

Walter Shawlee, the Sovereign of Slide Rules, Is Dead at 73

Used by engineers for centuries, they were displaced by pocket calculators and all but forgotten until Mr. Shawlee created a subculture of obsessives and cornered the market.



By Alex Traub

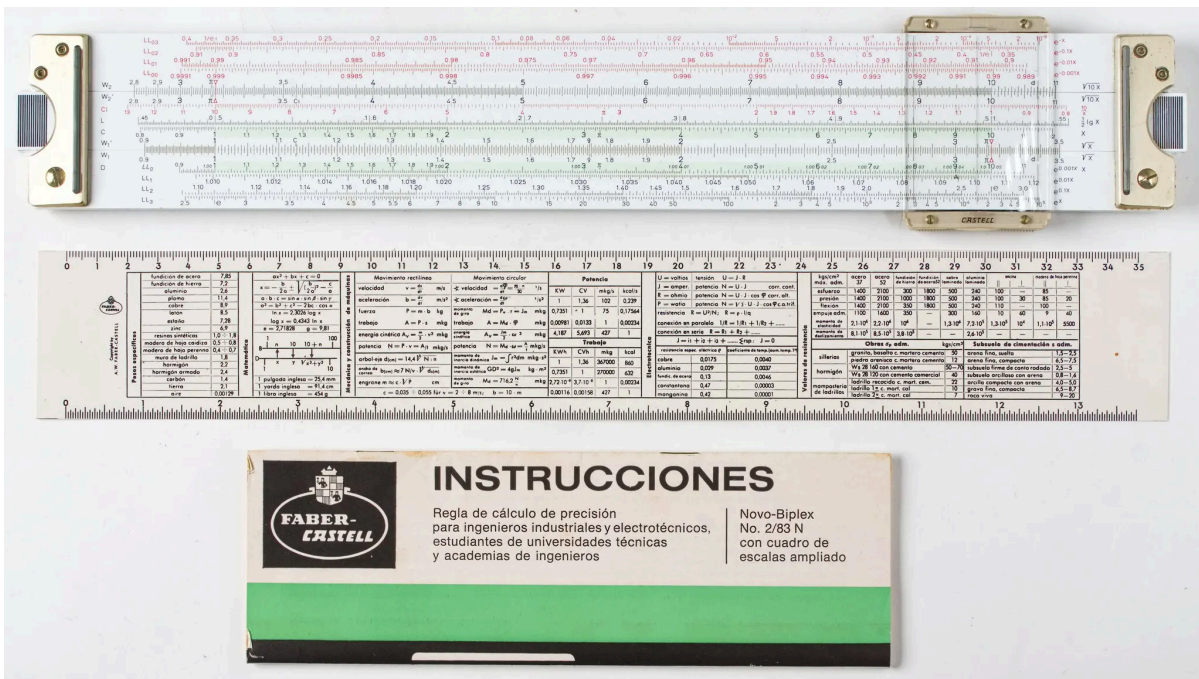
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For about 350 years, humanity's most innovative hand-held computer was something called a slide rule. As typewriters once symbolized the writer, slide rules symbolized the engineer.

These analog calculators came in metal, wood, plastic and even bamboo, and they could be found all over the world. Their functions included computing higher-order multiplications, exponents and logarithms, among other mathematical operations. They were usually long and rectangular with a retractable middle segment, and they featured dense fields of letters, lines and numbers stacked on top of one another.

They looked almost comically abstruse, as if they might be used as paddles in the hazing rituals of a math fraternity.

Non-nerds struggled to make sense of them. Then, in the early 1970s, lightweight electronic calculators became widely available. The market for slide rules collapsed, and manufacturing of new devices essentially ceased.



One of Mr. Shawlee's prized possessions was a Faber Castell 2/83N slide rule, considered by many to be the Rolls-Royce of the devices. Sphere Research Corporation

One day, about 20 years later, a middle-aged avionics engineer by the name of Walter Shawlee was looking through a drawer at his home in Kelowna, a midsize city in British Columbia, when he happened upon his old slide rule from high school.

It was a Keuffel & Esser pocket Deci-Lon, model 68-1130, with a slender Ivorite body and delicate see-through cursor box. Both had stood the test of time. Mr. Shawlee remembered that as a teenager he had spent six months saving up money to buy it.



The Keuffel & Esser pocket Deci-Lon slide rule that Mr. Shawlee found while rummaging through a drawer. He had used it in high school. His discovery ignited a renewed passion for the tool.

Inspired by this encounter with his youth, he created a website dedicated to slide rules. Before long, nostalgic math whizzes of decades past came across the site. Emails poured into Mr. Shawlee's inbox. He began spending eight hours a day researching, buying, fixing and reselling old slide rules.

"Are you trying to corner the slide-rule market?" his wife, Susan Shawlee, asked him nervously, The Wall Street Journal reported in 2003.

The magazine of the Institute of Electrical and Electronics Engineers, Spectrum, determined in 2007 that Mr. Shawlee had, in fact, "cornered the world market."

"He's Mr. Slide Rule," a Texas engineer and slide-rule enthusiast told The Journal. "Walter knows everybody in the slide-rule racket."



Mr. Shawlee in 2018. “He’s Mr. Slide Rule,” a Texas engineer and slide-rule enthusiast was quoted as saying. “Walter knows everybody in the slide-rule racket.” Sphere Research Corporation

Mr. Shawlee died on Sept. 4 last year at his home in Kelowna. He was 73. The death was not widely reported at the time, and The New York Times was notified about it only last month. His wife said the cause was cancer.

Mr. Shawlee was not merely a slide-rule sentimentalist in thrall to memories of teenage geekdom. He argued that slide rules had intrinsic appeal for several reasons.

