



# Dial Log



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[www.telcomhistory.org](http://www.telcomhistory.org)  
Jody Georgeson, Editor

## Director's Report

We've led a bunch of tours this quarter, including several for CenturyLink groups. They are very interested in the history of their new acquisition, and especially in the historic headquarters building. We've also given tours for groups ranging from Red Hat clubs to boy scout troops.

We've also had a lot of researchers. We hosted a young man who is doing a history of the telephone in Ogden, Utah as his thesis. He and his wife spent 3 days with us. Another fellow is a retired Montana PUC member, who bought a stock certificate from us and then became interested in its history. He and his wife came to town for a day and a half. Yet another young man is producing a documentary about telephones for the National History Day competition

The volunteers took a field trip to the Vance Kirkland Museum in Denver. They have an extensive collection of decorative art, which includes pottery, furniture and telephones! Their volunteers will be

touring the 931 14<sup>th</sup> St. building in July.

We continue to accept donations of material. Some of our recent favorites are:

- ☎ From **Jim Logan**, we received a copy of the Bell System General Directory Conference in NYC, 1928.
- ☎ **Fay Schlotfeldt** is a serial donor; this time he gifted us with NWB PBX directories President's Club memory books, photographs and memorabilia.
- ☎ **Dave Felice** arranged for us to get disks of about 24 radio ads from **Fred Arthur**. These were commissioned by the Bell System, and were used by many of the companies. The ones we have were done for the Chesapeake and Potomac Telephone Company.
- ☎ **Mary Murphy** sent us everything from a service rep.'s desk, including handbooks, booklets, photographs and files.

Thanks to all of our donors and members. Your interest and support make this all worthwhile!

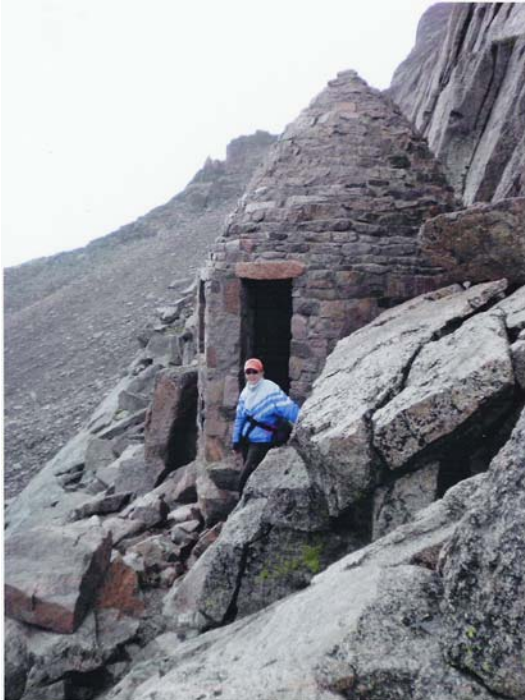
## Retractions

I must have been day-dreaming when I put together the last issue. Two contributors contacted me with mistakes:

1. I reported that the Museum of Communications has expanded to include Sundays. They expanded to include the 1st Sunday of each month only at this stage. The Museum's hours are:

- Tuesdays from 8:30 to 2:00
- First Sunday of each month, from 11:30 to 4:00
- By appointment

2. The photo purporting to be of the shelter cabin on Long's Peak was of some other cabin entirely. Here's the real thing:



Thanks to **Don Ostrand** and **Don Warsavage** for setting me straight! I apologize for the confusion.



## Teletype Machines at the Museum of Communications

Along with all the other equipment at the *Museum of Communications* in Seattle, you'll find over 30 different kinds of teletype machines, including a 1918 version, and one built by the Lorentz Company in Germany, which developed the Enigma machine to turn text into encrypted messages during World War II. Teletype equipment was used by the FBI, commercial airlines, stockbrokerage firms, and wire services like Associated Press (AP) and United Press International (UPI) to distribute news articles to newspapers and radio broadcasts.

The teletype machine or teleprinter evolved through a series of inventions by a number of engineers, including Royal Earl House, David Edward Hughes, Emile Baudot, Donald Murray, Charles Krum, Edward Kleinschmidt and Frederick G. Creed.

By 1846, the Morse telegraph service was operational between Washington, D.C., and New York. Royal Earl House patented his printing telegraph that same year. He linked two 28-key piano-style keyboards by wire. Each piano key represented a letter of the alphabet and when pressed caused the corresponding letter to print at the receiving end. The printer could copy

and print up to 2,000 words per hour. This invention was first put in operation and exhibited at the Mechanics Institute in New York in 1844.

