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AN INTERNATIONAL ORGANIZATION ASSOCIATED WITH THE MUSEUM OF INDEPENDENT TELEPHONY

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VOLUME 33, NUMBER 9

NEWSLETTER

SEPTEMBER 2004

UPCOMING AUCTION



SATURDAY, OCTOBER 23
10:00 a.m. CST
Dunlap, TN
George Hamilton Land & Auction Co.
TAL1557 423-949-6887

Why advertise your telephone wants, telephone trades, or items for sale in the newsletter? Only 10% of our members attend shows; therefore, you can reach the other 90% very easily by sending in your ad by the 18th of each month.

When doing so, please include your complete address along with your telephone number or email address. Please do not just include your email address, as many of our members do not use the internet.

Bill Provencher's
East Coast Telephone Show

Oct. 8 - 9, 2004
at the
Radisson Hotel

One Bright Meadow Blvd.
Enfield, Ct 06082

Reservations Call 1-860-741-2211

Rooms: \$75.00 a night
Reserve early since this is a very busy time of year due to increased tourism during fall foliage.

Agenda
Set-up: Fri. Eve. - 6:00 to 11:00 pm
Show: Saturday - 8:00am to 2:00pm

Tables \$20.00 ea.
2nd table \$10.00
\$5.00 Registration fee

Contact:
Bill Provencher
821 No. Main St.
Barre, VT 05641-2515
Phone 1(802)476-7189

UPCOMING SHOWS:

SAN JOSE / BAY AREA SHOW

Saturday, Nov. 13, 2004 • 8 am - 1 pm
St. Francis Episcopal Church, 1205 Pine Ave. (corner of Pine and Newport), San Jose, CA. Admission \$2, tables \$10 each. More info at <http://www.vintagephone.com/SJShow.htm> or call Hal Belden at 408-377-5864.

NORTH OF THE BORDER SHOW

Saturday, Sept. 25, 2004 • 8 am - 2 pm
Military Communications and Electronics Museum, 95 Craftsman Blvd., Highway #2, Kingston, Ontario. \$20 Canadian for initial table, \$10 Canadian for each additional table. Checks payable to Don Woodbury prior to August 27, 2004. Contact: Don Woodbury Phone 613-549-9986 Email don@technosave.com, Address: 57 Mack Street, Kingston, Ontario.

SOUTHEAST REGIONAL PHONE SHOW

Saturday, January 15, 2005 • 8 am - 4 pm
Maitland Civic Center
641 S. Maitland Ave., Maitland FL
Hosted by Paul Mikula

MID-WEST REGIONAL PHONE SHOW

Saturday, February 5, 2005 • 7 am - 1 pm
Mason, Michigan. Contact Ray Kotke for more info: katke@voyager.net or 517-641-4953.

A.T.C.A. SPRING SHOW

The 2005 show will be held on April 1-2, 2005 Sterl Hall (within Eisenhower Park), Abilene, Kansas.

NEW MEMBERS:

Edward Gaitley, No. 4154
PO Box 10120
Torrance, CA 90505
(310) 375-744

Rick Heckt, No. 4155
17003 SE 136th St.
Renton, WA 98059
(425) 271-1497

Jules B. Fromm, No. 4156
43 Woodmere Rd.
New Brunswick, NJ 08902

RENEWALS:

Jerry T. Tucker, No. 3832
183 Highland Ave.
Sumiton, AL 35148
(205) 6848-9606

Gerald Gapa, No. 842
19 Cherry Dr. North
Oswego, IL 60543
(630) 554-8154

**ADDRESS & PHONE CHANGES,
ADDITIONS AND CORRECTIONS:**

Seiji Endo, No. 2635
(Should be Sage Endo)

Peter Leavitt, No. 1402
RR 4, Box 7121
Gardiner, ME 04345
Fax: (207) 582-3052

Dan Beach, No. 2791
ZIP code: 32835
(407) 295-9696

Ira Nebrasky, No. 3710
(718) 934-2888

David Gruger, No. 2768
Harmon Circle (not Harmon Rd).
Only one phone: (870) 257-2801

Jim Deininger, No. 1566
5834 El Noche Way

Tommy Harris, No. 2067
2865 Fairway Homes Way
Glen Allan, VA 23059-7415
(He is taking over the museum)

Robert LinDell, No. 540
(763) 682-2726

Jay Francis, No. 2563
(972) 575-8145

Paul Smith, No. 4045
(405) 382-1835

Paul Barton, No. 2175
(757) 259-0424

Bill Murgatroy, No. 4136
Lempster, NH 03605

Eugene Hughes, No. 2777
(630) 406-9733

Morey Mandelbaum, No. 2164
12725 Sunflower Dr.
Des Moines, IA 50323

Ed Antie, No. 3356
PO Box 237
Carencro, LA 70520

Don Nelson, No. 3688
(704) 540-9443

Michael Donovan, No. 2959
(520) 625-1608 (home)
(520) 260-1582 (cell)

William Samek, No. 2282
7241 SW 63 Ave., #203C
Miami, FL 33143
Newsletter mailing address:
4605 SW 89 Ave., Miami FL 33165

Jodd Readick, No. 2931
15 Sheridan Square #4G
New York, NY 10014

George & Barbara Masciarelli, No. 2660
(229) 244-2677

Donald McCormick, No. 3792
3759 W. 80th Place
Chicago, IL 60652

Stan Bartles, No. 395
5004 E. Flower Ave.
Mesa, AZ 85206

Telephone Historical Centre., No. 2482
PO Box 188 STN MAIN
Edmonton, AB T5J2J1

William Snyder, No. 3531
101 White Oak Drive
Monroeville, AL 36460

Leon Blain, No. 2456
13664 Lucca Forest, Dr.
Bloomington, IL 61704

Bill Wright, No. 2759
(513) 881-7434

Ernie Merrill, No. 2704
(772) 466-5987

Loren Tilles, No. 2184
(949) 481-5418

Paul Vaverchak, No. 1951
(570) 758-1706

Jay Francis, No. 2563
(972) 575-145

Jacob Feinstein, No. 3564
Manalapan (not Nanalapan)

