.

Law of Diminishing Returns

In connection with the consideration of the whole subject of preventing waste and conserving material and supplies, one of the fundamental principles of economics known as the *law of diminishing returns* should be recognized. This law, like the law of gravitation, is merely a statement of a truth or a body of facts. The law of diminishing returns simply states that in connection with every type of effort a point is reached, sooner or later, beyond which the value of the returns realized from greater effort become less than the cost of the effort expended in securing them. Another illustration of the operation of this law is found when a

business enterprise starts to expand and establish branches. The original unit has to purchase materials and supplies. The performance of this function requires the employment of certain persons with specialized duties, and also a force of clerks. Such a purchasing division can, with a small additional working force, perform the purchasing function for one branch plant in addition to serving the main establishment. Thus the cost of purchasing materials and supplies is reduced for both units. However, if an indefinite number of branch plants is added, some of which may become larger than the parent plant, a point is finally reached where no further economies are realized and the unit cost of purchasing material and supplies for the greatly expanded organization may begin to increase.

The Supervisor's Responsibility

It seems perfectly clear that the responsibility of a supervisor is to get work done at the lowest cost consistent with smooth operation. Where all the supervisors in a large manufacturing organization meet this responsibility in a consistent manner, there is bound to be an accumulation of scrap and so-called waste. To re-work or reclaim a relatively small part of the whole, department by department, would in many instances cost more than it would be worth. However, if a salvage department is organized to deal with the problem for the entire plant, the scrap and so-called waste materials can be handled so as to make the effort worth while as a business proposition. The automo-

bile industry has made great strides in this direction.

In smaller industries, the problem of checking waste and disposing of scrap materials without increasing costs is often a difficult one. However, regardless of the type or size of the industry or business, no satisfactory substitute has thus far been found for the competent supervisor close to the job who watches his costs, checks waste and extravagance, and gets work done in good shape and on time. He is, in fact, the employer's *key* man. He uses his head on the job and makes decisions in accordance with the facts with which he is confronted.

CHAPTER IX

COOPERATION

The idea expressed by the word cooperation is not new. It is undoubtedly as old as the human race itself. Generally speaking, cooperation means working together toward a desired end or goal. This meaning is well illustrated by good teamwork, as for example a college rowing crew. Here all members of the crew work together and in perfect coordination, each individual doing his part of the job in a well-timed and skillful manner. No member of the crew can be primarily interested in making *himself* prominent as a star performer. All members of the crew are interested in winning the race. They all know that team work—working together, cooperating toward a common objective—is the only way to win. An individual star performer would probably capsize the boat! An extreme individualist who thought that he could do as he pleased *in his part of the boat* would be a liability to all. He would jeopardize the attainment of the common goal.

All in the Same Boat

When a legitimate business or industrial enterprise fails to succeed, everybody loses. The employer or

owner goes bankrupt, management loses its job, employees' jobs disappear, production stops, and the public loses.

The only way in which an industrial enterprise can enjoy any degree of prosperity is by bringing together under favorable conditions men, materials, machinery, manufacturing methods, and management. The coordination of these elements requires that an organization be set up. After the organization is established, it can function well only when the component parts of it work together. Manufacturing methods, carried on efficiently, using machinery to process and thereby increase the value of material, must be devised. Management is essential to this procedure. Men are required, both to manage the business and to do the work. The work includes running the machines, controlling them, keeping them in order, and causing them to function in such a manner that the work that they do contributes to increasing the value of the material as it progresses through the plant. It is only through the increase in the value of material, as a result of working on it or with it, that wealth is created.

The increase in the value of the material at any given stage of the manufacturing process must be sufficient to justify the original cost of the machine, *plus* the cost of operating, maintaining, and repairing it, *plus* the depreciation chargeable to it, *plus* insurance and taxes, *plus* the wages paid to the workers who operate it, *plus* sufficient profit to yield a fair return on the whole investment. This return is the profit to the person or agency who furnished the money to buy

the machine in the first place. Who is this owner? In a large corporation, the *owner* includes all persons who have saved and invested a dollar in it, either directly or indirectly. Because of the intricate financial structure of our American economic system, everyone who has saved some money through life insurance, an account in a savings bank, or an investment of any kind can be one of the owners. The operation of any business enterprise is possible only because of the invested savings of individuals or groups of individuals.

When costs such as those previously mentioned are greatly increased because of labor difficulties, inordinately high wages, inefficiency on the job, poor management, or other factors, the business may have to cease operation unless the selling price of the economic goods produced is correspondingly increased. No business can continue to operate if it costs ten dollars to process three dollars' worth of material in order to produce something that can be sold for only nine dollars. When such a situation develops the business eventually has to "fold up." Both employer and employees are out of a job. Everybody loses because all are in the same boat.

More Than One Motivating Force

On numerous occasions cynics have endeavored to prove that self-interest or selfishness is the only real motivating force that there is that affects the actions of human beings. They mean that when a person gives a beggar a coin, he does so not because he really wants to help the beggar but because of the pleasure

he himself derives from the act. Similar reasoning is applied to explain other acts. It is of course true that there is too much selfishness in the world. But what a dismal place the world must be to an individual who believes that selfishness is the *only* motive that actuates people. How about the young veteran who was drowned trying to save the life of a boy whom he did not know? The boy had lost a ball in the Niagara River just above the Falls and had somehow slipped and fallen into the water while trying to retrieve it. Was the young hero motivated only by selfishness when he jumped in and tried to save the boy, thereby losing his own life? How about those brave men who went down with the *Titanic?* Did they give up the places they might have had in the lifeboats because they were selfish? A little reflection on this matter will probably cause the ordinary man to disagree with the cynic.

Cooperation Works Both Ways

In industry, cooperation means many things. It may mean carrying out the orders or wishes of a superior even while not being closely supervised. By such action a subordinate cooperates with his immediate supervisor. When an employee safeguards the interests of his employer in such ways as avoiding or preventing wastage in the use of material and supplies and protecting company property against loss, damage, abuse, or neglect, or turns in suggestions for the improvement of methods, processes, or operations, he cooperates with his superiors all the way up the line.

Also, a supervisor can cooperate with his subordinates in many ways. He can provide good working conditions and give some attention to the health, comfort, and safety of his subordinates. He can make them feel that he regards them as co-workers in a joint effort. He can say *we* instead of overworking the personal pronoun *I*. He can give such orders as are necessary in a clear and firm manner which is courteous and not offensive. He can make sure that his subordinates understand what he wants done. These courtesies are all evidences of good cooperation.

The solid vertical lines on an organization chart represent lines of *authority* from the top downward. The same lines also represent *accountability* in a reverse direction. Cooperation along these lines is quite definitely a responsibility of every member of a working organization. It should work *both* ways.

What Cooperation Means

It is true that the most obvious meaning of cooperation along vertical lines is to follow orders and do as the boss says, but cooperation in its best sense means more than that. It may even mean letting a competent subordinate alone and giving him a fair chance to do his work. To avoid interfering with the work of other supervisors of equal rank and seniority, or to go out of your way to help one of them when you don't have to, are other examples of good cooperation. In view of the many ways in which good cooperation may be realized, and the need for a full understanding by supervisors of the difference be-

tween cooperation and interference—where one leaves off and the other begins—it should be clear that the possibilities for profitable consideration of questions involving cooperation are very great.

Cooperation Between Supervisors

There is an old saying that self-preservation is the first law of nature. Self-interest—looking after *number one*—is either the second law of nature or closely related to the first.

It is undeniable that self-interest is one of the most prominent motives for most things that people do. The expression "look after your own interests—no one else will" is commonplace. Everybody knows that it is a natural thing to look out for your own interests in preference to looking out for the interests of someone else.

To illustrate some typical effects of too individualistic an attitude on the part of several supervisors in the same organization, a series of incidents that actually occurred may be mentioned. On a large ship, which was laid up for conversion during World War II, the mechanical work on some of the compartments had apparently been completed. Consequently the foreman painter, acting under his general orders, sent his men in. Before the paint was dry, the pipe fitter appeared. He had to have several holes burned in the bulkheads in order to install pipe connections. Then, after the compartment had been painted a second time, along came the electricians to drill holes in the bulkheads for the installation of electrical equipment. The

painters then repainted the compartment a third time and assumed it was finished. Not so however; the sheet metal workers, welders, and other mechanics appeared and after each gang had done its job, repainting was required. All in all, one compartment at least was "painted out" *eight* times. One reason for this unnecessary expense and confusion was lack of cooperation between supervisors of the several trades. Each man was looking after *his* part of the job. Each figured that it was his job to get his work completed irrespective of what anyone else was doing. If these supervisors had taken even a limited degree of interest in the progress of the job *as a whole,* much time, labor, and material would have been saved, costs would have been reduced, and considerable loud and well-punctuated talking and arguing would have been avoided.

Another incident, which happened some years ago, illustrates the entire absence of cooperation between men on different parts of the same job; a deckhouse on a fairly large steamer was being painted white while the ship was taking on coal!

Real Cooperation Cannot Be Forced

It is always true that where there is any functional supervision the need for cooperation between line and functional supervisors is extremely important. If each supervisor assumes an individualistic attitude, there seems to be no limit to which costs can be increased and time, material, and labor can be wasted.

Cooperation between supervisors of equal rank in an organization does not usually appear on an organization chart. Where supervisors are on the same level, one supervisor has no authority whatever over another. Hence if they work together and cooperate, the relationship is along horizontal lines. In theory, cooperation between supervisors on the same level is supposed to be accomplished by well-laid plans and appropriate orders for carrying them out from someone on a higher level of authority. In practice, if entire dependence for working together is placed upon orders from higher up, the results will probably leave much to be desired. The best sort of cooperation along horizontal lines is realized when every supervisor keeps in mind not only what his particular job is, but what the job as a whole is and how it is to be carried on. Cooperation of this sort is difficult to secure by direct orders, but it naturally occurs where men of equal rank *desire* to work together in the interests of the job as a whole. From this standpoint, cooperation really means going out of your way to help the whole job along when you do not have to do so.

One of the very valuable outcomes of a well-conducted program of supervisor conferences is that supervisors, especially those on the same level, get to know one another better and thereby gain increased appreciation of their common problems. Such outcomes contribute in an important way toward the development of effective cooperation and real teamwork within the organization in which they are employed.

CHAPTER X

KNOWING YOUR MEN

Elliott Dunlap Smith, in his excellent book *Psychology for Executives,** points out that an industrial plant is not "a single, completely centralized unit obedient to a single will." He states further that: "No matter how much it is centralized in form, no matter how rigid the control, no matter how much the man at the top persuades himself that he owns the mill and controls everything that goes on in it, a factory is a complex organization of individuals with desires of their own that affect what goes on. Foremen not only execute orders, but decide *how* they will be executed. Employees not only perform their standard operations, but have ambitions, friendships and desires which affect their conduct at work. Despite all attempts at complete centralization of control, the independent feelings and activities of the individuals that compose the factory personnel influence how the factory runs."

One-Man Organization

It is important for supervisors to appreciate the significance of the ideas expressed in the foregoing

* Harper & Bros., New York, 1928.

quotation. The folly of seriously attempting to build up and maintain a one-man organization at any level of supervision should be clearly apparent. The executive or supervisor on any level who thinks he owns the place (or a part of it) and runs everything places himself in an absurd and unfortunate relationship to the human beings who are associated with him in what should be a joint productive effort. Such an attitude inhibits cooperation. Instead of acting as if he owned the place, it might be better for the supervisor to concentrate his efforts upon doing his level best to perform his duties and meet his responsibilities in accordance with the highest standards known to him.

No Robot Supervisors

In spite of all of the effort that has been put forth in the name of scientific management to make it unnecessary for people employed in industry to use their God-given intelligence on their jobs, no one thus far has devised a workable and acceptable plan for robot supervisors. The supervisor still has a job that calls for judgment, and there is no satisfactory substitute for one who will use his head according to the conditions which prevail at any given time. For many routine jobs that can be learned quickly, the requirements upon the worker are so limited that little more is needed than a short period of intensive training (1) to establish the needed work habits and (2) to provide such information as may be essential for employees to have and to understand in order that they may comply with the rules and regulations and otherwise fit

into the organization. It does not follow however that the supervisor's job is thereby simplified. On the contrary, experience has clearly indicated that the need for skilled and competent supervisors *increases* rather than *decreases* as work operations are subdivided and simplified.

Nature Avoids Duplication

In view of these circumstances, it cannot be emphasized too strongly that one of the outstanding responsibilities of a supervisor is to know his men as individuals. Supervisors should fully appreciate the fact that every human being is an individual—different from any other person that ever lived. Nature avoids duplication. This fact is amply verified in innumerable ways. For example, each and every individual has his own fingerprints, different from those of any other person, living or dead. The fingerprints of many millions of individuals are in the files of the Federal Bureau of Investigation in Washington but no exact duplicates have ever been found. Many other examples might be given to illustrate how nature avoids duplications, but for the purposes of this discussion attention is directed chiefly toward certain characteristics of workers that are important in relation to some of the problems of supervisors.

The Elements of Job Efficiency

The efficiency of a man in his work may be measured by considering five principal elements or factors. This was pointed out many years ago by the late Dr. Charles

R. Allen and others, and is frequently stated in abbreviated form as follows:

$$E \propto M + T + I + J + Mo$$

In plain English, this formula means that a worker's efficiency on his job depends upon, or *varies according to,* the way he measures up with respect to five elements or factors.

In this non-mathematical statement, often called Richard's Formula:

E represents a person's efficiency on his job.
M represents the individual's manipulative skill.
T represents his technical knowledge needed for the job.
I represents his job intelligence.
J represents his job judgment.
Mo represents his job morale.

The determination of a man's manipulative skill, M, and his related technical knowledge, T, involves little difficulty. A fair idea of the degree to which a person possesses either or both for any specific job can be determined by tests and examinations or by observing his performance on the job and asking him questions. The degree to which he possesses job intelligence, I, is also fairly easy to determine. Job judgment, J, which is largely an outcome of sound training plus considerable experience, is not so readily measured, and it is doubtful that there is any reliable means by which it can quickly be determined. A supervisor can determine the degree to which a man has it to any extent,

through observation of his performance on a variety of job assignments.

The Morale Factor

The last element of the so-called formula, morale, *Mo,* is the one that is most difficult to determine. It is an element of job efficiency that is quite independent of all the other elements. Also it is subject to wide variation. It may deteriorate or even become negative without affecting any of the other elements that go to make up job efficiency. It is a never-ending task for management to build it up and maintain it.

What Is Morale?

Good morale is something that cannot be secured by orders or exhortations, or forced into existence by the direct exercise of authority. If it prevails, it does so usually because of sound and progressive company policies and real leadership. It is a by-product of good administration and skilled supervision. It is something that grows and develops where men are given consideration and are accorded fair treatment. It is found where men are dealt with as human beings and as individuals.

Originally a military term, the word morale came into general use during World War I. Its meaning is closely associated with interest and satisfaction on the part of the workers. In another chapter, interest is defined as whatever it is that causes a man to want to *work* at his job. Satisfaction connotes a person's willingness to *stay* with his job over an extended

period of time. The term morale covers both these elements and it also implies something more. High morale makes a person want to put all he has into his work. It causes a man to put forth his utmost effort, under whatever conditions may prevail, in order that the job at hand may be finished in good shape.

In addition to the contributions which job interest and job satisfaction make to this "all out" attitude of mind, something else must be recognized. For example, it would be difficult to imagine a situation where both interest and satisfaction were lacking but high morale was evident. Conversely, however, it is conceivable that both interest and satisfaction might be apparent to some degree when morale was at a low ebb. For example, interest of a sort might have been induced by high wages, and satisfaction, sufficient to hold turnover at a minimum, might have been secured by improvements in working conditions. Yet the working force would "let the employer down" when "all-out" effort was needed. This failure might well be due to the lack of *esprit de corps*—to poor morale. It follows therefore that morale might fairly be regarded as interest and satisfaction, *plus*. What is this plus? This is not an easy question to answer, but observation and experience indicate that it is made up of such things as loyalty, courage, confidence, and pride. There may be other components than these, but there is not much question but that the *plus* includes at least these four.

Evidences of the Presence of These Elements

So far as working relationships are concerned, *loyalty* is indicated by the degree of real respect that employees have for their leaders; by their regarding the work ahead as *our* job; by speaking of the company as *our* company; and by referring to the product of the plant as what *we* make.

Courage is indicated when there is a will to hang together and carry on when difficulties are encountered or emergencies arise. Willingness to put forth special effort involving physical discomfort or mental strain, in order to overcome unusual obstacles, indicates the presence of this element.

Confidence may become apparent in either or both of two forms. Willingness of individual members of a group to assume added responsibilities is indicative of self-confidence. Confidence in others and in the organization as a whole is manifested by the remarks made by employees concerning the company and its policies and by their on-the-job relations with their supervisors.

Pride likewise may be regarded from two standpoints, personal and organizational. Pride becomes evident in much the same ways as loyalty, but it is also frequently indicated by special effort put forth by individuals or groups to maintain a high standard of performance so far as quality of work is concerned.

Group Morale

Group morale is the collective mental attitude of the working force; what they as a group think of their jobs,

what they think of their supervisors, and what they think of the company for which they work. This general mental attitude of a large group is really a composite of hundreds or thousands of individual mental attitudes. Where men take real pride in their work and where the great majority are proud of the organization which employs them, morale is high. Where there is lack of interest and the general tendency is to do no more than is necessary to "get by," and where employees feel that they are working for an employer whom they neither trust nor respect and most of them would like to get another job, morale is low.

What to Do About It

Assuming that a company's policies are reasonably progressive, the morale of an organization depends very largely upon its supervisors and the way they treat their men. The old maxim, "Take care of the pennies and the dollars will take care of themselves," might well be paraphrased to read: "Take care of the morale of individual employees and the morale of the plant will take care of itself." Obviously then it is up to the supervisor to give most careful attention and study to those of his responsibilities which affect the morale of workers.

The Supervisor's Responsibilities

The supervisor's responsibilities for things that affect the morale of his group are difficult if not impossible to segregate from his other responsibilities. To illus-

trate this point, the general objective of preventing accidents and promoting safety may be considered. Safety on the job is related to practically every operation or phase of every job. The supervisor does not secure the observance of safe working practices by treating safety and training in safety as something apart from the job. Such training is part and parcel of every detail of every job—planning, execution, inspection, and every other subdivision of the whole operation. It cannot be separated from the supervisor's responsibilities for laying out work, assigning work to individuals, giving the necessary orders, checking up on the progress being made, or any other aspect of the work. In a similar manner, the morale of a working group is affected to some degree by every action of the supervisor. Every decision he makes, every order he gives, and every act that he performs is important in this respect. Moreover, it is not only *what* he does that is important; the manner in which he does the things he has to do counts heavily also. To illustrate some of the points mentioned above, a few examples may be given.

One specific responsibility of a supervisor is to promote and encourage the development of men into well-adjusted employees who are interested in their jobs. In order to measure up to this responsibility, a supervisor should endeavor to *know* each of his men as an individual. He can well recognize men as he meets them in making his rounds. He should realize that a friendly word or two will usually make the employee feel that he is somebody. It is a mistake for a super-

visor to make contact with his subordinates only when they need to be criticized for some error or infraction of the rules. In addition to these and many other things that a supervisor may do, he should endeavor to find out from time to time whether his men *think* they are being treated fairly. Every competent supervisor knows that fair treatment is of paramount importance in dealing with employees.

Another supervisory responsibility that has a definite bearing upon morale is to provide job training if and when it is needed. In discharging this responsibility, the ways in which a supervisor arranges for qualified men to serve as instructors, and the satisfactory functioning of some plan for keeping track of men's progress in learning more about their work are important items.