Landline teleprinter operations began in 1849 when a circuit was put in service between Philadelphia and New York City. In 1855, David Edward Hughes introduced an improved machine built on the work of Royal Earl House. In less than two years, a number of small telegraph companies, including Western Union in early stages of development, united to form one large corporation – Western Union Telegraph Co. appeared to carry on the business of telegraphy on the Hughes system.

Donald Murray (1865–1945), developed a typewriter-like keyboard. The Murray system employed an intermediate step, a keyboard perforator, which allowed an operator to punch a paper tape, and a tape transmitter for sending the message from the punched tape. At the receiving end of the line, a printing mechanism would print on a paper tape, and/or a re-perforator could be used to make a perforated copy of the message.

In 1908, a working teleprinter was produced by the Morkrum Company, which was field tested with the Alton Railroad. In 1910, the Morkrum Company designed and installed the first commercial teletypewriter system on Postal Telegraph Company lines between Boston and New York City.

There have been a number of successful manufacturers of teletype equipment, including the German Siemens, Italian Olivetti, and British Creed and Company

The Teletype Corporation, a part of AT&T's Western Electric manufacturing arm since 1930, was originally founded in 1906 as the Morkrum Company. In 1925, a merger between Morkrum and Kleinschmidt Electric Company created the Morkrum-Kleinschmidt Company. The name was changed in December 1928 to Teletype Corporation. In 1930, Teletype Corporation was purchased by the American Telephone and Telegraph Company and became a subsidiary of Western Electric.

In 1984, the divestiture of the Bell System resulted in the Teletype name and logo being replaced by the AT&T name and logo, eventually resulting in the brand being extinguished.

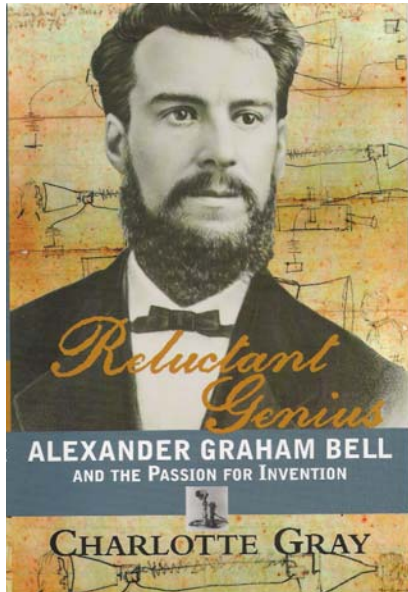


Just a few of the teletype machines on display at the Museum of Communications

To see some of these machines, and hundreds of other examples of working communications equipment, visit the Museum of Communications at 7000 East Marginal Way South, Seattle. We're open every Tuesday from 8:30am to 2:00pm, and every *first* Sunday from 11:30am to 4:00pm.

## Dr. Alexander Graham Bell, M.D.?

A book review by  
Herb Hackenburg



***Reluctant Genius*** by Charlotte Gray is one of the more recent books (copyright 2006) about Alexander Graham Bell. Gray's excellent and highly readable book is different from most Bell biographies in that while the author makes reference to the invention of the telephone and its importance to the world, she concentrates on Alexander and his wife Mabel Bell's life after the birth of the telephone.

Gray's extensive research and excellent writing combine to make an extraordinary biography. Her sources include 147,700 original Bell items in the Library of Congress; 209 volumes of additional original items housed in Bell's estate in Baddeck, Nova Scotia; plus scores of books, recordings, films and interviews. Interviews of family members included three with 101-year-old Dr.

Mable Grosvenor, Bell's granddaughter.

The general thrust of the book is about the long and loving marriage between Alex and Mabel. Although she was totally deaf (in a time when deaf people were treated as poor, dumb unfortunates), the very attractive and stylish Mabel was an extraordinary success as a wife, mother, household manager, book-keeper and society leader.

The very large, handsome, articulate, intelligent, usually slightly shabbily-dressed Alex was a fine match for Mabel. Keeping him centered on things (inventions with commercial value, research, children, assorted jobs, etc.) was a never-ending chore for his wife. One early example is that Alex had absolutely no interest in showing his first working telephone to anyone. Mabel was the only one who could convince him to exhibit his telephone at the 1876 Centennial Exhibition in Philadelphia.

Mabel handled the family finances -- not surprising, since Alex turned the one-third ownership of the Bell Telephone Company over to her the day he received the stock certificates. This turned out to represent a lot of money; which was good, because Alex liked to spend a lot of money, mostly on research. Mabel also had to contend with his tendency to flit from one project to another.

Ever the practical one, Mabel tried to steer Alex to invent another item with commercial value like the telephone. At one of his Wednesday evening meetings of scientists in 1906, Bell heard one of them describe seeing the Wright brothers'



flying machine. Alex had been tinkering with kites and flying machines, too. Now he was serious.

