market for full fashioned hosiery in an effort to determine whether there is any immediate risk of a glut in the market. Our program is to try and educate our employers as well as our members to the evils that would fall on us both should our industry drift into the condition which the producers of soft coal, cotton and wheat have experienced in recent years. Our products have now graduated out of the luxury class and have become a staple requirement of the great mass of becomingly dressed women. We have decided that the limitation of production in the shops would not really reduce the danger of over production but would only cause an added influx of machinery and a loss of business. This in turn would affect steady employment.

The rapid extension of the hand to mouth buying system has made quick deliveries imperative in the hosiery business. We urge our members to assist the manufacurers to attract business from unfair shops by enabling them to meet the demands of the market. And in this we have frequently succeeded. The rapid style changes in hosiery, the sudden demand for new colors, for black bottoms and what not, all require quick deliveries from the mills. Style changes stimulate business. We seek to assist the industry by making our people receptive to the need for the adaptations required in the production of these fancy heels and various other novelties. We obviate conflicts between employers and employes by having our people maintain a steady average of high production at all times when conditions in the shop make this possible.

Quantity production is also maintained in some measure through specialization in the various operations in the manufacture of a full fashioned stocking. We encourage specialization. We also seek to have every boy and girl who comes into the trade trained as thoroughly as possible so that the industry is at all times assured of an ample supply of skilled people who are ready for all and any changes that the industry may require. The man knitter may be a specialist but is also well trained in the whole groundwork of the trade. I might mention that in our shops each department is dependent on the other for uninterrupted operation. Each job in the complete routine of production must be as keenly watched as any other, and only by avoiding all friction between these departments of specialists and having real co-ordination between them at all times can we have maximum output in any given plant. In reducing inter-departmental frictions we avoid much waste.

Our union has taken a very strong attitude towards the conduct of our members in the various shops and we are now insisting most emphatically to all our people that they have a definite responsibility in this whole question of waste elimination. We say that we owe to our industry the duty of doing whatever we can to reduce waste of all kinds. Naturally we are not one hundred per cent perfect in carrying out our ideas, but I do believe that we have actually taken the leadership in the industry in bringing about the adoption of more intelligent policies in such matters as these. The traditional methods of labor unions in the past to maintain the status of the worker in industry must be revised in many ways. We must reduce waste, effort and waste of money in strike pay and lostwages just as well as the employer must reduce his percentage of losses through labor troubles. Threats of strikes must be reduced to a minimum as a method of dealing with employers. We cannot use force so frequently as we did in the past and we should not do so even if we could. Surely the power of reason and the influence of education should be brought more into play in modern industry. I do not mean that a trade union should be one bit less militant than in days past. Our organization is every bit as ready to fight today as ever it was but we are much wiser than we were in our earlier days, I feel. We want to get our rights without all the waste required by warfare. And if we have as much brains as we have courage it can be done, I believe. The position we take with our workers is this. We say that the union must win increased benefits for the workers by making the services our members render to the industry so invaluable that the industry will be bound to recognize the need for encouraging this improved service. We have gone into shops in this city in the past few weeks and we have noticed quite an improvement in their production records. We found out why our people were not doing their best work and we stimulated extra effort on the part of groups of workers who had become indifferent for various reasons. These employers have thereby been firmly converted to the idea of doing business through the union and one less

menace of trouble and waste in the industry has been removed. By increasing the intelligence and the morale of the workers in the full fashioned plants in this city, through our enlightened labor union methods, we believe we are demonstrating the great superiority of the trade union organization as against the company union and the so-called welfare worker. Sometimes our employers do not respond easily and then the power of our union can be brought into play, but we so seldom have to force an issue when it becomes clear that our members are really the only people the employers can profitably employ year in and year out. For instance, simply by reducing the labor turnover in the full fashioned mills the employers can save many thousands of dollars.

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Above everything we believe that we can reduce waste of all kinds by developing an understanding among the workers in the industry that misuse of material and men is socially harmful and therefore harmful to both management and men. By developing a real sense of responsibility in each and every worker in the full fashioned industry towards his industry and his union we can bring about an enormous conservation of human effort and expensive material while at the same time cutting down running costs and adding to profits and wages.

## Workers' Participation in Job Study By GEOFFREY C. BROWN Consulting Engineer, East Orange, N. J.

NE of the most characteristic tendencies of modern times unquestionably has been the rapid spread of what is known as the scientific spirit. For upwards of half a century this spirit has been leavening thought, seeping into activity after activity and determining, ultimately, the manner in which an ever increasing variety of problems must be approached and their solutions sought. Like many other terms that have been bandied ponderously to and fro, the meaning of the phrase "scientific spirit" is extremely simple. It signifies a spirit of truth seeking, a desire to know all the facts before essaying the next step. It implies conscious recognition of the fact that social progress, in order to be sound and safe, must rest on accurate observation of things as they are, followed by careful inference as to how these same things perhaps may be improved. In this manner the scientific spirit wisely fashions from the substance of the world of yesterday and of today the somewhat different world of tomorrow.

Job study, or job analysis as it is sometimes called, is a term used to designate the scientific method when applied to the performance of work. It signifies a careful study of any work operation for the purpose of establishing and placing on . record all facts in regard to its work content, manner of performance, output possibilities and influencing factors. Such a study has as its general aim the development of a body of knowledge as to how, under existing conditions, particular jobs may best be performed; "best" in this sense implying on the one hand the idea of greatest safety and general security to the worker, and on the other hand the idea of greatest economy in the expenditure of time, material, mechanical energy and human effort.

It is well known that workers have been exposed to inequitable working conditions owing to ignorance on the part of traditional management, and on the part of the workers themselves, as to a fair work content and output standard for different operations. It has been further established that there is in connection with work much preventable fatigue, ill health and accident through ignorance or carelessness as to the safest way in which particular operations might be performed. It is also known that workers are exposed to much daily monotony and drag owing, doubtless, to absence of knowledge as to the most interesting way in which work periods might be arranged and work performed. It has been established, finally, that in many shops there is unnecessary waste of time, material, mechanical energy and human effort with increased cost of production-owing to ignorance as to the most economical way in which particular jobs should be performed. These four considerations-equity, safety, interest and economy in the performance of work-provide from the workers' standpoint a conclusive argument in favor of job analysis.

For practical evidence of the necessity of jobstudy from the workers' point of view we do not have to go far. This evidence lies all about us. Recently I spent an evening at the home of an official in the United Hatters' Union. Conversa-