

doing. It is harder to do something in a way it has never been done before than in the commonly accepted way. Do not forget that existing methods, however poor they may be, have the advantage of being accepted.

#### The Environment Under Which the Control Must Function

What do I mean by environment? While environment includes physical surroundings, I have principally in mind at this moment the degree of harmony or conflict in the attitude of mind of the various groups concerned. In this connection let me consider changes that have taken place in the last twenty or thirty years.

At the beginning of this century business was largely an individual affair. There were few corporations. Sons succeeded fathers; "and Son" or "Brothers" constituted the ending of a fair majority of firm names. "Marrying a business" was a common expression. In fact, business still bore the earmarks of its origin in the family. Labor turnover, both in office and factory, was negligible.

Today business is largely impersonal. It is done mostly through corporations. Small businesses are rapidly disappearing, being consolidated. Business is today owned by tens of thousands of impersonal stockholders, who are unknown to the managers, and managed by non-stockholding, salaried executives unknown to all but a few of the stockholders.

Another change in environment rises from changes in family and home life. In the old days, the family was usually large. In our family we rarely sat down with less than twelve at table, and often there were fifteen or eighteen. Everyone kept open house, so to speak. If we had seen just two persons living together alone in those days, we would have thought there was something queer about it.

Space was plentiful. There were always several spare rooms. The standard of living was simple, as compared with today, and social and economic conditions were easy. One or two more or less in the household did not mean much in terms of money. The older members of the family were always welcome, and there was always something for them to do.

Consider the contrast today: Family small, space scarce, standard of living complicated, social and economic conditions hard. Go anywhere and see the big houses being torn down. People cannot afford and do not want to live in them. Young people today do not seem to like the big family idea. If they have

a spare room, they want it for their friends. Where the old folks used to be the principal factor in the family, today they are merely tolerated.

Consider the spread of education. In the old days, an educated laboring man was the exception. The rudiments of economics were unknown not only among laborers, but among the white collar class. Today everyone has some schooling, and the percentage of those of college education has increased enormously. Economics furnishes the headlines in our daily newspapers. The New York radio announces stock market closings from eight or ten stations. Ordinary laborers discuss supply and demand and some even the law of diminishing returns.

Yesterday the laborer looked forward to a steady job at good pay, and that was all. The white collar man looked forward to ownership of a business, partnership in a firm, or some position of responsibility that would distinguish him a little from the rest of the world. Today there is no distinction between classes except in the so called smart set and to those of us who are not in it there does not seem to be much there. The laborer's son and the son of the big business man have an equal chance to sink or swim. Labor and the white collar class have merged. Today all classes look forward with much the same hopes and fears.

You may ask, "What have all these changes in environmental conditions to do with top control?" They mean a lot. They have changed what the employer and employee see in and expect of each other. They have created a need for the older generation to adjust itself to new conditions at the time of life when it is hardest to make adjustments, and, on the other hand, a need for the younger generation to put up with standards and exactions from business superiors for which they can see no reason or necessity. Common ideals and standards and objectives are the essence of effective control, and everything which tends to exaggerate differences in environment of the various groups of which industry is composed, tends to make control more difficult.

#### Psychology of the Word Control

In the light of what I have said about conditions of top control, I want to refer again to a point I made briefly at the outset. The use of the word control is highly undesirable. No matter what use necessity compels us to make of the word in discussion let me advise you under no conditions to use the word in

that immediate environment in which the machinery of control is developed and operated. Unquestionably harmless as we conceive it, it nevertheless suggests restraint and limitation, is repugnant to many people physically and psychologically, and creates avoidable obstacles to the successful working of the control methods.

Dr. Watson a few years ago conducted experiments on babies in the maternity ward of the Johns Hopkins hospital. It was arranged that the babies should be protected against ordinary environmental conditions so as to protect them against parental and home influences. The idea was to find out what a human being is like before it becomes prejudiced by its elders. He found there are three major characteristics of the child before it is in any way contaminated, and one of these is dislike of physical restraint, which is merely another word for control. The moment the babies' movements were restrained or interfered with they cried and showed anger.

When I was in Washington during the war we had a department called "Materials Control." Its function was to control the distribution of materials. We had nothing but trouble with it. After careful analysis of the troubles we decided to change the name to "Records Department" and we never had any more trouble. The only real change we made was to send the facts with reference to materials to the various divisions and ask them to bring about certain results, whereas formerly, without sending them records, we sent them instructions what to do.

You cannot control, in the generally accepted meaning of the word, in this day without doing more harm than good, and you might as well face this fact. You can, on the other hand, give people facts and ask them to work to certain ends, and even prescribe methods to be followed, provided you explain that the methods are given them to insure the necessary coordination with other departments. Apparently we never lose that dislike of arbitrary control which Dr. Watson's babies evidenced.

#### The Methods of Top Control

The principal methods through which general administrative control is effected in the ordinary organization are:

1. General accounting—that is, records with reference to purchases, sales, receipts, disbursements, profits and losses.
2. Estimating—that is, price fixing.

3. Cost accounting—that is, cost finding.
4. Budgeting—that is, policy determination, allocation, comparison of accomplishments with forecasts.
5. Interpretation—of the progress of the going concern in terms of causes and effects.

#### Who Shall Establish Control Methods?

Control consists of a group of methods which give information to executives, on the basis of which executives make decisions of one kind or another. I am strongly of the opinion that the function of determining methods of doing things and the function of making decisions should not be performed by the same person. If they are, the function of determining methods will be continually subjected to interruptions by the function of making decisions. The executive who is called upon to make decisions is continually subject to interruptions and must be continually adopting expediences which are inconsistent with careful and unbiased study of situations and laying out of well-balanced methods.

While the methods man must have no responsibility for the doing of things, he must necessarily have full authority and responsibility with reference to means of recording such as the accounting classification. Any executive responsibility, in the ordinary sense of the word, will unavoidably involve him in results achieved and so bias his judgment. His presence should not be necessary at any given time to any phase of the operation of the industry; he should be free to devote his undivided attention to problems, one at a time, and so be saved from hurried or immature judgments. The function of an operating executive, on the other hand, should be to make decisions and to engage in constant study of different policies in their effect upon results, and in the development of a common understanding throughout the personnel of the organization as to objectives and current practise constituting the control.

As illustrative of a piece of research, such as would be carried on by the methods man, I have in mind a particular study of the relative merits of distribution through jobbers and through branches. The methods man made the study and collected all the facts. The executive then went over them with him and made suggestions for further investigation. After further investigation there were further consultations, and in the end the executive decided to use both methods of distribution under certain restrictions in each case. The methods man then set up the methods and in-