

## CHAPTER IX

### SPEEDING UP THE WORKERS

NEW methods and devices for increasing workers' output have been introduced in every industry in the country. All the books in the Labor and Industry series, prepared by the Labor Research Association, dealing with coal, lumber, steel, textiles and automobiles, have described this tendency.\* In the needle trades, this process was somewhat slow in gathering momentum, but the lag has now been almost completely eliminated. Of late, "Everywhere garment manufacturers have been showing the keenest interest in ways and means to keep costs down by speeding up production per unit."<sup>1</sup>

Speeding up of work was particularly noticeable after the introduction of the NRA codes. Even those sections of the industry which had been unable to evade the limitation of working hours reported greater production with the shorter work week. "Many of our people have suffered more since the New Deal than before," reported a St. Paul delegate to the 1934 convention of the Amalgamated Clothing Workers. "Our workers are sped up and then discharged."<sup>2</sup>

Speeding up has prevented the spread of employment; the exact opposite has taken place and has been openly admitted even by the trade press and employers' organizations. Thus, for example, the Southern Garment Manufacturers Association states that since the inauguration of the code provisions the effect has been, "not increase [of] employment, but decreased employment." And the *Daily News Record* declares that "speeding up and higher efficiency have more than offset

\* See Horace B. Davis, *Labor and Steel*; Robert W. Dunn and Jack Hardy, *Labor and Textiles*; Anna Rochester, *Labor and Coal*; Charlotte Todes, *Labor and Lumber*; Robert W. Dunn, *Labor and Automobiles*; Grace Hutchins, *Labor and Silk*.

the shorter hours." <sup>3</sup> The Statistical Division of the Cotton Garment Code Authority points out that "fortified by statistical evidence is the record of 37% increase in efficiency of operators so that the same number of garments could be produced in the much shorter working week." The same authority points out further that:

Plants on a 40-hour basis or less one year ago . . . showed an increase of 25% in the number of garments made per hour by operators in February, 1934. Factories on a 41 to 60 hour week one year ago succeeded in increasing by 73% the number of garments made per operator hour.

The cry of the bosses is "reduce the cost of the garment." When wages and hours have been "adjusted" to the point where additional inroads are either physically impossible or considered tactically unwise, "scientific methods of operation" are applied.

This stage has been reached and passed in garment manufacture, with the result that the industry is coming to the point where garments will be manufactured under conditions very analogous to production methods in force in automobile and tire factories. "Scientific methods," "straight line production," "high-speed machines," "section work," "conveyor systems" and similar devices are receiving careful consideration from every garment manufacturer of standing.

#### *The Speed-Up*

Most ancient of the methods of squeezing greater profits from the workers, long associated with the garment industries and far antedating the "modern era," is the art of speed-up.

Typical of the industry is the story told by Budish and Soule, in *The New Unionism*, of the boss who "made himself obnoxious by walking about the shop and insulting the girls because they were not working fast enough." His slogan was, "These coats must fly like the leaves on a tree, that is the way you must make them fly."

Various refinements of speed-up methods only tended to make the driving more intense. Clever "speeders" were frequently introduced. They received good wages for a short time, until the employers made their excessive output the standard. Frequently bonuses would be paid to the foreman or forelady to increase the productivity of the shop, with loss of job the alternative.

Still other employers insidiously made the worker his own tyrannical boss and sped him up beyond the limits of his health by the introduction of the task system. In this scheme a "team" of three or more was formed. One did the operating, or machine sewing, another the basting, still another the finishing, and so on. Since the task was a team affair on a piece-rate basis the fastest of the group constantly egged on his teammates to keep pace with him.

#### *Standards of Production*

It remained for Sidney Hillman finally to line up the Amalgamated Clothing Workers behind the drive of the employers and to give official trade union blessing to the speeding and driving of the workers. Hillman called his scheme "Standards of Production."

