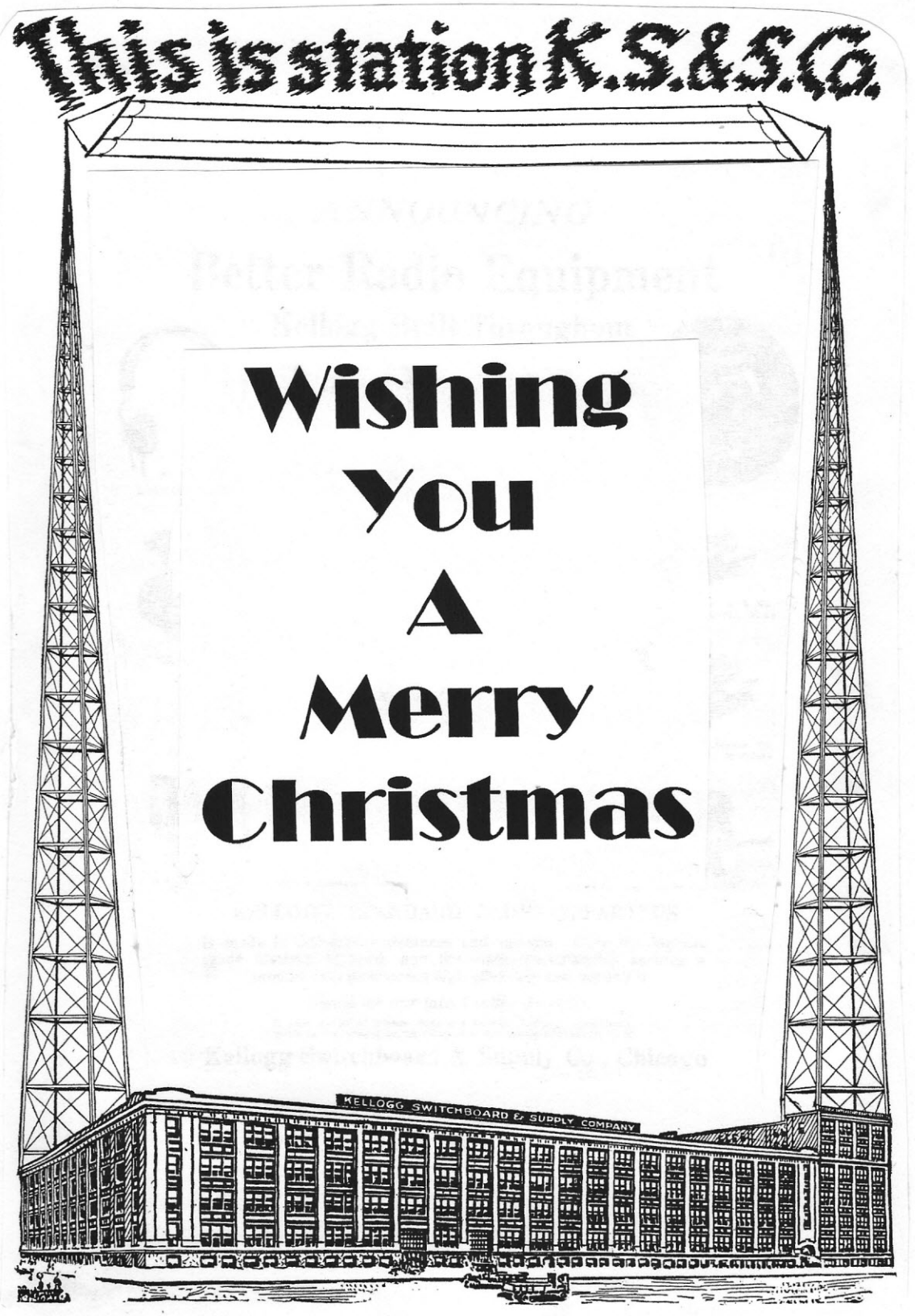
2016 PDF edition

Old Familiar Strains

a newsletter for collectors of radio strain insulators and related items
Volume 7 No. 6 December 2000



Editorial

Thank you for the early renewals and the letters. Remember that renewals are $15.00 for the coming year.

It's already looking like the February issue will be pretty substantial. If all goes according to plan, we'll start the year with a "Corning Compendium." I'm hoping to bring together the many articles and updates we've done as well as introduce some significant new finds.

I would very much appreciate your notes about Pyrex mold markings, embossing variations, etc. And I'm still seeking information about MacBeth-Evans glass.

