**THE DUTIES OF A MANAGER**

A feature of industry in recent years has been the growing emphasis placed on management as such leading to a closer examination of management and more self-· examination by managers about their own duties and performance. Recent advances in technology, while putting a premium on scientific knowledge, have at the same time enhanced the importance of managerial skills. In the electrical industry-particularly in the supply and heavy manufacturing industries-an engineering training has always been an accepted path to tuft ranks of management. However, management calls for qualities and knowledge which are not necessarily related to technical competence. They can be developed by practice and training. But if advantage is to be taken of these it is important that the engineer should be keenly aware of the content of a manager's work, and that he should appreciate that it presents a challenge different from that of scientific knowledge and no less worthy of his attention. The article printed below is the first of a series of six on industrial management that will be appearing in the Journal this year. They will treat the subject in a way that we hope will be helpful and interesting to the professional engineer who finds himself at a manager's desk after years in the development laboratory, the assembly shop or the contracts office. They are concerned with general principles more than with specialized techniques of management. But, of course, no one should expect that he can teach himself much about management by reading even the best textbook on industrial administration. Practice is essential. Thus, the articles, which will be written from different standpoints and a wide variety of experience, can be no more than signposts. Nevertheless, they will represent a consensus of views upon the responsibilities of a IDllJlager and the attitude in which these responsibilities should be approached.

The series has been arranged with the help of the Administrative Staff College, Henley. Most of the authors, who are serving in managerial positions in various industries, have taken courses at the College; its work, as many members will recollect, was described in an article by a chartered electrical engineer in the November 1956 Journal. The first article is introductory and demonstrates the balance required between the technical content t of a manager's job and the social skills and wider knowledge that he needs. The author was formerly Assistant to the Chairman of J. Bolding and Sons IlJld is now Group Personnel Officer of Guest Keen and Nettle folds. 'Industry,' said a distinguished Civil Servant a year or two ago, ‘is no longer the dirty work of the nation, but the honored occupation on which depends the prosperity and standing of Britain. It must therefore be so conducted.' Whether or not one agrees that industry ever was in fact the nation's dirty work, the comment in present circum-stances strikes an appropriate note. From about 1750 until 1900, British industry led the world in productive efficiency. Consequently, this country then enjoyed better general living conditions than those of any other nation, low as that level was in comparison with present stand-ards. Since then, however, the improvement in productive. efficiency, or productivity, in this country has been less than in some other countries. The result has been that our position has grown relatively worse--and will continue to do so until the trend is reversed. That is one aspect of the current situation; the fight against inflation has emphasized the other. Quite apart from what we call our ' standard of living' and our capacity to defend ourselves, the bare existence of more than fifty million people in the United Kingdom depends upon the import of one-half of our food and most of our raw materials in exchange for exports of manufactured goods. We can hope to sell these in a pro-gressive world only if high productive. efficiency enables us to quote competitive prices. Within this framework-and we must accept it whether we like it or not-it is impossible to overestimate the importance Reproduced by Sabrient Gateway under license granted by the Publisher (dated 2011)252 The South African Institution of Oivil Engineers [August, 1957 of the skilled direction and management of British industry. In the industrial hierarchy, responsibility for the formulation of petlicy rests with the Board of Directors; the Managing Director interprets that policy and issues the necessary instructions for action.

It is the managers who are responsible for the implementation and, broadly speaking, it is upon the skill with which those in-structions are carried into effect that the success of the enterprise largely depends. The common thread running through all sixty-six of the Anglo-American Council on Productivity team reports was the con-clusion that the most significant factor in America leading to high production at low costs was efficient management. The teams, as Sir Thomas Hutton, Director of the British Productivity Council, recently wrote in The Times, 'reported that the Americans worked not harder but more effectively, largely owing to better planning and control.' In spite of certain industrial ills, inevitable in a period of transition, which we are still struggling to solve, there is increasing evidence that the British manual worker can, in certain circumstances, work as hard and as effectively as his counterparts in any other part of the world. Commenting upon the success of the Fawley project-the post-war construction of the Esso refinery by British labor under American management -Mark Abrahams wrote: The lesson of Fawley seems to be that British workers are prepared to work as well as anyone else -provided that they respect the people for whom they work and have faith in their fair dealing. The changes introduced by the American management (in grading of skills, methods of payment, intro-duction of mechanical aids, etc.) were important, but all of them were conditional. They were accepted and became effective because of the character of the team of men who constituted • management.' What, in greater detail, are the responsibilities of the manager and what was likely to be in Abraham's mind when he spoke of the character of the team of men who constituted 'management' ~ Management has been defined by E. F. L. Breeh, perhaps somewhat academically, as ' a social process entailing responsibility for the effective planning and regulation of the operations of an enterprise, in fulfilment of a given purpose or task, such responsibility involving : (a) the installation and maintenance of proper procedures [the "administration" element] to ensure adherence to plans; and, (b) the guidance, integration and super-vision of the personnel composing the enterprise, and carrying out its operations.' Apart, therefore, from technical competence -adequate knowledge of the technical content of the jobs to be controlled-industrial management consists of an element of technique, an element of leadership, and an element of art, all three being inextricably \_ intermingled, but particularly perhaps the latter two.

