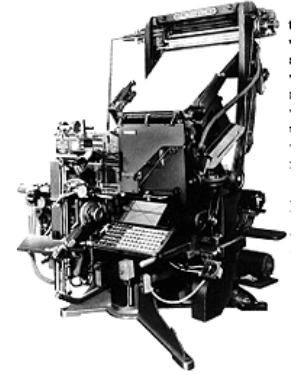


The Linotype Machine: Thomas Edison called it the "Eighth Wonder of the World"



"Ottmar, you've done it again! A line o' type!" Whitelaw Reid, publisher of the New York Tribune, exclaimed on July 3, 1886, when Ottmar Mergenthaler demonstrated his new Linotype machine. The Linotype quickly brought about a revolution in the printing industry.

Google: [Johann Gutenberg](https://en.wikipedia.org/wiki/Johann_Gutenberg) =s [wikipedia.org](https://en.wikipedia.org)
More than 400 years after Johann Gutenberg invented moveable type, a process that allowed printers to set type by hand one letter at a time, the Linotype allowed printers to set a complete line of type, using the Linotype's 90-character keyboard. Because the Gutenberg process was so slow, most large newspapers consisted of no more than eight pages. But with the advent of the Linotype, that was to change quickly, and within 20 years Linotypes were in use in every state.

Mergenthaler's invention measured 7 feet tall, 6 feet wide and 6 feet deep. It allowed newspapers to compose pages four to five times faster and caused thousands of hand compositors to lose their jobs. A skilled Linotype operator could cast four to seven lines of type a minute. The Linotype operator's key strokes told the machine which letter molds to retrieve from the magazines and the machine assembled a row of metal molds, or matrices, that contained imprints of those characters. Then, the machine poured molten lead into the matrices and the result was a complete line of newspaper type, but in reverse, so that it would read properly when it transferred ink to the page. The machine automatically restored the matrices to the magazines after the lead was poured.

Although his invention changed the newspaper business, Mergenthaler did not start out as an inventor of printing machines. The youngest of four Mergenthaler children, Ottmar was born in Ensingen, Germany, and early on expressed an interest in machines. At age 13, he repaired his village's

Lutheran church tower clock, which had not run in years. Mergenthaler studied watch making under the guidance of his stepuncle, Louis Hahl in Bietigheim. Then after completing his apprenticeship, he emigrated to the United States on Oct. 26, 1872, and joined his stepcousin, August Hahl, in Washington, D.C.

Mergenthaler's idea for the Linotype machine began to form after he and his stepcousin moved their business to Baltimore, MD. They managed a shop that built models for inventors seeking to patent their creations. One of the inventors, Charles T. Moore, brought Mergenthaler sketches for his "transfer typewriter," a machine that Moore believed would revolutionize printing. Mergenthaler, who had studied mechanical drawing and basic electrical theory during his apprenticeship, found numerous flaws with Moore's design and decided to develop his own machine to create type.

In 1882, Mergenthaler began designing the early versions of the Linotype. Mergenthaler reportedly got the idea for the brass matrices that would serve as molds for the letters from wooden molds used to make "Springerle," which are German Christmas cookies. As a boy he had carved a Springerle mold for his stepmother. Even though the Blower Linotype functioned effectively, Mergenthaler continued to refine the design. In 1892, he developed the Simplex Linotype Model 1, which became the prototype for more than 100,000 Linotype machines. It was the sensation of the Chicago World's Fair the next year.

Two years after he released the Simplex Linotype, Mergenthaler was stricken with tuberculosis. Born 1847 – died on Oct. 28, 1899, at his home in Baltimore. Funeral services were held in the Old Zion Lutheran Church and today the church contains a stained glass window with a representation of Mergenthaler's Blower Linotype.

From the Magazine | Time Bonus Section
October 2006: – Inside Business

Back in Print

THE OLD-FASHIONED LETTERPRESS GETS A 21ST CENTURY BUSINESS MAKEOVER By COELI CARR

In late 2003, Webster, who produces cards using that traditional process, took possession of letterpress No. 3--he currently owns seven--by dismantling and transporting it piece by piece through a shaft he had dug in a window well. "The owner of the press told me, 'If you can get it out of the basement, it's yours,'" says Webster, 29, who started Seraph Stationery a year and a half ago.

It's notable that letterpresses, weighing up to 2,500 lbs. and made by companies with Old World names like Vandercook, Heidelberg and Chandler & Price, haven't been manufactured for decades. Not surprisingly, printers covet them. That's why a machine in good condition can fetch a high price. A Vandercook might go for as much as \$6,000; four years ago, you could have bought one for less than \$1,000. "If one machine breaks down, I want to have another one to back it up," says Webster.