Thank you for the show reports. We had a busy summer! I'm sorry that I had to hold them until now. But, with the winter "dry season" upon us, perhaps some summer memories will be welcome. This issue includes no less than 6 reports!

Dan

Dan Howard, Editor

Source of Old Ads

An article in the February *Radio Age* called my attention to Duke University's Rare Book website. The site, located at http://scriptorium.lib.duke.edu/adaccess/, holds a collection of over 7000 print ads published between 1911 and 1957. You might enjoy paging through some of them, especially in the radio and TV categories.

Things that aren't Insulators

The Fall 2000 *Drip Points* lead me to the National Insulator Associations new enhanced web site at http://www.nia.org. Among other things, I especially enjoyed the plug that they gave for Old Familiar Strains and the "Is this an Insulator?" column. I have already sent Bob Berry several strain-related items that are frequently misidentified. Enjoy.

This Month's Cover

This month's cover was adapted from a Kellogg Switchboard and Supply ad from the November 1922 *Radio News*. Kellogg sold telephone and radio equipment including at least one style of strain insulator. Merry Christmas!

Johnson Update

I'm glad that you liked the E F Johnson article. The lead story has already been reprinted in the *N7CFO Newsletter*. Sometimes when I write one of these articles, I feel like I'm going out on a limb. Sure, I want people to get enthusiastic and look through their collections for the ones that I missed; new finds are always fun. But my prideful side wants to believe that I included "all" of them in the first article.

Well, so far, so good with Johnson. No one has reported a new Johnson insulator since the issue came out in October.

However, I recently found a catalog that lists a Johnson Q antenna for 160 meters.

How many of these could they have sold? Not many. First, ham activity on the 160 meter band was severely curtailed from World War II until the late 1970's. Second, you may recall that a rigid quarter wave matching section hangs from the center of the Q antennas. Doing the math, this antenna would have had to be suspended at least 130 feet in the air! Only the most privileged would have had the means necessary to use an antenna of these dimensions.

Why the Outdoor Antenna Went Away

By Hank Olson, W6GXN

Since the AC-DC circuit design involved connecting one side of the power line to chassis ground, it could be very dangerous to connect the set to an external ground and antenna. Depending on the orientation of the power plug, this could place a dead short across the power line and /or present a serious shock hazard at the antenna. As a result, small self-contained loop antennas were developed.

These were practical because radio stations had become both more numerous and more powerful. Placed inside the receiver's wood or Bakelite cabinet, the loop did not represent a shock hazard. In addition, freeing the radio from the antenna and ground connections meant that it could be placed anywhere in the user's home.

From: "The AC-DC Receiver" by Hank Olson. Mr. Olson's article originally appeared in the May 2000 issue of *The Old Timer's Bulletin.* It is copyrighted and reprinted by permission of the Antique Wireless Association.

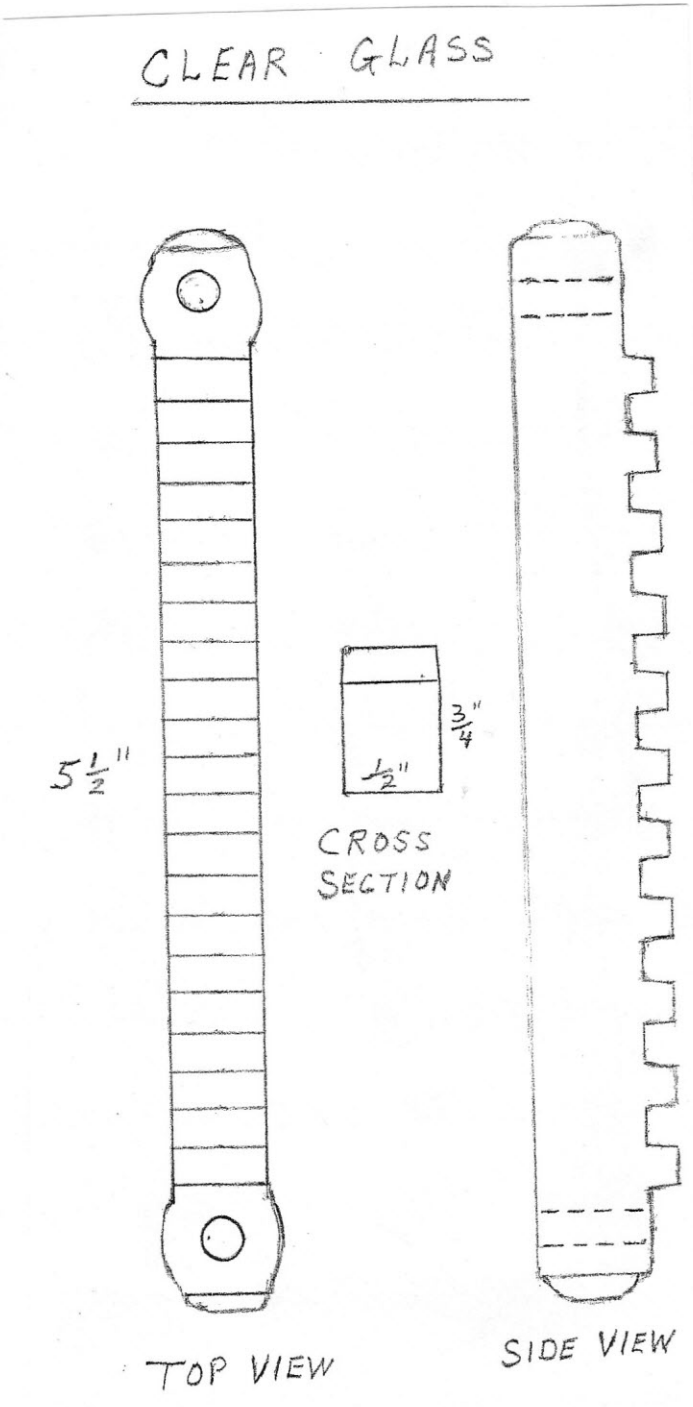
"Transformerless" radios that operated equally well on AC or DC current became popular during the depression because they were inexpensive and convenient. As pointed out in this small quote from Mr. Olson's article, the change in set design also lead to the decline of the outdoor antenna. [ed]