Individual Characteristics

As the supervisor becomes acquainted with his men as individual human beings, he will probably be impressed more and more with two things: first, by the great variety of human characteristics observed, and, second, by the unlimited number of different combinations of characteristics possessed by different persons.

In addition to knowing such things about a man as his age, nationality, previous training, and experience, and something of his family, a supervisor should be as well informed as possible concerning the man's interests, ambitions, abilities, and aptitudes. Very often such data are secured by means of a questionnaire, which is filed in the personnel office. However, if not

thus available, the information can be gained through incidental contacts with the man on the job.

In addition to all the preceding data, there is another important group of characteristics, often included under the general designation *temperament* or *personality,* which is exceedingly important to the supervisor. These characteristics cannot ordinarily be ascertained by direct means. The supervisor should size up each of his men from the standpoint of temperament because the development and maintenance of group morale depends very greatly upon the proper handling of each individual.

Most People Conform to the Average

Most employees as well as most people conform to the *average* so far as such things as weight, height, intelligence, ability, and temperament are concerned. It is nevertheless true that individuals may, because of inheritance and conditions under which they live and work, deviate in specific ways from what may be regarded as average, particularly with respect to emotional or temperament characteristics, the sum total of which goes to make up what is usually referred to as personality. It is important for the supervisor to realize this fact because a man's personality characteristics may seriously affect his value as an employee and his effectiveness on a particular job. In this connection, it should be realized that emotional or temperamental characteristics are very largely independent of other job assets such as manipulative skill, technical

knowledge, and the other elements previously referred to in Richard's Formula.

Two Principal Types

In classifying individuals from the standpoint of temperamental and personality characteristics, psychologists recognize two principal types of people, *extroverts* and *introverts*. The extroverted person tends to make external adjustments to life. In other words he tends to adjust himself to conditions as they exist—to reality. He is self-assertive, egotistical, and pugnacious and enjoys making speeches and otherwise attracting attention to himself. Extreme extroverts are usually over-optimistic and want to dominate completely every kind of situation in which they associate with others. The introverted person, on the other hand, tends to make internal adjustments to life: he tends to avoid adjusting himself to things as they *are* and tries to live in an imaginary world of his own making. Introverts are retiring, submissive, sensitive, and conservative in dress and manner. Extreme introverts are likely to be day-dreamers. They prefer to work alone and are usually well satisfied to play "second fiddle" in any group. Generally speaking, a sense of accomplishment and a feeling that he is making good on his job has a good effect upon an introvert. It tends to modify his attitude (morale) and improve his usefulness as a member of the organization. The supervisor should therefore keep this point in mind in dealing with employees of this type.

General Conclusions

From the preceding discussion it seems clear that one of the most important and far-reaching responsibilities of every supervisor is really to know his men. To the extent that he studies them as individuals and comes to know and understand their characteristics, their strong points and their weaknesses as well, he is in a position to function effectively as their leader. As a result of good leadership more work will be done at less cost in human labor, and employees will be happier in the performance of their duties.

CHAPTER XI

VERBAL ORDERS

Because of the fact that foremen and supervisors are directly in charge of the work of others, it is necessary for them to give orders by word of mouth. It is important therefore that they should clearly understand the different kinds of verbal orders, the conditions under which each type of order is appropriate, what constitutes a complete order, and the effects of different kinds of orders upon those who receive them. It should always be borne in mind that the purpose of giving orders is to get things done. It is also important to remember that it is highly desirable to get these things done with a minimum of irritation and resentment on the part of the recipients of the orders.

Elements of a Complete Order

There are at least four points that should be entirely clear in every order. These are (1) *What* is to be done, (2) *Who* is to do it, (3) *Where* it is to be done, and (4) *When* it is to be done. These are sometimes called the *four W's* of a complete order. When orders are given, one or possibly more of these points may be so obvious or so clearly understood or implied that specific men-

tion of all four of the elements of a complete order may be superfluous. However, every order, if it is to be clear and definite, must in some way cover the four points mentioned.

In addition to the preceding points there are two others that are sometimes included in orders. These are (5) *How* the job is to be done, and (6) *Why* it is to be done. Strictly speaking, point 5 is not a *part* of the order, as any information supplied concerning how the assignment is to be carried out would properly be classified as *instruction* supplementary to the order. Point 6 is also supplementary to the order itself, not an essential *part* of it. However, for a superior to explain to a man why he wants something done in a particular way does not necessarily cheapen the supervisor or impair his dignity. Often a few words to indicate why a certain order is to be carried out precisely as stated tend to arouse a man's interest in doing his best. If, in addition to knowing what he is to do, he understands why it is important, the man may tackle his job more aggressively than he would if he were merely told or ordered to do the job with no hint as to the reason for it.

Notwithstanding the fact that the elaboration of orders by adding explanations of *how* and *why* may at times be both desirable and necessary, there are certain dangers to be avoided. For example, a supervisor must be careful not to offend the intelligence of an experienced man by unnecessarily telling him how to do things he is perfectly competent to do. Moreover, too much explaining by a supervisor as to why things are

to be done "thus and so" may be regarded by experienced subordinates as nothing but "blah-blah." It may also be pointed out that unnecessary and long-winded explanations of an order may even result in confusing a man and discounting the probability of having the order itself properly carried out.

Four Principal Types of Orders

For purposes of discussion, orders may be classified into four principal types: (1) commands, (2) direct orders, (3) directions, and (4) suggestions. These are now discussed briefly as follows.

Commands. Commands are appropriate when there is a need for doing specific things at exactly the right moment, under dangerous or critical conditions. For example, an officer in command of a ship about to drop anchor might give the command, "Let go the starboard anchor!" This would be a command, not a suggestion. Serious complications might follow if the anchor were not dropped at the exact moment when it should be. The command is essentially a military form of a verbal order. It calls for unquestioning obedience. In civil life, commands are seldom necessary. However, in emergencies or when one man has the entire responsibility for directing a hazardous operation, the command type of order may be entirely appropriate. Where the conditions justify them, commands are not resented. A supervisor should realize, however, that he can seriously impair his leadership if he bawls out orders unnecessarily under conditions that do not call for peremptory commands.

Orders and Directions. With experienced men who know how to do their work, it is usually sufficient for the supervisor to indicate, without any unnecessary display of authority, that he wants certain things done. However, the essential elements of a complete order should be covered, even though the tone of voice used is considerably subdued as compared with that of a foreman of a wrecking crew dealing with an emergency situation. Directions are somewhat less forceful than direct orders. When a command or a direct order is given, the distinction between the supervisor and the worker is emphasized. It is important in this connection for the supervisor to bear in mind that a command relieves the worker of all responsibility except that of obeying the order as given. Giving orders in the form of directions reduces somewhat the distinction between the supervisor and the worker. The supervisor still has most of the responsibility, but some of the responsibility for carrying out the details is placed upon the worker. Furthermore, in issuing orders in the form of directions, the supervisor can also give such instructions as may be needed. Supervisors should sense the conditions under which direct orders, given in an authoritative tone of voice, are not needed and where the desired results can be better secured by directions.

Suggestions. Under appropriate conditions, suggestions are often more effective than commands or direct orders. They are especially fitted to the higher type of employee, who is fully competent and thoroughly experienced in his own line of work. When a supervisor makes suggestions to a man regarding his work, there

is no emphasis at all upon the supervisor-subordinate relationship. Moreover, in making a suggestion, the supervisor assumes no responsibility, as all the responsibility for carrying on the job is placed upon the worker. Suggestions as to *how* a job should be done should be handled by the supervisor with a great deal of tact. After all, the objective is to get the job done. The supervisor therefore should give his orders or make his suggestions in such a way as to get the worker into the right frame of mind to do his best work.

The Art of Giving Orders

All this discussion indicates the desirability of having the supervisor know his men well enough so that he will give commands, orders, directions, and suggestions when and where they are appropriate. The more the supervisor develops skill and understanding in handling this phase of his job, the better will he get things done without wrecking the morale of the men who are responsible to him. As a rule, nothing is more resented by competent and experienced people than being bossed around unnecessarily. These same people, however, do not resent receiving orders in which all of the essential points are covered when the orders are given to them in a sensible and appropriate manner.

To possess the ability to give orders so that the best results will follow is an *art* of which all supervisors should strive to acquire a reasonable degree of mastery. The tone of voice used, the manner in which an order is given, proper emphasis, the avoidance of ambiguity, and the clarity and completeness of the order are all

features of great importance. Moreover, in giving orders it should be borne in mind that the number of things or points covered in one spoken order should be few. There is a definite limit to the number of items or ideas that an ordinary person can grasp at one hearing.

Important considerations for the supervisor with respect to the handling of *written* orders and other plant or office information may be found in Chapter XII.

CHAPTER XII

WRITTEN ORDERS AND INFORMATION

In the preceding chapter some of the more important points that a supervisor should bear in mind when giving verbal orders are discussed. Verbal orders are, in many situations, both appropriate and necessary. In any of the various forms in which they may be given, i.e., commands, direct orders, directions, or suggestions, they are generally used by the supervisor when he is either in the presence of the recipient of the order or in direct communication with him, as for example by telephone. It is usually poor practice to pass along orders by word of mouth through one or more intermediaries. The possibility is ever present of having the order garbled, or at least of having its meaning distorted through failure of the original emphasis and tone of voice to carry over through the intermediary.

Combinations of Verbal and Written Orders

The fact should not be lost sight of that frequently a combination of verbal and written orders is used by supervisors, depending upon the requirements of a specific situation and the prevailing circumstances. For example, a verbal order given by telephone may

subsequently be confirmed by a written memorandum or order. Furthermore, a written order may need to be clarified or explained by word of mouth, the verbal explanation constituting a supplement to the written order. The criterion of any order is that it shall be clear and understandable to the recipient. Therefore, the supervisor has to use his judgment regarding the appropriate form that any given order should take, be it verbal, written, or a combination of the two.

Exchange of Information

Written orders are discussed in some detail in this chapter, and an attempt is also made to classify the responsibilities of a supervisor for handling them as a part of the *general* responsibility in the exchange of information in writing between individuals, departments, or offices. Practically all that is said, therefore, concerning the supervisor's responsibilities for handling written orders applies equally to his responsibilities for handling requisitions, reports, and other means used for exchanging information in writing.

Some Reasons for Written Orders

The necessity for having orders complete is discussed in detail in the chapter on verbal orders and what is said there applies with equal force to written orders. The four W's—*what, who, where,* and *when*—should be covered either directly or by implication. It is particularly important to avoid giving an order by word of mouth if the order includes 8 or 10 points or items. Five is about the maximum number of ideas or points

that can readily be grasped at one time by the average person, and therefore orders that involve a multiplicity of ideas should be put in writing to avoid misunderstanding and confusion.

Sixty years ago, a psychologist named Ebbinghaus determined that there is a definite limit to the number of *new* things that an average person can learn quickly. For example, up to 7 items (nonsense syllables in his experiments) could be recalled after 1 reading which took 3 seconds. To learn 10 such items required 13 readings and 52 seconds, and to learn 16 items required 30 readings and 196 seconds! It will be realized that when orders involve a number of ideas or points it is poor practice to attempt to pass them along verbally.

In addition to the disadvantages that result from spoken or verbal orders when more than five or six points are involved, other disadvantages of verbal orders may be noted. For example, spoken orders may be incomplete or they may be misunderstood. Then after the supervisor has left the job to give his attention to other matters, something will go wrong on the job. The carrying out of the order depends upon memory, and therefore there is always the possibility of error. As verbal orders leave no record, there is no very good means of checking up on them to determine just what was said. It is therefore particularly important for a supervisor to make sure that his verbal orders are clear and that they are understood.

Issuing written orders is apt to require more time than giving them verbally. However, if orders are

properly written the chance of a misunderstanding later on is at a minimum. As was previously pointed out, written orders are entirely appropriate when considerable detail is involved, or where the order may refer to a job that will require several days' work. In such circumstances it may be necessary to refer to the order a number of times as the work progresses. Under some other conditions it would be foolish and unnecessary to issue written orders, as for example when the supervisor is present and is personally directing the activities of a group of workers, or when, in making the rounds of his department, he gives incidental orders that are not likely to be misunderstood.

The Supervisor's Responsibilities for Written Orders

Practically all supervisors have to handle written orders. In written orders *issued* by a supervisor, he is responsible for such things as their *accuracy, completeness,* and *legibility.* He is also responsible for forwarding all orders that he originates to the person or persons who should receive them, or for knowing that they are properly forwarded. For written orders *received* by a supervisor, he has a number of definite responsibilities. These include such items as (1) carrying out the orders intelligently, (2) back-checking on orders if they are not clear, if they are ambiguous, if they seem to be unreasonable, or if they are incomplete, (3) requesting supplementary orders or a modification of orders if unforeseen conditions arise, and (4) reporting to his superior if an order received cannot be carried out. These responsibilities are now discussed in some detail in the following paragraphs.

Orders Issued by the Supervisor

Accuracy. It often happens that inaccuracies creep into written orders, even though the person who writes them intends to be careful and accurate. One of the most common inaccuracies is the transposition of figures in numbers. When such errors occur the effects may be far-reaching, as, for example, when figures are transposed in numbers which designate the catalog description of machine parts. The cost and annoyance which may result from ordering part B-5723, when part B-5732 is what is wanted, may waste a great deal of time on the part of several persons, to say nothing of the delay and confusion in getting a job completed.

When a person travels by air, his baggage is tagged to show his flight number and destination, code letters being used to indicate destination points. If the person who prepares the baggage tags gets the code letters mixed up and a passenger's baggage goes to Seattle, Washington, while he goes to Washington, D. C., no small amount of confusion, delay, and embarrassment results to a number of persons. In such a situation, the baggage tag is really a written order to the baggage handler and the need for accuracy in making out such tags is obvious.

The foregoing example should clearly indicate that a supervisor has a definite responsibility for eliminating, in so far as possible, all such inaccuracies from every order or requisition that he or his subordinates issue, either by checking the facts and figures himself or by requiring his subordinates to do so.

Completeness. All orders issued in writing by a supervisor should be sufficiently complete to enable the recipient of the order to understand exactly what is wanted or what is to be done. When an order or a requisition is written, the fact that the person who writes it knows exactly what he wants to get or wants to have done tends to cause him to assume that the other person also knows these things. Hence an incomplete order such as, "move pump to desired location," might be issued by a supervisor in an operating department of a large industrial plant. If the plant happened to be an oil refinery with hundreds of pumps of many types and sizes located in various buildings and out of doors, could the recipient of the order be expected to know *what* the job was, *where* it was located or *when* it was to be done? All he would know would be that he was expected to move a pump. A considerable amount of time would probably be spent in telephoning, or otherwise trying to find answers to three of the four W's of such an order.

A requisition issued by a supervisor is essentially a form of written order. Both involve the exchange of information. When a supervisor on a construction job issues a requisition for "two more kegs of nails," how is the person whose job it is to fill the order to know what kind and what size of nails to send him? Some thought given to the matter of writing orders and requisitions so that sufficient information is given to secure the desired results with a minimum of confusion and misunderstanding is well worth while.

Legibility. Careless, sloppy handwriting on written orders causes no end of trouble, misunderstanding, expense, and delay. Although expertness in handwriting is not an essential qualification of foremen or supervisors, it is important for them to write clearly enough so that the orders are legible. Being in too much of a hurry is probably the principal cause of illegibility on orders and requisitions. In this connection, the careless writing of figures should especially be avoided. The figure 9 written so that it looks like a 7, or a figure 5 made all in one stroke of the pencil so that it may easily be mistaken for a 0 or a figure 6 are examples of this type of illegibility.

Orders Received by the Supervisor

Carrying Out Orders Intelligently. It is one thing for a supervisor merely to carry out to the letter the orders which he receives. It is something else for him to carry out such orders intelligently. Carrying out orders intelligently means that the supervisor has to use his head on the job. When he receives a clear and complete order, he knows what his official superior wants to have done. Being the representative of management who is closest to where the work is done, he knows more about the details of the job than anyone else. As he is carrying out his orders, on numerous occasions conditions and circumstances will arise which will make it necessary for him to decide what is to be done and how it is to be accomplished. In making such decisions, a competent supervisor keeps clearly in mind *what* his superior wants to have done. He

makes his decisions with reference to this main purpose, so as to get the desired results at least cost in terms of labor, material, and supplies. Poor decisions or failure to make decisions at all on the job inevitably cause confusion and delay and result in higher costs. Thus it is that a supervisor who lacks imagination and the ability to visualize the finished job desired by his official superiors fails to function fully on his job. Such a supervisor does not use and thereby further develop whatever managerial ability he has, because he has convinced himself that his whole responsibility is merely to carry out his orders. He believes in letting someone else worry and take the blame for such difficulties as may arise, so long as he can establish the fact that *he is doing what his orders call for.*

Back-Checking on Orders. When a supervisor receives an order which appears to him to be incorrect or unreasonable, or which cannot be carried out, he should do whatever is necessary to have it either corrected or verified. A competent supervisor does not carry out orders blindly, regardless of apparent errors or omissions. The fact that management on the higher levels would hold him at least partly responsible for delays, wastage, or greatly increased costs resulting from blindly carrying out orders, *regardless,* supports the hypothesis that supervisors *have* a responsibility for using their heads on the job. Very often mistakes occur in written orders because of typographical errors, and the senior supervisor who signs them may do so without careful reading and verification. He may even sign them without reading them at all, depending upon

some assistant to check them for accuracy and completeness. On the other hand, unnecessary back-checking may not only cause delays in getting work started, but may even become a source of irritation to executives on higher levels. Supervisors should therefore be fairly certain that an order *is* defective in some important way before starting to back-check it.

Requesting Supplementary Orders. Conditions frequently develop on a job which were not anticipated when the job was planned and which possibly could not have been foreseen. In such circumstances a supervisor should carefully consider whether or not his original orders are adequate or whether, in order to keep the record straight, supplementary orders or a modification of the original orders should be requested. In deciding such a question the common sense and good judgment of the supervisor on the job is of the greatest importance. In many such situations the supervisor may well discuss the matter with his official superior before taking any action.

Reporting Back. A responsibility can be discharged in but two principal ways: (1) by taking some action, or (2) by reporting back to a superior if it is not possible to act. From the fact that when a supervisor receives an order he thereby has a *responsibility* placed upon him, it follows that, somehow or other, he must discharge that responsibility. If he receives an order that cannot be carried out it is not sufficient for him merely to *know* that fact. He must *do* something about it. Hence he discharges his responsibility by

reporting back to his official superior that the order cannot be executed, together with the reasons therefor.

Requisitions

Mention has already been made of the fact that requisitions issued by a supervisor are essentially the same as orders. Consequently, all that has been said concerning the supervisor's responsibilities for written orders issued by himself applies equally to requisitions. In case the organizational routine makes it possible for supervisors to *receive* requisitions as well as issue them, the discussion of supervisors' responsibilities upon the receipt of written orders applies with equal force to requisitions.

Records and Reports

In most organizations, supervisors are required to keep some records appertaining to the operation of their departments. They are also ordinarily required to render reports of one kind or another. For the most part these records and reports are relatively simple and call for a minimum of writing. In practically all large companies printed cards or forms are provided and the supervisor is responsible for filling in certain blank spaces. Completing the forms would seem to be so simple that it would hardly be worth while to mention it in a book such as this. However, the illustration that follows is a true one, and it is included in order to emphasize the point that incorrect or incomplete records and reports may cost a great deal of money in addition to innumerable telephone calls, trips back and

forth between shops and offices, and a loss of time for the supervisors involved.

