



THE EARLY DAYS OF THE WESTERN ELECTRIC 500

by Russ Cowell and Paul Fassbender

As the 500 set, introduced in 1949, approaches its 60th birthday, the early sets are becoming legitimate antiques. It's interesting to look back and reflect on the changes that were made during the first few years, as its designers and developers tuned the set's design and packaging for the huge volumes that would be produced during its long and successful lifetime.

The first public announcement we've found was made in a Bell Labs press release, dated March 16, 1949. It was picked up in many publications and is probably best known to collectors as the lead-in article in the Bell Telephone Laboratories Record issue of May 1949:

A new telephone instrument with better hearing and speaking qualities, an improved dial and a volume control for its ringer is in final stages of development at Bell Telephone Laboratories. Incorporating new scientific principles, new technical in applying them and new materials, pre-production models are still undergoing tests. It is expected that several thousands of the new sets will be manufactured this year and installed on a trial basis.

While nearly all of the more than 400 separate parts making up the set are of entirely new design, the new telephone will be completely interchangeable with telephones now in use and when the new set is connected with one of the current design, users of both telephones will benefit.

Major objectives in designing the new telephone were to provide as economically as possible, better all-round service. An important



feature is a novel "equalizer" which automatically adjusts the sound-level to compensate in part for the distance between the telephone and the central office. The dial on the new set has the numbers and letter prefixes outside the finger wheel and is sloped at a lower angle, affording better visibility.

Users are expected to be particularly pleased with the new instrument's ringer tone, which is both lower pitched and more resonant than that now in use. The unique volume

control will permit the subscriber to adjust the loudness of the ringing tone to suit his needs. At its loudest, the tone carries further than the present one, when muted, it is softer.

Weight of the new telephone's handset—the transmitter and the receiver and the handle on which they are mounted—has been reduced 25 per cent. Slightly smaller than earlier models, it is designed to provide a better fit to the head. All parts save those in the handset are mounted on the base, with the housing serving only as a cover. This arrangement of parts on the base is expected to facilitate manufacture, installation and maintenance.

Several sources confirm the report in the April 1951 Bell System Technical Journal, that the 1948 field trial with 50 pre-production sets used by 300 persons was followed by a larger trial using "the first four thousand production sets in November 1949. Ten locations in the territories of six Bell System Associated Companies were chosen." A memo found in the Illinois Bell PR files at the AT&T Archives and Technical Center describes the use of 600 of these sets in the St. Louis area. It states, "In order not to distort accuracy of test, customers will not be told installations of new sets are for test purposes but merely that these are instruments of a new type which we do not have available in quantity. Present view is that substantial production of new set will not begin until latter part of 1950."

There is speculation that the original plan was to have production quantities in late 1949, but start-up issues getting the line installed and running in the new Indianapolis plant (opened in

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It's Membership Renewal Time!

See page 11 for details!

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THE PRESIDENT'S COLUMN:

No Good Deed Goes Unpunished

by Jonathan Finder, M.D., TCI President

I've got a million of 'em: Stories in which the moral is "no good deed goes unpunished." As a doctor, I've offered help to countless individuals over the past twenty-some odd years, but the rare times I got burned by doing so stand out in my memory. Like the time my family and I were invited over to the home of a friend of my wife for dinner. She mentioned that her niece had just developed chicken pox, and I replied that there was an antiviral that could shorten the duration of the disease. Next thing I knew, the friend's sister (whom I had never met) was calling me at home on a weekend, insisting I call in a prescription for that antiviral for her daughter, whom I had never even laid eyes on. I suggested they talk to their own source of primary care,

but she got increasingly demanding and strident. I finally had to tell her I was uncomfortable prescribing for a patient I had never met, and she gave up on it. The relationship we had with the friend was damaged, and we were never invited to the home of my wife's friend again. Oh well, I thought, should have kept my mouth shut. No good deed...

Then there was the time I started getting calls on my cell phone at 7 A.M. on a Sunday from the family of a patient whom I had called once on my cell just to see how he was doing. They retained that number from their caller ID and decided that it was cool to have one doc on call for them 24 hours a day, 7 days a week. We resolved this, and I still take care of their kid, but it's been a challenge.

So what's my point in bringing this up here? Recently one of our members posted an advertisement on behalf of a non-member. He is now in monetary dispute with the very person for whom he tried to do a favor. The problem is that we violated our own rule: We do not publish advertisements for non-members. So do ME a favor, and don't do non-members a favor. If the stuff in your ad is stuff YOU cannot stand behind (e.g., that of third parties), please do not advertise this stuff in *Singing Wires*. Membership has its privileges, among them publishing advertisements in this newsletter, and we hope you will take advantage of this service. ☞

Bonus Page Notification

This message is intended for TCI members who receive *Singing Wires* in print form via the U.S. Post Office.

Printing and mailing costs make it imprudent for TCI to print more than 12 pages each month, but the newsletter is actually more than 12 pages. These Bonus Pages are added to the end of the monthly electronic version of *Singing Wires*.

If you are not viewing the newsletter online each month, you are missing many interesting articles, photos, and special features like the one in this current issue. If you have an e-mail address on file with TCI, you receive the electronic issue around the 15th of the month. If you have a computer, contact us and we will help you to access this monthly e-version. If you do not have the necessary computer connection and you don't know anyone who would access the newsletter for you, let us know and we will do what we can to get you a copy of the monthly Bonus Pages.