Thanks for Asking

Here are two more installments in the "Thanks for Asking" series. I really enjoy your questions and appreciate the ideas for articles. Keep them coming!

Lee Stewart writes:

This glass "strain" seems unusual because of its shape. I got it at an antique/junk shop along with a glass strain marked Brilliant, O. It had an old-looking copper wire wrapped around it; about three feet of wire was attached to one end and about thirty feet attached to the other end. It is five and one-half inches long and squarish with eleven "teeth" on one of the four sides (see drawing). I have not seen one like it before, maybe you have.



Dear Lee:

With the wire wrapped on it, it sounds like someone was using it for an antenna insulator. But the teeth on one side are a clue to me that it may have started life as something else. Perhaps it could have been part of a coil form. Three or four of these could have been mounted (tooth-side out) on round end forms. When wrapped with wire ribbon, it would have formed an inductance. Perhaps one of the readers has seen a similar item and can write with more information

Dan

I appreciate the pictures that **Alan Hohnhorst** sends of his ever-increasing strain and lightning arrester collection. I wrote back about one of his recent acquisitions, a particularly intriguing large white arrester. He obliged me by forwarding the copies shown on the next page.

Even with Alan's additional information, I still had more questions. First, Alan's arrester was unusual for its large size and its white coloring. Arresters are more often found in brown or black glaze colors than white.

Second, the Shinn arrester was made to protect telephone wires, but it was apparently marketed directly to homeowners. A Bell System arrester protects my home. Why would anyone want to *buy* a Shinn arrester when the phone company installs them for free?

Recently, I discussed my questions with Dennis Moeller, an insulator and telephone collector. He quickly told me that W.C. Shinn was famous for its lightning rod systems.

Dennis showed me a Shinn "belted" lightning rod ball from his collection in white milk glass. If you look closely at Alan's advertisement, you can see where the Shinn arrester is being grounded to the down lead from a lightning rod. Perhaps the white glaze on the arrester was chosen so that it would "match" the rest of the Shinn equipment?

Dennis told me that private telephone companies served thousands of homes. For such systems, the homeowner would have been obliged to purchase all of his own equipment. Hence the potential market for Shinn telephone lightning arresters. The same salesman that installed the lightning rod on your home and barn could also provide lightning protection for your telephone.

A little work on the Internet yielded even more information. *Crown Point* magazine (the magazine for lightning rod collectors) publishes some of its stories on line. As luck would have it, a feature on W.C. Shinn Manufacturing from the October/December 1999 issue is currently available. According to the article, William C. Shinn founded the company in Lincoln, NE, around 1899. It was apparently moved to Chicago around the time of World War I. Judging by the Lincoln, NE, marks, I supposed we've bracketed the dates of Alan's arrester between 1899 and 1919.

Besides being an interesting and unusual item, the tie-in to "The Shinn System" makes Alan's arrester that much more interesting to me.

