

OLLI Book History Week 10

Hot metal type: Linotype and Monotype

The Fine Press/Private Press movement

Typography and book design ca. 1890-1940

Hot Metal

Linotype, Monotype and similar systems,
1880s-1970s

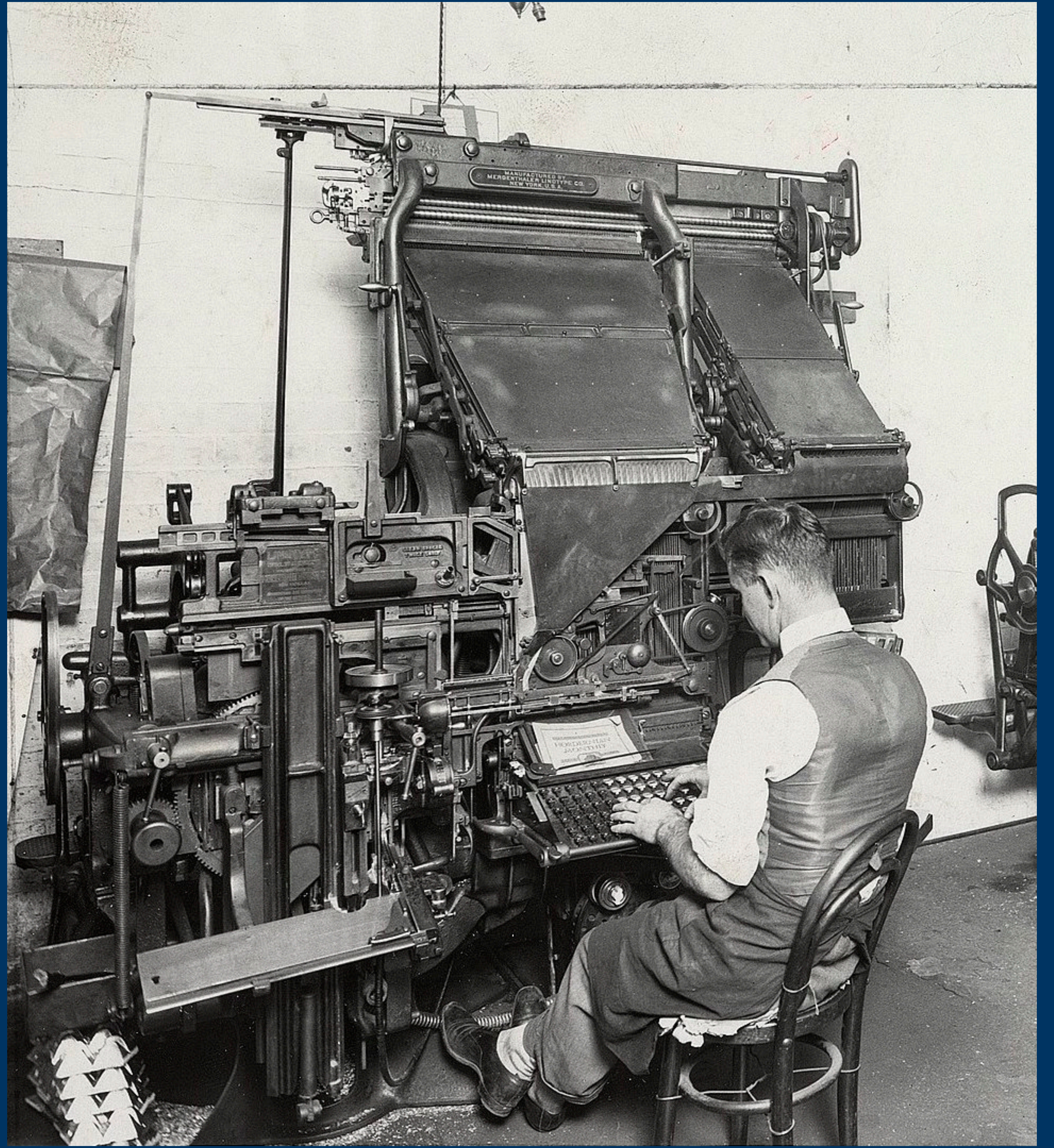
Combined typesetting, setting lines of type,
and distributing type into one keyboard-driven
machine

Linotype

Ottmar Mergenthaler, a German clockmaker, began working on the idea in the 1870s after coming to the U.S.

Linotype machine was used by the New York Herald Tribune in 1886.

Photo: Linotype operator at work in 1935.



Linotype

1. Operator types a whole line of type, bringing matrices into place in order inside the machine.
2. Spacing wedges are inserted and can be widened or narrowed to justify the line.
3. Hot typemetal is pumped into the assembled line of matrices inside the machine and it spits out a slug. (See next slide.)
4. The machine redistributes the matrices automatically.

Photo: a line of matrices and spaces keyed into place and ready to be cast inside a Linotype machine.

