

## Compositors' Tools in the Nineteenth Century

Every letterpress printer—amateur or professional—uses compositors' tools that are essentially unchanged from those of the last century. It would not be too extreme, in fact, to say that some tools, like the composing stick itself, are essentially the same as those used by Gutenberg's workmen. One of the strongest appeals of letterpress printing is a traditional way of working that extends back in time over 500 years.

The composing stick is an especially interesting tool and one that deserves a full essay by itself in a future issue. For now, let us look at some of the other tools of the printer.

The type case is a good example of the long tradition of letterpress. Just about every upper case (in the English-speaking world, anyhow) has the letters in this order: ABCDEFGHIKLMNOPQRSTUVWXYZJU. Why are J and U at the end? Because the case had already been in use for almost 200 years before J and U were added to the English alphabet in the early 17th century. J was added to distinguish certain sounds from I, and U was added about 1630 to indicate the use of V as a vowel. Two hundred years of habit are not discarded lightly, and rather than disturb the established order, J and U were added at the end. For a modern-day equivalent, consider the QWERTY keyboard. Originally devised to slow down typewriter users so the letter bars wouldn't collide, through force of habit it now serves to slow computer keyboard users, for no reason whatever.

Besides a case of type and a composing stick, what does the compositor need? We will consider the following items: composing rules, leads and lead cutters, mallet and planer, shooting sticks and quoins, type line gauges, bodkins, brass rules and rule curvers.



Before 1883, when United States typesetters agreed on the standard size for the pica, it was every founder for himself. No composing stick could have an engraved pica scale on its bed and it was not possible to set the knee of a to a certain measure without the use of a set of composing rules. These were strips of steel made to different lengths, which could be put into a composing stick to set the measure. It would seem that the lengths would have to have been approximate, since one typesetter's 20 picas was not the same as another's. Sticks were often set with a typesetter's quads for accuracy. In addition to setting the stick, the composing rule was used when setting one line of type over another; by placing the composing rule on the first line, the second could be set much more smoothly. Composing rules traditionally had projections or "ears" by which they could be removed from the stick. By the 1880s compositors

had elaborate fitted oak cases lined with plush to hold a complete set of rules.




Peter Schoeffer is credited with being the first to use leads, or strips of metal, between lines of type to separate them, in 1465. They quickly became indispensable not only for adjusting the amount of space between lines, and the length of pages, but also made handling and moving type easier.

### FOR THE COMPOSING ROOM.



#### COMPOSING AND MAKE-UP RULES.

- |  |   |   |  |
|--|---|---|--|
|  | Steel Composing Rules, 15 cms and under, each . . . . . \$0 25                |  | Steel Make-up Rules, 15 cms and under, each . . . . . \$0 30 |
|  | Add 5 cents to above from 15 to 20 cms, and 10 cents extra from 20 to 25 cms. |   |  |
|  | Nickel plating, 15 cents extra.   |   |  |


#### SHOOTING STICKS.

- |  |   |
|--|---|
|   | No. 3, wrought steel, nickel-plated, large, each . . . . . \$0 75 |
|  | No. 2, wrought steel, nickel-plated, small, each . . . . . 0 60   |
|  | Malleable iron, japanned, each . . . . . 0 30                     |
|  | Hickory Shooting Stick, per dozen, 85 cents . . . each, 0 08      |

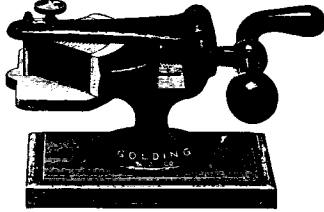
#### BODKINS.