The element of technique is based, of eoursc, upon the immensely important control factor-upon the control techniques or 'tools of management': the more accurate measurement of work for purposes of staffing, costing and incentive payments ; more systematic machine loading and utilization ; a greater use of statistical methods : more accurate budgetary control. , A manager,' wrote a contributor to The Financial Times some years ago, 'must be able to view a situation having dimensions in time, cost, risk and human reaction, and to extract from this complex one or more problems in single dimensions to which answers in terms of action can be given.' The art element therefore includes the ability to isolate the significant factors in any problem, and it also includes that indefinable something of incalculable importance which is known as judgment, 'the solid common-sense which gives a man the ability to see a situation whole and makes his decisions right more often than they are wrong.' The art element too is the most important of the several elements of leadership. Management. is getting things done, not doing them one-self. It involves ‘relationships with others ; it involves a nice awareness of human tolerances; it involves tact; it involves , the ability to secure assent and support and to put a plan across, to choose the right subordinates, to balance them and weld them into a team animated by a common enthusiasm, to arouse a loyalty which makes the work seem worthwhile, to exact discipline from subordinates in the form of self-discipline, to know how and when to praise and to reprove' ; it involves moral courage, Reproduced by Sabrient Gateway under license granted by the Publisher (dated 2011)Augustus 1957] Die Suid-Afrikaan.se Institute van Savile lngenieurs 253 The nearer the manager is to the direct control of the productive processes, the greater will have to be his grasp of all the technical aspects of the process. As, how-ever, the scale of his activities increases-and the tendency today is towards larger manufacturing units-the importance of technical' know-how' weakens (although it certainly never disappears altogether) and the importance of knowledge of the control techniques and the importance of qualities of judgment. and leadership increase.

The number of different relationships which exist in the industrial community is by no means always appreciated: relationships, for ex-ample, between managing director and manager, between manager and manager, between manager and specialist, between manager and subordinate, etc. In all these relationships the manager must be accepted; otherwise complications will immediately develop. He must maintain a positive-never a negative-attitude towards ideas and instructions coming to him from above, however skeptical he may sometimes feel. He is a member of a team and he must recognize that one non-co-operator, one individual whose views, methods or personality are unacceptable to his colleagues, can wreck the effectiveness of that team. His position in the post-war years should have been helped, but may also have been complicated, by the arrival on the scene of the specialists. Other new factors are more powerful shop stewards, strengthened by the increased bargaining power of the trade unions and by colleagues who will. no longer ' 'hate it and take it.' The specialists-amongst them the time-study engineers, the planners, the cost accountants, the personnel and safety officers-can be a source of trouble in the management team if the organizational structure is insufficiently strong, if the terms of 'reference of the specialists and their functional relationships with the' direct,' or 'line,' managers have not been clearly defined.