In an organization employing more than 40,000 persons, it was an inviolable rule that the time of every employee must be charged to a specific job-order number each day. Accordingly, each supervisor was required to report daily for every man in his gang the number of the job order to which his time should be charged. Many errors, ranging from 300 to 800 a day, were made in this one simple reporting operation. Most of the errors were due to transposing digits and other careless writing down of the figures and symbols of the job-order numbers on the individual time cards of the employees. Correction of these errors on employee time cards required practically the full time of six clerks in the accounting department, to say nothing of telephone calls and a lot of running about, plus embarrassment to the supervisors responsible for the mistakes. To say that these inaccuracies in carrying out a simple reporting responsibility cost a minimum of $1,000 a month is conservative.

Other Company Information

Under ideal conditions the supervisor is the one through whom all official information reaches the working force. Under practical conditions, however, bulletin boards and company news organs are widely used, especially in large organizations. Even so, information thus posted or disseminated frequently needs to be further explained or interpreted to the individual employee. The immediate supervisor is the

logical one to function in this capacity. Therefore it is clearly essential for supervisors to be well informed concerning all the things they should know in order to function adequately on their jobs. Workers look upon their supervisors as representatives of management, and consequently top management should not place the first-line supervisors under an unnecessary handicap through by-passing them in handling plant or company information. Channeling official information of various sorts to the working force via their supervisors is one way in which management can furnish concrete evidence to the workers that their supervisors on all levels are a *part* of the management.

CHAPTER XIII

THE PLACE AND FUNCTION OF TRAINING

The training of people in any working organization is an activity that is always under way. In industry and business, job training is so intimately associated with production or operations that any attempt to effect a separation of the responsibility for it from the line organization—the production or operations supervisors—is good only in theory. The fact is that real separation is impossible.

"Farming Out" Training Unwise

Curiously enough, top management very often looks upon the job training of its employees as something more or less foreign to the actual work of the organization. It is too often regarded as something that should be "farmed out" to avoid interference with productive work; the farther it can be farmed out the better; if it cannot be done completely elsewhere, attempts are often made to farm it out half way by having it done by a personnel department. Such an arrangement may look all right on paper, but it seldom works out satisfactorily. In this connection, pre-employment and extension training courses, which can properly be given off the job, either within the organization or by

outside agencies, should not be confused with *job* training.

Personnel Department Has Its Job

Personnel departments, as they have developed in recent years, represent an attempt to bring together under a single head (1) the various functions of employment management and (2) those activities which were formerly associated with employee welfare work. More recently, personnel departments have been given additional responsibilities for the administration of such things as efficiency ratings, group insurance, hospitalization, company cafeterias, and various forms of employee savings plans. These and similar miscellaneous activities and employee services now constitute the principal job of a personnel department. In some businesses such a department is headed by a vice-president in charge of industrial relations. Where such an arrangement exists, such things as the adjustment of grievances, classification, job evaluation, wage rates, and promotions are usually handled by the personnel or industrial relations department.

There seems to be ample justification for having matters such as those mentioned under some sort of centralized control. Personnel or industrial relations departments are all right for handling matters that can be well and efficiently handled as staff functions apart from production or operations. Experience up to the present time indicates very strongly, however, that the job training of employees is one function of

management that cannot be efficiently handled in this way.

Job Training a Line Responsibility

When training is made a subordinate activity under personnel, the training program, if it is to function in a vital way, *must be controlled* by line executives responsible for operations or production. The organization chart may have to be disregarded. The training director, even though he is a staff man himself, must, and does, handle his program virtually under the control and direction of the production superintendent, or the corresponding executive in charge of operations, depending upon the nature of the business. When training is *actually* under the control and direction of line executives it is an artificial and undesirable thing for the training director or head training supervisor to be placed in a subordinate position to a personnel manager. The latter has no direct responsibility for production. Such subordination of the training function to the personnel department actually becomes mere theory. It is little more than window dressing. The training director should be responsible to the head of the production or operations department and he should have rank in the organization commensurate with his responsibilities.

Separation Unprofitable

There are a number of reasons why job training should not be separated from operations or production. When such a separation is arbitrarily made, the tend-

ency is to set up schools off the job and away from where the work is going on. When this sort of separation occurs, three things start to happen.

1. The subject matter of instruction tends to "freeze" where it was when the separation was effected. Thereafter it tends to become more and more obsolete and out of step with current practices. Instructors are withdrawn from productive work and no longer are closely in touch with the practical work under way. As a result, they tend to become out of date in their knowledge and practice of their respective lines of work.
2. The instruction tends to become more and more of the academic type. Instead of having training closely tied in with jobs under way, the teaching is carried on by "subjects" with standardized and stereotyped lesson sheets and possibly textbooks. In a rapidly changing business or industrial situation such material is practically never up to date. Printed instructional material and textbooks always tend to lag considerably behind current practices. In the field of supervisor training the tendency is to substitute stereotyped lectures or "canned" material of a general nature for conferences on specific problems of immediate interest and importance.
3. The actual job training, *which must be given anyway,* is increasingly handled informally on the job by the supervisors *without any help.* When this condition prevails, the situation has, for all practical purposes, become the same as it would be if there

were no organized training at all. The training department functions in a manner similar to a ponderous idling engine. It runs all right and overcomes its own friction but it pulls no useful load. It does not even consume its own smoke!

The fact that these things have happened over and over again ought to be recognized as rather conclusive evidence that job training cannot successfully be separated from production or operations and set apart from where the work is done.

Why Subdivide Responsibility?

In addition to these tendencies, which appear to be about as inescapable as the law of gravitation, there is another point that should be recognized. Perhaps this may be brought out most effectively by raising the question: Why should some agency, other than that responsible for the work to be done, attempt to take over the entire responsibility for training the men who are to *do* that work? For it to do so is theoretically illogical, and, as stated before, it seldom if ever is possible for such a separation to be really accomplished. After all, supervisors who are responsible for operations or for getting out production ought to have a good deal to say about how their men will be trained. For someone else to attempt to assume this responsibility results in friction and tends to break down morale. Supervisors directly affected by such attempts tend to develop "sore heads." A much more profitable plan, which experience shows to be theoretically

sound, is to recognize the supervisor's interest in and responsibility for training his men, and maintain a training organization, which will function entirely as a service to supervisors, without interfering with their responsibilities or taking over one of the most important functions which naturally belong to them.

Some Reasons for Confusion

Possibly one reason why training has been so widely mishandled during recent years, by being designated as a subordinate activity under a personnel department, is that large numbers of new and inexperienced employees have had to be hired. Such employees can well be given some breaking-in or induction training. The object of such training is to supply new employees with the information that they should have in order that they may be able to get around and keep out of trouble, learn what they need to know of the rules and regulations, and acquire some familiarity with the policies and requirements of the establishment in which they are entering upon employment. Such induction training can very well be given before the new employee is turned over to a production supervisor for work. However, this *orientation training* should not be confused with *job training*. It is really preparatory or familiarization training, something that precedes actually reporting for work. Job training begins when the employee reports to his supervisor to go to work, and there is no specific point at which this type of training terminates. It is a part of every supervisor's job to provide such training and the responsibility for

having this function carried out should not be assumed by someone else.

Repeating Old Mistakes

During World War I, a great many mistakes were made in connection with training employees for the big increase in production that was called for at that time. As a matter of fact, some old-timers whose experience dates back twenty-five or thirty years have no difficulty in recalling the mushroom growth of vestibule schools and training departments, which often were established under officials who were designated as employment managers. The employment manager was the predecessor of the present industrial relations expert or personnel manager. Just as soon as the need for high-pressure production began to subside, training departments began to be scrapped. In many businesses the whole idea of organized training was thrown overboard, and management in general was glad to be rid of what was regarded as an expensive nuisance. Production supervisors generally felt a deep resentment against many of the training experts who had been given authority over the training of their men quite independent of any ideas that they, the production supervisors, had regarding what was needed. It was mostly where training had been properly tied in with production and the supervisors had been permitted to assume the responsibilities for training which logically belonged to them that training departments, as such, survived.

Shortly after the Armistice in 1918, a veritable army of so-called training experts was let loose on the country. Most of them had distorted ideas regarding the place and function of training in business and industry. *They had never analyzed their jobs.* A few of them got training jobs but many of them had to transfer their talents to other fields. Is history repeating itself now?

Training as a tool of management began to enjoy increased recognition in connection with the development of foreman and supervisor training under the leadership of the Federal Board for Vocational Education. An examination of the literature on that subject for the period 1918 to 1933 shows very clearly that the old idea of operating training departments as separate entities, wholly segregated from production supervisors, was unworkable. Training departments destroy their usefulness by attempting to do the whole job, ignoring the supervisors.

Essential Supervisory Function

In recent years the idea has been increasingly accepted that job training is one of the essential responsibilities of supervision and that the first-line supervisor is the logical man to function as the instructor on the job. From present indications it appears that many people in high positions who are now responsible for industrial management policies are in danger of repeating some of the mistakes that were made in 1917 and 1918. The ideas that seem to motivate them are the same—the only thing that is different is the

terminology. There is nothing new in what some personnel experts are now trying to do with training. It has all been tried out before. At any rate, regardless of what they do or attempt to do, job training will necessarily continue to be carried on, on the job, by supervisors. It would seem to be very much more logical to recognize the elements of this problem in their true perspective and to stop trying to force artificial relationships, which simply will not work. The supervisor *has* to give the practical specific job training to his men that is absolutely necessary in order that he may accomplish the work for which he is responsible. Is it not about time for this fact to be recognized and for the emphasis upon training to be placed where it belongs? Considerable experience has been accumulated during the past quarter century to support the statement that one of the best ways of developing employee training programs that will really function is to help the supervisors to do a better job of doing the things that they are going to do anyhow.

CHAPTER XIV

MATCHING MEN AND JOBS

The problem of matching men and jobs, to the end that every employee may be placed in the class of work for which he is best adapted, is an important phase of management. All foremen and supervisors are directly concerned with this problem. The way it is dealt with not only affects the attitudes and interests of employees; it also is an important element in the cost of operation. It is not an exaggeration to state that in an organization where considerable numbers of employees are misplaced in jobs for which they are not suited and which they dislike, the cost of accidents, spoilage, damage to equipment, and many other items associated with blundering work will increase. Moreover, the rate of labor turnover will doubtless increase. That in itself is an important cost element.

It should be noted that practically all foremen and supervisors perform this managerial function of matching men and jobs without going outside their immediate departments. It is, therefore, a phase of the supervisory job over which the individual foreman or supervisor usually exercises a high degree of direct control. Under normal conditions, the foreman has a group of employees working under his supervision,

each of whom he knows personally. He is well informed regarding what each man in the group is capable of doing. Because of this, the assignment of jobs to these individuals presents relatively few problems. With new employees, however, the situation is quite different. It is the purpose of this chapter, then, to discuss briefly some of the many problems involved in matching *new* men to existing jobs.

One Objective of Management

One of the objectives of efficient management is to place men in jobs for which they are fitted. The old trite reference to "round pegs in square holes" still indicates a condition which prevails to a much greater extent than many persons like to admit. There are all sorts of misfits in practically all places where people are employed.

Tests Have Been Devised

In an attempt to improve the condition referred to, numerous testing procedures have been devised. Thus there are intelligence tests, aptitude tests, performance tests, personality tests, trade tests, achievement tests, and possibly others. Industry has utilized these tests to a considerable extent, and psychologists have been employed to administer them. Moreover, with the present wave of interest in personnel administration, testing procedures have been widely accepted as an integral part of the job of selecting prospective employees. Modern tests are of value in two principal ways—(1) in identifying those who should *not* be

hired and (2) in discovering the aptitudes and specific abilities of prospective employees. Experience has demonstrated the great value of aptitude tests in facilitating the placement of employees in jobs for which they are temperamentally fitted and in which they are most likely to be happy and successful.

The Supervisor's Practical Problem

The preceding discussion may be of some interest to foremen and supervisors, but, after all, the formal testing of employees is not a part of the foreman's job. The tests referred to are usually conducted by persons who have been specially trained for such work. The values realized from their use are identified principally with the work and functions of the employment office or of the personnel department. On the other hand, when the new employee reports to his supervisor for work the latter has the responsibility of placing him on a job. Of course, the time-honored procedure of trying him out on a job can be used. That, after all, really amounts to giving the man a performance test. Such a test may be quite informal and it can properly be given unofficially by a foreman.

The problem that confronts the foreman or supervisor is very concrete and wholly practical. It is this: I have a job that's got to be done; I must pick a man for that job; how can I do the best possible job of picking?

The Supervisor Must Know the Job Requirements

The most profitable approach to this problem is possible when the supervisor has clearly in mind the re-

quirements of the job on which he must place a man. The job should have been analyzed. In order for a supervisor to discharge this responsibility efficiently, he must have considerable facility in analyzing the jobs to which he must assign men. He will then know what the requirements for each job are. Each job will have a name. It will be a specific payroll job.* All payroll jobs can be broken down into *work jobs.* Each work job can then be broken down into *operations.* For each operation, the *operating points* can be identified. It may even be profitable to classify the operating points into two groups, i.e., *human* and *mechanical.* A human operating point represents something that requires the application of either human intelligence or skill, or of both, at the proper time or, in other words, something the worker *does.* Mechanical operating points are those things that occur as a result of the proper coverage of the human operating points.

Not So Easy to Determine a Man's Capability

Although the job requirements may thus be clearly defined as indicated, there are no known means of accurately measuring the actual or potential abilities of a man for a specific job. The employment office or personnel department can and does select new employees with reference to certain general standards. When the new employee reports to his supervisor, however, the latter has to put him to work on a spe-

* For a more complete discussion of job analysis, the reader is referred to pages 66–86 of *Training Procedure,* John Wiley & Sons, New York, 1940.

cific job. A job analysis helps the supervisor to spot the teaching or checking points that must be covered either by him or by his designated representative, before the new man is given a definite job assignment.

Effects of Poor Placement

Some of the effects of poor placement, or the assignment to workers of jobs that are not appropriate for them because of their personal characteristics and job backgrounds are (1) having an excessive number of new employees quit during the first few days, (2) increased wear and tear on equipment, (3) lowered quality of production, (4) increased scrap, and (5) greater probability of accidents.

There is a grain of truth behind the facetious remark that the ideal of some employment managers is to have three men for every job—one coming, one working, and one going. There is too much of that sort of waste. The cost of merely getting a new employee hired and processed to a point where he reports to a supervisor for a job is by no means insignificant. Therefore to have a *procession* in and out of a plant is an expensive luxury. Although the employment office must assume a large share of the responsibility for excessive turnover among new employees, the supervisor to whom the new employees report can, by poor handling, cause many of them to decide to quit soon after they show up on the job. However, poor selection by the employment office and "off the cuff" classification and assignment of new employees by clerks who have little real knowledge of practical job

requirements are often prominent among the reasons why departments are frequently overloaded with misfits. They are also important reasons for having so many new employees quit soon after they start to work, but poor supervision must be held accountable for at least a part of the high costs of such a turnover.

What Does the Supervisor Do?

It is the supervisor's job to place each man where he can do his best work. How does the supervisor do this?

1. He looks the man over and notes such general information concerning him as is made available by the personnel department.
2. He interviews the man informally—gets him talking. At this point the supervisor determines as best he can how well the man's training and experience fit him to meet specific job requirements.
3. He checks the job knowledge of the new employee against the job requirements as shown by an analysis of the specific job. If the job is of the routine operative type, he checks the new man on his ability to cover the human operating points shown by the job analysis. (At this stage, the relationship of the supervisor to the new employee is that of instructor to learner.)
4. The supervisor puts over whatever instruction is needed to fit the man to meet the job requirements and helps the man to acquire an acceptable

degree of "doing ability" on all essential features of the job.

5. He then puts the man on the job and keeps him under close supervision until he is satisfied (*a*) that the man can do the job properly without wasting material, without damaging his tools or equipment, and without getting hurt himself or causing injury to others, and (*b*) that the man actually *knows* all that it is necessary for him to know in order to proceed intelligently.

An Alternative Method

The supervisor may put the new man on a job with an experienced man where he will work as an understudy. When this system is followed the experienced man becomes the new man's instructor. The supervisor delegates a part of his responsibility when he deputizes an experienced man to act for him in giving the actual instruction. However, the supervisor still has the *responsibility* for knowing that a good job of instructing has been done. He must be sure that the man can actually do what he is supposed to be able to do and that he knows what it is essential for him to know in order to work at his job intelligently.

The Supervisor's Function

The part of the supervisor's job that is performed while he is interviewing the new employee and *sizing him up* is the part where the supervisor's judgment counts for most. What is meant by judgment? According to Webster, it means the operation of the

mind, involving comparison and discrimination, by which knowledge of values and relationships is mentally formulated. It means the power of arriving at a wise decision. It is a more or less intangible ability that a person develops as a by-product of long experience. It is quite definitely associated with the *growth* of a foreman or supervisor as an individual.

To the extent that the foreman or supervisor does a good job of sizing up employees and seeing to it that they are adequately trained for the jobs to which he assigns them, poor placement is unlikely. Supervisors should be able to place employees properly as a result of what they learn about them while they are in a training status. The suitability of an individual for a specific job should become known to the supervisor before the employee is given a definite job assignment on his own. A competent supervisor never turns a comparatively green man loose to blunder around and perhaps learn by making mistakes. A new employee who does not react favorably during the time he is in a training status, is either transferred to some other line of work which he can learn to do well, or his separation from the department is recommended by the foreman or supervisor in charge.

For a more complete discussion of the instructional responsibilities of a supervisor, the reader is referred to Chapter XV.

CHAPTER XV

JOB TRAINING

In recent years much has been written on the subject of job training, and a vast amount of work has been done in an effort to assist foremen and supervisors in meeting their responsibilities for the instruction and training of the employees for whose work they are responsible. There are probably a variety of reasons for the widespread attention that has been given to improving this phase of the supervisory job. Prominent among these reasons is that it costs considerable in the expenditure of time, effort, and money to break in new employees.

The Cost of Breaking In New Employees

Many estimates have been made of the cost of breaking in new people on jobs. They range all the way from $30 per man, for replacing so-called unskilled labor, to nearly $500, for replacing a stillman's helper in an oil refinery. In a factory producing band instruments it was estimated that the cost of replacing a skilled worker was at least $1,000.

Some of the *cost elements* associated with the hiring and breaking in of new employees are (1) the time of

the person who has to instruct them regarding their duties, (2) spoilage and breakage in excess of what would be expected of experienced workers, (3) turnover during the learning period, (4) reduced production from equipment operated by employees while learning, (5) the difference between the value of the product turned out by the learners and the wages paid them, (6) wear and tear on equipment usually in excess of what would be expected with experienced workers, and (7) increased possibilities of accidents.

In breaking in a new man, the employer has to make a certain *investment* in his training, which is one of the recognized costs. In this connection the fact should not be lost sight of that when a man leaves he carries all of his training out of the plant with him. It becomes a total loss to the company.

In view of the rather formidable array of cost elements involved in getting even a single new employee broken in on a new job, a pertinent question would appear to be: What can the foreman or supervisor do to minimize these costs within his own field of responsibility?

An Example of How It Works

A new employee reports to his supervisor for work. He has been hired through the employment office and has probably been given a short orientation course in company rules, regulations, and procedures. He doubtless has a copy of the employee's handbook, which he is expected to read. He has also been supplied with a booklet on safety, which, if he reads it,

is supposed to prevent him from getting hurt. Now he has reached his supervisor, who, in turn, has the responsibility for getting him onto a productive job.

