

We must spend more time in the study of the individual, the working and living habits and the thinking of the workers. We must develop techniques of observation and interpretation. Our executives and supervisors must be trained in these techniques as the only sure means of improving the quality of leadership and of supervision. We have, I believe, failed to give sufficient weight to the fact that our workers have reached a high plane of intelligence. They are capable of absorbing explanation of management's plans and current operations, and we must have confidence in their ability to do so.

A striking example of the efficacy of the approach to our production problems was afforded by our experience in building the great Naval Base in Iceland during the recent war. We started to build this base in the summer of 1941, before we entered the war. The work was being done by civilian contractors under the supervision of naval officers. Much difficulty was encountered with the workers, who had been imported from the United States. They were in constant turmoil with strikes, slowdowns, absenteeism and even sabotage. When we entered the war, the civilian workers were replaced by Seabees. They were, in effect, the same men, not the same individuals, but they came from the same unions, the same communities, schools, churches and environments. But the Seabees turned to work with a will and, working 16 hours a day, under very trying conditions, built the base in practically no time at all.

Part of the Team

Why could we achieve this production? Because we had taken the trouble to explain to these men, in the course of their training, why they would be called upon to work as they did. They understood thoroughly what was at stake and the objective of their labors. They were a part of the "ball team" with complete knowledge of the signals and where the next play was going!

My experiences during the World War with large numbers of civilian workers and military personnel, where the building of a high morale was an essential condition precedent to maximum production, have led me to the conclusion that in the improvement of human relationships we must avoid any semblance of paternalism. Instead, the emphasis on the importance of the individual would indicate that every measure taken for his benefit should be one in which he has personal participation.

One values most the thing for which he has to work hardest and, even if mistakes are made, the harm is lessened if the individual, himself, has contributed to that mistake. I recall during the military occupation of the Republic of Haiti, in which I participated, I once discussed with an eminent Haitian engineer the great benefits which the American forces were bestowing upon his country in the way of improved public works, roads, irrigation works, water works, sanitary facilities, harbor improvements, communications, drainage, schools, churches, etc. I asked him whether the Haitian people really appreciated what was being done for them with such great effort by the Americans. His reply was very significant. He stated: "We do appreciate it but there is no substitute for the supreme pleasure of making one's own mistakes."

I have not intended by the foregoing to imply that only spiritual or social values need be considered in developing our plans for improved indus-

trial hygiene. We have learned that the physical conditions under which the worker lives, as well as those under which he works, constitute an important factor in the efficiency of his service. Our objective should be "a sound mind in a sound body" and without healthful living conditions we cannot achieve this objective.

We have not always recognized this apparently obvious fact. There was recently conducted under my direction a comprehensive survey of medical, sanitary and community facilities in the bituminous coal mining areas of America. This survey revealed conditions which covered the range from the finest of American communities to those which we view with great repugnance.

The following excerpt from the report submitted to me by Rear Admiral Boone is illustrative of some of the conditions found. Admiral Boone forwarded this report with the notation: "The officer making this report is one of our best." The excerpt is as follows:

"... I am referring primarily to general sanitation, water supply, housing, welfare and recreation, garbage and refuse disposal. I would say from the cross section that I have observed by survey and by observation, that the foregoing conditions are from very poor to bad. The hospitalization and medical care programs in effect, in this area, are, generally speaking, very good to excellent. The ——— Sanitarium is a superb hospital; the ——— Hospital is only fair; the ——— Clinic is good. They are all approved and accredited hospitals. The ——— Emergency Hospital which I inspected Friday is owned and operated by the State of ———. This institution is definitely a disgrace not only to the town, county and State, but to the nation in general. It is the most unsanitary thing that I think I have ever seen. In this nation there is a dire and urgent need for hospital beds and also in this community. At this institution, I saw approximately 50 empty beds; the reason why they're empty is due to the fact that people and physicians will not patronize this institution because of its unsanitary condition.

"... The budget for ——— County for Public Health work is \$11,000.00 annually. This county has 100,000 people and are mostly coal miners or coal miners' dependents. Many of the questions in the survey probably are incorrectly answered due to misstatements by company officials and company physicians regarding water analyses and sanitation.

"The health and general sanitation, including water supply, is deplorable and disgraceful. There is no first class water supply or sewage disposal in the entire county. All sewage is dumped into all the streams in this area and some of the towns obtain their water supply from these massive, contaminated, polluted, 'bacteriological tubes.' The stench that arises from these streams has an H₂S odor, a fecal odor and a uriferous odor.

"During our surveys in this area we have experienced many inconveniences. The whole team has experienced belly cramps, diarrhea and fatigue. Along with this, the food is nauseating and we all have colds. The hotel accommodations are bad, cockroaches and bed bugs are running rampant. I personally believe that we