- |  |   |
|--|---|
|  | No. 1, wood handle, needle steel, each . . . . . \$0 10 |
|  | No. 2, wood handle, needle steel, each . . . . . \$0 10 |

#### TWEEZERS.

- |  |  |
|--|--|
|  | When Tweezer is in use the Bodkin folds into it. When Bodkin is required, pressure on the file-cut arc shown in cut brings it out easily, and when extended it locks securely, and is as firm as an ordinary Bodkin. This is the latest and most satisfactory combination. Patent applied for. |
| No. 3. Combination Tweezer and Bodkin, nickel-plated, each . . . . .                 | \$1 00   |

#### GOLDING RULE-CURVING MACHINE.

- |  |  |
|--|--|
|  | This machine curves brass rule from one-quarter inch to eight inches in diameter by pressure exerted by the screw on curved brass plates, between which the rule is put at the proper place to get the required curve, as indicated by a scale engraved on the bed. Smaller curves can be made on this machine than on any other. An attachment is supplied for forming square corners as a substitute for mitered corners. Brass rule for curving or bending should be annealed. All brass rule made by us can be annealed to order at a slight extra charge. |
| No. 1. curves one-quarter to four inches diameter . . . . .                          | \$12 00  |
| No. 2. curves three-eighths to eight inches diameter . . . . .                       | 18 00  |
| Dies for forming square corners, per set . . . . .                                   | 1 50   |

Excerpts from ATF's 1897 printing machinery catalogue.

Leads were cut with snips or metal saws until about the middle of the nineteenth century. Then small choppers were made of iron, much like paper trimmers today. These cutters relied on simple leverage. Eventually inventors added compound leverage for cleaner, easier cuts in thicker metal. Smaller hand-held lead cutters made by Rouse eventually came into use, and large shops used rotary saws for cutting large quantities of leads.

The mallet and planer are ancient tools for leveling a form of type. In letterpress printing it is essential for every letter to be the height of its fellows. The easiest way to do this is simply to lay a flat piece of hardwood on a loose form and give it a tap with a mallet to push down any pieces of type that are too high. Mallets are simply traditional carpenter's tools; the planer evolved into a thick hardwood block. I suspect that the unrestrained use of the mallet and planer gave rise to the epithet "blacksmith" for a printer lacking the delicate touch. (Forger Mark Hofmann seems to have misunderstood the function of the mallet and planer; he thought the mallet was used to drive pieces of type into a wooden base prior to printing!)

The architectural word quoin, denoting an angular stone or wedge-shaped block, entered the language as a printing term in 1570. Quoins were, for over 400 years, simply pairs of wedge-shaped wood sticks. When one of them was driven alongside the other by a blow from a mallet, they filled a wider space in the chase while still remaining parallel, and had the effect of locking the surrounding metal type into place. A tap or two from the mallet in the opposite direction would loosen them and enable the compositor or pressman to make corrections in the form.

Like most other appliances in printing, this simple device was changed in the 19th century. Mechanical quoins were invented. Most were metal but continued the use of pairs of wedges. The most basic, the Hempel quoin, had teeth along the inside edges; by turning a toothed key, the wedges could be tightened without a mallet. Later improvements included enclosing the wedges in a metal casing and changing the tightening method. The highest development came with the invention of the "high-speed quoin," where the amount of tightening pressure on the form can be calibrated and repeated.

Wooden quoins continued to be used well into the 20th century although they were obsolete. The 1923 American Type Founders' catalogue still sold them by the barrel of 7500. Today it is rare to find any. Even rarer are the old "shooting sticks" used to transmit the force of the mallet to the wooden quoin. Although some are still around, they are mostly in the hands of collectors who consider them relics.

Line gauges are well-known even to today's printers who have never touched a piece of metal type. The oldest ones I have found are square foot-long pieces of boxwood, each face stamped with measurements in Pica, Brevier, Nonpareil, Paragon, and so forth. These must date before 1883, when the typefounders of the United States agreed to move to a standard point-denominated system, and the old type size names were abandoned after more than 400 years of use. I have identified one of my boxwood gauges as having been made by the firm of Vanderburgh & Wells in New York, makers of wood type and other wooden appliances for printers.

The bodkin is an ancient tool for piercing cloth and leather (the name was applied to a dagger as well.) My copy of the *Shorter Oxford English Dictionary* gives its printing use as

dating only from 1846, but this is clearly wrong, since Moxon describes it in detail. The bodkin is useful mainly for extracting a piece of type from a form; it is less likely to slip and damage the face of the type than tweezers, and can get into smaller spaces. Although one would not think that such a simple tool could be improved, in the 19th century manufacturers began offering bodkin points that folded into a pair of tweezers and could be put into one's pocket—the Swiss Army Knife for printers.

