The Evolution of Printing

The Printing Press

A printing press is a machine that transfers ink onto paper or other surfaces to form imprints of letters or pictures. The invention of the printing press was a major advancement for the world because it allowed identical copies of a text to be created relatively easily.

Before the Press

Earlier methods of printing used carved blocks, usually wood. These methods have been used for centuries prior and could print on a large scale. Ink was applied directly to the surface, then paper was placed on top and rubbed to transfer the image or text.

Johannes Gutenberg invented the movable printing press around 1440-1450. Individual metal letters and pictures were screwed into a frame. This was called typesetting. The frame was then placed in a machine that would press paper on top. He also made innovations in casting, because each individual letter was cast out of metal. This invention lead to the creation of typography and different fonts.

Printing in Canada

The Canadian printing industry began with Wooden Handpresses, also known as “Common Presses” which were imported from both the US and the UK in the 1750s. The first printers established in Canada were Bartholomew Green Jr. and John Bushell, both men from Boston Massachusetts that came to Halifax in 1751. Bushell later published Canada’s first newspaper, the Halifax Gazette in 1752. In Québec, the most notable printing firm was run by William Brown and Thomas Gilmore, who opened their establishment in 1763. Their firm printed the province’s first newspaper, the Quebec Gazette in 1764, the first book published in Canada in 1765, and the first full-length book printed in an Indigenous language in Canada in 1767. The province of Upper Canada (now modern day Ontario) received its first printer in 1791. The eastern provinces all had an established printer by the early 1800s, the last of which being the arrival of John Ryan in Newfoundland in 1806. Before the end of the 19th century, printing had made its way across the western provinces and northern territories. The first printer in the Canadian Territories was G. B. Swinehart, who left Juneau, Alaska to establish a newspaper in Dawson City, Yukon in 1898.

Type and Cuts

LINO CUT

Lino cut printing blocks are specialized carving surfaces used in relief printmaking.

METAL CUTS

Logos and graphics were cast in lead and mounted on wooden forms to be used and re-used in advertisements and commercial prining jobs.

WOOD TYPE

Wood type pieces were used in the hand press to print flyers, posters, and other printed items.

PAPER MATS AND HOT LEAD TYPE

To create a lead impression of an image or text, the printer started with a paper mat. A wet paper mat was placed on top of the lead type and pressed to make an impression. Hot lead was poured over the mat to create a casting. The casting was used on the bed of the press to print the newspaper or on a handpress or the Heidelberg for flyers. Hot lead type was created one line at a time on a Linotype. The type was arranged upside down in metals trays to create a mirror image for printing. The printer inked the tray of type, placed a sheet of paper on top, and used a proof press, a hand press, or an automatic press (a Heidelberg) to print a copy.

CALIFORNIA JOB CASE

In the days of hot lead type, the commercial print shop at the Essex Free Press sorted its lead type in wooden drawers arranged according to the "California Job Case" layout. Consistency in layout allowed the printer to locate letters, numbers, and punctuation marks quickly and efficiently