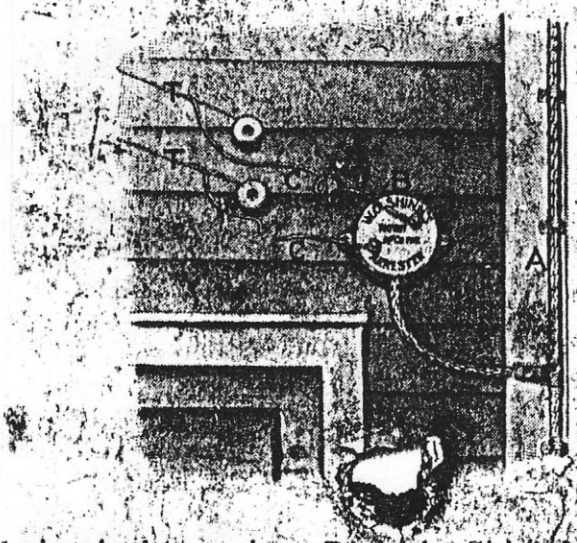
More information on W.C. Shinn can be found in previous *Crown Point* articles from May 5, 1983, Feb/Mar 1988, Dec/Jan 1990, April/June 1996 and Jan/Mar 1998. You can reach *Crown Point* at www.crownpointmagazine.com. W.C. Shinn lightning rod balls are readily available for sale at sites such as the "Grandpa Mac's Emporium" section of www.crownjewelsofthewire.com or on e-bay.

If you have more information to share on Shinn, please drop me a line.

Dan

W. C. SHINN LIGHTNING ARRESTER

DIRECTIONS ON OTHER SIDE



—is telephone wires; **B**—is the Shinn Lightning Arrester; **C**—the wires connecting; **A**—the Shinn Lightning Rod.

This Lightning Arrester

is a part of the **Shinn System of Lightning Protection** and is positively not to be installed on any other lightning rod.

It is ever ready—automatic—no levers to pull—never wears out your **guardian.**

HOW TO INSTALL

First remove cap, then clamp short piece of Cable in Arrester before fastening to building. Now put cap on and screw up small burr. Connect from each brass post a wire and direct to telephone wires as shown in cut, using same size wire as telephone wire. If insulated wires, remove insulation enough to twist wire around telephone wires. Then with T coupler connect to **W. C. Shinn's Lightning Rod.** If one wire line connect to one wire and one post on lightning arrester.

This will prevent fire, also prevent shock or danger of lightning running in on the wires.

W. C. SHINN,
LINCOLN, NEBR.

Sensory Update

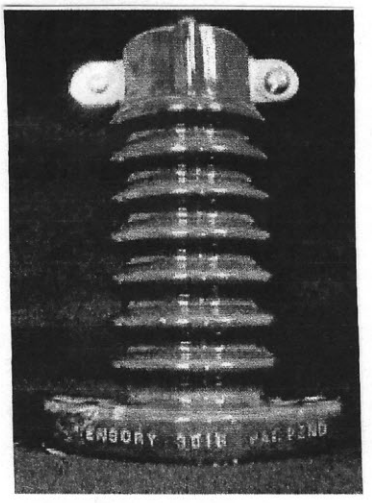
Bill Shaw recently sent these photos of his Sensory columnar lightning arrester. I did not have one of these available for examination when the original article appeared in the April 1999 issue.

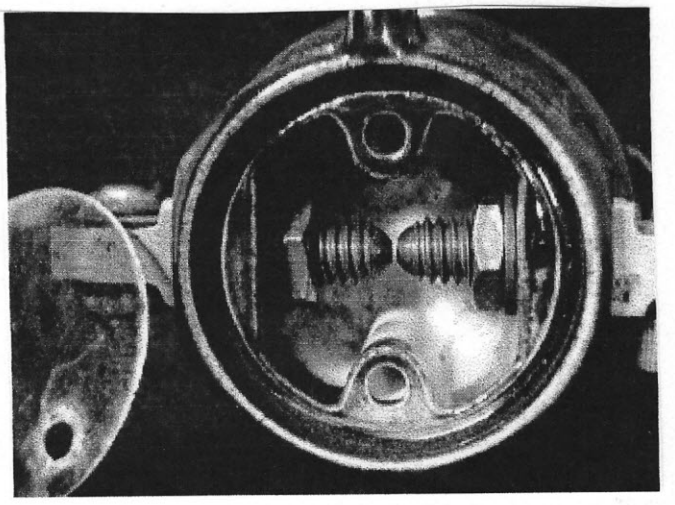
As you can see, the arrester is embossed around the base with its part number 3016.

