

future plans. This the statistical division of the planning department must be in a position to supply. What has been the volume of sales in the immediate past and in the corresponding season? How has the total volume been divided into the different items manufactured? How were the sales divided geographically and what are the probable industrial and financial conditions that it is reasonable to expect in the future in different localities? Are certain items of sale likely to have greater or less demand in the future than previously, owing to certain variations in price that will be necessary; and how greatly will sales of various commodities vary from past experience? If sales of more profitable items can be stimulated and of less profitable items retarded, which are the more profitable and the less profitable, and in what volume have they previously been sold? How much will it add to the cost if certain expenditures are made for sales promotion, and will an anticipated increase in volume of business absorb this additional expense? How much increase in volume of output will be necessary to absorb a stated reduction in price? Will the plant capacity be sufficient to handle this increase and is it a practicable and profitable thing to attempt? These and many other similar questions in innumerable combinations can be answered from historical sales, production and cost data, carefully analyzed and presented statistically.

With the information referred to in the preceding paragraphs at hand, it is possible to manufacture for stock in the slack periods of a seasonal industry, knowing what kinds and quantities it will be reasonably safe to carry to be disposed of later when the selling season arrives. More important still, it provides the executive with very positive knowledge as to just how far it is safe for him to go in the matter of price reduction or sales promotion expense, in order to stimulate business in times of industrial depression for the purpose of affording continuous employment rather than adding to the seriousness of such a situation by throwing people out of work.

Industry cannot be blind to its social obligation in this respect. The great executive today—successful in the real sense of making a contribution to the wealth and the happiness of the world—assumes this responsibility. Every man and woman who has honestly devoted his mind and body to some industrial pursuit as his contribution to the social community has a right to demand from industry and from society a decent living whether times be good or bad. After all, the rights of property and the claims for profit must be made sub-

servient to the public good. Our great industrial leaders are simply the guardians of a sacred trust. Unless they can administer it faithfully in the interests of the whole of society in a manner that will steadily raise the scale of living and advance the cause of human happiness, they have been faithless to their obligation and have no right to continue in control.

Analyzed expenditure statements, budgets, standards of product and expense, costs, knowledge of plant capacity, ability to forecast sales—these make it possible for the executive to map out in advance a complete program for a season or a year or a number of years. This program will be a picture of all the activities of all the branches of the business—procurement, production, sales, finance, industrial relations—in which each is represented in its relation to the other and to the whole. It does away with the disconnected, disjointed manner of operating so painfully familiar where the production people are working on one schedule, the purchasing agency on another, the sales organization on a third, the financial man trying to keep up with all three, and the personnel director being pulled four ways at once. In other words, it is possible to have all of these activities properly coordinated, each working independently on its own part of the scheme but fully conscious of the fact that it is a part of the whole and not a thing apart and distinct. It breeds a strong spirit of co-operation. The common knowledge that each is working with the same end in view, and that all parts must be equally well done, stamps out—possibly slowly at first but none the less surely—the petty, selfish, competitive actions and thoughts that inevitably exist when all are working without coordination.

In brief, a plan is made which will show the rate at which materials must be purchased and delivered; the times at which various items of output will be produced; the number of people it will be necessary to employ at all times; the amount of sales; the dates of shipments; the amounts of money necessary to pay for materials, pay roll and expenses; the dates on which incoming funds in definite amounts can be counted on; the dates and amounts of payments to be made; when money must be borrowed and when it can be paid back; how much dividends will be paid and how much surplus set aside.

The question will naturally arise, how the Planning Department which has been defined as an instrument of executive control figures with respect to authority. The Planning Department is primarily one of service and the question as to its authority need never

become a matter of controversy. As a matter of fact, the only authority it exercises is that which is incident to its clearly understood responsibility; namely, that of devising methods, forms and procedure for handling all the routine transactions incident to the business and seeing that the prescribed routine is followed.

It must maintain at all times accurate records pertaining to stocks of raw materials and supplies and inventories of work in process and finished stock.

It lays out machines and work places in the factory in accordance with the known requirements of manufacture; it schedules jobs to machines and prescribes the order of work, routes materials to and through the shop. It sets up personnel requirements for all positions and moves workers from operation to operation as conditions necessitate. It sets quotas of work daily on the basis of available materials, personnel and machine capacity; determines operation standards and rates on the basis of time study; computes earnings; analyzes payroll; and maintains production records. It provides the shop superintendent with all the auxiliaries he needs, so that his whole time may be devoted to the production of the best possible output in the greatest amount at the right time, which he effects through various functional foremen.

It analyzes all orders taken by the Sales Department, keeps a record of their condition during process of filling, and advises as to when product for the filling of orders may be expected. It maintains records of available finished stock and prepares reports of a routine or special nature on all data pertaining to sales by product, by customer, by geographical location, etc.

It computes and analyzes the pay roll and distributes all expenses for stores and other items and furnishes journal entries for the control accounts. It furnishes reports as to cost of product and makes any investigations on the basis of records in its custody in matters pertaining to financial expenditures or probable requirements.

It maintains records of the exact quantities in stock of all materials used in manufacture, maintenance and office; notifies when supply is running low; and makes special investigation as to probable future needs at regular intervals or upon request of the Purchasing Department. This is done for the purpose of maintaining at all times an adequate stock for all needs and at the same time holding inventory down to the lowest safe limit.

It computes earnings of individuals and groups,

makes reports as to absentees, tardies and labor turnover and maintains records of individual performance.

The Planning Department stands prepared to collect available information that may be requested or to report gratuitously any occurrences of interest in addition to furnishing as a matter of routine such periodic reports as have been prescribed. In short it provides the means of making a complete and unified plan in which each individual and each department can see his own job in relation to all the others; of checking the progress, the shortcomings or the needs of every unit; and above all of establishing in the mind of everyone the fact that the business is one unit working to a definite end, namely, the efficient utilization of materials and human effort for the mutual benefit of all participants.

The question has frequently been raised; what reduction, if any, should be made in the planning activities in times when rigid economy must be practised. Various answers have been made but most have agreed that when curtailment is going on elsewhere the planning function also should be prepared to cut off some of its activities. Taylor speaks of moving men from the planning department to the shop in bad times and back again when things picked up. But in the cases he dealt with there was actually no work or but little to be done, and the men who by training and experience had fitted themselves for planning work and had been promoted from the shop, would have nothing to do. Rather than let them remain idle or lay them off, they were transferred to the shop in which they had been skilled workers, and there they were employed at the skilled mechanic's wage until more work necessitated their services back in the planning office again. This latter, however, is not identical with some of the cases in mind where reductions have been made not because the planning service was not needed but in spite of that fact. Now there is no doubt that times come when the most severe economies must be practiced in every business organization, when things that under normal conditions would be quite right and proper to do or to have, must be foregone. There should be no hesitancy in being able to answer this question promptly and correctly if the classification has been developed and if an analysis of expense is available. The exact cost of operating any planning activity can be noted. If this activity were discontinued or reduced, what would happen elsewhere? Would there be an increase in cost somewhere else that would offset the apparent saving, due to a lowering of output, or a lack of some information that is a necessary