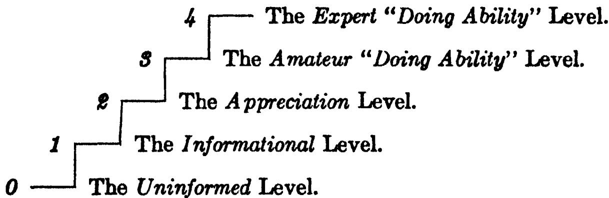
Before this new employee will be of much value to the plant or company he will have to learn a lot. Has his supervisor discharged his full responsibility if he merely says, "Well, here's the job, hop to it"? Is the man to be turned loose on the job to pick up as best he can what he needs to know? If the supervisor gives him a job different from any that this man ever did before and the man gets hurt, who is at fault? Who will get the blame if the new employee spoils a lot of stock or causes damage to expensive equipment? Who is responsible for knowing that this man has been properly instructed to perform his duties correctly and safely in connection with his first work job?

The answer to the last question is quite obvious. The supervisor is responsible for *knowing* these things. He may, and often does, delegate some of his responsibility for the instruction and training of employees to competent and experienced workers. However, in the last analysis, the responsibility is his for knowing that every employee who is given a job assignment in his department is able to do the required work correctly, intelligently, and safely. The proper and satisfactory discharge of this responsibility calls for (1) an adequate understanding of how people learn, and (2) a reasonable degree of skill as an on-the-job instructor. These two requirements are discussed briefly in the following paragraphs.

Stages in Learning a Job

A person does not learn a new job *all at once.* A certain amount of time is required. The accompanying sketch should help to illustrate this point. The idea behind it is of fundamental importance in connection with training for all jobs on all levels. There is nothing new about it, but it may nevertheless be of interest to many readers.

There are four stages through which an individual progresses in learning a new job:



Starting as a green man on the zero or uninformed level, the employee begins his training by learning what the new job is. When he reaches the informational level he has somehow acquired *information* regarding such things as the general nature of the work to be done, the names of the tools and equipment used, what the material is that he will work on, and the general requirements he will have to meet. Progression to the appreciation stage involves the development of a clear *understanding* of the new job. It is perfectly possible for a man to understand a job even though he has never tried his hand at doing it. Being trained up to the appreciation level results in understanding such things as the functions of the tools and

equipment used, the operations and processes performed by the worker, and the principal features of the work to be done. When the learner has reached this level in his training he can probably talk a lot about how jobs can be done and how the manufacturing processes he has observed are carried on. Incidentally, this is the point at which a great deal of general education stops. Of course there are many subjects that one studies where all that is necessary is an appreciative understanding. Matters concerning one's work are, however, not in this category.

In order to get work done it is not sufficient to train people in such a way that they merely comprehend things. What is needed is actual *application* of the information they have gained in order to develop *doing ability*. Such ability can be secured by putting the learner on the job (under supervision) and giving him an opportunity to extend his training to the point where he will possess doing ability. For all but the very simplest jobs the development of doing ability takes time. At first the learner is somewhat clumsy, self-conscious, and slow. This is so because the habits that he will need on his new job are not sufficiently developed to make it possible for him to work quickly and with confidence. He has to think about each move that he is going to make. Time is required to develop skill. Because of this necessary time, the development of doing ability may be regarded as taking place in two stages, *amateur* and *expert*.

The level of amateur doing ability is attained when the learner has been properly instructed. At this stage

the man can do the job correctly, intelligently, and safely, but he lacks skill and speed. Experience on the job and the fixation of work habits by repetitive experience under supervision enable the learner to make progress toward the level of expert doing ability. The time required to progress to this level depends upon several factors such as the nature and complexity of the job, the interest of the learner, and the learner's aptitude for the job.

Fundamental Principles

Instructing a person is not nearly as complicated a procedure as it is sometimes represented to be. A supervisor or instructor does a good job of teaching in proportion as he follows sound instructional methods. The learner, however, must do his *own* learning.

There are a few simple and easily understood fundamental principles connected with teaching a man how to do a job. From a practical standpoint some of the more important of them are as follows.

1. Learning is facilitated if the new ideas to be acquired are in some way associated with the knowledge and experience that the learner already has.
2. A person learns very little unless he is interested in what he is doing.
3. The average person cannot readily grasp and later apply more than five new ideas at one time. Three or four new ideas at a time is a better number.
4. Learning a job is not accomplished until the learner has *applied* what the instructor has taught

him. Telling him about it and explaining how and why things happen, although extremely important, only bring the learner up to the appreciation level.

5. For all manipulative jobs, the learner must demonstrate to his instructor that he can do the job correctly, intelligently, and safely before the instructional job can be considered complete.

The proper application of these basic principles calls for a certain degree of skill in the use of instructional methods. Such skill can best be developed if the supervisor has had the benefit of a practical instructor-training course. In this connection, experience has shown that under a well-qualified instructor trainer a group of from ten to twelve carefully selected persons can be trained as instructors up to the level of amateur doing ability in approximately thirty hours. In that period of time they will get a clear understanding of the instructor's "kit of tools"; they will learn how to use those tools (methods) intelligently; and they will be unlikely later to make very many of the worst mistakes that a person wholly untrained in this field would be likely to make. Following this training, skill can be developed only through practice in instructing employees on the job.

The Four-Step Method

The so-called *four-step method,* now widely used in industrial and business training, was developed by the late Charles R. Allen during World War I. The whole procedure for equipping practical people who know

their jobs thoroughly to function as instructors is fully set forth in Dr. Charles R. Allen's *The Instructor, the Man and the Job.** In this connection it may fairly be stated that *all* the present-day programs for the training of job instructors are adaptations of Dr. Allen's pattern. *The Instructor, the Man and the Job* is a monument to the outstanding pioneer work that Dr. Allen did in sifting out from the great mass of pedagogical literature certain fundamental truths and important scientific knowledge, and placing such material in a form that was understandable to practical men. Most of the principles embodied in the book may be found in somewhat nebulous form in older standard books on education, methods of teaching, and practical pedagogy. Although many of his writings, and perhaps most of the important principles of what he considered constitutes good teaching were not intrinsically new, they were new in the sense that he succeeded in removing them from the field of mystery and made it possible for practical men to understand and use them in their every-day work.

The accompanying chart lists the four steps of the instructing process, states the purpose to be accomplished in each step, indicates *what* an instructor should do, and suggests *how* he can do it. The accompanying chart (page 138) looks simple enough. However, as teaching is essentially an *art,* the only way to develop expert doing ability *as an instructor* is to acquire skill through repeated attempts to do a

* J. B. Lippincott Co., Philadelphia, 1919.

The Instructing Process

Step	*Purpose of Step*	*What the Instructor Should Do*	*Suggested Ways of Doing It*
I Preparation	To get the learner ready to learn a new job.	1. Put the learner at ease. 2. Find out what he already knows about similar work. 3. Arouse his interest in learning the new job. 4. Get him to understand the purpose and significance of the new job.	1. Assume a friendly, business-like attitude and engage the learner in relevant conversation. 2. Question him about any previous experience he may have had which relates to the new job. 3. Explain purpose and importance of the job, emphasizing why it should be learned thoroughly. 4. Give informational demonstration if appropriate.
		Jumping-off Point	
II Presentation	To set a pattern for the learner to follow.	1. Present each job step and idea to the learner in logical order. 2. Explain all technical terms used. 3. Instruct him in safe working practices. 4. Help him to understand and visualize the job.	1. Demonstrate the job carefully step by step, using technical terms correctly and making brief explanations as necessary. Use charts, models, sketches, and diagrams as needed. 2. Demonstrate how to avoid injury to self and others and prevent damage to materials, tools, and equipment.
III Application	To provide an opportunity for the learner to form correct work habits—manual and mental.	1. Put the learner on the job. 2. Supervise him closely. 3. Check to see that he follows the pattern. 4. "Patch up" instruction, if and when necessary.	1. Observe the learner's performance on the job. 2. Stop him and repeat part of step II, if and when necessary. 3. Question him to check his understanding of what he is doing.
IV Test	To ascertain if the learner can do the job correctly and if he has adequate knowledge of the related information and technical terms involved in the job.	1. Put the learner on the job. 2. Check on all essential points.	1. Observe the learner do the complete job without help. 2. Ask appropriate questions to check his technical knowledge and understanding of the job.

really good job of instructing. Although the "tools" used are simple, their proper use on the job calls for a high degree of skill, understanding, and good judgment.

Purposes Served by Each of the Four Steps

The purpose of the first step in teaching is to arouse the learner's interest, give him a general over-all idea of what he is about to learn, and get him to a point where he is actually ready to learn the new job. When the instructor has brought the learner that far, they have arrived at what is commonly referred to as the JOP or *jumping-off point.* Experience has amply demonstrated that the human mind grasps a new idea most readily if some association is established between the new idea and something the learner already knows. An instructor is supposed to know this. If he proceeds without knowing it, he will find the job of instructing a green man more difficult and troublesome than it should be. Step I does not ordinarily require much time or effort but it is very important that it should be covered thoroughly, for otherwise time is quite certain to be wasted later on.

The second step in instructing a learner amounts to putting over new ideas to him. It is particularly important to avoid including too many new things in one lesson. A good practical maximum is five new ideas for the best results, although seven or eight can often be put over successfully by a skilled instructor. If a job involves a greater number than that, the teaching of it should be separated into two or more units. For

most practical jobs a demonstration by the instructor is the most effective method to use for this step. Conversely, talking to a man, literally spraying him with information about *how* to do it, is the least effective. Merely *showing* him how to do the job is but little better than *telling* him. Instructors should exert every possible effort to develop their ability to put over good demonstrations.

The third step consists of having the learner make suitable application of what was presented to him in step II. It is true of most things that they are not learned until they have been *applied—used* for something. An important feature of step III is what is commonly known as "patching up" the instruction given in step II. "Patching up" may be necessary either because the learner failed to "catch on" to all the points included in step II, or because the instructor gave a poorly planned and ineffective demonstration. Whatever the reasons may be, however, the third step is the place to clear it up. Step III usually consumes the most time of any of the four steps listed on the chart, because the formation of correct work habits cannot be hurried. They require time to grow and develop.

The fourth step consists essentially of putting the learner on the job and having him demonstrate to the instructor that he has actually learned how to do what the instructor has tried to teach him. In this step the learner should do the job without any help. An important feature of this step is for the instructor to make sure that the learner understands what he is

doing. He should also check up to make certain that the learner has adequate knowledge of all of the related information and technical terms appertaining to the job. Step IV really amounts to having the learner pass inspection. This idea is familiar to practical men, and consequently the purpose of the step is usually understood by them without difficulty.

Avoid Confusion Between Steps and Stages

The four-step method discussed in the preceding paragraphs should not be confused with the sketch on page 133 which shows the four *stages* of learning. The completion of the four steps of the instructing process on a given job usually brings the learner up to the level of *amateur* doing ability only. Experience on the job under supervision, *after the job has been learned,* enables the person to develop skill and speed, i.e., *expert* doing ability. This phase is sometimes referred to as *training* following *instruction.*

Instructors Should Be Trained

In order to apply the four-step instructional procedure skillfully and to secure the best results from its utilization, all persons who have the responsibility for training others should themselves enjoy the advantages of having completed an instructor-training course. This is important because, generally speaking, it is a slow and highly inefficient process to develop real skill as an instructor without having had the benefit of a suitable course of training. It is, of course, conceivable that a person could develop considerable

ability as an instructor by acquiring information *about* the instructional procedure and then attempting to apply the information without any help. This system would really amount to having a man teach himself and learn *how* to teach by making mistakes. It should be emphasized that a careful study of the ideas presented in this chapter in no way takes the place of participating experience on the part of the supervisor in a practical instructor-training course.

The ability to analyze a job for teaching purposes is something that is essential for all instructors. This is discussed in Chapter XIV. In a well-organized and efficiently operated instructor-training course, appropriate emphasis is always placed upon job analysis. The ability to break down a job into operations and identify the *teaching points* is one of the essential characteristics of a well-qualified instructor, equal in importance with his skill in using instructional methods. Another ability without which an instructor's knowledge and skill is heavily discounted is the ability to manage a group of learners. This ability requires a quality of leadership similar in all respects to that which is characteristic of all successful supervisors.

In view of these facts, all of which have been hammered out on the anvil of experience, the conclusion appears to be obvious that a good instructor-training course of approximately thirty hours should be regarded as an indispensable feature of every training program for supervisors.

Although the principal outcome of an instructor-training course for supervisors and on-the-job instruc-

tors should be the development of reasonable skill in teaching, it is also particularly important for them to realize fully that their principal function is to make it easier for *learners* to *learn*. All that has been discussed in this chapter is intended to emphasize that point. Unless training on the job under trained instructors makes it both easier and less expensive for individuals to learn what they need to know to do their work, the instructor-training course has misfired. The training of instructors is not an end in itself. It is only a means whereby the cost of having a new man learn to work is reduced in terms of both monetary and human values.

CHAPTER XVI

JOB INTEREST

It is a fine thing for a man to be interested in his job. Without real interest, work becomes drudgery—putting in time for a price. When a man is at work on a job in which he is genuinely interested, he is more or less unaware of the passage of time. The days seem to be too short for him to do all that he wants to do. Conversely, when a man is unfortunate enough to have a job in which he has no *real* interest, time hangs heavily on his hands. He has to force himself to do what the boss expects of him. The job then is a disagreeable task and he is glad when he is through with it. He experiences little if any feeling of satisfaction when it is completed.

The thought expressed in the preceding paragraph was beautifully set forth by Emerson when he wrote:

> A man is relieved and gay when he has put his heart into his work and done his best; but what he has said or done otherwise shall give him no peace.

Many supervisors may feel that the time has long passed when most men employed in industry and business can be expected to take an interest in their work

as the craftsmen of former years did. They all know, however, that an interested man is active on the job, whereas an uninterested man is more or less "dead" on the job. Furthermore, they generally admit that it would be a good thing if there were more people who were really interested in their work.

This matter of being interested in a job is dependent more upon the mental attitude of the worker than upon the nature of the job on which he is working. The effort which a man will put into his job is generally proportional to the degree to which he is interested. For purposes of illustration, four degrees of effort on the job may be mentioned.

1. Maximum Effort. This is realized when a man is working for himself on a job he wants to do and likes to do. It is also realized when a man is in business for himself. In the first case he is likely to put forth maximum effort to get the job done in good shape for the satisfaction he will experience when it is completed. In the second case he will exert maximum effort to make a success of his business.

2. Good Effort. Good effort may be expected when a man is working as an employee on a job that he likes and for an employer whom he respects and in whom he has confidence. This kind of effort is naturally a bit less intensive than maximum effort. Human nature being what it is, good effort applied continuously is about all that can be expected of most employees, although in exceptional cases men sometimes exert maximum effort for their employers. They are especially likely to do so where the supervisor in

immediate charge of the work is a high-type man and a real leader. In some exceptional cases, a man will exert maximum effort because of his pride in his work and the high standard of performance he has set for himself. Such a man, under a poor or inefficient supervisor, will seldom reduce his effort on his job. He will continue to do his work according to a high standard while he is awaiting an opportunity to change jobs. Thus, poor supervision may cause a first-class man to become dissatisfied with his job. However, while he stays with it, he continues to perform in accordance with his own standards.

3. Fair Effort. This degree of effort is somewhat less than would be expected of the highest type of employee. It is often found where the employee takes little pride in his job and where he plans to do no more than is necessary for him to "get by" and hold his job. Many employees who, under favorable conditions, might exert good or even maximum effort, may be found in this category, because they lack confidence in management's policies, because they are working on jobs for which they are not temperamentally suited, or because of poor supervision. Moreover, a man who is more or less frustrated or discouraged because of some unfortunate incident connected with his job may cease to exert himself as he otherwise might. In many such cases, improvement in attitude and performance may well result from intelligent and well-planned action by the supervisor.

4. Poor Effort. Poor effort may be realized when a man is working on a job that he dislikes. His effort

is still further impaired if he works for an employer in whom he has little or no confidence. If, in addition, his work is supervised by a foreman whom he dislikes or distrusts, the effort which he puts into his work may be less than that which might reasonably be expected from an average employee on the same class of work. In many cases of poor effort, improvement may result from intelligent action by the supervisor, especially if the man's ideas concerning his employer and his supervisor are warped or otherwise distorted because of plant gossip or other misinformation. An employee should not be fired for poor effort until every reasonable means to improve his attitude has been tried.

In most situations, good effort may be secured if the supervisors do a good job and if, at the same time, the workers believe that the management is essentially fair and that its policies are sound.

When a man is interested in his job he *wants* to work. He *wants* to understand, to learn, and to accomplish the task before him—or at least to *try*. Therefore, it is a problem for the supervisor to deal with his men so that they will have a real interest in their work. To maintain job interest is one of the many human problems involved in supervision.

It amounts to nothing for a supervisor to *order* a man to take more interest in his work. Interest is a mental attitude. Even though a supervisor can control what a man *does,* he cannot directly control what he *thinks.* Some means other than giving him orders must be used.

A supervisor can, of course, get the *attention* of a man or group of men by shouting an order, by making a loud noise, by conspicuously bawling a man out, or by doing something else out of the ordinary. However, attracting attention is a very different thing from arousing interest. Interest, which may be regarded as sustained or continuing attention, must be stimulated. It cannot be forced.

Indications of Lack of Interest

Evidence of lack of job interest on the part of employees is easily recognized by experienced supervisors. Taking advantage of every opportunity to loaf, poor and careless work, abuse of equipment, general sloppiness, griping, and being slow in getting on the job are some of the symptoms. All of these and other similar happenings are indications that something is wrong. The problem for the supervisor then is what to do about it.

Reasons Why People Work

In order to deal with problems of sour attitudes because of lack of interest in the work at hand, supervisors should understand some of the things that cause an individual to *want* to work at his job. At first thought it might seem that the desire for money to be paid for work performed is the only thing that causes most people to work at all. It is true that the prospective pay envelope is an important reason for working at a job, but there are other things that also cause people to want to work. For example, one man

might work hard and do his level best on a very ordinary job, if he felt that by making good on that job he would be able to get a much better job later on. Another man would apply himself and do fine work because he wanted to turn out a finished job that he could be proud of—an example of his handiwork in which he could take justifiable pride. Still another man might put all that he had into his job so long as his effort was recognized by his boss and he received from him a word of commendation when he had done his best. Some people "perk up" on the job when they are given some responsibility for work that they know is important. Others such as inventors work hard just to see what they can do, and still others apply themselves best when they are trying to beat their associates. With them it is similar to winning a race. In general, a man works at his job for one or more of three principal reasons: (1) to earn money, (2) because he likes his job, and (3) because he thinks his job is worth doing.

Some Things That a Supervisor Can Do

Granted that the desire to earn money is one big reason why people work, it is very often true that the wage rate that may be paid to an employee is only partially under the control of the supervisor. Very often supervisors can make recommendations for wage or salary adjustments for their men, but for the most part they do not exercise much actual control over rates of pay.

There are, however, many other conditions that

supervisors *can* control, which have far-reaching effects upon the attitudes of workers with respect to their jobs. In fact, one important difference between a skilled supervisor and a blunderer on a supervisory job is found in the ways in which they try to keep their subordinates interested in their work. A skillful supervisor will do his best to stimulate the worker's pride in doing a good job. He will help him to *grow* on his job so that he may, after a while, be fitted for more important work. He will make his subordinates feel that the jobs they have are dignified and worthy of their best effort. He will be fair in all of his dealings and give his subordinates credit for good ideas. On the other hand, the blunderer on a supervisory job uses threats to keep his subordinates "toeing the mark." He knows of no better way of getting his men to turn out the work than to keep everybody in a state of uneasiness, wondering what may happen to them if they relax even a little bit. The supervisor who uses constructive means such as those that have been mentioned to stimulate job interest is a *leader*.

