

hard to know what a social scientist is. There are a great many people who are called social scientists who are too apt to draw hasty conclusions, who are too social and not sufficiently scientific, who are ready to make up their minds on insufficient data, and I would have been glad if there had been more in the paper along that line.

I find myself in some further disagreement with Dr. Person which I can express most satisfactorily by saying that I agree with what Professor Metcalf said about the narrow-mindedness and militancy of labor. It exists, but there is an equal narrow-mindedness and militancy on the other side. Dr. Person brought that out himself when he mentioned the extreme necessity from the manager's point of view of giving his attention to the question of profits. It is no more an evidence of class consciousness on the part of the labor leader to think of the wage than it is on the part of the manager to think first about profits. It is because one is thinking about profits and the other about wages that the clash comes.

The best thing about the paper, is that it carries the conviction that scientific management is going to attack a number of problems that heretofore, so far as the outside public were aware, have lain outside its field of activity.

This is the best statement that has ever been put forward in behalf of scientific management in recognition of the necessity of democratic representation in industry. I do not say that it is the first time that such a presentation has been made, but it is the best and clearest presentation that has come from the society. And if the scientific manager is going to recognize that necessity, I wonder if he will not find that he will get help in doing those things which is now difficult to get done. I wonder if it would not be worth the manager's while to get the workers in the plant to back him in the things he wants to get the directors to let him do. I believe that with a democratized industry it would be possible to effect a compromise of that kind, to the great stimulation of scientific management and greatly to the betterment of labor.

I think, in the second place, that there is great hope in the frank recognition in this paper of the condition that labor has been in,—of that condition which has sent the worker home so weary at night that he could think of nothing but sleep, in order that he might be ready for the work of the next day; and of those repetitious and automatic processes which have dulled the mind of the worker by giving him nothing sufficiently stimulating for a real man to think about. But, as I observe it, the tendency of scientific management is to do that very thing—it wants to intensify the repetitious and automatic character of the operation.

I do not mean to imply that that is a backward step. As I observe what is going on in the field of industry I cannot escape the conclusion that there must be an increasing sub-division of labor. But if we agree that that tends to devalue the job, and to take the spirit out of the man, then scientific management must go to work to find a way by which there may be restored to the man what industry has gone so far to take away.

I was talking with one of your members to-day who said he believed that the working day should be shortened so that a man could get a taste of real life after leaving the plant. I see no other way of escape for him; but if scientific management is prepared to go ahead and work on that job I am sure we are going to get results.

MR. GUSTAV E. SCHULZ. I do not know that it is time for me to say anything, but I have worked in Mr. Hathaway's factory and in other factories and I want to say a few words about how liberal Mr. Hathaway is. I claim that the men in the Tabor Manufacturing Company may run the plant if they want to, and they do run the plant. It is largely a matter of the development that Scientific Management permits; this will be shown later.

I have met a few big men in my life, and I include Mr. Hathaway in those few, and one of the reasons is that he will take anything that anybody has, and if it is good he will put it into effect. And the individual recommending it may put it in and receive full credit; in some cases receive an extra reward.

I went to the Tabor Manufacturing Company as a man from the Middle West, and the spirit I found there was wonderful. I did not profess to know much about Scientific Management; but there were men there who had had ten years' experience in it; and I got hearty cooperation from every individual in that plant. And each individual in that plant is interested in the work that he is doing, knowing that he is a part of it.

At one time I thought Mr. Hathaway was experimenting to see just how far he could go with labor, and I asked him about this; but he pointed out that this was one of his principles, and a principle of Scientific Management.

If we study Scientific Management, we will see it is for labor. I am in Scientific Management because it is for all the people, because it is for labor. I come from a rather radical family in that relation, and I think I can do more for labor as a Scientific Manager than if I were a labor leader.

I want to bring out the point that I would not be in Scientific Management five minutes if I did not think it would be for the benefit of labor and if to-day we

were not taking into account that large element. I might say that five or six years ago, when I first read Mr. Taylor, I thought I might, with a professor friend of mine, write a new article on Scientific Management—Scientific Management in relation to the human element. I read Mr. Taylor a little closer, and I decided it was not necessary to write a book on that; and I still think so. Having had a similar training and development in the shop,—perhaps putting in more time as a laborer,—I believe I can interpret scientific management as Mr. Taylor gave it to us. All along it deals with the human side; it is clear to me that Mr. Taylor brought the human side and ethics into management.

The Taylor System calls for help, all the way through, from individuals. I might say that scientific management is hard to see. It is not a secret; but I believe the average individual must spend years in it to have a clear conception of it. If I may bring out a point by a personal reference, I have spent time in various foundries, machine shops and wood-working establishments; but at no time have I worked in a factory that gives the chance for reflection given at the Tabor factory. I am talking now as a workman. And the same thing is true in any plant that has scientific management. The previous speaker brought out the suggestion that initiative might be killed under scientific management; but that is not the case. We have under scientific management a more gradual series of stepping stones. Under the old scheme only the man whom we thought of as exceptional rose rapidly. Under scientific management it does not take an exceptional man at all. The gradual series of stepping stones which characterizes scientific management's division of labor enables the average man to go up more easily than under the old system.

Coming back to the case of the individual again, when it comes to development, he has the opportunity of studying each job from the bottom to the top. This is true not only of direct labor, but also of indirect labor. If I want to learn the accounting system of the Tabor Manufacturing Company, I can go into it. If I am hired as a storekeeper's clerk, the second day I may if I wish get into the work of the storekeeper. All these jobs are properly written up, with a text for each.

Again much stress has been put on the evils of the repetitive work, which is said to be found under scientific management; but factories doing repetitive work would and did develop without scientific management. If plants with the same product and the same conditions of work prior to the installation of scientific management were compared, it would be found that the plant which has installed scientific management would give the individual a greater

chance for reflection, and in turn be more cultural than the other. This all comes with scientific management and cannot be stopped, as it is a part of it. It is true of the old system that both during its development and after, initiative was killed. Under scientific management an encouraging opening has been made for the growth of initiative.

Mr. Hathaway has pointed out that there is great responsibility in scientific management for the managers. This does not mean, however, that anything is taken from the workman; rather he is helped. As Mr. Taylor points out in his principles, the manager is helping labor in assuming this task. After scientific management has been developed it naturally follows that if labor can take care of any responsibility, it will be given over to labor.

MR. R. A. WENTWORTH. In hearing this paper and listening to the discussions, I have been trying to see if I understand what the purpose of the paper is; and it seems to me that it is contained in the last few paragraphs, where it is said that "the social scientist, because he looks upon the facts of industry from the outside and from a distance, gets the broader view and the larger relationships." That is undoubtedly true. "That is why a group of men standing for the Taylor philosophy of management should welcome—should insist upon—the widest possible discussion of all phases of scientific management," inviting the social scientist to their conferences. Doubtless that is true.

I believe that is the purpose of this paper. I believe that this paper has unqualifiedly proved that point. I believe that in the proving of that point Dr. Person has painted a picture of some things that he has seen, and that that picture has been viewed by different commentators with different degrees of seriousness. Different people have seen different things in that picture. But I have seen some things which to me do not seem true to the facts.

I am inclined to think that while my experience has not been that of a labor leader, if I were a labor leader I should defend the workman from the author's criticism.

My working experience has been wholly in factories, starting in not quite at the bottom, but working through various grades of foreman and superintendent, and spending nearly ten years introducing scientific management, although at present in an executive position.

I have never seen the difference between the workman and managers. Many of the managers whom we know, possibly some of the managers in this room, were originally workmen. Many of them are to-day workmen. Mr. Hathaway says he does not own his