At the Amalgamated Convention in May, 1920, the union definitely broke with its previously accepted militant trade union philosophy and, concerned over the lot of the employers, resolved to accept responsibility for the increase of plant efficiency and to guarantee workers' output. Opposition to this was vigorous, but Hillman, Schlossberg and other officials won the delegates to the proposition that the union must accept responsibility for eliminating "wastes" and "inefficiencies" in production and that "any worker who is falling behind the standard set for his group is warned by the shop chairman, and if necessary properly instructed. If he does not improve the union will not interfere with his discipline." <sup>4</sup>

One of the first plants where this new concept was put into

practice was that of Hart, Schaffner & Marx in Chicago. As a result of their new industrial policy, the union officials undertook to cooperate with the manufacturer in measuring and recording the workers' efficiency for the purpose of devising ways to increase and cheapen output. A pants operator, at work in the plant from 1920 to 1922, described to the writer her experience with this scheme:

The industrial manager of the concern and the business manager of the Union worked in close cahoots throughout. The union representative never asked us for any opinions or information. These he always got from the manager of the firm. On a piecework basis our wages were computed for three months. Then the worker would be put on weekwork for a few days, but given more operations to try out the scheme experimentally. Then back on piecework we went again, on the basis of newly computed rates. We earned as much as formerly, but for more work. During the experiment we were buttressed by two observers. On one side of us stood a business agent of the Amalgamated; on the other the industrial manager of the concern.

The policy, once introduced, became widely prevalent. Companies came to recognize the Amalgamated as cooperating agents in production. They turned over to the union the task of maintaining production standards and discipline.

The 1928 report of the General Executive Board of the Amalgamated points out that while the policy "appears to have its most spectacular results in the well known construction experiment of Hart, Schaffner & Marx, it has been no less successful throughout the market." It was, moreover, taken up by other class-collaborationist garment union officials and put into practice in various centers. The "Cleveland Plan" adopted by the I.L.G.W.U. and the employers' association of that city was described in a management journal as a cooperative enterprise of employers and employees in which "under a specific agreement, wages and hours are based upon the scientific calculation of work and an intelligent study of the processes of industry." <sup>5</sup>

In February, 1929, Dr. John R. Commons of the University of Wisconsin described this practice before a U. S. Senate sub-committee as follows:

In 1925 the Union [the A.C.W.] appointed a committee to meet and to work with the committee of the employers and go through all the shops and find out whether there was any restriction of output and remove it. This affected several firms, but I am speaking of the one that I have in mind, with some 2,000 employees. This particular firm was about to go on the rocks. . . . The union went to work to save that firm from going on the rocks. They enabled it to put on a different line of garment, to sell at a lower price. They cut out all of the restrictions and permitted the company to introduce mechanical devices, and the result is this, that during the period since 1925 the output per man hour has increased just 40 per cent in three years. . . . And the interesting thing about it is that the union points to the financial statements of this company as a justification for their participation with the firm in these various increases in efficiency.<sup>6</sup>

The Amalgamated saved this firm from going on the rocks through a 40% increase in output. Workers who bear the brunt, however, have a bitter tale to tell of the price they pay in order to enable the union officials to point with pride to clothing company financial statements. Commenting on the result of "standards of production," one delegate to the 1926 convention of the union pointed out that "it is impossible for a human being to work in a shop." Another complained that, "The workers are not machines. They are human beings and should be treated as such."<sup>7</sup>

#### *Piece Work*

Most needle trades workers are now paid on a piece work basis. The men's wear trades have for years been on this basis in Chicago and Rochester and since about 1923 in New York. The extent of piece work in the women's wear industry has varied from trade to trade and center to center. However, regardless of the provisions in union agreements, the

facts were made perfectly clear during the 1932 negotiations for a new cloak and suit agreement between the I.L.G.W.U. and the New York employers. The latter admitted at that time that the week work system "has completely broken down *in practice* [and] is incapable of being reestablished." Thus, with the exception of individual crafts within the industries (such as cutting) the piece work system has become nearly universal. It has union sanction and approval—usually openly, sometimes covertly. As Frank P. Ingrassia, President of the Brooklyn Ladies Garment Manufacturers Association summed up the situation upon the signing of the 1932 Cloak and Suit agreement for the New York market (supposed to be the last week work stronghold): "Piece work was not granted in the new agreements, but piece work prevails everywhere under one guise or another."<sup>8</sup> By 1934 even the pretense of week work had disappeared.

In the position which they have consistently maintained throughout the years in favor of piece rates, many employers have frankly stated their objectives. "A girl receiving a higher wage," said Harry Garfinkel, president of the Underwear League, "did not strive as hard as when receiving a piece rate."<sup>9</sup> Other arguments in a similar vein are that "piece work affords a maximum amount of efficiency," "it cuts expenses," it "speeds production," it "reduces waste and labor and reduces the cost of production." In other words, piece rates foster speed-up and serve as a means of driving the workers faster.