Al Farmer, No. 15
5023 S. 69th St.
Lincoln, NE 68516

MEMBERS IN RHODE ISLAND:

(Accidentally left off member list)
John Peixinho
Don Wright
George Bennett
Steeven Isherwood

MARK LEPIRE, No. 2864
39 Colonial Wy
West Barnstable, MA 02668
Tel: (508) 362-9438

FOR SALE

☐ WE 553A metal wall set, 144 Rec, 323 Trans, *MP \$125. ☐ 3 NOS pink long trimline handset cords 3 for \$20. ☐ We NOS black G040 G-3 key box, \$10. ☐ Brick red AT&T 2500 TT set, \$30. ☐ Maple seat, corner bracket and porcelain shelf from wooden phone booth, \$75. ☐ 3 good seamless EI hand sets, \$40 each. ☐ Black porcelain United Utilities sign, \$100. ☐ 12 ft. x 1 ft. wooden hand carved and painted sign, New England Telephone, \$100. ☐ Lot of WE/NOS MOD, cords, 4 ivory, 7 white, 5 black, 3 beige, 3 long black. all still in the package, \$40. ☐ Red plastic 40" cord saver, \$20.

DAVID MARTIN, NO. 278
6016 Sheaff Lane
Ft. Washington, PA 19034
Tel: (215) 628-9490

FOR SALE

☐ Oval blue and white pocket mirrors New England Telephone and Telegraph Co. when in doubt telephone and find out, with a L&LD Bell \$150, Missouri and Kansas Telephone company get a Bell Telephone L&LD Bell \$130. ☐ One inch round pin back, blue and white, 50 with a non dial candlestick phone in between, \$10. ☐ Unused match book with the 3" matches International direct distance dialing, 1978 rates on the matches with the cities, call overseas your voice makes the difference, etc., \$10. ☐ Three inch round red plastic coasters 1929 1985 Baltimore works Western Electric either bon voyage or great minds and happy times, both for \$10. ☐ Alexander Graham Bell 2 1/2" round coin metal paperweight, the golden anniversary \$55. ☐ Tin container containing a Terminal Letter Stamping Set, with a 1921 Bell logo on the hinged lid, but faded logo and letters, \$5. ☐ Advertising card, colorful Christmas shopping simplified by telephone, use the bell with Santa, L&LD logo extension telephone costs 50¢ a month, etc. \$15. ☐ Empty cardboard box American Electric Co. Chicago Germ Proof glass mouthpiece number 2, lid torn and missing, \$10. ☐ Western Electric #103A 2" round pin or pencil dial for the early butt set, good shape, \$20.

JERRY MORAN, No. 4093
30 Kingwood Rd.
Oakland, CA 94619
Tel: (510) 530-9342
E-Mail: nmi@flash.net
Website: <http://www.nmitraining.com>

FOR SALE**TELECOM 101 VIDEO***In Four Parts:*

- A twenty-five minute narrated tour through the Roseville Telephone Museum, one of the finest Telco museums in the country!
- A thirty-five minute tour through the local loop. Starting in the power room of a central office, you see: the ESS switch, mainframe, cable vault, manhole, cross connect box, aerial and buried terminals, and the denmark. We go into a Controlled Environment Vault and see a remote switch and a DSLAM *DSL Access Multiplexer). We visit some wireless sites and the mobile switching office (MSO) including a site camouflaged as a pine tree.
- A nine-minute video from Corning on the manufacture and use of fiber. On a CD.
- A humorous look at an experimental "pole farm." A company at a secret location is growing utility poles that are ready to use as soon as harvested. They grow without leaves, bark or branches! Seven minutes. Normally - \$79.95 plus \$6.95 S & H
ATCA Members - \$40.00 plus S & H

THE ATTACHMENT CORNER

By Mitch Soroka, DC

The Sanitalk Germicidal Telephone Mouthpiece

This telephone attachment is a white mouthpiece made out of some kind of porous plaster like material, not porcelain or ceramic. It has brass threads and the part with holes for sound to pass through is made of aluminum. It has advertising printed in black on the inside for the MUTUAL OIL CO. PHONE 183 and is also marked near the threads Sanitalk Mfg. Co. Bryan, Ohio. It would be used in place of a regular bakelite mouthpiece to supposedly afford the user protection from germs. Besides its unique material composition it also came with three extra brass thread rings that were screwed onto the original brass threads in order to be able to use this mouthpiece on most any type thread available from a telephone manufacturer. It appears from the staining in the center of the mouthpiece that a germicidal liquid was placed there in order to kill germs that gathered in the mouthpiece. It came in a marked box that was marked on its sides with the following: Telephone Sanitary Mouthpiece, Telephone Deodorized Mouthpiece, Telephone Hygienic Mouthpiece, Telephone Germicidal Mouthpiece and Safety First. The box appears to have been stained by the germicidal fluid. It also came with a long information sheet that goes on and on about germs, infection and the spread of them by the telephone. It's enough to scare anyone into buying this product immediately. This is the only one I have seen so I consider it to be quite rare.



Kills Germs



Always Sanitary

Sanitalk Germicidal Telephone Mouthpiece

The sanitary, deodorized, hygienic, germicidal, mouthpiece to be used on telephones, dictaphones and speaking tubes for the prevention of CONTAGIOUS DISEASES and TRANSMISSION OF GERMS.