Every member of TCI is eligible to receive the electronic issue and the Bonus Pages. Please let us know if we can help you access this great feature. ☞

Robert G. Lindell, 1946-2008



Robert G. Lindell of Fergus Falls, Minnesota, died December 5, 2008, after a long battle with chronic obstructive pulmonary disease. A charter member of TCI,

Robert was a longtime collector and restorer of old telephones, and a friend to many collectors. He will be missed by his many friends and fellow collectors. ☞



Dear *Singing Wires* Editor,

This is a photo my mother just sent to me of her mom. My grandmother is the supervisor in the foreground standing behind the operator at the first position. My mom says that this was the first long distance call placed from Portland, Oregon in 1925, but to

me, 1925 seems to be a little late for the first LD call from Portland, so I guess I will never really know for sure. One thing I do know is that it is of my grandmother, and she would have been about 25 years old at the time. Very much like the movie *Changeling*.

—Bill Geurts

TCI's Youngest Member: Elizabeth Hinton

Dear *Singing Wires* Editor,

In order to help our club with income from another paid membership, I purchased a full standard membership for my young daughter (and plan to renew it each year). About three weeks ago, we had some professional pictures made and, of course, I brought a phone along.

With her standard membership paid in full for the 2009 year, Elizabeth Hinton is most likely the youngest member of TCI. Elizabeth is the 9-month-old daughter of members Mike and Anne Hinton. She has toy telephones, of course, but strongly agrees with her dad that



the real ones are more fun. She especially loves to hear that "shick-whirrrrrr" sound from the old WE rotary dials. Photo by Ashley Segroves Photography, www.ashleysegroves.com. Thank you.

—Mike Hinton

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TCI Leadership

Jonathan Finder, M.D., President '11
412-361-1888
president@telephonecollectors.org

Paul Wills
Vice President '09, TCI Webmaster
610-384-4250
vicepresident@telephonecollectors.org

Roger Conklin, Secretary '09
305-238-5857
secretary@telephonecollectors.org

Russ Cowell, Treasurer '10
757-258-5308
treasurer@telephonecollectors.org

Keith Cheshire, BOD '09
919-414-8939
keith.cheshire@mindspring.com

Doug Pavlichek, BOD '10
586-790-5482
dougpav@wowway.com

Mark Scola, BOD '10
586-731-0545
mscola1000@aol.com

Gary Goff, Membership Chairman
3805 Spurr Circle, Brea, CA 92823
714-528-3561
membership@telephonecollectors.org

Chris Mattingly, BOD '11
Switchers' Quarterly Editor
314-921-6877, Ext. 31
Fax: 314-831-3480

Doug Alderdice, BOD '11
Switchers' Quarterly Composer
716-834-2664
sqeditor@telephonecollectors.org

Shana Davis, *Singing Wires* Editor
8407 SW 57th Ave., Portland, OR 97219
503-718-8549
editor@telephonecollectors.org

Paul & Bev McFadden
Singing Wires Editors Emeritus
847-658-7844
singingwires@aol.com



Telephone Collectors International
3805 Spurr Circle, Brea, CA 92823
714-528-3561

AN INTERVIEW WITH ERICOFON TELEPHONE COLLECTOR RICHARD ROSE

by Maribeth Keane, *The Collectors Weekly*



(From left:) An orange Ericofon, used by the British Post Office; Richard's collection of 89 unique Ericofons; the first dial face brought to the USA, conforming with the alpha-numeric numbering and showing a "Sweden" stamp; "Accent Green," a Kelly green color that was eliminated in the early 1960s.

In this interview, Richard Rose discusses collecting vintage Ericofon telephones of the 1960s, and trends in telephone collecting in general.

I like mechanical things. I've collected outboard motors, things like that in the past. I got into the telephones probably 15 years ago, and I've been there ever since. Starting to collect all the Ericofon colors was just an attempt to try and find out everything there was to know on the Ericofon. Since little information was known on the Ericofon, I made it my mission. And I decided to build a website so other people wouldn't have to do the same research.

I picked the Ericofon because I happened to get one at about the time I was looking for a challenge in phone collecting. I was going through the motions of buying and displaying phones and needed more of a challenge. The Ericofon is a pretty interesting and unusual phone.

Basically, it was designed in the 1950s by the Swedish company L.M. Ericsson in an attempt to develop a one-piece phone. It became widely successful, probably one of the biggest selling phones in the world. They started selling them in America once they got the Bell System to allow

them, and they got so popular so fast that they decided to make them in America because it was easier than importing them.

They already owned part of a phone company called North Electric, so they had North Electric build the Ericofon for the American market here. So you've got the North Electric Ericofons which were marketed in the United States, and the L.M. Ericsson Ericofons that were used in the rest of the world. At that time, America was by far the biggest phone market in the world, so North Electric's production was much bigger.

They had to start out with mostly institutional buyers and independent telephone companies because they couldn't get them out in the open market with consumers at first because of the Bell System. So hospitals and businesses and things like that. The Bell System had a monopoly on the market, and they would dictate what you could use in your home for a telephone. But the Ericofons slowly made their way into the private homes, and at one point in the late 1950s, the idea just became very popular. Everybody wanted one all of a sudden, and they took off.

Eventually Bell got to the point where they said, okay, you can use an Ericofon,

but we're still going to charge you as though it was our phone (all Bell phones were rented at that time). They were pretty harsh about it at first, but they ended up relinquishing after a while. This was the modern phone to have. People who had a modern house - that was their marketing push. They marketed the more modern look and the convenience of a one-piece phone.

Collectors Weekly: Who's interested in Ericofons now?

Rose: Mostly people who are nostalgic. We had one in my house when I was a kid. My grandparents had one. I do get people once in a while doing retro decorations. The recent popularity of mid-century modern design has in fact spawned a couple of Ericofon knock-offs. Pottery Barn did one. People are willing to pay for a cheap knockoff just for the look, so they're using them for decoration. But there are still a lot of the people who are willing to go further to put an original in their home, even if it has rotary dialing. They'll still use them.