In the long run, moreover, the piece work system not only drives the worker at a breathless pace, but does not even increase his wages in return. The worker, paid only for what he produces, is often required to sit about the shop for hours waiting for a garment or a bundle. Moreover, the worker who ekes out a few additional pennies as a result of the mad rush of work, soon finds the increase taken from him, for rates are cut as soon as it is demonstrated that a worker is able steadily to earn "above the norm." At times this is done

in the form of a direct cut in rates. Frequently, however, it is disguised by introducing more complicated styles, requiring more work, at the "flat prices" previously established. The worker soon finds himself working faster and harder but earning less. Lastly, piece work tends to intensify overwork in rush seasons and thus to increase periods of unemployment.

The Amalgamated and I.L.G.W.U. officials, as already noted, have long since accepted the piece work system—usually officially but sometimes on a "bootleg" basis with a fake week work agreement. It is alleged, for example, that it was the Amalgamated which "brought piece-work wage experts" from Chicago and New York when the employers were prepared to introduce the system in the Baltimore market. "These experts fixed standard rates of pay for each of the operations involved in manufacturing men's clothing in the Baltimore market."<sup>10</sup>

#### *Speed-Up as a Profession*

"Organizing" and "modernizing" the clothing plant of today has gotten beyond the scope of the individual employer. The job of reducing processes to as near an automatic basis as possible, making the plant run smoothly, speeding up machinery and depriving thousands of workers of their jobs has become a separate profession. "Modernizer of Clothing Factories," "Consulting Engineers to the Sewing Trades," "Industrial Engineers," and other such terms are used to describe these speed-up "experts."

"Perhaps you are confronted with the necessity of securing more production in fewer working hours—feel that labor cost per unit produced is too high—are undecided about purchasing new equipment. . . . Send us your stitching room problems. . . . We have worked out a plan for supplying technical advice and engineering assistance on a reasonable monthly basis," runs the advertisement of one of these concerns, J. O. Peckman of Chicago.<sup>11</sup> "As consulting engineers for the Sewing Trades," reads another such public advertise-

ment, "we make it our business to know what steps can be taken in adjusting methods, equipment and personnel to meet conditions as they are to-day."

A firm whose shop had been reorganized in this way expressed its appreciation to the outside specialists in a letter which is in the possession of Labor Research Association: "Your Staff Engineer has this day submitted to us a final report. . . . Based on the same production as maintained during the installation of your system, the total savings accruing to us will exceed the survey by close on to 50%."

#### *Rationalizing Garment Production*

As a basis for the establishment of piece rates, carefully administered time studies are conducted from daily records kept of individual operators who are timed at every motion through the use of stop watches. Methods of work as well as products are standardized. Departments are created specializing in only one class of work, such as coats, pants, shirts, vests and so on. Depending upon individual conditions, some departments are so designed as to turn out volume of work; others are designed to make small lots for immediate delivery. But in any case each department is so laid out as to be fed the same kind of work over as long a period of time as possible, consistent with delivery requirements.

A regular flow of work is thus established in the most highly rationalized plants to obtain maximum production. In larger plants schedules are set up prescribing the rotation in which batches of work are to proceed from department to department. In somewhat smaller plants a machine is used on which a girl may stitch a sleeve, for example, which will then fall into a bin from where it is picked up by another girl who will put it through a second process, pass it on to the next girl and so on until the garment is finished. The work, of course, is laid out so that each operation takes approximately the same length of time. On this basis, the work is made continuous without loss of time and motion.

Cutting is also being reduced in the more highly organized plants to as exact a science as possible. Studies are being made of economy of layout as well as of the time consumed in cutting. The cutter is furnished with instructions as to the exact quantity and sizes of each lay, how many lengths shall be cut from each piece of goods, and the like, so that he works from careful plans. While, however, the number of thicknesses of cloth through which the newer electrical knives are pushed at a single time is being constantly increased, it is thought wisest in most plants not to introduce a system of wage payment, such as piece work, which will encourage the cutter to work too fast. Conservation of material and accuracy of work are considered too important to encourage excessive speed in this department.