The manager must know how to use their special skills; they exist to help him, not to usurp his authority. It may or may not be true that the manager gets the shop steward he deserves. Certainly it is true that in this context toughness is likely to be met with toughness, and it is also true that the rank and file will turn more and more to their own elected leaders if they cannot obtain the information they require from the company-appointed leaders. Management must, manage and management must lead. The shop stewards must not be allowed to monopolize leadership on the shop floor. The individual manager must be able to answer all the questions put to him; day-to-day informal joint consultation is so much more desirable and effective than periodical formal joint consultation. Management, it has already been said, means getting things done. Some things the manager must nevertheless do himself. Moreover, he must always accept final responsibility. But, if the planning, control and supervision of the job is beyond the capacity of one man, he can and must delegate authority to another--{) or more-to act on his behalf. Here lies one of the finely balanced aspects of the nebulous art of management; delegation has been described as 'essentially an act of faith in which the maximum 'amount of initiative at the periphery is combined with the minimum amount of control at the center.' No rules whatsoever exist to provide the manager with guidance and support in this part of the game. The description, brief as it is, nevertheless covers the all-important elements. First it has to be decided what mayor should be delegated. Then with the delegated authority must go a degree of initiative and freedom to make those secondary decisiollB which need not be made at a higher level; otherwise enthusiasm will wither and the effectiveness of the manager's team will be damaged by the gradual development of frustration. On the other hand, the delegator, with final responsibility resting upon his shoulders and his shoulders only, must retain the means of controlling and checking, since, as John Raymond remarks in his admirable paper on 'Delegation of Authority,' 'others may not always live up to the trust placed in them.' More will be said about delegation in the second article in this series. To return, however, to the less rarefied atmosphere of the shop floor, the natural leader, with his example of integrity, hard Reproduced by Sabrient Gateway under license granted by the Publisher (dated 2011)254 The South African Institution of Civil Engineers [August, 1957 work and optimism, and his trace of the 'indefinable personal factor,' may be able to inspire his immediate subordinates in such a way that his' personal magnetism' makes itself felt down through the chain of authority. But, in any case, the major responsibility-that of creating the right working atmosphere-rests with the man-ager. His target must always be increased working efficiency and ability to obtain the co-operation necessary to raise productivity. Obviously this is only likely to be possible where what is called morale is sound. Field-Marshal Sir William Slim, reflecting upon his successful campaign in the deplorable physical conditions of the Burmese jungle, described morale as 'the intangible spirit of any body of men or women; ·like courage, a state of mind, a mixture of emotion and reason.' In the industrial context, high productivity, willingness to co-operate, low rates of absenteeism and labor turnover, are as sure signs of sound morale as low productivity, restriction, resistance, and high rates of absenteeism and labor turnover are of poor morale. The intangible spirit to which the Field-Marshal referred certainly cannot be produced merely by the provision of good working conditions and amenities. Nor is there any short cut. It takes years of fair and consistent dealing between successive managers and manual workers before there can be any chance of developing mutual trust and a degree of common approach to problems. It takes years to create, and damage can result from a single wrong word at a wrong moment.

The newly appointed manager may therefore find himself the victim of the misdeeds of his predecessors or, more fortunately, he may find that firm foundations have been laid. In either event, factory morale is based on the attitudes of individuals, individuals who have their own estimates of their standards and standings which must be respected and never violated. 'Striking,' said a wise university professor in a broadcast last year, is an act of aggression promoted by frustration of the need to be worthwhile and re-cognized as such. The two basic drives felt by men at work are the drive to do worth-while job and the drive to belong. If these are frustrated, men will strike, using wages, for example, to justify their discontent. Men strike because they feel their rights as human beings are not observed.' Whatever the manager's other qualities and qualifications, therefore, his leadership is unlikely to be fully effective unless he recognizes those who work for him as individuals and respects their aspirations. This recognition and respect, together with fair treatment, and all that that entails, are at the very roots of individual and collective morale. It is not only a question of enabling an individual to feel that he is an integral part of an organization and that his contribution, however humble it may appear to be, nevertheless matters. He must be adequately and appropriately remunerated for his effort. The degree of security provided must be as high as circumstances permit. There must be opportunities for promotion for those who aspire to promotion. There must be opportunities to obtain information about the company, to reason with the manager and express any ideas of their own-for those who wish to do so. Sir Arthur Bryant wrote of Nelson: He instinctively and consciously studied human nature. He never talked down to men or used authority in a way that outraged their self. respect. He scrupulously respected their reason and their dignity. No leader ever went to greater pains to make the reasons for what he asked crystal clear to those under his command. The latter knew what they were doing and why they were doing it. If it is accepted that no organization can prosper unless morale is satisfactory and that it is the managers in their capacities as leaders, who are largely instrumental in developing that morale, it is easy to under~ stand why the Chairman of Imperial Chemical Industries, Sir Alexander Fleck, has stressed. in an article on 'Top Management and Efficiency' the importance of 'the correct selection of people to fill the senior appointments of the company.' Sir Alexander has said that the Board of Directors must be responsible for the appointment of the senior managers, ' but at the same time they must not breathe down the necks of their immediate subordinates by themselves making the appointments too far down the line. None the less they should keep a weather eye open for talent down the line and try to encourage it. In some companies the directors complain that they are short of Reproduced by Sabinet Gateway under licence granted by the Publisher (dated 2011) Augustus 1957] Die Suid-AJrikaanse Institute van Savile Ingenious 255 talent and do not know how to fill their senior appointments, while down the line there are a lot of able young men bored and frustrated because middle management v.~ not give them a chance to come through and because top management does not even know of their existence.' In other words, in pursuance of the, promotion from within' policy which most companies follow these days, and in order that the organization may maintain its vitality, the manager's responsibility for ensuring his own succession stands very high indeed in the list of his duties.