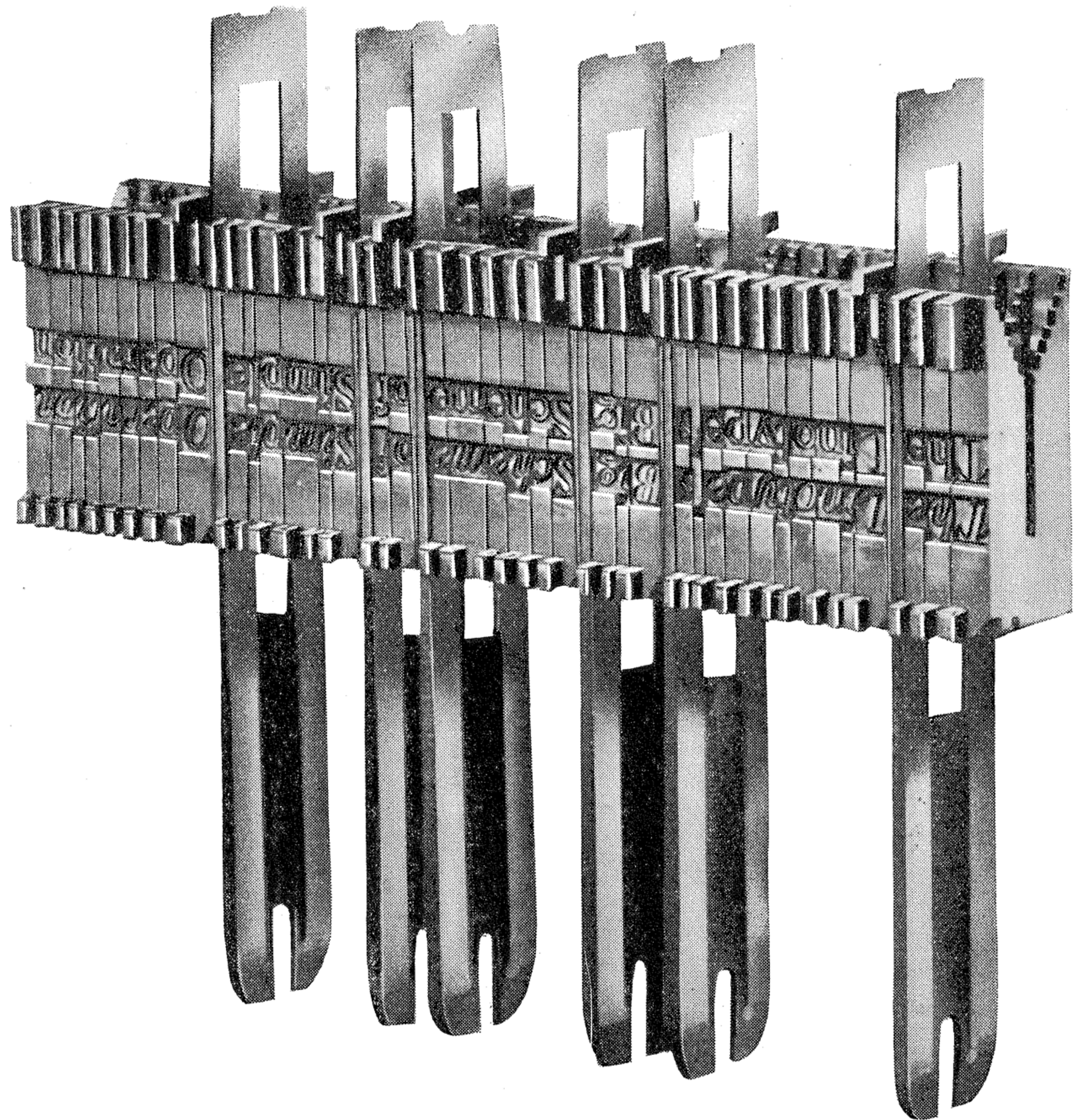




FIG. 11-1. Simplicity of handling has established the Linotype slug as the modern unit of composition.

A stack of Linotype slugs

etaoin shrdlu The first two columns of keys on a Linotype keyboard.



