

“Bird’s-Eye View,” Turners Falls, 1877
River’s bend showing dam, canal, and paper mills.
 Source: O.H. Bailey & Co., C.H. Vogt (Milwaukee, 1877).

Industrialists were attracted by the cheap power from the dam at Turners Falls. The first was the John Russell Cutlery Company (1868), then the largest cutlery company in America. Best known for the Jim Bowie knife, it employed 1,200 people at its height. Paper mills quickly followed, along with a cotton mill and Turners Falls Power Company (1885), later Western Massachusetts Electric Company. Downtown Turners Falls was a vibrant place. Avenue A, the main commercial street, was designed as a grand tree-lined avenue. From 1895 to 1934 an electric trolley ran up Avenue A enroute from Greenfield to Montague and Millers Falls. At the height of Montague’s “Big Dig”—the construction of an expanded dam and power canal (1903-14)—Turners Falls had four hotels and direct rail service from New York City. There were also taverns as well as the Colle Opera House. Built in 1874, it seated one thousand. Development was fueled by a flood of immigrants, primarily Irish, French Canadian, Polish, and German.

PHOTO ESSAY

On A Roll:

The Story of Papermaking in Turners Falls

SHEILA DAMKOEHLER



Editor's Introduction: *Turners Falls is a small, unincorporated village in the town of Montague in Franklin County, MA. It is located just east of Greenfield, on a bend in the Connecticut River near Route 2. The population was 4,470 at the 2010 census. Once a thriving community of paper mills and other manufacturing industries, the village saw a sharp decline in its economy beginning with the Great Depression. Similar to many former mill towns (whether paper or textile), today it remains poorer than the state average: about 13.4% of families and 18.9% of the population are below the poverty line. However, Turners Falls has been experiencing a renaissance over the past decade. As one local reporter noted, "Where there was once empty storefronts, there's now a vibrant downtown with a plethora of restaurants, a thriving arts community, a steady growth in new businesses."¹ The village's website boasts that:*

Turners Falls has always been considered attractive to artists, even before it emerged from its decades-long period of decline and decay (1950-1980). The village's industrial character, architectural

integrity and its setting along one of the most scenic stretches of the Connecticut River have combined to create a visual quality that is appealing to artists who have in many cases relocated from Boston and New York City.

Today, many outstanding examples of the late nineteenth-century architecture survive in the Turners Falls Historic District, which is listed on the National Historic Register of Places. The town of Montague made a concerted effort to preserve the village's architectural heritage as part of its ongoing revitalization efforts. The town identified three sites that were central to the revitalization efforts: the Cutlery Block, the Crocker Building, and the Colle Opera House. With a creative mix of public and nonprofit funding, all three were rehabilitated. Following the advent of the RiverCulture program in 2005, Turners Falls offers residents and visitors alike a full calendar of events. One can attend a wide variety of shows at the renovated Shea Theater and programming at the Great Falls Discovery Center, an environmental center featuring the ecology and the cultural and industrial histories of the Connecticut River Valley region. All of these initiatives have contributed to today's revitalization efforts.

However, the remarkable history of Turners Falls remains little known outside the village. In this photo essay, Sheila Damkoehler offers a fascinating overview of the papermaking industry and of Turners Falls' meteoric rise and fall as a planned industrial community. Damkoehler is a seasonal park interpreter at the Great Falls Discovery Center (GFDC) in Turners Falls. In September, 2018, Damkoehler co-created the GFDC exhibit "On a Roll" about the history of papermaking in Turners Falls, held in conjunction with "PaperJam," a community art exhibit curated by the local performance arts group Exploded View.

The Great Falls Discovery Center is a Massachusetts Department of Conservation and Recreation (DCR) state park dedicated to the natural, cultural, and industrial heritage of the Connecticut River watershed. The DCR's mission is "to protect, promote and enhance our common wealth of natural, cultural and recreational resources for the well-being of all." The park, open year round in Turners Falls, opened its doors in 2003. Through exhibits, vibrant partnerships, and community programming, it serves a growing number of both local and out-of-town visitors. The DCR also manages the three-mile-long Canalside Rail Trail, part of which runs alongside the canal, offering a view of the mill buildings that remain.²

The year is 1798, just seventy years or so before industrialist Alvah Crocker comes to Turners Falls, Massachusetts. The entire world's paper supply is made by hand—*one sheet at a time!* Near Paris, Louis-Nicholas Robert (1761-1828) works at a papermaking establishment where the vat crew does not always get along. Impatient with their quarreling, Robert invents a machine to do the job of all three workers. Twenty-five years and several improvements later, this remarkable machine could make a continuous sheet of paper limited only by the size of the roll that the machine could hold.

The papermaking industry was on a roll! By the 1870s, it would arrive in Turners Falls, bringing high hopes for a new industrial city dubbed “a second Holyoke,” referring to Holyoke's burgeoning fame as the “Paper City.”³ Designed by innovative optimists, Turners Falls grew from the sweat and toil of many individuals and groups. This essay explores the ups and downs of the paper industry in the “Projected City at Turners Falls.”