All telephones should be equipped with our Sanitalk Germicidal Mouthpieces for the benefit of humanity, because—The internal surfaces of the body are more exposed to bacteria than the exterior and the protection is not so efficient.

The respiratory surfaces which are most exposed to infection from the air, do collect bacteria and other foreign substances that enter the lungs.

The cavity of the mouth harbors large numbers of organisms, many of them pathogenic. The mouth forms a depot from which bacteria and germs may pass to communicating surfaces and infection from these may result.

There are thirty-three (33) species of germs which inhabit the mouth and gums alone. We are literally alive with them.

Moisture and darkness are favorable conditions for the existence of the tubercle bacilli.

The moisture in the mouth, throat and nose is a source of danger, in that it favors the growth of bacteria which lodge on their moist surfaces.

Carriers, who have organisms in the throat but who do not have the diseases are the principal agents in dissemination. Sporadic cases constantly occur in small numbers and are hard to trace in cerebro-spinal meningitis.

Diphtheria bacilla usually lingers in the throat after convalescence is established and until they have disappeared the individual is more dangerous than one actually sick with the disease.

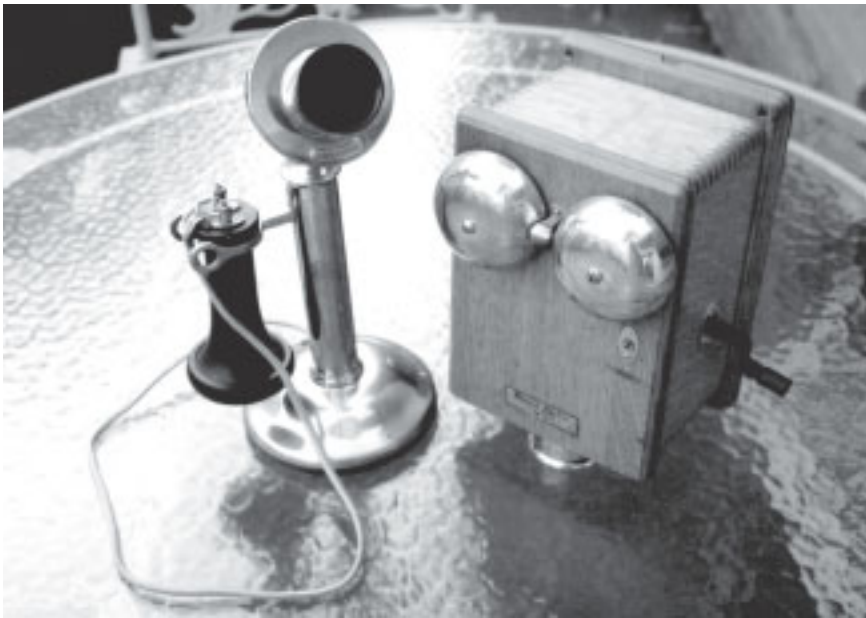
Nine-tenths of all the maladies believed to be due to breathing cold and raw air are now known to be due to invading germs, one of the most common maladies, being bad colds.

INSECTS—play a very important part in the transmission of disease. The ordinary HOUSE FLY conveys the organisms of typhoid, dysentery and tubercle bacilli. The number of bacteria on a single fly may range from 550 to 6600.

For the EXTENSION of infection from one individual to another, the infecting organism must in some way be transmitted or transferred. If the seat of the disease be in the lungs, throat or mouth, the sputum forms the medium of extension which can take place in many ways.

There are no treaties between the germs of our body and that of another; let one apparently harmless germ escape and enter the body of another human being and it will attack it as virulently as possible.

The SPUTUM may become dried, forming part of the dust (which accumulates in all ordinary telephone mouthpieces) and then the organisms enter with the inspired air into the mouth and lungs. Organisms find much more favorable conditions within houses, offices, telephone booths, etc.



LES RAYNER, No. 4054
5512 N. 71st Place, Scottsdale, AZ 85253 • Tel: (480) 947-1375

FOR SALE

Very nice Western Electric nickel plated Model 20-B phone with slight wear, along with its W.E. receiver, original green cord and brown felt base. also the mint W.E. Bell Box.

CHRIS MATTINGLY, No. 2335
PO Box 2263
Florissant, MO 63032
Tel: (314) 921-6877 (when the tone starts, enter 31)

WANTED

Photocopy of Federal Telephone and Radio corporation advertisement in "Telephony" magazine, dated June 14, 1947, or equivalent. Odd Switching C.O. or PBX equipment I don't already have.

RICHARD McCOY
2719 Lakeview Ave.
St. Joseph, MI 49085
Tel: (269) 983-5403

WANTED

EIFFEL TOWER: In working and usable condition. Send photo, description and price.

TIM KARPEN, No. 1869
14217 W. Elm Springs St.
Boise, ID 83713
Tel: (208) 938-0205
E-Mail: tkarpen@cityofboise.org

WANTED

Kellogg Wooden Wall Phone (pg. 49, 2nd Edition, Dooner) Pencil holder attachment for C/S phone.

