able to watch every case in this world. I have only personally observed an infinitesimal fraction of soldiering done in the world. I have preferably never set out hunting for it.

The Chairman: And that was your judgment, that soldiering existed, that these men were soldiering?

Mr. Barth: Most assuredly. And when you bring the facts before them they will not deny it.

The Chairman: Under your system is it not recognized that different men have different capacities?

Mr. Barth: Most assuredly.

The Chairman: Then how are you to determine, as an individual, whether or not the other individual, simply by observation, whether the individual is soldiering or is not soldiering?

Mr. Barth: Merely by bringing my impression to the attention of the individual and having him admit it. That is the only sure proof.

Mr. Tilson: In your experience, Mr. Barth, how general is soldiering?

Mr. Barth: That depends on a great many circumstances. There are some shops where there is very, little of it. There are more shops in which I do not suppose, if we hunted for it, we might find a case in a day. The most substantial improvements we have made have been by reducing motions and improving machinery. I never go into a shop with the idea of unearthing loafing at all. I only go, regardless of what has existed, to introduce our way of handling matters.

The Chairman: Is it not true that under the old system of management a man's desire to hold his job is, in itself, a safeguard against any great amount of soldiering?

y Mr. Barth: Certainly, and that is the reason that the thing is so demoralizing, because he dare not do it openly, but it must be done like a sneak thief; he deliberately steals his employer's time that he is paid for. We never find much fault with the man who is found loafing and stands up as a man and admits it.

Mr. Tilson: Do you frequently find men soldiering who admit it?

Mr. Barth: There is not much trouble about that. I have no trouble getting a man to admit anything he does that is wrong.

Mr. Tilson: Have you found it in cases where piecework is the rule as well where daywork is

the rule?

Mr. Barth: In piecework shops I can not now call to mind a specific instance where I have personally seen a man loafing, but the study of the jobs made has made it absolutely evident that he must have been and we have frequently had no trouble whatsoever to get a man to admit that such has been the case; and we find no fault with him, because we know that under the old system of management he would simply have been cut in the price per piece the minute he put forth efforts to utilize his time properly.

The Chairman: What guarantee has the work-man got that his price would not be cut under the new system if he put forth an additional amount of energy?

Mr. Barth: Nothing more than that it is one of our essential conditions for going into a shop. We make the management understand that that is what we stand for, and that that is what they must stand for. One human being can not guarantee another human being. I can never feel sure that after I work hard on the manager and men that what I have established will not rattle down in the course of time. Progress sometimes goes backward for awhile, but never in the long run.

As a further example of human beings being made automatons under the old system just as much as they may under the new, in spite of all efforts to avoid it, I like to cite the case of a number of women I saw feeding the printing presses in the Public Printing Office of the Government the other day. I can imagine no more automatic work than to sit in an awkward position, as some of them did, and shove pieces of paper up against two stops at right angles to each other to get the proper registration of the paper in the machine. I am exceedingly happy, however, to know that great strides have been made in the way of inventing self-feeders for this kind of machines. They are entirely successful when only one color is printed, but up to date, so far as I know, have not been successful when more than one color is to be printed, because then the registration has to be so nearly perfect that the mechanism invented to date has not been able to produce the required accuracy with certainty.

I would like to cite the case of two men that for some reason or other quit some years ago. Both men left Link Belt Engineering Co. after the system had been in operation for some time, but before

I got through there they returned.

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The one man operated a large boring machine, and he told me that, while working at the Southwark Foundry in the same city, he had been unable to stand the disagreeableness of hanging around the tool room, often as long as an hour at a time, waiting for a boring cutter that at the Link Belt Engineering Co. would either be furnished him with the job, or which he could send for in a few minutes through a boy on the floor. He said his manliness would not permit him to stand for those things after he had seen something better.

The other man had gone to the Standard Roller Bearing Co.'s shops to work on a drill press. He told me it was impossible for him to stand the fact that every drill press in the shop was far underspeeded—that even so the other drill-press hands did not run as fast as they could, and that he himself could not do a fraction of the work that he knew could be done, doing the best his drill-press would permit him. His sense of manliness had been so developed under our system that he could no longer be happy in the conditions he found on the outside.

Under the old system they sometimes adopt what they call the contract system of paying or dealing with the men, which means that rates are given to a contractor, and that he hires the men at the wages he sees fit, with no limitations on the profits he may make on his men. Only a few days ago a former contractor told me that he never made less than \$1 to \$1.50 per day on each man working for him, money which he now admits belonged to the men, and the greater part of which would go to the men under a management like ours, in which we do not tolerate any middlemen to divide in the premiums or bonuses.

I would also like to say that on my last trip to Watertown, where the strike occurred in the foundry because the great mistake was made of starting a time study without the customary preparation, I, for the first time, met Mr. Cooney, who is one of those, as I understand it, who was principally instrumental in bringing the strike on. The time-study man was exceedingly anxious that I should meet Mr. Cooney and see what a fine man he is, and what an exceedingly hard worker he is. I took great delight in making Mr. Cooney's acquaintance, and commented on the good reputation he enjoyed all around; and after a while I

said: "Mr. Côoney, I guess by this time you realize that we are not as bad as you thought we were,. and that our efforts are to help you instead of hurting you." He said, "Mr. Barth, our concern is not for the present. As things go now, here, nothing could be nicer; our concern is for the future." I said, "Mr. Coopey, I do not believe you need to have any anxiety for the future; at least we are working for the future more than for the present." He then told me that he could not altogether see through this scheme of ours, because he was not producing any more than he used to, and still he was getting a great deal more money. I said, "Mr. Cooney, you are mistaken. You would not get any more money unless you were producing more. I am afraid that you mistake work for production, and look upon your production merely as the effort you put forth."

This proved to be the case, because the facts were that he produced a great many more molds in a given time than formerly, because the job was properly prepared for him, laborers doing this, that, and the other thing; and the remarkable thing is that Mr. Cooney told me he had, in former years, himself tried to prevail upon the foreman to have some of that work done by somebody else, because he could put his own time to better advantage. I said, "That is just an example of what we do. We do not even wait for you to ask us those things. We systematically ferret them out. We make you more productive, because we make you utilize your ability as an expert molder to do real expert work, and eliminate the waste of your time on the easier jobs that can be done by less competent men."

The Chairman: Mr. Cooney, in testifying before this committee, stated one instance in which he had made a mold—I do not recall the technical terms—made one mold in the same frame or case that could have held two molds, and in so doing was following out the directions from the planning department after this new system had come into existence; and he clearly demonstrated to my satisfaction that he could have placed two molds in the same frame or case and thereby have saved a great deal of work, or produced more with the same amount of work.

Mr. Barth: Yes? ~

The Chairman: That would not be an indication of the correctness of the statement which you now make, would it?