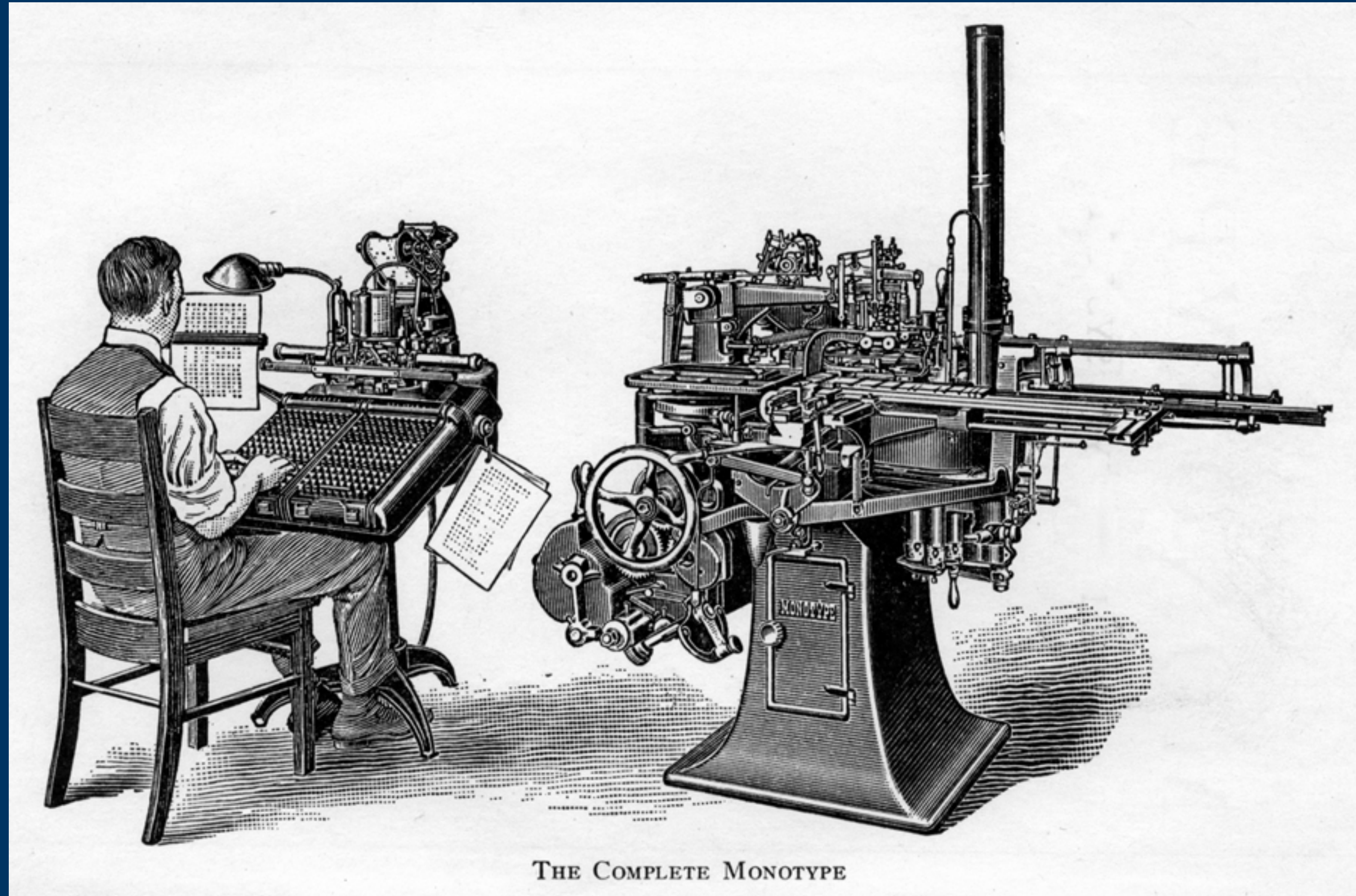
Monotype

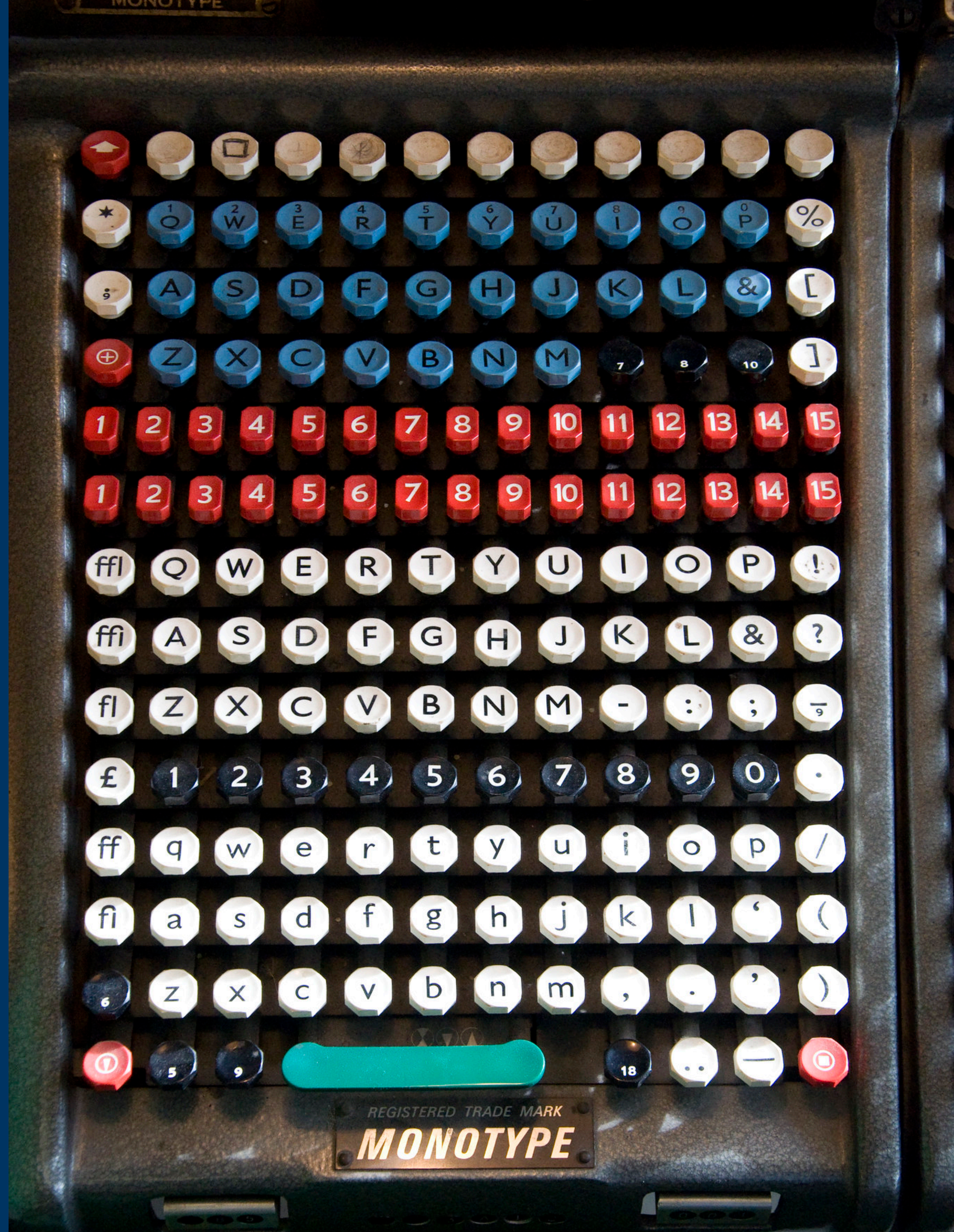
Alternative system of hot metal typesetting.

