

---

## The Bridge to the Twentieth Century

---

### The Industrial Revolution: The Impact of Industrial Technology Upon Visual Communications

---

#### Chapter 9

---

### Graphic Design and the Industrial Revolution

---

Introduction, 134

Innovations in typography, 135

The wood-type poster, 139

A revolution in printing, 140

The mechanization of typography, 141

Photography, the new communications tool, 142

The inventors of photography, 143

The application of photography to printing, 147

Defining the medium, 149

Photography as reportage, 150

Popular graphics of the Victorian era, 152

The development of lithography, 153

The Boston school of chromolithography, 153

The design language of chromolithography, 155

The battle on the signboards, 157

Images for children, 159

The rise of American editorial and advertising design, 160

Victorian typography, 165

---

**Key Terms** (*in order of appearance; the first page number of their appearance is listed*)

---

---

**Industrial Revolution**, page 134, (Fig. 9 - 1)

---

---

**Fat faces**, page 135, (Fig. 9 - 2)

---

---

**Egyptian type**, page 137, (Fig. 9 - 3)

---

---

**Bracket**, page 137, (Fig. 9 - 5)

---

245 > Part Three Chapter Nine

---

**Clarendon typeface**, page 137, (Fig. 9 - 6)

---

**Tuscan-style letters**, page 137, (Fig. 9 - 7)

---

**Sans-serif type**, page 138, (Fig. 9 - 12)

---

**Wood type**, page 139

---

**Compositor**, page 139

---

**Fourdrinier machine**, page 141

---

**Linotype machine**, page 141, (Fig. 9 - 17) (Fig. 9 - 18)

---

**Monotype machine**, page 142

---

**Phototypography**, page 142

---

**Camera obscura**, page 142, (Fig. 9 - 19)

---

**Bitumen of Judea**, page 143

---

**Heliogravure**, page 143, (Fig. 9 - 20) (Fig. 9 - 21)

---

**Daguerreotype**, page 144, (Fig. 9 - 22)

---

245 > Part Three Chapter Nine

---

**Photogenic drawings**, page 145, (Fig. 9 - 23)

---

**Photograms**, page 145, (Fig. 9 - 23)

---

**Negative**, page 145, (Fig. 9 - 24)

---

**Positive**, page 145, (Fig. 9 - 25)

---

**Photography**, page 145

---

**Calotype**, page 145

---

**Talbotype**, page 145

---

**The Pencil of Nature**, page 145, (Fig. 9 - 26; see also Fig. 9 - 40)

---

**Collodion**, page 145

---

**Kodak camera**, page 147, (Fig. 9 - 27)

---

**Gelatin emulsion**, page 147,

---

**Halftone screen**, page 147, (Figs. 9 - 31 and 9 - 32)

---

**First photographic separation**, page 149,

---

245 > Part Three Chapter Nine

---

**First photographic interview**, page 149, (Fig. 9 - 36)

---

**Victorian Era**, page 152, (Fig. 9 - 40)

---

**Great Exhibition or Crystal Palace Exhibition**, page 153

---

**Lithography**, page 153

---

**Planographic printing**, page 153

---

**Chromolithographie**, page 153

---

**Rotary lithographic press**, page 153

---

**Scrap**, page 155

---

**Toy books**, page 159, (Fig. 9 - 54)

---

**Harper's Illuminated and New Pictorial Bible**, page 161, (Fig. 9 - 57)

---

**Electrotyping**, page 161

---

**Harper's New Monthly Magazine**, page 161, (Fig. 9 - 58)

---

**Harper's Weekly**, page 161, (Fig. 9 - 59)

---

245 > Part Three Chapter Nine

---

**Harper's Bazaar**, page 161

---

**Harper's Young People**, page 161

---

**Century typeface**, page 164

---

