should be in accord with a long-range plan of increasing sales. Thus we have to go back beyond the yearly estimate to consider a plan which has a general application over perhaps twenty-five years ahead. We have grown steadily through the years and we believe that it would be fatal for us to stand still. Also we believe that we cannot increase our production beyond a certain small percentage each year and still keep our production up to standard quality. The standard of growth is a straight line or a very slightly curved line, as Chart III will show, whereas the actual growth is apt to rise above or fall below the standard, due in the main to the rise or fall in the purchasing value of dollars and cents or to very widespread business conditions which we may not have anticipated accurately or fully. Nevertheless, the standard is there and provides us with a quota which becomes higher each year and which therefore calls for a larger effort each year.

To those who manufacture for stock as well as to order one phase of our plant will be of particular interest. We try to keep all of our facilities going all the time, but we sell to a good many classes of trade where there are decided selling peaks and these must be taken into consideration in our manufacturing plans. This results in a flood of orders during certain months of the year with corresponding drops at other times. We therefore try to develop our stock lines to the place where they will effectually balance the flood of special orders and Chart IV will show how we try to schedule the stock lines in comparison with the average flow of especial orders as it applies to the Box Division. Most of our boxes are sold to the jewelry trade, which is very highly seasonal. If we made only to order, we would have a tremendous peak during the Fall months and a corresponding valley after New Years. We have therefore developed our stock items so that during these

otherwise dull months they can be used to keep every facility going at full time. The space in between the heavy lines representing stock goods and made-to-order goods is taken up by the making of boxes for our own goods such as are sold to the dealers or consumers. In this way we keep a flow of production in our Box Division which does not vary an appreciable amount except that it tends to increase each year. The same method is used in each one of the producing divisions with variations in the plan to suit the particular needs.

A tremendous advantage of these plans in operation is that the selling men who are directly in charge of sales of merchandise are also directly responsible for the production of that merchandise. The merchandise managers are midway between the consuming public and the employees actually making the goods, using their best efforts to provide continuous employment for the employees and to provide sufficient merchandise to meet the demands of the consumer. The merchandise managers may be compared to a telephone central which is constantly receiving requests for connection from a multitude of people and is just as constantly giving connection with an equally large multitude. The merchandise manager is in constant touch with the needs of the producing end of our business and is just as constantly in touch with the consuming public. You don't have to use your imagination very much to realize what happens when the telephone operator falls down on her job; inasmuch as the comparison is very close you can also realize what would happen either to the factory or to the consuming public if the merchandise managers were not constantly in touch with both. On our monthly reviews the slow sellers and the fast sellers are shown up with equal prominence, and while we have not attained a state of perfect bliss we feel that we have made some progress.

N scientific sales management I would lay great stress does is called Sales Cooperation. It advocates making I on a more equal division of the responsibility beagement itself should take over all work now being done by the salesman for which it is better fitted than he. To do this I would create a central planning department for the salesmen. The work which this department -Charles W. Hoyt (1912).

the salesman the closer and not the missionary. Using tween the salesman and the management. The man-salesmen as missionaries costs too much money. Missionary work is one of the things which causes the million-dollar-a-day waste in selling America's goods.

AN ANALYSIS OF YOUR BUSINESS By You

The Purpose of the Experiment—The purpose of this questionnaire is to enable the responsible managing executive to rapidly survey his business and determine Fa for himself its strength and its weakness. Each question indicates a point in management technic which B has met with approval by the most successful companies in the country. Probably no company will be found which consistently does all of these things and, on the other hand, it is doubtful if any company is to be found which consistently ignores them all. Certainly, however, those companies who really perform in an understanding and thorough-going manner a large percentage of the things covered will be found to rank among the best organized and those who do only a small proportion of them will be found to rank among the most poorly organized.

The mere fact that a company makes money is no indication that it is well organized, though it is rare for a well-organized company to consistently lose money. It is evident that a poorly managed company which is making money could make much more by better organization.

This method is equivalent to an "analysis by sample" as firms who practice the technic implied by the questions have other good practices in proportion, for it denotes a thorough knowledge of management. The converse is also true.

Thirty-five of these questions were adapted from the report of the Hoover Committee on The Elimination of Waste in Industry. These are marked with an asterisk (*). Inasmuch as the work of this committee did not cover all of the phases of management it has been necessary for our purposes to add other questions.

Method of Rating-The method of rating in a case of this kind must of necessity be arbitrary. No claim is made that this method gives an accurate estimate. It is admitted that accurate measurement would require a different weighting for each subject. This weighting could not be standardized successfully. It would be different with each industry and could only be satisfactorily done by a trained industrial engineer making an analysis and survey of the business in question. The reader is advised therefore, to use the following arbitrary method of rating which has the merit, at least, of

¹ From an address by W. H.^k Leffingwell, The Leffingwell-Ream Co., New York and Chicago, at the Management Week joint local section meeting, Chicago, Qct. 20, 1922.

enabling one to compare his company with a hypothetical company having the maximum number of points:

xcellentIf you do or have the thing implied by the question, place before it	5
ood	
mark it	4
air	
not yet in operation, mark it	3
oor	2
ad	
mark	. 1
The total number of points possible is 415	

A. ORGANIZATION

An organization is "a collection of persons working together for a common end." Many so-called organizations are but "a collection of persons." In order that these persons may work together for a common end it is necessary that the duties of each be carefully defined and outlined. Best management practice requires that this be in writing and preferably graphically. Ouestions:

- 1*.... Have you an active, up-to-date organization chart?
- Is your organization built up functionally rather than around individuals?
- 3*.... Are the duties of each unit function or member of the organization contained in writing?
- 4*.... Are there standard written instructions as to how each function is to be performed?
- 5..... If you have the above-mentioned conditions, do they represent actual present practice? Total possible points 25 Your standing B. PERSONNEL

The proper selection of employees and due consideration of their needs after employment, in the best organizations, are now considered to be problems of major importance. The following requirements represent the absolutely essential elements of good personnel practice.

- 1*.... Are employees selected by one person or department?
- 2*.... Is any evidence of ability required on hiring? 3*.... Do you keep records of discharges and lay-
- offs and tabulate the causes? 4*.... Are incompetent workers given training or tried at other work before discharging?
- Are quits followed up and investigated and the causes tabulated?
- 6*.... Are records kept up as to quality and quantity of production of worker?