The Ericofon was a huge design advancement in its time. It weighs 13 ounces. At that time, most phones weighed five

or six pounds. Its been recognized as one of the top 20 designs of the 20th century because it was so advanced. It was big enough to get Western Electric's attention. They went on to develop the Trimline phone. You can almost credit the Trimline phone, which is a common phone today, to the competition with the Ericofon. That was Western Electric's way of getting the dial into the handset. They wanted it to compete with the Ericofon.

With Bell phones, it was basically a box on the desk with the handset from the 1930s all the way to the 1950s. And then along comes this Ericofon with its radical design. And people wanted it. They revolutionized telephones by going from big, heavy, bulky phones to the lightweight one-piece phones.

The heyday of the Ericofon in the U.S. was probably about 1960 to 1972. They were made up through 1984 in Europe, but in the United States, they stopped making them altogether in 1974. People just got burned out on the idea. It looked too '60s. They redesigned it in the '70s, modernized it by squaring it off, but people just didn't go for it. People were just done with the design. Plus they never made a Touch-Tone. Back in mid '70s, everybody was going Touch-Tone. They developed a push pad for the Model 700, but left it as pulse dialing like a rotary dial.

Collectors Weekly: Can you tell us a little bit about the Ericofon color palette?

Rose: They started out with 18 colors. And after a few years, they went from 18 to eight, I don't know why. It depended where you were in the world, which colors you could choose from, because they made different colors for different markets, always within that palette of eight. Near the end, they introduced a couple of new colors. They did harvest gold and then the brown, which in the '70s was very popular, the earth tone thing.

They also did some novelty colors. Some clear. And some plating. A lot of those painted ones were done by phone companies, the metallic paint jobs, things like that, or there were special runs made. Somebody in Denmark did a bunch with leather covering. Those weren't actually done by the factory. The factory basically just did the eight colors, and that was it.

The plating and painting, I think, were done by phone companies themselves just to help sell the phones. They were trying to use up the old shells with the colors that nobody wanted.

Collectors Weekly: What colors are popular now with collectors?

Rose: The most popular back then were the earth tones - the tans, the whites, ivory - that's what you find the most of. Today what's popular are the odd colors like the red, the aqua, and the pink. Those are harder to find, they didn't make as many. Back then they weren't trying to decorate with colors. It was utility, you didn't want it to stand out. You wouldn't paint your toaster bright red. Now because people are decorating, they want them to stand out so they're buying the funky colors.

In most countries back then, the Ericofon base palette was red, green, gray, blue and ivory. In the the United States, add to that aqua mist, petal pink and white. In some countries, you can only get it in two or three colors, like in England, where it was in white or orange. In the Netherlands, you could get it in red, white or brown. Each country had its own palette.

Collectors Weekly: Do most Ericofon collectors just focus on the colors?

Rose: No. I know a couple of Ericofon collectors who focus on and try to get all the different chassis. The shells are all identical. But there are at least 25 to 30 different chassis, chassis meaning the inside.

There was quite a bit of variation, depending on time and location. I mostly concentrate on color. If I come across a chassis I haven't got, I'll put it in one of my phones. So I do pay attention to chassis, but I don't look for them.

There were two basic designs; I call them old case and new case. What happened was they changed the height of the shell by about three quarters of an inch, and changed the shell design slightly around 1960, made it shorter and a little more angled. The old case is a little bit taller, and the new case is a little bit shorter.

It had to do with manufacturing. The first shells were made in two mirror halves that were glued together. They wanted to

be able to make the shell in one piece. So mechanically, for designing the mold, it made it easier for them to actually change the angle and the height a little bit of the shell. So it wasn't an aesthetic change.

There were also just two ringers, the Ericotone ringer in America, and a buzzer everywhere else. Most of my buyers are nostalgia buyers, so they want one with the ringer from where they grew up. So when I sell to Europe, its always the buzzer.

Collectors Weekly: How many Ericofons do you have in your collection?

Rose: About 80, I think. Each one has got slight variations. I've found them all over the world, but the majority are probably from buying from eBay. It's tough to get them now. You don't see as much of the rare stuff anymore now that they've become popular again. The rare ones tend to go for a lot more money or don't even hit the market.

The demand for Ericofons has gone up quite a bit, mostly from Europe because it was so popular there. Also because the dollar is so weak, anything from America is a bargain to them right now. So a lot of Europeans have been snapping up the rare stuff lately. It's a two-edged sword there. The weak dollar makes it easy to sell but tough to buy.

Another trend is that there's an appetite for the real rare stuff. I auctioned off an Ericofon collection for someone last fall. It went for ungodly amounts of money just because they were so rare and collectible. The plain Jane Ericofons are still running \$25 to \$35, but you get something very rare like a mint condition accent green, you could get \$2,000 to \$3,000 for it.

I had 18 Ericofons up for auction, and its grand total on the sale was \$20,000. I couldn't believe it. It's getting to a point where there are more collectors than there are phones. Most of these people are not general phone collectors, by the way. Ericofon collectors usually specialize in Ericofons. I'm rare in that I collect regular phones and Ericofons. ☛

For the full article, please see <http://www.collectorsweekly.com/articles/an-interview-with-ericofon-telephone-collector-richard-rose/>.

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SHOW ANNOUNCEMENTS

Maitland Antique Telephone Show

Saturday, January 17, 2009 - 8 A.M. to 4 P.M. • Maitland Civic Center, 614 Maitland Ave., Maitland, Florida

Registration: \$5, Table \$15, additional tables \$10. Send to Paul Mikula, 650 Chapman Ct., Oviedo, FL 32765.