Only those antediluvian behemoths can create the signature sculptured, three-dimensional letterpress look of deep impressions made in paper. That's what attracts printers and consumers, says Fritz Klinke, 65, who has spent more than 50 years working in the printing industry. Klinke owns NA Graphics in Silverton, Colo., which sells letterpress-printing supplies and parts.

Klinke is seeing a letterpress renaissance. He estimates that over the past three years, about 500 people have joined the ranks of letterpress printers in the U.S. He has 3,000 customers. Most companies, he says, are one- to three-person outfits, and about 90% post revenues of less than \$100,000. Webster projects that his revenues this year will crack six figures. With two full-time and two part-time employees, he produces stock cards of his own design and wholesales them for \$2 apiece (each retails for \$4 to \$4.50), fills wedding-invitation orders from retailers and does letterpress jobs for other designers. Webster's in it for the long haul. "The final product and the effect are what I'm in love with," he says.

So is Lisa Krowinski, owner of Sapling Press in

Pittsburgh, Pa., who became a full-time letterpress operator in early 2004. She loves the instant gratification letterpress printing offers. "When you're done, you have a stack of whatever you've just printed right in front of you," says Krowinski, who owns three letterpresses. She's a one-person shop, dividing her time between turning out her own stock cards, which she wholesales for \$2.25, and custom work like wedding invitations and personal stationery. She projects 2006 revenues in the middle five figures.

Paul Moxon, a consultant, designer and printer in Birmingham, Ala., who owns Fameorshame Press, has seen the growth of letterpress printing reflected in the popularity of courses he teaches around the country. Recently, at the San Francisco Center for the Book, both his classes were sold out. Moxon believes designers are attracted to the technique because it allows them to control the entire process and select paper not used in commercial printing jobs--lush sheets with deckle edges and uneven surfaces and such inclusions as bits of leaves or flowers. It's the uniqueness of a letterpress creation that makes people willing to pay a premium. "It is pricey, and that's one of the reasons why printers put the real bite into it, so you know it's letterpress from across the room," says Moxon. Working in an archaic mode has its competitive advantages. "Because the presses are obsolete, you're not competing with other people who are getting the newest machinery, so actually our capital investment is far less than most offset printers'," says Julie Holcomb, who has run Julie Holcomb Printers in Emeryville, Calif., for 25 years. Ironically, she adds, advances in computer technology have allowed letterpress designers to use photopolymer plates--which contain the image and text to be printed--in place of hand-set type. "I hope the people who are printing now--me included--are helping develop an audience that will be cultivated and maintained so our craft can survive," she says. Fortunately, those vintage machines are still out there to be tracked down. Klinke estimates that there may be as many as 20,000 left out of several hundred thousand presses that existed in the 1960s. That bodes well for diehards like Webster, who admits he can't walk by a printed piece of paper without touching it. "If I see a flat-printed piece," he says, "I think, 'Boy, that would sure look neat if it were letterpressed.'"

Wood Type



Operated by volunteers of the Two Rivers Historical Society, the Hamilton Wood Type and Printing Museum is the only museum dedicated to the preservation, study, production and printing of wood type. With 1.5 million pieces of wood type and more than 1,000 styles and sizes of patterns, Hamilton's collection is one of the premier wood type collections in the world.

<http://www.woodtype.org/>

Saw this museum (2005). Must have had 300 - 24 drawer type cabinets. Not sure if they sell type. The milling machines that were used for cutting slices of hardwood for wood type blocks are there. I'm wondering who will operate them when they do get them running?
The Hamilton Company

not only made type and type drawer cabinets. In the 1920's they produced home appliances such as blenders, electric knives, hand mixers, food processors, malted milk mixer, washer/dryer, 2 wheel bicycle and more. Located in a 3 story 1880 factory building - Two Rivers, WI with Lake Michigan lapping at the

back of the building, it's a great place to spend a day. And yes, if you get tired of type you can "jaw" with the commercial fishing boat operators. About 1500 hrs. they'll be winding their nets onto the rotating racks to wind dry them for the next morning. They still do that in Lake Michigan.

I met you at:

Linotype University IV, Denmark, IA - Sunday - Sep. 24th thru Saturday - Sep. 30th. - 2006

Jer Merrill - Monona, Wi. (Madison, WI burb) jermerrill@sbcglobal.net 608-222-3838

- Elektron, •Linotype, •Monarch, •Intertype,
- Teletype and Lino Maintenance > > <http://gochipmunk.com/html/contents.html>
(choice = lower left page)

<http://gochipmunk.com/dPCpTruth1-2.pdf>

True Confession - how data conversion works!
(Recommended reading for NON-letterpress printers.)

(cut/paste link(s) of choice into browser)

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