

We note that in a linotype three distinct operations go forward together,—composing one line, casting a second, and distributing a third, so that the machine has a pace exceeding that at which an expert operator can finger his keys. This high speed of circulation renders it unnecessary to have more than a few matrices of any uncommon sort, such as accented or mathematical characters. A linotype usually turns out 5,000 ems of solid, justified, and perfectly spaced matter per hour, in the hands of a single operator; this is four to five times faster than manual composition. As each line is composed in plain sight, corrections may be effected before a line is cast, as easily as in typesetting by hand. As errors in distribution are impossible, machine proofs are much less faulty than matter set by hand. By a change of matrices and molds, easily and quickly effected, a machine produces any face, from agate to small pica, and any length of line not exceeding five inches. Each magazine contains channels for a font of matrices: these may be of any face desired, and each machine may have two, three, or four magazines.

A machine requires about one-third of a horse-power explicit confidence and high esteem. When Mr. Chase became Chief Justice of the United States Supreme Court, Schuckers proceeded to Albany, New York, where he studied law, but he developed a dislike of law, and never completed his studies. He now wrote a *Life of Mr. Chase*, and for years contributed to the *Sun* and other New York papers, as well as to the press of Philadelphia. In that city he speculated in real estate with profit, but the panic of 1873 swept away his little fortune. He then began to devise a typesetting machine, producing a succession of ingenious designs. In his latest model he used a typewriter keyboard, and introduced his double-wedge spacer. During the closing years of his life he resided in Newark.

In 1901 he was secretary for the New Jersey Commission at the Pan-American Exhibition in Buffalo. In October he was taken seriously ill. On November 19 he died: four days afterward his remains were laid at rest in Rock Creek Cemetery, Washington.