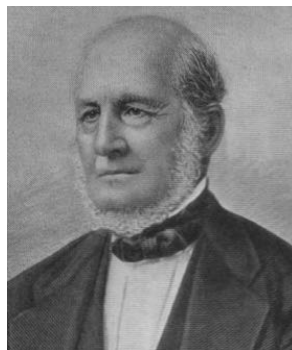
WHY TURNERS FALLS? THE IMPORTANCE OF WATER

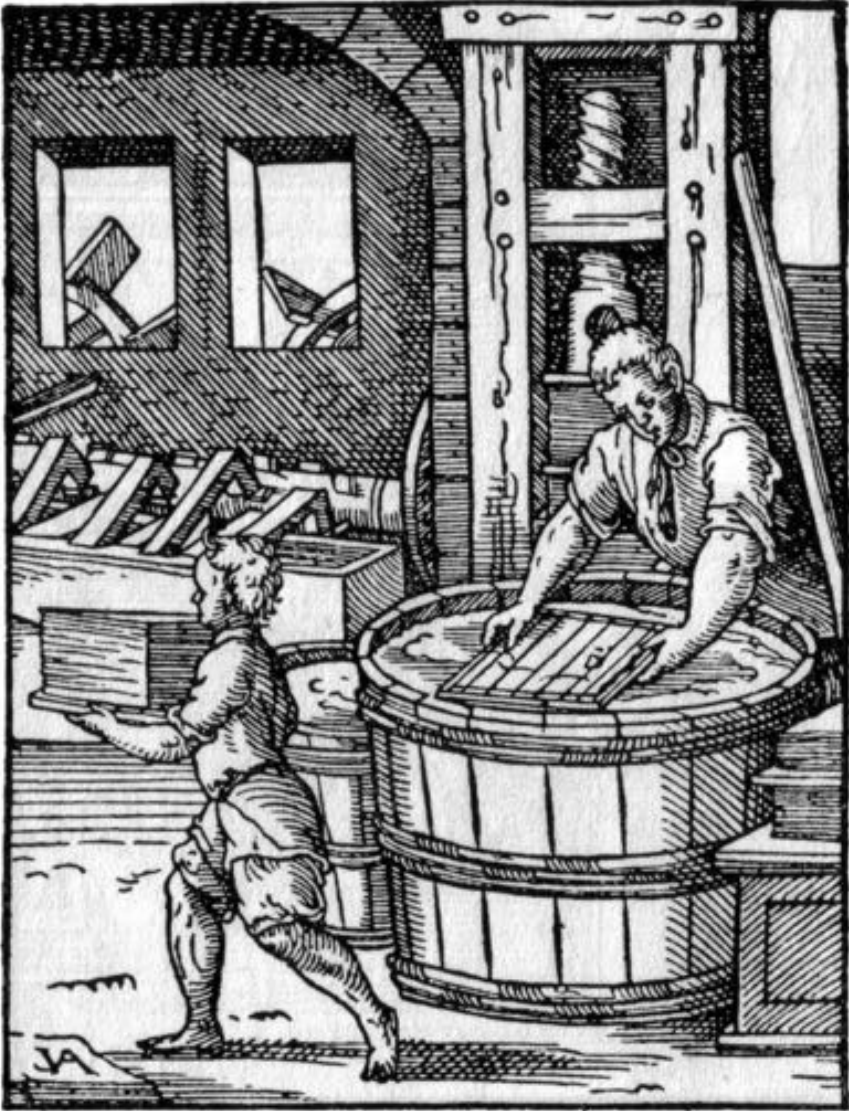
Why was Turners Falls an ideal locale for papermaking? In a word: water! Paper is made from the cellulose found in plant fibers. The fibers are beaten and mixed with water, then spread across a screen. When the water drains away, a thin sheet of matted fibers is left behind. The water is pressed out and the result is paper.

The large quantity of water required to make paper by hand translates into truly vast quantities required to make it by machine. The Connecticut River provided a seemingly limitless supply of water for making paper by machine. The Connecticut River also provided power to turn the turbines (described as “waterwheels” in the local newspaper) to run the huge papermaking equipment. In 1874 the *Turners Falls Reporter* claimed that, “The first grand feature of this town is the Connecticut River with its monster dam, affording probably the most reliable and extensive water power in the state if not in New England.”⁴

JOHN ALVAH CROCKER (1801-1874)

In the late 1700s, a small dam and canal were built in Turners Falls to move barges around the Connecticut River's “great falls.” By the mid-1800s, railroads had gradually taken over the job of transporting goods. The last boat passed through the canal in 1856. A decade later, Fitchburg's Alvah Crocker saw opportunity in the abandoned waterway.

