

Notes on Paper

Paper figured so centrally in colonial life that in 1766 England decided to tax it, significantly fanning the flames of revolution. Around the western world, papermaking became the stuff of foreign policy: An item in the *Boston News-Letter* datelined from Holland reported that “The Prohibition to export old Linnen [sic] Rags, or other Materials for making Paper, is renewed for six Years, the better to employ the Paper Mills of this Country.”¹

Until wood replaced rags in the 1860s, the crushed fibers of cotton, linen, jute and hemp were the main ingredients in papermaking.² With a constantly expanding population, rising literacy, and growing government complexity, the demand for paper products – books, government printing, newspapers – mushroomed and shortages of rags frequently led to shortages of paper.³ Appeals for rags were a recurring theme in seventeenth century newspapers.

Papermaking was hard, complicated, and delicate work. Historian and eighteenth century printer Isaiah Thomas says that until 1756, when machines came into use to macerate the rags, they had to be pounded.⁴ The high rag content gave the paper comparative durability over the paper of later years and especially in the twentieth and twenty-first centuries. Thomas may have been mistaken in dating the first mashing machines to 1756 as stamping machines were in use early in the Rittenhouse mill – the first in the colonies – dating from 1689. Still the estimated

¹ “Hague, (in Low Countries,) April 17,” *Boston News-Letter*, December 3, 1724.

² Dard Hunter, *Papermaking in Pioneer America* (Philadelphia: University of Pennsylvania Press, 1950), 11; Roger Mellen, “The Press, Paper Shortages, and Revolution in Early America,” *Media History* 21, no. 1 (2015): 23-41, at 23.

³ Mellen, “The Press, Paper Shortages,” 23.

⁴ Isaiah Thomas, *The History of Printing in America*, 2nd ed. (Barre, MA: Imprint Society, 1970), 26.

time – a day to a day and a half”⁵ – it took the Rittenhouse machine to reduce clothing to fibers ready to be made into paper underscores the arduous nature of the work were it to be done by hand.

Hard work

James Green, describing work at a paper mill, says the “papermaking process began with the rag dealers, who collected worn out linen and cotton clothes and carted them to the mill on crude forest roads.” Once at the mill, Green says:

[T]he rags were weighed, sorted into various qualities, hacked up and torn apart—the buttons and hooks having first been removed—and dumped into a pile and moistened with water to begin fermentation. After a while they were placed in a trough of water beneath the hammers of the stamping machine, where they were pounded ceaselessly for a day to a day and a half until they had been reduced to their component fibers suspended in water. This pulp, also called stuff, was then poured into the large stuff chest, where it awaited the needs of the vatman.”⁶

The vatman, “the most skilled worker at the mill,”⁷ was charged with dipping a mold into the slurry, extracting what was needed to create a page, and handing it over to a succession of workers to press out the excess, dry the sheets, and create a sheet of paper.

Although some of the earliest printers obtained their paper from England, by the end of the eighteenth century domestic paper mills had been built in fifteen states.⁸ Thomas records Nicholas Rittenhouse, the first paper maker in British America, building a log house and paper

⁵ James Green, *The Rittenhouse Mill and the Beginnings of Papermaking in America* (Philadelphia: Library Company of Philadelphia, 1990), 15.

⁶ Ibid.

⁷ Ibid.

⁸ Hunter, *Papermaking*, 24-25.

mill at what is now Germantown, PA, about 1689.⁹ When that was washed away in a flood, a replacement was built and when the business outgrew that, a third building was erected. The Rittenhouse family remained in the papermaking business from 1689 to 1798.¹⁰

Although not directly in the printing business, much less newspapers, many of the first papermakers in colonial America were backed by newspaper publishers. William Bradford, editor of the *New-York Gazette*, had backed Rittenhouse and was his major customer when he was Philadelphia's first printer and then when Bradford was editor of New York's first newspaper until he himself opened New Jersey's first mill in 1726. Franklin followed Bradford's lead, although, as usual, in much grander fashion.

Given that the first paper mill in Massachusetts would not be established until 1728, it is uncertain where they planned to use the rags when, in 1724 printers were advertising that they would pay for rags.

James Franklin alluded to plans for a paper mill in 1724, advertising in his *New-England Courant* that, "Whereas some gentlemen design set up a Paper-Mill in New-England, if a supply of Raggs [sic] can be had to carry on that business; These are therefore to give Notice, that James Franklin, printer in Queen Street, Boston, buys Linen Rags, either course or fine, at a Penny [sic] a Pound."¹¹

⁹ Thomas, *History of Printing*, 21n†. By 1692, Rittenhouse's mill had found its way into a paean by North American writer Richard Frame. See, Danielle Skeeahan, "Texts and Textiles: Commercial Poetics and Material Economies in the Early Atlantic," *Journal of the Early Republic* 36 (Winter 2016):681-700, at 686.; Green, *Rittenhouse Mill*, 9-10. Green also cites a poem written in 1696 by a Judge John Holme that also salutes the Rittenhouse mill. Its concluding couplet – "Kind friend, when thy old shift is rent/Let it to th' paper mill be sent" – may be the earliest appeal in colonial America for used clothing to be turned into paper. Green, 10. See also, Dard Hunter, *Paper Making in Pioneer America* (Philadelphia: University of Pennsylvania Press, 1950), 24-25.

¹⁰ Thomas, *History of Printing*, 22.

¹¹ James Franklin, "Whereas Some Gentlemen," *New-England Courant*, Boston, June 15, 1724.

