

In this connection it may be interesting to note that the plan has recently obtained the approval of one national association of manufacturers in a particular industry, and its members will be able to compare their efficiency one with another through its use. Because these manufacturers are all in one line of industry, it will be possible to add to our regular elements, a number of others peculiar to that industry, and thus make the weighting more accurate than can be done when a method must be applicable to all industries.

Any carefully thought out plan of this sort might seem theoretically sound and promising, but the actual test of such a plan is its successful use in practice. This

plan has already passed what the scientific thinkers call the "pragmatic test" and we can give an affirmative answer to the question, "Will it work?" It has worked; it is working now. We have waited with modest patience for the reactions of practical "hard-headed" business men who have tested it in their office organizations, and we have yet to hear any unfavorable comment, much less any challenge of the basic principle.

In the years that lie ahead, with the steady development that experience brings to every new method, we are convinced that this principle of the measurement of management will firmly establish itself as an integral part of the scientific conduct of industry.

#### PROFIT SHARING

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exception and not the rule.) Now, if the reward which capital is receiving is so small that if all of it went to the working people there would only be an increase of 60 cents to the head of each family, we certainly cannot look in this direction for much greater prosperity to the working man.

I have felt sure, both from my personal practical observation, and from everything that I can read on the subject, that the only true hope for an increase in prosperity to the working people lies in an increase in the productivity of every working man, throughout the country. Whether this increase comes through greater personal efficiency, through a better order of co-operation, through the introduction of labor saving-machinery; or from whatever source, it is to the increase of productivity of the whole mass of our people that the working people must look for an increase in their prosperity.

This I conceive to be at the root of the whole labor problem, and it seems to me that it is of the very first importance that the laboring people of the country should be brought to understand this fundamental fact. They are now—through labor leaders, through the press, through public opinion—taught to believe that there is something radically wrong with the division of the surplus earnings, and that if they only got their fair share of the joint product of capital and labor, everything in the world would be *couleur de rose* for them.

Now, as to profit sharing. If profit sharing would result in so stimulating the workmen who come under it that each one would very materially increase his daily output, say double his productivity, then I should look to profit sharing as the cure for the present troubles. My judgment and observation and study of men leads me to the conclusion, however, that profit sharing, while it would induce workmen to become slightly more productive, would not have the effect of greatly increasing the average output of the individual. This has been the history of practically all profit sharing institutions up to date. It has not greatly stimulated the output of the individual.

And the fundamental reason for this lies in the fact that the human animal is so constituted that he looks upon his own immediate individual welfare and happiness and ease and comfort as of vastly more importance than the welfare of his fellow beings. The only way to get a large output from the individual is to let him have, in plain sight and in the immediate future, a personal reward to him which shall be proportional in a way to the exertions and endeavor which he puts forth; so that the profit which the men receive under profit sharing, and which comes to them only at the end of the year, or say every six months, is not a sufficient stimulus to affect them materially in their every day work. This reward is too remote.

I have seen this fact illustrated in so many different ways that to me it has come to be an absolute certainty. The average workman, for example, cannot look for-

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## UNSYSTEMATIZED, SYSTEMATIZED, AND SCIENTIFIC MANAGEMENT<sup>1</sup>

BY HENRY P. KENDALL<sup>2</sup>

THE plan of this paper is similar to one written previous to the hearings before the Interstate Commerce Commission protesting against the general increase in freight rates. The purpose of that paper was to make clear what was meant by Scientific Management, a term then unfamiliar. To present the same line of thought again receives its justification by the first words in the announcement of this conference, which states: "Notwithstanding the fact that much has been written concerning Scientific Management in newspapers and magazines, there is no definite conception in the minds of manufacturers and business men of its nature."

That this type is not well known even now is scarcely to be wondered at. Until recently little had been written for the public press and but few manufacturers were working under it, and the small group of men who were associates of Mr. Taylor, or kindred spirits, were too engrossed in their own tasks to do much talking or writing. It is my object, then, to illumine Scientific Management by describing it in terms of business with which we are all familiar, and by comparing some of its essential features with those of more familiar types of management.

Any manufacturing or mercantile business made up of different processes more or less interdependent must, to secure the best results, be so organized that the separate processes and the unit members within these will be brought into systematic connection and operation as efficient parts of the whole. To bring about and maintain this is the function of the management. To do it to the highest known degree is possible only by what we choose to call the science of management.

All types of management seem to fall readily under

three heads which, for want of a more explicit terminology, we will call:

- I. Unsystematized Management.
- II. Systematized Management.
- III. Scientific Management.

Of course no classification of this kind is exact. Some departments of an unsystematized plant may equal those in a systematized, and likewise those in the second class may approach the third in efficiency in places; but on the whole this seems a natural division. The functions of the three types of management which will be compared are:

- A. Accounting.
- B. Purchasing.
- C. Storage of Materials.
- D. Execution of the Work.
- E. Efficiency of the Workers.

#### I. UNSYSTEMATIZED MANAGEMENT

This classification is not made on a basis of the earnings of this group, nor does it mean that they are not meeting their own competition successfully or making money. Such a condition depends on the margin which exists between their costs and selling prices. It does classify them on a basis of efficiency, and means that their costs are not so low as they would be were their form of management the systematized or scientific type. In the opinion of the writer fully 70 per cent in number of the plants in this country would belong in this class, and they are easily recognized. I do not mean that 70 per cent of the workmen in the country are working under unsystematized management, but I think that 70 per cent of the concerns in number would come under this class.

We will look at the first function, namely:

A. *Accounting.* The accounting in a business includes not only the ordinary bookkeeping, but the entire clerical system which has to do with orders, records and costs. Accounting is the only means by which the management is informed from time to time of the con-

<sup>1</sup> Reprinted by permission from "Addresses and Discussions at the Conference on Scientific Management, October 12, 13, 14, 1911," published by the Amos Tuck School, Hanover, N. H. The volume containing this article is as up-to-date today as when it was published and no management library is complete without it.

<sup>2</sup> Manufacturer (The Plimpton Press, The Lewis Manufacturing Company, etc.), Boston, Mass.