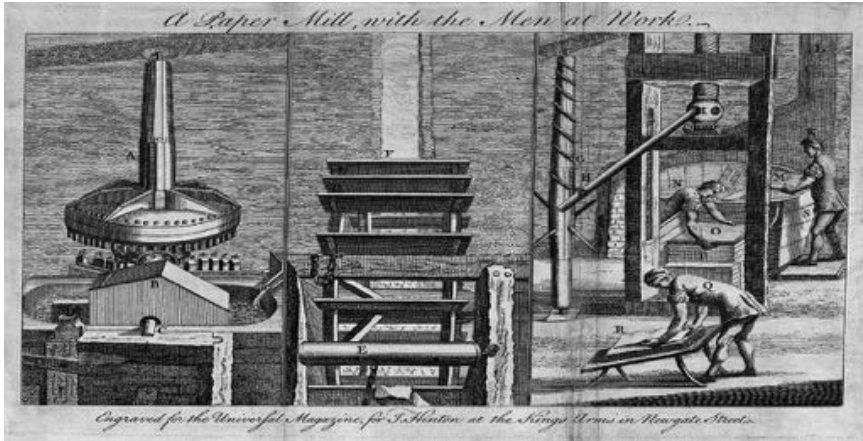




16th-Century Papermaking

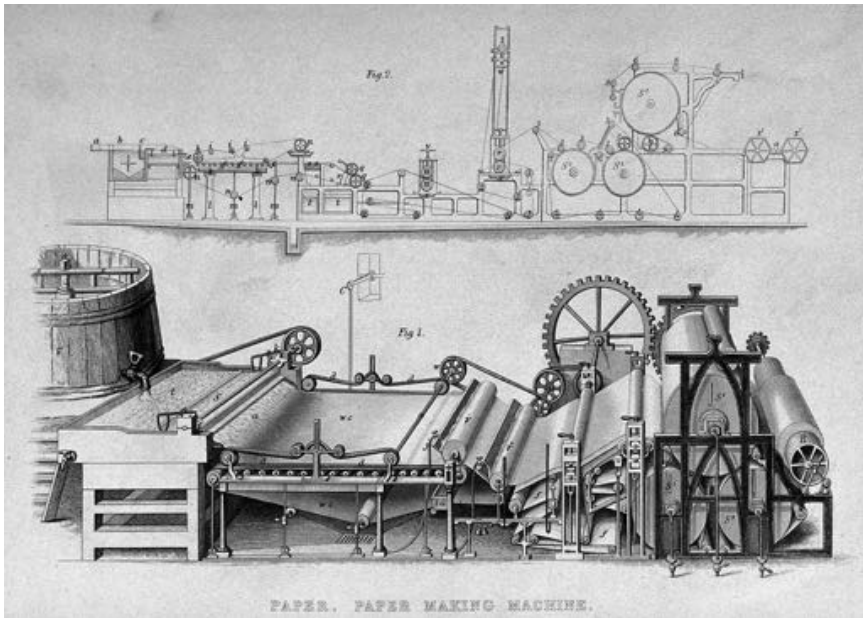
Woodblock by Jost Amman from *The Book of Trades* (Frankfurt, 1568).

The print shows paper being produced one sheet at a time.



“A paper mill, with the men at work,” London, 1752

Single sheets of paper were produced and dried by hand.



An early “Paper Making Machine,” 1852

The new machine could do the work formerly performed by a vat crew.

Image from *Tomlinson's Cyclopaedia of Useful Arts* (London, 1852).



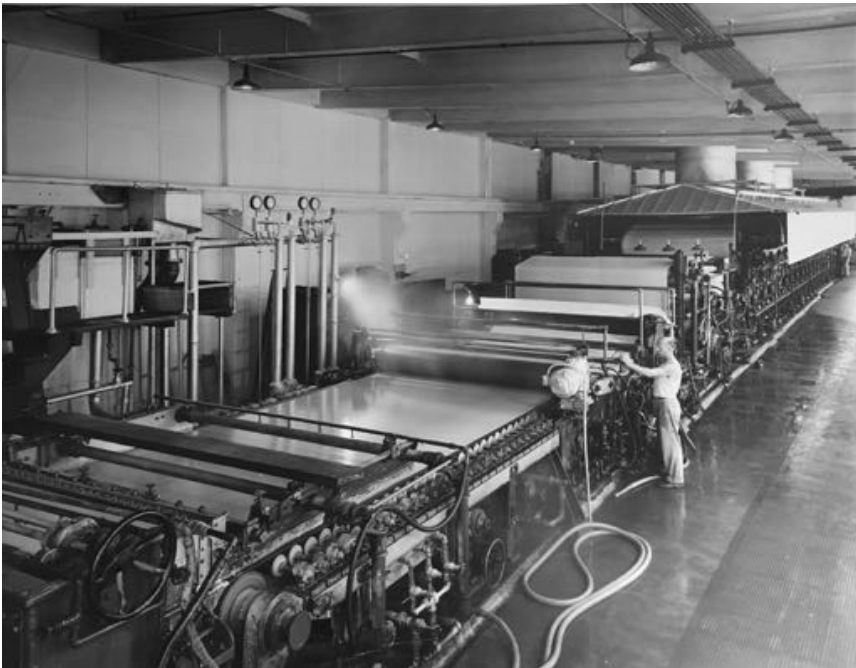
Montague Paper Company, View from the Connecticut River

Source: *History of the Connecticut Valley in Massachusetts*, L.H. Everts & Co, Philadelphia, 1879.

