

Whatever Happened to IBM and the Seven Dwarfs? Dwarf Seven: NCR— The Last of the Dwarfs

by John C. Dvorak

Many people recall NCR as one of the great dwarfs in the battle with IBM during the 1960's. Though I believe that fewer recall them as having much to do with computers. This is ironic since they never got out of the business and are now more deeply entrenched than ever before.

The story of NCR — the National Cash Register Company — Began with John Henry Patterson. Described by NCR's historians as "Industrialist — Social Reformer — Patriot — Benevolent Tyrant — Father of Modern Selling." Some description.

He began his sales career with his brother selling coal and mining supplies in the 1870's when he realized that his business was plagued by unrecorded sales. He determined it would be better for the business to have a cash register, a then recent invention of James Ritty. The device was sold by the National Manufacturing Company in Dayton. According to legend it made Patterson's business profitable and he bought Nation Manufacturing shortly thereafter for \$6500 so he could sell the machines himself. He changed the name to the National Cash Register Company. Curiously after the buy out he wanted to get out of the deal because the numbers didn't add up and the company was losing money. He believed he was duped. The seller refused to back out and luckily for Patterson he was stuck with the company.

The sale of the company back to its previous owner may have been the last NO SALE for Patterson in his career as he became a sales junkie developing sales techniques that are still used today. NCR promoted the idea of sales meetings so common today, role play, company songs, cornball mottoes and inspirational ditties and other rah-rah concepts that were eventually taken over to IBM by Thomas Watson, a protege of Patterson. These two were so tight that they spent time together in the slammer because of their violations of the Sherman Anti-Trust act and for restraint of trade convictions. This is something that IBM seldom mentions in its biographies. After Watson became number two man in the company he was fired like most people who ever worked for Patterson and went on to clone NCR to make modern IBM. When Watson named IBM, in fact, he modeled the name after NCR. Instead of "National" it was "International." Instead of Cash Registers it was Business Machines. He waited until Patterson died before he made this change of name from Computer Tabulating and Recording Company.

NCR had a weakness for firing executives. According to NCR's own information "In the period 1910-1930 an estimated one-sixth of the top executives in the nation were former NCR executives." This legacy is still with us today.

One of the reasons people got fired from NCR is because they couldn't learn word-for-word a 16 page primer on successful sales. Patterson would go from office to office around the country and quiz people. There are so many wacky stories about this guy that many are hard to imagine. He died in 1922. His son took over the company and made it a public firm in 1925.

Soon the company was into adding machines and typewriters. Curiously it competed with another dwarf in an odd specialty: WWII bomb gunsights. Sperry made them too. The B-29 bomber used a carburetor made by an NCR division. By the end of WWII the company was into everything. Why not computers?

It started with the Class 29 Post-Tronic. The company tries to take credit for the development of the MICR (magnetic ink character recognition system) which others seem to take credit for too although NCR only says it was "instrumental" not the inventor.

In 1957 it joined with GE to make the first fully transistorized mainframe the NCR 304. This may be debatable, but most time lines credit NCR with this. The first delivery was to the US Marines and apparently the machine had a 99.3-percent uptime during its first month.

Compared to the earlier tube-based machines this was incredible. The 304 was followed by the 315 which utilized a wacky magnetic card system called CRAM (Card Random Access Memory) similar to Sperry's FAST-RAND and RCA's RACE. This idea never caught on. A canister of these cards, which could be accessed in 1/6-second, held 17,000,000 characters and had a 100 kbps data transfer rate.

In 1963, after NCR put together a networked banking branch system hooked together by telephone lines it claims to have coined the term "on-line." This coinage may be worth some research.

In 1968 both NCR and Control Data delivered the first IC-based mainframes. The NCR was the Century 100 and the CDC was its 7600. Which was actually first is again debatable.

NCR stayed in the computer game and in 1983 brought out a series of desktop machines called the DecisionMate's. I recall that period and remember that NCR was an somewhat isolated and secretive firm not really playing the same game as the Compaq's and other clone makers would play. The game included talking to the press. A friend of mine had dropped by the house during the DecisionMate era. He told me that he had gone through the hiring process at both NCR and Wang as both companies needed his technical expertise. He was shocked to learn that from what he could tell Wang had good sales and poor technologies while NCR had some phenomenal stuff they showed him in the back rooms and mediocre sales. This surprised me as NCR was generally perceived as stodgy insofar as technology was concerned and hot for sales. It was its isolation in the Midwest which hurt its reputation from what I could tell.

NCR sold the first Tower-configuration PC, the NCR Tower 16/32 in 1982 and trademarked the name tower, but had showed little interest in protecting the trademark. I applaud them for that decision.

In 1991 the company was acquired by AT&T and merged with its computer divisions. In 1995 AT&T decided to spin it back off again and a new NCR was to go back on the streets specializing in large machines. It combined the intellectual talents of NCR and the AT&T/Bell computer mavens. In January 1, 1997 the company was again an independent company it's stock put on the market the next day.