

going to quit her job. He asked her why. She said she had had three red marks that day—a red mark on a card which the other girls can see being the only penalty for defective work in the Feiss plant. There is no fine. This girl had had three marks that day. Mr. Feiss asked her if the marks were not coming to her, if the work was not defective. She said, "The work was defective all right, but I have not had the time-study man near me for six months. The other girls get more help than I do."

The other illustration that I want to mention is, I had a talk with my friend Dr. Franklin the other day about a certain kind of group insurance and welfare work based on the quality of the welfare work, and naturally in that discussion we both began talking about the Joseph & Feiss plant and its welfare work. Franklin said, "Perhaps we cannot say anything about that until we get new actuarial tables. They have done things that cannot be done. They have gone a whole year in that plant last year without a single case of tuberculosis. It has never been done and it cannot be done!"

MR. ROBERT B. WOLF: It seems to me that Mr. Feiss, this evening, has clearly proved his point that the human side is the main factor in management. We have found in our own work in Berlin that if the human relationships are properly developed that the necessary material conditions are sure to come right. Because of the fact that the material conditions are, in the last analysis, creations of human minds, I believe that it is literally true that we do not have to consider any other element than the human element.

This statement will be a little clearer perhaps when I explain that whenever we wish to make a change in our manufacturing methods, or even in our manufacturing equipment, we invariably study how we can produce a desire in the particular group of individuals concerned to obtain the results we are after. This desire, once it is thoroughly aroused, will soon create the necessary modification in process and equipment to enable it to find expression.

It is needless to point out that the control of forces of this nature requires the highest type of scientific management and I am glad that the movement is at last taking this direction—the direction I am sure Mr. Taylor intended it should take,—of laying the strongest emphasis upon the human phase of things.

If we are going to make our factories primarily institutions of learning, to teach the men how they can get the best out of themselves, we have, first of all, to develop the proper *esprit de corps*, or organization spirit. We must realize further that back of all this industrial activity are spiritual forces at work and it is our duty to learn to use these forces and above all to use them scientifically.

I take exception to Mr. Feiss on one point only, that is his statement that mill insurance cannot be properly run by the men. I refer to insurance against accident and sickness.

I am going to send him the By-laws of our mill and mutual insurance company when I return to Berlin, and I will state here that it has been in operation five or six years successfully and the men have handled it entirely by themselves. I am sure that when you see these By-laws you will realize that it is unnecessary to call in an insurance actuary to show you how to run mill insurance.

MR. CHARLES W. MIXTER: I feel constrained to disagree with the last speaker. What Mr. Feiss has given us is so inspiring that I feel like agreeing with it entirely. I would,

however, rather agree that personal relationship is a basis of scientific management,—the crown and glory,—but not the basis. The basis is no end of detailed, unspectacular, grubbing work, getting the conditions ready for these fine things; work that takes infinite patience and courage. That is the thing that I got from Mr. Taylor years ago. We see all the pleasant things and do not look at the harsh means by which we pay the price, but it is the grubbing work that is the basis of scientific management. This is the crown and glory.

MR. CARL G. BARTH: I want to emphasize what the last speaker said. I have worked in shops where they seemed to be moved by the principle of the Salvation Army, all talk about saving the soul. I tried to get at the workmen about fixing the machines and seeing that the material comes to them. Lots of fine, human material lying around does not give the service because of the rotten condition of the machinery and the materials.

I want to know whether the girls in Mr. Feiss' factory play together at noon or whether he has one play-ground for one set of employees and another play-ground for another set.

MR. FEISS: They play together.

MR. BARTH: I am glad to hear that. In one place that I know of they had to give the girls uniforms to make them look alike. The girls in the office and shop would not mix, because one set thought they belonged to a higher class of society than the other, because they worked in the office. I am glad that that condition does not exist in Cleveland. I am glad to know that in Cleveland, where the people move around from one shop to another more than in any other town in the United States, Mr. Feiss has reduced the floating element to such a small percentage. This shows the trouble is not with the people so much as with the managers.

MR. FEISS: In reply I perhaps may go into some detail, because none of the criticisms were as critical as I expected them to be. I shall try to reply in order to the speakers who have been kind enough to add to the little I have contributed, rather than to criticize or tear it down.

Mr. Kendall asked me about factory shut-down for vacation week. The other scheme has been tried by us and found unsatisfactory. If you are attempting to run a plant scientifically, you need everybody in that plant when it is running and it seems to me far better policy from that point of view alone to shut down at the end of a hard season's run as we do. We have our heaviest season in the summer, during the hottest months, when we handle big overcoats and heavy goods, and we have thought it wise to take some period that seems suitable because of the weather or other conditions, and shut down and let the people go away. Moreover one who tries to shut down piece-meal all through the summer has an everlasting problem confronting him. Very likely the men or women in one department wish to go away together. Naturally they are a little more intimate with each other than with others in the factory. It is very difficult to conform to their wishes or satisfy them in the distribution of vacations. Another proposition is this: the idea of distributing vacation weeks over a lengthy period, as I have seen it, does not work out practically. Someone always gets "stung". By the time it gets to the end of August and only half of the plant has been off, orders may start to come in, and some are not going to get their vacations. The better way is to give every one a fair opportunity for his vacation and let all go away together. Factory spirit is something which does not stop when the

factory door closes, and it exists in vacation as well as at work. The best times that are reported to us, it may be of interest to you to know, come from these men, including the foremen and the superintendents, who go camping together. There are several large groups of workers that go out camping together. The girls who go away, including the women foremen, enjoy themselves in that manner, for instance, by taking one of the Young Women's Christian Association or other camps, forty or sixty of them in a crowd. It is impossible to do this when vacations are divided.