Swapping Ideas on This Subject

Because no two men are exactly alike, supervisors are confronted with innumerable problems in connection with the subject of this chapter. Participation in supervisor conferences under competent leadership provides therefore an excellent opportunity for supervisors to exchange ideas on *what to do* in order to develop and maintain job interest on the part of their subordinates.

CHAPTER XVII

JOB SATISFACTION

Job satisfaction is difficult to define. Most people know how it is to be more or less dissatisfied with their jobs and practically everyone who has ever worked at a job has, from time to time, experienced some degree of job dissatisfaction. If it may be assumed that it is desirable for a man to be fairly well satisfied with his job and reasonably happy in his work, the question of how such a condition can be realized or approximated is important. It follows, therefore, that supervisors may well give some thought to job satisfaction in order that they may, when practicable, bring constructive influences to bear upon those for whose work they are responsible. Good work along this line by supervisors is a definite contribution to efficient management.

Difference Between Interest and Satisfaction

In the preceding chapter *interest* is defined as that which causes a man to want to *work* at his job. What is here referred to as *satisfaction* may be regarded as that which causes a man to want to *stay* with his job. It is entirely possible for a man to be greatly interested

in his work and at the same time be dissatisfied. Such a man may be interested because of such things as (1) the pride that he takes in his ability to do high-grade work, (2) the wage that he is paid, or (3) the recognition that is accorded to him. At the same time, the idiosyncrasies of his supervisor, the fact that he is required to work with uncongenial associates, the location of the plant, inadequate and unsanitary washrooms, and numerous other things may serve to make him more or less dissatisfied. Because of such things he will want to leave his job and try his luck somewhere else. Many persons become dissatisfied with their jobs without having any clear ideas as to *why* they are dissatisfied. Supervisors should be able to recognize signs of dissatisfaction, to identify causes, and to take appropriate steps to prevent such undesirable outcomes as having valuable employees quit for no good reason. The purpose of this chapter therefore is to suggest some ideas and principles that should be helpful in dealing with every-day situations and problems in which dissatisfied employees are involved.

Complete Satisfaction Undesirable

In any consideration of job satisfaction it is important to recognize the fact that complete satisfaction with one's job may be undesirable. For a man to be *wholly* satisfied or contented with his work may mean that he has stopped growing and is simply coasting along, or that he has completely lost his pep and ambition and merely wants to hang onto his job as long as possible. Although it is not possible for a man to

be too greatly *interested* in his job, it is easily possible for him to be too well *satisfied* with his job. A certain amount of dissatisfaction seems to be necessary for the best results. On the other hand, too much dissatisfaction is quite sure to be injurious to the individual and to those with whom he is associated.

Danger of Confusion

In most discussions of the subjects, interest and satisfaction are more or less confused. This confusion may be due to the fact that individual cases of both phenomena, as encountered by supervisors, are not classified or labeled except as the supervisor himself is able to make his own differentiation between the two. Because of the fact that the things that stimulate job interest * are generally different from those that tend to result in a reasonable degree of job satisfaction, it should be both helpful and profitable for supervisors to recognize the distinctions herein mentioned.

Factors Affecting Job Satisfaction

Some of the more prominent factors that affect job satisfaction are job conditions, the nature of the work, social relationships, home conditions, and individual loyalties. These are discussed in the following paragraphs for the purpose of making clear some of the ways in which any or all of them may affect an individual's attitude with respect to staying with his job.

* See Chapter XVI.

Job Conditions. Specific items associated with this factor might well include such things as hours of work, whether the employee works on the day or night shift, travel requirements involving long periods of absence from home, the quality of the supervision that prevails, and the degree of responsibility placed upon the worker.

In some situations the supervisor or foreman can decide whether or not an employee will be required to work on a night shift. In others company policy may be the determining factor. Everywhere, however, the fact that a man may be required to work nights can serve to make him dissatisfied, even though he may still be very much interested in his job. In a similar manner, a job condition that makes it necessary for a man to be away from his home and family for extended periods of time may cause him to become dissatisfied to the point of quitting, even though he is keenly interested in his work and has a professional attitude toward it.

The way in which a foreman or supervisor deals with his men is another job condition that often affects the degree to which a man is satisfied with his work. For example, too close supervision of the work of a competent and reliable man may be an annoyance or a source of irritation resulting in dissatisfaction. Furthermore, the degree to which a man is given responsibility can definitely affect his satisfaction or dissatisfaction with his job. Some men welcome responsibility and seem to get real satisfaction from their work when they have a considerable amount of it. Others

want very little responsibility and may quit their jobs if they are given more than the irreducible minimum. This is another illustration of the fact that efficient supervision requires that the supervisor know his men and deal with each individual so as to secure the best possible results.

Nature of the Work. Some specific examples of conditions connected with the nature of the work or job which may, and often do, affect the degree to which a man is reasonably well satisfied are: whether or not the job calls for all of his ability; the results of his efforts as they appear to him; the opportunity his work gives for self-expression and service to others; and the man's ideas as to whether the work he does is really worth while. It is generally regarded as good personnel practice to utilize workers for the highest grade or type of work for which they are qualified. Such placement is not only good personnel practice—it is good business.

When a man is put to work on a dull, uninteresting job that requires but a small fraction of his ability, it is but natural that he should become dissatisfied. Furthermore, most people who work like to see some tangible results of their efforts. When a man's output of work loses all identity and amounts to little more than the performance of one small detail of a large manufacturing operation, the worker tends to think of his efforts as futile. He may get the idea that his work has little significance. If he does, the man is apt to become restless and dissatisfied. He may even have doubts as to whether anything that he *can* do is

worth while. In such a situation, the supervisor is confronted with a real problem. The way in which he handles it may decide whether the plant will retain a trained and experienced man or lose him and thus add to the sum total of industrial unrest.

Social Relationships. This satisfaction factor represents a number of specific items, such as adjustment to those with whom one works or comes in contact on the job, adjustment off the job to those among whom one lives, and the natural desire of a human being to want to stand well with his fellow workers, his friends, and his associates. Although a supervisor may be able to affect these things very little except as far as working relationships on the job are concerned, it is probably worth while for him to appreciate their importance and the effects they have upon employees' attitudes. Few individuals can be reasonably well satisfied with their jobs if they are required to work with those they think uncongenial. The person who is able to adjust himself to those with whom he must work is less likely to develop into a dissatisfied worker than one who lacks that ability. If a man *thinks* his associates are uncongenial, the situation is just as bad as it would be if they were. It is perfectly natural for a man to want to stand well among his associates and fellow workers. Anything that a supervisor can do to make it possible for his subordinates to gratify this wish is quite likely to promote job satisfaction, provided that it is done with judgment and a full realization of possible complications.

Home Conditions. The effect of home conditions upon a man's outlook on his job and his all-round efficiency is quite generally recognized. The health of the worker and the members of his family is one important item. Another is home ownership. A man who owns his home or is working hard to pay off a loan on it has provided himself with one of the best job stabilizers that an individual can possess. Small things that might cause a person with less responsibility to become dissatisfied and quit his job are not nearly as likely to impair the attitude of a home owner. A bit of friendly advice from a foreman has encouraged many a man to take the first step toward home ownership. In view of the probability that there is no such thing as job satisfaction that is independent of other satisfactions in life, the responsibility of supervisors to do what they can to help in bringing about some of these other satisfactions should be quite obvious.

Individual Loyalties. While self-interest is so nearly universal that attempts are often made to establish the fact that it is the *only* basic motive for conduct, there are other influences that appear to have far-reaching effects upon the mental attitudes and actions of people. For example, there is such a thing as loyalty. Loyalty is an emotion, a mental state or attitude, which often has a profound influence upon what a person does. It takes many forms, such as loyalty to country, to groups, to principles or ideals, and to individuals. Loyalty to individuals causes a man to stand by a friend when he is in trouble. It also causes people to stick together and help one another out, even

though individual self-interest might cause them to separate and look after their own affairs, carrying out the idea of "every man for himself." To the extent that loyalty influences individuals to stick to their jobs, when self-interest alone would dictate quitting and finding some other job, it is a potent factor in job satisfaction.

Additional Causes of Dissatisfaction. In addition to the causes of dissatisfaction that have been discussed, there are many others that might be mentioned. These include such causes as a feeling on the part of an employee that he is in a blind-alley job and that the future holds little promise for him, resentment due to the promotion over his head of "apple polishers" whose work performance is mediocre or inferior, a realization that he is out of step with self-styled *progressives* in the organization in which he is employed, and being belittled and embarrassed by studied discourtesies on the part of his associates. Finally, poor, weak supervision is, in itself, a prolific breeder of dissatisfaction. Few causes can more surely spread genuine dissatisfaction among employees than *pusillanimity* on the part of a supervisor.

There is no standard formula for promoting reasonable job satisfaction. It can be realized only when management establishes sound basic policies and makes it possible for them to be intelligently applied by competent and well-qualified supervisors and foremen.

CHAPTER XVIII

CARELESSNESS

When something goes wrong on the job, the first comment usually made is that somebody has been careless. All too often the term carelessness is used by those in charge of work as a sort of blanket excuse or alibi for things that happen. Accidents, injuries to persons, spoiled work, damage to tools and equipment, wastage of stock and supplies, mistakes in filling orders —any or all of these things are frequently attributed to someone's carelessness. Such unfortunate happenings cost money. Logically, if the supervisor is to measure up to his responsibility as a manager of his department, he must do everything that he can to keep costs down. It follows therefore that some consideration may well be given by foremen and supervisors to so-called carelessness on the part of employees in order to discover what can be done to check it. Carelessness is a cost factor that cannot be *entirely* eliminated. It can, however, be controlled to a considerable extent by good supervision.

More Than One Kind of Carelessness

One of the important points that should be clearly understood by all foremen and supervisors is that there

is more than one *kind* of carelessness. Especially with green or inexperienced men, what appears to be carelessness may not be carelessness at all. The trouble may be due entirely to ignorance. Possibly the man has not been thoroughly instructed. If he doesn't know *how* to do what he is *told* to do and as a result things get messed up it is not fair to the man to accuse him of being careless. Furthermore, such instructions as were given may have been incomplete, or they may not have been fully understood. Such instances are examples of *apparent* carelessness rather than of *real* carelessness. The real cause of the error is *ignorance* and the remedy is adequate and thorough instruction and training.

True carelessness may be of a *temporary* nature as contrasted with real carelessness of a more or less *permanent* type. For example, individuals who have been excellent workers over a long period of time sometimes behave carelessly. There are numerous causes for such temporary carelessness, such as fatigue, emotional strain, day dreaming, and monotony. Also, familiarity with hazardous equipment or processes may breed contempt, and the worker may not be sufficiently alert *all* the time to exercise proper care in doing his work.

Real carelessness of the permanent type may be due to lack of interest in the job, dare-deviltry, a desire to show off, mental dullness, a chronic "don't-give-a-damn" attitude, or mental or physical inability to meet job requirements.

Examples of Carelessness

One of the most common forms of so-called carelessness is illustrated when a person does things of a routine nature without remembering later whether he has done them or not. For example, most men are accustomed to winding and setting their alarm clocks before retiring. Repetition of this simple job, night after night for a period of years, develops a habit. When this habit is thoroughly established the individual goes through the routine of winding and setting his clock without *thinking* about what he is doing. Later, probably just before he falls asleep, he suddenly wonders whether the clock has been wound and set. He cannot remember whether he has done it or not, and so he usually gets up to investigate, only to find that the clock has been wound and set as usual.

Another illustration of real carelessness of the temporary type is found in the case of a veteran railroad employee whose duties required him to set a certain switch every day. Setting it became so much a habit that after a period of time no thought was required in performing the job. The man did automatically what he was supposed to do each day for several months, without any unfortunate results. Then one day *after* he had set the switch by force of habit, he woke up mentally and began to wonder whether he had set it or not. Being uncertain, he moved it and caused a wreck. For otherwise reliable and trustworthy employees, the danger of absent-mindedness is always present. How to prevent things from going

wrong due to this cause is a problem with which practically every supervisor is confronted daily.

A Mental Jolt Sometimes Effective

An individual who is temporarily careless on his job is often cured by the mental jolt which he gets when something serious happens. If he comes through without too great injury to himself or much damage to his work, the effect of his carelessness, together with a mental picture of what *might* have happened, may well make such an impression upon him that he will be mentally alert when he again finds himself in a similar situation. It often happens that after such a jolt the man will become an unusually careful and reliable worker if he is given another chance. Rather than have the man fired, the supervisor may, to good advantage, either continue him on the same job or place him on some other job for which he is qualified.

What Is Carelessness?

Some of the causes of real carelessness of the permanent or chronic type have just been mentioned. In this connection it may well be emphasized that real carelessness is never due to an *intention* to mess things up. Carelessness is responsible if an individual does the wrong thing when there is no good reason for it and when he has no intention of doing the wrong thing. If there is any intention to do wrong, then the individual may be chargeable with malicious wrongdoing rather than carelessness.

Real carelessness of the permanent type is illustrated in the case of a man who regularly and consistently damaged his machine after every possible effort had been made to train him. Another example is the employee who was so deficient in his sense of responsibility for accurate work that he unintentionally turned out defective work every time the supervisor put him on his own.

What Can the Supervisor Do?

Cases of apparent carelessness cannot be dealt with properly unless the *causes* are known. It is therefore very important for supervisors carefully to analyze all occurrences of so-called carelessness and determine the cause or causes as accurately as possible.

The question of how a supervisor can check carelessness on the part of his workers is one of the down-to-earth problems that foremen and supervisors face practically every day. Examples of so-called carelessness which are really caused by ignorance can be eliminated entirely by thorough instruction, and by giving orders clearly and making sure that they are understood. If and when supervisors *know* that every employee has the necessary knowledge, skill, and understanding of his job *before he is assigned to work at it on his own,* no unfortunate happenings due to *ignorance* should occur.

True carelessness of the temporary type may be due to an inadequate sense of responsibility as well as to absent mindedness. There is no known means of checking this kind of carelessness entirely. However,

if the supervisor knows his men well and keeps in close touch with what is happening on the job, the number of such cases should be held at a minimum.

Persistent carelessness becomes apparent when an employee fails to make the effort necessary to meet reasonable standards of performance after having been trained. Unreliable employees who consistently turn out poor or sloppy work may merely want to get paid for minimum effort. Their attitude may be due to laziness, poor physical condition, or lack of ambition, or they may perform poorly because they are on jobs for which they are not well fitted, regardless of the training they have had. Under such circumstances, the supervisor should either have the so-called careless workers transferred or he should recommend their discharge.

How to stop careless work is a problem for supervisors not only in manufacturing plants and on construction jobs; it is a problem wherever people are employed. Carelessness in copying figures, in filing papers, in handling merchandise in stores, and in keeping stock rooms in order may be mentioned to illustrate how widespread this abomination is. In trying to eliminate it from his organization, a supervisor may well depend first of all upon good training procedures. These should take care of seventy-five per cent or more of the cases. Secondly, he should analyze the cases of carelessness that persist notwithstanding good training, and deal with them so far as he can, so as to remove the causes.

CHAPTER XIX

SAFETY AND ACCIDENT PREVENTION

The need for ever-increasing effort to prevent industrial accidents is a subject that has been widely discussed both verbally and in writing for more than thirty years. Innumerable safety conferences and conventions and meetings of safety committees in industrial plants have been held. Countless speeches on safety and accident prevention have dealt with the problem from almost every conceivable angle. In view of these facts, the question might well be raised, *Is there anything more to be said about safety?* The record indicates that a great deal more needs to be said and a whole lot more needs to be accomplished. In one recent year occupational accidents were the cause of more than 18,000 deaths and 1,750,000 non-fatal injuries. More than two billion man-hours were lost to productive work in that year alone. Accidents of all kinds cause an annual loss of $4,000,000,000.

The Supervisor Is the Key Man

Books, pamphlets, and magazine articles have for years emphasized that the foreman or supervisor is the *key* man in accident prevention. It may be assumed

therefore that supervisors are sufficiently aware of their responsibilities in this respect. Consequently the purpose of this discussion is not to tell them once more in different language that they *are* key men—it is rather to offer some practical suggestions on just *how* they can proceed to reduce the number of accidents to their men and to secure the better observance of safe working practices.

Two Phases of a Safety Program

Any safety program is naturally divided into two separate and rather distinct phases. One phase is safety *engineering,* the other is safety *training.*

1. Safety Engineering. The analysis of conditions under which work is carried on and the identification of hazards are important responsibilities of the safety engineer. Furthermore, the analysis of accidents and the determination of their causes are among his recognized duties. Equipment is studied from the standpoint of the possibility of injury to those who work with it, on it, or around it. As a result, safeguards are designed to keep employees from coming in contact with moving parts, getting their fingers cut off, or becoming injured in still more serious ways. Safety engineering also includes periodical inspection of equipment used for hoisting heavy objects and for moving and handling material. The proper time interval for the periodical replacement of parts likely to give way or wear out and the specifications for equipment used in hazardous operations are determined by engineering methods. Designing and knowing the proper uses of

protective equipment such as goggles, respirators, hard hats, welders' masks, and safety shoes are other phases of safety engineering. Problems of industrial hygiene, including ventilation and the maintenance of safe and healthful conditions where corrosive liquids and poisonous materials are used and where noxious gases, fumes, or dusts are present, are other situations with which safety engineers must deal.

Safety engineering is essential in the development and operation of any worth-while safety program. However, in order that the results of the safety engineer's work may be satisfactorily realized in practice, the means must be provided for properly acquainting production supervisors on all levels with an adequate understanding of what the safety engineer is trying to do and how he is trying to do it. These are necessary because the question of whether or not the ideas of a safety engineer will be accepted by employees and carried out on the job depends more than is sometimes realized upon the attitude of the supervisors in charge of operations.

It has been pointed out repeatedly that workmen often resent the use of safety devices such as goggles, respirators, and even guards on such machines as circular saws and jointers. The usual reason is that the men think these safeguards interfere with their work and that they could do more work and earn more money if they were not hampered by so many safety gadgets. This attitude is especially prevalent among older workers who learned their trades or occupations before safety devices were so generally used. Older

workmen will often discard safety devices except when an inspection of some sort is due. In practically all organizations the "grapevine" is highly efficient. When the word is passed that the safety committee is coming around to make an inspection, safety devices, machine guards, and other safety equipment will be put in place and used until after the inspection is over. Then all gadgets that can be removed will be stowed away until the next inspection. Obviously the only man who can *do* much about such a condition is the supervisor on the job.

Another thing that tends to discount the effectiveness of safety programs is that safety engineers do not always appreciate the importance of *training* in safe working practices. For example, safety engineers may think that they have fully discharged their responsibilities when they have formulated a set of safety rules and distributed them in the form of a booklet to all employees. All too often it is assumed that having *information about* safety and safe working practices is the same thing as having *learned to be a safe worker.* Safe working practices are not learned until the worker has applied the information on his job sufficiently to have acquired habits of working safely. Most supervisors have listened to safety talks, lectures, and speeches where they were *told* more things *about* safety in one hour than the average listener could learn in a week.

2. Safety Training. The second phase of a safety program is that part for which supervisors must assume most of the responsibility if a good job is to be done.

This may be called the training phase. This is where many of the findings of safety engineers and safety committees are actually translated into practice and applied on the job. It has been generally recognized for a long time that one of the best ways to prevent accidents is to train all new employees properly. The *correct* way to do a job is the *safe* way to do it. If, therefore, insistence upon the observance of safe working practices is definitely made a part of all job instruction, an effective means is taken for preventing accidents and injuries to workers.

