equipped to meet the problems beyond the factory walls.

Our cooperative plan, therefore, is developing an enlightened, a trained and a self-disciplined citizenship. An intelligent, self-imposed discipline of the democratic character referred to above will make for a higher form of industrial efficiency in the long run than that type of Prussian discipline which is purely mechanical and superimposed by officials vested with superior authority.

In the third place, any plan of industrial organization, to be permanently successful, must be technically sound. This practical test must be applied to any form of industrial democracy. We feel that our cooperative, democratic movement in Rochester has a factual and not a visionary basis. A capable leadership and a trained citizenship would get us nowhere in our experiment if the employers were prevented from introducing into the industry new machinery, labor saving devices, progressive management methods. If the labor organization stopped the manufacturers from making technical progress the whole system would inevitably collapse. The permanence of the plan will depend ultimately upon this question whether or not the employers are going to continue to be free to apply scientific management at whatever point the industry is prepared for it.

Thus far our arrangement and machinery has had sufficient elasticity in it to enable the manufacturers to be technically progressive. New types of machines have been introduced in the factory; all sorts of labor saving devices have been installed; operations have been sub-divided so as to make for greater economy in production by giving unskilled work to the less skilled operators; production standards have been worked out for many week-work operations.

There is much that is still lacking in our plants. For instance, we have as yet no central production control system. We have no routing and dispatching in our plants. We have not worked out a stores keeping or materials classification system. But these deficiencies are not due to the collective bargaining arrangement but to the state of the industry, which has been backward technically for decades and is only beginning to see the light. Even when the employers had no union to deal with and were free to introduce scientific management methods they failed to do so. It is unfair, therefore, to assume that the lack of technical development in the industry is due to the collective bargain-

ing arrangement which has been in force a little more than a year.

Our cooperative enterprise, however, is laying the groundwork for the introduction of scientific management methods in a very salutary way, because when new methods are introduced today they are done with the willing consent of the workers and not imposed upon them arbitrarily and autocratically. We are preparing the soil which will make it easy for production experts to reap the harvest when the proper time arrives. In a word, we are constantly "selling" the concept of scientific management to the workers not by thrusting it down their throats but by winning their consent by persuasion, reason, and practical demonstration.

The worker, like every other person, is suspicious of change and fears the unknown. We are removing this fear and suspicion by showing him that changes will be made only after a careful examination of the facts, which enables the worker to forecast the effect that these changes might have upon his own welfare. As a result of this procedure, we are developing a spirit of willing cooperation and voluntary allegiance to the scientific management idea which, when it does come into our plants, will be more efficient than it would be if it were introduced mechanically and autocratically by the employers without the workers' consent.

The hard-headed critic, however, still says: "Has your industrial democracy reduced the cost per unit? Has it increased production per man-hour? Has it reduced labor turnover?" The experiment has been operating too short a time to give categorical and thoroughly satisfactory answers to these questions. One thing is certain; that so far as the data are available our records show that the arrangement has stabilized the working force and has reduced labor turnover. This reduction in the labor turnover is especially worth mentioning, in view of the fact that it occurred during a period of the greatest labor shortage in the history of the clothing industry. You will appreciate this all the more if you will recall how labor turnover increased in the munition plants and shipyards during the war period when there was an acute labor shortage

As to production per man-hour, it is not easy to give an answer on this question because very few plants up to a year ago kept such data as to enable us to make a comparison. Stoppages have been greatly reduced. There has been a wholesome amount of

shifting from day work to piece work. Week workers, or day workers, have been induced or forced to report regularly their production records. Standards of output have been set and accepted by the union for week workers where the piece work basis is not satisfactory. I feel sure that in several of the large plants the production per man-hour has been maintained during this first year of experimentation. In the smaller socalled outside contract shops the production per manhour has not held up so well as in the inside plants. The aggregate production was affected by virtue of a reduction in working hours from forty-eight to fortyfour per week on April 1, 1919. However, a number of departments in several plants secured as much production in forty-four hours as in forty-eight hours. . In the light of the great falling off of production in

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many lines of industry, including those industries which do not have collective bargaining, I feel that our record along production lines has not been unsatisfactory.

Bear in mind that our experiment is only one year old. There are many weaknesses in the plan which will have to be eliminated as time goes on. We have been experimenting with political democracy for one hundred thirty years and still we do not feel that we have completely arrived. It is only fair, therefore, to ask that you be patient with our experiment in industrial democracy. It is still in its infancy. With your patience and our faith we may work out a plan of industrial cooperation which may be of value to all industries.

¹For discussion of this paper see page 167.

PRODUCTION is the great world problem of today.

We cannot escape the problem of production.

We must meet it and come as near to a solution as may be possible or we shall suffer.

We shall find our way through by no formula or pattern, but by a constant giving of the best thought of all in a real consecration to the ideal of service.

What American genius is called upon to accomplish today is so to guide the machinery of production as to meet the needs, while providing for labor a just reward and a proper share in the business of determining conditions and policies.

The greatest single achievement for progress possible to this day and this generation is the substitution in industry of the ideal for production for use—for service—and not for profit alone. The profit ideal constricts the creative productivity of both managers and employees.

The trade union movement welcomes every thought and plan, every device and readjustment that will make expended effort more valuable to humanity. It bars the way only when it is sought to make the worker pay the bill for his own increased effectiveness as /a producer.

The labor movement cannot and will not sacrifice any of its militancy, because that is the jewel of its being, the heart throb of its existence. But it can and does welcome every helpful effort toward the development of a higher and better and freer manhood and womanhood.

(Excerpts from "Introduction" by Samuel Gompers in *The Annals*, September, 1920.)

TOO late for review in this issue, but not for the notice which it deserves, there comes to the desk of the editor the September issue of The Annals of the American Academy of Political and Social Science, entitled "Labor, Management and Production." It is edited by Morris Llewellyn Cooke, Samuel Gompers, President of the American Federation of Labor, and Fred J. Miller, President of the American Society of Mechanical Engineers, and presents "an American industrial program." "This joint work of the 'leaders of the organized workers' and the 'scientists of industry' is an effort to present a comprehensive and fundamental program for American industry. A general agreement has been reached as to the essentials: (1) production in ever increasing measure; and (2) the safe-guarding of human rights against the growing concentration of tool power and the development of industrial freedom through adequate provisions for 'collective bargaining.' Any industrial program on which science and labor can loyally cooperate will be a master contribution to progress. The bases for such a program will be found in the following pages." It is interesting to note that two of the editors and seven of the contributors are members of the Taylor Society. And, as Mr. Gompers says "The spark of inspiration is in many of the pages of this volume."