It has been the traditional opinion, developed through long social experience which it is not necessary to examine here, that the workman, because workman, has no occasion to examine and pass judgment upon new industrial processes or policies. It has furthermore been a traditional opinion that he could not exercise sound judgments in such matters if called upon to do so. The workman has been looked upon as possessing a commodity which he sells to the manager, as the farmer sells wheat to the miller. While it has been recognized that when the workman offers labor for sale he offers not only physical energy but with it a combination of mental and manual dexterity called skill, nevertheless, the traditional opinion has not risen to the conception that labor has any other interest in the transaction than the sale of a commodity. During recent years an entirely different opinion has been developing, and is held not only by working men, but by many social scientists and by an appreciable number of enlightened managers. To attempt to account for the development of this new point of view would take us too far afield. The majority, I imagine, of those who entertain it, qualify it with the condition that while in principle the workman is entitled to examine and pass judgment upon the manager's disposition of his labor, in practice that is impossible because the workman is not qualified by managerial experience to make such examinations and pass such judgments. A minority, on the other hand, advocate the new point of view without such qualification, and assert that labor is entitled to exercise the right of acting under the principle, whatever the degree of skill he to make better judgments on managerial matters by experience and responsibility; and that society, even at the cost of a temporary period of less fruitful management (conceded for the sake of argument), should bear the cost of the workman's apprenticeship in managerial responsibility. They assert also that life is more important than industry, happiness more im-, portant than profits, and that happiness can be secured only by giving every individual opportunity for the exercise of all his interests and the development of all his faculties, one of which is the faculty of managerial and creative activity. They assert further that the increased technical productivity resulting from the exercise of such a function by workmen, together with the increased productivity resulting indirectly as the result of greater co-operation, will more than compensate for the loss resulting from errors in judgment during the period of labor's apprenticeship in managerial responsibility. Finally they assert that in our society and with our form of government, with labor self-conscious, organized

and numerically strong as it is, experiments in the participation of labor in management are sure to be made, experiments which management should anticipate, and in which management should fearlessly and honestly co-operate. Assuming that to be the case, let us ask ourselves what may be the workman's competence to be judge of the desirability of new industrial mechanism, processes and policies.

The limitations of the workman may, I believe, be summed up in the two characteristics: the narrowness of his individual attitude of mind, and the militancy of his organization attitude of mind.

An honest recognition of the facts makes it necessary to observe that, however noble and honorable of character, the great majority of working men have enjoyed neither the education nor the experience to render them broad and sympathetic in their views, informed concerning industrial facts, principles and tendencies, and possessed of trustworthy perspective and sense of values. The truth of this statement is possibly a damning indictment of society, and the fact that occasionally able men and even intellectual giants have risen from the ranks of working men, and that the prospects for all are improving, does not make it less so. The average working man has had to leave school at an early age, to begin the long struggle of support of self and family in a regime of the bartering of labor as a commodity, in which the advantages of bartering have been against him. He has had to rise at early hours and put in long days at the factory. He has returned at night weary, thinking principally of the sleep which will restore him for the morrow's work. So it has been, day in and day out. His work has been almost entirely repetitions manifests in making judgments; that he will learn of more or less automatic operations which have required neither wide contacts nor serious thinking. His function, howsoever socially important, has been a relatively simple one, and has not given him wide acquaintance with persons and things and ideas. His limited education has not given him the impetus, and the weariness of his evenings has not allowed him the inclination to seek contact with things and ideas in the written records of others. Is it surprising, then, that he is not appreciative of the complexity of the industrial mechanism and of the problems of management? Is it surprising that his judgment may not be reliable concerning the immediate and the ultimate consequences of some proposed new mechanism, process or policy? And is it surprising that in the experienced manager's mind the presumption should be against the helpfulness of the workman's judgment of things outside the narrow sphere of his hand or machine craft? Notwithstanding the immeasurable promises of better general and industrial education, the manager's prejudice is not unhuman.