ALLEN CASSIDY
1178 Cline Cres
Ottawa, Ontario K2C2PZ
Tel: (613) 723-4777
E-Mail: scassidy@isrodgers.com

FOR SALE

Western Electric 32AB Dial, Dated: 11-35, mint.
 Couple of pony receivers Western & Automatic Electric switch hook chip on the Western. The following name plates: a) Monarch Telephone Mfg. Co., Chicago-USA; b) Chicago Telephone Supply Co., Elkhart-Indiana-USA; c) Connecticut Telephone & Electric Co., Meriden Con. USA, Special Marine.
 Top Box as per photo Group #1. Hostzer-Cabot (as per N Mulvey), good nickle mag., ringer crank - Sorry, no switch hook, terminals on top & bottom of back



Group #1

were cut off (sorry about that). 3 Boxer as per Group #2. Ness McLaren & Bates, manufactured in Montreal. Real good long pole, Otis's new rattlesnake cord. No battery tray. Mag appears original, missing a bar. Bells to be redone. Blake guts missing. Back appears to be original finish (good). Remaining has been refinished. Very nice label inside of battery box. This phone is being offered as in found condition (other than cord) near the small village of Hopetown, Ontario. Population 12 houses, 20 people and 3 dogs. Was owned by a gentleman who inherited from his parents who had owned it for thirty years. It came from Hawksbury, Ontario, which is 50 miles from Mtl. Quebec. Please contact me for further details & pricing. Leave message, all calls returned.



Group #2

RUSS COWELL, No. 3065
105 Woodmere Drive
Williamsburg, VA 23185
Tel: (757) 258-5308
E-Mail: russ54@widomaker.com

FOR SALE

☐ G3 empty handset shell (NOS) in black, no logo. Large hole for armored handset cord. \$2 ☐ Two used single slot coin boxes with lids. \$12 each ☐ Several coin box lids. \$8 each ☐ Ivory AE Starlight with HW handset cord. \$5. All plus shipping. ☐ Copies of the full page ad from the Norfolk Ledger-Dispatch of November 10, 1919, announcing the cutover to dial and giving detailed instructions on how the use the new "automatic" telephones. The ad includes a picture of a 51AL desk stand with an AE "mercedes" dial and three pictures of a WECO 653-G wall set (also with a "mercedes" dial.) These posters are printed on buff colored paper and are 11x14 in size to fit standard size frames. Telephone service in Norfolk was "not the best" in Norfolk during and after World War I, so this cutover was a "rush job". The CO equipment was purchased from Automatic Electric Co. (Western Electric did not develop the SxS switch until a few years later) and the dials (as noted above) were also purchased from AE. Every collector needs to have one. Your personal check, money order or well concealed cash are all acceptable. \$6 postpaid in mailing tubes to USA addresses. Additional copies after the 1st are \$3 each if shipped in the same tube. If you have internet access you may see a picture of the ad (dated July 8, 2004) on ATCA Picture Page.

JON KOLGER, No. 561
6906 Meade Drive
Colleyville, TX 76034
Tel: (817)-329-5262
E-Mail: jkolger@gte.net

WANTED

☐ As always, wanting to buy quality vintage COLORED cradlephones from all manufacturers, particularly Automatic Electric Monophones, round or square-base, desk or wall sets. ☐ Also looking to buy COLORED WE 302 variants such as those with the 2-line switch or the ringer cut-off on the left-front corner. ☐ I'm especially looking for a Rose 302 with a ringer cut-off switch. ☐ Also looking for a blue 302 with blue plungers dated 1941 or earlier. ☐ Always buying NOS WE COLORED cloth coiled cords still on their dowels. ☐ Still desperately seeking a Blue North Electric desk set, or any COLORED North Electric wall sets. ☐ Also looking for a Blue Stromberg-Carlson 1543 as pictured on page 58 of Dooner's Blue Book. ☐ Still seeking COLORED cradlephones from other manufacturers such as S-C oval base, Leich, Connecticut, Kellogg Masterphone and Redbar, and interesting vintage, COLORED, foreign sets. ☐ Also buying vintage COLORED cradlephone literature, such as catalogs, color charts and samples, etc... ☐ Always looking for COLORED dial blanks for Automatic Electric Monophones such as Type 40, 50, etc. ☐ Also, always seeking unusual acoustic "string" telephones, particularly those with magneto signaling and/or speaking/listening tubes. ☐ Primitive, homemade sets also sought. The stranger, the better. ☐ Always buying acoustic telephone literature such as catalogs, flyers, instructions, etc.

MIKE DAVIS, No. 2022
30 Ring Lane
Levittown, NY 11756-2623
Tel: (516) 735-9765
E-Mail: mvitel@optonline.net
Website: www.geocities.com/mikesvintagetelphone

WANTED

☐ WE type 85 Fiddleback ☐ Old payphones and parts. ☐ Gray 50A pay phone. ☐ 5 cent coin collectors and parts. ☐ Western Electric touch tone 3 slot payphones.

FOR SALE OR TRADE

☐ 5 single slot payphone coin boxes w/o lids \$25 all. AT&T S203 Telephone equipment, speakerphone. This is new in the box. They are \$30 each. I use one myself and it works great.

CLIFF SULLIVAN
4902 West Monte Cristo Ave.
Glendale, Az. 85306
Tel: (602) 978-3551
E-Mail: suclif@att.net

FOR SALE

☐ A/E mini-networks \$7 each . 10 or more \$5 each. ☐ A/ E small ringers \$3 each ☐ W.E. brown coiled modular handset cords, standard size \$5 each. 10 or more \$3.50 each. ☐ AT&T Windows and Instruction cards for single slot Coin Phones (new in package) \$5 each. All plus postage.

MIKE DONOVAN, No. 2958
Tel: (520) 625-1608
E-Mail: mdsabyr@yahoo.com

WANTED

Base plate for S.H.Couch candlestick.

DOUG ROSE, No. 3176
E-Mail: dougrose9477@aol.com

WANTED

Dark Red (blood red) F-1 Handset for Red Thermoplastic 302. It is the later, darker red, similar to the red in the 500 sets. Not the translucent red of the earlier thermoplastics.

WALLY TUBBS
Tel: 402.423.4716
E-Mail: dt44829@alltel.net

WANTED

☐ Western Electric beveled edge transmitter, either a 7 digit or an *ABT*marked, nickel in good shape.
☐ WE Long Pole receiver. ☐ Western Electric type 22 Candlestick in Nickel (this is the one with the Hershey's kiss perch and the external screw in the lower side of the shaft to hold the internal contact board).