The Victorian enthusiasm for decoration produced great numbers of highly ornamented typefaces, borders, and ornaments. It also led to the practice of curving pieces of brass rule into ornate flourishes. Brass rule had to be annealed first—that is, heated in a flame and then slowly cooled until it lost its temper and became malleable. At first—in the early 1870s—this curving was done with a simple pair of round-nosed pliers. By the 1880s mechanical devices had been developed to make the work easier, and every typefoundry sold these "rule-bending machines." Some used a crank to pull the rule between two rollers of different diameters. Golding & Co. of Boston sold a device in which the rule was inserted between two curved segments of a circle and then the segments were squeezed together to produce the curve. I have two of these Golding devices and one of the crank type, and I know of only two other rule benders anywhere—yet at the height of the craze, in the 1880s, there must have been one in almost every printing office. Where have they all vanished to?

Compositors' tools are shown in the equipment sections of many type specimen books from the 1860s on. American Type Founders Co. issued two catalogues of nothing but tools and supplies for printers; one in 1897 and another in 1905. These two ATF catalogues are excellent references for the great variety of compositor's tools at the end of the 19th century.

Although it is the tool of the pressman, not the compositor, the most remarkable device of all, I believe, is the simple gauge pin. On the hand press the function of keeping the paper in register was supplied by "points" on the tympan, which pierced the dampened paper easily and kept it from shifting. The point-holes on incunabula leaves can be useful bibliographical indicators. On the 19th century platen press, the function was filled at first by bent pins inserted into the tympan, or quads pasted on the tympan, to which the sheet of paper was fed. Soon more elaborate devices were made, culminating with several varieties of gauges that clamped to the tympan paper, made by the Edward L. Megill Co. of New York (and later Brooklyn.) These patented gauge pins were in general use over 100 years ago. Today they are still made and sold by the same company; the gauges have not changed one bit over the years, nor have the small cardboard boxes they come in.

About five years ago while reading an 1890 issue of *Inland Printer* I found a Megill ad for a peculiar form of gauge pin. On a sudden impulse, I telephoned the Megill company to ask if it was available. "We've stopped making that one," I was told. "You must have seen it in an old ad." Indeed, I had—95 years old. Now I cannot seem to locate the company in Brooklyn—I hope it has only moved and is still going strong in its second century of making exactly the same product and packaging it exactly the same way.

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# APHA NEWS

The following members were nominated for APHA offices by the Nominating Committee:

Virginia Smith — President  
 Jennifer Lee — Vice President for Programs  
 Stan Nelson — Vice President for Membership  
 Irene Tichenor — Vice President for Publications  
 Martin Hutner — Secretary  
 John Hench — Treasurer  
 Jerry Kelly — Trustee  
 Mark Carroll — Trustee  
 David Pankow — Trustee  
 Jeff Kaimowitz — Trustee (to fill 1 year of the term vacated by Martin Hutner.)

The election will take place at the Annual Meeting January 27th, and will be reported in the next issue of the Newsletter, as will the APHA Annual Awards presented on that date.

APHA Membership renewal notices have been mailed. Dues remain at \$25 for Individuals, \$30 for Institutional Membership, and \$50 for Contributing Membership. 1990 members will receive six issues of this Newsletter and numbers 23 and 24 of *Printing History*. Contributing members may choose a premium from the following books:

Bigmore & Wyman, *A Bibliography of Printing Aesop's Fables*. Includes reproductions of 15th century woodcut illustrations. (A. Colish, 1988)  
 Julian Symonds, *Oscar Wilde: A Problem in Biography*. (Published by the Yellow Barn Press, 1988.)

All contributing members will also receive *Olde Type Faces at Tri-Arts Press* (paperbound catalogue of the Frederick Phillips Nelson collection of type.)

PLEASE NOTE: The Grand Central Station Post Office has relocated APHA's P.O. box for the next three years. Although our mailing address remains the same (see the box on page 3), the change has caused some delay in our receiving our mail promptly. Please bear with us while we attempt to improve the situation. In case of serious problems write to Renée Weber, APHA Executive Secretary, Fairleigh Dickinson University Library, Madison NJ 07940.

The 1990 Lieberman Lecture, sponsored by APHA, W. Thomas Taylor and the Book Club of Texas, will be given in May (final date not chosen) in Galveston. The speaker will be Stephen O. Saxe and the subject will be *Printing on Trains*.

