

ger in that manager's lifetime; but a start may be made. In another concern perhaps it can be accomplished just within the limits of a manager's lifetime. And in a third concern, perhaps the several attitudes of mind of the stockholders or their limited number, perhaps the extraordinary virile forcefulness of the manager alone, will enable him to bring about in a reasonably short time the evolution which he has in mind. But as soon as one manager in one concern does it, it will be easier for the other manager in other concerns. Each of these successes will have a powerful force on the other, and the movement will progress; for every manager who believed he could not do it will start trying to do it. But I have a great sympathy for the manager and am inclined to take Mr. Hathaway's point of view, rather than the point of view of those who differed from him.

Again as to the stockholder. I will admit that he must have his profits. I am not denying that there may be worked out in the long run some sort of industrial régime that will negative that statement. But within a measurable time, within the time of those managers who are now asking "What can I do about it?" I think a manager's opportunities will be limited by the stockholder who must have his profits. At the same time, however, I consider the stockholder to have a great moral responsibility. I consider him in the light of a trustee. Audiences have been becoming more sympathetic to the point of view that the manager is a trustee; but they have assumed that the stockholders still possess absolutely individual ownership. But I push the point of view back one step further: I can see the stockholder just as much a trustee for society as the manager is said to be, and I can conceive of his running the business not as though it were his own property, but as though it were his responsibility to convince the mass of his associates—just as it is the responsibility of the manager to convince his stockholders. This all works together and you will be surprised at the great result which can be worked out from the sum of little advances of this kind.

I have tried in this paper to inspire in the Taylor Society one of the ideals which by right should belong to it, as the representative of what I conceive to be the only true scientific management—that which is presented in the principles of Mr. Taylor. The principle which I have striven to advance as a phase of scientific management is the thought that this society should nail to its flag-pole a flag which would at all times stand for the widest and freest possible discussion. I once had a paragraph in my paper in which I said that, so far as my observation had gone, I thought that the managers of the Taylor plants had, as a group, fewer of the disadvantages than were pos-

essed by the remainder of the managers throughout the country. I cut that paragraph out because I thought it would not be good taste to pat ourselves on the back that way. But I was at a meeting a year ago at which were discussed the problems of the supervision of personnel; and a man who was not connected with the Taylor plan of management, but who had been making observations in regard to personnel in industry, cited three cases which were outstanding examples of good industrial relations. Mr. Bloomfield will remember the occasion. The plants named were the Clothcraft Shops, the German-American Button Company, and the H. H. Franklin Manufacturing Company. You will find that people who are discussing this problem of human relationships will frequently cite, even though they don't know the type of management the various plants have, a larger proportion of plants operating in accordance with the Taylor management, than plants operating under other methods.

But why have I not pointed out a practical way of accomplishing these results? Mr. Metcalf thinks it is time for action. I think, on the contrary, that it would be a dangerous and wrong thing for him or for me to go into such an undertaking at this time. I have made the point that changes in the industrial organizations come in a voluntary way—in very small increments of change. And then there is another principle of evolution which I did not state in this paper, but which is implied; that in evolutionary development growth proceeds from within.

If, now, such a paper as I have presented and many other similar and better papers which could be presented, should set the managers of the country to thinking; if each one should convince himself that the principles of which we have been speaking are correct and ask himself what he can do, and set about doing that thing; then a concrete mechanism will work itself out, and it will be a concrete mechanism built up by small increments which change as the environment itself changes. The movement will grow; because it is a growth from the then management and the then industry; and the machinery will not be an artificial machinery that some social scientist, standing on a mountain peak if you please, and watching broad tendencies, has worked out. Let us think rather of a scout located on the mountain top, who sends down word to the captain of the troops just how to proceed, but leaves it to the captain to decide the details of the manner in which the troops themselves should go. Let the captain decide the course to follow after taking into consideration all the information he can get, including that from the scout on the mountain.

