

would depend on the amount of invention and the rapidity of progress in that industry. For instance, the rate for obsolescence of automobile factory and chemical manufacturing equipment at present is high, while the rate for textile mill equipment has been unfortunately low.

In practice probably a fund for obsolescence should be collected for use rather than for reserve. It should free a manager to replace any machine for whose purpose and use in his factory he can find a better and more efficient one. Psychologically it should make for progress. It would be a measure of the management's success in keeping its plant modernized. If the fund correctly represented the obsolescence rate of the industry, then a management which did not completely use its fund, through a decade, for replacements could be suspected of not keeping its plant up-to-date, whereas a management which used much more than the amount of its obsolescence fund during the decade should be accused of extravagance.

On the other hand, no individual machine would have its value written down on the books because

of the factor of obsolescence. It might be a machine which became less efficient with age or wear, in which case a proper depreciation write-off would be made. Or it might be a machine which, if kept properly repaired and maintained, would not depreciate in efficiency to a measurable extent, in which case its original value should be the basis for unit cost computations. Then when the time comes that a new machine is offered, the true value of the old one would be available as a correct basis of comparison with the new one. If the latter is more efficient, it should replace the old one.

By such accounting methods it would probably become apparent that the New England plant, referred to at the beginning of this article, is feeling competition where before it dominated its field because its productive equipment is not as efficient as that of its competitors. On the other hand, perhaps the other plant referred to may be making excessive replacements in keeping abreast of modern invention and would be found to be spending more than a funding of the normal obsolescence rate.

Has Taylorism Survived?

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IN A PAPER by Lucien A. Legros, President of the British Section of the Société des Ingénieurs de France, entitled *Economy of Human Effort in Relation to Industrial Fatigue*, the following statement appears:

It is a matter for regret that up to the present time no critical inquiry has been made into the extent of permanence in American industry of the work of Taylor, Gilbreth, and their followers. The work of these gifted pioneers was mainly directed to achieving definite objects, but it is difficult to ascertain from their writings whether the conditions were sufficiently stable to give permanence to the results, or how far they were applicable for conditions that varied.

In its discussion D. R. Wilson, of the Industrial Fatigue Research Board, comments as follows:

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Finally, Mr. Legros at the end of his paper alludes to the desirability of instituting some inquiry as to the extent to which the principles of Taylor have been applied in the United States. In theory I agree with him, but I am strongly disposed to think that the investigator would draw a blank. When I was in America, in 1924, I made many inquiries on this point, and found that from every quarter I approached came the names of the same four or five firms, and in such of these as I visited, only a very rudimentary form of Taylorism had been adopted.

These statements have attracted the attention of the author because they show a total lack of knowledge of what really has occurred in American industry during the last twenty-five years, and of the general tendencies in all progressive industries in this country. There is little difficulty in correcting the idea, expressed in the first statement without going outside the Transactions of the A.S. M.E. In 1912 a special committee of the Society reported at some length upon the status of modern industrial management and that report is to be found in Vol. 34. Again in 1922 L. P. Alford pre-

sented the results of an exhaustive study of the progress that had been made in applying the teachings of Taylor and his associates and followers in a classic study entitled *Ten Years' Progress in Management*. This is to be found in Vol. 44. It is true that this study does not deal minutely with the question of fatigue, which is the subject of Mr. Legros' paper. But the question of fatigue itself is intimately connected with and dependent upon the other phases of management which Mr. Alford has so ably reported upon. Fatigue has been the subject of much study in American industry, but the discussions of this topic are quite widely scattered throughout the literature of management.

The second quotation is interesting from another angle, for it indicates a lack of knowledge of one of the most common phenomena in the history of the race and one which Kipling must have had in mind when he wrote—

When 'Omer smot 'is bloomin' lyre
He'd 'eard men sing by land an' sea,
An' what 'e thought 'e might require,
'E went and took—the same as me.

In these lines Kipling expressed a great truth that has applied to every great reform movement that man has ever inaugurated. Every reformer is to a large degree the product and result of the times in which he lives as much as he is the product of the driving power within him. All great reforms and changes gather first as a nebulous cloud, the result of the work of many men, often working independently of each other and producing developments that, at the time, may not appear to be related to each other. Then comes some outstanding figure who, selecting a number of these apparently unrelated results, welds them into a new philosophy, adding perhaps some great contribution of his own, or possibly making no original contribution whatever. And because he gives definite shape and form to what had been previously only a *tendency*, he obtains a hearing and men flock to his support. As time goes on, however, it is found that the specific form into which he has molded the new movement is not a universal panacea and is not applicable to all individual cases, even though the elements of which his formula or organization is composed are all basic truths. Quite naturally, then, those who are interested select from these truths or principles those that are immediately applicable to their problem and

develop a somewhat different interpretation of the original formula or panacea. The history of all great religious movements and reforms illustrates this process admirably.

An excellent illustration is found in the work of Robert Owen, the father of welfare work, so called. Owen organized at New Lanark near Glasgow the first model industrial village and there co-ordinated practically every instrumentality that has ever been used since in this work. But there are no model industrial villages exactly like Owen's to be found anywhere today. However, no one informed concerning this movement would say that Owen's work had perished. Some of his instrumentalities no longer apply because of changed industrial conditions and legal enactments; they have outlived their usefulness. But combinations of some of his methods in endless variety are to be found all over England and the United States. And more important still, the *spirit* of his reforms has remained a vital factor and an abiding influence in modern industry.

So it is with the work of Fred Taylor. Few, if any, enterprises will be found today that are organized exactly after the model set up by him at Bethlehem. But combinations of his methods in endless variety are to be found all over the country. It should be remembered that Taylor did not claim that he had invented a number of new management mechanisms. Most of the elements of his system such as cost finding, inspection, routing, dispatching, etc. were already in use in isolated and somewhat crude form. He simply took these mechanisms, refined them, added a few new ideas of his own, molded them into a new philosophy of management, and illustrated this philosophy by a concrete example which produced the practical results desired. Without this concrete and successful example it is doubtful whether the movement would have readily gained headway against the inertia of old habits and inefficient practices, and Taylor in all probability would have been remembered only as another idealist.

But when others tried to use these methods exactly as Taylor had enunciated them it was found that they did not fit the circumstances, and after some rather disastrous experiences in trying to make the circumstances conform to the classic example at Bethlehem, the thoughtful manager began to select those mechanisms that fitted his needs