Mr. Kendall also asked me about American born and foreign born and those of American parentage. Our records show that approximately fifty per cent of our force are American born; but only a small percentage are of American parentage. I believe they are typical American citizens. I do not think the point in this connection is important, however. Human nature is human nature the world over. It does not make any difference what flag men fly or what color their skins happen to be. There are principles and there are methods which will not only reach the factory girl and the man behind the machine, but will reach you, if you are a manager at your desk, in the same way. You are reached through the same avenues of approach. These people are just the same under their skins as you and I.

The question of home visits among Americans and foreigners, therefore, I am unable to answer, because we consider anybody that is with us either an American or a prospective American, and we home visit them regardless of whether they are foreign born or American born. Our home visiting is a very important part of the service work. You cannot separate all the elements that go to make up the life of an individual. The attitude at home is a big factor in the efficiency produced at the factory. An employee who has family troubles is never going to be efficient. An employee, a young woman or a young man, whose family is prejudiced against his working in a factory, and thinks there is more class to working in a department store or office, is never going to become a part of us and an efficient employee in the factory. You have to take pride in the game of co-operation, and they have to get it as well as you. If they cannot come to you, you have to go to them. The point is, to get them started coming to you. When every element, including the home attitude, is working in harmony, a man who has the spirit is bound to do his best to become efficient if it is within him to become efficient.

Taking up Mr. Noyes's points in some detail, I wish to answer Mr. Noyes's statements as regards different conditions making the problem different. There are undoubtedly different conditions, but the point that I am trying to get across—perhaps I have failed to do so—is that we are all trying to make conditions standard, and we ourselves have as much to do in making those conditions as any other element. Of course, conditions are different if you let them be different.

There is the man who says, "You can do these things, because of the different class of people you have." We have! I have shown them to you—the finest lot of people in the world. But they didn't just drop in through the chimney, nor did any kind Santa Claus wish them on us. We had to make them. The improvement might not all be due to personal relationship; and I did not mean to say that, nor was the title of my paper what Mr. Noyes made it, "Personal Relationship is the Basis of Scientific Management." I said, personal relationship as a basis of Scientific Management. I am willing to make it even stronger now. I want it understood when I say a basis of Scientific Man-

agement, I mean as a basis it is an essential part, an essential reason for Scientific Management coming into existence; if men or women were not necessary to help turn out a product, there never would have been any Scientific Management. The personal relationship may not be directly responsible for the improvement in management and conditions, but it is eventually responsible and there would not be any without it.

Now as to the question of the difference between office and factory. That is of some interest. I am sorry that I left it out of the main body of my paper, but we take these things for granted. We do not see any difference in our line organization. There is no difference between the people who are in our office or stores department and those who are in other departments. They all rank the same (according to the amount of responsibility they assume) as payroll foreman, stores foreman, etc., and they have all come up from the ranks. We have attempted, and succeeded to a great extent, in building up our organization from the material that we have on hand. We are constantly advancing people. I should like to enlighten those who are not in personal friendly contact with the people in the plant. There is a mistaken idea abroad among the general public that people are striving and craving to be advanced every day and all the time. I am going to shock some people by saying that they cannot find such people unless they hunt for them. A man or woman who comes into a shop, especially a scientifically managed shop, where conditions are right, and gets on the job where he feels content and makes money, is as hard to pry off his job as it is to open an oyster with a pen knife. Don't be mistaken about it. It does not mean that they are not intelligent or that they are not as serious-minded as you and I. It is just human nature. There are reasons why people who are satisfied with their work do not crave for anything beyond as long as their present work is giving them something better than they would have under average conditions. The problem in our factory and I believe in others is to get people to advance. We have no trouble in filling positions among the workers. We have a waiting list of from one hundred to three hundred all the time. We do not take applications from some people, but we are constantly getting together and figuring out whom we can get to accept a position of greater responsibility. I have enquired of other managers where conditions were similar and find that the problem is the same.

Mr. Noyes brought up the serious question—and many a manager has spoken to me about it—of getting the proper relationship between the office and factory. That such a question exists is the fault of the management. When the management has the factory worker coming in at the side door, hanging his clothes in a separate locker room, ringing up his time at seven o'clock and being docked when not on time; and when it has the office force coming in theoretically at eight, but practically between eight-thirty and nine, (and if they ring up a little late it doesn't make any difference) and when they have special locker rooms and other privileges, who could expect the office force to feel their interests to be the same as those of the fellows in the factory! That is the manager's fault. He is drawing the line. Incidentally this is a good illustration of one of those "different conditions" which many managers take for granted and permit to exist, and for which they alone are responsible. You may use different equipment for cutting steel than for cutting cloth, but the same principles apply to both problems. The same principles apply everywhere; people have the same sensibilities, and the same feeling

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