Whether Franklin was referring to this specific one cannot be determined, but the first paper mill in Massachusetts was not granted a patent until 1728 and did not begin operations until 1730.¹²

Paper entrepreneur

Although owning none himself, Franklin's brother Benjamin, Mellen, says, "claimed to help start some 18 different paper mills; by loaning money, recruiting skilled laborers, ordering equipment, or even by trading rags for paper. He assisted his suppliers and hurt his competitors by monopolizing the essential printing supplies: presses, type, rags, and paper."¹³

The regularity at which printers and booksellers advertised for rags underscores that they were in constant shortage. For instance, booksellers Daniel Henschman and Thomas Hancock (uncle of the celebrated John Hancock) sought rags from the public at "3d. for every pound of fine white Linnen Rags, 2d. for every pound of Blue Speckled & course Linnen, and 3 half pence per Pound of Cotton and Linnen."¹⁴ Henschman and Hancock would be among five partners granted license from the colonial government to open a paper mill near Boston about 1728-1730.¹⁵

In Williamsburg, William Parks, advertised that he, "having a Paper-Mill now at Work near *Williamsburg*, desires all Persons to save their old Linnen Rags; for which he will give

¹² Thomas, *History of Printing*, 26.

¹³ Mellen, "The Press, Paper Shortages," 27.

¹⁴ "This Is to Give Notice," *Boston News-Letter*, September 19, 1728; "This Is to Give Notice," *New-England Weekly Journal*, Boston, September 23, 1728.

¹⁵ Hunter, *Papermaking*, 34-36.

ready Money, in Proportion to their Fineness.”¹⁶ Parks had Benjamin Franklin’s backing in the enterprise.

Mellen says Benjamin Franklin “was constantly working to improve the supply of paper to keep his presses working.”¹⁷ When he partnered with William Parks to found a paper mill near Williamsburg, it was to support Parks’ *Virginia Gazette*.¹⁸ Yet if, as Mellen says, Franklin and his wife, Ann, “became wholesale paper traders and probably were the biggest dealers of paper in the colonies,” he clearly was selling to other printers, possibly even beyond his extensive network.¹⁹ For instance, before Parks established Virginia’s first paper mill, he was buying paper from Pennsylvania, England, or the Low Countries, with “Franklin . . . acting as paper merchant.”²⁰

Thomas estimated that there were at least eight or nine mills in Pennsylvania, Massachusetts, and New York by the start of the Revolution. Owing to being cut off from English suppliers, the number of mills “increased rapidly, to all parts of the Union,” Thomas says, and though he lamented being unable to come up with an exact number, he estimated that there were 195 in the United States and its territories when he published his history in 1810.²¹

According to Mellen, the “constant shortage of the raw material for paper led to regulations, and both the British and local colonial governments were involved in encouraging

¹⁶ William Parks, “The Printer Hereof,” *Virginia Gazette*, Williamsburg, April 18, 1745.

¹⁷ Mellen, “The Press, Paper Shortages,” 27.

¹⁸ Parke Rouse Jr., *The Printer in Eighteenth-Century Williamsburg: An Account of His Life & Times & of his Craft*, revised 1958, Thomas K. Ford, ed. (repr. Williamsburg, VA: Colonial Williamsburg, 1995).

¹⁹ Mellen, “The Press, Paper Shortages,” 27

²⁰ Hunter, *Papermaking*, 41.

²¹ Thomas, *History of Printing*, 27.

the saving of rags, licensing and regulating the manufacture and importation of paper, and even legislating monopolies.”²² The laws were not uniform on that point, however. Needing more paper than the Rittenhouse mill could provide and upon being denied permission to create a paper mill in New-York (with a fifteen year monopoly on paper making in the colony) in 1724, Bradford turned to New-Jersey and opened that colony’s first mill at Elizabethtown about 1726.²³ In Massachusetts, it was the colonial government that passed an act to encourage papermaking on September 13, 1728, and “a patent giving the exclusive right to make paper for a period of ten years was granted five prominent citizens of Boston.”²⁴

Stamp Act

With the ubiquity of print products and their necessity to everyday life, it made sense to the British government to tax them under the Stamp Act of 1765-1766. While tax officials in the colonies could provide the necessary stamps for some paper goods, newspaper publishers were obliged to buy London-milled paper carrying the embossed stamp. The cost of importing paper and paying for a stamp on each sheet of paper significantly threatened printers’ livelihoods and some suspended publication until after the act was repealed, while some newspapers never came back.

Scholar Danielle Skeeahan notes that the English restrictions and the colonial response showed the fraught and fragile interrelationships of the colonial economy:

While the Stamp Act certainly represented a form of “taxation without representation,” it also proved a threat to two burgeoning North American industries: printing and papermaking. Being forced to print on imported paper would raise a printer’s overhead and, in turn, take business away from local papermills. Moreover, when

²² Mellen, “The Press, Paper Shortages,” 23.

²³ Hunter, *Papermaking*, 30-31.

²⁴ *Ibid.*, 34-35.

colonials responded to the Stamp Act in early 1766 by circulating non-importation agreements in major North American cities, men and women agreed to abstain from purchasing commodities imported on British ships and had to find new ways of securing cloth. A shortage in cloth meant that existing paper mills would have a difficult time securing the rags they needed to make paper for bills of exchange, contracts, bills of lading, broadsides, and newspapers.²⁵

Distribution

It is unclear from the record how far the output of the paper mills was distributed. In some cases, the product was destined solely for a particular community or even a particular print office. Hunter finds it would be “most unusual” that any of the Massachusetts print products were on paper from the Philadelphia mills and adds that prior to 1730 and the opening of Massachusetts’ first mill, “most of the books, pamphlets, and broadsides printed in New England ... are on foreign-made paper,” chiefly English and Dutch.²⁶

²⁵ Skeehan, “Texts and Textiles,” 692.

²⁶ Hunter, *Papermaking*, 34.