Mill operatives, Dover, N.H., ca. 1900

Lucy Larcom, Harriet Hanson Robinson, Harriet Farley, and Sarah Bagley, contemporaries who were at one time or another associated with the literary magazine the *Lowell Offering.* Larcom, who spent approximately 12 years in the Lawrence Company Mills, began writing poetry for the *Offering.* Later a friend and business associate of John Greenleaf Whittier's, Larcom was a member of the New England literati, an editor for Ticknor and Fields publishing house, and a popular poet. In 1884 Houghton Mifflin published the *Household Edition of Larcom's Poetical Works.* Harriet Hanson Robinson, also a contributor to the *Offering,* chronicled the life of the mill girls' community in her book *Loom and Spindle* (1898). Both Harriet Farley and Sarah Bagley distinguished themselves in the position of editor: Farley of the *Lowell Offering,* and Bagley of the labor-union newspaper *The Voice of Industry.* The relationship between Farley and Bagley was often contentious because their views differed on such issues as the social role of women, the working conditions in the mills, and whether women writers should enter the political sphere. Later in life Sarah Bagley became superintendent of the Lowell telegraph office and is believed to have been the nation's first female telegrapher.

Labor activism began among mill girls of Dover, N.H., and Lowell in the early 19th century. About 400 workers staged a walkout in Dover in 1828 to protest "obnoxious regulations"; the first walkout in Lowell was in 1834. Throughout the 1830s and 1840s, mill girls agitated against pay cuts, rent increases for company housing, longer work hours, production speedups, and regulations restricting women's freedoms inside and outside factories. Poems and speeches evoked the rhetoric of the American Revolution, claiming that Yankee women would not be treated as slaves. Some 2,000 workers struck in 1836, forming the Factory Girls' Association. Labor activism among native-born women peaked in the 1840s.

Most agitation failed, however, when owners advertised for new operators and turned out leaders, or when weak markets undercut the workers' bargaining position. Owners also responded by hiring immigrants—Irish in the 1840s and 1850s, and French Canadians and other immigrant groups after the Civil War. Nevertheless, a tradition of female labor agitation had been established that would rise again with the famous Bread and Roses strike against the American Woolen Company of Lawrence in 1912.

Mary Blewett, *We Will Rise in Our Might: Workingwomen's Voices from 19th-Century New England* (1991); Thomas Dublin, *Women at Work: The Transformation of Work and Community in Lowell, Massachusetts, 1826–1860* (1979); Dublin, *Transforming Women's Work: New England Lives in the Industrial Revolution* (1994); Shirley Marchalonis, *The Worlds of Lucy Larcom, 1824–1893* (1989).

Susan Alves

Museums of Industry, Technology, and Labor (Table, opposite)

Plastics Plastics are synthetic materials molded, cast, or extruded into various shapes. Production of celluloid plastic in Massachusetts began about 1890, 21 years after its discovery. The most successful celluloid firm was Viscoloid, founded in 1901 when Bernard Doyle, who supplied horn to combmakers in Leominster, realized that celluloid was an excellent substitute for increasingly scarce horn and ivory. Made from nitrated cellulose and camphor, the celluloid was molded and pressed in blocks, cut into sheets similar to horn or tortoiseshell, and then processed by traditional combmaking techniques. By 1925, when Du Pont purchased Viscoloid, several Leominster firms fabricated objects from celluloid sheet. One successful company was Foster Grant, headed by Samuel Foster, Jr., and his son Joseph, who commercialized injection molding of finished objects from cellulose acetate in 1934.

Injection molding transformed the plastics industry during the 1940s. No longer "the comb city," Leominster became "the plastic city," a center of molders, fabricators, and companies like Standard Tool, which made molds and presses. Opposing integration of supply by petrochemical companies, in 1954 Foster Grant opened a plant at Baton Rouge, La., to produce styrene monomer, the source of polystyrene, for the firm's trademark sunglasses. After American Hoechst purchased Foster Grant in 1974, gradually phasing out local production, Leominster remained home to molding companies like Union Products, known for its polyethylene pink flamingos.

Other New England cities entered plastics manufacture after Bakelite phenolic resin was commercialized in 1909. Waterbury, Conn., known for brass manufacturing, attracted molders of phenolic because it could be substituted for brass in some applications. Plastic molding also developed in areas with a concentration of machinists to provide molds, presses, and other equipment, such as Bridgeport and Hartford, Conn., and the mill towns of Rhode Island and southeastern Massachusetts. Reed-Prentice of Worcester, Mass., became a leading U.S. manufacturer of molding presses. Makalot, a Boston resin supplier, sold phenolic compounds to several local molding firms, such as Northern Industrial Chemical. General Electric, which molded plugs, switch plates, and bases of radio tubes in Pittsfield, Mass., also became a large national "custom molder," providing other manufacturers with molded parts to order. After World War II,