He saw dignity, for example, in their solidity and design. A 1999 Times profile quoted Mr. Shawlee describing slide rules as “the techno-guys’ version of a broadsword.” On his website, The Slide Rule Universe, he contrasted them with digital technology. “In 50 years, the computer you are using to view this webpage will be landfill,” he wrote, “but your trusty slide rule will just be nicely broken in!”

To Mr. Shawlee, the lost durability represented by slide rules belonged to a broader narrative of decline. “When we used slide rules every day back in the 1960s, we were able to send people to the moon,” Mr. Shawlee told The Journal. Speaking to The Times, he observed, “People who grow up with calculators have no number sense.”

Joe Pasquale, a computer science and engineering professor at the University of California, San Diego, has taught classes in the “history, theory and practice” of slide rules, including a survey of “the greatest slide rules ever made,” as he put it in a course description.

In an email, Professor Pasquale explained the pedagogical value of slide rules. Calculators tend to replace the human mind, requiring users only to punch in numbers and “blindly accept” a result, leading to a loss in the user’s own ability to calculate — “and more generally, think,” he wrote. Whereas slide rules demand active involvement, he added, “extending the mind’s calculating ability.”

It was Mr. Shawlee’s good fortune that a surprising number of people shared these views. In the early 2000s, he was earning \$125,000 a year fixing and reselling slide rules. The business paid for his two children to go to college, and it sent one of them to law school. His customer base took its most organized form in the Oughtred Society, a club named in honor of William Oughtred, the Anglican minister generally recognized to have invented the slide rule in the early 1620s.

Mr. Shawlee’s website developed a subculture of its own, with a network of slide-rule-o-philes from Arizona to Venezuela to Malaysia digging on Mr. Shawlee’s behalf through the mildewed wares of old stationery stores and estate sales and school district warehouses in search of slide rules. In Singapore, a civil servant, Foo Sheow Ming, visited the back room of a bookstore and found 40 unopened

crates of more than 12,000 slide rules in multiple varieties. On his website, Mr. Shawlee called the find “the absolute El Dorado of slide rules,” and Mr. Foo told *The Journal* that it was “the mother lode.”

Prohibited by government regulations from turning a profit on the goods, Mr. Foo sold the slide rules to Mr. Shawlee at a discount. “It’s all in the thrill of the hunt,” Mr. Foo told *The Journal*.



A Fowler Long Scale Circular slide rule, sometimes also called the Magnum. It is controlled by the two knobs on its edge. Sphere Research Corporation

Mr. Shawlee’s inventory included remarkable artifacts of science history. He offered a slide rule made for machine gun operators, with calculations for wind, elevation and range. He offered a slide rule for measuring metabolic rates, with different settings for age, sex and height. And he used his website to explore recondite points of slide-rule-iana, writing, for example, about slide rules made by the U.S. government for calculating nuclear bomb effects.

“Need to know the optimum burst height for that new nuke you just bought?” Mr. Shawlee asked in a mock sales pitch. “How about the high confidence kill zone radius, or temperature at some exact distance from the nuclear weapon that just

went off down the block? These babies can answer all those burning questions as you get flambéed into free ions and radioactive dust at about 1,300 m.p.h.”

He also sold slide-rule cuff links and slide-rule tie clips, which in some cases had been made by major slide-rule manufacturers as promotional items during what Mr. Shawlee called “the golden age of slide rules.” The tie clips proved so popular on The Slide Rule Universe that Mr. Shawlee worked with a small foundry to start manufacturing them himself.

Over time, his customers included a weather station in Antarctica, where many electronic gadgets could not take the cold; photo editors responsible for adjusting image sizes (they like slide rules for their clear displays of different values for the same ratio); an archaeologist who found that calculators got too dusty to work properly during digs; the drug company Pfizer, which gave away slide rules as gifts during a trade show; slide rule enthusiasts in Afghanistan and French Polynesia; and “guys from NASA,” Mr. Shawlee told Engineering Times in 2000.

Walter Shawlee II was born on Nov. 27, 1949, in Los Angeles. His mother, Joan (Fulton) Shawlee, was an actress known for playing Sweet Sue, the leader of the all-female band at the center of the film “Some Like It Hot” (1959), and Pickles Sorrell, a recurring character on “The Dick Van Dyke Show” (1961-66). His father was a hotel concierge and painter who specialized in sea scenes.

At 14, Walter worked at an electronics surplus store and devotedly read magazines like Electronics World. He studied engineering and math at the University of California, Los Angeles, before dropping out. He worked a variety of jobs, including as an assembly-line welder at a Volvo factory in Sweden, before establishing Northern Airborne Technology, a successful aviation communications firm, in Kelowna. He sold the company in 1992.

After that, he became a tinkerer and inventor for hire, helping companies design, for example, machines that could gently apply labels to a variety of fruits. He fixed and resold gadgets including signal generators, high-voltage rectifiers and cathode ray tubes.

He and his wife first met at U.C.L.A., and they married in 1971. In addition to her, he is survived by their children, Walt III and Rose Shawlee, and a half sister, Angie Barchet.

When The Journal visited the Shawlee household, there were about 1,000 slide rules scattered across the dining table, Mr. Shawlee's home office and the family sauna. "I know my wife would like to get her dining room back soon," he told Spectrum magazine.

In a phone interview, Ms. Shawlee said that thousands of the devices were still in the family's home. She said she planned to continue selling them. As far as she knows, there is no prospect of another collector-expert-fixer-dealer-romantic like Mr. Shawlee emerging in "the slide-rule racket."

Alex Traub works on the Obituaries desk and occasionally reports on New York City for other sections of the paper. [More about Alex Traub](#)

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