Accommodation: Days Inn North (Formerly Comfort Inn) 8245 D US Hwy. 17/92, Casselberry, FL 32730, Tel. (407) 339-3333 • Motel 6, Hwy. I-4 at Lee Road exit #88, 5300 Adanson Road, Winter Park FL 32810, Tel (407) 647-1444.

Friday evening open house at the Mikula's home. Come early to visit Renninger's Antique Extravaganza, Jan. 16-18, in nearby Mt. Dora.

Enjoy spaghetti dinner and Paul Linker's phone collection following the show at his home in nearby St. Petersburg at 6997 22nd Way S.

Host: *Paul Mikula* • E-mail: wecoman@bellsouth.net • Telephone: (407) 365-4686



Virginia Regional Telephone Show

Saturday, February 28, 2009, 8:00 A.M. - 1:00 P.M. [Setup at 8:00 A.M.] • Holiday Inn - Patriot, 3032 Richmond Road, Williamsburg, Virginia 23185.

Please call the Holiday Inn directly at (800) 446-6001 and ask for the "telephone show" rate of \$59 plus taxes per night.

Registration: \$10 for ATCA / TCI members. No charge for spouses / guests.

Tables: \$10 for the first, \$5 for each additional table. Early registration and table reservations appreciated. • Please make checks payable to Russ Cowell and mail to Russ at: 105 Woodmere Drive, Williamsburg, VA 23185.

On Friday evening (5-7 P.M.) there will be a meet and greet gathering in the Back 9 Bar and Grill at the Holiday Inn Patriot. Pizza will be provided by the host. Cash bar.

Host: *Russ Cowell* • E-mail: WECoguy@cox.net • Telephone: (757) 258-5308



Spring Show - Mason, Michigan

Friday - Saturday, April 3-4, 2008, 8:00 A.M. to 2:00 P.M. • Cobblestone Events Center in the Mason Antique's District, 205 Mason Street, Mason, MI 48854

Social reception Friday, April 3th. 6 P.M. to 10 P.M. Complimentary refreshments and pizza for registered attendees and guests Friday Night!

Registration: Admission - \$10.00; Tables - \$10.00. Set-up - 8:00 A.M. Saturday. Complimentary Starbuck's Coffee & Krispy Kremes Saturday morning. If you want to register early, just mark how many tables you would like and send a check for the total to: Ray Kotke, P.O. Box 37, Bath, MI 48808.

Accommodations: Red Roof Inn - (517) 332-2575, \$59.90 / night. There are many other hotels in the Lansing area, too.

For FANTASTIC Hamburgers, Pizza, & Smelt dinners, go to LEO'S LODGE just

down the street from the Red Roof Inn. It is located on Jolly Rd. (Jolly Rd exit on I-127 North, then right 1/2 mile on the right - looks like a Log Cabin!) Contact Ray Kotke for more information.

Host: *Ray Kotke* • E-mail: kleenax@gmail.com • Telephone: (517) 230-6730



TCI Spring Show

June 5-6, 2009 • Lancaster, PA

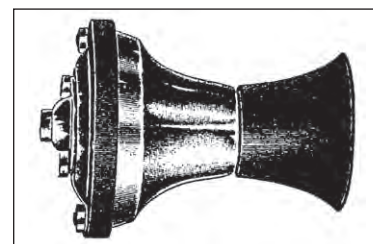
More information will be made available in upcoming issues of *Singing Wires*.



15th Annual Telephone Collectors International Labor Day Show

September 4-5, 2009 • Holiday Inn - Cincinnati Airport, 1717 Airport Exchange Blvd., Erlanger, KY 41018.

More information will be made available in upcoming issues of *Singing Wires*.



Wisconsin Telephone Manufacturers by Tom Iverson

In this month's bonus pages, we are pleased to include Tom Iverson's very thorough summary of the telephone manufacturers of Wisconsin. His research, 34 pages in length, has much to say about the major companies, including the provision of many photographs from old catalogs. TCI has decided to publish this major work as a single electronic file with the January e-version of *Singing Wires*. It's a large file but well worth owning. Be sure to download the file to your desktop before viewing and or printing. It can also be found in the members' area of our web page, www.telephonecollectors.org.

Telephone Collectors International, 2009 Budget

Expenses -

Publishing SW / SQ	\$10,300.00
Membership Brochure	\$1,300.00
Membership Misc.	\$200.00
Treasurer's Ofc.	\$100.00
Other (Inc. Web Hosting)	\$1,200.00
Total Expenses	\$13,100.00

Income -

Dues	\$14,500.00
Exhibitions (net)	\$500.00
Fundraising	\$200.00
Donations	\$300.00
Total Income	\$15,500.00
Additions to Reserves	\$2,400.00

WHAT'S IN A NAME

Mistaken Identity (Ouch) in the Independent Telephone Industry

by Ray H. Smith, Retired publisher / editorial director of *Telephone Engineer and Management* (rayhsmith@sbcglobal.net)

When two aging telephone men get together after many years apart, the stories of yesteryear seem to never stop rolling. Such was the case when retired engineer / executive Roger Conklin, late of Cook Electric, later of the South American operating properties of ITT, and then of Northern Telecom, and Ray H. Smith, retired publisher / editorial director of *TE&M* magazine got going over breakfast in suburban Chicago recently.

While some of their tales shouldn't be retold in a public forum—even though the principals have now gone on to the Big-CO-in-the-Sky—one humorous vignette may be shared.

Roger was recalling that he remembered the long ago editor of *Telephone Engineer* from the 1930s to late '50s was a gentleman named Ray Smith and was this, as I've been asked countless times, my father or a relative?

