Standard Register 100 YEARS OF INNOVATION

STANDARD REGISTER COMPANY

standardregister.com



Standard Reg

The Beginning of 100 Years of Innovation

Just a few years after the Wright Brothers gave men their wings and during a time when Charles F. Kettering was tinkering in a barn to develop an electric starter for automobiles, another Dayton inventor of German birth, Theodore F. Schirmer, invented an entirely new principle of feeding continuous forms through



an autographic register. Schirmer had noticed that chains and sprockets often replaced belts and pulleys when absolute movement was required. He believed engaging pins into holes punched along the margins of a continuous form would maintain absolute registration of that form in a machine.

Schirmer conceived a register with a wooden cylinder built into the head and small studs arranged to engage the holes punched in the paper. The register only had one moving part, which eliminated the rollers and other hardware necessary in ordinary registers. Now, instead of two or three copies, the register could produce as many as eight copies at one time, all in perfect registration; it allowed printed lines and blocks instead of a simple sales slip. Schirmer received U.S. Patent No. 940.481 November 16, 1909.

Schirmer diligently sought businesses to take an interest in his invention but he found no takers. Many thought the technology was viable but they questioned the introduction of a new product in markets where competition was already established. In desperation, Schirmer answered a newspaper advertisement from a 30-year-old real estate and business broker named John Q. Sherman, on the mistaken notion that he gave loans to entrepreneurial businesses.

At first. John Sherman dismissed Schirmer's idea, but soon he was intrigued with its possibilities. Sherman sold his real estate business and formed The Standard Register Company May 10, 1912. Theodore F. Schirmer was the first President, and John Sherman became a company director. With the business organized, John Sherman traveled to the West Coast to organize sales for the new register and its punched forms, leaving his brother, William C. Sherman, to represent his interests in the new company.



John Q. Sherman



The Autographic Register

Schirmer, John Sherman and three other original directors launched the new company in a dilapidated second-story room in the old Callahan Power building, located in downtown Dayton. Prior to Standard Register, this building was also the birthplace of the National Cash Register Company (NCR) and the Dayton Computing Scale Company, which later merged to form the International Business Machines Corp. (IBM).

Standard Register's first products were the autographic register and the accompanying margin-punched forms. The pin wheel platen originally had pins spaced ½ inch apart. The paper's margin holes were 5/32" diameter. These dimensions have never changed throughout the life of the company; they remain the standard throughout the world today.



Growth and Expansion

The great Dayton flood of 1913 created a serious setback for the young business. Weighted heavily with debts and far behind in deliveries, the company sunk into receivership less than two years after it was incorporated (Feb. 5, 1914). With Schirmer ill, and investors anxious. William Sherman called John Sherman back from the West Coast. The brothers scraped together every cent they could raise, including borrowing on their life insurance policies, and bought out the majority interests. John Sherman became president, and William Sherman became vice president and treasurer.

Determined to produce their way out of their problems, they decided to run a second shift. However, there was a major problem: the power shut off in the Callahan building every night at 6:00 p.m. The Shermans sought another loan to buy a generator. Two banks refused their request but Merchants Bank approved, and they received a \$2,000 loan. They purchased the generator, and within 15 months, the Company was out of receivership. Business took off, and in 1916, they built a new building that is still part of the Dayton campus today. With the new facility quickly outgrown, the Company expanded with a series of new additions. In 1920, the Company achieved \$1 million in sales for the first time.

Employees have long been a valued source of new ideas and improvement at SR. In 1921, The Company instituted its first suggestion program and over the next fifty years, the Company implemented approximately 43 percent of submitted suggestions, against a national average of 25 percent.

Business grew through the roaring '20s as the Company introduced variations of its registers. This cash-drawer model, introduced in 1926, competes with cash registers from NCR and touts the benefits of Kant-Slip records by preventing employee theft.



Registrator Platen

During this time, John Sherman was observing the business machines of the day. He noted that one factor impeding the full speed of these machines was their use of friction to feed the forms. The disappearing pin, conceived by Al Metzner, and the subsequent Registrator Platen, invented by John Sherman in the 1930s, was a major advancement. John Sherman

envisioned replacing the friction-based platens in almost every type of high-speed business machine of the day, including IBM tabulating machines, with the new pin-fed platen, significantly increasing the speed and efficiency of these machines.

The 1930s also introduced a new business challenge: the Great Depression. Faced with the decision to cut back or expand to survive, the Shermans decided to grow. In 1933, they invited Milfred A. Spayd and other experienced executives to join the company in support of a planned five-year expansion.

The 1937 expansion of the corporate offices included a pin and paper mural on the lobby floor. Some employees believe this mural is still under the present day tile.



Paper Mura



This building is still part of the Dayton campus today



1916







War Efforts and New Technology

John Sherman passed away in 1939. The following year, Standard Register exceeded \$5 million in revenue for the first time.

