primary problem is, therefore, that of establishing the most effective system of linkages of functions and personnel between the top and the bottom.

## What Is Scientific Management?

The preceding suggestions are not in any way opposed to the principles of scientific management as originally laid down by Frederick Taylor or as practised by the more broadly experienced of his present-day disciples. Yet there is always the danger that general statements of principle will fail to be properly qualified. To quote from your own recently issued handbook Scientific Management in American Industry:

"The subdivision of an organization into sales, production and financial departments does not constitute functional organization as developed by Taylor. These are simply logical subdivisions of the general manager's burden, neither new nor radically different from what has been going on along the lines of division of labor for centuries. For the real difference one must go below the upper strata of activities and search throughout the whole group down to and including the workman at the bench. If throughout this group he finds that the natural functions in every case, including the work of the man at the bench, have been definitely determined and entrusted to the responsibility and authority of some one functional official, unlimited in area and supreme in his own functional field (except, of course, as in all cases, channels of appeal in cases of disagreement must be established), then he finds the true functional organization designed and so effectively used by Taylor."

And to quote, also, from the index to the original edition of Taylor's Shop Management, the "planning department does not involve additional work and expense; merely concentrates the planning and brainwork in one place."

In the preceding quotations emphasis has been placed upon those phrases which would seem to indicate that a complete centralization of brainwork and a complete functionalization of methods and processes should take place regardless of the size or geographical layout of the organization. Yet Frederick Taylor, if he were alive and with us this evening, would be the first to admit:

1. That the principle of functionalization produces 90 per cent of its results when applied to a basic unit of very moderate size.

2. That the final 10 per cent of functional efficiency, that theoretically might be obtained by complete functionalization, had best be sacrificed in large organizations in favor of quick response in emergencies and the development of a number of broadly trained junior executives, each in charge of an appropriate operating unit of moderate size.

3. That many enterprises are clearly too large for complete functionalization.

4. That functional instruction of functionalized units has most of the advantages of complete functionalization, with less danger of developing bureaucratic excesses and bureaucratic ossification.

5. That no specialist should ever be in a position where the members of the line organization are not able, on occasion, to put up a successful fight against him.

6. That, to the extent that brains exist, or can exist, in an organization, they should be allowed to function in the closest possible contact with those problems that require special judgment and immediate decision.

7. That the permanent vitality of an organization depends quite as much upon competition between independent units in the development of new methods as it does on competition between such units for current efficiency.

In reference to the preceding, it has been very aptly suggested by Dr. Person that the organizer who thinks always in terms of functions may still continue to think of the unit organization as purely functional by assuming that the unit executives are charged with the "function" of correlating other functional activities and of making special and emergency decisions.

## Esprit de Corps in General

We pass now from questions of organization structure, in order to consider the general methods of management which tend to build up a sound estrit de corps.

The old maxim that a stream can rise no higher than its source applies with particular truth to a business or industrial organization. It is often said that the president is known by his office boy, and it is a matter of common experience that, in the majority of business and industrial organizations, the character and point of view of the personnel are colored throughout by the character and qualities of the chief executive officer, or of one or

two dominant figures on the executive staff. If the chief executive is of high intelligence he will be apt to appoint and retain intelligence states officers. If he is of mediocre intelligence he will tend to surround himself with intelligences of the same type. The executive who has that wisdom and judgment that is higher than intelligence will surround himself with subordinate officials who may outclass him in fundamental capacity, and yet willingly serve him because of his human qualities. On the other hand, the executive who resents independence of thought on the part of his subordinates will, in due time, be wholly surrounded by "yes" men, courtiers and office politicians.

April, 1930

The ideal executive will almost automatically secure from his subordinates all that energy and effort which they might put into business ventures of their own. Competent observers state that 50 per cent of the chief executive officers of the great American corporations represent a reasonable approach to this ideal, while, on the other hand, 25 per cent are deficient in intelligence, and another 25 per cent are deficient in fundamental character. It is, however, easy to criticize and difficult to suggest a remedy. Corporation chief executives on the whole represent a superior rather than an inferior cross section of the American people. A considerable number of such executives head industries which they themselves have developed; others are the accidents of circumstance; but the great maiority represent the best selections that boards of directors have been able to make.

To improve the quality of chief executives as a whole it will be necessary to improve the judgment, if not the qualities, of the average board of directors. Some gain might be made if the average board of directors knew where it could call upon personnel experts of adequate standing and capacity to make at least a routine check-up of the candidates in sight when a new election was to be made. Every man who is a candidate for an executive position should be examined from three angles-from the top, to find how he deals with his superiors; from the side, to see how he deals with his associates; and most important of all, from the bottom, to see how he deals with his subordinates. If all prospective chief executives of corporations could be examined from these three angles, it is probable that many mistakes might be avoided, and some part of the special problem

that we are now considering might then be

A further suggestion that has been made is that the board of directors, in addition to the annual financial audit, should secure an annual personnel idea of checking the more obvious abuses that take place when the chief executive falls short of ideal qualifications.

None of these suggestions can be looked upon as more than an indication of a growing attention to the dominating position. The fact remains, however, that personnel work in the lower ranges of corporate organizations has advanced far beyond that in its upper ranges, and that further progress in the quality and character of corporate organizations will depend very largely upon the extent to which chief executives are intelligently selected for their work, and cease to attain position, as they have in the past, very largely by chance or through success in political struggles for preferment.

What has just been said does not pretend to be a complete answer to a question that will probably sprout perennially, so long as human beings are human beings. Yet the facts indicated must be recognized when the question is asked, "How should large groups be organized and managed to secure the ability, capacity and energetic effort of each individual as though he were in a small business of his own?" The beginning of any answer is—first select a good chief executive.

When a capable chief executive has been established in office and an effective plan of organization has been adopted, the work of building up a sound esprit de corps unnecessary to discuss here in detail all those elements of management that have been found useful and maintaining the loyalty and energies of a working force. But it may, nevertheless, be worthwhile to consider certain expedients that are sometimes overlooked by even well trained and competent executives.

## The Value of Definite Objectives

The first in importance of these special expedients is probably that of setting up a definite annual objective for each executive. This may be measured in the efficiency of production, or in volume of sales, or in such other manner as is appropriate to the particular business involved—the im-