Known for building the Hoosac Tunnel in the Berkshires (the longest railroad tunnel in North America until 1916), Alvah Crocker was also a paper manufacturer with vision and connections. With a group of investors, he purchased water rights, then sold building lots along the canal. In 1866, construction began on a new “monster” dam and the canal was enlarged. Now the water flowing through it would turn turbines that would move gears to power giant factory machines, many of them related to papermaking. In 1868, before the first building lot auction, Crocker told the gentlemen gathered at the event:

We are now going to begin an enterprise that is to have large results. Whoever buys a building lot here today will get a large return for his money . . . We are also to begin the construction of a pulp mill, which will be followed by a paper mill, and within a few years you will see here a second Holyoke.⁵

NEW TECHNOLOGY: THE FOURDRINIER MACHINE



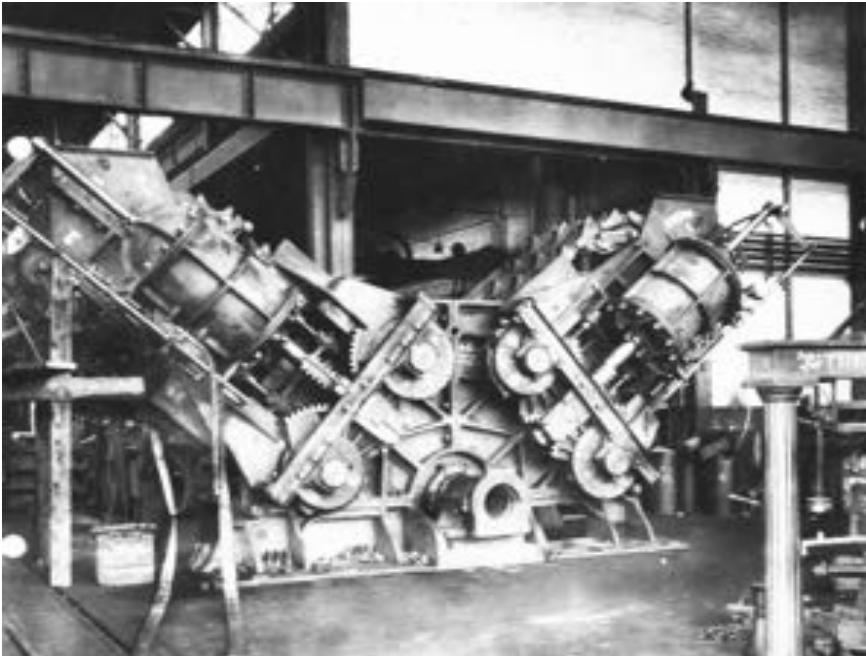
Fourdrinier Paper Machine, Keith Paper Company, c. 1960

Source: Great Falls Discovery Center Archives.

The original papermaking machine that Louis-Nicholas Robert designed was further improved by the Fourdrinier brothers of England, who patented their new machine. In 1806, the brothers claimed that their machine “with nine workers could produce in one 12-hour day the same amount of paper that it would take 41 workers using seven vats to produce by hand.”⁶ As Eli Whitney’s cotton gin was to the textile industry, so the Fourdrinier machine was to the paper industry. But it was not until 1822, when a patent was issued for drying paper continuously over steam-heated cylinders, that the modern Fourdrinier machine was complete.

FROM RAGS TO WOOD PULP

Prior to the mid-1800s, most paper was made from cotton rags, which became increasingly scarce after the advent of mechanized production. In 1858, a successful process for making pulp from wood was developed in Germany. In 1868, Alvah Crocker was among the first to bring pulp grinders to the United States. According to a 1916 source: “Thus was the beginning of the great pulp-process that has, in less than a half century, completely



Pulp Grinder Made by Montague Machine Company

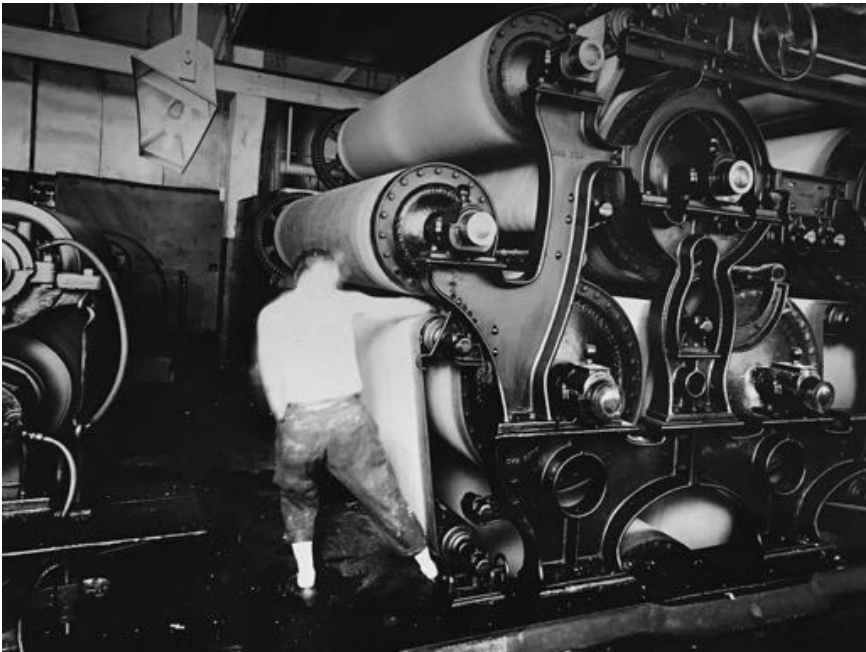
Source: Great Falls Discovery Center Archives.

revolutionized the making of paper the world over.”⁷ For nearly 150 years, Turners Falls’ paper mills produced paper from various pulps: all cotton, all wood, a combination of the two, and from other specialty fibers.