The outbreak of World War II brought government restrictions; the government initially thought business forms were non-essential to the war effort. However, they quickly found that paperwork was critical because of its integration into munitions manufacturing, material assembly and procurement, troop movement among other things. Defense plants, shipyards and the military itself used marginally punched forms and registers to keep men and materials moving. General Motors chairperson, Charles E. Wilson, declared at the time, "No physical activity goes on in our modern age without a piece of paper moving along to guide it."



Wooden Pin-Feed Register

To conserve metal for the war, Standard Register manufactured its registers from wood, right down to the pin-feed wheels! The same modelers manufactured wooden carbine rifle parts as a subcontractor to



Paperwork Simplification

the Dayton-based company, Inland. By war's end, Standard Register had received multiple citations for its contribution to the war effort.

During the war, engineers developed process improvement techniques; factory workers could recommend improvements for their own jobs and even suggest improvements for other jobs. Standard Register adapted this technique in the office environment. SR's customers no longer just benefited from punched paper and registers; now they realized benefits from consultations on how to improve their business. "Paperwork Simplification" was the new basis for sales growth.

William Sherman passed away in 1944 and Spayd became president.

Following the war, Dayton and other locations across the country expanded. By 1952, the Dayton campus experienced seven significant expansions to its original building recognizable to many employees today. In 1952, the Company constructed a forms plant in York, Pa., which expanded in 1956. In 1955, the Company purchased two additional forms plants from Sunset-McKee in Oakland and Glendale, Calif. In 1958, the Company opened a fifth plant in Fayetteville, Ark.

Product lines expanded too. Prior to 1949, Standard Register produced only registers and continuous forms. In 1947, the Company built an engineering building and expanded it in 1951. SR engineers soon introduced a wide range of new products and capabilities. By 1952, the Company produced Zipset forms in-house and introduced Automatic Linefeeders, bursters, separators and carbomatic registers. In 1956, the Company went public, trading on the NASDAQ exchange.



Automatic Linefeeder



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Advances in Technology

The Company celebrated its 50th anniversary in 1962. Sales reached \$65 million and the Company announced a 2-for-1 stock split. It was also the year the Company introduced the Thermobond mailing system; it produced sealed forms that were ready for mailing immediately after printing them.

In December 1963, K.P. Morse replaced Spayd as president.

In 1965, the Company introduced the Source Record Punch. This innovative device printed human readable text onto cards, while punching (and/or reading) the holes in those cards so data could be shared with other machines. In the late 1960's, Standard Register and IBM were the two largest producers of automated data collection equipment in the world. By 1969, SR exceeded \$100 million in sales.



Source Record Punch

In January 1970, Donald F. Whitehead replaced Morse as president.

In 1971, the Company launched Communicolor in Newark, Ohio, which focused on direct mail and marketing products. In 1975, the Company entered the label market with the purchase of Universal Tape and Label Co. from Cincinnati, Ohio. That capability soon expanded even further with the purchase of Lambooy-Unique in Terra Haute, Ind. Around this time, barcodes emerged as a new way to automate data collection; SR was a world leader in reliable bar code printing and integration. Company revenues approached \$300 million by the end of the decade.

In October 1977, Roy Linton replaced Whitehead as president.

In 1982, the Company introduced the Cart Exchange Control System to facilitate automated inventory control and billing in hospitals. Consisting of an integrated microprocessor and display, and matched with 10 MB of hard disk storage and a dot-matrix printer, the system quickly paid for itself in billing accuracy. Further, it reduced labor while improving patient safety!

In 1983, John Darragh replaced Linton as president. That was also the year SR opened its first STANFAST quick print center in response to customer needs for short-run, "print-on-demand" business forms. By the end of the decade, the Company had 14 centers in operation from coast to coast.



Print-on-Demand Capabilities

In 1984, the Company began a major renovation of its Dayton campus, making significant interior and exterior upgrades to its facilities. They replaced glass-block windows, war-era furniture and even the switchboard (an operator still connected and placed calls) with state-of-the-art equipment. The Company also introduced the LabelWriter that ran on an IBM PC-XT platform (with a 10 MB hard drive that had already shrunk to a few pounds) that connected to 300 or 600 line-per-minute impact printers. Now customers could easily design their own labels and print them on-site and on-demand. For two years, SR was one of the largest resellers of IBM PC's in the country.

1972 1973 1974 1974 1975 1975 Cart Exchange Control System (The disk drive alone in this photo is approximately 30" cubed and weighs 450 pounds!) 1978 1979 1980 1981

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1984



Printing Advancements

In 1986, the Company purchased the business forms division of Burroughs Corporation, making the Company the second-largest business forms manufacturer in the world. The acquisition included expertise in document and check protection technology, as well as a line of check protectors and MICR encoders. Once integrated with existing technology, families of barcode and computergenerated print stations, and a nationwide team of trained equipment service specialists, combined to become the Business Equipment and Systems Division in 1990. Company revenues exceeded \$700 million.