### **Key People and Their Major Contributions**

*(in order of appearance; the first page number of their appearance is listed)*

---

**Joseph Jackson** (1733–1792), page 135

---

**Thomas Cotterell** (d. 1785), page 135, (Fig. 9 - 1)

---

**Robert Thorne** (d. 1820), page 135, (Fig. 9 - 2)

---

**William Thorowgood** (d. 1877), page 135

---

**Vincent Figgins** (1766–1844), page 137, (Fig. 9 - 3) (Fig. 9 - 13)

---

**William Caslon IV** (1781–1869), page 138, (Fig. 9 - 12)

---

**Darius Wells** (1800–1875), page 139

---

**William Leavenworth** (1799–1860), page 139

---

245 > Part Three Chapter Nine

---

**Lord Stanhope**, page 140, (Fig. 9 - 15)

---

**Friedrich Koenig** (1774–1883), page 140, (Fig. 9 - 16)

---

**William Cowper** (1731–1800), page 141

---

**Nicolas-Louis Robert** (1761–1828), page 141

---

**John Gamble**, page 141

---

**Ottmar Mergenthaler** (1854–99), 141, (Fig. 9 - 17)

---

**Tolbert Lanston** (1844–1913), page 142

---

**American Type Founders Company (ATF)**, page 142

---

**Joseph Niepce** (1765–1833), page 143, (Fig. 9 - 20), (Fig. 9 - 21)

---

**Louis-Jacques Daguerre** (1799–1851), page 144, (Fig. 9 - 22)

---

**William Henry Fox Talbot** (1800–1877), page 145, (Fig. 9 - 23) (Fig. 9 - 26; see also Fig. 9 - 40)

---

**Sir John Herschel** (1792–1871), page 145, (Fig. 9 - 24) (Fig. 9 - 25)

---

**Frederick Archer** (1813–1857), page 145

---

245 > Part Three Chapter Nine

---

**George Eastman** (1854–1932), page 147, (Fig. 9 - 27)

---

**John Calvin Moss** (b. 1838), page 147, (Fig. 9 - 28)

---

**Stephen H. Horgan** (1854–1941), page 147, (Figs. 9 - 31 and 9 - 32)

---

**Frederick E. Ives** (1856–1937), page 149

---

**Max Ives and Louis Levy**, page 149

---

**David Octavius Hill** (1802–1870), page 149, (Fig. 9 - 33)

---

**Robert Adamson** (1821–1848), page 149, (Fig. 9 - 33)

---

**Julia Margaret Cameron** (1815–1879), page 149, (Fig. 9 - 34)

---

**F. T. Nadar** (1820–1910), page 149, (Fig. 9 - 35), (Fig. 9 - 36)

---

**Mathew Brady** (c. 1823–1896), page 149, (Fig. 9 - 37)

---

**Eadweard Muybridge** (1830–1904), page 151, (Fig. 9 - 39)

---

**Queen Victoria** (1819–1901), page 152

---

**A. W. N. Pugin** (1812–1852), page 152, (Fig. 9 - 41)

---

245 > Part Three Chapter Nine

---

**Owen Jones** (1809–1874), page 153, (Fig. 9 - 42)

---

**Richard M. Hoe** (1812–1886), page 153, (see Fig. 9 - 47)

---

**John H. Bufford** (d. 1870), page 153, (Fig. 9 - 43), (Fig. 9 - 44)

---

**Louis Prang** (1824–1909), page 154, (Figure 9 - 45)

---

**L. Prang and Company**, page 154

---

**Walter Crane** (1845–1915), page 159, (Fig. 9 - 54)

---

**Randolph Caldecott** (1846–1886), page 160, (Fig. 9 - 55)

---

**Kate Greenaway** (1846–1901), page 160, (Fig. 9 - 56)

---

**James** (1795–1869) **and John** (1797–1875) **Harper**, page 160

---

**Wesley** (1801–1870) **and Fletcher** (1807–1877) **Harper**, page 160

---

**Harper and Brothers**, page 160, (Fig. 9 - 57) (Fig. 9 - 58)

---

**Thomas Nast** (1840–1902), page 161, (Fig. 9 - 60)

---

**Charles Dana Gibson** (1867–1944), page 163, (Fig. 9 - 61)

---

245 > Part Three Chapter Nine

---

**Howard Pyle** (1853–1911), page 163, (Fig. 9 - 62)

---

**Volney Palmer**, page 164

---

**N. W. Ayer and Son**, page 164

---

**MacKellar, Smiths & Jordan Foundry**, page 165, (Fig. 9 - 64)

---