ployees, is an expression of human nature and cannot be done away with any more than clashing of desires and of wills between individuals of the employer group has been eliminated; but there may be developed a "reciprocity of will" as between employers and employees just as such a reciprocity has been developed between competing employers. And as conflicts between employers are adjusted as they arise, because the will to do so and the necessary mechanisms exist, so conflicts between groups may be adjusted as they arise, *provided the will to do so, reciprocal recognition of each other's interests and the mechanisms exist.* The argument of the author is that it is to the self-interest of employer to manifest such a will, promote such reciprocal recognition of interests and coöperate to set up the necessary machinery to give effect to the will.

If the security does not arise from elimination of conflict of interests, from what does it arise? From a goodwill which, first, reduces the conflicts to a minimum, second, changes the nature of carrying on those which remain by substituting reasonable negotiation for violence, idle plants and unemployment, and, third, is in itself a will to coöperate, so essential to the most efficient technical working of the procedures required in group operations. Goodwill is "not necessarily a virtuous will or loving will" and the loyalty which accompanies it is "not gratitude for past favors nor a sense of obligation;" goodwill is rather "a beneficial reciprocity of wills" and the loyalty "an expectation of reciprocity." The relations between manufacturer, merchant and banker show goodwill—which is not based on love; and loyalty—which is not based on gratitude; they are based on coöperation for adequate expression of which there exists an adequate machinery. Likewise in the relations between employer and employee, there may be such goodwill and such loyalty, provided there is adequate machinery for its expression.

The machinery, Commons says, must be collective bargaining, for the reason that the goodwill which is the subject of the book is collective goodwill, a goodwill which is different from the goodwill existing between employer and individual employee. A superintendent may greet a worker with a hearty "Good morning, Joe," and receive an equally hearty "Good morning, John,"—greetings expressing a genuine personal goodwill as between the two; but in the conversations between Joe and his fellow workers there may be, and in the present state of the industrial arts is likely to be, expression of a feeling that all is not right as between the management represented by John and the worker represented by Joe. Group consciousness comes in. The unsatisfactory conditions may not be attributed by the workers to John or to any individual in the management, but to the system which has not adjusted itself to the complex conditions of modern-day industry. Therefore there may be a group ill will which neutralizes individual goodwill. This ill will may be changed to goodwill by recognition of the workers' group consciousness through collective bargaining and through supplementary mechanisms such as joint councils and shop committees.

In the literature of industrial relations there is no book more worth the serious attention of administrators and managers.

Certain parts of the book are of especial interest to students of scientific management. What Commons understands of scientific management is difficult to indicate; there are references to it on at least a score of pages. Commons' view is perhaps best indicated by his analysis of the various theories of labor. He first calls attention to the "commodity theory," the theory of the "merchant" to whom labor is a commodity as impersonal as any other material to be purchased in the cheapest market. Then he calls attention to the "machinery theory," the theory of the "engineer" who says that what is bought and sold is not labor but the product of labor, and to whom a laborer is a machine to be valued according to his output and is an operating mechanism to be economized. This he believes to be the theory of scientific management. Finally he presents the goodwill theory, which accepts elements of the commodity and machinery theories, but insists that those theories are incomplete because they do not take cognizance of the collective goodwill of labor as a productive agent.

Commons believes that the beginnings of scientific management go back to efforts of twenty years ago to get away from the cutting of piece-rates.