I have suggested that, in the second place, the mil-

mind is also a limitation to the soundness of his judgment of industrial matters. One would, at first thought, believe that the judgment of the group could not rise higher than the average judgment of the individuals constituting the group. But that is not so, for the influence of the leadership of able minds enters into the calculation. In labor unions are very able individuals who become leaders, and succeed, under certain limitations, in impressing their views upon the group. The group mind should be, and unquestionably is, broader and more sympathetic of the complexity and sensitiveness of the industrial machine, and of the consequences of every proposed policy, than is the individual mind. But is it as much superior, in its actual expressions of itself, as the intellectual ability of group leaders gives us a right to expect and demand?

I believe not, for the reason that the group thinking and action is motived by a single purpose-a militant effort to achieve class solidarity and class prosperity in the midst of a regime of individual ownership of industrial equipment, managerial control, and bartering for a share of the surplus of productive operations. Other possible aims are neglected for, or subordinated to, or even misused for, this one dominating campaign. Truth in the statement of known facts, and in the search for attainable facts, is not sought for the sake of the truth, be its effect on men's minds what it may. Inaccurate statements are made, and false judgments uttered simply for strategic and tactical reasons. I am not affirming or denying the historical justice of this motive. I am simply stating what seems to be a fact. and suggesting that the fact is a limitation to the reliability of labor's judgment on new industrial mechanism, processes and policies.

Parenthetically it may not be out of place to observe that here are weighty reasons for management's hearty support of more thorough general and industrial education; and especially for a calm and dispassionate consideration of the possibilities in some other regime than absolute individual ownership, absolute managerial control, and purely individual bargaining.

If these serious limitations to the reliability of the workman's judgment be genuine, what then are the advantages in forming judgments on industrial matters which are possessed by the workman and which support my thesis that his judgment is a necessarycomplement to that of the manager?

The advantages, as I see them, may be summed up in the statement that workmen in the aggregate are industrial society for the benefit of which industrial operations are carried on; that as participants in industrial operations and beneficiaries of them, in the

itancy of the workman's organization attitude of aggregate and in the long run they sense the ultimate influence of industrial undertakings. In discussing the advantages for forming judgments possessed by the manager, I described certain faculties for intuitive judgment developed in him by experience, which because his experience is different from that of anyone else, make him able to perceive certain aspects of truth not visible to others. So it is with workmen in the mass. They also, because of their function in industrial operations, have experience which neither managers nor others have, and develop intuitive faculties which neither managers nor others have. They feel the direction of the current of industrial evolution, not because they are carried along in it, but because they are industrial society. Because of this, their intuitive faculties, specialized by their unique experience, sense the immediate and frequently the ultimate influence on the current of industrial progress of specific methods and policies. There may not be convincing reasoning behind their objection to a specific proposal, but there may be something more fundamental than reasoning which guides them.

I am not raising the question of the right of the workman to be called into consultation in determining the desirability of specific industrial methods and policies. I feel that what is, right is probably what is, according to social experience, the ultimately socially expedient. If that be so, what we think and what we do will not deprive the workman of what is his right. I am arguing that from the point of view of industrial management in a regime of private ownership of the materials of production, of managerial control, of the motive of profits, it is expedient to match the workman's judgment against the manager's and the social scientist's, in order to obtain the benefit of the workman's unique advantages for judgment which in an increasing proportion outweigh his corresponding disadvantages.

THE SOCIAL SCIENTIST

I come now to the last of the trilogy of advisers which the programs of our meetings have called before us to assist in considering the problems raised by scientific management. The unpractical, bookreading, theoretical and dreamy social scientist! as some conceive him to be. What does he know about industry; he who does not do real work for a living? What does he know about management; he who is notorious for his inability to manage? I notice, however, that it is not asked what does he know about industrial evolution? Knowledge of that, so far as it can be known, is conceded to him. To know about the stream of industrial progress, of which manager and workman are atoms, is his specialized function. If that be so, may he not render judgment of some