Developed during 1890s, commercially available 1900.

Casts individual letters instead of lines of type.

Uses two machines: one uses keyboard and produces paper tape; the other reads that tape and casts the type.





A Monotype keyboard:
QWERTY, but with separate
registers for capitals, display
capitals or italics, etc.

A CHRISTMAS CAROL.

STAVE I.

MARLEY'S GHOST.

MARLEY was dead: to begin with. There is no doubt whatever about that. The register of his burial was signed by the clergyman, the clerk, the undertaker, and the chief mourner. Scrooge signed it: and Scrooge's name was good upon 'Change, for anything he chose to put his hand to. Old Marley was as dead as a door-nail.

Mind! I don't mean to say that I know, of my own knowledge, what there is particularly dead about a door-nail. I might have been inclined, myself, to regard a coffin-nail as the deadest piece of ironmongery in the trade. But the wisdom of our ancestors is in the simile; and my unhallowed

abcdefghijklmnopqrstu
vwxyz
ABCDEFGHIJKLMN
OPQRSTUVWXYZ

abcdefghijklmnopqrstu
vwxyz
abcdefghijklmnopqrstu
vwxyz
ABCDEFGHIJKLMN
OPQR

abcdefghijklmnopqrstu
vwxyz
abcdefghijklmnopqrstu
vwxyz
ABCDEFGHIJKLM



BLESS YE MY CHILDREN.

MAY. 1896

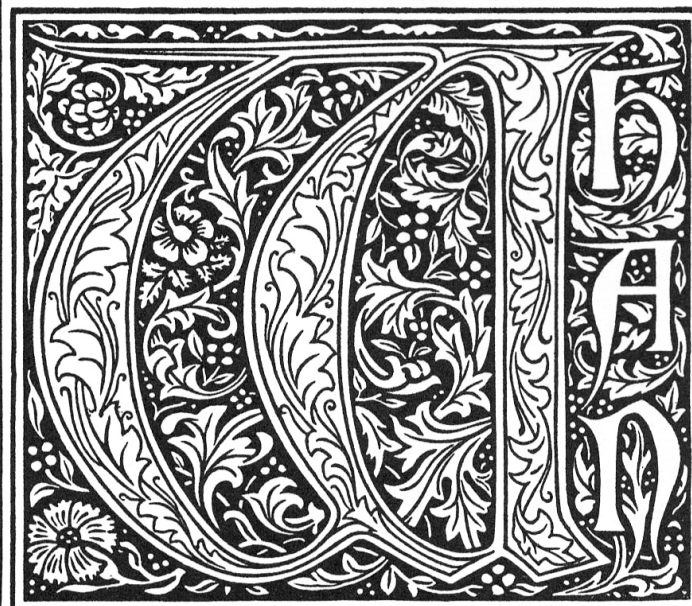
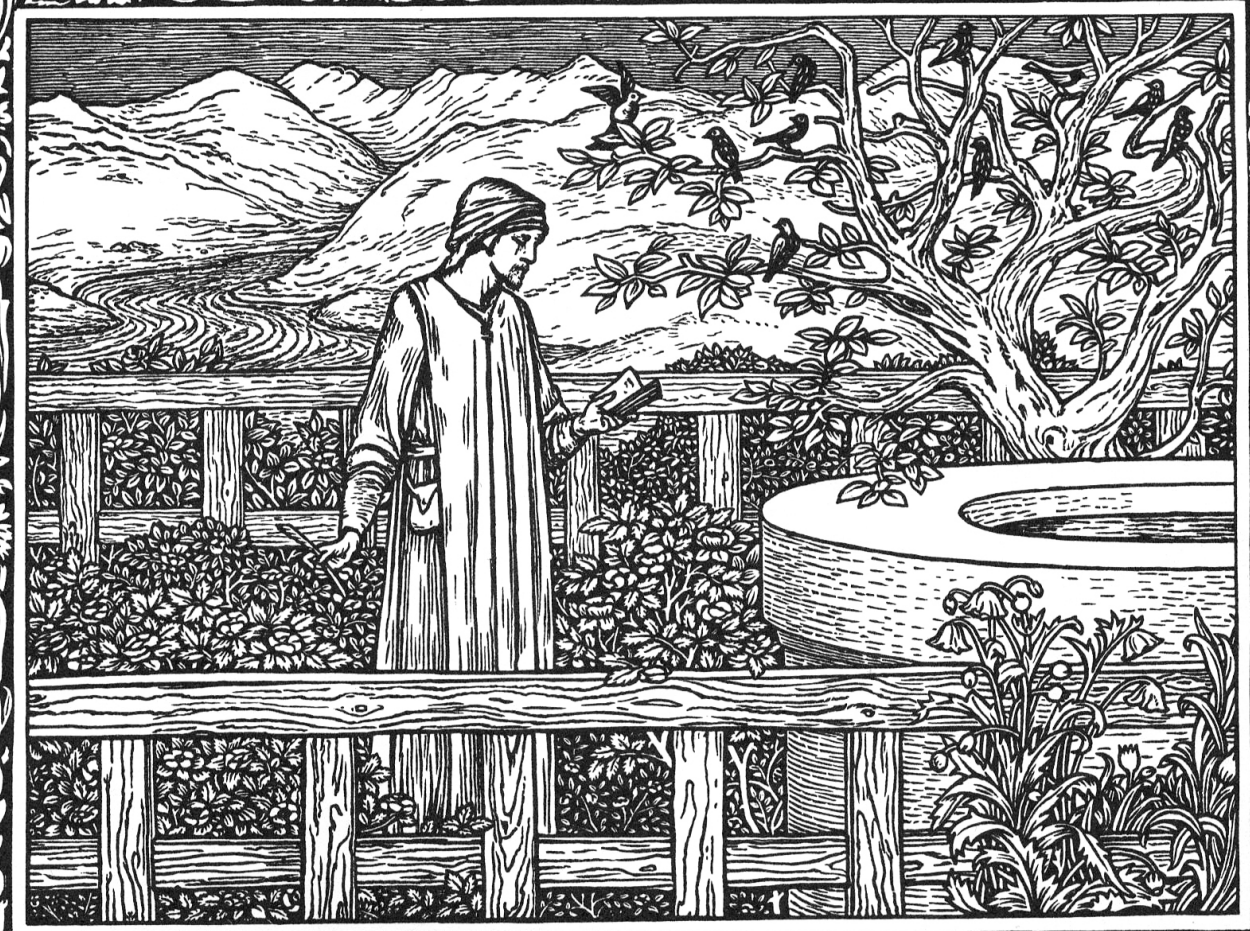
William Morris The Kelmscott Press

