

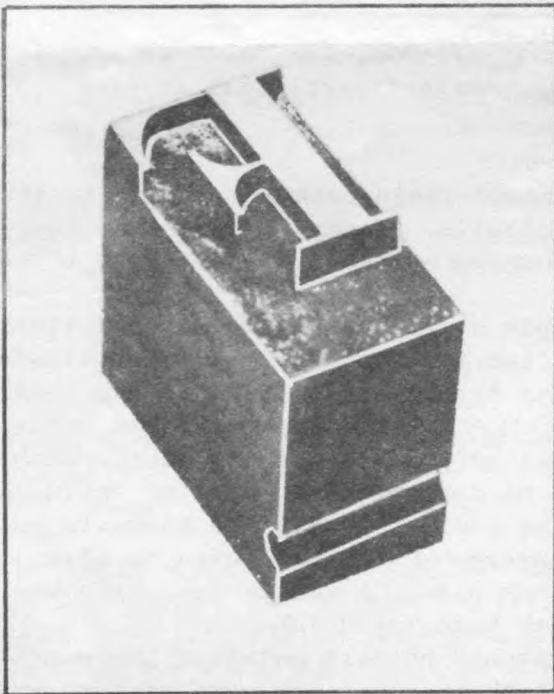
STORIES of New Jersey

ist, contributed the next major development: a set of automatic steel fingers that gripped the paper as the cylinder turned. Swiftly moving belts piled the finished sheets in stacks.

This type of cylinder or flat bed press is still used for most of the good printing. Had the printing of books been the only consideration, development might have stopped. But newspapers needed a still faster press, one that could print both sides of the sheet and many pages in one operation. In 1851 at the Crystal Palace Exhibition in London a small press was exhibited that printed from a continuous roll or "web" of paper. The idea was used by William Bullock, who built a large newspaper press in 1865. From this "web" press there developed the modern newspaper press that can print, fold and count more than 60,000 newspapers per hour, each containing 64 pages.

A practical method of putting type on a cylinder had to be invented before the block-long mammoths of today could begin their building-shaking production. On some of the early cylinder presses wedge-shaped type was set directly on the cylinder, but that was awkward and slow. Then came the invention of a molding machine which permitted the stereotyping of semicircular plates. The type is set in a huge flat form and an impression taken with damp papier-maché. This is dried, bent into a semicircle and placed in the molding machine. Lead is poured in and a curved replica of the original is formed. The curved plates are bolted to the press cylinder, ready to stamp their message on the speeding web of paper.

TYPE AND TYPESETTING



A piece of foundry type.

Type and typesetting developed as slowly as the printing press. Until the seventeenth century printers made their own type, engraving dies by hand, punching the matrices or metal molds and casting the individual letters out of lead. Then type making became a separate craft. Some of the early type designers such as Caslon, Baskerville, Elzevir and others made letters so beautiful and legible that their styles are still used today.

There were too few printshops in the colonies to support a foundry, and printers imported type at great expense. By the time of the Revolution, however, there were 50 printshops here. Shortly before this, in 1769, the Connecticut Assembly had recognized the need for a foundry by granting £100 to Abel Buell, a silversmith, provided that he build one. Buell, who had been experimenting with type, never built his plant, but six years later a firm in Germantown, Pennsylvania, was turning out quantities of type.

Type is kept in a wooden drawer, divided into little boxes for the individual letters, numbers, punctuation marks and symbols such as \$&*. Printers will set type by hand, but only for small jobs and special editions of books. The typesetter spells out each word by picking up the individual letters and placing them in a typeholder called a stick. To write the word "the" in type,