PERILS AND INJURIES

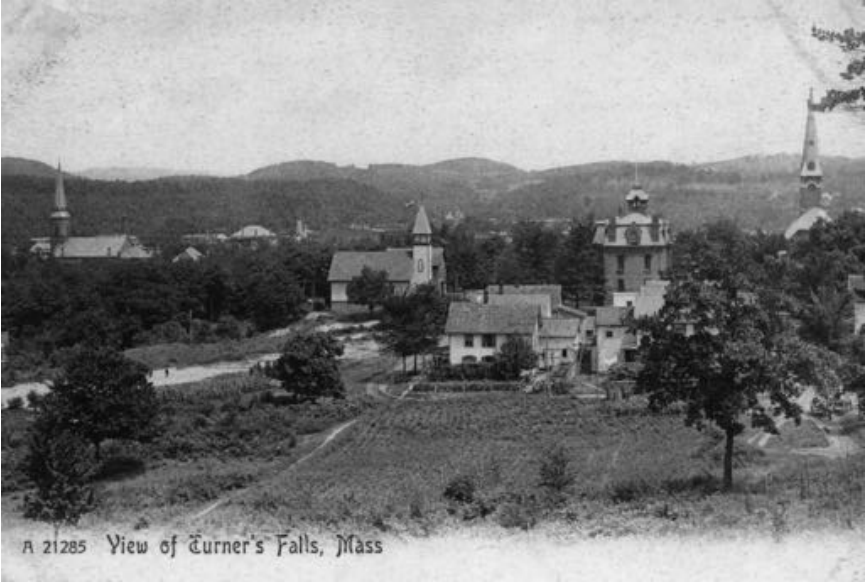
The new paper machine could do the work of the vatman, coucher and layman, but it needed skilled workers to run and maintain it. Paper and pulp mills, foundries, and machine shops were dangerous places to work. The *Turners Falls Reporter* noted the following accident on March 5, 1873:

Timothy Kelly, while at work at one of the machines in the Montague Mill on Monday morning, got his right hand caught in the calendars, and had the flesh completely stripped off the arm, from the elbow to the wrist, although no bones were broken . . . it is thought that the arm will heal without being disabled.



Worker at Strathmore Paper Company

Source: Great Falls Discovery Center Archives (date unknown).



A 21285 View of Turner's Falls, Mass

“View of Turner’s Falls,” c. 1900

Courtesy of the Pocumtuck Valley Memorial Association.
From the Memorial Hall Museum, Deerfield, MA.



“Paper Makers Cornet Band,” c. 1900

Great Falls Discovery Center Archive.

A few year later, Jesse Whitmore met a different fate. In an article titled, “Fatal Accident in the Montague Mill,” the *Turners Falls Reporter* noted on February 11, 1880:

Just as he had begun his active life with great hopes for a bright and successful future, Jesse Whitmore . . . went to his work in the Montague mill Monday at midnight, and had just taken his place as back-tender, or assistant machine tender, and was oiling the machinery. Observing the sheet of paper break, he dropped his oiler, and instead of going around the machine, he attempted to dodge through a 12-inch belt running horizontally over a forty-two inch pulley, when he must have slipped, and falling on the belt he was instantly drawn into the pulley, when about every bone in his body was broken. . .

The newspaper account continued:

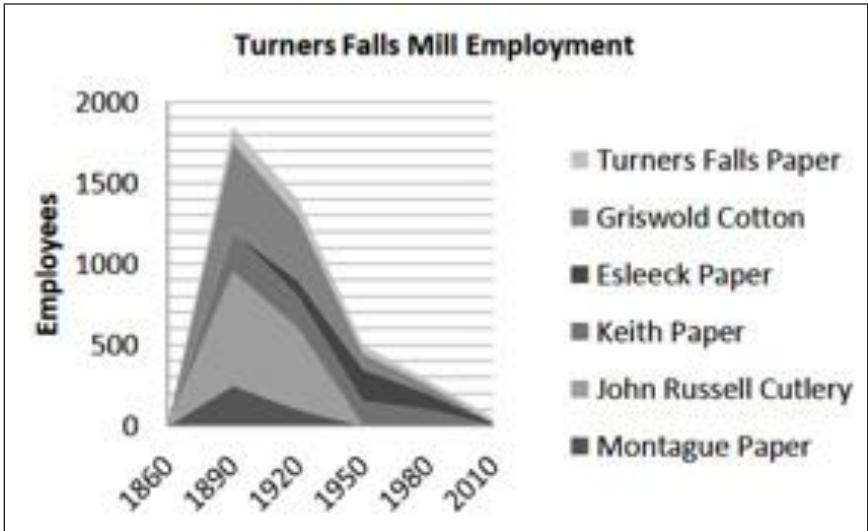
The accident is distressingly sad, but it is the old, old story of men who, being used to work among machinery and its propelling belts, forget its dangers, and take risks at the peril of life. In his untimely death, his relatives suffer a cruel blow for he was a favorite, the youngest of a large family, and the village loses one of its finest young men. His funeral will take place at Sunderland, Saturday, at 1 o'clock.

