

of a certain percentage to offset fatigue and other retarding elements. I am against any such combination of the scientific and unscientific and prefer the establishment of standards for clerical operations based upon studies of fatigue and attendant conditions as a part of productive effort. For example, if a maximum standard is set at sixty units per hour based upon a time study including all the retarding elements that might enter into an operation, that is the standard I would prefer to have maintained; and if at times by exceptional ability or spurts of speed the clerk is able to make sixty-five or even seventy-five units per hour, I would prefer that they understand this excess production is not desired, and only a sufficient production above sixty maintained to insure one hundred per cent maximum. This acts as a factor of safety to take care of any deductions that might be made to cover penalties for errors. In connection with this last statement, there might be a great deal of adverse criticism. However, I feel confident that with due consideration given such plan, or some modification of it, real progress can be made in the line of standardizing operations or applying simplified scientific principles, if you please, that otherwise could not be made, and it is my personal feeling that progress along this line is of paramount importance.

In my opinion Mr. Fuller's paper should be taken as a rule and guide to aid us in bringing about efficiency where we have been more or less neglectful. I consider it an honor to be permitted to discuss this valuable work.

MR. J. WILLIAM SCHULTZ:¹ Obviously the two big factors in most business concerns must necessarily be:

1. The manufacture and cost of the product.
2. The marketing efforts and their results.

In the light of either of these, when you think of clerical activities and their costs, the latter sink into an insignificant place, and yet the following propositions are matters of fact, namely:

1. An efficiently operated office has a distinct bearing upon production on the one hand, and sales efforts on the other, because an office is a service rendering institution. Since all the activities in the business are dependent more or less upon the service rendered by the office, it follows that poor service impairs the efforts of plant and sales force, and vice versa.

¹Comptroller, Robert H. Ingersoll Company, New York City.

2. A dollar saved or earned in the office is of the same value as a dollar saved or earned elsewhere in the business.

3. It is not good judgment to run one or two departments of the business efficiently and waste part of the results of this saving in the office.

I have been much impressed recently by Major George D. Babcock's book, *The Taylor System in Franklin Management*, particularly the emphasis he places upon the long time that is needed not only in investigating and proving to the management that the Taylor system, for instance, is worth all that is claimed for it, but also the time it takes for installation.

We have only begun to give thought to the application of scientific methods to office management, and I take it that it will, therefore, be considerable time before this Society or any other can meet for a discussion of results except in isolated instances, such as the discussed in Mr. Fuller's paper.

Our purpose at this moment, as I see it, is mainly to convince ourselves again that the application of science to the office is a feasible and worth-while thing, thus giving us renewed energy in the continuance of putting it to practice.

We are told that a definite tangible saving of \$100,000 in one concern has been made through the introduction of scientific methods in office management. We can hardly longer doubt its efficacy, realizing at the same time, that this is really only a beginning and that it does not measure the intangible results obtained by the other departments of the business through the rendering of improved office service.

But the Curtis Company is a large business in the office of which several thousand people are employed, handling a tremendous mass of detail. It may be claimed that here we have a set of circumstances analogous to the conditions existing in a plant wherein the same operations are performed over and over again, rendering a high degree of specialization upon the part of the individual office worker not only feasible but necessary.

It is natural that the management of a business in which the office is not such a large factor, raises a serious question as to whether the same kind of intensive analytical work would pay in the smaller office. One clerk will handle several operations in their office, which in a concern like the Curtis Publishing Company are handled by as many different clerks.

The answer broadly, of course, is that scientific method, no matter where applied, pays.

Science is classified knowledge. To classify one must first analyze. When functions, plans, methods, operations, personnel, equipment, space arrangement and the time factor are really analyzed, it becomes a matter of ingenuity, of experience and of research, as to what use will be made of the facts discovered. The distinction between the very large concern and the smaller concern—the very large office and the smaller office—is made at this point. The management in the large office will proceed to rearrange his organization, perhaps separate the staff from the line functions, introduce scientific standards, introduce adequate reward systems, better methods, finer routing, correct equipment and better space arrangement. In the smaller office these things can be done to a limited extent only. In some not at all.

In our own establishment, we have at the home office in New York some three hundred clerks. The total number of clerks in our various branches is less than one thousand. Three and a half years ago, the total number of clerks in all our branches and offices was about two hundred.

Nevertheless, at that time we began to lay the foundations for the eventual application of Mr. Taylor's principles to our office management. Now, at the end of nearly three years and a half, we have just come to the completion of what in our business was necessarily the first phase, namely, the obvious changes in organization and methods which had to be made before we could begin to think of applying the principles for which the world is indebted to Mr. Taylor.

The process was longer than it might otherwise have been, owing to the tremendous expansion which has taken place in our business in the interim, and which immediately required the building of an organization to meet the extension as well as to overcome the former obviously incorrect practices. It might be interesting to note in this connection that the improvements which have been made in the office during the past three and a half years are responsible in part for this very expansion. First, they have enabled us to put in operation sales or production plans which otherwise could not have been successfully carried into execution; second, they have had a certain influence in other parts of our business which has resulted in better organization and management methods. This is a situation somewhat the reverse of what one ordinarily finds.

Our first study was that of classification of organization. We found responsibilities assigned to two or more people and, therefore, assigned to none. This was the very first thing to be corrected, and, of course, resulted in a series of organization charts, shifts in personnel and grouping of functions into orderly correlation. As a result to-day every individual in our business knows his place, function and relation to the rest of the establishment. Incidentally, we have also taken advantage of the opportunity to standardize terminology in this connection.

We next found antiquated and laborious methods in use, which resulted in a study of each department, one by one until we have finally established what we consider to be at least advanced schemes of operation to the end that the work flows through our various office departments smoothly. It is in this connection especially that we feel we now are entering upon the second phase of our work, that of time studies and intensive analyses, which in addition to more scientific methods, equipment and the like, will lead to some method of establishing incentives, together probably with better routing.

We next found that there existed a lack of coordination between the various units in the business that was costing us real money. This we assumed was largely because the one unit did not understand the real nature and value of the work the other unit was doing. This lead, of course, to office manuals and a general campaign of instruction throughout the entire organization; we preached unity and cooperation through the simple method of introducing ourselves to each other. A part of this propaganda is a house organ called "The Message," which to-day has become a fixture as an important factor in keeping our organization in smooth running order.

We do not have in effect one practice adopted by the Curtis Publishing Company, that of issuing instruction sheets to an individual worker, because, as I have already indicated, we have just gotten around to the point where we shall make time studies and introduce what I have been describing to our people as the refinements. Instructions are departmental and descriptive in character. Our aim has been to give the clerk a wider view of his duties and of how they relate to others. To that end we try to make him as familiar as possible with the work of the department. We will later establish the individual instruction sheet, but it will be in addition to the more general instructions now in use. We consider it desirable to interest our people in the business as a whole. You cannot