"No," replied I. "He was one of the two sons of a Smith who purchased the magazine in the early years and subsequently moved it from Texas to Chicago where the manufacturing action was for the thousands of non-Bell telcos. Ray was first named the editor and then president when his dad died. Brother Roy was publisher. They were famous for throwing great parties, especially at holiday time."

I went on to relate that both portly men died within several years of each other in the late 1950s or early '60s. Thereupon, the Managing Editor, John Reynolds, was promoted to editor and publisher by the new owners, the widows of the deceased.

In early 1964 I came on staff, just after the ladies decided to sell the publishing company so they could move to Florida. My name was coincidental.

So it was that several years later I flew into Dallas to cover the annual meeting of the Texas Telephone Association. As was the nice custom in those and subsequent years, trade journal editors or reporters

TELEPHONE ENGINEER *and Management* * * * * *Fortnightly* TELEPHONE ENGINEER
ON THE 15th OF EACH MONTH * SINCE 1909 * ON THE 1st OF EACH MONTH

TELEPHONE ENGINEER PUBLISHING CORPORATION
7720 SHERIDAN ROAD * PHONE ROGERS PARK 4-3040
Chicago 26, Illinois

April 25, 1951

Mr. Roger D. Conklin
Harmon Hall
Kalamazoo College
Kalamazoo 49, Michigan

Dear Mr. Conklin:

It was a pleasure indeed to have your letter of April 23rd commenting on the editorial carried in our April 15th issue calling attention to the necessity of having more younger men interested in our industry.

Your experience in your extra-curricular work during vacations and weekends with the smaller Independent companies is indeed an unusual one. I might add that it is unusual for a young man to set his goal so early, as I think you will save many years of indecision by following your plan as outlined.

As to your college career, I have only one or two observations. There are three schools in the United States that teach communications engineering. These three are Massachusetts Institute of Technology, Purdue University and Oregon State College. Your plan as outlined seems to me a good one, as Michigan is a recognized school and furnishes a number of young men to our industry after they have finished and received their B. S. in engineering.

One of the Independent manufacturers has a very interesting plan that would be of interest to you and might offer something for you to think about. The Automatic Electric Company of Chicago selects about thirty-five engineering graduates per year from several of the Mid-West universities, including Michigan. They have a two-year course for those selected and at the end of that period, those completing the course would be qualified communications engineers. If you would care to write to them a letter similar to the one you sent to me and if you are interested in completing your education to a successful conclusion, you could address your letter to Mr. C. W. Frank, Assistant to the Vice President and Chief Engineer, Automatic Electric Company, 1033 West Van Buren Street, Chicago 7, Illinois.

present at the first general session at state telephone conventions were introduced to the audience by the presiding moderator. As was I, sitting in the front row to take notes.

When the morning session ended I stood up and turned around. A matronly lady was purposefully steaming down the middle aisle wearing a big smile, seemingly heading right for me. I had never before laid eyes on her. Throwing her arms around me with a big hug, she said: "Ray, you never change. I don't know how you

do it!" There was nothing for me to say.

P.S. The late Ray W. Smith had been deceased for almost ten years. I was 37 at the time of this incident and was probably outweighed by my predecessor by 75 pounds. Go figure.

P.P.S. Ray W. Smith was a good guy, as you will see reading the thoughtful letter he wrote in 1951 to a college student interested in the telephone business. The lad's name was Roger Conklin! ☛

Please see this month's Bonus Pages for the full letter by Ray W. Smith to Roger Conklin.



ROGER'S REMINISCENCES

Telephone Service in Rio de Janeiro, Brazil in 1970

by Roger Conklin (roger.conklin@usa.net)

In 1970, along with my wife and our 4 children aged 4 through 10, we packed our belongings and moved from Lima, Peru on the Pacific coast of South America to Rio de Janeiro on the Atlantic coast. Our four years in Lima had come to an end with ITT's sale of its Peruvian telephone company Compañía Peruana de Teléfonos S.A. to the government of that country. In most countries outside of North America, telephone systems had long since been taken over and operated by governments. Peru was one of the last countries to take over its privately owned telephone systems before the pendulum started to swing back towards private ownership with Margaret Thatcher's privatization of British Telecom in 1984. My next assignment was to join an ITT management and engineering consulting organization in Brazil made up of two recent retirees from AT&T, one from New York Tel., one younger engineer recruited from United Telephone Co. of the Carolinas – plus myself – and a long-term ITT manager from England who retired shortly after my arrival. ITT had a few years earlier sold its two telephone companies that operated in the two southern Brazilian States of Rio Grande do Sul and Paraná to the government, but owned a manufacturing plant employing some 1,500 persons, Standard Elétrica S.A., making telephones and Pentaconta Crossbar switching equipment for the local market. This ITT consulting organization was a soft-sell marketing group to provide recommendations and advice to the government-owned telephone companies that were beginning a vast expansion program after some 30 years during which

there had been virtually no growth. ITT provided this service to enhance its market share in competition with Siemens, Ericsson, Nippon Electric (NEC) and Plessey, all of which also manufactured in Brazil.

Our household goods were packed in wooden crates in Lima and placed aboard a cargo ship for the journey south around Cape Horn at the tip of South America, then back north to Rio de Janeiro. Our whole family, plus our Peruvian maid (who we took along so the kids would not forget Spanish when they were suddenly immersed in Portuguese) were granted resident visas from the Brazilian consulate in Lima and boarded a Braniff DC-8 flight for the flight across the continent to Rio. We stayed temporarily in a hotel until some 6 weeks later our furniture arrived and we settled into the comfortable home we had rented.

