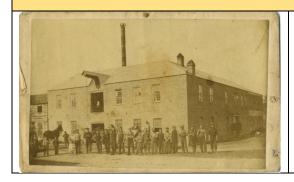
Chapter 68g -- We The People In 1820: The Northern Economy



Dates: Sections: 1820 • Indus

- Industrialization Begins To Take Hold in the North
- Francis Lowell's Purloined Textile Mill Starts Up

Time: 1820

Industrialization Begins To Take Hold In The North



Workers Gathered in Front of Brown's Factory in Boston

While the southern economy is narrowly focused, the North is beginning to realize the benefits that Alexander Hamilton envisioned in capitalism and industrialization.

His ambition is to have America lead the world in "manufactures," soon referred to as "manufacturing."

Manufacturing is where "supply meets demand" for desired goods – especially those things that the typical farm household of the time is unable to make readily on their own. Fine clothing, furniture, glassware, carriages, firearms, timepieces, books, tools and so forth.

According to Hamilton, "manufacturing" will be driven by individual entrepreneurs who:

- Spot the emerging needs and wants of consumers;
- Design a workshop/factory to produce the desired goods;

- Secure needed capital through bank loans, stock offerings or their own cash;
- Locate the space, machines, workers, etc. to start up their operation;
- Make and deliver high quality products at affordable prices; and
- Achieve sufficient profitability to pay back investors for risking their capital.

Clearing all these hurdles will prove challenging, and many will fail.

But some entrepreneurs will persevere and succeed.

"Specializing" will be one key determinant.

Making "bolts of cloth," for example, will require first, de-constructing the overall process into discrete steps, and then optimizing methods used at each step. Critical "know-how" accrues from trial and error – the more bolts of cloth produced, the more efficient and effective the manufacturer becomes.

If high demand and profitability continue over time, opportunities to "automate" some of their processes may materialize. A new machine may be invented to spin cotton into thread or weave it into yarn that produces higher quality cloth at lower costs than was possible using hand labor.

Furthermore, they may be the only manufacturer around with enough "scale" (i.e. demand for their cloth) to be able to invest in the new machine and enjoy its cost "economies." This endows them with competitive advantages that can become monopoly-like.

Finally, enough buyers of cloth may decide that one manufacturer consistently delivers better value for their money (high quality at fair prices) than its competitors, and become loyal to that supplier's "brand."

Those few companies that achieve "brand loyalty" can long endure.

Earliest Manufacturer Brands In The U.S.

Year	Brand Name	Industry
1795	Dixon Ticonderoga	Pencils
1796	Jim Beam	Distillery
1798	Pratt Read	Tools
1801	Crane & Co.	Papermaking
1802	DuPont	Chemicals
1806	Colgate	Consumer Goods
1807	Sterling Sugars	Sugar
1811	Pfalzgraff	Ceramics
1812	Waterbury Button	Buttons
1813	Conti Group	Meat Products
1815	Loane Brothers	Tents
1816	Remington	Firearms
1818	Brooks Brothers	Clothing

The growth of manufacturing in America is also hastened by events such as the 1807 Embargo, the War of 1812 and the Dallas Tariff of 1816, each of which limit foreign imports.

One entrepreneur who takes advantage of these events is Francis Cabot Lowell, who founds the Boston Manufacturing Company in 1814.

Time: 1814 Forward

Francis Lowell's Purloined Textile Mill Starts Up



Lowell's Textile Mill in Massachusetts

Francis Lowell is born in Newburyport, Massachusetts in 1775 to wealthy and influential parents. After graduating from Harvard in 1793, he starts up a sizable business in Boston that imports textiles made in China and India and sells them from a retail storefront on the city wharf.

The interruption of his trade owing to Jefferson's Embargo Act of 1807, sparks Lowell's interest in manufacturing his own textiles domestically. But he initially lacks the know-how required to start up such a complicated operation.

He solves this on a two-year trip to England and Scotland, where he visits various textile mills and literally memorizes the details of their manufacturing processes – in the grand capitalist tradition of "know the world and steal the best."

Upon his return to Boston, he transfers the blueprints he has carried home in his head to paper, sets up a corporation, The Boston Manufacturing Company, and begins the search for the cash needed to build his own factory.

He quickly raises the money by selling \$1,000 shares of stock in his corporation to a string of wealthy investors who have enough faith in his venture to risk their own money to back it.

Lowell's first mill, completed in late 1814, is located in Waltham, Massachusetts, with its spinning and weaving machines powered by water turbines driven by the currents of the Charles River. (Steam powered machines will not appear until the 1840's.)

It becomes the first U.S. mill that completes all of the steps required to convert raw cotton into finished cloth – under one roof.

Raw cotton \rightarrow cleaning \rightarrow carding \rightarrow spinning to thread/yarn \rightarrow weaving \rightarrow whole cloth

As such it delivers on all of the promises of efficient production that Hamilton foresaw, and is hugely successful from its start-up.

Unfortunately Lowell suffers from a condition known as tic douloureux, an excruciatingly painful nerve disease of the face, that hastens his death in 1817, at age 42 years.

But by then a second mill is up and running, and in 1822, several more north on the Merrimack River have been built by Lowell's corporate partners and successors. To honor him, they name their new industrial town Lowell, Massachusetts.