IMPORTANCE OF THE IBM CARD

Jim Strickland

Even as Herman Hollerith designed machines for the 1890 census he was thinking ahead. Two ingredients of that original “sale” were to become important parts of the business model that would emerge in the years to come: leasing of equipment and sale of cards. He leased equipment to the census bureau and sold the cards, both at high profit margins. Both practices were so successful that they later became subject to anti-trust actions by the US government.

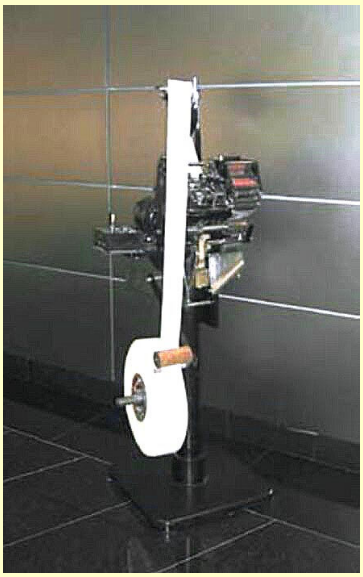
Following the precedent set by Hollerith and C-T-R (Computing Tabulating and Recording Co., the successor to Hollerith's Tabulating Machine Company), IBM insisted that only cards manufactured by IBM be used in IBM equipment. The company viewed its business as providing a service and that the cards were part of the machine.

In 1932 the government took IBM to court on this issue, IBM fought all the way to the Supreme Court and lost; the court ruling that IBM could only set card specifications. In another case, heard in 1955, IBM signed a consent decree requiring, amongst other things, that IBM would by 1962 have no more than one-half of the punched card manufacturing capacity in the United States.

Tom Watson Jr.'s decision to sign this decree, where IBM saw the punched card provisions as the most significant point, completed the transfer of power to him from Thomas Watson, Sr.

(The following is from Ed Thelen's site: http://ed-thelen.org/comp-hist/index.html)

IBM's Fred M. Carroll developed a series of rotary type presses that were used to produce the well-known standard tabulating cards, including a 1921 model that operated at 400 cards per minute (cpm). Later, he developed completely different press capable of operating at speeds in excess of 800 cpm, and it was introduced in 1936. Carroll's high-speed press, containing a printing cylinder, revolutionized the manufacture of punched tabulating cards. It is estimated that between 1930 and 1950, the Carroll press accounted for as much as 25 per cent of the company's profits. As late as the mid-1950s, punched card sales made up 20 percent of IBM’s revenues and an astonishing 30 percent of its bottom line.



Carroll press c. 1926

Note that IBM produced cards in San Jose from 1943-60 and in Campbell from 1960 into the 70's.

Cards per day produced by IBM

- 1914: 2 million
- 1937: 5 to 10 million
- 1955: 72.5 million

HOLLERITH SORTER

Jim Strickland

Recently Tim Robinson asked the question: The Hollerith sorter has 26 slots. 24 of those are under control of the tabulator. Two have manual handles and are not controlled by the tabulator. Tim asks, “Does anyone know what those two manually operated slots would have been for?”

With no clear answer forthcoming, I'll offer three ideas:

1. When the day ended, there had to be place to put the cards that had not been tabulated, so the operator, following a “clean desk” policy, would put the untabulated cards in one or the other of the two manually operated compartments in the sorter.
2. Processing the census required passing the data through several (differently wired) tabulators. Probably there were “runners,” people who moved the data from tabulator to tabulator. Perhaps, a runner would put a stack of cards into one of the two manually operated compartments to keep the batch intact while the operator finished a previous batch.
3. If a card was “off gauge” or mutilated or failed some consistency check, the operator would manually put it in one of the two compartments to be re-punched or checked against the original data.

I prefer number 3. The need for handling “off gauge” cards is mentioned in the archives. Procedures had to be in place to have someone, other than the tabulator operator, fix them. The sorting box seems like the best solution.