One of the prime criteria in seeking a house to rent was that it must have a telephone. Almost no new phones had been installed in Rio in some 30 years. Houses and apartments with phones commanded a higher rent than those without. Telephone service was provided by Companhia Telefônica Brasileira – CTB, whose logo is shown above. Originally Canadian-owned, CTB had been nationalized by the government in 1964.

The only other way to obtain a phone was to buy one on the “parallel” market, for which the price, depending on the city zone, was from US\$5,000 to \$10,000. When someone no longer needed a phone, or was in desperate need of cash, they would “sell” their phone service to whoever would buy it, either through a broker

or a classified ad in the newspaper. The buyer and the seller would then go to the telephone company business office and arrange to have the telephone service and telephone number of the seller transferred to the buyer's home or business address. The telephone remained in the name of the original subscriber, since it was treated as an outside move, but the phone bill was delivered by mail in the old owners name to the new address. We rented a house that had phone service with one main and one extension Standard Elétrica type 2724 telephones (see above, left). Our phone number was 246-4688. Just shortly before we arrived in Rio all phone numbers had been changed from 6 to 7 digits, in anticipation of expanding the network, by adding the prefix digit “2” at the beginning of their 6-digit numbers. We lived 1 block from the US ambassador's residence, 1 block from the German ambassador's residence and 2 blocks from the Russian Embassy. Shortly after we arrived, the capital was transferred from Rio to Brasilia and all the diplomats moved to Brasilia to their new embassies with that transfer.

The telephone companies in Brazil published two separate telephone directories – one with normal alphabetical listings and the other by street address. Since over the years so many phones had changed hands, the only directory that was really useful was the Address directory. That was the only way you could find the phone number for persons who had taken over phones in the past 30 years. Telephones were a valuable asset. When families broke up the most important decisions of the judge were which ex-spouse got the telephone and custody of the children, usually in that order.

Telephone service was never disconnected and turned back to the phone company. The phone company's uncollectible account write-offs were virtually zero. When death occurred, people moved away or a business closed down or went bankrupt, telephone service was a valuable asset to be sold. The telephone service was generally sold with the real estate when

(Above, From left) Standard Elétrica Type 2724 Desk Phone; Companhia Telefônica Brasileira Logo; Standard Elétrica Type 2725 Wall Phone.

a house or condominium apartment was sold. The telephone enhanced the value of the property.

Why had the telephone network not grown? Before World War II, telephone service was plentiful and Rio had one of the most modern automatic dial systems of any capital city in the world employing ITT's Rotary switching system, manufactured in Belgium. But during the war Belgium was occupied by German forces, so no equipment could be purchased and there was no expansion. After the war ended, Brazil was plagued by rampant inflation. Phone rates were government-regulated and for years, in order to minimize inflation and keep down the cost of living, all applications for rate increases were denied. The privately owned telephone companies were all operating at a loss. Stockholders would not invest more money in a money-losing company to provide capital funds for expansion at service rates that would lose even more money, nor would banks loan money for this purpose to companies that were not profitable. Eventually these private companies were taken over by the government because they could not and therefore did not expand. The government, likewise without funds to invest, began expanding by raising capital through a subscriber-financing program.

New subscribers had to plop down about \$1,200 to purchase capital stock in the telephone company in order to get on the waiting list for new telephone service. As new central offices were installed and new cables erected, they eventually were able, about 2, 3 or more years later, to get a new phone installed. But with so many years of no expansion, the catch-up task was so enormous that the wait was very long while the demand continued to grow faster than the supply. When an expansion would be announced for a certain area, the books were opened for new applicants for up to the capacity of the planned expansion. People stood in long lines to sign up and pay. A new 10,000 line expansion typically would be fully subscribed within just a few days. Then no more applications would be accepted for that area until the next expansion was announced some years later.

Because the telephone network had remained stagnant while the city and the economy had grown enormously, the telephone system had become vastly overloaded. Over the years many low-traffic residential lines had been purchased by businesses, often to be used as PBX trunks. A business with 5 PBX trunks might well have 5 different formerly residential numbers listed in the phone book and you often had to dial one num-

ber after another to eventually land on one that was not busy, since with individual numbers there was no sequential numbering or automatic hunting for a free trunk. All of these additional attempts added to the traffic congestion in the phone network.

During the business hours of the day this traffic overload resulted in dial tone delays averaging about 45 minutes. Almost every office had an office boy whose job it was to listen for dial tone when someone needed to make a phone call, and dial the number when he eventually received it. If you did nothing else, the most phone calls you could ever expect to complete in one business day was no more than eight.

In 1970 there were some 900,000 telephones in all of Brazil, a country with a 90 million population. We left Brazil in 1970 and the government-owned telephone system was subsequently privatized in the early '90s. Today, with a population of some 178 million, there are 40 million fixed wire-lines plus 121 million cell phones in Brazil. This total represents 178 times the number of phones in service in 1970. There is no longer a shortage of phone service in Brazil and service quality is excellent. Quad-band digital cell phones from the US work in Brazil. ☞

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The Twenty Year History of TCI CD is now available to telephone collectors everywhere. Bev McFadden, co-editor of the *Singing Wires* Newsletter for 15 years, has taken every newsletter ever published by TCI between June, 86' and Dec, 06' and assembled them on this DVD or two-CD set. That's 244 newsletters, thousands of articles and items and hundreds of photos, many of them in color.

