Workers in the Silk:
An Exploration of the Paterson Silk Industry

by John A. Herbst and Thomas D. Carroll

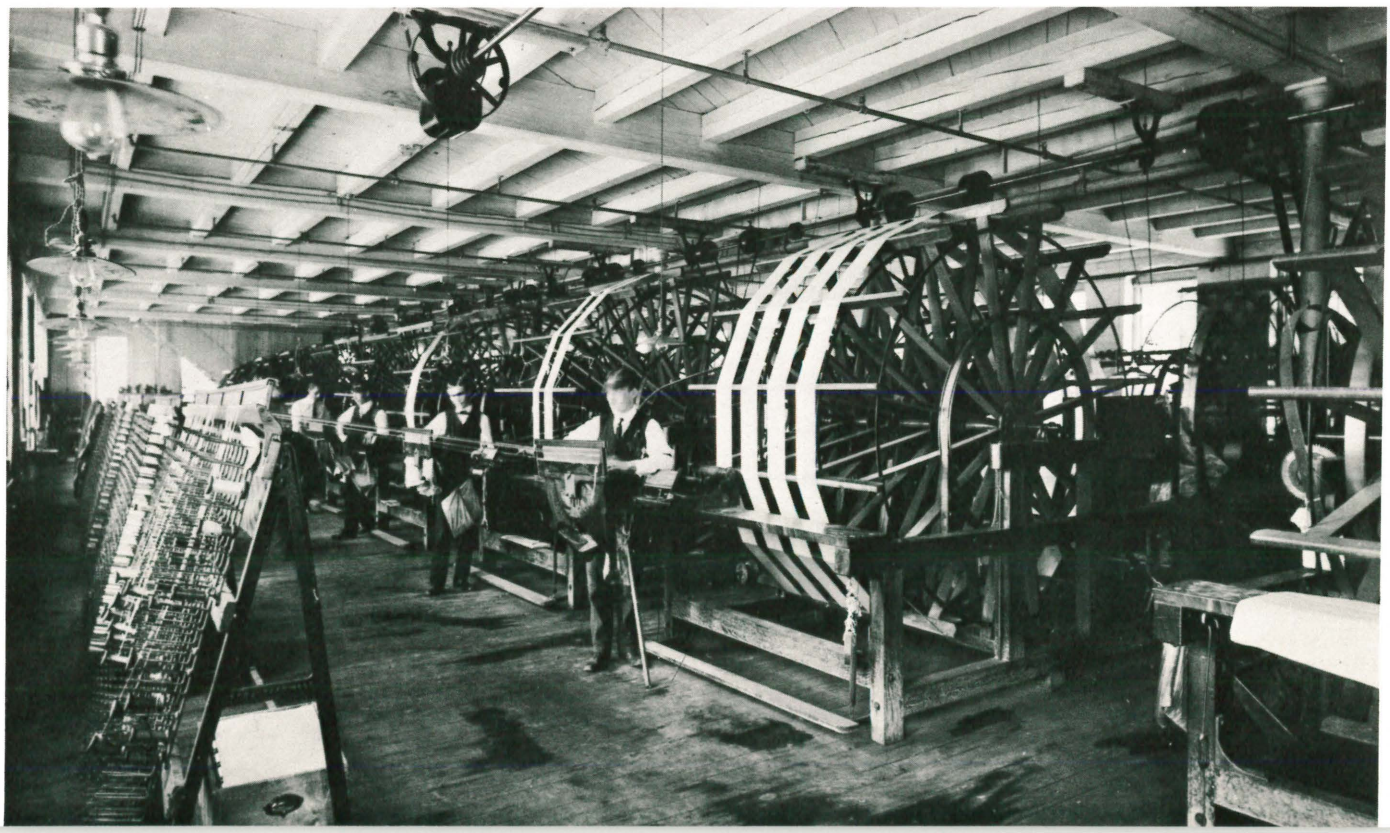
Workers in the Paterson silk industry in the first third of this century sought employment there for two basic reasons: money and family. When asked why she had decided to enter the trade, one worker replied, "because it paid more money." But she was also able to obtain a position in the mill because her father was a weaver there.

Whatever their incentives to enter the trade, once hired, workers tended to remain at their jobs for a long time. New workers, especially those in semi-skilled positions, were generally trained by their supervisors. More highly skilled positions, such as that of weaver, usually required a more traditional form of training. One worker remembered that her father, a Jacquard weaver, had said:

> "You come down to work with me. I'll teach you to weave." So I went down, and that's where I learned to weave. Then they give me my own loom. This transmission of skill from parent to child seems to have been common practice in the Paterson silk industry.

Paterson had achieved prominence in the nineteenth century as one of the great industrial cities in America. Centered around the Great Falls of the Passaic River, it grew as the nation's first planned industrial center. It was sponsored in 1792 by Alexander Hamilton through the Society for Establishing Useful Manufactures (S.U.M.), a private corporation which was to carry out Hamilton's vision of an industrial nation.

