Strangers in a new country, ignorant of its institutions, crude and stolid in intellectual development, they were not fit for self government. The employers of this time, moreover, had to fill a more responsible and independent position in the nation's industry than ever before or since. It was in the initial stages of a new and large-scale production, when resources were being exploited, new fields of manufacture opened up, foreign markets conquered. In such a period of transition and construction, the business enterpriser is the all important director of the country's activities. Even able employees have little higher responsibility. The great questions to be decided are whether an industry should be created, or perhaps discontinued; whether the people employed should be skilled or unskilled, or whether machinery should displace labor. On such matters the employees concerned cannot, of course, pass unbiassed judgment. What industry needed was a pliable working class, who would fit in readily with the shifting programs of capitalist and enterpriser. Lucky the workman who could secure a benevolent employer. And lucky the manufacturer who could secure humble, foreign workmen, unbound by tradition, and not self-assertive.

Likewise, when we remember Taylor's situation, we cannot blame him for refusing to allow much place for the initiative of workmen. Many of the workmen were of the class just described; and most of the balance lacked that specific training which might otherwise have made their co-operation of value. The graduates of the new engineering education were in the eighties but a thin leaven in a great world; while it was to be many years before the schools were to plan an industrial education for the masses. But even had they been trained, the workmen of Taylor's time were filled with a suspicion of efficiency that made them more interested in limiting output than in increasing it, in blocking the introduction of machinery and improved methods rather than in assisting in this work. These conditions, we believe, account for and excuse the rigid control, the too-sharp separation of planning from performing, and the insistence upon a rather blind obedience to directions which has characterized scientific management.

Again, the earlier relations which had prevailed between employers and employees may be cited as an explanation of Taylor's failure to develop any thoroughly socialized system of drawing out loyalty. Scientific management was started in order to displace a warfare which had developed between management and men. And in combatting and overcoming this warfare, the system necessarily took a part of its own character from it. The spirit of the men had so long been steeped in antagonism, that there was practically only one appeal that could be made to them. The central principle in the science of management therefore became the forging of a very tight and somewhat mechanical grip upon employees, through a skillful regulation of their pay. It is, however, to the great credit of Taylor and his associates that they progressively gave more and more attention to the spirit of the shop, and dwelt less heavily upon the earlier mechanical devices.

This justification, which we have just been making, of the attitude assumed by scientific management in times past, does not, however, affect our judgment that, in the future a more democratic control and a more widely diffused responsibility will have to prevail. Certain basic changes now taking place in our social and economic institutions will eventually render obsolete many practices once thought necessary.

The chief of these changes, and the one which will have the greatest import for scientific management, will be a transformation in the working population. Any group of people who presume to outline a program for the future which does not take into account the rise of an employee class quite different in character from that which formerly filled our shops will be making a grave mistake. The whole trend of our modern spirit is in the direction of a sharp uplift of the mass of mankind. Our original human nature is going to blossom into a very different kind of manhood and womanhood under the greater opportunities which are now being thrown open.

The accomplishment of such a transformation is the goal of the progressive political movement, which gave up its independent life only because it had won control of one, if not both, political parties. The elevation of the ordinary man is the program of the modern social movement,—which dominates the public schools, the churches, the universities, and the Y. M. C. A., and finds its expression throughout the literature of the time. It is this spirit which has borne fruit in the reform of taxation, in the fight against privilege, in the founding of all sorts of civic institutions, but first and pre-eminently in the expansion of popular education.

We must think of the employee of tomorrow, then, as the graduate of a technical or trade school, if not of a university. We must think of him as a man or woman of culture, of intellectual power, of initiative, a person nourished from youth in the exercise of freedom and judgment. Trained in science, and polished by a varied experience, he will be no more like Taylor's pig-iron handlers, or the typical workman of yesterday than vapor is like a solid or a liquid. In short, the human material with which the science of management purports to deal will have been changed. And when the subject matter of a science changes so must the science also.