The 1990 APHA Conference will take place at Columbia University on October 6. Details will be forthcoming in a future Newsletter.

## NOTES & QUERIES

To the Editor:

I enjoyed your article on the Cambridge Colonial Press, but would like to offer an alternative to one of your points. It would indeed have been a daunting task for those who

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did not know the Massachusetts tongue to set the type for John Eliot's *Indian Bible*. In fact, however, Samuel Green and Marmaduke Johnson had the assistance of a native American convert. Wowaus, known to the English as James Printer, was apprenticed to Green in 1659 and helped with the first edition of the *Indian Bible*. He sided with King Philip in King Philip's war, 1675-1676, but was pardoned after the war and was again on hand to set the type for Eliot's second edition of the Bible between 1680 and 1685. In 1709 James' assistance was acknowledged for the first time: the *Massachusetts Psalter*, translated by Experience Mayhew, bears the imprint "by B. Green and J. Printer."

It is only recently that scholars have begun to acknowledge the contribution of native Americans to the translation and printing of the *Indian Bible*. See Margaret Connell Szasz, *Indian Education in the American Colonies, 1607-1783* (Albuquerque: University of New Mexico Press, 1988), pp. 111-120.

For those interested in Indian imprints, you might want to add an item to your "Further Reading": William Kellaway, *The New England Company, 1649-1776: Missionary Society to the American Indians* (New York, 1962). Kellaway provides a description of the "Indian Library" based on correspondence between the Society for the Propagation of the Gospel in London and the Commissioners of the United Colonies of New England (pp. 130-65).

E. Jennifer Monaghan  
 Brooklyn College, City University of NY  
 Brooklyn, NY

To the Editor:

I write to observe that I especially enjoyed the current Newsletter [No. 91] because I happen to be just about in the middle of Winship's *The Cambridge Press*. What a nice piece of scholarship!

I wonder if anyone has ever explained the Rev. Dr. Glover's first name, a strange one for an Englishman. Winship seems to be confident in writing that it's Josse, not Jose. He cites two documents with the name as Josse and Joss but those might well be attributed to the flexible orthography of the era.

Relentless, as always, in my pursuit of trivia, I remain,

Wilbur Doctor  
 Kingston, RI

"The Reverend Mr. [Jose] Glover's name has been spelled in a variety of ways—Jesse, Jos., Josse, and Joseph, and there is authority for each. His own spelling was Jose, as is attested by his will, dated May 16, 1638, still in the Prerogative Court of Canterbury, England. The will is in

his own handwriting, and his signature appears three times, with the same spelling each time." —John Clyde Oswald, *A History of Printing* (New York, 1928). The Editor suspects that Josse and Jose were both intended as abbreviations for Joseph (viz. the modern "Jos.") not as some other, more exotic name.

## TYPE & PRESSES

Richard G. Dudenhofer, 31 Jerome Ave., Bloomfield, CT 06002 has for sale an F. Wesel iron hand press, probably dating from the early part of this century. The platen is 20 x 26. For an information sheet and picture, write to Mr. Dudenhofer or call 203/242-1684.

Mark Lorencovitz (3 Aldrin Drive Wanaque, NJ 07465) wishes to sell a 9 x 12 Franklin Gordon platen press, in good condition and with its treadle. A quantity of type will accompany the press. For further information, write Mr. Lorencovitz or call him at 201/848-6417 (day) or 201/8310-416 (night).

Dealer Alan Dietch has sold a Ruggles treadle platen press, one of three known to survive, to Ted Salkin, a well-known California supplier of printers' metal and equipment. The press will be on view at Salkin's location in Healdsburg, California. The other two Ruggles jobbers are at the Smithsonian (see Newsletter 85, September/October 1988) and one that is privately owned near Amador City, California.

## BOOKS

Two books of great interest to APHA members have been published. The first is Hugh Amory's *First Impressions: Printing in Cambridge, 1639-1989*, an illustrated catalogue of the Houghton Library/Harvard Law School exhibition of the earliest printing in America. It is available, I believe, from the Houghton Library, Harvard University, Cambridge, MA 02138. I do not know the price. The other is by William Reese, *The Printers' First Fruits*, and is a catalogue of a similar exhibition at the American Antiquarian Society. It is available from the AAS Publications Department, 185 Salisbury Street, Worcester, MA 01609-1634 for \$15.00 plus \$1.50 postage and handling. Both publications will be reviewed in the next issue.