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BEFORE

AFTER

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Wild Horse Telephone Company Adds a Dial Exchange

by Fr. Dave Roberts
(icmcowboy@aol.com)

Thanks to Bob Riddell in Wawina, Minnesota, who owns the smallest private telephone company in the USA, I now own a small dial switch. Up until 2008 we had two operating exchanges in the basement den here at Holy Trinity. This may not mean a whole lot to you who are younger than 55, but here goes: I have a two-position Northern Electric magneto cord switchboard which is the Elk Water Exchange. Most phone systems in North America were magneto until 1920, then were gradually switched over to dial over the next 50 years. I also have a Western Electric common battery switchboard for phones where you lift

the receiver and a light goes on on the board—the Star City Exchange. I have many rotary phones that have operated on that system. Until now they didn't have a dial exchange to which they were connected. Even though they had a dial, we had to treat them as manual phones with everything being manually switched at the exchange.

Enter Rob Riddell. Bob picked up a small Panasonic unit that he got out of a radio station in southern Minnesota, wired it up and sent it to me via UPS two winters ago. Joe Felix, a deacon our parish, and I finally got it operational at the beginning of 2008 and then the cutover began. One by one I have been switching rotary lines over to the dial switch, which we are calling the Central Butte Exchange, so that when you lift the receiver it will give you a dial tone instead of an operator. If you dial 110, it will send your call into the Star City Exchange and light up on that board.

One photo (below, upper right) shows me working on the frame, switching cable pairs from the older Star City common battery (manual) exchange over to the new Central Butte dial exchange. It is sure nice to pick up one of the rotary phones and hear a dial tone at any hour. But I remembered something I realized back in 1957 when they converted our magneto exchange in Searsport, Maine, from magneto to dial service: the personal touch is gone without an operator. Dial tones and automatic equipment are “nice” but sterile. Being a former telephone operator, I sense the difference even on our working exchanges here at the the house. A second photo (below, left) shows part of the operating room. The toll position closest to the camera will soon be a 2-position #12 toll board that will light up and have ringback and call tones. The last photo (below, lower right) shows some of the dial phones that have been cut over to the Central Butte Exchange. ☛



Part of the operating room at Wild Horse Telephone Company; Fr. Dave cutting over a line to Central Butte's dial service from the manual Star City Exchange; Several working magneto, rotary and common battery phones on display in the basement den at Holy Trinity.

Western Electric 500

Continued from page 1.

1948), caused a delay in volume production until mid-1950. At announcement time, planned 1950 production was 180,000 sets (but in reality it was half that number.)

Number Ring Design

The plastic number ring on the new 7A dial was positioned outside the fingerwheel. This was to avoid wear on the letters and numbers which, on earlier porcelain dials, were underneath the fingerwheel. White dots, centered in the openings of the fingerwheel, were applied as a “target” for dialing. E-mail correspondence with Donald Genaro, retired senior partner, Henry Dreyfuss and Associates, confirms that sets used in early field trials did not have dots on the number ring. Results from those trials indicated an inflated rate of dialing errors which prompted the placement of dots. Genaro also confirms that some sets used in field trials depicted the “Z” under the numeral “0” and the straight line “OPERATOR” on the dial ring as pictured in early photos such as this one from the cover of the February 1950 Bell Laboratories Record (Figure 1).

As depicted on a June 1950 set (Figure 2), the word “OPERATOR” was placed in a half circle under the numeral “0.” An article in the December 12, 1949 issue of LIFE magazine featuring the new 500 set shows this dial (also reproduced on p. 128 in Dooner’s yellow book.) Later in 1950 it was repositioned to a gentle arc outside as shown on a March 1951 set (Figure 3). Collectors have reported sets manufactured from about December 1950 to August 1951 with this dial plate. For all three variations, letters and numbers were applied on the plastic ring and covered with a thin clear coat for protection. This clear coat was not durable enough to withstand dialing over a period of years.

Beginning in mid-1951 the double injection molding (two shot) process was perfected and the numbers, letters and dots on the dial ring, in contrasting colors, extend all the way through from the underside. Thus, they could not be worn



away with normal use. The discerning reader will note the change in text size and position from the early 1951 set (Figure 3) to a March 1952 set (Figure 4.) The relatively small size of the letters in “OPERATOR” and the location of the numeral “0” above the letter “P” was changed to slightly larger text with the numeral “0” above the letter “E.” Genaro informs us that the process used to make the dial plates would have been much more expensive had the original text size been retained.

This two shot process and the arrangement of the dial continued with only minor changes for the remaining life of 500 set production. Further cost reduction

was achieved mainly through the use of new plastics that permitted thinner parts and the elimination of hardwired cords.

Only the Beginning

With the modifications described above, the exterior design of the basic 500 set was virtually established by 1952. Coiled vinyl handset cords became available to replace straight rubber cords in 1954. Beginning in 1957, a new “hard plastic” case was phased in, with the last “soft plastic” parts made in 1964. In the 1960s, a clear solid plastic fingerwheel replaced the painted aluminum one on black sets. Plastic handsets replaced the Bakelite G1 handsets on black sets between 1962 and 1965. Finally, about 1973, modular handsets and line cords replaced the venerable hard wired variety.

Including wall sets, four and six button key sets and other variants of the basic 500 set, total production by Western Electric / AT&T was in excess of 160 million when AT&T Technologies ceased manufacture in 1986. Production by other manufacturers, who executed licensing agreements with Western Electric, adds many millions more until offshore production by Cortelco ceased in 2006.

In future issues, Paul and Russ will have additional articles about the enhancements made to the WECO 500 sets and the evolution of specialty models to satisfy a wide variety of user needs. The next will describe the technical changes made during the first few years of 500 set production. More information can be found on-line at: www.paul-f.com/we500typ.htm. ☛

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480 page Payphone History. The book is divided into 3 main sections: I. The Payphone (321 pgs), II. Booths (63 pgs) III. Signs - 810 signs (74 pages) \$25.00 + \$5.00 shipping. Thanks much.