THE IMMIGRANT WORKFORCE

The churches in the photograph opposite—St. Anne’s, German Methodist, and St. Mary’s; and later Our Lady of Czestochowa— reflect Turners Falls’ immigrant factory workforce, who were mostly Irish, German, French-Canadian, and Polish. Men ran the machinery while women worked in the rag-sorting and finishing rooms. Company and union meetings, outings, sleigh rides, and the merits or pitfalls of eight-hour shifts were regularly featured in the busy village’s local paper.

ECONOMICS: RAPID DECLINE, 1920-50

Although the twentieth century saw improved safety conditions, the lack of job security was another type of hazard. From a peak of 1,800 employees in the early 1890s, between 1920 and 1950 several Turners Falls paper mills closed (typically relocating) and the village’s industrial employment fell from



Marketing “Clear Erase” Onion Skin Paper, 1964

Esleeck Manufacturing Company, Paperlogic Archives.

approximately 1,400 to 400 workers. By 2000 it had fallen to less than 200. In 2017 the last paper mill closed. Chris Pletcher's graph on the opposite page strikingly illustrates the rise and fall of Turners Falls' industrial economy.⁸ Pletcher writes that:

The depression hit Turners Falls especially hard. A series of floods throughout the 1930s destroyed a number of mills and bridges. When mills were destroyed in the 19th century, they were quickly rebuilt. But there was no incentive to fix up a mill which was obsolete anyway. By this time nearly all the industrial production in Turners Falls was owned by outside concerns.

Paper manufacturing has become an economics of scale. Newer plants are built near forests, and are bigger, more efficient, and more productive.⁹



Women Inspecting Paper

Esleek Manufacturing Company, 1956. Source: Paperlogic Archives.

Water power is no longer necessary. Smaller mills, like those in Turners Falls, have not survived. A sixty-eight-year-old resident remembered better times, stating “There was always employment. You didn’t have to leave the community to have a job. Now it’s nothing for people to travel 50 or 60 miles to their jobs.”¹⁰ The following sections describe the rise and fall of Turners Falls’ papermaking companies.

MONTAGUE PAPER COMPANY, 1871-1920s

Building for the Montague Paper Company began in 1871. In 1875, Montague Paper merged with the Turners Falls Pulp Company (1870-75), which was one of the first paper manufacturers in the country to make ground wood pulp. Clean water was piped in from the Fall River across the Connecticut River. Montague Paper produced high-quality newsprint and book paper. Production stopped in the 1920s and the buildings were razed in 1937 to make way for the new Gill-Montague Bridge. A 1912 source notes that:

Besides being the only mill in Massachusetts which produces newspaper, it is also about the only one in the United States using cotton waste as part of the raw material of newspaper . . . The product is print paper of the highest grade . . . The quality is both indicated and vindicated by the exclusive use of Montague Mill paper for such newspapers of the highest class as the *Brooklyn Eagle*, the *Washington Star*, and the *Springfield Republican*.¹¹

The paper industry was changing rapidly. In 1892 the *Centennial Gazette* had reported that, “The mill of the Montague Paper Company at Turners Falls is one of the largest as well as one of the best equipped establishments for the manufacture of paper in the country.”¹² However, from being “one of the largest . . . in the country” in 1892, by 1898 Montague Paper Company was the smallest of the seventeen mills that merged to form International Paper in that year. In 1922, there were “six beating and four refining engines” along with three Fourdrinier machines. The mill produced many types of paper, including: “Half-tone, Special Supplement, Colored Poster, Topaz, Writing and Novel Book.” However, by 1930 production at the Montague Paper Company had ceased.¹³



Keith Paper Company

Source: *Picturesque Franklin* (1891).

KEITH PAPER COMPANY, 1872-1994

Keith Paper Company was built in 1872. After a fire in 1877, it was rebuilt immediately and operated for almost seven decades. In 1953, it was acquired by the Strathmore Paper Company, which in 1962 was acquired by Hammermill Paper, which then was acquired by International Paper. In 1972, the mill stopped processing rags and bought pulp. Keith Paper Company closed in 1994. A fire in 2007 destroyed the southwest end of the building, and in 2008 it was taken by the town of Montague for taxes.

TURNERS FALLS PAPER COMPANY, 1879-1940s

Turners Falls Paper Company was built in 1879 and produced newsprint. It was acquired by the International Paper Company in 1898. On the 1895 and Sanborn Fire maps the mill was shown as being “in operation night and day,”¹⁴ but on the 1909 and 1914 maps, it was noted: “Buildings vacant and windows boarded up, no watchman, sprinklers shut off in winter, but in use thruout during summer.”¹⁵ A 1956 fire destroyed the northern part of the

building, which was then demolished and replaced by the building that until recently housed the Franklin County Regional Housing Authority. In 2018, the building was purchased by the Wild Child Cellars cidery.

MARSHALL PAPER COMPANY (ESLEECK) 1895-2017

Frank Marshall, who had worked for Montague Paper Company, built a new mill in 1895 to produce linens, bond paper, and onion skin paper. The company failed after a few years and A. W. Esleeck took over, opening the Esleeck Manufacturing Company in 1901, which operated for over a century. In 2006, the Southworth Paper Company acquired the mill. Both Esleeck and Southworth had always produced fine and specialty papers. In 2013, Southworth sold its business paper division and the mill then operated under the name Paperlogic.

