

what science is doing to them, does not now seem to constitute for me an adequate alibi. It does not seem probable to me that the unions will in the end get along as well without the active assistance and co-operation of Veblen's technicians as they will with it. "Trade unions cannot find the way to co-operation alone; neither can they make the transition alone," as one highly intelligent and really inspired labor leader recently wrote to me. If we are to get away from the bitterness and bickering which constitute the worst outcome of the Industrial Revolution, there must be more frankness in our discussions. If the confidence which begets frankness is to be established some status for organized labor must be afforded. "Yellow dog contracts" or a grossly unfair injunction practice, or obviously unnecessary unemployment or peremptory wage cuts, make it difficult for labor to abandon force.

We management engineers have been preaching away at obdurate and inefficient manufacturers in season and out of season through more than a generation, with mighty few thanks for our interest. Of course, speaking quite generally, we carried on this educational work among manufacturers because in that way lay our economic livelihood. I am now wondering whether we should not direct some of our energies and eloquence toward the problem of the organization of the workers—company unions, standard unions, what you will! As professional management engineers should we not include within our field the development of those techniques by which the various organizations of the workers can be given a place in the industrial process consistent with all that science is in the way of contributing to industry. It goes without saying that this involves no acceptance on our part of those features of workers' organizations which do not make for an ordered industry. The leadership and current practices of the grouped workers will be just as open to our analysis and criticism as the manufacturers and their techniques have always been. I suppose, too, we should have to be as callous to the buffetings of those workers who did not value our cogitations as we have been to the indifference and misunderstanding of the employing group.

After all, our civilization is pretty young industrially speaking. Even since the war, unless the entire world is very much mistaken, we have

entered "a new day"—not necessarily the last such new day! The object of this discussion is to discover some of the principles which should guide us in this new day of Scientific Management, high wages and standards of living, mass production, quick changes, co-operation, mechanical improvement, and so on. Lewis E. Pierson, President of the United States Chamber of Commerce, sensing the evolutionary character of our industry, has recently emphasized the necessity of *thinking ahead* toward new forms of industrial co-operation, and has expressed the thought that "The day is not far distant when organized business, organized labor and a comprehending government will unite for the intelligent teamwork that alone can solve our problems."

The history of the race indicates that under the institution of private property, the workers—the weaker party—must organize to protect both society and themselves. We no longer work our miners through hours so long that they have to maintain underground homes in which their children are born. Nor do our present day piece rate systems force immigrant tailors to sleep on their cutting boards. But each year new problems and new temptations arise which continue very definitely the necessity for some organization of the workers. In a recent industrial survey⁷ of the City of Providence it was disclosed that seventy-two employers out of 759 employ 63 per cent of the industrial workers in a district with 400,000 population, and that the plants which these employers control turn out 68 per cent of the goods made in the district, totaling \$336,000,000. Is it not possible to conceive of these seventy-two employers mutually deciding on some policy affecting all the labor in the district, and can we be sure that it would be socially desirable that labor should acquiesce in each and every policy so adopted? We still appear to have with us the necessity for some strong organization of employes, very probably national in scope, ready to grapple with any group of employers guilty either of cupidity or of industrial illiteracy.

It is possible that we are getting beyond the point at which the battle is for opportunity to eat and be warm. Mr. Hoover may be only abreast

⁷Industrial Survey of Metropolitan Providence for the year 1926, conducted by Division of Industrial and Municipal Research, Massachusetts Institute of Technology, February, 1928.

of the times in pleading the cause of the full garage rather than of the full dinner pail. Perhaps in the future we shall be fighting for gasoline rather than for bread, and later for the opportunity to share in the world's highest culture. But as long as property essentially controls avenues to these things, it seems desirable that those with the minimum of property, though in the future they may not be propertyless, be organized somewhat as a balance of power. From a scientific standpoint checks and balances upon each other in the legislative, administrative and judicial branches of our government are very wasteful, but apparently we are not ready to abandon them.

Surely I am warranted in thinking that a goodly percentage of the members of this Society believe in some measure of collective bargaining, at least as to wages, hours and working conditions. But there is no virtue in being for collective bargaining unless it is to be effective. Personally I am convinced that collective bargaining can not be effective if the workers' group participating is restricted to a single plant or the plants owned by a single company. Therefore, anything short of a national basis with regional and local subdivisions would probably be unwise from a social standpoint. In wage and other negotiations there is no way of meeting facts except with facts. The gathering of facts is a difficult and at best an expensive matter. Any small group of employes is at a fatal disadvantage in meeting the factual presentation of employers who are almost without exception directly, or indirectly, connected with nation-wide organizations. Shop organizations without national affiliations leave the organized workers without the resources—financial, technical, political—which they require to secure only that recognition which the best interests of our industrial society demand.

The content of collective bargaining to date has had to do almost exclusively with questions as to wages and hours and to a lesser degree with working conditions and status. As I attempted to point out in a recent article,⁸ these questions have been

⁸In this connection it is interesting to recall the wording of the Gompers resolution, presented at the Industrial Conference held in Washington immediately after the Great War, to which the employers' group objected. "The right of wage earners to organize without discrimination, to bargain collectively, to be represented by representatives of their own choosing in negotiations and adjustments with employers in respect to wages, hours of labor and conditions of employment, is recognized."

⁹Cooke, Morris Llewellyn, "Organized Labor and Research," *American Federationist*, August, 1927.

settled at least to the point where hours, wages and working conditions no longer alone afford the labor movement a sufficiently virile rallying cry, even though there remains the necessity for continuing the struggle against those who ignore decent standards. The members of this Society for instance are pretty generally convinced that more work can be done in eight hours than in any longer day, or at least, that an eight hour day is fully consonant with a possible American standard of living. The whole philosophy of Scientific Management is based on the policy of high wages with low unit costs.⁹ We recognize also that even reactionary employers today believe in good working conditions, sanitary, well lighted shops and all that goes with them. Collective bargaining as to "hours, wages and working conditions" has to do almost exclusively with the division of the profits rather than with production and distribution of the product. It is in the same class with negotiations as to price between a concern and those who buy its product.

So I cannot feel that collective bargaining, even with provisions for general arbitration, constitutes the whole or deeper answer to our problem, essential as I recognize it to be. Nor will giving the organized workers simply a chance to criticize and complain on occasion, and to have these matters satisfactorily adjusted, be sufficient. One can imagine such a system operating at 100 per cent efficiency through a ten year period, and at the end of that time all organized opposition from the workers—whatever form it might take—would be at a standstill. And further, any policy which suggests a permanent division of those engaged in industry into two camps would appear to be out of date, and must necessarily become more and more out of harmony with a world studying discussion, mediation and conciliation and seeking to supplant competition by co-operation. If it can be accomplished, the group of workers must be collectively related to industry in a way not possible under a bargaining status. What we want now is to set up an *integrating* process which will tend more and more to unite us in a common purpose. The development of the techniques by which such unity may be accomplished is a problem common to all productive enterprise whether operated by private capital, by the government, by municipali-

⁹It is not generally realized that this is the basic idea of Taylor's "Shop Management," 1903.