1891-1898

and printing in the Arts
and Crafts movement

Left: Chaucer blessing William
Morris & Edward Burne-Jones,
cartoon by Burne-Jones, 1896.

HERE BEGINNETH THE GAMES OF CHAUCER
 BURY AND FIRST THE PROLOGUE THEREOF



The tendre croppes, and the yonge somme
 Hath in the Ram his halfe cours yronne,
 And smale foweles maken melodye,
 That slepen al the nyght with open eye,
 So priketh hem nature in hir corages;
 Thanne longen folk to goon on pilgrimages,
 And palmeres for to seken straunge strondes,
 To ferne halwes, howthe in sondry londes;
 And specially, from every shires ende
 Of Engelond, to Caunterbury they wende,
 The hooly blisful martir for to seke,
 That hem hath holpen whan that they were seeke.

BIF IL that in that seson on a day,
 In Southwerk at the Tabard as
 I lay,
 Redy to wenden on my pilgrym-
 age
 To Caunterbury with ful devout
 corage,
 At nyght were come into that hostelrye
 Wel nyne and twenty in a compaignye,
 Of sondry folk, by aventure yfalle
 In felawshipe, and pilgrimes were they alle,
 That toward Caunterbury wolden ryde.

THAT Aprille with his shoures soote
 The droghite of March hath perced to the roote,
 And bathed every veyne in swich licour,
 Of which vertu engendred is the flour;
 Whan Zephirus eek with his swete breeth
 Inspired hath in every holt and heeth

Geoffrey Chaucer



The Kelmscott Chaucer, 1896, and its original binding. Illustrations by Edward Burne-Jones, wood engraved.

the story
of the
Glittering
Plain
or the
Land of
Living
Men

THE STORY OF THE GLITTERING
PLAIN OR THE LAND OF LIVING MEN



Chapter I. Of those Three who came unto Hallblithe
to the House of the Raven.

HAS been told that there was once a
young man of free kindred and whose
name was Hallblithe: he was fair, strong,
and not untried in battle; he was of the
House of the Raven of old time. This

Morris, The
Story of the
Glittering Plain,
Kelmscott
Press, 1894.

Illustrations by
Walter Crane,
wood engraved.

Intentionally
anachronistic
features of
Kelmscott books
included binding
clasps.



Colophon from a
Roycroft Press
book, East Aurora,
NY, 1898.

Directly inspired by
Morris's work, in
spirit if not in style.

THE DESERTED VILLAGE ❀ ❀
By Dr. Oliver Goldsmith, to which is
prefaced some notes concerning a
Little Journey to "Sweet Auburn"
❀ ❀ as written by Elbert Hubbard



DONE INTO A BOOK AT THE ROYCROFT
SHOP, WHICH IS IN EAST AURORA,
NEW YORK, U. S. A.,
MDCCCXCVIII.



The Doves Press

Founded 1900 after the
death of William Morris
in Hammersmith,
London

PARADISE LOST BY THE AUTHOR JOHN MILTON OF MANS FIRST DISOBEDIENCE, AND THE FRUIT OF THAT FORBIDDEN TREE, WHOSE MORTAL TAST BROUGHT DEATH INTO THE WORLD, AND ALL OUR WOE.

