whether he would not consider it monotonous to go back and forth from home to office, repeating the same thing every day. His answer was that he found so much variety in his work that he was not tired of his work.

In my opinion, such matters as monotony and variety do not belong to the work itself. No matter how full of variety and of interest the work appears to be, one might not find any variety and consider it as monotonous as putting tops on Crisco cans. At the same time, even in apparently monotonous work, we can find some kind of variety through our mental attitude. Therefore the problem of monotony and variety does not exist in the outside, but rather consists in our inner life, that is in our mental attitude.

To seek the strong foundation of our lives in the inside, but not in outside, has been the fundamental idea of our Oriental philosophy. More than two thousand years ago, Confucius, a Chinese philosopher, left a famous saying. According to his idea, even though we have nothing to drink but a cup of water and are lying down, we must be able to find our enjoyment in it. This means that we should not look for genuine enjoyment outside, such as eating nice food or wearing beautiful clothes or something like that; rather we should be happy even when we are oppressed with poverty. Dharma, an Indian philosopher, sat in his room nine years just facing the wall while working out his philosophy. One would suppose his situation to be very monotonous, but I believe he was very happy and busy during those years.

Since I came to this country, I have noticed that the Americans are laying too much stress on the distinction between work and play, and between business and enjoyment. The Oriental idea, however, is to find enjoyment in work itself, and this is possible only through our peculiar mental attitude. As long as we are seeking enjoyment not in the inner life, but in the external world, we shall never be able to get peace of mind and will remain slaves to our endless desires.

I feel that Dr. Taylor was capable of grasping some of these Oriental ideas. When he was invited to the Congress by the Committee of the Investigation of Taylor Shop Management, to explain his system, he said that his fundamental principle did not consist of such devices as stop-watches, control-boards, routing and planning, but rather of the change in the mental attitude of both employers and employees. Science can be compared to the rifle, and the personality, from which our mental attitude can be seen, to the artilleries in the background. Unsupported by such a background, rifles, however large in number, will be of no avail. I think the solution of the problem of monotony must be from this viewpoint.

If Dr. Taylor were here this evening, he would certainly be interested in the Oriental idea of the right way of living, and would start to study Oriental philosophy to supplement his wonderful idea of scientific management. At the same time, I believe that you men engaged in scientific management will be open-hearted enough to adopt some of the Oriental ideas, just as the ladies of this country, who are so anxious to be up-to-date in dress, seem to be pleased to adopt the Japanese Kimono sleeves as the latest fashion.

C. Moffitt Ford:[1] I am reminded tonight of the old saying that the longest way around is the sweetest way home. The longest way and the way around may be the sweetest way, but the trouble with that way is it doesn't always get you home. I think we have been going a long way around tonight, and I do not think we have got anywhere in particular. In the entire evening's discussion we have not agreed on what the problem under consideration is, or even if the problem really exists. I think it is time that we bring the scientist's attitude to bear and definitely determine just what the problem is as the very first step toward its solution.

I notice on the program of announcement that the evening's address will take the point of view that, according to Herbert Hoover, the vast repetitive processes of modern industry are dulling the human mind. Now I would like to point out that while the address did take that point of view—in a general way—just what kind of repetitive processes, just what kind of automatic operations, are considered responsible, were not specifically stated, and the general discussion of the subject was even less specific. For instance, the substance of Mr. Feiss' reply was that mankind is happier today and the lot of industrial workers better, than in former years. I believe it, but that is not the question. The question is, in the first place, is it a fact that in modern industry there are processes, mechanisms, machines that are dulling the average workman's intellect? If so, what are these agencies? Are they repetitive processes or merely certain kinds of repetitive processes? Are they automatic machines or only certain *kinds* of automatic machines? If only certain kinds of processes or machinery, then *what* kinds? We shall never get anywhere on that problem until we isolate it from the interesting but foreign considerations that

[1] Pittsfield, Mass.

have occupied the discussion tonight, until we, in the first place, agree on the question of fact: are there or are there not, in modern industry, processes which are tending to dull the human perception and intellect? If we agree that there are not, then our consideration of the problem does not need to go farther. If we agree that there are, then I think we should isolate, in our own minds, the question of what they are.