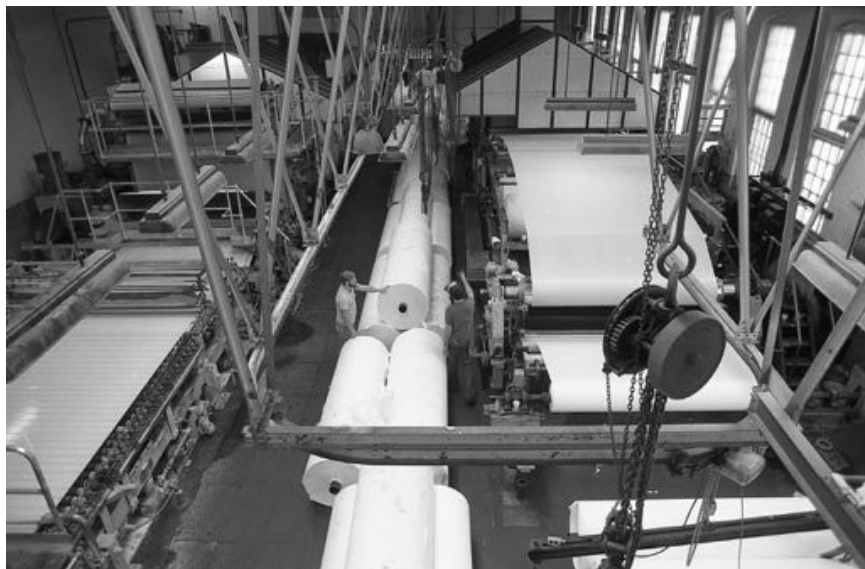
Paperlogic became Southworth's specialty and technical papers division, with the ability to change products rapidly to meet relatively small specialty orders. In 2017 the mill abruptly closed due to financial problems; an offer to buy the mill fell through. Its future remains unknown as of this printing. Paperlogic was the last of the Turners Falls mills in operation. Currently, there are no mills producing paper along the canal.

HJM



Esleeck Manufacturing Company, c. 1980s

Source: Ed Gregory Archives.



Esleeck Manufacturing Company, c. 1980s

Source: Ed Gregory Archives.