With loss of Eden, till one greater Man
Restore us, and regain the blissful Seat,
Sing Heav'nly Muse, that on the secret top
Of Oreb, or of Sinai, didst inspire
That Shepherd, who first taught the chosen Seed,
In the Beginning how the Heav'ns and Earth
Rose out of Chaos: Or if Sion Hill
Delight thee more, and Siloa's Brook that flow'd
Fast by the Oracle of God; I thence
Invoke thy aid to my adventurous Song,
That with no middle flight intends to soar
Above th' Aonian Mount, while it pursues
Things unattempted yet in Prose or Rhime,
And chiefly Thou O Spirit, that dost prefer
Before all Temples th' upright heart and pure,

Emery Walker

Engraver, friend of William Morris, collector of early modern books and types

T.J. Cobden-Sanderson

Bookbinder, business partner of Walker until they fell out

Edward Johnston

Calligrapher, later designer of the London Underground font

Edward Prince

Last independent punchcutter in Britain, designer of types for William Morris and for the Doves Press

IN THE BEGINNING

GOD CREATED THE HEAVEN AND THE EARTH. ¶ AND THE EARTH WAS WITHOUT FORM, AND VOID; AND DARKNESS WAS UPON THE FACE OF THE DEEP, & THE SPIRIT OF GOD MOVED UPON THE FACE OF THE WATERS.

¶ And God said, Let there be light: & there was light. And God saw the light, that it was good: & God divided the light from the darkness. And God called the light Day, and the darkness he called Night. And the evening and the morning were the first day. ¶ And God said, Let there be a firmament in the midst of the waters, & let it divide the waters from the waters. And God made the firmament, and divided the waters which were under the firmament from the waters which were above the firmament: & it was so. And God called the firmament Heaven. And the evening & the morning were the second day.

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¶ And God said, Let the waters under the heaven be gathered together unto one place, and let the dry land appear: and it was so. And God called the dry land Earth; and the gathering together of the waters called he Seas: and God saw that it was good. And God said, Let the earth bring forth grass, the herb yielding seed, and the fruit tree yielding fruit after his kind, whose seed is in itself, upon the earth: & it was so. And the earth brought forth grass, & herb yielding seed after his kind, & the tree yielding fruit, whose seed was in itself, after his kind: and God saw that it was good. And the evening & the morning were the third day.

¶ And God said, Let there be lights in the firmament of the heaven to divide the day from the night; and let them be for signs, and for seasons, and for days, & years: and let them be for lights in the firmament of the heaven to give light upon the earth: & it was so. And God made two great lights; the greater light to rule the day, and the lesser light to rule the night: he made the stars also. And God set them in the firmament of the heaven to give light upon the earth, and to rule over the day and over the night, & to divide the light from the darkness: and God saw that it was good. And the evening and the morning were the fourth day.

¶ And God said, Let the waters bring forth abundantly the moving creature that hath life, and fowl that may fly above the earth in the open firmament of heaven. And God created great whales, & every living creature that moveth, which the waters brought forth abundantly, after their kind, & every winged fowl after his kind: & God saw that it was good. And God blessed them, saying, Be fruitful, & multiply, and fill the waters in the seas, and let fowl multiply in the earth. And the evening & the morning were the fifth day. ¶ And God said, Let the earth bring forth the living creature after his kind, cattle, and creeping thing, and beast of the earth after his kind: and it was so. And God made the beast of the earth after his kind, and cattle after their kind, and every thing that creepeth upon the

The Doves Press Bible, 1903

Between 1913 and 1917, Cobden-Sanderson threw the Doves punches, matrices, and type into the Thames so that they would not fall into Walker's hands after his death and be used with new machine processes.

In 2014, type designer Robert Green recovered a portion of the types from the Thames.



Frederic Goudy

1865-1947

The Village Press from 1903
(Chicago, then Boston, then
New York)

Designed for American Type
Founders Company through
the 1920s

Art director for the Lanston
Monotype Company 1920-1947

The GOUDY TYPE FAMILY *at a Glance*

*A Composite Picture of the complete GOUDY TYPE
FAMILY is here shown for the first time*

Goudy Catalogue

Goudy Catalogue Italic

Goudy Oldstyle

Goudy Italic

Goudy Cursive

GOUDY TITLE

Goudy Bold

Goudy Bold Italic

Goudy Handtooled

Goudy Handtooled Italic

AMERICAN TYPE FOUNDERS COMPANY

Bruce Rogers

1870-1957, born in Indiana, made Connecticut his home base later in life.

1895-1911: Book designer for The Riverside Press, Cambridge, a fine printing, limited-edition imprint of Houghton-Mifflin.

1911-1916: Moved to New York and designed the Centaur face for the Metropolitan Museum.

1929: Centaur cut for use with Monotype machines.

WWI-WWII eras: Work in England for Cambridge UP, collaboration w/ T.E. Lawrence, Oxford Lectern Bible for OUP.

GEOFROY TORY

PAINTER AND ENGRAVER:
FIRST ROYAL PRINTER: RE-
FORMER OF ORTHOGRAPHY
AND TYPOGRAPHY UNDER
FRANÇOIS I.

AN ACCOUNT OF HIS LIFE
AND WORKS, BY AUGUSTE
BERNARD, TRANSLATED BY
GEORGE B. IVES.



THE RIVERSIDE PRESS : MDCCCXIX

AUTHOR'S PREFACE TO THE SECOND EDITION.