It has been estimated that 90 per cent of all accidents are preventable. Whether this figure is exactly correct or not is beside the point. It is a fact, however, that many so-called industrial accidents are due to ignorance. Where such accidents occur, it definitely indicates that training is not functioning properly. Many accidents have been analyzed, and it has been shown repeatedly that where the cause of an accident was thought to be the employee's carelessness, the real cause was ignorance. The man on the job had never been properly trained in safety precautions and safe working practices. He had been given a job assignment and the supervisor had failed to check up to make sure that the man was competent not only to *do* the work required, but to *do it without damaging tools and equipment and without causing injury to himself or others.* The most effective way in which supervisors can prevent accidents, therefore, is to do a thorough job of training. Experience has shown that where the training of employees is thorough and based upon

accurate analyses of the jobs to be done, the plan works and yields results. Job analyses, when properly worked out, indicate the safety precautions and safety instruction and training that should be covered. To establish habits of working safely when a man is *learning how* to do a job is one of the most effective ways of promoting safety.

Training a Part of Supervision

Safety and accident prevention on the job is so intimately associated with discipline and the training of employees that no discussion of the subject can be regarded as reasonably complete without reference to those fields of responsibility. To a very great extent, a satisfactory outcome of supervisors' attempts to reduce accidents probably depends more upon the proper training of employees than upon any other single factor. This statement is based upon the assumption that the safety engineer is carrying out his part of the program and that safety committees are trying to function.

So far as the supervisor is concerned, successful handling of the part of the job that belongs to him calls for considerable work in job analysis. After all, the job-analysis approach to the problem is the scientific approach. In its simplest form, the scientific approach involves two very distinct steps (1) getting all the facts that have a bearing upon a problem, and (2) studying those facts to see what can be done.

Unfortunately, some safety engineers seem to take more interest in compiling statistics, making mathematical computations, formulating rules, organizing

safety competitions between departments, and assigning blame for accidents that *have* happened than in cooperating with supervisors to prevent accidents. Such a condition tends (1) to arouse resentment on the part of production supervisors, (2) to inhibit *real* cooperation between production supervisors and the safety engineer, and (3) to tempt supervisors to cover up, so far as possible, minor accidents that do occur. One way of improving such a situation is to invite the safety engineer to participate in supervisor conferences when the responsibilities of production supervisors for accident prevention are analyzed and discussed. Better mutual understanding should result in increased recognition of the idea that it is better to establish habits of working safely than to let workers develop poor habits and then placard the plant with posters and pictures which tell them what *not* to do.

Information Must Be Applied

It frequently happens that accident records are not as good as might be expected after a great deal of time and effort has been put into safety drives and campaigns, not so much because supervisors lack information regarding safety and safe working practices as because of the difficulties of translating theory into practice and making practical applications of principles. In this respect, the supervisor is more or less like the farmer who was visited by a representative of the state agricultural college. In commenting upon the condition of the crops and the management of the farm, the agricultural agent explained how certain

changes might be made in order to increase profits. The agent also offered to send the farmer some pamphlets, giving information on how he could do the things suggested. The old farmer listened patiently and then remarked: "Listen, young feller, I already know how to run a farm a damned sight better than I am running this one." What the farmer probably meant was that he had acquired a lot of information *about* farming that he had not yet been able to *apply.*

Safety Training and Job Training

The place and function of training in a working organization is discussed in Chapter XIII of this book. There it is pointed out that training cannot successfully be set apart from production or operations. All of the reasons mentioned in support of that hypothesis seem to apply equally to safety and accident prevention. It is on the job where the work goes on that accidents are prevented and safe working practices are observed. It is also on the job that workers get the instruction and training that they need in order to do their work *safely* as well as to do it *correctly* and *understandingly.* It is, therefore, just as illogical to set safety off by itself or to place it under the control of someone outside the production or operating department, as it is to try to make some outsider responsible for all the job training that goes on. When supervisors are conscious of their responsibilities for both job training and safety training and meet these responsibilities effectively, supervision functions as a part of management. The training director and safety

supervisor then stand in their proper relation to line supervision, i.e., as *service men* * helping supervisors to discharge the responsibilities that are a part of their jobs, rather than annoying supervisors by trying to take part of their jobs away from them.

* For a more complete discussion of this expression see page 34 of *Training Procedure,* John Wiley & Sons, New York, 1940.

CHAPTER XX

DISCIPLINE

In any consideration of the subject of discipline, it is well first to examine the word itself, in order to become familiar with its various meanings. Unfortunately, but at the same time quite logically, the word discipline usually carries with it the idea of punishment or the imposition of penalties. Recognizing this fact, the writers have found it to be both interesting and illuminating to explore this matter with many groups of supervisors. In their experience, the word discipline is very definitely associated in the minds of a great majority of foremen and supervisors either with the administration of a system of penalties for violation of rules and regulations, or with the subjugation or restraint of individuals by dictatorial authority.

Discipline a Result of Good Leadership

To many supervisors, it is a relatively new idea to regard discipline as one of the important outcomes of competent leadership and as one of the most valuable results of good training. In its best and most constructive form, discipline is a force that develops *within an individual* and causes or tends to cause him to con-

form to rules, regulations, and high standards of work and behavior. He conforms because he knows and understands that rules and standards are essential (1) to his own success as an employee, and (2) to the efficient operation of the organization in which he is employed. Unfortunately, this form of discipline, commonly known as self-discipline, cannot be developed in all individuals. For many employees there must be a restraining force in evidence to maintain order and to secure observance of rules and regulations and conformity to reasonable standards of performance. At least there must be an awareness that such a force *is* available and that it will be exerted as may be necessary to prevent individuals and groups from behaving in a way that would be inimical to orderly operation.

Penalties Sometimes Necessary

In most large organizations there are a few individuals who will neither develop self-discipline nor conform readily to approved standards merely because they know what restraints are available for use. These few must be held in line by rules accompanied by the strict and just enforcement of penalties when infractions occur. This type of discipline is essentially negative but nevertheless necessary under the conditions indicated. It is clear, therefore, that even the most competent supervisor may, at times, be forced to utilize this negative form of discipline. It really amounts to scaring a man into the observance of rules, regulations, and reasonable standards of work and conduct. Supervisors who have thought their way

through the effects of using fear as a motivating factor will fully appreciate the fact that forced discipline should be utilized only as a last resort. It has a paralyzing effect upon the higher type of employee, and the more brains and ability a man has, the worse the effect upon him is likely to be.

Supervisor Should "Govern" Subtly

The statement has been made that any government is at its best when it makes the least display of its authority. This idea may well be applied to the supervisor's job. Clearly, it is a part of his job to govern his department. He is the representative of management, and therefore he should see to it that his part of the organization is operated in an orderly and efficient manner. Among other things his duties include the observance of all rules and regulations and the correct interpretation and application of company policies; he is expected to maintain a well-disciplined organization.

Two Principal Courses

There are two principal ways in which a supervisor can accomplish this purpose: (1) He can make a conspicuous display of his authority, bawl people out, make threats, and impose harsh penalties for infractions of the rules, and (2) he can achieve the desired results through exercising real leadership with his subordinates. Following the latter course, he will use every practicable means to encourage more self-discipline on the part of the employees under his cognizance. He will strive to put his men in such a frame of mind

that they will *want* to do the right thing. He will use judgment and discretion in exercising his authority. He will accord fair treatment to all, play no favorites, stimulate self-respect and job pride, recognize individual differences in people, and set a high standard of performance. When the occasion requires he will deal with irregularities promptly and firmly. This firmness will tend to make his men realize that he is no "easy mark," and he will prefer to rely upon that impression rather than upon an ostentatious display of authority or other effort to make himself conspicuous. The *manner* in which a supervisor does what is necessary to maintain discipline is perhaps even more important that *what* he actually does.

High Morale Results from Good Discipline

In another chapter it is pointed out that morale results from mental attitudes. It is here emphasized that really good discipline in an organization is one of the ways in which high morale is manifested. Specifically, good discipline is likely to be realized when every subordinate has confidence in his official superior in the organization and *knows* (1) that he will get encouragement and approval for acting correctly, and (2) that just criticism and penalties will result from acting wrongly. Unless these two ideas prevail in the minds of subordinates on all levels of employment and are confirmed in practice, those who have supervisory jobs on all levels have a deteriorating situation on their hands. Such a situation may develop at any level of supervision. It indicates that the supervisor is los-

ing his leadership with his subordinates. When he starts to lose it, discipline begins to break down.

How Breakdown Starts

The initial phase of such a breakdown is often due to someone taking advantage of the supervisor because he has been too easy going and has failed to insist upon proper standards of performance. The supervisor, realizing that he is losing control of the situation, may then suddenly become hard boiled. Disapproval, fault finding, and harsh criticism characterize his contacts with his subordinates when previously he had been easy going and friendly. This change causes his subordinates to become antagonistic, if not hostile, in their attitude. More criticism and more disapproval by the supervisor induces more resentment and more antagonism on the part of the subordinates and so on and on. Thus it is that a vicious circle in human relations is created. Such a situation presents a difficult problem. One solution is to get a new supervisor for the job. However, in any event, both the supervisor and his subordinates must "snap out of it" and cease trying to pick a fight with one another before the proper relationship between them can be re-established.

Threat to Security

One of the inescapable results of such a sequence of events is that those involved develop a feeling of *insecurity*. As security is one of the basic wants of every human being, the inevitable human reaction of a man when his security is threatened is to become very much

interested in ways and means of protecting himself against real or imaginary threats to his comfort and peace of mind. In other words, he wants to fight against threats to his security.

When the interest of any considerable number of employees becomes centered more upon fighting threats to their security than upon the performance of their work, discipline has deteriorated to the danger point. Such a condition may prevail even though there may be little outward evidence of it. To the extent to which it exists, however, the organization is in bad shape and management is playing a losing game. Deep and widespread resentment in the minds of employees is something that few, if any, organizations can afford. It is like a sleeping volcano, which may erupt violently at any time and with little warning. The worse such a situation becomes, the more self-discipline disappears and the harsher the rules and accompanying penalties must become in order to maintain an outward semblance of discipline and the appearance of an efficient organization. Eventually, unless the situation is corrected, there is an explosion. This is followed usually by a reorganization under new management.

Throughout such an unhappy sequence of events, supervisors on the several levels are in a position to *know* what the conditions are, especially the first-line supervisors. Competent supervision, if backed up by top management and supported by reasonably good company policies, can correct such a situation as that just described before it gets to the point of "blowing up."

Supervisors' General Responsibility

In a poorly disciplined organization, the work goes forward only when the supervisors "ride herd" on the working force. Just as soon as the supervisor is out of sight, workers start loafing, visiting, engaging in horse play, and otherwise putting in time without doing their work or performing their duties. When these workers were hired they agreed, at least by implication, to measure up to a reasonable standard of performance. That they are now slacking off at every opportunity is a sure indication that somehow or other discipline has "gone by the board."

Where men perform their duties and carry out their responsibilities voluntarily, good discipline prevails. In an organization where these conditions exist, employees, including supervisors, understand their responsibilities. They know what their duties are and how and when to perform them—whether the boss is checking up on them or not. The supervisors do not "gum shoe" around looking for something to find fault with.

Behind and beyond the apparent or obvious symptoms of good or poor discipline, such as those mentioned, there is a factor that merits careful attention and serious study by all supervisors. It is the importance of *habits*. Men have habits of *doing* as well as of *thinking*. Habits are neither acquired nor broken over night. A certain inertia connected with habits affects people in a manner similar to the effect of a flywheel on an engine. Habits persist. They influ-

ence what a man does and what he thinks to a greater extent than is sometimes realized. This point is important for all supervisors to keep in mind. Good discipline will prevail in a department when the supervisor has succeeded in getting his men into the *habit* of doing what they should do in ways that will contribute to a well-disciplined organization. This task is not easy. It is rather the end result of all of the supervisor's efforts to do a jood job himself in his capacity as a part of management. All the many characteristics of good supervision discussed in this book and others not referred to in detail contribute to a truly well-disciplined organization.

CHAPTER XXI

LOAFING

The supervisor's problem of controlling loafing is, in most organizations, of sufficient interest to justify some consideration of it. Although it might seem that all the constructive suggestions relating to this problem would be brought out in the discussion of other phases of the supervisor's job, such as accident prevention, stimulating interest, maintaining discipline, and controlling carelessness, experience has shown that there are other issues involved.

Loafing on the job is one of those negative conditions that the supervisor can never expect to eliminate entirely. About all he can do is to keep real loafing down to a reasonable minimum. Anyone who thinks he can stamp it out completely by hard-boiled discipline and severe penalties is merely kidding himself. It is quite certain therefore to be both interesting and profitable for supervisors to identify some of the principal causes of loafing in their own departments and figure out some of the best ways of keeping loafing down to a reasonable minimum.

What Is Loafing?

According to Webster, loafing means "To spend time in idleness; to lounge or loiter about or along." From this definition it would appear that loafing may be regarded as implying something more than a temporary suspension of work by an individual. Lounging or loitering while spending time in idleness is an important characteristic of real loafing. As a man's posture or actions are indicative of his mental state, a slumped down or slouchy attitude or aimless loitering around is evidence of real loafing of an undesirable kind. Temporary cessation of work for such reasons as fatigue, physical discomfort due to excessive heat, extreme or unusual sustained physical effort or exertion, or eyestrain because of poor illumination, should not be regarded as *loafing* within the true meaning of the word.

Bluffers and Planners

The employee who rushes around with a handful of tools to create the impression of being exceedingly busy does not necessarily accomplish the most. Neither does the supervisor who habitually hurries around the shop or office with a bunch of papers in hand always do the best job in his field. Frequently men have to take time to *think* and *plan*. Time spent thus is time well spent. Very often both employees and supervisors do some of their most important work when they take time to plan ahead so as to forestall difficulties and avoid confusion later on. Such plan-

ning is conspicuously useful to skilled artisans on construction and repair work where the exact procedure to be followed cannot be anticipated. It is less useful of course where jobs are standardized, as in many offices and departments of manufacturing industries.

Rest Periods Pay

The fact has been thoroughly established that well-planned rest periods for employees result in increased production in many occupations. Instead of workers being expected or required to stick to their tasks steadily and without interruption for full half days, definite rest periods are scheduled. In many plants short rest periods in the middle of the morning and the middle of the afternoon have brought about substantial improvement in both quantity and quality of production even though the time for actual productive work was reduced from twenty to thirty minutes per day. In other situations involving heavy manual labor, production has been increased as much as fifty per cent by giving the men a rest period of five minutes every hour of the work day. In view of these facts it would seem that in many situations incidental loafing can largely be eliminated by giving employees properly scheduled rest periods. Not only do the workers return to their jobs refreshed after suitable breaks, but they apply themselves more assiduously to their tasks. Moreover, they make fewer mistakes resulting in accidents and spoiled work, particularly in industries having high-speed equipment that requires operators to be constantly on the alert. Where no rest periods are

provided, statistics show that the accident rate increases from 8 A.M. to noon and again from 12:30 to 5 P.M. The first hour of the afternoon shows a rate considerably lower than the last hour of the morning shift but the accident rate increases during the afternoon, to the day's high during the last hour of the day's work.

Fatigue may be due to mental strain as well as to prolonged or intensive physical activity. If a person's job requires continuous concentrated attention for excessively long periods of time, reasonable breaks or rest periods are necessary, or unfortunate results may be expected. It may therefore fairly be stated that suitable rest periods are just as important for those whose jobs require mental alertness as they are for workers who perform hard manual labor or those who do monotonous repetitive work.

On certain jobs, such as operating heavy machine tools, the worker may have little to do while a cut is being completed. However, such jobs usually involve expensive castings or forgings where the cost of a mistake would be very great. Jobs of this kind require that the machinist give careful attention to the work, even though there may be no need for him to do any active or laborious work for considerable periods of time. In such situations the whole idea of providing periods of rest or relaxation becomes unimportant.

Management's Responsibility

If management, including first-line supervisors, does not deal intelligently with the problem of fatigue and

provide suitable and needed breaks, employees will find ways to do something about it themselves. In this connection it may be pointed out that psychologists have determined that unauthorized or stolen rest periods have less value than approved rest periods. Apparently the value of rest periods involves psychological as well as physical factors. It is therefore far better to give employees appropriate rest periods than it is to have them surreptitiously hide out in washrooms or elsewhere in order to get away from the job for short periods of time.

If a certain amount of idleness or loafing is going to occur anyhow, the question of whether to recognize the fact and provide for orderly breaks in the routine is one for management to decide. The time allotted to approved rest periods should not be regarded as having been spent in loafing within the ordinary meaning of the term. However, such time is actually devoted to what might be regarded as *organized loafing,* arrangements for which have been approved by management for good and sufficient reasons.

Managerial Devices

For many years various managerial devices have been tried out in industry in order to prevent idleness and to spur workers on to greater effort. Piece work was one of the older of these devices, the theory being that if a worker was paid by the piece he would exert himself to turn out a lot of work and thereby increase his earnings. In this connection it must be admitted that management all too often cut the piece rate when

the earnings of employees exceeded what was believed to be an adequate figure. Of all of the devices to arouse resentment and break morale, this procedure was one of the most effective.

The assembly line as first used by Henry Ford was another device which tended to discourage loafing on the job. A man had to do his bit as the work moved past him in order to hold his job. It is only fair to state, however, that some provision was made for the individual to be relieved by a substitute worker when necessary.

A third device that has been used considerably is the group premium system. Under this system the earnings of each individual depend upon the amount of work turned out by a group. Such being the case, each man is interested in having every other member of his group work to the limit of his strength and ability. Theoretically at least, this system is supposed to relieve the supervisors of the responsibility for keeping men busy at their jobs.

Perhaps the most enlightened plan that has thus far emerged to bring idleness on the job under control is the well-planned rest period herein referred to.

The Supervisor's Problem

In addition to what has already been discussed, there are other forms in which the problem of how to minimize loafing presents itself to the supervisor. Taking a half hour to get started on a job, whistle jumping and getting ready to quit work considerably ahead of time, "prowling" or changing work places

frequently, and slowing down or holding back on the job are all forms of loafing. The last type has been called "scientific loafing." It is one of the most effective means that a disgruntled employee can use to "get even" with his foreman. Prowling around on the job is not likely to prevail where the duties to be performed have been clearly outlined and workers have been properly trained to perform them. All conditions such as those mentioned indicate the nature of some of the problems involved in keeping loafing down to a minimum. What is the supervisor to do about it? Perhaps the most important thing for him to do is to be *on the job* himself. The fact that he is consistent in doing *himself* what he expects others to do has a salutary effect upon those whose work he supervises. In order to cover his job adequately, the supervisor has to *see* how things are going and he must keep them going. Therefore, when the supervisor is *active* on his job he can usually sense conditions that tend to encourage loafing before a really serious state of affairs develops. In correcting situations where workers are showing signs of forming habits of loafing, he must maintain a strict discipline of himself. When he does he is in a favorable position to exercise leadership with his subordinates.

CHAPTER XXII

ABSENTEEISM AND TARDINESS

In any fairly complete list of a supervisor's responsibilities, there is always reflected some recognition of the fact that a supervisor is supposed to keep the working group for which he is responsible at the strength necessary to get out the work expected of him. Even though someone higher than he in the organization may exercise control over the number of workers the supervisor can have assigned to him, there is a minimum size for every work group, below which production either slows down or ceases to proceed smoothly and efficiently. The fact that when such a point is approached it is the supervisor's responsibility to report the condition "up the ladder" supports the premise that every supervisor *has* a responsibility for keeping his working force up to the strength necessary for efficient operation.