Standard Register becomes the second-largest manufacturer of business forms in the world



Secure Document Technology

Advancements in press-applied technologies significantly improved document performance and security through the years. The Secure Number font became a standard, as did Copyban void-pantographs in defending checks and other important documents against fraud. Carbonless technologies replaced the need for dirty and wasteful carbon sheets while LaserLock toner anchorage reduced alterations on an ever-increasing number of forms printed by laser printers. The Company even invented a way of transparentizing paper, eliminating the need for costly plastic windows on envelopes.

Imaging Services formed in 1992; it provided imprinting services on a wide range of products including checks, mass mailings and even plastic cards. Around this time, the company asserted its leadership in eight specific markets:

Labels

Recvcled

• Secure Documents

Cut Sheets/Rolls

- Healthcare
- Financial
- Manufacturing
- Electronic Services

The equipment division released new ImageSeal mailing machines, while the Healthcare division introduced the Positive Patient Identification System that lessened the possibility of medical errors. This eventually evolved to become SMARTworks[®] Clinical Enterprise.

On December 31, 1992, after more than 80 years in production, the Company announced its intent to cease production of pinfeed autographic registers. Despite this decision, SR honored orders for another 10 years.

In December 1994, Peter Redding replaced Darragh as president.

SR transitioned to the New York Stock Exchange in 1996, reflecting its continued evolution as a major U.S. company. In 1998, the Company purchased UARCO, creating a combined company of 9300 employees, over 70 production facilities and 300 sales offices. Subsequent restructuring eliminates redundant manufacturing and sales infrastructure. Revenue exceeded \$1.3 billion.

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1992



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Entering the Digital Era

The 1990s also ushered in radical changes. The business was transforming through ubiquitous access to personal computers, applications that were ever more powerful and near-instantaneous connectivity. Businesses no longer collected information on paper, stored it in file cabinets and sent it out for publishing. They collected it in databases, shared it instantaneously and published it on the desktop.

The need for traditional business forms declined during this transformation, but the demand for custom capabilities grew. The Company responded with complex constructions that allowed states to issue license renewals, pharmacies to issue prescription labels and hospitals to generate identification wristbands through laser printers. SR's chemists invented coatings that improved image quality on new thermal and ink jet printers. The Company's programmers also designed new tools and systems that improved both the speed and efficiency of processes internally and for customers.



SMARTworks®

The new millennium began with the formation of SMARTworks[®], an Internet-based application for forms management. In June, Dennis Rediker replaced Redding as president.

In November 2004, after more than 90 years of sales, TDN Money Systems purchased the last new autographic register.

In 2006, the Company opened its first wholly owned international plant, SR de Mexico, in Monterrey, Mexico to support expanding customer manufacturing needs.

In 2008, Joe Morgan replaced Rediker as president.

In 2010, revenue exceeded \$660 million. The Company purchased Fusion Graphics to support the industrial market. These technologies established an exclusive capability for producing high quality in-mold labels. The following year, the Company purchased Dialog Medical to expand workflow capability; this positively impacted patient safety initiatives and organizational efficiencies. 1995 With our custom capabilities, hospitals can now generate identification wristbands through laser printers.

100 Years Strong

Throughout it all – technology changes, cultural shifts, product/solution evolution, economy ebbs and flows – Standard Register has not just endured, it has thrived! As the Company approaches the end of its 100th year of operations, in the shadows of war, economic uncertainty and political partisanship, its noticeable that the Company has experienced all of these trials many times before throughout the its history. The Company is facing today's challenges in much of the same manner as it did in the past: through excellence, perseverance, innovation and a passionate belief in how it advances reputations!



Here, in its 100th year, the Company is introducing applications that streamline workflow to lower costs and new anti-microbial identity bands that enhance patient safety in the healthcare market. Its deploying a new set of solutions based on tablet technology to support its customers' business intelligence and supply chain management needs. The Company is also expanding



its capabilities in robotic and automation solutions. Moreover, as they did almost a century ago, employees are sharing innovative ideas for what the Company can do and how it will do it!

A century ago, the Company's founders introduced a simple improvement to the autographic register – "the standard register." It created the foundation for the Company to grow and prosper. Despite tough economic situations during those early years, the Company thrived by providing its customers the expertise and innovation that allowed them to adapt to changing business conditions, operate more

DAYTON, OHIO.

THE REGISTER WITHOUT A FAULT

efficiently, build brand consistency, reduce risk and ultimately advance their company reputations.

As Standard Register transforms today, its innovative heritage is an advantage to meet changing demand. Investments in software, services and digital production position the Company to be a leader in the management and execution of mission-critical communications; its capabilities are expanding with new, innovative solutions utilizing digital color and mobile technology.

That is why half of the Fortune 100 companies, 80 percent of the top 25 financial institutions and 62 percent of all U.S. hospitals trust Standard Register to support and advance their operations. They recognize that the Company's skills and expertise not only get things done, but also push them forward with new capabilities and solutions – advancing their reputation along the way.



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14



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