

dition of the business, the progress it is making, its weak and strong points, its selling values and costs, and the efficiency of all its departments. How thorough, lucid and complete the information is as shown by the books indicates to some extent the efficiency of the management and its grasp on the affairs of the company. In the *unsystematized* plant the accounting generally consists of a statement prepared after the annual or semiannual stock-taking, which shows (1) Profit and Loss; (2) Assets and Liabilities. It may possibly show profit and loss by departments or by products, but this last depends on a correct method of ascertaining costs which the *unsystematized* plant seldom has. Such statements are merely a record of an historical fact in most cases. If the statement is bad it is too late to remedy the troubles of the previous year because it shows merely the result of that year. Frequently, due to imperfect methods of stock-taking, appraising and compiling, the yearly statement may be delayed; then the history it tells is ancient.

One example from my own observation—by no means unusual—will illustrate: A large concern ended its fiscal year on January 31 and did not know the result of its year's business until July 17 following, and then in the simple form of profit and loss, assets and liabilities. This information came nearly six months after the close of the business year and was then six to eighteen months old, too late to do anything to stop the leaks of that year. This was a dangerous case, but a common one.

Any firm of accountants can testify that it is no unusual thing to audit the books of a concern which thinks it is prosperous, and to show that concern that it is insolvent. Within twelve months the writer has had experience with a business in which an audit was made of the books because the proprietor thought his bookkeeper had been dishonest. The audit showed that the bookkeeper had been honest but that the concern was insolvent and shortly after it paid its creditors thirty cents on the dollar.

A lack of proper cost accounting in the *unsystematized* plant is the cause of losses and of many failures. A notorious example of this appears in the printing industry. In Chicago one large department store makes the boast that it secures its printing below cost. Its method is to send for estimates on printed forms to a large number of printers for every job of printing it has to give out, and then to give it to the lowest bidder on the assumption that some one will have figured below cost. It is reported that at the close of one fiscal year

there were no less than fifteen failures of printers in the city of Boston, and it would not be strange if this proportion held throughout the country in this particular industry.

So much importance is placed upon cost of printing at the present time, that one national organization of employing printers has no less than eight men employed installing uniform cost systems in printing offices of its members throughout the country. Too little importance is placed upon accounting in the *unsystematized* plant, and as increasing competition in various industries is continually lowering the margin of profit, the accounting must become relatively more and more important to this class of business.

B. Purchasing. The purchasing of materials, stock and miscellaneous supplies under this type of management may be done by one man or by a purchasing department; but more likely this duty is not very well defined and the purchasing is done by a number of persons, especially those needing the material. Little study is put on the standardization of materials, and different kinds of stock for the same use are often bought. This tends to remnants on some kinds, overstock and understock on others. The buying is seldom done on exact specifications, is not always even by written order, nor is there a predetermined maximum and minimum established of each article that should be carried in stock. The head of the business or the buyer may be an exceedingly shrewd trader and may buy very close at times; but he will not always buy the materials best suited to the work, often overbuys or underbuys for lack of definite information, and is frequently tempted by bargain lots that seem cheap but may cost more to use in the shop.

The lack of well-organized purchasing results in work progressing to a certain extent through the shop until it is stopped and occupies space waiting for some material which has been overlooked, or which is not suited for the purpose. A fairly successful publishing house in one of our large cities does its buying by the *unsystematized* fashion. Last year in making up its statement of profit and loss, the inventory of paper amounted to \$20,000. Three-fourths of this paper exists as overruns, or odds and ends of lots which are stored in various printing offices and cannot be used on an average-sized job. They are so scattered they cannot be combined and the make, color, finish and size are different in nearly all the lots. When this house realizes what this stock is, it will be forced to write off nearly \$15,000 from its books on what it now considers good

assets. Had the buyer in that publishing house standardized his paper so that whatever remained from one lot could readily be used on the next, had concentrated paper of certain kinds in one printing office, and had accurate records of his available supply, this amount of money represented in stock could be appreciably less and would equal the original cost of the paper. This sort of buying is common among *unsystematized* concerns.

C. Storage of Materials. Many manufacturers are willing to devote unlimited space for workrooms, not realizing that the room for the proper storage of materials is just as important and just as profitable as that used for manufacture. In the *unsystematized* plant there may be a general storeroom, but seldom are all the stores to be found in it, and generally they are piled around almost anywhere and in any way that happened to be convenient when received. The order in which such stores are kept usually depends upon the initiative of the men directly in charge, and seldom can one person assume or carry out this responsibility.

The storage of materials and purchasing are very closely related to each other. Loss of time hunting for material is the same whether the material is first in the storeroom or has not been purchased, and a lack of system in one department will undo attempts at system in the others. The effect of badly organized stores is: (1) Loss of time; work which should go through the manufacturing departments rapidly is held up at different places waiting for materials of the proper kind or amount, and this is a direct loss. (2) Loss of space; more space is required to hold stores in a *unsystematized* way, and for lack of standardization more stores will be kept on hand than are required. Space is also lost in the workroom because work in process does not pass promptly through the workrooms if delayed for material. (3) Loss of capital, because more money is tied up in stores which are not systematized and properly regulated, and more money is tied up in the jobs which represent labor and material sidetracked throughout the plant. A lack of proper records of stores is almost always to be found in the *unsystematized* plant, and the management seldom sees the need for the so-called extra work necessary to conduct that department properly.

D. Execution of Work. Orders in the *unsystematized* shop are recorded in a simple manner, sometimes even received and transmitted verbally by the salesman. These are described in part verbally to the superintendent, who may further enlighten the foreman on any

of the details of such orders. It is assumed that the superintendent knows his business, that the foremen know theirs, and a workman is expected to sense what is wanted and to ask questions when he is not sure. In this way an attempt is made to fill in the exact and accurate information which the selling end has either not secured or has not transmitted in writing.

The "single foremanship" plan prevails where one foreman handles as many men as he can. The number of men and the amount of work he can look out for is limited by the amount of detail which he can carry in his head and by his physical and nervous endurance. He gives work to each workman when the latter has finished his last job, and depends largely on the worker's knowledge of what to do and how to do it. As questions arise in the progress of the work, or where the written order is incomplete, the workman goes to the foreman who in turn goes to the office for instructions. Meanwhile progress on the work stops.

The workman goes for and selects his tools and appliances, and does his work in the way in which he is accustomed to do that particular kind of work. A difference in method of doing the same kind of work by different workmen and in different shops is often quite marked. A detailed schedule of the average workman's day in the *unsystematized* shop, where such day's work is varied, will show a surprisingly small proportion of effective time.

Piece-work is often used, but is bound to be unequal. The rates, determined by no exact method, are often subject to change, and the output of such piece-work is frequently limited by the unions. This lack of planning the work at the start, of complete instructions, of coordinating the departments and routing work throughout each operation, results in a congestion of unfinished work at many points. This slows down the output, occupies space and ties up capital. The frequency of mistakes in rush times and of shortages that must afterwards be made up, are not always called to the attention of the management. It is exceedingly difficult, also, in this type of plant to secure a high quality of work and to maintain it uniformly. Then, too, the costs fluctuate a good deal.

E. Efficiency of Workers. The efficiency, as a whole, is low and especially so in dull times. It is uneven and varies according to the executive ability of different foremen. The output of a man or machine is largely determined by the opinion of the foreman and not by any exact standard. Piece-work is not always fair, and may be too high or too low. There is no special in-