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# Cylinder printing

Textile printers in the early 19th century began to use a revolving cylinder to print continuous patterns. In September 1831 patent no.6162 was granted to John and William Wainwright Potts, calico printers of St George's Works, New Mills, Derbyshire, and their partner Richard Oliver for 'an improved method or process of obtaining impressions from engravings in various colours and applying the same to earthenware, porcelain, china, glass and other similar substances.' The patent adapted cylinder printing to the printing of tissue-paper for transfers to pottery. A second patent, no.6938, was dated 3 December 1835. William Wainwright Potts had left New Mills and was now in partnership with William Machin at the Waterloo Pottery, Burslem. A final patent in 1838 was in the name of Potts alone.



Potts' invention was 'a cylinder machine, whereby a pattern or part of a pattern is obtained from an engraved copper roller continuously revolving, and which in its revolves is furnished with a constant supply of the coloring matter employed, and is cleared of its superfluous color by mechanical means, instead of by hand.' The paper was fed through a bath of soapy water to size it and then passed over a warm roller to partially dry it, so that it would have the right moisture content to receive the print.



Cylinder printing was only possible because of the paper-making machine developed by the brothers Henry and Sealy Fourdrinier in the 1820s, which for the first time provided a continuous flow of very smooth and even tissue.

Printing from a cylinder could create a continuous flow of pattern, like a roll of wallpaper, and was ideally suited to producing continuous all-over patterns, known as 'sheet patterns', with very little wastage of paper. In some factories, however, it does not seem to have been adopted until as late as 1880.

As well as the mark 'MACHIN & POTTS PATENT' there is a very rare mark 'W.W.POTTS'S PATENT Printed Ware St.George's Potteries NEW MILLS DERBYSHIRE.'

You can read an account of cylinder printing in 1852 by ***Charles Dickens.***