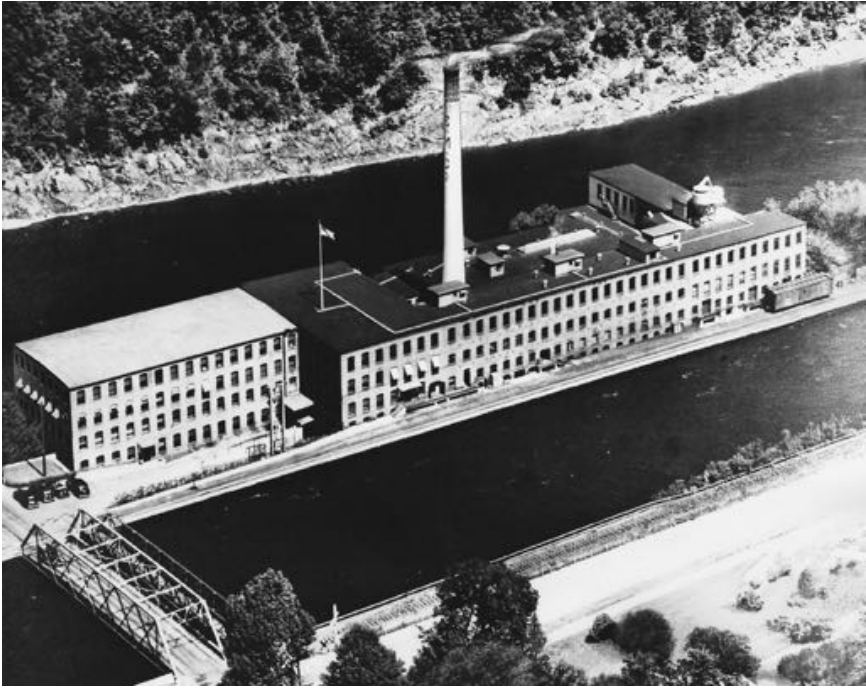


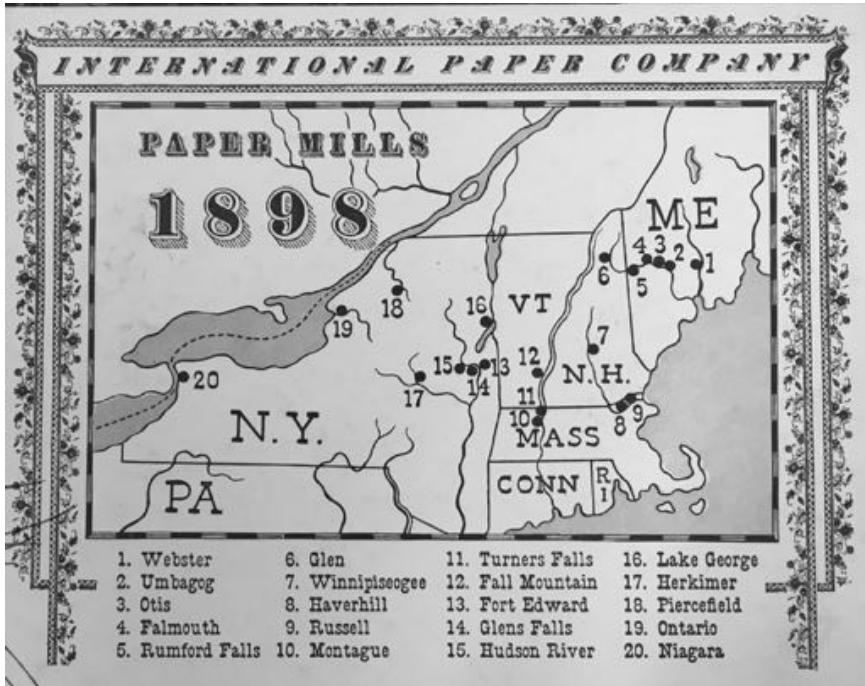
Esleek Manufacturing Company, c. 1980s

Source: Ed Gregory Archives.

2018 “PaperJam” and “On a Roll” Exhibits

For the 2018 exhibits, eight large signs were placed around the Tuners Falls bike path and canal district. They were positioned to show a "before and after" view of the scene. Pictured opposite are paper rolls inside the Esleek Mill during the 1980s. The mill itself can be viewed in the background, as well as in the top aerial photograph (1947), Paperlogic Archives.





International Paper Company Mills, 1898

Notes

1. Chris Goudreau, "Turners Falls Experiencing a Renaissance," *Valley Advocate*, March 13, 2018.
2. The author would like to thank all those who contributed to the original DCR exhibit, "On a Roll": local historian Ed Gregory, Bill Wilson, Charlie Lotspeich (DCR), Janel Nockleby (DCR), Dennis Picard, Penni Martorell (Wistariahurst Museum), and Al Shane (Museum of Our Industrial Heritage). Additional information about the region's manufacturing heritage and individual companies can be discovered at the Museum of Our Industrial Heritage in neighboring Greenfield.
3. During the late nineteenth century, nearby Holyoke produced an estimated 80-90% of the writing paper used in the United States and was home to the largest paper mill architectural firm in the country, as well as the largest paper, silk, and alpaca wool mills. Similar to Turners Falls, Holyoke was also a designed city. According to Nicholas Basbanes, "Nineteenth-century industrialists built the city around three

circular canals that generated sufficient power to operate twenty-eight mills, which at their peak accounted for nearly 90% of the paper produced in the United States. Though every one of these mills would close in the years following World War II, the economically stressed community still calls itself "Paper City." Quoted from *On Paper: The Everything of Its Two-Thousand-Year History* (New York: Random House), p. 100.

4. *Turners Falls Reporter*, May 6, 1874.

5. Alvah Crocker, quoted by Ed Gregory in *The Turners Falls Canal: History & Description* (E. Gregory, 2006).

6. Frogmore Paper Mill website at www.thepapertrail.org.uk/frogmore-mill accessed 11/15/19.

7. Lyman Horace Weeks, *A History of Paper-Manufacturing in the United States, 1690-1916*. (New York: The Lockwood Trade Journal Company, 1916), p. 238.

8. The number of paper mill employees is based on Chris Pletcher's estimates in his 12-page report, "The Ownership of Place: Turners Falls, Mass." located at <https://chrispletcher.files.wordpress.com/2013/12/ownership-of-place.pdf>, accessed 11/15/19. Pletcher notes that these numbers were based on his own research using the following sources: Arthur E. Burke, "Town of Montague, Massachusetts, 1754-1954: Historical Review and Complete Celebration Program," *Greenfield: Recorder-Gazette*, 1954; Royal D. Colle, *The Colle Opera House and the Shea Theater, Turners Falls, Massachusetts: A Brief History and a Genealogy* (Ithaca, N.Y: RDC, 2009); Bryan T. Callahan, "Founding Fathers and Pet Ambitions: The Turners Falls Industrial Community, (1866-1912)" (a 39-page term paper written by a Deerfield Academy student which won the Russ A. Miller Prize for the "Outstanding Term Paper in U. S. History," 1985); and Gregory (op. cit).

9. *International Paper Company After 50 Years—1898-1948*, (International Paper Company, 1948).

10. "Historical Walking Tour of Turners Falls Village," 1995.

11. Julius B. Robinson, "Industries of Turners Falls," in *Western New England*, Vol. 2, (Springfield, MA: Springfield Board of Trade, 1912), p. 247.

12. 1792–1892 *Centennial Gazette*, Greenfield, Massachusetts (Greenfield, MA: 1892).

13. *Lockwood's Directory of the Paper, Stationary and Allied Trades*, (New York: Lockwood Trade Journal Company, Inc., 1922), p. 128.

14. Sanborn Fire Insurance Map from Turners Falls, Franklin County, Massachusetts, 1895.

15. Sanborn Fire Insurance Map from Turners Falls, Franklin County, Massachusetts. Sanborn Map Company, 1909; Sanborn Fire Insurance Map from Turners Falls, Franklin County, Massachusetts. Sanborn Map Company, 1914.