Tona Graphics has a list of 26 books relating to printing and typography for sale. For a copy write Tona Graphics, PO Box 58, Grand Island, NY 14072 or call 716/773-4059 or 716/773-1292.

Joseph Blumenthal's *Bruce Rogers: A Life in Letters, 1870-1957* has been published by W. Thomas Taylor. It is a definitive account of Rogers and his work by a most distinguished printer and author. Rogers' career from the Riverside Press to the Oxford Lectern Bible and beyond is covered, and selections from Rogers' correspondence is included. There are 64 pages of illustrations (some in two colors), showing virtually all of the books discussed. The illustrations were printed at The Press of A. Colish, and the text in Monotype Centaur was printed by W. Thomas

Taylor. Cloth, 214 pages, 7<sup>3</sup>/<sub>8</sub> x 10<sup>3</sup>/<sub>4</sub>. \$95.00 plus \$3.00 postage from W. Thomas Taylor, 1906 Miriam, Austin, TX 78722. Texas residents add \$7.12 sales tax.

*Nineteenth-Century Job Printing Display: The Poster*. Paperbound, 21 leaves, printed recto only, 4<sup>1</sup>/<sub>2</sub> x 6<sup>1</sup>/<sub>2</sub>. Available from Bowne & Co., Stationers, South Street Seaport Museum, 207 Front Street, New York, NY 10038. Price: \$6.50 postpaid (NY State residents add sales tax.) Checks payable to South Street Seaport Museum.

This charming little pamphlet was printed in a limited edition of 200 copies by Barbara Henry, curator of the Bowne printing office at South Street. It has a distinctly 19th century look to it, including the use of a varied selection of early display type from Bowne's great collection (originally the Frederick Nelson Phillips collection.) The text is brief (in fact there are probably more words in the colophon) but gives some cogent advice on setting posters adapted from Joseph Gould's *The Letterpress Printer* (London, 1881.) It is beautifully printed.

(The following review by David W. Peat is reprinted in its entirety from *The Printer*, December 1989.)

Saxe, Stephen O., Editor. *Old-Time Advertising Cuts and Typography: 184 Plates from the Boston Type and Stereotype Catalog (1832)*. 192 pages, paperbound, 5<sup>3</sup>/<sub>8</sub> x 8<sup>1</sup>/<sub>2</sub>. New York, Dover Publications, Inc., 1989. Available from Stephen O. Saxe, 1100 Madison Avenue, New York, NY 10028; price \$7.50 postpaid, \$8.00 ppd. in NY state, \$9.00 overseas (remit in U.S. currency only.)

This inexpensive paperback fills a gap for type collectors, printers, historians, and others interested in the background of typefounding in the United States. These early specimen books are so rare that they are not generally available. The only other facsimiles of U.S. specimen books I know of are of the 1809, 1812 and 1822 Binny and Ronaldson Foundry (in limited editions) and the partial reproduction of the 1848 Bruce specimen by this writer in 1963.

The introduction by Stephen O. Saxe enhances the volume by providing an interesting and accurate account of the Boston Foundry as well as informative charts on early nineteenth century type style names and the origin of the type size names (as well as their counterparts in the point system.) The type styles shown are relatively plain as compared to those at the height of the Victorian period, fifty years later. However, the borders are quite ornate and are similar to those available through the nineteenth century.

There are nearly one hundred pages of interesting cuts, including forty-three eagles and one ostrich! Type and borders are priced by the pound, whereas the cuts are individually priced.

Although printed on fairly soft paper most of the cuts are reproducible. However, a few have considerable loss of detail, either because of the original material being less than perfect, or problems in the duplication process. Items from the book may be reproduced without special permission.

Annenberg lists only four known copies of this book (although Mr. Saxe mentions six copies have been identified), so this is your chance to get a reasonably-priced copy of a very rare specimen book for your collection. I highly recommend its purchase.

—David W. Peat