A Managerial Problem

Failure of an employee to report for work on time, or absence from the job for one or more days, has the effect of reducing the manpower of a shop, office, or department. Thus it is that both tardiness and ab-

senteeism increase the supervisor's problems and difficulties. To the extent that supervisors succeed in reducing avoidable tardiness to the minimum, and deal constructively with the problem of absenteeism, they function as a part of management.

Causes May Be Different

In view of the fact that both tardiness and absenteeism produce the same effect, i.e., a reduction in the manpower available for carrying on the work, it would appear to be logical to treat both phenomena as a single subject so far as this discussion is concerned. Whereas a number of typical causes of tardiness are also causes of absence, there are other causes that apply more especially to one of the two. For example, the habit of being late is a prominent cause of tardiness with many persons. Others try to travel on too close a schedule, and the smallest mishap makes them late. These and similar conditions do not cause absence. Correspondingly, high wages with considerable overtime result in employees' laying off from work rather than being tardy in showing up on the job. Also, fishing trips, athletic events, and unduly harsh penalties for being late increase absenteeism rather than tardiness.

The Problem of Tardiness

Cannot Be Entirely Eliminated. It is probably true that tardiness cannot be *entirely* done away with in any organization. Therefore, the problem for the supervisor is how to keep it down to the minimum.

In any consideration of this problem, there should be a clear realization of the fact that being late to work may be due either to conditions that the worker *can* control, or to conditions entirely *beyond* his control. To illustrate, causes of tardiness *within the control of an individual* include failure to appreciate the effect of being late upon the work of the shop or department where employed, too close a travel schedule, laziness, oversleeping, a hangover, the habit of being behind time, and having a "sore head." Incidentally, the last-mentioned condition may be the first stage of a grievance. Among the *unavoidable* causes of tardiness may be mentioned interruptions of transportation due to weather conditions; breakdowns of street cars, busses, or automobiles; traffic jams and delays due to such things as obstructed grade crossings, open drawbridges, and traffic accidents; and sickness, accidents, or other emergencies at home.

Effects of Tardiness. The principal and most obvious effect of tardiness has already been mentioned—a decrease in the manpower available to do the work. Other possible effects include increased overhead owing to equipment standing idle at the beginning of a shift; increased cost of operation when it is necessary to keep equipment operating and a man has to be held over from the previous shift and paid the prevailing overtime rate; interference with production schedules which may affect other departments, in addition to the one where the worker is tardy; the impairment of shop, office, or organizational morale; and the increased possibility of work spoilage, damage to

tools and equipment, and accidents, because of attempts to keep things moving by temporarily assigning jobs to persons who are not experienced in that particular type of work.

What Can Be Done About It? There is, of course, much that management, including the immediate supervisor, can do in attempting to control avoidable tardiness. To have, in each shop or office, a reasonable number of employees who are proficient on several jobs is one method of dealing with the principal problem—that of keeping things moving. Generally speaking, this system is a good one. However, it should be realized that this method of dealing with the specific problem of tardiness is nothing more than a palliative. By itself, it does nothing to remove or modify any of the basic causes of tardiness.

Impersonal Application of Penalties Has Disadvantages. The perfunctory, harsh, and impersonal application of penalties, according to the rules and regulations, might, at first glance, seem to be all that would be necessary. Such a procedure may be the removal of time cards from the rack when the whistle blows, and requiring late comers to use a special entrance where they sign cards which may be routed to their supervisors in some prescribed manner. Such automatic or semi-automatic managerial devices may be all right in theory, but in their operation they may arouse resentment and spread dissatisfaction, especially among high-grade employees who may be a little late at times, for causes wholly beyond their control. Another semi-automatic procedure, which allots spe-

cific pay deductions on a pre-determined scale, for all workers who are late in showing up on the job, may likewise serve to lower the morale of the working force.

Recognition Sometimes Given. As contrasted with devices for penalizing late comers, some companies have tried out plans whereby employees with excellent attendance records receive some form of recognition. Also, competitions between units or departments have been set up with some sort of prize or pennant to be awarded at suitable intervals to the unit that turns in the best performance.

There are advantages and disadvantages to all such impersonal plans. However, there are conspicuous advantages in having each and every supervisor in an organization give personal attention to the problem of controlling tardiness and deal with each tardy employee *as an individual.* There are no recognizable disadvantages involved in such a procedure, provided that the supervisors are backed up by management on the higher levels, and are supported by good, sound company policies.

The Problem of Absenteeism

What Is Absenteeism? The U. S. Department of Labor has defined absenteeism as "The failure of workers to report on the job when they are scheduled to work. It is a broad term which is applied to time lost because sickness or accident prevents a worker from being on the job, as well as unauthorized time away from the job for other reasons. Workers who

quit without notice are also counted as absentees until they are officially removed from the payroll."

The causes of absenteeism are many and varied. Some of the causes may be due to conditions over which management can exercise little if any control. Other causes can, if known, be modified or overcome entirely. Obviously some instances of absence from the job are unavoidable.

Absenteeism Always a Problem. The problem of controlling absenteeism was of outstanding importance during the peak of war production. It was so partly because many persons were employed in productive industry who, under more nearly normal conditions, would not have been working at wage-earning jobs. However, even though wartime conditions were abnormal practically everywhere, there were wide variations in different areas. Absenteeism has always prevailed more or less wherever people were employed. Even though the fighting is now over, it is still a problem. It is a problem for management. Every supervisor can contribute to its solution.

Causes of Absenteeism. Among the reasons why employees absent themselves from their jobs are personal illness, sickness at home, necessary shopping, business errands, accidents, hangovers, breakdowns of transportation, dissatisfaction with the job, sports, fishing trips, too much overtime, harsh penalties for tardiness, employment outside of regular job, and religious observances. High wages also contribute to absenteeism. If an employee is paid at such a high rate that he has all the money he needs, so far as the

immediate future is concerned, he may decide to take things easy and not show up on the job for a day or two. With certain classes of labor this cause of absenteeism is especially prominent. Many men who have plenty of money at the end of a week, for example, proceed to "blow it in" and lose interest in their jobs until their pockets are empty. It often happens, therefore, that Monday is the worst day of the week from the standpoint of absenteeism, particularly if the employees have been paid overtime for the preceding Saturday.

What Can the Supervisor Do About It? Some causes of absenteeism are of course unavoidable, but others are avoidable and can, to some extent, be controlled by supervisors. For example, a supervisor can do nothing about absence due to personal illness or sickness at home. He is in a position, however, to do something about such causes as excessive overtime, job dissatisfaction, and unduly harsh penalties for being late to work. If an employee finds that he is going to be ten minutes late in showing up on the job and knows that he will be penalized in ways he thinks unjust, he may decide to take the entire day off. Thus a case of ordinary tardiness develops into a case of absenteeism. The plant or office loses a day's work and the supervisor's responsibility for keeping things moving becomes more difficult to discharge. If the rules for dealing with employees who report in late are so rigid and harsh that a supervisor knows that a good many of his employees would rather lose an entire day than be subjected to the humiliation that is experi-

enced when they are tardy, it seems clear that he should do something about it. If it is within his power to modify the rules he can readily correct the situation. However, if such modification is beyond his control, he can make recommendations to higher authority. However, even the most severe rules and the most inflexible procedures can be administered with consideration and judgment, and in most situations a little thought given to such matters by supervisors will pay big dividends in good will. There are always a few who will take every possible advantage of considerate treatment by their supervisor. They will think he is an "easy mark." Most experienced supervisors will agree, however, that on the whole the results are better if methods for dealing with the details of absenteeism and tardiness tend a little bit toward leniency rather than otherwise. Those who demonstrate a tendency to take advantage can then be dealt with by strict if not hard-boiled methods, without the supervisor being too harsh on the employees as a whole. It is manifestly unfair to make everyone in a group suffer for the misdeeds or shortcomings of a few. The supervisor needs to exercise judgment and discrimination in dealing with this problem.

The Supervisor's Responsibilities. The supervisor is clearly responsible for informing all his subordinates just what is expected of them if they find that they are going to be absent from their jobs. He should give this information the first day an employee reports for work.

If a man is absent, the supervisor should check up as may be necessary and find out if possible why. Although every employee should realize that he is expected to get word to his supervisor if he is going to be absent, circumstances may prevent him from doing so. The supervisor should carefully avoid making snap judgments in cases of either absence or tardiness. He should get all of the essential facts before taking any action or making any recommendations for action.

A very definite responsibility of the supervisor is to plan in advance for covering all essential jobs in his department in the event that any employee is out or any two or three employees are absent at the same time. In this connection, a supervisor will discriminate between jobs that must be kept going in order to operate the department and other jobs that may be interrupted without particular inconvenience. An example of the former would be an essential step in the flow of material where stoppage would cause all subsequent operations to cease for lack of material. An example of the latter would be an individual operation where the piling up of parts to be processed or inspected would not become serious for a day or two.

One solution to the planning problem is to have some trained and experienced employees on several important if not essential jobs. Then if a man on an essential job is absent, one of the stand-by men can be assigned to cover it.

Dealing with the General Problem

In dealing with the problems of absenteeism and tardiness, it is the supervisor who, as a representative of management, is in the best position to ascertain the facts, weigh them, and then either take proper action himself or submit a report with recommendations to his official superior. In this, as well as in other situations, it is good practice for the supervisor to "run his own laundry." Problems that can legitimately be dealt with on the spot by the supervisor should be handled by him. When a supervisor effectively discharges the responsibilities of his job in this manner, he functions as a part of management.

Workers Are Human Beings. It should be noted that this chapter is concerned only with the *supervisor's contribution* to the handling of the problems of absenteeism and tardiness. It does *not* deal with statistical data or formulas used by personnel experts. In recent years there has been too much of a tendency to by-pass the supervisor. His ability to perform the functions that are integral parts of his job has been discounted. All too often, management has looked to some new device or procedure to take over certain of the supervisor's functions. One of the unfortunate results of this tendency is that management thereby becomes more and more impersonal in the minds of the workers. It is unfortunate for employees to get the impression that they are *processed* by some great big personnel machine, which handles their human problems impersonally and as automatically as a corn

sheller knocks grains of corn off the cob. There can be little doubt that such a feeling on the part of workers is one cause of deteriorating morale. Management becomes an impersonal *they* not particularly identified with any human being.

No Satisfactory Substitute for Competent Supervisors. To the extent that supervision becomes more competent and more effective, with individual supervisors everywhere functioning intelligently as representatives of management, the great goal of industrial peace and security becomes more than a pipe dream. Human understanding is needed more now than ever before in getting the world's work done. In applying this human understanding on the job, no satisfactory substitute has ever been found for intelligent, resourceful, fair, and considerate foremen and supervisors. Such supervisors really personify to their men the best features of what is called management.

The purpose of this and other chapters of this book is to assist supervisors to meet their everyday responsibilities and to perform their duties, on the job, in such a manner as to reflect the characteristics of enlightened management and good human relationships. When this purpose is realized with a sufficient number of individual supervisors, the overall problem of how to bring about better human relations in industry and business will be well on its way toward a real solution.

CHAPTER XXIII

WORKING CONDITIONS

In order to get work done, men, materials, tools, equipment, and supplies have to be brought together. The conditions under which the work is carried on, such as the location of the job—whether indoors or out-of-doors—the nature of the materials worked upon, the hardships endured by the workers, or the comforts provided for them, the kind of employees in the organization, and the type of supervision that workers receive, are some of the factors that go to make up what is commonly termed working conditions. For example, a printer has an inside job. When he is at work he is not exposed to the elements. The prevailing weather has but little effect upon the working conditions surrounding his job. Moreover, the occupational dangers to which a printer is exposed are not very great as compared with those of a structural steel worker or a lineman in the employ of an electric power company. Each occupation therefore has a set of conditions or surroundings characteristic of the jobs involved in carrying on that occupation. Some of these conditions can be controlled at least in part, whereas others are inherent in the occupation it-

self. A miner's job is underground; a truck driver has an outside job; a roustabout's job is in the oil fields; and a stenographer works in an office. These and innumerable other jobs and occupations have their own peculiar working conditions.

In a broad sense, the term *working conditions* may include an indefinite number of things connected with a job or occupation. Items such as wage scales; hours of work; vacations; seniority; occupational hazards; rules and regulations; discipline; neatness and orderliness of work spaces, wash rooms, locker rooms, and eating places; recreational facilities; organizational morale; and the seasonal characteristics of the job are examples of what might be included in such a broad definition. However, the discussion in this chapter is limited to those working conditions which are, to a considerable degree, under the control of foremen and supervisors. To illustrate, wage scales and hours of work are now largely controlled by contracts between employers and labor groups, which result from collective bargaining. Some of these agreements or contracts are regulated under Federal laws or rulings. In view of the political influences that affect such regulation, it would be unprofitable to enter into a discussion of them here. It is quite probable that the question of what constitutes a fair wage for workers on the several levels of employment, and in different fields of industry and business, is not likely to be answered in the immediate future. The purpose of this book is to discuss constructively the responsibilities of foremen

and supervisors with principal emphasis on what they can *do* at their level of supervision to function efficiently as a part of management. Consequently, very little attention is given to matters which, for the most part, are beyond the supervisor's control.

Although many items in the general category of working conditions are beyond the immediate control of foremen and supervisors, some of them are wholly under their control. Numerous others are to some extent under their control, even if about all that the supervisor can do is to pass recommendations "up the ladder" when he believes that some existing condition should be improved.

From another angle, working conditions that may be included under a somewhat limited definition of the term can be grouped under two principal classifications: (1) the *physical conditions* constituting and surrounding a job or a work area, and (2) the *human relationships* involved in a work situation. For example, such items as weather conditions, the heating, illumination, and ventilation of work places, the kind of tools and equipment provided, the safety devices utilized, and the adequacy of the eating facilities and wash rooms would be included under the physical conditions classification. The amount and quality of supervision received by workers, the morale of the working force, and the type of people employed in the organization are examples of the human relationships involved in a work situation.

Working Conditions in Former Years

Working conditions that were common less than fifty years ago are not always fully understood by the younger generation of supervisors today. For this reason, a brief description of the actual conditions that formerly prevailed in a certain repair shop follows.

The repair shop existed for very definite purposes, i.e., to keep a fleet of tug boats, coal steamers, and barges in repair, and to repair any or all of the machinery used by the company for coal handling and other purposes. This machinery included everything from hoisting engines to clam-shell coal buckets, wrecking gear for salvage work, and the mechanical equipment of floating grain elevators and numerous lighters used in handling bulk cargoes. The shop employed only a few men, not more than twenty. It was incredibly dirty. The dirt, however, was mostly what they used to call "clean" dirt—the kind that accumulates where old machinery is overhauled and repaired. Had it not been for the fact that all the men were competent mechanics, the shop would have been a hopeless mess. For example, the chip piles were removed from under the lathes and from around the other machines only when they got so large that the stuff was in the way of a man who had an emergency job to do. There was an unbelievable assortment of junk around, such as bolts, washers, straps, wooden blocks, and miscellaneous scrap for use in securing jobs either on the planer or on the large drill press. The "gagger"

(threading machine) was almost submerged in a mess of soupy oil and chips, and the bench was covered with miscellaneous parts of engines, pumps, and valves in various stages of disrepair. There was very little clear floor space visible, and that was an uneven well-worn surface soaked with oil. Chips from the machines were thoroughly ground into it. It was seldom swept.

The Foreman Was Resourceful

The only place in the shop that showed any semblance of neatness was the wall desk of Jim, the foreman. Jim was a thoroughgoing all-round mechanic. He could do any job that had to be done and he actually did most of the important lathe jobs himself. As became a good foreman of his time, he had various and sundry tools and gadgets hidden away in nooks and corners. He was rarely at a loss to find anything required to do emergency repair work. The shop never had two jobs exactly alike. Every job was a rush job. Nevertheless, a vast amount of good work was done despite the conditions described.

The Blacksmith Had a System Too

Just outside the machine shop, but within the same building, was the blacksmith shop. Fred, the blacksmith, had no tool or stock racks and no recognizable method of keeping things in order. Everything was on the floor. However, when he was working on a job, he was always able to find the tools or whatever else he needed somewhere in the piles of stuff around

his forge and anvil. It was an experience to watch him and to notice how readily he could find what he needed. Fred's helper, Jack, was equally expert at finding things. In spite of this system, or lack of system, Fred always did a good job.

No description of this shop would be complete without mentioning the "wash room." The entire facility consisted of a wooden trough made of two-inch planks. The trough was filled usually once a day. Steam from the boiler was piped to the trough, and about 5 or 10 minutes before whistle time someone would crack the valve to warm the water. All personnel of the shop, including blacksmiths, boilermakers, and machinists, washed up in this trough without any change of water. Sometimes, when minor details were neglected, the filthy soupy mess would even be "warmed over" the next time instead of having fresh water run in.

Conditions Have Changed

One needs only to compare present-day conditions with those in the preceding description to realize the remarkable progress that has been made in the improvement of working conditions in industry during the past half century. No longer do men have to work under such unattractive and dirty conditions. Shops and factories have been cleaned up, and walls are now painted to reflect the light and make work places more cheerful and also safer. Metal lockers, clean and sanitary wash rooms, and attractive cafeterias have all contributed to the improvement of working conditions. These changes have been brought about gradually over

the years by legislation, by enlightened management, by better supervision, and by the constructive efforts of organized labor. The employment of large numbers of women in industry has likewise been a factor in bringing about more favorable conditions.

The Basic Cause of Improvement

Perhaps the principal cause of improvement, the one behind all the others, was recognition by management of the fact that the expenditure of money to improve the conditions under which employees worked was a highly profitable investment. In other words, it was enlightened self-interest. One item of social progress that undoubtedly hastened this condition was the enactment by the states of workmen's compensation laws. The whole idea of improving the physical surroundings of workers is an integral part of a widespread movement to improve the lot of people who work in industry and business. In this whole movement, safety and accident prevention have probably been more widely publicized than any other phase of the development.

Need for Continuing Effort

Notwithstanding all the progress that has been made in improving the physical surroundings of workers, the problem of keeping work places in good condition is still present. This problem is directly under the control of foremen and supervisors. In recent years, the term *good housekeeping* has come into vogue to designate a function of management that for-

merly received but little consideration. In this, as in other instances where a managerial function comes into direct contact with employees, it is the supervisor or foreman who must assume the responsibility for getting results. The proper discharge of this responsibility requires the exercise of judgment.

Tendency Is Toward Disorder

It is a well-known law of physics that heat always tends to pass from the warmer to the colder body. In other words, heat tends to run "downhill," never in the reverse direction. In a somewhat similar manner, cleanliness and good order in the shop, office, or other working place tend always to revert toward dirt, rubbish, and disorder. In the case of heat, some expenditure of energy is necessary to maintain the temperature of an object at a point higher than that of its surroundings. Unless more heat is supplied the object will cool off until its temperature is equal to that of its surroundings. Likewise, in the case of good housekeeping in the shop, factory, or office, an expenditure of energy is necessary to keep the surroundings clean and orderly. They never tend to become that way or stay that way if left to take care of themselves. In this, as in many other respects, it is the foreman or supervisor who has to supply the motivating force.

Costs Are Affected

Failure to keep things in order results in increased possibilities of accidents, increased tendency to be careless, excessive wear and tear on equipment, loss of

tools, and waste of time generally. Moreover, disorderly conditions induce waste in the use of supplies. A poor mental attitude on the part of workers generally is another result. In addition, messy or disorderly shop conditions may endanger the health of the workers. Cleanliness is of outstanding importance in wash rooms and locker rooms. While the supervisor may have only general supervision of such spaces, he can usually do something about it if conditions tend to become unsatisfactory.