THE first half of the sixteenth century was with respect to printing (as with respect to the other arts) a period of renovation, not in the matter of processes of execution, which remained about the same as in the fifteenth century, but in the matter of the make-up of books, which was entirely revolutionized. Typographical arrangement, appearance of the letters and ornaments, everything, even to the cover, was changed almost at the same time, or, at all events, within a very few years. At that time printing gave over the servile copying of manuscripts, which had at first served it as models, and adopted special rules, better

adapted to its method of execution. For instance, it relegated notes to the foot of the pages, calling attention to them by marks of reference, instead of placing them at the side of the text, as had previously been the custom, at the cost of an enormous amount of labour, without benefit to the reader. It also abandoned the use of red capitals, which, by increasing the labour twofold, made books expensive, and replaced them by floriated letters, which were quite as distinctive, but were set up and printed with the text. This style of ornament, so favour-

1. This term, which is wrongfully used in printing to-day to denote all majuscules, was formerly employed only for the initial letters of chapters. It was in this sense that Schoeffer used it when he said, in 1457, that his Palter was *venustate capitalium distinctus* [distinguished by the beauty of its capitals]; also Chevillier, when he wrote in the *Origine de l'Imprimerie de Paris* (page 32), that the books of the first printers of Paris had no 'capitals,' the chapter initials being left blank, to be made by the illuminators. M. Crapelet, taking the word in its present meaning, concluded therefrom that the books of Gering and his associates were without majuscules; and he thereupon attributes the introduction of roman letters in Paris to Josse Bado, in the sixteenth century, but he is altogether wrong.

Bruce Rogers, *Geofroy Tory*. Riverside Press, 1909

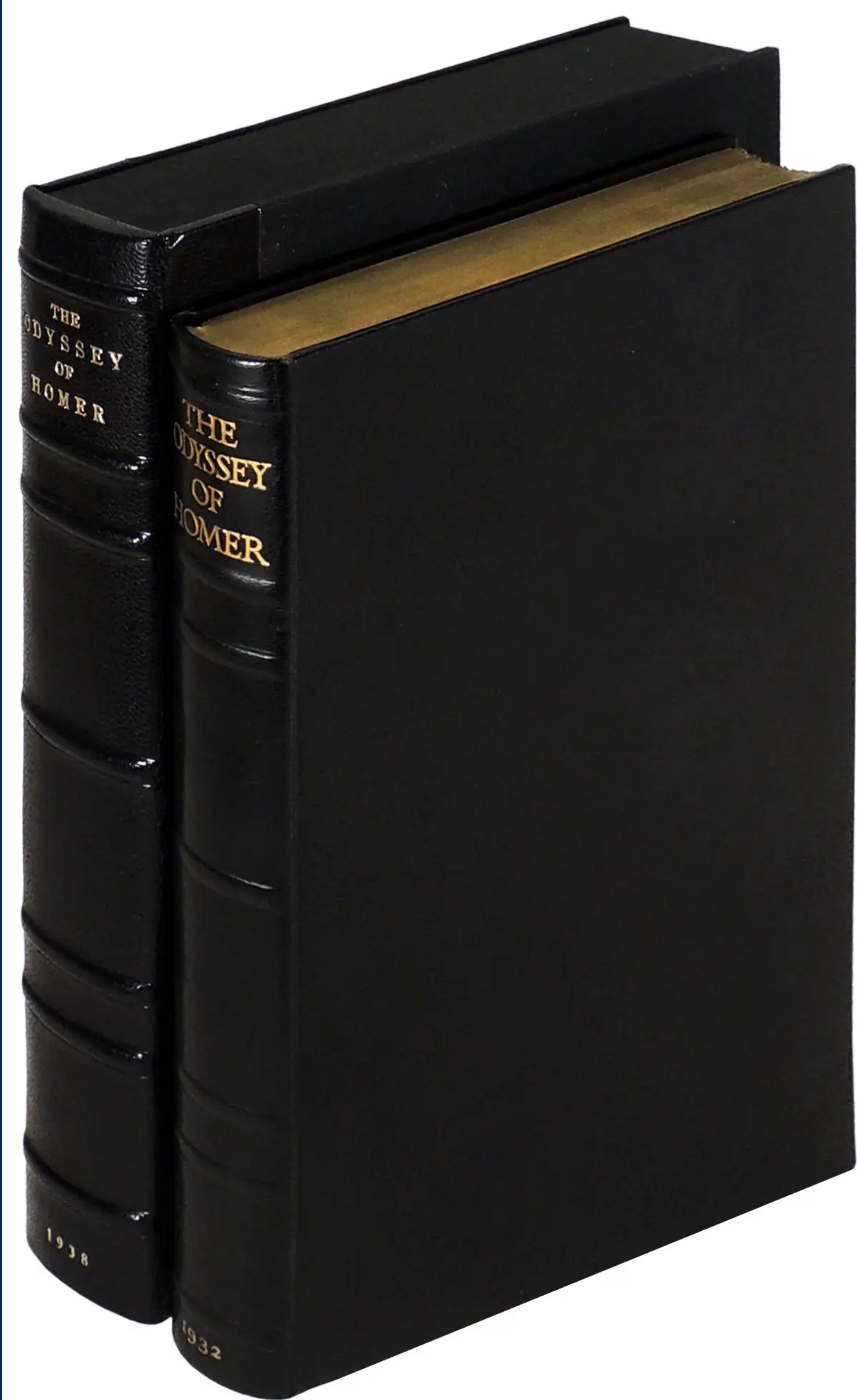
New Series of the
Centaur Types of
Bruce Rogers and
the Arrighi Italics
of Frederic Warde.
Cut by Monotype
and here first used
to print a paper by
Alfred W. Pollard