Mabel, too, saw the commercial value of such machines. She came up with a plan to keep him on track. With her personal funds, she started the Aerial Experiment Association. She gave the money to Alex so he could hire some of the best young pioneers in the business to help him build his airplane. Three men were hired: Glenn Curtiss, Douglas McCurdy and Casey Baldwin. The U S Army assigned Lieutenant Thomas Selfridge to the team.



The AEA built five (four carried a pilot) successful flying machines. After the secretive Wright brothers flew their machine, the *Scientific American* magazine offered a trophy for the first *public* flight over a measured course of one kilometer. The idea was to get the Wrights to fly in public. They didn't take the bait, but AEA did, and won the trophy.

Dr. Bell? It's true. President James Abram Garfield was shot by Charles Guiteau in 1881. As Garfield lay wounded in a hospital, Bell worked day and night to build an electronic device that would find the bullet. While the machine was partially successful, the bullet was too deep to be precisely located. In 1886, the University of Heidelberg awarded Bell an honorary doctorate in medicine for his contribution to surgical practice.

## Telephone Design

*Our recent trip to the Kirkland Museum got me thinking about the designers of the telephones in our collection.*

In addition to considering aesthetics, usability, and ergonomics, industrial design encompasses the engineering of objects, usefulness as well as usability, market placement, and other concerns such as seduction, psychology, desire, and the emotional attachment of the user to the object. Product design and industrial design can overlap into the fields of user interface design, information design and interaction design.

**Henry Dreyfuss** (1904 –1972) was an American industrial designer who dramatically improved the look, feel, and usability of dozens of consumer products, including the telephone.



*Western Electric model 302, 1937*

Dreyfus designed the Western Electric 302 tabletop telephone for Bell Laboratories in 1930. It was produced from 1937 through 1950, and was found almost universally in the United States from 1937 until the introduction of touch-tone dialing.



*Western Electric 500 set*

Dreyfus also designed the "500" desk telephone (1949), a Bell System standard for years. Beginning in 1954, this was the first phone to be offered in colors other than black. It was still the most commonly used model in the US as late as 1995.



*Princess phone, 1959*

The Dreyfus-designed Princess® phone made its debut in 1959. It was designed for and marketed to teenage girls. 1958 Miss America Marilyn Van Derbur wore a gown and tiara when advertising the Princess on TV and print ads using such memorable lines as, "It's little, it's lovely, it lights! And "It nestles in niches—it glows in the dark!"

The Trimline® desk telephone was designed by Donald M. Genaro

in 1964. It combined the receiver, transmitter and dial into a single element nested into a compact base. Both wall and desk sets were produced.



*Trimline phone, 1964*

The Ericofon® by Gosta Thames, Ralph Lysell and Hugo Blomberg is considered a landmark in industrial design. In Sweden, it is known as the cobra telephone because of its resemblance to that creature.



*The Ericofon, 1954*

Michael Graves (1934- ) is an American architect who designed a line of household goods for Target stores. His philosophy is to balance form and function and create objects that are accessible and intuitive as well as beautiful. He believes that

people instinctively appreciate great design and that it should be affordable and accessible to all.



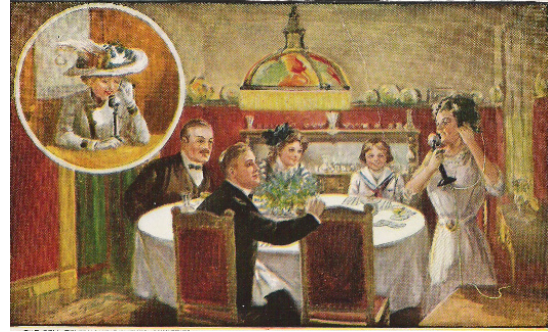
*Michael Graves Model MG1000*

Jonathan Ive is Senior VP of Design at Apple Inc. His designs include the iMac, iPod, MacBook Air, **iPhone**, and iPad.



*iPhone, 2007*

You can see all of these phones at our museum at 931 14<sup>th</sup> Street in Denver. We are open by appointment:  
Phone: 303-296-1221  
Email: [telcomhist@aol.com](mailto:telcomhist@aol.com).



The Bell Telephone relieves anxieties

## A Happening of Joy By Herb Hackenburg

Recently, at the bridge club, I was waiting to pay my fee when a plain white envelope was thrust into my hand. I looked to see the smiling face of Joy Beets, a sometime partner. "I want you to have that," she said in her quiet way.

