

NEW DAWN OF INDUSTRY

By our industry correspondent

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THE MILL TOWN of Lowell in Massachusetts has been created in honor of Francis Cabot Lowell, a pioneer of America's Industrial Revolution. His cotton mill in Waltham was the first in the U.S. to turn raw cotton into finished cloth, all under one roof.

Created by a Boston association of investors, a group eager to exploit recent advances in technology, Lowell will serve as a model for the new industrial age. The new town will be a center for textile mills and factories and will be powered by an ambitious canal system. The mills will weave cotton picked by slaves in southern states and transported to the North.

Much of Massachusetts has become a hotbed of technology. The state is at the forefront of the Industrial Revolution and is fast becoming the workshop of America. Factories are springing up everywhere, producing tools and paper as well as wool and cotton textiles.

A chain bridge at Newburyport is said to be the first suspension bridge in the U.S. And the Middlesex Canal is one of the first engineering projects of its kind. Completed in 1803, it connects the Merrimack River to Boston, opening up new opportunities. In Woburn, the canal allows vessels to deliver bark to tanneries, which create dye from the bark and use it to color leather. As a result, the town's shoemaking and leather businesses are booming.



Despite technological advances, many factories still rely on child labor to operate machinery. The children are often treated harshly, their safety neglected.

There are few calls to ban child labor, but campaigners want the state to limit children's

daily working hours and require them to attend school for some months of the year.

Under Francis Cabot Lowell's system, young women, or "Mill Girls," carry out the work, though they are paid less than men, and children are not employed.

THE PLYMOUTH Cordage Company, founded in 1824, became one of the largest producers of rope and twine in the world. In the late 19th century, its workforce got a significant boost from a new wave of immigrants from Italy, Portugal, and Alsace-Lorraine. The company specialized in ship rigging—ropes used to hold up and control the sails—and made the rope used on the USS *Constitution*. To make rope, workers put fibers around their waists and walked backward down the 90-foot-long rope walk as they twisted the fibers. The company was the largest employer in Plymouth for more than 100 years. Another Massachusetts industrial success story is Crane Currency, a 200-year-old papermaking company from Dalton which in 1879 won the contract to make the paper used for U.S. banknotes.