**Bruce Rogers
Centaur type**



BOOK VIII

At the first show of Dawn, great Alcinous left his couch, as
did that... The anointed



T. E. Shaw (T. E. Lawrence), trans., *The Odyssey*, printed by Bruce Rogers with Emery Walker, 1932.

T. E. Shaw
(T. E. Lawrence),
translator,
The Odyssey,
printed by
Bruce Rogers
with Emery Walker,
1932.



From Ocean's pouring stream our ship measured the open rolling
seas even to Æaea, the isle of sunrise where Dawn the fore-runner
has her house and dancing-floor: there we grounded the ship among

BOOK XII

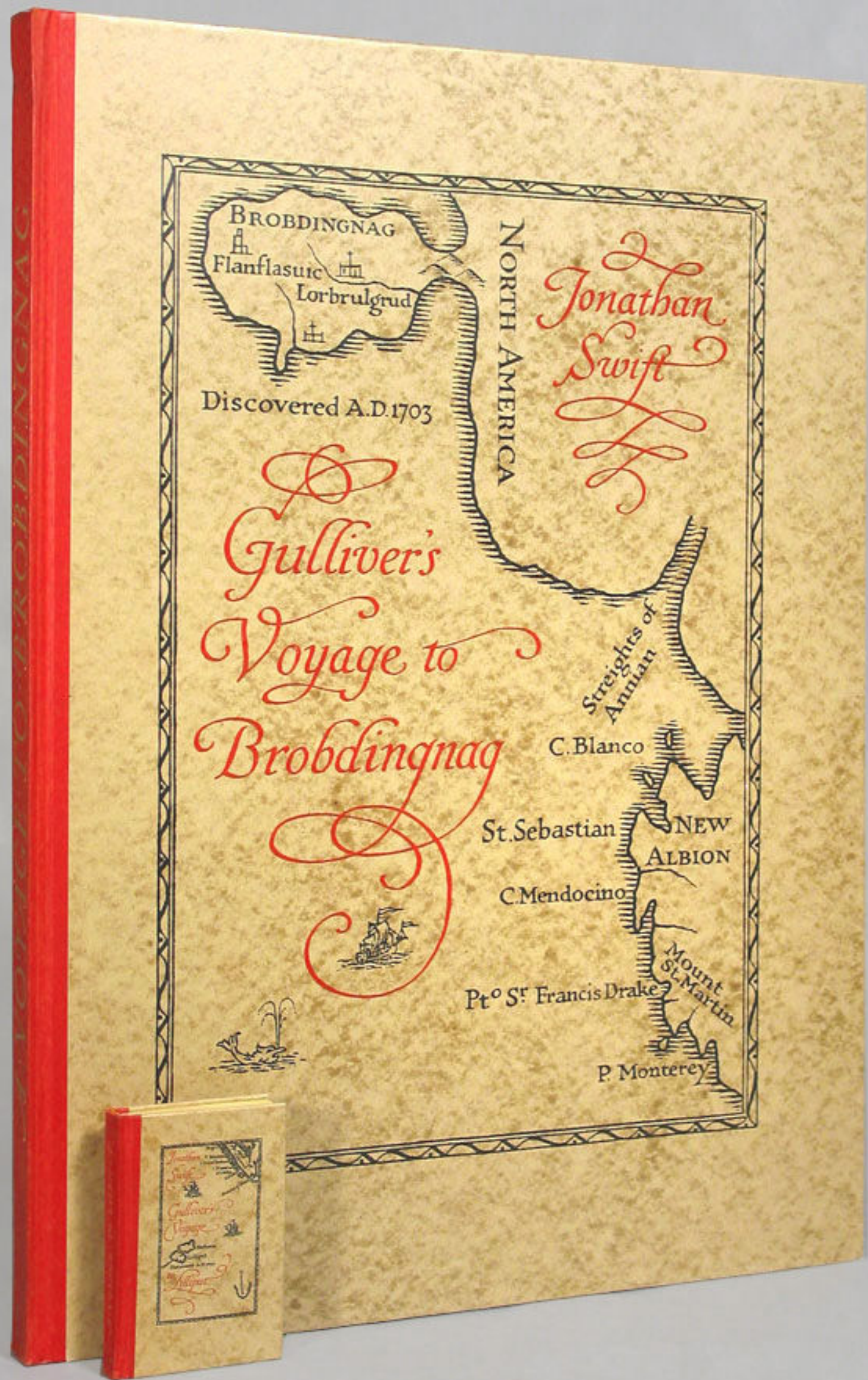
THE
HOLY BIBLE

Containing the Old and New
Testaments : Translated out
of the Original Tongues and
with the former Translations
diligently compared and re-
vised by His Majesty's special
Command

Appointed to be read in Churches

OXFORD
Printed at the University Press
1935

Bruce Rogers
The Oxford
Lectern Bible
OUP, 1935



Gulliver's Travels,
printed by Bruce
Rogers for the Limited
Editions Club, 1950.