To illustrate very briefly the fact that some repetitive mechanical processes, at least, do not tend to produce greater fatigue or dullness than the processes they displace, I need only to refer to the mechanical calculating machine. You all know when a person works eight hours a day at mental addition or calculation, how dull and fatigued he becomes toward night. That same person can take a calculating machine and work eight hours a day and come out at night fresh; consequently that particular mechanical operation is less dulling and fatiguing than the old mental or hand work operation it replaced. On the other hand, it is very possible that there are many repetitive or automatic operations today which do not show that favorable reaction, so I believe that we ought to get our problem right down to this point: first, the question of fact, *are* there in modern industry such processes? second, if so, what are they? Then if we can agree on what they are, we can attack the problem intelligently.

John Bancroft:[1] I have been greatly impressed by Mr. Pound's articles in the *Atlantic Monthly*, which I have read from the beginning of their publication; and I will state to Mr. Pound tonight that I hope he will continue in this campaign and extend his propaganda as much as possible. I think the great danger to industrial management is the feeling among many workers today that they are denied the opportunity for self-expression in connection with their work. I think when you Taylor management engineers design a machine and systematize a routing, the man who is employed even in the most minor capacity will do his work more contentedly and with a greater interest if he is asked to express himself about it, even if he is unable to make any important specific suggestions. If he is the man who is going to operate that machine, he will feel that he has some self-expression in it. I can agree with some of the points that every speaker here tonight has made. I agree with Mr. Feiss that the majority of the workers in almost any industrial plant, if asked for an opinion whether they want the opportunities that Mr. Feiss is endeavoring to give them, will say they are contented where they are. Those who are contented to be there, let them remain; but the man I want to find in my establishment is the man who is not contended to stay there. I want to find the fellow who wants to get ahead, who wants to know more about the job. I want him to provide his successor, if he possibly can. If he can provide a successor that is better on his job than he is, I can provide a better job for him and will be glad to have that opportunity. I think I can safely say that we have not a man in our employment, from manager to foreman, who has not obtained his present position by not being willing to stay put. What Mr. Williams has said I want thoroughly to endorse, because I think that he has the right idea; and I want to say to Mr. Feiss that I do not agree with him that the opportunity of shorter hours and bigger pay produces happiness. Happiness is a state of mind. Bigger pay and shorter hours give an opportunity to indulge in the luxury of prettier things, better living conditions, more expensive houses, more expensive furniture and more expensive clothes; but with my more than fifty years of experience from almost the lowest position a man could occupy in a plant on up through all phases of employment to chief executive, I have found that the happiest man is not necessarily the richest men. Happiness is a state of mind; it is not the money you have in your pocket or the clothes you have on your back.

Sanford E. Thompson:[1] The author of the paper "Mills and Minds" has presented a serious indictment of modern industry which to a certain extent at least cannot be controverted. What has not been brought out in the discussion is the fact that the truly scientific method—or putting it more concretely, the Taylor method—tends to overcome the defects cited to a greater degree than is possible by any other means.

This is a strong statement, but it is true. It is true because the Taylor method helps the worker to do his job in the best way and thus gives him the joy of accomplishment. Yet this is contrary to the general impression, not only of the public but of many manufacturers. The Taylor "system," they say—and I am not speaking from hearsay, but from personal conversation with man after man—is good, it accomplishes a lot, more than appears possible, but it does not strike the human element; it destroys individual initiative. This has become almost a trite expression, and

[1] President Joseph Bancroft & Sons Company, Wilmington, Del.

[1] The Thompson & Lichtner Co., Consulting Engineers in Industrial Management and Construction, Boston, Mass.