Hamilton and the S.U.M. began the creation of what was to become a powerful city of industry. Connected by a three tiered water-power system designed by Pierre L'Enfant, architect of Washington, D.C., Patersons's nineteenth century mills produced textiles, Colt revolvers, machinery, and



c. 1880's "Warpers" wind the threads onto a beam in the bed of the loom. These threads combine to form the length, or warp, or the woven fabric. From the collection of The American Labor Museum.

locomotives. The city also became the major producer of silk in the United States, and it was this industry which had a pervasive effect on the population, for everyone had ties to the manufacture of this esteemed textile.

By 1870, Paterson was famous as the "Silk City of the New World" or the "Lyons of America," after the famous silk center of Europe in France. By 1876 more than 8,000 people worked in the silk industry; by 1910 their numbers had increased to more than 20,000.

In contrast to other industries, which relied on unskilled laborers, the silk process required workers specialized in the techniques of warping and weaving. To fill this need, immigrants began arriving from European textile centers where their families had woven cotton, silk, wool, or linen for generations. Thus residents of Paterson today can trace their ancestry back to Macclesfield and Coventry in England, Belfast in Ireland, Krefeld in Germany, Biella and Commo in Italy, or Lodz in Poland.

Families leaving these centers shared a common experience of protest against the industrialization of their craft. In the Old World, cottage or workshop based craftspeople had held artisan positions with high status in their society. The gradual move to the factory system resulted not only in the displacement of workers through increased mechanization of the textile process, but a loss of economic independence and social standing for them as well. Consequently Paterson silk workers of varying nationalities shared an openness to trade unionism.

Arriving in Paterson, immigrants joined other families from their homelands in neighborhoods and streetcar suburbs of the city. The names of these ethnic enclaves reflect the occupations and countries of origin of the workers: Weavertown, Dublin, Belgium Hill, Little Italy, and Little Holland. From tenements, private homes and company housing, workers left before dawn to begin their 10-12 hour day, six days a week in one of the 300 mills of Silk City.

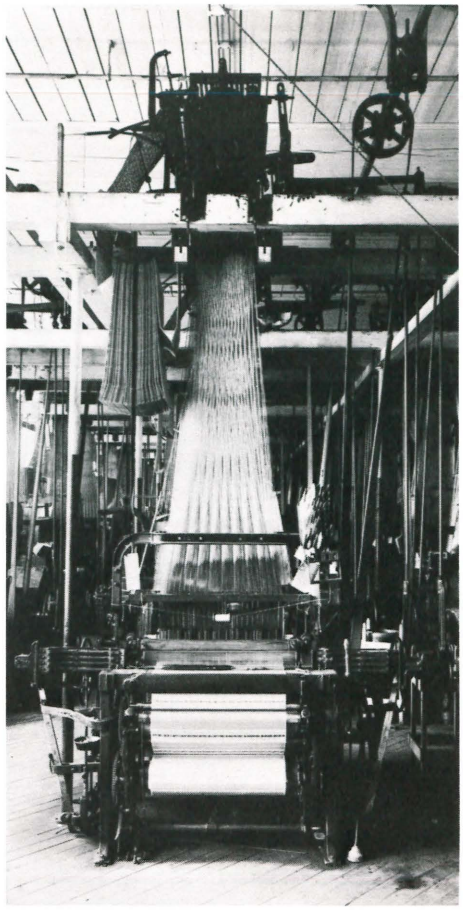
While on the job, mill workers wore good shoes for support because they were on their feet all day. They also changed clothing when they arrived at the mill and put on aprons, because oil and grease from the machinery would otherwise stain shirts and dresses. Additionally, female workers wore their hair short or kept it tied up high on their heads, since long hair and even apron strings could be caught by the drive belt or drawn into the loom mechanism itself.

The mill environment, though clean and well-lit, was very noisy. One woman remembers going to visit her mother, who was a warper: "I used to hate to go through that mill, it was so noisy. I used to say, 'Mom, how could you stand it?' " To cope with the noise "we had to talk loud, but you could talk over the machine."