JEREMY WALTERS #3334
121 Skyway Drive
Vallejo, CA 94591
Tel: (707) 554-1014
jeremy.walters@sbcglobal.net

WANTED

Parts for KS-16844 Rapidial, specifically the List 3 Power Supply Cord, List 4 Telephone Cord, dial center, record start bar plastic cover, and List 20 Housing. I'm trying to restore a rough unit, so a parts unit would work also. This was a unit built for Western Electric by McGraw-Edison.

TOREY MALATIA, No. 3737
7318 S. South Shore Drive
Chicago, IL 60649
Tel: (773) 768-0523 (home)
Tel: (312) 948-4612 (work)
E-Mail: tmalatia@chicagopublicradio.org

WANTED

☐ Clean Burns OST Dipole Receiver ☐ WE Celluloid Dial Number Plates in Good Condition ☐ Bottom Cover for Stromberg-Carlson Dial Stick (double-screw type, not twist-on type). ☐ Stromberg Carlson Kansas City Stick for parts (no lamp conversions, please--that's what I already have--what a mess!)

KNOX LEE
E-Mail: klee5@sc.rr.com

WANTED

A pair of "booby bells" for a desk top ringer box.

ART BOPP
Tel: (516) 579-7920
E-Mail: ambp52@optonline.net

WANTED

☐ Nickel plated solid perch WE phones (20B for example) and parts in need of refurbishing. Completely seamless (caps and handle) WE E1 (bullet type) handset. ☐ Internal parts for AE 1C transmitter. Solid receiver (OST or otherwise). ☐ WE 2HB dial (no notch plate). ☐ WE 143, 144 and 706A receivers. ☐ Early and unusual desk stands (all types).

MITCH SOROKA, No. 662
5 Orient Way
No. Caldwell, NJ 07006
Tel: (973) 746-4493 before 8pm EST
Tel: (973) 226-6261 after 8pm EST
Fax: (973) 746-1440
E-Mail MITCHSS@aol.com

FOR SALE

You can have all of them for only \$50 to your door or buy separately: ☐ WESTERN ELECTRIC Catalogs on CD-ROM, basically a "best of" from catalogs #1, #2, #3, #5 Western Electric Catalogs on CD. Includes over 250 pages of pics & info selected from catalogs #1, 2, 3, 5, and 1912 catalog bulletins. Loaded with pics and info on Wall Phones, 2-boxer Wall Phones, Cathedral Top Picture Frame Front WALLPHONES, Candlestick phones - which shows most all model numbers and their configurations; Dial Candlestick phones with models #s, Dials and dial parts views, wiring pics, special phones, railway phones, mine phones, scissor phones, coin collectors, payphones, phone booths, tools, transmitters and what phones they are used on, receivers, cords, switchboards, parts, test sets, ringers, testing apparatus, magnetos, terminals, calculagraphs, subsets, ringer boxes, extension bell boxes, switch hooks, pics showing. ☐ GRAY PAYSTATION Catalog of 1912 on CD-ROM - contains 100 pages. This amazing catalog with pics of all the paystations and info and descriptions of each. Includes Silver dollar Paystations, Tandems, 3 slots, # 50A, #150, #7, #11, #14, #23-D, Wanamakers, etc, etc, too many to list. You name it, it's in there! Only \$18 to your door. ☐ 20 RARE EARLY TELEPHONE COMPANY CATALOGS ON 2 CD-ROMs. 10 Different Telephone Companies: Multiple CD package set of Early Telephone Company catalogs on CDs. 20 catalogs in all !!! These CDs are high resolution, high quality scans of each page that can be zoomed in for greater detail & printed out as well. The telephone companies on the CDs are as follows: American Electric; Andrae - 4 catalogs; Chicago - 3 catalogs; Mianus - 2 catalogs; Farr - 2 catalogs; DeVeau - 2 catalogs; Eureka; Monarch - 2 catalogs; T.W. Ness; Western Telephone Construction - 2 catalogs; For Example: The 3 Very early & rare Chicago Telephone Co. Catalogs included have over 150 pages of fantastic pics & info on 3 boxers, 2 boxers, Tandems, Potbelly candlesticks, Pencil shaft candlestick with wood base, Semi-potbelly candlestick, long pole receivers, transmitters, switchboards, batteries, tools, subsets, wiring diagrams for Potbelly candlesticks & wallphones, parts, etc, etc. Amazing large drawings of the phones and parts, including showing how a Semi-Potbelly Candlestick phone is taken apart. These are among the rarest and most sought after telephone catalogs from the turn of the century. Over \$1000 worth of catalogs. Great pics & info. Buy the set for only \$18 to your door.

JOHN NOVACK
E-Mail: jnovack@stromberg-carlson.org

WANTED

☐ Looking for information on the Leich 60/40D pbx. This is a small PBX produced by Leich (Automatic Electric) in the late 60's, was 40 lines, expandable to 60, and all built into a 7 foot 23 inch rack. Not the more common model 40, 80 or 100 that were larger cabinet style units. All I have is a piece of sales information, and need any drawings or service/troubleshooting information that may be available. Any unwanted and unloved Leich circuit plates around? Lets see if any of the numbers match. ☐ Looking for drawings on the following ITEC trunks: 600052 2 way dial/manual E&M trunk - Believe this was replaced by the 600882 600881 1 way E&M trunk. Contact me for any other ITEC drawing you may need. Large selection of Stromberg-Carlson XY drawings, originals free for shipping or copies at cost plus shipping. E mail or write your XY drawing needs. Small selection of AE drawings, copies at cost plus shipping. See you all at the Labor Day show.

Magneto...

