

fulness as well as the happiness of all those under him. His superiors would then be quite ignorant of the true condition of a whole sector of the organization chart. Of course such ignorance, or perhaps neglect, would be the fault of the offending officer's immediate superior. But it is precisely faults of this kind that are so common in large corporations. It is a source of trouble that is inherent in the simple military system that was first highly developed by the Romans. Those connected with large corporations can give many examples of isolated departments, divisions or small offices that, through an unfortunate combination of circumstances connected with their supervising officers, have remained for several years in a condition detrimental to the employees, the public and the corporation itself.

It is the purpose of this paper to suggest a device that will automatically call attention to any weak sectors that may exist in a large organization, in order that the standard and esprit de corps of all may be elevated to a degree more nearly corresponding with that maintained by the best managed divisions.

Before undertaking to describe the difficulties of the military type of organization and to discuss the possibility of mitigating some of the obvious defects, a brief summary of the history of the industrial organization will be given so as to help the reader and the author to approach the subject with the same point of view.

The story of civilization is the history of advance in two distinct lines: One, the material side of this advance, is the record of man's increasing mastery over his physical environment; the other the gradual improvement in his methods of working with others, either through compulsory cooperation under a tribal head or ruler or through voluntary cooperation by mutual consent. The record of advance in methods of cooperation is the story of gradually improving organization. All government is organization of one form or another, whether it be the extremist despotism or the most advanced democracy.

When one considers the vast number of man's inventions and discoveries, it is surprising that he has evolved so few forms of organization—that is, few that differ in their fundamentals. It has been suggested that probably one of the earliest forms of cooperation was the hunting pack, when pre-historic man went after big game. In this and similar forms of the most primitive cooperation doubtless one man dominated—the strongest or most crafty. So long as the group engaged was small and the object to be attained simple, no or-

ganization beyond the recognition of the leadership of one individual was necessary; but as soon as the group had to be divided—for instance to head off the animal that was being pursued—a sub-leader had to be appointed and the first step in the development of organization had been taken.

From some such simple beginning the first forms of collective action doubtless sprang. As man first emerges into the dim light of remotest history we see him devoting his greatest effort to defending himself and his family group or raiding other groups. In such enterprises cooperation was essential and the organization which grew up for these purposes naturally functioned in most other group activities. As the family group enlarged into the tribe or clan the simple organization expanded, leadership was subdivided, and artificial groups, frequently of uniform size, were substituted for the natural family group; but the principle of group leaders reporting to higher leaders who in turn reported to their superiors from whom they derived their authority, was maintained. Two examples may be cited, the Roman army and the feudal system.

This form of organization, varying in detail but the same in essence in its many manifestations, may best be characterized as the military form of organization. It was largely developed under wartime conditions—the almost constant state of primitive peoples—and consists primarily in the communication and enforcement of commands originating with the superior leader through the various grades of generals, captains and lieutenants until they reach and are executed by the common soldier or worker.

As civilization advanced and non-military enterprises engaged more of the common energy, dissatisfaction with the strictly military form of organization arose, and in such communities as Greece and Rome there developed a form of organization in which leaders were selected for certain purposes by the vote of a limited number of individuals. Such an organization, in which leadership depended on the choice of even a very limited number of those to be governed or lead, contained the germs of democratic organization.

The expansion of the democratic idea was in two directions; a greater number of functions for which elected officers were chosen, and the gradual increase in the proportion of the populace who were allowed a voice in their selection. It is interesting to note that while the Romans finally gave citizenship to the inhabitants of various provinces, no method was afforded them of exercising a voice in the Roman government except by

actually going to Rome. It remained for modern times to so organize a democratic government that distant communities elect and can send their representatives to the common council of the nation.

While the democratic government differs fundamentally from the military, it has taken over many of the elements and operative methods of the older forms of organization. For instance, in our own national government the chief executive and the Congress are elected, but the departments and bureaus through which the government actually functions are of the strictly military form of organization—subordinates reporting to superiors, who in turn are responsible to those higher up through a regular hierarchy of officials.

Cooperation for commercial purposes seems to be developing in the same manner as cooperation in government, but very much more slowly. For until very recently all business was done by small groups acting under the personal leadership of the owner. Only the owner received the profits and sustained the losses. Perhaps this stage corresponds with the tribal stage in the progress of government.

With the growth in size of any single business the owner had to appoint assistants who in turn, to meet the demands of still larger business, appointed other assistants. Thus a military type of organization started and developed in business as in government. So long as the manager of this military business organization was the owner of the enterprise, and so long as the enterprise involved a small number of employees, rigid inspections were made of all departments by the managing owner. The owner not only wished to avoid waste both in time and material but he wanted to make his enterprise as large and powerful as possible. This latter desire was due to pride in his job and in his own creative work. Often a few of the most important assistants were taken into partnership.

The next stage in the development came when some partners gave only capital to the enterprise but no personal attention. This was the beginning of the stock company or corporation. The development of these corporations was so rapid that in a comparatively short time, for various reasons, the control of the company came to rest with those stockholders who took no active part in the management of the company. By means of their representatives on the board of directors, they appointed the officers and determined the policy of the company. The military type of organization was used by these officers in the management of the companies. Perhaps this stage in the development of the business

organization corresponds to the Roman Republic at its prime. The stockholders corresponded to the Roman citizens, the board of directors to the Roman Senate, and the salaried officers and employees to the governmental organization that controlled the provinces, collected taxes and reported to the senate through the consuls. We are impressed by the extent of the building activities of the Egyptians, Greeks and Romans. We are apt to think of their temples, roads and ships as having been built by the actual manual labor of the nationals of those countries. But of course in reality the physical work was done by slaves who had been seized in raids and conquests. The fabricating that was done in Rome, which might be considered as taking the place of our manufacturing, was largely based on slave labor which required in some cases a high order of technique and education.

A similar condition existed less than a century ago among the lower ranks of the organization in modern industrial establishments. Theoretically these employees in the organization were like Roman citizens. It was assumed they were masters of their destiny and could resign whenever they wished. Also since the men were allowed to vote for government officers it was believed they could prevent oppressive legislation. But in practice their ignorance and stupidity prevented them from using their vote to their own advantage. Their slender resources bound them to the community in which they lived. Therefore they were obliged to accept the corporation terms almost regardless of conditions. A detailed description of the condition of the laboring class in the factories during the first half of the last century would be instructive.

When the corporation reached large dimensions the stock was distributed among so large a number of investors that no one stockholder had enough stock to make it worth his while to give his time to the management of the company for the sake of his dividends only. The board of directors therefore tended to become self-perpetuating. In many cases they fell under the influence of financial institutions. The bankers who were asked to endorse the credit of the company for loans naturally insisted that they should be represented upon the board of directors, and in many cases that they should control the board. This control became profitable in other ways than merely obtaining commissions on bond sales and loans. The purchases of the company were frequently used to support other corporations in which the directors were directly or indirectly interested.