In keeping with this new environment, we must

therefore anticipate a new scientific management. It will have to be somewhat different, first of all, in method. The ideal of securing individual efficiency through restraint and command will have to give way, some time, before the more efficient program of opening the way for individual self-expression. Not that no one should lay out tasks for others; or that vast numbers of workers should not make their methods conform closely to one most efficient standard. An opera singer may fittingly follow the directions of her managers as to routes of travel and concert dates; a great engineer or builder may conform in detail to specifications drawn up by others. The point is that, while an individual does many things that others plan, he should have some things to plan himself. That is what a man is for. To neglect to utilize and develop the unique originating, choosing, and adapting power with which every individual is more or less endowed is to waste the earth's greatest resource for which the growing complexity of industry and the arts will ever make greater demands. Besides, to deprive men of the opportunity to create is inhuman, degrading, and destructive for the individual, the ruination of pleasure in work, of romance and achievement in life.

Scientific management will also have to clothe itself in a somewhat different spirit. That age-long impulse towards democracy that first humbled kings, and later liberated and enfranchised serfs, is still in full swing; and can stop short of nothing but complete social and individual emancipation. The storm that has risen around scientific management has largely grown out of a notion that the system was trying to block this movement. But we need not fear that such an interpretation of the system can be maintained. The age that rushes to give the vote to women on this side of the water, and hesitates in time of national peril to conscript labor on the other side will not tolerate any system of management which does not give praise to the man who works, thrust upon him respect and opportunity, give heed to his sentiments, acknowledge his fellowship, ask for his co-operation. Whatever smacks of any other feeling in scientific management is a product of the past, and like it will have to be left behind.

The fathers of our revolutionary period, it is worth while to remember, were not greatly injured by the policies of Great Britain. For years after the revolution they continued to buy mostly from England, and to use much the same trade routes as it had been the policy of the mother country to prescribe. Their burden of taxation was only increased by independence, their protection diminished. But the founders of our nation would not tolerate the shadow of subordination to Great Britain. It was the spirit rather than the acts of the imperial government which inflamed American opinion and led to the longest and most fateful struggle in our history. So let us take heed of the continuation of independent spirit among the masses, even the immigrant masses of today. Let us be thankful that the spirit of our country's past is not dead, and let us bend before it, work with it, utilize it. Not money alone, but self-respect, responsibility, partnership, is the birthright of American labor. Not only the reality of these things, but out and out, thoroughgoing recognition must be maintained.

Now these things have not been overlooked altogether by Dr. Taylor's associates. The most interesting development in the field of scientific management at present is the start that is being made in the direction of such Twentieth Century ideals. The recognition of the humanity of employees, of the importance of the social life of an industrial organization, is possibly nowhere more complete than in the Clothcraft Shops of the Joseph & Feiss Company, Cleveland. In a paper on "Personal Relationship as a Basis of Scientific Management," written by Richard A. Feiss, the manager, as well as in various descriptions of the Clothcraft Shops given by other persons, it would appear that we have here an unusual example of a socialized, industrial undertaking. Among the institutions of the factory are a choral club, with membership upwards of two hundred, a factory orchestra, and leagues for baseball, quoits, captain ball, and other sports. During the winter, the different divisions of the shops give parties, at which entertainment is furnished by the employees and their families. Members of the firm, as well as all others, attend these parties, and a democratic spirit prevails. On regular days dancing is a feature in the woman's recreation room, and there are dining rooms where every employee has his own seat.

One of the highest officials of the Joseph & Feiss Company is their Employment and Service Director. It is, among other things, the duty of this lady and her department to develop an organization spirit, and to facilitate among the employees the development of a democratic expression of personal and public opinion. The department itself comes in contact every day with about one-fifth of the Clothcraft employees; and all cases where direct conference with the management would be beneficial are immediately referred to it. The interest of the firm in its employees extends also to their families and their homes, as the Employment and Service Department has instituted the practice of home calls. One effect of these visits and of the company's careful medical advice has been the practical elimination of tuberculosis. A net effect of the entire social and individual program has been the development of an *esprit de corps* which has been remarked by all observers.