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agement to the office, and the principles we have adopted as a result of these experiences, are essentially the same as those Mr. Leffingwell has noted in his paper. Therefore, the few words I have to say are not critical but rather in the effort to add to Mr. Leffingwell's paper, if possible, with a few illustrations of the manner in which we have handled certain problems in connection with our clerical force. Some eight or ten years ago we used the transparent celluloid scale. of which Mr. Leffingwell speaks, to measure stenographic work. We have since used a stroke meter. somewhat similar to the bicycle cyclometer, which is geared directly to the typewriter and registers the number of strokes made. We have found this to be more accurate because varying length of lines in the same letter makes it difficult to measure accurately in square inches. It is also less expensive because production can be secured by a meter reading once a day, which takes only a few minutes. This illustrates Mr. Leffingwell's point that the physical means of securing a result are not important, as production can undoubtedly be increased with either the use of the celluloid scale or of the meter

We have found that requiring employees to report, say ten minutes earlier each morning than ordinarily, for a certain definite time, is a very effective cure for habitual lateness.

Our method of department reports differs from Mr. Leffingwell's method of having each department manager report on the condition of his department each month. We have a Personnel Committee consisting of four members of the Board of Directors, two members of our own department and the Employment Manager. Our department prepares a report on each department for this committee each month. Each department manager receives copies of the report for his department. These reports consider: first, the general condition of the department and, second, list by name all employees whose work is below standard, with the resulting money loss.

clerk records his or her own time and production on a daily time ticket. We have recently added to this ticket a space in which the clerk figures, at the end of each day, the bonus earned if her production has been over standard. If her production has been under

<sup>1</sup> Curtis Publishing Company, Philadelphia.

In our department we keep a chart record card for each operation that each clerk works on. These cards last a year and show clerk's name, wage, and standard. The production hourly average made by the clerk each week on each operation is charted on the proper card. We have found this to be a very rapid and accurate method for following up the work of each individual

Mr. Leffingwell has called attention to the fact that scientific management can be applied to the small as well as the large office. I wish to emphasize this by saying, that while in total number of clerks employed, our office is comparatively large, yet, on analysis, you will find that it is merely a combination of many small offices. Our method of applying scientific management principles has been to take a small group at a time and study that particular group in the effort to discontinue unnecessary work, do the necessary work by the easiest method, and establish standards of production. In many cases these groups have not consisted of more than fifteen to twenty persons. As an illustration, we recently standardized our Pay Roll Division work in which there were twenty-one clerks. Twenty different operations were standardized in this division, of which not more than three girls worked on any one operation. It is interesting to note that at this time we have only eleven clerks in this division as a result of the standardization work done.

In practically all of our clerical departments the learning certain things, becomes a pilot. Possibly also in the present case (of the search for better management and better industrial relations) the mere desire learn certain things. This is then the object of our search." (From the "Golden Sayings" of Epictetus, LXVI, the words in parentheses and the italics being

E see that a carpenter becomes a carpenter by learning certain things; that a pilot, by to be wise and good is not enough. It is necessary to

## APPORTIONING SALES OVERHEAD

TERRITORY VALUATION (THE QUOTA) SUPERIOR TO TERRITORY SALES AS A BASIS FOR APPORTIONMENT

By CHARLES P. STAUBACH<sup>2</sup>

At a recent meeting of the Taylor Society I presented a paper on the quota, or territory valuation, which has since appeared in the Bulletin.3 That paper was an explanation of the nature of the quota and of methods of computing territory valuation. The following paper is concerned with a particular aspect of the quota-its value as a basis for apportioning sales overhead-and assumes a familiarity with the nature of territory valuation presented in the earlier paper.

A new note of great potential value, particularly under present business conditions, is related directly to quota valuations of territory.

The manufacturer does not have to be shown the necessity of determining, accurately, the cost of manufacturing the various articles that make up his line. It is of equal importance that he should know not merely the cost of marketing his product, taking the field as a whole, but also just which selling agencies. branches and territories are making money for him and which are not. This can be done only by assessing in a statistical way, upon each selling unit, its proper share of the entire cost of marketing-in other words, distributing all overhead not included in manufacturing

This distribution should not be made, as is so often done, on the basis of sales produced; otherwise an incorrect conclusion is arrived at as to the extent to which each selling unit is profitable or otherwise. To illustrate this, let us say that of two branches covering territories of approximately equal value, one is selling twice as much as the other. If we charge the first with twice as much of the general overhead, our conclusions will not be correct. Otherwise, in case one of these units sold nothing at all during a certain period, it

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Glen Ridge, N. J.; formerly General Sales Manager, The Burroughs Adding Machine Company.

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would be charged with no general overhead whatever, concealing the actual loss, and the other would be penalized by having to absorb an excessive overhead. reducing its showing as to actual profit earned.

Penalizing successful selling units by a statistical distribution of general overhead based on sales does not locate the real source and extent of territorial profit and loss.

The proper method of ascertaining the territorial profit or loss would seem to be to credit each unit with the entire revenue it produces, and secure the net revenue by deducting its direct expenses, such as salaries, commissions, traveling expense, etc. Next. to charge in a statistical way, against it, its proper share of all items of Home Office expense, field supervision, and in general all expenditures and costs not already included in manufacturing overhead or direct expenses. Having done this, the share of this general overhead, apportioned to the unit, being deducted from its net revenue to the concern, indicates the extent of its actual marketing profit or loss.

What percentage of the total general overhead should be figured against each unit should be determined not by its sales, but by the sales valuation of the territory it covers; in other words, its sales quota. Quick figures can thus be secured, as the quotas of all units, being fixed, are known long before sales figures are available; and as soon as the overhead for a month or other period has been ascertained, it can be at once distributed ready for application against the revenue produced for the period immediately on that being re-

This is an additional use for sales valuation or quota. statistics that has not been realized to the extent it appears it should be in business generally.

Perhaps the best way to illustrate the points to be brought out, is to present charts that show practical applications.

J. G. Allen: Our experiences at the Curtis Pubstandard she figures the resulting money loss. She then lishing Company in the application of scientific man-signs her name to the ticket. We have found this to be very effective in increasing production. Generally speaking, most people's personal pride will not permit them to turn in reports day after day showing a loss when other people are showing a gain on the same operation. Curiously, it does not effect these same people to such an extent when the figures are not actually computed by them.

A paper presented at a meeting of the Taylor Society, New