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HP 3555 Manuals on CD: For those of you who have the HP 3555A Telephone Test Meter or the HP 3555B Transmission and Noise Measuring Set and would like to get your hands on a high-quality scan of the Operating and Service Manual for this equipment on a CD please send \$15 by check, money order or cash to the below address, or send \$15 to my PayPal account wd4owa@gmail.com (that is the letter "o" after the number 4) and you will receive the CD with both manuals in text-searchable PDF files plus the original scanned images of the pages in TIF image format. The manuals contain everything you need to know about these instruments including schematics. The front cover, table of contents and a partial schematic example can be viewed at: <http://masseywebsite.us/hpsample/3555A.pdf> and <http://masseywebsite.us/hpsample/3555B.pdf>. Note that the sample files are almost 2 megabytes each so it may take a while for the PDF file to download for viewing.



David Massey • 4555 Welshfield Ct., Kennesaw, GA 30152 • wd4owa@gmail.com

Liech electric square based black desk sets for sale. I have about 6 that are incomplete. This includes the base (no cracks / chips), cradle (may need painting) and wiring. NO base cover, handset, cord or dial. \$20 each or all for \$100. (http://oldphoneman.com/clean_out_sale.htm) I am cleaning out and have several items posted on this website!

Paul Wiltfong • 20425 W 103rd Terr. Olathe, KS 66061 • (913) 782-0607 • www.oldtelephone.com

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WANTED

I am in need of the following to complete some phone projects. Cash or trade.

- International candlestick transmitter, marked with the letter C.
- Red AE 34 transmitter spitcup and cap
- Mahogany AE 34 transmitter spitcup and cap
- B&R transmitter for tapered shaft stick
- Switchhook arm, #9 WE potbelly stick
- Ivory AE 34 handset.

Bruce Bianchi • mrlinefinder@verizon.net

Wanted, small AE line / cutoff relay.

Gene Doom • 616-842-8327 • springdoom@aol.com



Handset assembly (or maybe rehabilitation) at the Chesapeake & Potomac Telephone Co. circa 1925. National Photo glass negative.

Membership Enrollment/Renewal

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Choose one (E-membership or Standard Membership):

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Option 2	Send Check or Money Order (U.S. Funds Only Please) made payable to <i>Telephone Collectors International</i> to: Telephone Collectors International, Inc. 3805 Spurr Circle Brea, CA 92823
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Survey (Optional)

Would you be willing to be nominated as a candidate for election to the TCI Board of Directors? Y N

Junior Membership

Junior Membership is for collectors under the age of 18 when there is no adult collector in the same residence/family. Junior Membership includes subscription to the TCI Singing Wires e-newsletter (must have access to a valid Email address) and a listing in the member directory.

TELEPHONE ENGINEER PUBLISHING CORPORATION

7720 SHERIDAN ROAD ★ PHONE ROGERS PARK 4-3040

Chicago 26, Illinois

April 25, 1951

Mr. Roger D. Conklin
Harmon Hall
Kalamazoo College
Kalamazoo 49, Michigan

Dear Mr. Conklin:

It was a pleasure indeed to have your letter of April 23rd commenting on the editorial carried in our April 15th issue calling attention to the necessity of having more younger men interested in our industry.

Your experience in your extra-curricular work during vacations and weekends with the smaller Independent companies is indeed an unusual one. I might add that it is unusual for a young man to set his goal so early, as I think you will save many years of indecision by following your plan as outlined.

As to your college career, I have only one or two observations. There are three schools in the United States that teach communications engineering. These three are Massachusetts Institute of Technology, Purdue University and Oregon State College. Your plan as outlined seems to me a good one, as Michigan is a recognized school and furnishes a number of young men to our industry after they have finished and received their B. S. in engineering.

One of the Independent manufacturers has a very interesting plan that would be of interest to you and might offer something for you to think about. The Automatic Electric Company of Chicago selects about thirty-five engineering graduates per year from several of the Mid-West universities, including Michigan. They have a two-year course for those selected and at the end of that period, those completing the course would be qualified communications engineers. If you would care to write to them a letter similar to the one you sent to me and if you are interested in completing your education to a successful conclusion, you could address your letter to Mr. C. W. Frank, Assistant to the Vice President and Chief Engineer, Automatic Electric Company, 1033 West Van Buren Street, Chicago 7, Illinois.

Mr. Roger D. Conklin

- 2 -

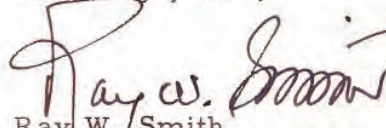
April 25, 1951

I might call your attention to the fact that the above-mentioned company pays you while you go through their school, which I feel would be interesting to you, since you do work in the telephone industry during your spare moments.

There is one suggestion that I do want to give you and that is that if I were in your position, I would not limit myself to working only for the very small telephone companies to the exclusion of the larger companies. I say this because there are certain practices in the larger operating companies that are very important and you should know them. It offers the opportunity of working under an experienced man who is familiar with all branches of telephony and should stand you in good stead in your maturer years. You have two fairly large-size Independent operating companies in Michigan and I would certainly consider, in case you are not interested in the course offered by a manufacturer, writing to them with the idea of getting some experience in their engineering department. The Union Telephone Company at Owosso and the Michigan Associated Telephone Company at Muskegon are Independent companies and operate in smaller towns throughout the State.

Your pleasing comment regarding our magazine is indeed appreciated by the entire staff. I hope I have in this letter given you the information you desire and invite you to write me at any time if you want to follow up on any of the ideas we have suggested. If you would like to have the names of the people you should contact at Muskegon or Owosso, I would be glad to send them along.

Sincerely yours,


Ray W. Smith
President - Editor

RWS:lw