> Piece-rates *must be cut*, sooner or later, or else either industry will stagnate, or wage-earners will get all of the gains from improvements and none will go to the consumer and the employer . . . . Piece-rate cutting is universal. What is meant when it is denied is perhaps that the cutting is not done *arbitrarily* . . . . Twenty years ago many varieties of premium or bonus systems of paying wages began to be invented by engineers in order to abolish automatically the arbitrary cutting of piece-rates . . . The early industrial psychologists . . . endeavored to find a plan by which to lesson the temptation of the employer to cut the piece-rate. This psychology turned out to be misdirected . . . . The temptation to cut the rate did not *reside* in the bonus but in the task . . . . The essential thing is the *base rate* which determines the task. Here is where scientific management came in. Mr. Frederick Taylor made the next great step in advance. He directed his attention to the task or base rate which should be required before the premium or bonus could begin . . . . Taylor's great contribution. . . . was that of accurately *measuring* the *task* in advance, instead of leaving it to the hit-or-miss, cut-and-dried methods of the old style piece-work practice. Scientific management, applied to labor, is scientific measurement of the laborer's task required to hold the job. . . . . The first practical application of this important distinction between the task and the bonus or premium was that of taking the authority to make the piece-rate away from the foreman and placing it in the hands of . . . . experts, inventors, investigators. They can study waste motions and short cuts. They can standardize the job . . . . can employ the accurate methods of measurement which distinguish science and engineering from rule-of-thumb . . . . set up specifications for the foreman and workmen to follow . . . can study each workman and select those who are fitted to each job . . . This I call the machinery theory of labor.[1]
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> The application of this theory by the engineer is perhaps the most productive invention in the history of modern industry . . . . But machinery and factory organization are continually approaching a limit of diminishing returns. This limit turns attention to the human factor, and it needs only a candid attention to the experiments of scientific management to become convinced of the large resources and unused possibilities within the human animal which can be developed when once his motions and energies are studied and measured as the engineer studies and measures the other forces and materials used in production (and) the science of industrial psychology is added to the mechanical and biological sciences. . . .[2]

The intellectual ability manifested in this analysis cannot be denied. Nor can one fail to acknowledge the validity of much of the interpretation. It cannot be refuted by those who have not investigated scientific management in operation and are acquainted only with what the books say about it. For the literature does emphasize the mechanics and not the human element in scientific management. It is on the whole concerned with the technique of management and not with the administrative problems involved in the use of the technique. But that does not change the fact that the scientific management practitioners have been and are in the fore of those working for better industrial relations and for the establishment of goodwill and a machinery for its expression. And just as we advise the engineer to read and ponder over Commons' book, we also advise Commons to study scientific management *in operation.*

NEXT STEPS AND ULTIMATES IN INDUSTRY

I.

IN his message of May 20, 1919, President Wilson declared for "the genuine democratization of industry, based upon a full recognition of the right of those who work, in whatever rank, to participate in

[1]Ch. II [2]Ch. III

some organic way in every decision which directly effects their welfare in the part they are to play in industry". The railwaymen's Brotherhoods, in the Plumb Plan, have proposed the "organic way" that is acceptable to them. Again, only about a year ago, the National War Labor Board "recognized and affirmed," in the statement of its principles and policies and in its awards and recommendations, "the right of workers to organize in trade unions and to bargain collectively through elected representatives." Since the Board declared that an employer should not be compelled to recognize and deal with trade unions unless he had done so prior to our entry into the war but should continue such relations if he had, the "shop committees" which the Board ordered set up or recommended became acceptable to many employers who would have resisted their introduction if this had entailed recognition of and dealing with the men's unions. For while the war and the experience it brought have made a difference in the attitude of American employers toward collective bargaining, their attitude toward not only the trade unions as they now exist but toward trade unionism as such has not changed much, if at all. It may be noted that the first national industrial council set up in this country applies to an industry—the ready-made clothing manufacturing trade—which has for some years been a closed union-shop industry and has been operated under trade agreements, in the New York market the so-called "Protocol," regionally applicable. In this industry, therefore, the shop committees are trade-union shop committees; the employer has no voice in the making of the constitution and rules that govern them and there is no covenant under which joint meetings are held. On the other hand, the shop committees set up upon the initiative of employers are designed as joint bodies representative of both employers and employed. This principle is not always fully and clearly carried out in the constitutional arrangements, but implicitly at least, always underlies the organization. While trade-union shop committees, in their main intent and in their function, are "bargaining committees," these new shop and works councils promoted by employers, though also bargaining committees, are more than that, having an avowedly coöperative and constructive purpose. They serve also, and are expected to serve, toward an increase of production and the establishment and maintenance of harmonious relations between employer and employed.