## DIE BRÜCKE

A PLAN FOR THE WORLD ORGANIZATION OF INTELLECTUAL LABOR

BY HORACE B. DRURY<sup>1</sup>

Some time ago the writer was asked to prepare for the BULLETIN OF THE TAYLOR SOCIETY a sketch of an interesting efficiency movement started in Munich in the spring of 1911. Circumstances delayed the appearance of this article; and in the interval which has now elapsed, America has definitely and irreconcilably aligned herself against the dominant characteristics of the German system. Intensive though our military effort has now become, it is, however, just as important as before to inform ourselves regarding tendencies in Central Europe. In the case of the particular movement with which we are now concerned, it is a satisfaction to know that it represented a tendency which was opposed to the forces in Germany which made the War; almost as much opposed, in fact, as were we ourselves.

The organization of *Die Brücke*, may be spoken of as an efficiency movement; yet this society never discussed the speed of machines, the wages paid to labor, nor problems of trade or finance,—at least not as such. The interest in this undertaking lies in the fact that it was an attempt to apply to artistic and intellectual work principles which would conserve and multiply the world's heritage along these lines. Most efforts to accelerate the higher work of the world have met with a cold reception among the initiated; perhaps because of a notion that the would-be organizer was reaching above his place, that he did not understand the basic principles of success in the field which he had undertaken to remold. In the case of this society, however, such a suspicion could not be entertained; for the project was fathered by none other than William Ostwald, long known as one of the great men of German science. A master in the field of physical chemistry, and a prolific writer on scientific and philosophical subjects, Professor Ostwald was, in 1905, the first exchange professor from Germany to the United States, being assigned to Harvard and Columbia Universities. In 1909, he was awarded the Nobel Prize in chemistry. Of recent years, however, he had been turning from his more specialized fields to the larger problems of scientific and social organization. Here, too, his success was well marked; so much so that H. G. Wells wrote of the "Germany of Ostwald," meaning thus to designate that whole complex of modern organization of which he regarded Ostwald as the chief exponent.

In a pamphlet written by Ostwald and called *Die Brücke* is to be found the best statement of the pur-

poses of this organization. After explaining why he thinks that the time is ripe for the formation of a world organization which would bridge over the gaps between workers in different fields and in different countries, Ostwald lays down as the fundamental basis of all intellectual organization two simple principles, namely the division of labor, and the cooperation of labor. There must be specialization, he says. But, on the other hand, there must also be a working together which will make it possible for each specialist to get the full value of the work which others are doing. Each worker must have access to all data which he needs—and he must be able to get this without difficulty or formality.

As the name indicates, it was largely to carry out this second half of the program, to bridge over the gulfs of ignorance, inertia, and prejudice separating different workers in different countries that *Die Brücke* was formed. Its first enterprise, Ostwald said, would be to form a central exchange for all the mental work of the world. *Die Brücke* would form the fullest possible directory of all specialized intellectual organizations as they already exist all over the world in extremely great number and variety. There would have to be full enough details as to statutes, membership directories, completed work, etc., so that the person in search of material would get from the exchange, if not the information itself, at least the precise places where he might obtain the information.

A second task upon which Ostwald himself set out immediately was the standardization of the tools and mechanism for intellectual work, especially that material equipment by which thought is transferred from one place or person to another. The sizes of books, pictures, and printed matter of all kinds at present show a complete lack of system. There is a waste of space on the library shelves, in the portfolio, and in the envelope because things that are used for the same purpose are not made of the same size, and the thing that is to be stored away has no fixed relation in size to the container or space into which it is to be put. So Ostwald devised a series of standard forms for length and breadth, based on the centimeter and advancing from the smallest to the largest magnitude according to a formula which would give both utility and beauty.

Another plan involved the establishment of a color atlas, which would present objectively all possible colors, according to tone, brightness, and purity, on the basis of scientific principles. Thus there would be a suitable international designation for every color

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