Un-noticed, under-rated -- and Indispensible.

By Linley Wilson

That the telephone was a startling invention no one would deny – but in the spirit of the old joke about it “being useless until the second one was invented” it is obvious that the ability to communicate over distance is only valuable if one party can get the other one to the instrument when desired. Following Rod Williams’ fine survey of generator types (last issue), this article considers the development of this prosaic yet vital piece of equipment.

The first telephones were only ‘point-to-point’ instruments, connected in pairs, without capacity to switch between pairs. Also, the very first were ‘magneto-motive’, being essentially what we would call ‘bell receivers’, generating their own, minute, speech currents in a coil, as voice pressure waves moved the diaphragm in the field of a magnet. This principle is in fact no different from that of a conventional signalling ‘magneto’ (or ‘generator’: the two terms are interchangeable), though the receiver/transmitter produced only millivolts.

Pre-Magneto Ideas

Magneto generators were known in the 1870’s. J.E. Kingsbury, Engineer with (British) Western Electric, reproduced a picture of ‘Clarke’s Magnetic Electrical Machine’ from an 1854 book in his own classic work of 1915. This is similar to those in later ‘quack’ medical shocking machines, on which

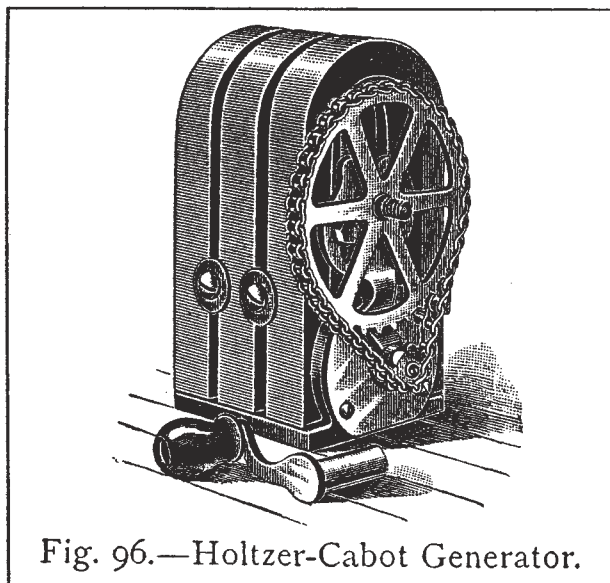
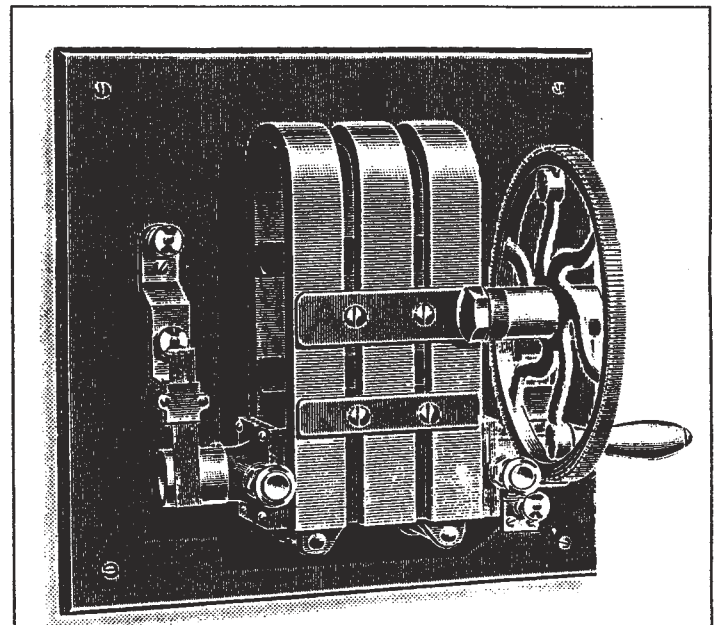


Fig. 96.—Holtzer-Cabot Generator.



LARGE POWER HAND GENERATOR. with Three Large Permanent Magnets; Armature wound to 70 ohms resistance; Set of Copper Brushes; Oil Cups, and Nickel-plated Terminals, complete. Mounted on Polished Teak Base.

(British) Western Electric Catalogue, 1902.

Thomas Watson is said to have based his first telephone generators. However, given that batteries were not required for the very first phones, it is not surprising that there was initial reluctance to add cost and complexity by using batteries to ring bells at each end (a concept already familiar from ‘house bells’), or to seek other expensive means of operating calling devices.

Kingsbury explains that Bell originally claimed “the telephone itself [ie. the ‘bell receiver/transmitter] would serve for the call, since any person within ordinary hearing distance would hear the voice calling through the telephone instrument.” (There were no switch hooks or anything else in these circuits- just two ‘bell receivers’ wired together.) Other books of the period suggest tapping the diaphragm with a pencil to make audible clicks at the other end, while Siemens’ developments of the Bell instruments (also Ericsson’s) around 1877-78 had ‘calling whistles’ attached to them, so that blowing through a reed into the hole above the diaphragm it could be set vibrating at the frequency of the reed in the whistle, producing a

corresponding noise at the other end. Another Siemens instrument used a tiny crank on the side of the rather large 'bell receiver' style telephone to bounce a ball up and down against the inside of the diaphragm, thus generating a series of tapping sounds at the distant end. When Bell himself found the voice-call method inadequate, he offered a (relatively expensive) device, patented by Watson, using a 'galvanic battery' and an induction coil with a sort of simple frequency generator to produce a high pitched whine in the other instrument—all vastly more complicated than the actual telephone! Gower, in the famous instruments with rubber listening tubes, initially set up a system where the user blew down these tubes to activate a vibrating reed, to produce a similar effect. Another was the (European) Abdank-Abakanowicz device illustrated in this article. (This appears in three different books I have, all published around 1888.) It uses a coil of wire on a long leaf spring to generate small AC voltages as it oscillates back and forth in the field of the big horseshoe shoe magnet. Therefore 'flicking' the coil's handle when calling was supposed to ring the accompanying bell at the other end.