The first step, as Sir Alexander has remarked, consists in spotting the talent and this may not be as easy as it appears. The staff of the Acton Society Trust who recently carried out a comprehensive piece of research into all aspects of 'management succession' felt that one of the weaknesses they encountered was insufficiently organized arrangements for spotting talent. 'There is a tendency,' they said, 'for some top managers to think that they can know everybody, which suggests that they may be confusing the ability to recognize a person with a knowledge of his potential,' and they felt that there must in future be a more systematic, less haphazard, approach to this particular problem. It is true, of course, that the further one looks down the rungs of the ladder, the more important doe’s specialization appear to be. In increasing numbers of cases therefore it may be desirable, if not essential, for a manager to look for his possible successor amongst those with a technical qualification -a Higher National Certificate perhaps, a degree, or membership of an appropriate professional body. But for the potential manager this can be no more than the basic qualification supplementing an orderly mind (the importance of which it is almost impossible to over-emphasize) and the necessary personal qualities which may be innate or already partially developed. What has to be built on this foundation? 'We recognize,' said the Uric Report on Education and Training for Management, 'that theoretical study alone cannot make a manager. His success will depend on his innate qualities, his acquired knowledge, his experience under competent guidance, and, above all, on the degree to which he combines these elements into a balanced personality commanding the respect of those with whom he is associated.' The point has already been made, however, that management embraces technique and art-and the same may be said of leadership. In management the control techniques, knowing what is happening, when, where, why, and with what result, become increasingly important. (No amount of 'personal magnetism' will compensate for inefficiency, for the absence of tools or raw material at the moment they are required.) The elements of these techniques can actually be taught on the post-graduate course or in the department of industrial administration of the college of technology. Techniques of leadership are also becoming clearer; the potential manager can have pointed out to him the importance of personal example, of justice and fair treatment, of even discipline, of never favoring, of assembling all the facts before a reprimand is given, of never making a promise he cannot keep, of showing appreciation of a job well done--and so on. Group discussions based on what are known as ‘case studies' can often be used to help change tong attitudes towards handling of men.

The Administrative Staff College too, although perhaps it exists primarily to open eyes and ears and to broaden outlooks and horizons, can also shake rigid attitudes, enable a man to see his strengths and weaknesses more clearly and to weigh them against the job he is to return to tackle. At the. same time the syndicate method may well help him to develop the confidence in himself which he may have lacked and generally to develop any inherent qualities of leadership. It is not true that, if a man is not born a natural leader or manager, the germ of ability to influence others-which exists to a large degree in so few and to a small degree in SO many-cannot be successfully developed. These qualities can be cultivated in conditions such as those existing at the Administrative Staff College, and a certain amount of slightly synthetic practice can be provided in other ways. Practice is the key word, for, broadly speaking, it remains true that no one ever learned to play golf properly anywhere other than on a golf course, and the only place Reproduced by Sabinet Gateway under license granted by the Publisher (dated 2011)256 lea South African Institution of Oivil Engineers [August, 1957 where management can really be learned is in a factory or office. The point has already been made that the first qualification may be a basic technical qualification normally resulting from a combination of practical work within the factory walls and academic work at a technical college ; the second may be knowledge of the control techniques which may be obtained from some external source; the third, and it is immensely important, may be the development of the potential manager with the organization, entailing, says Urwick, 'a pattern for each coming man of the right jobs, in the right order at the right time for the right period under the right supervision.' He may also be tested on some investigation which will tax his capacity; he may be given a detailed picture of a manager's job by acting as a personal assistant-but this must not last too long as it will be bad for him to shelter too long under his master's umbrella; his weaknesses may be spotted and sympathetic coaching may help him to eradicate them. In the end, however, he must be loaded with some responsibility and allowed to practice as a manager, albeit a very junior one in the first instance.

Management, in its full sense and meaning, cannot be taught; it can only be learned by practice, practice in leadership, in actually managing people, however small in number, practice in analyzing problems, practice in making decisions and observing their results. Mistakes there may be, but, says the sage, 'If a man does not make mistakes, he will not make anything.' Training for management may seem an abstract and rather nebulous subject, but training for succession is certainly a severely practical problem. Every management must be self-perpetuating and any management which fails to recognize this fact does so at its peril. As T~ord Heyworth reminded his shareholders at their 1956 Annual General Meeting. 'Wo must take every opportunity to bring on and upgrade our own people from the lower levels. We must all of us under-stand the importance of training. For if we fail to do these things, OUI' failure will not be slow to show itself in the results which are laid before you.'