

Mr. Tilson. There are a great many of that kind, are there?

Mr. Taylor. Yes; and since I have been in these hearings I have heard of one of them. I have, in fact, heard of five or ten new companies during this time; but there is one I have heard of during this time and which interests me especially, and I think I will surprise you when I say that Mr. Redfield's company is practicing scientific management and has been for years.

Mr. Redfield. Which one?

Mr. Taylor. I do not know whether your blower company is or not, but I do know that your forging company (the J. H. Williams Co.) is practicing scientific management. I have heard Mr. Redfield say that the management in that company and their workmen were in thorough harmony, that they were the best of friends, that they have never lowered a piece-work price in that company after a rate has once been set, and that the men responded by stopping soldiering and doing a great big day's work for the company, which indicates that both the management and the workmen have arrived at this new frame of mind of which I have spoken. And I have also heard Mr. Redfield say (and that is why I say that they are under scientific management), I heard him make the statement that the officers of that company had made such a careful and thorough study of their machines and of the apparatus that goes with them, that within eight years almost every machine in that company had been rebuilt and redesigned and reconstructed, so as to work in harmony with the latest and most modern information. That shows me that Mr. Redfield's management is using what I call the scientific method. That is, that they are doing their share of the work in developing the science. Therefore, I say Mr. Redfield's company (much to his disgust, it may be) is practicing scientific management.

Mr. Tilson. In other words, you do not claim a monopoly on scientific management?

Mr. Taylor. I should say not, Mr. Tilson. My gracious, I do not believe there is any man connected with scientific management who has the slightest pride of authorship in connection with it. Every one of us realizes that this has been the work of 100 men or more, and that the

work which any one of us may have done is but a small fraction of the whole. This is a movement of large proportions, and no one man counts for much of anything in it. It is a matter of evolution, of many men, each doing his proper share in the development, and I think any man would be disgusted to have it said that he had invented scientific management, or that he was even very much of a factor in scientific management. Such a statement would be an insult to the whole movement. It is not an affair of one man or of ten or twenty men.

I want to try to make clear to you what I mean, Mr. Tilson, when I say that a great many companies are using it. I will tell you one of many similar instances which goes to prove this. The Economic Club of Portland, Me., asked me to speak before them week before last. After I got through, a young man came up to me and asked me what train I was going to Boston on the next day. He said, "I would like to go down with you." So he rode to Boston with me, and to my surprise he told me that for the last five years he had been the manager of the Burgess Sulphite Pulp Mill away up in the woods of New Hampshire, and that having read what we had written on scientific management some six or eight years ago, when he became manager he at once started to make a scientific study of every element that affects the manufacture of pulp. The same kind of study which is advocated under the principles of scientific management.

He also began at once the change in the treatment of the men which has resulted in his case as he told me, in making the men of that company the warm friends of the management, whereas when he came there they were always on the ragged edge of a strike, and since he came there has not been a single strike. He said that their scientific investigation of one element after another of the art of making chemical sulphite pulp in this company had resulted in placing his company in the lead of all similar companies of the world, whereas before the German and Swedish companies were away ahead of the American companies. Now, this careful scientific study of every element that goes into the manufacture of pulp and the use of the by-products not only cheapens the

cost of manufacture but gives the Burgess Sulphite Fiber Co. the preference in the American market at a higher price over all foreign pulp, so that instead of having salesmen on the road all the time to sell their goods as they used to have, they now never have to solicit any orders, and they always have more orders in advance than they can fill. I consider that this company has come under the principles of scientific management.

Mr. Tilson. Let me assume that after the scientific management has been established in a concern and the adjustment of remuneration and employees has been made, and after that the management changes, and we have a management which is not disposed to be fair, and is disposed to get as much out of a man as they have been giving with increased remuneration, but now to cut them back to the old figure, as we have heard it often expressed in this hearing—

Mr. Taylor. Yes.

Mr. Tilson. Now, what is the situation of an employee as compared with what it formerly was. What disadvantages is he under that he would not be under under any management?

Mr. Taylor. In this case the employee would merely be returned to the same position which he occupies now under the old systems of management everywhere. I will tell you, however, the employee, when that trick is played on him, or any such trick is tried, gets back at the company so darned hard that the man who tried to play the trick is sorry that he ever did it. When I left the Bethlehem Steel Co. and Mr. Schwab came, he thought he could do without paying the premium. He thought that part of the system was a good thing to abandon. He tried that for just one month, and at the end of the month (so the foremen and the men told me), Mr. Schwab was mighty darned glad to put the premium back again, because the product of the shop had dropped to about one half.

Mr. Tilson. Suppose it were applied to Government work. The workmen there have the same remedy and an additional one, have they not?

Mr. Taylor. They have indeed, and let me tell you there has been a whole lot of talk about the Watertown Arsenal, and the great injustice

done to the workmen at the Watertown Arsenal through time study and paying them a premium. If you gentlemen in Congress were to vote to bring it about that those workmen in the Watertown Arsenal have to go back to the old system of management there and do without this 30 or 45 per cent premium they are being paid now, there will be a great big howl go up from the Watertown Arsenal. A bigger howl will go up if you try to throw it out than there has been over putting it in. I am simply making that prediction.

Mr. Godfrey. There are three or four things that I do not think are quite clear, on which I should like to ask Mr. Taylor some questions.

You have not answered yet, Mr. Taylor, what money interest you have in scientific management; that is if you have any money interest in scientific management.

Mr. Taylor. I have not a cent. I have not accepted any employment money under scientific management of any kind since 1901, and everything I have done in that cause has been done for nothing. I have spent all of the surplus of my income in trying to further the cause for many years past, and am spending it now, every cent of it.

Mr. Godfrey. You have received no profit?

Mr. Taylor. None directly or indirectly of any kind.

Mr. Godfrey. Do you find that there is a growing interest in scientific management or not?

Mr. Taylor. The interest in scientific management seems to me to be growing immensely. I can judge by one barometer. I am receiving an average of one invitation a day to speak before audiences on the subject of scientific management all over the country. Last spring I was receiving at the rate of one invitation every week and apparently the interest is rolling up with tremendous rapidity. This interest is widespread, it is all over the country from the Pacific coast to Maine.

Mr. Godfrey. Do you believe that the hours of working for working men should be longer or shorter?

Mr. Taylor. I believe in shorter hours by all means, if it is a possible thing, but there is one word of warning that should come in here. If