

STEVE FECHT/staff photographer

Pressman Frank Kasparek looks over a freshly printed copy of the Observer. The Observer is printed through an offset photocomposition method on a Goss-Metro press. The press weighs 150 tons, stands 15 feet wide, 42 feet long and 28 feet high. It prints 60,000, 64-page newspapers per hour. Offset printing, in comparison to the older method of pressing paper against raised type, provides sharper pictures, darker type and brighter color.

## Computer age

### Dramatic changes punctuate newspaper production process

By Joanne Maliszewski  
staff writer

IF EDGAR Hollis Bloomer walked into the Farmington Observer today, he'd never believe he was standing in an honest-to-goodness newsroom.

A century of technological advances has brought many changes to Bloomer's family newspaper. All things familiar to the founder and first editor of the Farmington Enterprise are gone, replaced by automation and computerization. Gone is his handsome rolltop desk, wall telephone and hand press that printed one news page at a time. Bloomer's large hand roller to ink the type forms are gone, as is his drum cylinder job and news press run by a gasoline engine.

As new people, curiosity forces us to wonder what Bloomer's impression of the modern newsroom would be. He would probably think we were spoiled as he considered his nearly one-man operation as publisher, printer, editor and reporter.

Bloomer would glance at our video display terminals, connected to the mainframe computer in our Livonia headquarters by telephone lines, telefacsimile machine, photographic darkroom, copying machine and multi-line telephone system. And he would probably wonder in amazement.

A CENTURY of technological change has enabled the Farmington Observer news staff to put out a larger, more sophisticated and comprehensive newspaper at a much faster pace.

"We've transformed hours into seconds. It's literally that dramatic," said Steve Barnaby, Observer & Eccentric Newspapers managing editor. "This is just the beginning of the computer age. With video display terminals, we can transmit stories quickly, edit quickly and communicate with our other offices within seconds."

In Bloomer's day, a fast-breaking news story was difficult to get into that issue. Today, thanks to computers, high-speed phototype setting and offset printing presses, a breaking story will make the current issue.

High-speed phototype setting allows a modern staff to electronically set type — the characters that are actually printed on the news page — at 2,000 lines of type a minute.

In the 1960s, when the newspaper was still using the well-known linotype, just eight lines of type were set per minute. The letter press, a companion to the linotype, was a modernized version of 15th-century inventor Johann Gutenberg's



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Staff writer Joanne Maliszewski composing a story on a Digital computer terminal linked by telephone to the Observer's printing plant in Livonia.

moveable-type printing press.

THE LINOTYPE revolutionized newspapering because, until its birth, type was set by hand, letter by letter. Bloomer set type by hand for the Farmington Enterprise — as it had been done since the 1400s when Gutenberg invented moveable type.

The process used by Bloomer required a skilled compositor to pick up individual pieces of type and assemble them in a line. By mechanizing the process with a linotype, pages were composed four or five times faster, allowing more to be printed.

High-speed phototype setting and offset presses have allowed the newspaper to enter a streamlined, fast-paced world. Offset presses, which the O&E Newspapers switched to in 1970, have been a blessing.

The process is relatively simple and involves taking a large photograph of a typeset news page. The negative is put on a light-sensitive aluminum sheet and exposed like a photograph. After the aluminum sheet is developed, the letters remain on the aluminum, ready to transfer ink during the printing process.

In Bloomer's day, he would write or type a story, proof read it, set it in type, reread it again and then print.

"Most of the change has been in the last 20 years. Technology has recently changed that dramatically because for 100 years we did the job the same old way," Barnaby said.

"The basic technology was typewriters and linotype. And editing was with big wooden pencils. It was a very slow process," he said.

Today, reporters write and editors edit on computers. Computers are the typesetter's tool. High-speed phototype setting follows principles used in photographic darkroom work, said Barry Jensen, O&E copy editor.

IN THE early 1970s, the O&E Newspapers installed computerized typesetting equipment. Reporters and editors entered a world with special typewriters using codes translatable into computer language. Then came VDTs.

The editor is, in essence, the typesetter today," Jensen said.

Each computerized story carries with it codes for size and style of type and with one push of a button, the reporter's work is sent into a sophisticated computerized system that sets the type, eventually producing tomorrow's newspaper.

News writing is faster because of VDTs. Typewriters are out of date, as are typing paper, pencils, erasers and the infamous big fat editing pencil. With computers we can move or delete words and paragraphs.

The VDTs allow us to play with stories, trying various angles, sentences and emphasis to get the idea across without crumpling up sheets and sheets of paper.

ADVANCED TECHNOLOGY has its drawbacks. With Bloomer's system of writing and publishing, he was able to catch mistakes before he read the story many times, first when he wrote it, then when he edited it, then when he set it in type, then when he proof read it.

Computerization has eliminated two pairs of eyes from reporters' stories. Computerization has meant some job skills were no longer needed. Linotype operators have gone the way of buggy whip makers.

Because fewer people are involved in producing a computerized newspaper, reporters and editors must know more about the production process.

And, as in most of our society, the contemporary newsroom is dependent on electricity — no electricity, no computer, no VDT, no newspaper.

"Computers have revolutionized the world, and newspapers are a part of that revolution," Barnaby said.



Workers in the composing room in the Enterprise Building on Farmington Road in downtown Farmington during the early 1950s.

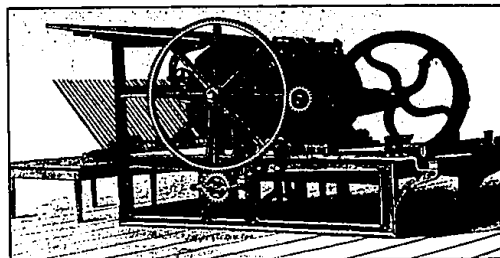


photo courtesy Farmington Community Library

By its 10th birthday, the Enterprise had acquired this Chicago Taylor intermediate drum cylinder air spring press.



RANDY BORST/staff photographer

This 1927 linotype, now displayed in the lobby of the Observer's corporate headquarters in Livonia, is an updated version of German immigrant Ottmar Mergenthaler's 1868 invention, which dramatically changed U.S. newspapering. The "hot type" machine replaced typesetting newspaper type by hand — essentially in the way it had been done since the 1400s. The "cold type" photocomposition process developed in the 1950s made the linotype all but obsolete at U.S. newspapers.

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— Barry Jensen  
copy editor