I stepped out of line, opened the envelope and saw five old postcards. My knees buckled. The Telecommunications History Group had just gained a small collection of rare and, telephone history-wise, significant postcards. This is how these bits of ephemera made it to THG.

The journey began in the tiny town of Lemon, Missouri, located about six miles south of Iowa and mid-way between the Nebraska and Illinois borders. Abraham Lemen (not a misspelling – the town fathers misspelled the name in the original incorporation papers in 1875) was the town founder. His great-granddaughter, Nellie, became the town's telephone operator when the little co-op company's first operator retired.

For decades, from the late 1890s to the 1960s, in small towns across the nation, a single operator (sometimes two) tended the town's only switchboard. She (Central was



almost always a woman) connected all the local and long distance calls, knew all the gossip, would take a message for customers who were out of town and give it to them when they returned, reminded callers to buy tickets for the school play, and would track and provide the latest scores of the town's sports teams. Usually, she also operated the volunteer fire department's alert system – often a siren on the town's water tower.

Nellie took the job to make a little extra money. With her first \$8 check, she purchased a violin. Nellie's daughter Joy said, "I really didn't like that violin when my mom made me take lessons." She added, "It's hard for a girl to keep secrets when her mother is the town's operator."

Joy still has the newspaper article written by her mother in the late 1940s, just after the phone company installed the dial system that made her job disappear. In her story Nellie describes the six decades of service that the little customer-owned company and Central had provided the town. The story was a mild slap at a big-city newspaper's earlier story describing

the Lemon's quaint, "hick-town" magneto service.

Joy went on to graduate from Wichita University, worked for Boeing and married a golf pro. In 1955, she moved to Salina, Kansas where her husband was the pro at the country club. In 1971, the kids were raised, so Joy became interested in *deltiology*, the study of old postcards. Joy became a veritable queen of postcards, with

more than 20,000 in her collection. It takes seven albums just to hold Joy's telephone cards.

Joy began her hobby with her mother's small collection and got some help from two cousins who were serious collectors. "At that time, collecting the cards was fairly easy, because the hobby wasn't as big as it is today," Joy said. "I made a special effort for telephone cards because of my mom's job as an operator, and the cards seem a little more interesting than most."

The first postcard in the US was issued in 1873 by the Interstate Industrial Exposition in Chicago. The US Post Office had just said they would deliver the little cards for a penny. The Golden Age of postcards was 1898-1918.

Into the heart of the shopping district with Bell Telephone





The telephone at that time was a wonderful piece of new technology and while most people couldn't afford the service, they were fascinated by the machine. It was no surprise that telephones and telephone conversations became a major subject on the front of postcards. It was like having a few seconds of phone service for a penny.

Meanwhile, the American Bell Telephone Company, headquartered in Boston had fallen on hard times. In 1907, financier J. P. Morgan bought the Bell company, moved it to New York City, and renamed it American Telephone and Telegraph (AT&T) and brought the 60-year-old former head of the company, Theodore Vail, out of retirement and told him to "fix it."



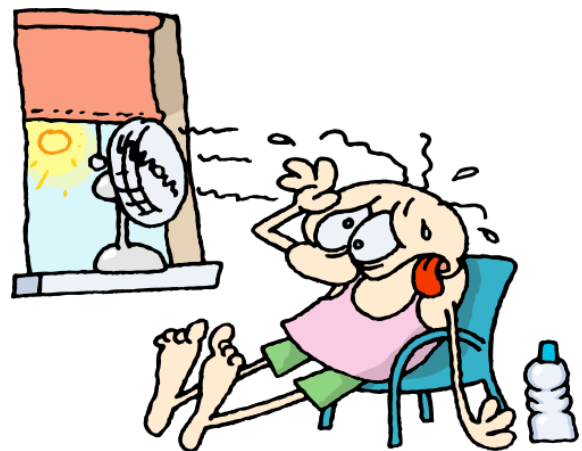
A doctor quick – by Bell Telephone

Vail reorganized and streamlined the company, authorized a research budget, and coordinated a national advertising campaign. Postcards were an important part of the campaign. Two top illustrators were hired to do the artwork on the front of the cards. They featured colorful graphic illustrations showing how "the speaking telephone" could make your life safer, easier and more convenient. This set of 12 high-quality cards were printed by the

thousands and given away at telephone offices across the nation. The campaign worked. More people began to buy telephone service. AT&T went on to become the biggest corporation in the world.

One might say it was all in the cards!

*You can see the postcards Joy donated along with many others in the THG archives.*



*As this issue goes to press, much of our country is experiencing record-setting heat, devastating fires and destructive flooding. Our thoughts are with those who have been affected by these horrible conditions. I hope all of you, dear members, stay cool and safe in the coming months of summer.*

