

in many cases less than they should be. This, however, may be offset increasingly if personnel managers have been trained so that their specialization is not extreme and that they are able to function in either the production, selling or financial management as well. Growing also out of the fact that this type of work is not widely understood in industry, is the disadvantage that many companies which have simply made provision for special employment agents or training directors or medical departments, will think that they have personnel departments and that the men running these departments are personnel managers. The distinction in administrative authority and in training required between an employment clerk and a personnel manager should be clear in the light of the foregoing analysis. Sound theory and practice can develop so far ahead of the inclination of corporations to make use of them that the trained worker finds the application of his ideas in a given concern to be a slow, up-hill fight.

This is, however, not peculiar to personnel management. It is true of all phases of management in which scientific knowledge has outstripped the willingness or ability of executives to make use of it. It would of course be out of the question for any person to find congenial employment in this field who felt that the present system was so inherently and completely exploiting the worker that to be a party to the employer's side of the organization was to compromise his ethical sense. Personnel work will be congenial rather for that type of mind which realizes that present economic conditions are not due to the personal willfulness or malice of employers, but to the development of broad economic forces, within the grip and

limits of which, more than we usually like to admit, we must all work. Personnel management is distinctly the meliorist's profession, the profession of the enlightened liberal who is willing to understand the complex interplay of economic and psychological forces, and work in a scientific spirit with things as he finds them in a direction which at least looks to be somewhat more just and happy for everyone than is the present condition.

It is difficult to say what the extent of personnel administration in actual organizations is today. The number of plants in which a distinct and titled personnel executive holds a major administrative post is admittedly few. The number of plants in which personnel workers hold advisory positions which are influential, and administer a variety of personnel functions, would probably include nearly 200 more. There are beyond that a large number of plants, mercantile and industrial, which have special employment managers, training directors, or subordinate executives on some special phase of personnel work without any one coordinating staff personnel executive. We know, however, that there are over 5,000 plants in this country each employing over 2,000 workers, and with the expanding industrial activity which will inevitably come in this country in the next twenty years, most of these 5,000 plants should find a place for an executive well up in the administrative structure, who will get ahead to the extent that he has personnel training. Although the field is thus limited, there is almost endless room for the advancement of executives who combine general executive ability with some knowledge and appreciation of the importance of personnel activities.

WRITES one of our member executives to another: "Where an industry has achieved the position of being classified as 'scientifically managed' there seems automatically to develop a spirit of service. . . . I know from our own experience that our organization is imbued with a spirit of helpfulness, that it takes pride in giving detailed information where it is desired, and

that the more a person wishes to know about our system and methods, the more eager our men are to serve. I find in your plant exactly the same spirit. . . .

"I wonder if this is a universal attribute of scientifically managed industries? . . . In my own experience I have yet to meet a single exception. . . ."

## GENERAL ACCOUNTING AS RELATED TO PRODUCTION CONTROL<sup>1</sup>

BY PERCY STOTENBUR<sup>2</sup>

THIS subject being very broad and the conditions in different industries varying greatly, I realize that the figures presented here and some of the methods which we use will not be generally applicable; however, any company having an inventory will no doubt meet the problems which are discussed here.

I think the subject can best be treated if I outline briefly the system by which the accounting department obtains information pertaining to production, and then explain how we try to use this information.

Production means not only producing product but producing equipment with which to make the product. This of course affects the plant and development accounts; in fact production affects most of the accounts on the balance sheet.

The largest account and the most difficult to control is Merchandise Inventory. I shall therefore tell you briefly how our system enables us to know the value of this account each month. We all perhaps use what is called a perpetual inventory. Starting January 1 each year with the physical inventory we proceed as follows:

Debits are made to the Stores account through purchases which are classified and recorded on the invoice register. The total of each class is charged to the account monthly. The Finished Parts account is debited with parts sent to stock from the shop. Credits are made to the accounts by requisition when the material is issued to work accounts or expense account.

Work in Process accounts are debited with labor which is accumulated by the distribution of the payroll, with material which is requisitioned from stock and with the prevailing standard burden. Credits are made to this account when the work is finished and sent to stock, or is otherwise disposed of, as through shipments or plant accounts.

The details of these transactions are handled by the cost department and given to the accounting department

in totals at the end of the month. They are then posted on the control sheets, thus establishing the new balances.

The sub-divisions which we use in the inventory account are as follows:

Stores—Castings, Rolled Steel, Electrical Apparatus, Miscellaneous Materials, Finished Parts, Supplies, Tools and Scrap.

Work in Process—Machine Shop, Structural Shop, Hoist Assembling Shop, Crane Assembling Shop, Development Work and Plant Improvement.

Development costs are those which are necessary previous to the manufacture of the product to put the product on a profitable manufacturing basis. These include drafting and engineering, jigs, tools, patterns, etc. These costs are accumulated in the same manner that product costs are, and could either be capitalized and eventually charged to the product on a pro-rata basis or else charged off each month as they occur. We use the latter method.

Plant improvement costs are handled the same as development costs with the exception that they are capitalized and depreciated each month on a predetermined percentage basis.

I do not feel that it is necessary to go any further into the details of these methods inasmuch as most all accountants are familiar with them, and even though they may not be using them they are probably getting ready to do so.

Now comes the hard problem. We have a balance sheet and an income-expense statement which reflect the production and activities of the factory. How shall we read them? Are they good or bad? We may have made a good profit on paper, but are we able to realize that profit in cold cash? Is our inventory too high or too low? Have we invested too much in plant and equipment? Have we spent too much on development and will it pay for itself? Have we produced more than we have shipped and why? These are some of the questions we must ask ourselves.

I read an article sometime ago in one of our trade magazines which impressed me very much. It was in

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