Experience has amply verified the assumption that conditions with regard to cleanliness and order within a plant definitely affect the cost of getting work done or of getting out production. It is also true that orderly conditions in the immediate vicinity of a plant are important. Some of the more progressive industrial plants find it to be a good and wise expenditure of money to keep the outside of buildings cleaned up and to have all trash and miscellaneous accumulations of rubbish promptly disposed of.

Some Things That a Supervisor Can Do

In order to keep everything in good condition in working spaces, the supervisor should have a plan for taking care of all tools and appliances, and all materials and supplies used in his department. The plan or system used should be designed so as to make it as easy as possible to keep things in order. Wherever practicable, racks, trays, boxes, and other containers specially adapted to meet specific needs should be provided. The proper care of the stock to be used or

processed and the handling of it so as to prevent damage or undue deterioration are usually responsibilities of the foreman or supervisor. The orderly piling or temporary storage of work in process and finished work is also often of great importance.

After some system for keeping things in order has been worked out, the supervisor should enforce reasonable rules to keep things in place. Suitable containers for trash and rubbish of various kinds should be provided, and the supervisor should require the floor to be kept clean. Reasonable standards of sanitation should also be enforced, and workers should be trained to keep their working places clean and in order.

The avoidance of accidents through observance of safe working practices is something over which practically all supervisors can exercise full control. Closely associated with safety, the conservation of the health of employees by safeguarding against occupational diseases is of increasing importance in many industries, especially some of the newer ones. In these respects, every foreman and supervisor can see to it that the recommendations of industrial hygienists are carried out in his department.

Supervisors usually have some control of ventilation of work areas, which includes the removal of dust, fumes, and noxious gases in places where unhealthful conditions tend to develop. Adequate lighting of work spaces and the regulation of temperature are likewise matters that come under the control of foremen and supervisors close to the job.

Specific Consideration Desirable

Although there are some general principles that apply to good working conditions, especially those under the control of foremen and supervisors, it is obvious that most of the matters mentioned have to be dealt with in *specific* terms if much is to be accomplished. It may be assumed, therefore, that in any organization which has in operation a program for the improvement of supervision, the supervisors' responsibilities for cleanliness and good order as well as for the comfort and safety of the employees who work under their supervision will be considered. Problems will be analyzed in specific terms, applicable to the conditions which prevail in the industry or business in which the supervisors are employed. To the extent that foremen and supervisors do a good job along the lines suggested in this chapter, the quality of the supervision that their subordinates receive will be improved, and the supervisors themselves will be more effective members of the management team.

CHAPTER XXIV

GRIEVANCES

For the purpose of this discussion, the word grievance may have at least two meanings. From one standpoint, a grievance may be understood to mean any *condition, policy,* or *action* that impairs the morale of an employee or group of employees. Injustice, persecution, discrimination, and unduly severe discipline are examples of this meaning. From another angle, a grievance is an unfavorable *mental attitude* of one or more employees with respect to their jobs. When we say that a man *has* a grievance we usually mean that something has happened which has soured his attitude toward his job, his supervisor, or the organization for which he works.

What Causes Grievances?

What is ordinarily called a grievance is a state of mind that develops when a person feels that he has been dealt with unjustly. It usually is characterized by a feeling of resentment. For example, if a person has been deprived of a raise in pay or denied a promotion to which he thinks he is entitled or, if he receives no recognition for putting all that he has into

his work, a feeling of resentment tends to develop within him. Other causes that arouse such a feeling are unjust criticism, poor working conditions, favoritism in job assignments, and numerous others.

Indications of Grievances

The existence of a grievance is indicated by such symptoms within a group as "griping," dissatisfaction, uneasiness, antagonism, and sullenness. Any or all of these attitudes tend to slow down production. Moreover, they constitute reliable evidence that something has gone wrong and that it is up to the supervisor to do something about it.

From Small Beginnings

Grievances often develop from small beginnings. This is also usually true in the case of fires. For the most part, fires are at first so small that they can be put out with a bucket of water. However, if a fire is not extinguished soon after it starts and while it is still small, it may quickly spread through an entire building or even start a great conflagration. In a similar manner, grievances are small at first and they are most easily handled by the immediate supervisor if they are resolved promptly. The analogy, however, is not quite as simple as it might appear to be. If a man is planning to put out a fire by throwing water or some other liquid on it, he should know two things (1) what kind of a fire it is, and (2) what he has in his bucket or squirt gun. For example, a bucket of water

thrown into a burning pile of magnesium chips may result in an explosion! In a similar manner, the supervisor should size up each small grievance and deal intelligently with the problem involved. It doesn't help much to spray gasoline on even the smallest fire!

Judgment Required

Most incipient grievances can be handled in such a way as to satisfy the parties concerned without having the condition or incident develop into a major problem. It may also be emphasized at this point that there are few if any phases of the supervisor's job that call for more tact, good judgment, common sense, and resourcefulness than the skillful handling of incipient grievances.

Intelligent Action Needed

Grievances can, to a surprising degree, be "extinguished" by a comparatively small amount of intelligent action by the supervisor. When thus handled, with an appropriate adjustment made on the basis of common sense and ordinary fairness, most grievances are soon forgotten. Thus it is that good working relationships between employer and employee can be maintained. It is when small and relatively insignificant complaints or incipient grievances are not dealt with promptly by the supervisor on the spot that they become magnified and have to be dealt with by top management or even by some outside agency.

Kinds of Grievances

Real grievances are of two principal kinds: (1) those which are justifiable, and (2) those which are not. Moreover, some grievances are *subjective* rather than *objective.* A subjective or imaginary grievance exists only in the mind of the individual. However, if a man *thinks* he has a grievance it is just about as bad as if he really had one. Imaginary grievances are often due to rumors, half-truths, and distorted plant gossip. However, regardless of whether grievances are real or imaginary, justifiable or otherwise, if they are not properly and wisely handled, they can cause no end of trouble. As the first-line supervisor is closest to the workers on the job, it is he who, as the representative of management, is in the most favorable position to recognize that grievances are developing. Therefore he should always be on the alert to meet his responsibilities in this respect.

Unresolved Grievances Dangerous

Few things that happen on the job can cause more trouble and annoyance that unresolved grievances. If one employee out of a thousand develops a state of mind where he is convinced that he has been dealt with unjustly or unfairly, discontent and resentment among his associates may "snow ball" to a point where the morale of the entire group will be unfavorably affected. To have a disgruntled "sore head" in the shop or office is something that no supervisor can afford. The solution is to deal with all complaints promptly, fairly, and

effectively. The possibility that a grievance is partly or wholly imaginary does not make the supervisor's problem of recognizing it and handling it less important.

For many imaginary or fancied grievances, all that is needed is for the supervisor to give the aggrieved employee a chance to talk. The very fact that he "spills it" makes him feel better. Then if his supervisor helps him to analyze the situation and the man convinces himself that he has nothing tangible to "gripe" about the matter is soon forgotten.

What Can the Supervisor Do?

When a supervisor becomes aware that a grievance is developing in his department, there are several things that he can do. First, he can identify the complainant, invite him into his office, and encourage him to state his case or tell his story. He should make it as easy as possible for the man to "get it off his chest." He should be willing to listen to the man's story attentively and courteously, and should keep himself under control. Second, he should question the man if necessary to bring out all the pertinent facts. Third, he should size up the problem, weigh the facts in his own mind, and decide whether the complaint is justified or not. Finally, he should take the action necessary to correct the situation.

It is sometimes good practice to make quick decisions in such circumstances. However, in many instances it is better for a supervisor to tell the man that he will think the matter over and let him know later

what action he will take, if any. In a surprisingly large proportion of cases all that is needed is an opportunity for the employee to tell his story. Where the employee has a justifiable complaint, the supervisor must take definite action to rectify the situation and prevent the case from developing into a major grievance, which may involve the whole organization in a controversy.

All supervisors should have a full realization of the fact that, in handling grievances, they have responsibilities both to the employee and to management on the higher levels. The supervisor who does not deal promptly with incipient grievances that *are* justified but tries to let them either blow over or settle themselves is merely storing up trouble for himself. He is, figuratively speaking, sitting on the safety valve while a brisk fire is burning under the boiler, building up more steam pressure. Somehow or other the pressure will seek relief. It may do a lot of damage if and when the boiler blows up. The pressure may even be "piped" outside of the plant to supply the motive power for antagonistic or subversive activities.

Boiled down, this discussion simply means that a first-line supervisor should do everything within his power to *settle* grievances and *satisfy* the *just* complaints of his subordinates. If the action needed cannot be taken on *his* level of management, he should pass the case "up the ladder" for handling. Supervisors on higher levels of management should do likewise, and so on up to the very top. It is a matter of common knowledge that if grievances are not handled

within the organization, eventually the government may step in.

Unorganized Knowledge

The fact has been well established that supervisors as a group know a lot more about their jobs than they sometimes realize, and more than they are often given credit for by management on the higher levels. What they have learned about supervision, however, has mostly been picked up on the job. By trial and error they have found that certain methods work and others do not work so far as dealing with people is concerned. This unorganized knowledge, together with the recollections of their own experiences as workers, is a sort of unorganized jumble of ideas. Of course a few of these ideas may be prominent in their thinking, but for the most part they are inclined to make decisions on the basis of a "hunch" rather than because they have thought their problems through and decided what constitutes good and poor supervisory action in dealing with complaints and grievances.

Lectures Ineffective

Among the many values that are derived from a well-conducted conference program with supervisors, the organization of miscellaneous unorganized ideas is one of the more prominent. In well-conducted conferences a supervisor's thinking is stimulated and to some extent guided, but effort is made to get every supervisor to think under his own power. What is decided therefore by an individual supervisor or by an entire

group of supervisors as exemplifying good supervisory technique becomes a part of the equipment of each supervisor. In this way values are derived from conferences which can never be realized by the lecture method alone. In fact about the only advantage the lecture method has is that time is saved in getting organized ideas before a group. However, usually all the thinking has been done in advance by the lecturer or by someone else, and the results of that thinking are merely handed down to the supervisors. The latter have had no opportunity to think out for themselves why certain ideas are good and others are not. The lecturer expects them to accept his conclusions in much the same way as a doctor expects his patient to take his medicine. He is expected to take it on faith with the hope that it will do him some good. The use of the lecture for supervisor training causes the supervisor to be in a passive rather than an active state of mind. The lecturer merely retails information to his listeners. In a conference, the leader causes every supervisor in the group to think his way through problems, justify his own opinions, match his ideas with those of other experienced supervisors, and, as stated before, *think things out for himself.*

Efficiency of Conference Procedure

There is no phase of a supervisor's job where the ability to analyze problems and situations and to think clearly is more essential than in connection with his handling of incipient grievances. It may fairly be stated, therefore, that for this portion of a supervisor-

training program, the efficiency of the conference procedure is close to a maximum. For other phases lectures may be entirely in order, as for example in explaining a plant policy or in extending the understanding of the supervisors to cover the phases of the work of the organization with which they have limited direct contact. Considering efficiency from the engineering standpoint, the conference is more efficient in equipping supervisors to use their heads on the job in about the same proportion as the latest form of steam turbine is efficient as a prime mover in comparison with an old wheezy one cylinder slide valve steam engine such as was used years ago on harbor tugs.

CHAPTER XXV

RATING EMPLOYEES

All too often, the so-called efficiency or merit rating of employees is regarded by supervisors as one of those things which somebody sits up nights to figure out, in order to make life miserable for them. Without having thought the problem through themselves, they may not fully realize why some means of determining the relative value of employees is an indispensable phase of management. Especially in large organizations employing thousands of individuals, it is impossible for any one person to know all the employees well enough to be qualified to deal intelligently and fairly with matters affecting them as individuals.

Simple in Small Organization

Where an employer has only a few employees, he can know the capabilities of each and every individual. When he has a job to be done he *knows* which of his men is best fitted to handle it and he makes assignments accordingly. He also has definite ideas as to who his best men are and he adjusts wages to correspond with work performance. When he needs a foreman he decides whom to promote on the basis of the

degree to which the different men in his gang demonstrate such things as (1) a high quality of job performance, (2) ability to carry responsibility, and (3) leadership characteristics. In other words, the employer even in a small organization devoid of most of the fads and frills of scientific management, *rates* his employees. True, he has neither elaborate forms nor rating scales. He has no personnel expert to advise him. But he does have a rating system in constant operation, crude though it may be.

Complex in Larger Organizations

In a large organization it is obvious that the evaluation of work performance must be systematized in some manner. If every supervisor were to develop his own ideas, it is easily possible that there would be as many different rating systems as there were individual supervisors. Clearly, such a hodge-podge rating "system" would probably cause all sorts of trouble. Comparisons between departments would be made with resulting charges of favoritism, unsuitable standards for judging performance, and all around unfairness and inefficiency. After thinking these possibilities over, a supervisor is likely to convince himself that a good system for evaluating job performance must be regarded as a necessary and, in fact, an indispensable tool of management.

Purposes to Be Served by a Rating System

A good bargain is advantageous both to the buyer and to the seller. In a similar manner, a well-planned

and efficiently administered rating system should accomplish desirable purposes and result in definite values to all parties concerned. These values are briefly as follows.

1. For the *employee:* the rating system should assist him to secure recognition of good work performance. Also, it should show him where he should try to improve. An employee is entitled to know how he is getting along on his job.

2. For the *supervisor:* the rating system should help him to organize his ideas and to know his men better. It should provide opportunities to discuss with each employee how well his job duties and responsibilities are being met and to make suggestions for improvement in carrying on the work.

3. For the *personnel department and top management,* the rating system should make it easier to do a good job in carrying out the functions of management on higher levels. The ratings of individuals should serve as a basis for personnel actions involving promotions, transfers, dismissals, lay-offs, and demotions. They serve as an inventory of manpower and are of basic importance in dealing with problems of wage administration.

Conferences Can Help

One or two good lively supervisor conferences on the whys and wherefores of the rating problem are, under competent leadership, quite certain to clarify the thinking of the participants and should induce a favor-

able attitude relative to the managerial job of rating employees. Thus the way will be prepared for effective and profitable instruction on how the specific rating plan to be used is supposed to work, the identification of a supervisor's responsibilities for getting the desired results, and how these responsibilities can best be discharged. When matters have developed to this point, the supervisors are beginning to "hit on all cylinders" with respect to handling their problem of rating subordinates.

One of the particularly valuable outcomes of conferences on the rating problem is realized when supervisors utilize the basic ideas involved in evaluating work performance to improve their day to day supervision. There are, of course, many possibilities for such utilization, including various means of recording data for future use in making ratings. Without such data, there is the danger of basing quarterly, semiannual, or other ratings on a few isolated incidents with little regard for over-all job performance covering an entire rating period.

Objective Rating Data Essential

One of the most important characteristics of a good plan for rating employees is to have it based so far as possible upon objective data. Some of the elements on which workers are properly rated, cannot, however, be *entirely* objective. In some of them the *opinion* of the supervisor is definitely involved. For example, one point on which a machine operator could be rated objectively would be the number of pieces

he turned out. On this element it would be merely a question of tallying the production turned out by different members of a group of employees, all of whom worked on the same or definitely comparable jobs. The worker who produced the most pieces in a given period of time would clearly rate the highest in his group, and the one who turned out the fewest pieces in the same time would rate the lowest. It would not be so simple, however, to rate the different members of such a group in order to determine their relative value *as employees.* Other elements such as attitude, reliability, and observance of rules would be taken into consideration by any well-qualified supervisor. These factors, as well as production figures, should therefore be recognized in any practical rating plan.

The elements on which any employee is rated should represent the features of job performance that are important on his particular job. If a man's job is fully standardized, he should not be rated on his ability to do original planning or difficult layout work, as this rating would obviously be unfair. Conversely, if an employee's work requires a high degree of technical skill and the ability to plan successive steps, as for example the work of a toolmaker does, rating him on the basis of the number of pieces turned out would be absurd.

General Rating Factors

In general, the following list suggests the points on which a foreman or supervisor naturally "sizes up" a

skilled worker. The equivalent of these items should therefore be found in any rating plan for evaluating such workers.

1. His skill as a worker as indicated by the quality of his work.
2. The amount of work that he turns out.
3. His ability to "figure things out"—really a measure of his technical knowledge and his ability to apply it on the job.
4. His dependability—can he be counted on to deliver the goods?
5. His good judgment—his ability to accomplish his work under difficult conditions, different from those to which he is accustomed.
6. His resourcefulness—his ability to devise ways and means of accomplishing his work objective even though he lacks some of the tools and special equipment that would ordinarily be available.
7. His general attitude toward his job, his employer, and those with whom he comes in contact on the job—his ability to get along with others.

Essentially these same items are used in rating many classes of employees, such as office workers, helpers, machine operators, and laborers. However, the relative importance to be attached to each item has to be determined for each specific group. In making decisions on these matters, the particular duties and job responsibilities of each group concerned should be carefully considered.

Dangers to Be Avoided

It is desirable for the supervisor to recognize certain dangers involved in the job of rating his subordinates. Having these in mind, he is more likely to avoid serious errors than he might be if he had not thought much about them. Some of these dangers relate to such items as the following:

1. Permitting personal likes and dislikes to affect ratings.
2. Having the whole rating plan backfire and impair departmental morale.
3. Over-rating employees with the thought of forestalling criticism.
4. Basing ratings on a few recent impressions.
5. Having inadequate notes or memoranda on work performance.
6. Having no objective standard of performance for a job or group of jobs.
7. Finding that an employee may rate high on pre-determined factors and still be a relatively poor employee.

What Can the Supervisor Do?

First, every supervisor should thoroughly understand the merit rating system that is to be used. He should critically examine the factors involved in rating individuals or groups and apply them consistently and, so far as possible, objectively. Second, he can rate *all* employees for whom he is responsible, and *who*

do identical or comparable work, on one element or factor at a time. With reference to *one element only,* he can pick out the *best* man and the *poorest* man in each group. In between these two, the others may be arranged in the order he believes to be correct. When this system is carried out separately for each rating factor or element, every individual will be placed where he belongs in relation to the other members of the group rated.

If, after having done the best job of rating that he knows how to do, the supervisor feels that the best and most valuable employees do not come out at the top of their respective groups, he should do his best to identify additional specific rating factors that may have been overlooked. Recommendations concerning such additional factors may appropriately be passed "up the ladder" by supervisors in practically all organizations.

Opinions of Those Who Are Rated

The success of any plan for the merit rating of employees depends upon the degree to which the supervisors who are closest to the workers do a good job of rating and are not coerced or dominated by higher supervision and *told* what to do. In all probability, the most severe test to which any rating plan can be subjected is the considered judgment of those who are rated. If those who are the subjects of the rating system honestly believe that it is fair, the chances are that the system is pretty good.

Cooperation in Management

Obviously it is a responsibility of the supervisor to cooperate with management on all levels to the fullest extent, in making whatever rating system is to be used *work*. Even the best system that could be devised will not work any better than the people who apply it *make* it function. No rating system can work of itself. In the last analysis, such a system is nothing more than a uniform procedure for evaluating work performance and leaving a record of the findings. The results of such an evaluation are essential to the wise formulation or modification of policies and procedures affecting wage administration and other actions and decisions of management affecting employees. If the supervisor makes his evaluations impartially, honestly, and conscientiously and bases his decisions on actual job requirements and the observed performance and demonstrated ability of those whom he rates, the results will have significance and real value. The supervisor who performs his duties well in this respect will achieve a better degree of understanding with his men and also with those in higher positions in the organization. To the extent to which he proceeds along the lines indicated, he functions as an important part of management.

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