As a further detail, some shops post the results of each worker's performance. This, according to one authority, is supposed to create "a spirit of friendly competition and proves to those who are not doing the work in the time allowed that it can be done."

Inherent in the process of rationalization is the reduction of work to the smallest possible unit and keeping the worker at one continuous and repetitive operation. The skilled tailor of old is a fast disappearing factor in the trade. To-day his successor performs a single monotonous operation. As the foreman of a large men's clothing plant explained recently to the writer, "during my years in this shop we've subsectionalized to the point where, for every former single operation, we now have a dozen or more."

Not only are most factories divided into departments, but within these departments each worker performs a single minute operation. Beginning with the cutting department one man lays out the goods, another chalks patterns on a marker, a third puts the marker on the pile of goods, a fourth cuts the "lay" with electrically driven cutting machines.

In the sewing rooms an operator will sew a single seam,

the garments passing in this manner through the department in a steady stream. Pockets and facings are put together and sewed-in in a similar manner in another department, and so on until the garment is completed. Buttonholes are made separately and in some plants the garment passes through the hands of as many as seven pressers, each operator pressing only one part. In this fashion so simple an item as a lounge jacket goes through more than 40 different hands in some shops.

#### *High Speed Machinery*

Installation of faster machines is another method employed to reduce "labor costs" still further. Under circumstances of maximum speed-up and most efficient plant lay-out, about the only variable remaining is the efficiency and productive capacity of the equipment and machinery. A worker's hand, for example, can sew about 50-75 stitches a minute. A modern sewing machine can operate at a speed of thousands of stitches per minute with the number continually increasing as new machines are developed.

"If it is sewed, you can do it faster and cheaper," advertises one of the larger sewing equipment manufacturers. "The old struggle for survival of the fittest is being re-enacted," reads the advertisement of another which continues, "Here's the answer. Modern high-speed machines pay for themselves." They might have added, "They pay for themselves at the expense of the workers as a result of the lightning speed and instant starting and stopping of which we so proudly boast." No other conclusion is possible from such claims as that made by the Union Special Machine Co. of a production increase of 40% in a plant which installed their equipment. And, "These comparisons," it is added, "are not with old or antiquated equipment, but with former sewing machines which were thought entirely adequate less than a year ago."

Due to the enormous amount of detail work which must be

done in order to produce such a garment as a suit of clothes, modern machine improvements do not lend themselves to any single concrete and dramatic invention. Instead we find machine manufacturers giving minute consideration to each detail involved in the production of every seam and each part of a garment. All in all, there have been thousands of such machine improvements, of which we can only mention a few as indicative of the kind and type being installed in garment shops:

*Cloth laying* machines, a single model of which is advertised as being used in over 2500 factories, is claimed to save 50% on spreading costs. Wherever cloth is cut in lays, a man or boy can pile a lay of goods on the table in half the time two men could do the same work by hand. Contains adjustments for different width goods, automatic cloth catchers, automatic counting devices, etc.

*Cutting* machines of both straight and round knife types are being continually improved with simpler, stronger and faster motors and other improvements. These machines are made for every fabric, from the finest silk to the coarsest material made. At a test made by the quartermaster of the U. S. Marine Corps at Philadelphia, one of the circular cutters went through army cloth piled 60 thicknesses high.

*Transmitters:* In the sewing rooms every machine is adapted to the purpose of instantaneous starting and stopping and high speed transmission of power. "There is very real profit to be gained from the few seconds that are usually wasted while the machine gets up to speed each time it is started," points the manufacturer of a recent type so constructed that "maximum speed is delivered in split-second time."

*Tables* are designed and constructed to make possible fast stopping and starting and even flow of work. Machine and table are so attached as to eliminate from the former vibrations from the table and other units. Experience has shown this to be a considerable impetus to high production speed.

*Needles* of a new standardized chromium plated type are being specially designed for every purpose. Air-cooling of needles, to avoid breakage under high speed and wear-and-tear, is also being perfected.

*Folding, shaping and creasing* of every description are machine operations. Collar point forming, shaping and turning are

now done entirely by machine to a point where workers no longer are needed even for the purpose of applying heating irons to the material, as formerly. Pockets and other turned parts can be made on the same principle.