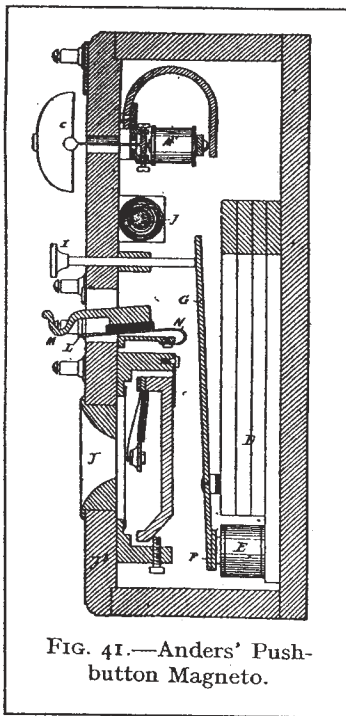


FIG. 41.—Anders' Push-button Magneto.

Kingsbury continues: "All these devices were merely tentative, and quite early the patent specifications indicated the striving for a more effective means of obtaining a call." The Edison interests (Edison was initially in opposition to Bell through his connections with Western Union Telegraph, and had a lot to do with early telephone development) held to the battery and call-bell idea, even experimenting with Morse sounders for bells. The Bell Company on the other hand looked more to magneto-call possibilities, given the difficulties they had with batteries (remember at this early stage batteries were still not considered necessary for actual telephone circuits). Watson therefore patented the 'Magneto Electric-Inductor Call' (illustrated) as the forerunner of the large generator used in the 'Melbourne Blake' and US 'Coffin Sets' around 1879-1880, (shown on the front cover of last Newsletter).

As can be seen from the illustration, a large driving wheel with a handle spun a pair of coils on an axle in the field of the big horse shoe magnet. The resultant current was sufficient to ring a bell at some distance- but of course a suitable 'magneto bell' had then to be designed! So Watson designed one, which was the basic pattern for those used during the next hundred years, and with which we are all familiar! Interestingly, Thomas Draper and Co., Melbourne, (large importers of telephone equipment) seem to have carried the magneto idea full circle. Refer to the reproduction in this article of their catalogue advertisement, around 1910, for a medical shocking machine to cure rheumatism etc. These machines are actually nothing more than the generators from 'Melbourne Blake' sets (US Western Electric

instruments used on the first Melbourne Exchange, as illustrated on the front of last Newsletter). It appears that Draper and Co. had recovered what were, even then, obsolete Blake ringer boxes, and stripped the fittings and cases off to leave only the generator itself on the backboard, thus creatively recycling them as medical machines, to some profit! Perhaps that is why these phones are now so rare? (I personally have had one of these 'medical machines' go through my hands, and it did indeed match the one in the complete 'Melbourne Blake' set.)

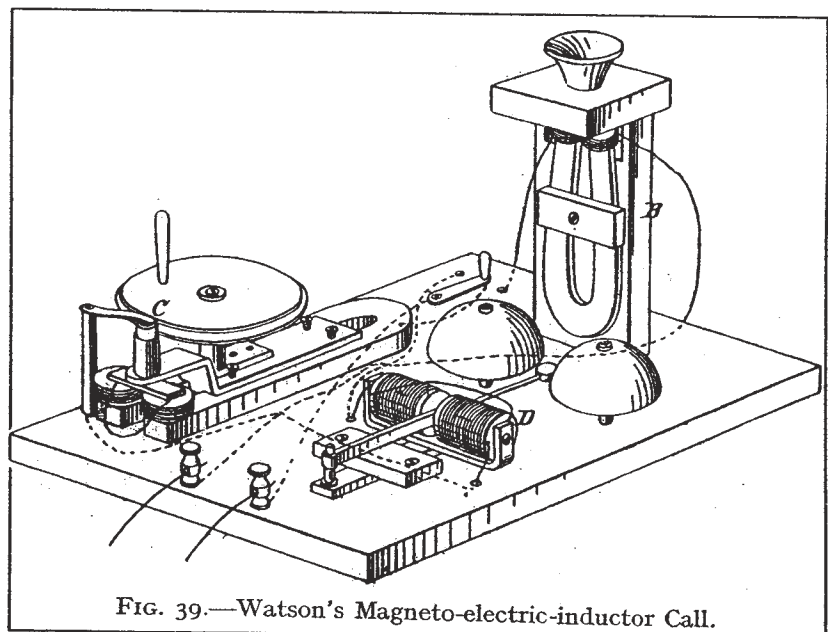
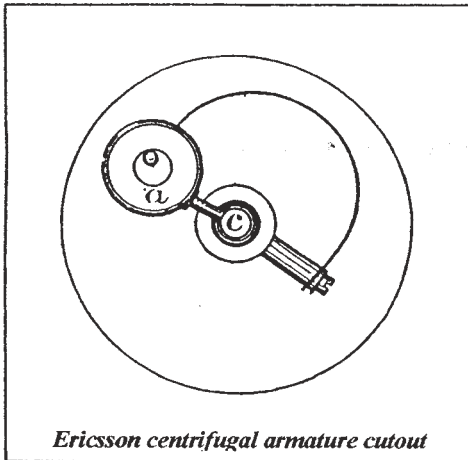


FIG. 39.—Watson's Magneto-electric-inductor Call.