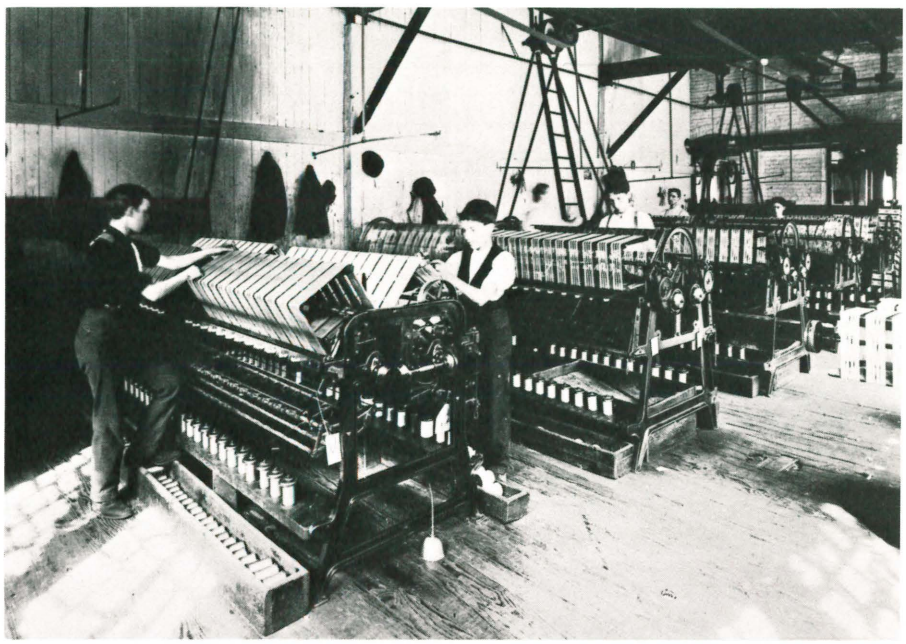
Interaction among the workers was nevertheless limited, as the nature of the work demanded their close and constant attention, and because they were paid on a piecework system, which linked their wages directly to the amount of goods they produced. The worker was also aware of the importance of her place as a teamworker in the larger process of production. As one quill-winder noted when asked about the consequences of falling behind in her work, "Well, then, the weaver wouldn't get his quills . . . his quills ran out at a certain time and he had to have the board ready for him to renew."

While on the job, most workers carried with them a small pair of scissors about two inches long, often in the pocket of their apron but usually in their hand: "You had the scissors in your hand all day long . . . little bitsy things, and you always had it on your finger." Weavers also worked with other tools, which were laid before them on the loom: "The loom had a board across it, and it had a little groove in it. And you kept your pick and your shuttle-threader and your hook there." The pick was used to remove flaws from the woven fabric, the shuttle-threader to position the silk that formed the weft, and the hook to pull broken threads of the warp through the reed.

Weavers often had to make minor adjustments on the loom, as did other workers who tended the machinery in the mill: "You worked on a mechanical loom, and you got used to things that happened." While a loomfixer patrolled the floor constantly, sometimes stopping to chat with the operators, in troublesome cases, he would be summoned to solve the more complicated mechanical problems.



c. 1880's A Jacquard loom fixed with a special punched card which programmed the design, and permitted the weaving of complicated patterns into fabric. We still weave according to Jacquard pattern. From the collection of The American Labor Museum.



c. 1865. Young boys, or "winders," operating the winding machines. The thread is wound onto bobbins and quills. From the collection of the Passaic County Historical Society.

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Suggested reading

Brockett, L. P. *The Silk Industry in America.* New York: The Silk Association of America, 1876.

Herbst, John A. "A Slice of the Earth." Haledon, New Jersey: American Labor Museum, 1982.

Messenger, Betty. *Picking up the Linen Threads: A Study in Industrial Folklore.* Austin: The Univerity of Texas Press, 1978.

The machinery was, however, generally viewed favorably and even with pride by the mill workers, for accidents in the mills were few and usually not serious. When speaking of the power loom, one worker admiringly observed that "the mechanism was really a work of art." Just as the machine was admired, so was the weaver, a position to which many less highly-skilled workers aspired. One woman who had been a quill-winder and subsequently a weaver described her feelings about the promotion succinctly: "You felt like you had accomplished something if you could master weaving on one of those looms. Because they were complicated, you know. You felt like you did something great."

A Glossary of Terms

Jacquard – a loom fixed with an 18th century apparatus that was devised by Joseph Marie Jacquard of Lyons, France to permit the weaving of fabrics with complicated patterns.

Loom – a machine which weaves the threads of the warp with the threads of the weft at right angles to produce a woven fabric.

Reed – a tool composed of very thin pieces of flattened steel or brass which were set into a frame very much like the teeth of a comb. In the early days of weaving, these were usually made of reed or cane, hence the name. These "teeth" were set very closely together to form a very fine comb. The threads of the warp were drawn through the reed by the *reed-sticker,* who prepared the loom for weaving.

Warp – those threads which combine to form the length of the woven fabric. The threads of the warp were wound onto a beam by warpers. This beam was placed in the bed of the loom opposite where the worker stood. The bed of the loom comprised most of its length from front to back. The weaver stood in front of the loom, facing the back. The warp was drawn toward the weaver, that is, through the bed and into the loom itself.

Weft – the threads which formed the width of the woven fabric. In weaving, the loom separated the threads of the warp vertically, forming a space (sometimes called the shed) through which the threads of the weft were drawn. The threads of the weft were wound onto a *quill* by the *quill-winder.* The quill was then placed into the *shuttle* by the weaver. The shuttle was an oblong piece of wood with a depression in its upper side, into which the quill was placed. The shuttle was then driven through the gap in the warp, or shed, forming the weft of the fabric. The process was then repeated. The weft is also sometimes called the woof or the shoot.