In the *sewing* departments improvements are countless in number, but all have the objectives of savings in manufacturing costs through greater speed and the combination of several complicated sewing jobs into a single simple operation.

A new and better lockstitch machine, for example, to sew sleeve linings at the cuffs, reproduces the finest handwork at machine speed. Only the sleeve end of the coat is handled, giving speed and accuracy.

For attaching waistbands to pants a new machine is now being introduced through which some firms report production of better than 1000 pairs a day per operator. A production of 250 pairs a day was considered average only two years ago. On seersucker suits a new machine for serging pockets turns out 85 garments an hour. The same machine serges flies at the rate of over 225 an hour. For closing and cording pants side seams on this type of clothes, machine production of 25 garments an hour is possible. Another seam serging machine averages 40 garments an hour. Machines for taping edges of coats and another for setting sleeves can also each average 25 garments an hour.

*Felling*: "The Lewis will fell linings ten times faster than is possible by hand," claims the manufacturer of one type of machine. In the felling of trouser waistbands, another machine manufacturer advertised that his customers had reported back, "Our operators average 900 pairs of trousers per day. . . . It also saves us time in certain incidental operations."

*Seaming*: Time studies made in the plant of the Henry I. Siegel Co., Scranton, Pa., manufacturers of pants of worsted, serges, and other materials, showed the following results: After the installation of the newest seaming machinery, production on inseams was found to average 864 pairs per eight hour day, as compared with 600 per day on older style pants seaming machines—a 44% increase. On outseams the new output was 434 per eight hour day, compared with a former figure of 358 pairs per day—21.2% increase per worker.

*Hemming*: Installation of new machinery in this department of one of the large overall manufacturing plants brought the following report: "Production on hemming pocket tops was immediately doubled. Each of these machines turned out 300 dozen pairs per 9 hour day, a 100% increase . . . yet these new high

speed machines were only making a preliminary showing. Later reports show production has improved upon the former record by an additional 18%, turning out 354 dozen pairs per day." Dress factories report up to 50% greater production in hemming and binding through the use of a similar machine.

*Button holes*: Machines automatically cut and stitch the button hole. By simply shifting a lever the operator can cause the machine to make the button holes with or without an eye.

*Button sewing*: Machinery winds a neck of thread between the button and fabric, giving a neat and tailored finish. Also sews a top and stay button in one operation.

*Pressing*: Electrically operated pressing machines of every type—collar, shoulder, trouser, under pressing, off-pressing, etc.—turn out many more times as much work as the hand pressers. Perfection of these machines to the point where all that is required is a slight pressure of the toe and a touch of the hand lever makes possible top speed all day long.

*Machine time and speed clocks*: Even the task of superintending and pushing labor is being made automatic. For example, the Union Special Machine Co., which specializes on sewing equipment, announces the Tachometer—to "Detect Production Losses." "At what speed are you operating your sewing machines?" they ask plant owners. "The only speed you are interested in is the actual speed at which your machines sew seams, and the only way to be positive about this is to use a tachometer. With a tachometer any one can check the machines regularly to see that they are operating at their most efficient speed. If they are not, this can be remedied easily."

As already indicated, these are only a very few of the almost infinite number and type of new, high-speed machines. Almost every variety of sewing operation on any type of garment has its own machine of special design so that there is an astonishing variety of models on the market. New designs and models appear almost faster than they can be catalogued and every new kink and wrinkle imposed by fashion is the immediate signal for a new crop.

#### *Effect on the Workers*

As a result of all of these methods and devices for reducing labor costs, clothing workers are confronted with as dan-

gerous a speed-up system as will be found in any industry. And this is accompanied, at the same time, with a rapid decline in the number of available jobs and a continued decrease in the number of work-weeks per year and in the length of periods of employment. Sidney Hillman, who himself helped to inaugurate the conditions leading to such a state of affairs, testified at a government hearing in 1932, "It takes 50 per cent of the people to produce as many garments to-day as it did in 1915."

Manufacturing efficiency has gone up to the point where Fordized specialization and automatic flow of work have made modern clothing shops very similar to army units, each under the command of a foreman or sub-foreman.

Not every clothing factory has reached the stage where all of the "reforms"—as the bosses call them—described in this chapter are as yet in effect. The relentless laws of capitalist competition, however, are such that the process is gaining increased momentum.