Tissue Paper Manufacture

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The base fibers of paper were made of textile rags rendered to a pulp. Between 1750 and 1800 the replacement of wooden stampers by Hollander beaters created a finer and smoother pulp which resulted in finer and smoother paper. In 1797 William Adams built a paper mill at Cheddleton in Staffordshire to produce tissue paper for his own and the other potteries. Tissue paper was at this time sometimes referred to as silk paper or silver paper.

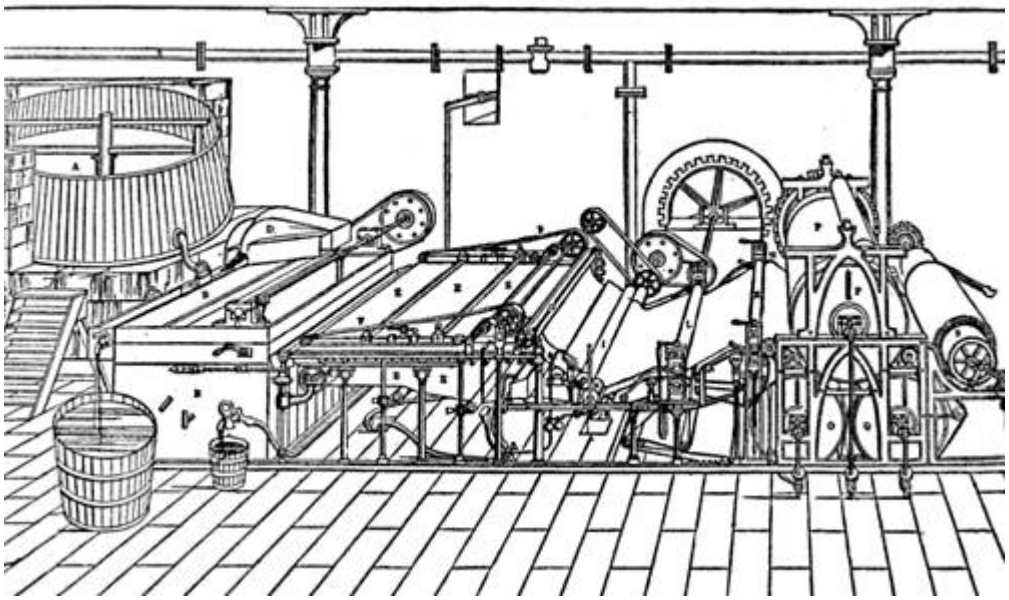
In the 1820s two brothers, Henry and Sealy Fourdrinier, developed continuously made paper by improving a machine invented in 1798 by Nicholas Robert. They bought the patent rights from Didot and Gamble, who had bought them from Robert. The Fourdrinier brothers took over the paper mill at Cheddleton. In 1837 a Parliamentary Select Committee took evidence concerning the abuse of their invention by others without payment of royalties. W.T. Copeland of the Copeland and Garrett firm (formerly Spode) gave evidence about the superiority of the Fourdrinier machine-made tissue paper over its handmade predecessor:

‘We have the means of comparing the earthenware made now with the hand-made paper and with the present paper, and the superiority is extraordinary; doubtless there are improvements made in engraving and the coloring, but still the uneven surface which seems to me to exist in the old paper, with little dots or knots upon the surface of the
paper, appear to me to take up the color from the plate under the old system, and then would not deliver it on the earthenware, so that the pattern is indistinct and broken; whereas that is not the case now with the tissue paper.’

The Fourdrinier machine for making continuous paper made possible development of cylinder printing on to tissue paper in the 1830s.

In 1895 Brittain’s Duplex paper was introduced. It consisted of a fine tissue mounted on a strong backing paper. This enabled tissue to withstand the rigors of a lithographic press without tearing, and made lithographic printing on to ceramics on a large scale commercially viable.

Portrait of Henry Fourdrinier



Fourdrinier paper making machine c.1830