

without specialization by virtue of their improved maintenance. Their work has been less conspicuous, but it may have been equally profitable. It is a risky field in which to copy others without understanding the justification for extension.

Next follows a description of our research machinery. I do not suppose we can give a very profound reason for the form it takes. It is, to some degree, a resultant of forces. And we are anxious to improve it. The machinery is not fixed by any unalterable agreement; in fact the charter, so to speak, for our joint research is nothing more than a tentative draft which neither side has signed. It was purposely left flexible. I am sure we can get some improvements from your comments, and I ought to say that a number of able manufacturers, industrialists and Union leaders have helped with their advice.

We have to keep in mind two pieces of joint machinery: the Waste Elimination Committee, sometimes called the Research Committee, and the Research Staff. The staff are, all on the Waste Elimination Committee but, unlike the others, they give full time to research work. The committee is called together occasionally for advice and review of findings and as an additional medium for getting information from and to the body of employees.

The Waste Elimination Committee is composed of nine members. Its chairman is the Technician (myself at this time). The Technician is selected and paid by the Company, but the choice must be approved by Mr. Morris L. Cooke, the preceding president of this Society. The management members are appointed—the acting superintendent, the plant engineer, an overseer, and an extremely keen analyst who was night superintendent in the days when we had a night force. The Union members are the presidents of the two Locals—the United Textile Workers No. 33 and the Loom Fixers' Union No. 30—and two other members, one of whom is changed in accordance with the operation under discussion.

There are two ways in which the activities of the Waste Elimination Committee are spread among the rank and file. The best is the informal method whereby they are regularly and most of the time available for questions by the rank and file. The other is by means of posted notices telling about the meetings. I have made a practice of drawing up the gist of the meetings. The Company has them

mimeographed, and then they are posted on the bulletin boards. Other copies are given to the interested parties for record.

Right here we are faced with a question: should we record all the "battles" we have, and the exaggerated statements, of which we are all occasionally guilty, which do not seem to help? If we do, then the result will be to muzzle the committee. If we do not, if we expurgate the proceedings, then we are chargeable with suppression of news. We need a vigorous committee; and after I have drafted a report of a meeting, both sides are allowed the blue pencil.

As has been brought out, the Union has gone on record as favoring the moves for economy, provided it is protected by representation in setting the standards. The vital part of this protection is here on the research staff. One or the other of the two members is engaged in every kind of study made. As I said, they are paid by the Company. Either side is willing to pay them; but I am told that the fact that the Company pays them is a tremendous earnest of the Company's good faith. These two Union representatives not only make time studies and other tests, but discuss with employees concerned any phase of the work of setting fair job standards. Most of the work is piece work, but our research ends with the settlement of the fair assignment. After the job standard has been made and reviewed, the payment, whatever its form, will be left to negotiations between the Company and the Union, just as in the years previous to this joint research.

The research work proceeds about as follows. After an operation has been decided upon for study, Union delegates and the overseer in the room concerned jointly select a number of average operators for study. We should prefer for several reasons to study first-class operators, and it is my hope that a few more studies will show us how we can use the first-class operators and yet allow a definite percentage of leeway which is labeled and clearly understood to apply to operators who are not yet first class, but who can and will be assisted to become first class.

In addition to the joint selection of operators to be studied we have to get into writing the tentative standard practices which are to obtain while making the tests and will presumably be adopted later for regular manufacture. More often than not,

these standard practices have to be changed as our studies throw light on the facts involved. For example, the interval which should elapse between examinations of the cloth on the looms is a matter of quality and cannot be set without the approval of those in touch with our sales problems. But the similar interval in the spinning room is a simple matter of economy which we determine without difficulty by a couple of tests. When we have our tentative standard practices in writing, the Union representatives go over them with operators in touch with the operations. There is not infrequently some valuable complaint or suggestion in regard to this standard practice.

When the standard practice is ready to adopt, the Union member goes to the operator, or operators, to be studied and tells him the purpose of the study, explains the value of Union protection in the study and the importance to him and his colleagues of telling the research staff of the difficulties which the operator is "up against" or is likely to be. In this way the genuine co-operation of the employe is usually obtained in a short time, especially when that operator becomes convinced that a thorough study is to be made and that the facts, as Mr. O'Connell puts it, are to be "faced" and "used" as well as "found."

We have had two sorts of studies. There are the formal tests of the machines in the exact way that they are to be manned and operated in accordance with the Company objectives. These are called "critical" tests. On some other tests we have had to fumble our way, learning what standard practices are economical, and sometimes showing the operative that some job is less than a fair standard for a day's work. These tests, "critical" or preliminary; are made where those who are concerned can see them. Such tests often carry more conviction in regard to the practicability of a given arrangement than would any assemblage of figures.

After a job is set in this way, the next step is the review by the Waste Elimination Committee. Now it has been established that this is not a voting matter. The Technician presents the figures and each side has an opportunity to criticize the details. Is any factor forgotten? What precautions have been taken against unforeseen delays? Up to what end breakage will the figures be usable? You see that the job of the committee members in this review is merely to present any objection. But the

Technician decides as to the weight of these objections. Responsibility is thus kept single, and one of the main difficulties of the committee is swept away. Also the onus of any unpopular move cannot seriously be charged to any management or Union delegate. If the delegates have presented their views clearly and forcibly, they have done their part.

It may seem at first that considerable power is thus yielded—that the Union, for example, loses its prerogative of having a hand in settling jobs. But this is only true if the Technician closes his eyes to fairly obvious demands made by the delegates. If such were the case, the Technician would soon lose the confidence of that side, and presumably his job, if he did not learn to see fairly straight. If either side has the expectation of getting something for nothing, research, whether joint or not, will not help him to get it. At any rate, I believe that we get pretty much all of the advantages of free discussion without the handicaps of an executive committee, prolonged delay and divided authority.

For the rest I have recorded how joint research relates to the interests of the main groups involved, the management and the Union. Of course this is very much simplified. There are many interests involved in each. The labor leader's interest is not the same as his constituents', nor are the local interests entirely the same as the international. Similarly, the various management interests are different. The overseer has one interest (in most plants it is to keep off the carpet), and it is not always the same as the chief executive's.

What Joint Research Asks of the Management

1. Any company desiring to enlist the genuine co-operation of its employes must safeguard their jobs. No group of American workmen will help you saw off the limb on which it is sitting. But they will help you to save the tree. I need not here go into the moves we are making in this direction; but until we have a large measure of control of sales, and with it master planning, we shall have limited co-operation in spite of our joint machinery. As Mr. O'Connell brought out, the Company, recognizing this, has pledged itself to work toward an unemployment reserve fund and to establish it as soon as it can do so on a sound basis.

I am going to close this point with a quotation