Even magneto designs had permutations. See for example the accompanying illustration of the 'Anders Push-button Magneto', housed in the same box as a Blake transmitter and bell. Apparently it was unreliable, and never took off. By this time,

Siemens Brothers had developed the 'Siemens Armature', which we are all familiar with, and as Kingsbury comments "the superiority of [this] was recognised and all the makers adopted it." William Preece (Engineer-in-Chief and Electrician, G.P.O Britain) in his book *The Telephone* (1888) makes an almost identical comment.

Once the (now) familiar 'Siemens armature' caught hold, designers concentrated on refining it. One early difficulty was gear-cutting technology. Watson-type generators used in Bell/Western Electric Blake phones had fairly noisy, straight-cut gear teeth – refer to Rod's photos, last issue. This was perceived as a disadvantage at the time, said Preece (1888) and alternative drive mechanisms (including rubber bands) were trialled. Holtzer-Cabot (USA) and others experimented with chain drives (see illustration) while some (particularly in Europe, but also Gilliland and some Western Electric makers in USA) went for slipping disc 'friction drive' devices.



Ericsson centrifugal armature cutout

These turn up occasionally in Australia, and seem either to use a large single brass disc to rub against (and hopefully turn) a smaller, double-disc, pulley-shaped pinion on the end of the armature shaft, or else to reverse the idea (as on my 1882 Theiler; see AHTS 219) with 2 large driving discs 'squeezing' a single armature driver. Apparently the friction-disc idea was quite the go in Europe for a time in the 1880's, and Preece speaks of vulcanised rubber (ebonite), and rawhide(!) as well as fibre materials used in their construction, again in efforts to reduce operating noise. However, by 1888 he could say: "The cut gear has recently been considerably improved so as to be as noiseless as possible, and there is no doubt it is the best form for reliability and durability." (It is worth noting Berthon's helical gear teeth from this period [see photos last issue] - quite advanced for 1890.)

Finally, a word on bell cutouts. Obviously one does not want to ring one's own bell, or have unwanted coil impedances in the speech circuit. At the time capacitors were not employed to isolate the AC portion of the circuit. Push buttons were one method for cutting the bells in or the generator armature out (when not in use), but some friction disc generators had spring-loaded arms that did it automatically (if the handle was wound the right way!). Later generators, such as on Ericsson Commonwealths, used a system of sliding shaft and tapered 'dogs' to actuate a spring set on the generator body when the handle was turned in either direction. The Ericsson 'cutout' illustrated is that found on 'deluxe' generators. Revolving the armature shaft causes the weight to centrifugally lift off the contact (against the curved leaf spring) thus removing a short across the armature until call-ringing was over. (Preece and Stubbs, *Manual of Telephony*, 1893)

So: next time you look at a telephone generator, think of the time and effort that went into its development- and perhaps take a moment to wonder what calls, good, bad, wanted or unwanted, it has signalled.

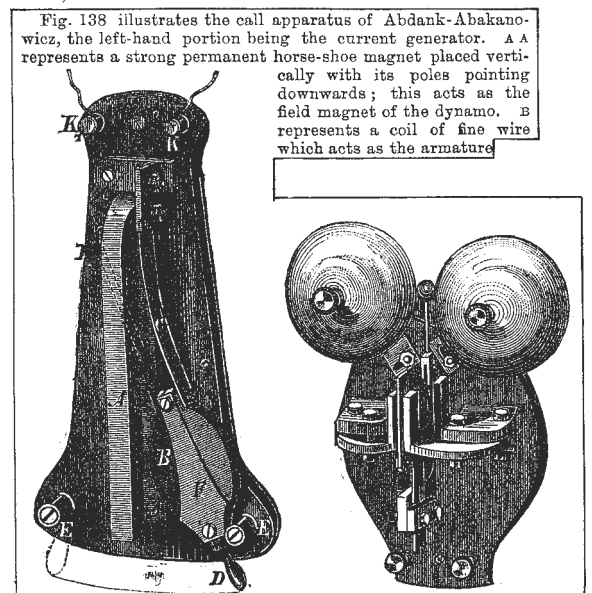
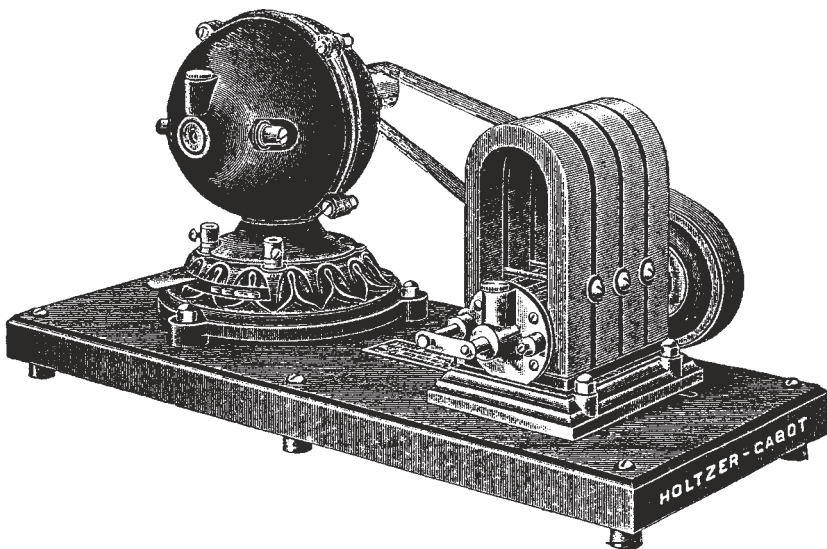


Fig. 138 illustrates the call apparatus of Abdank-Abakanowicz, the left-hand portion being the current generator. A A represents a strong permanent horse-shoe magnet placed vertically with its poles pointing downwards; this acts as the field magnet of the dynamo. B represents a coil of fine wire which acts as the armature