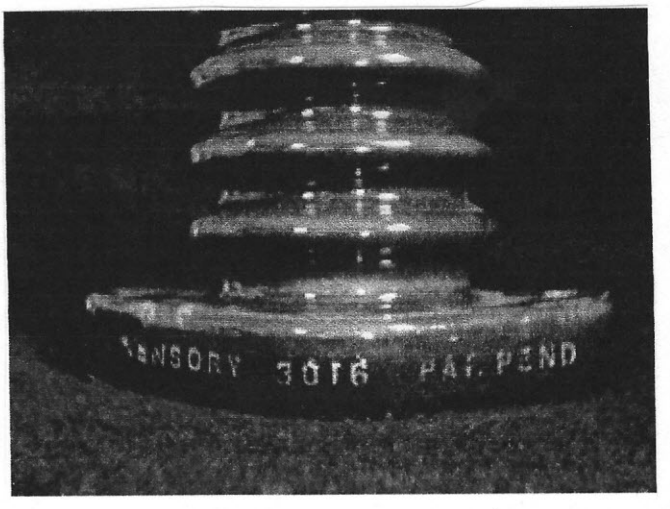
On the "front side" the embossing reads SENSORY 3016 PAT. PEND.

The embossing on the back reads RADIO LIGHTNING ARRESTER. Bill's close-up of the insides shows that the spark gap is essentially two sharpened bolts.

As with most of the other Sensory products, this arrester was made from porcelain and is glazed dark brown. Thank you for sharing your pictures Bill.







Show Reports

Fourth Annual Greater Portland Insulator Show and Sale
August 12, 2000 Portland, OR
reported by Dan Howard

This year's was the biggest so far with about 40 people attending. **Tim Wood**, **Steve Watkins**, **Robin Harrison**, **Gil Hedges-Blanquez** and I were the *OFS* readers in attendance. We were joined by other collectors from throughout Oregon and Washington. Tim gave me my only acquisitions. I got a new strain, an Illinois Type 500 Johnny Ball like the one pictured on the October 1999 cover. It caught my eye because of the triangle M marking. I think that it is the only Macomb insulator in my collection.

I helped Tim unload and carry in about 10 boxes of insulators and stuff. Priced between $1 and $3 for the box full, they didn't last. Tim says that there is more at home for next year.

Steve Watkins was also dusting off old stock for the show. Everyone seemed to be moving porcelain and glass this year. I didn't see any "outstanding" items change hands. But there were some very pretty glass. Caleb Thimmel had some purple and dark blue spools from Columbia. Both Caleb and Robin looked at some of my foreign strains and we hope to have some new information to report after they've done some research.

Fifth Annual Tristate Insulator Show
August 13, 2000 Wyoming, OH
reported by Alan Hohnhorst

The show was held at the house of **Alan Hohnhorst** in Wyoming, OH, on Sunday August 13th. We had 12 people set up tables and over 40 people attended the show. Not only local collectors attended the show but collectors from all over the country. Dale Morris from California, Walt and Elie Pelter from Michigan, Scott Morrell and Christy Hetzell from Oregon, Ken Roberts from Alabama, the Erickson Family from Detroit, and **Bob Stahr** and Chuck Dittmar from Indiana. Local collectors (Ohio) included Jerry and Marilyn Turner, **Dennis and Lee Stewart**, Kathy and Wayne Baldwin, Ken Orchard, **Alan Statsny**, Rich Ager, Don and Judy Nichols, Todd Grueninger, Dave Hawk, Mike Perysn, and others.

There were an outstanding variety of insulators available for sale and trade. Everyone was trading or selling and having a great time while the weather cooperated, providing a beautiful day. There were quite a few high-priced insulators changing hands along with a lot of lower-priced ones. Maureen Hohnhorst and Judy Stewart prepared the delicious food that everyone enjoyed along with the covered dishes provided by others.

The show was the largest since we started several years ago. If the attendance increases next year we will consider getting a hall to hold the show. If anyone would like to send comments or suggestions, please send to:
Alan Hohnhorst
(289 Compton Rd Wyoming, OH 45215).

Photos of Alan and his sales table appear courtesy of Alan Hohnhorst.

Puget Sound Antique Radio Association Annual Swap August 20, 2000 Seattle, WA reported by Dan Howard

Finally, after a several month drought, a fair number of goodies came my way. It's been a while since insulators showed up in any quantity. Most of what I found at Seattle this year were commons (of course). But we had a chance to buy two or three "box fulls" this year and I found a few new ones.

Dad and I found a box with mixed porcelain on a table, and my eye was immediately drawn to a purple glass beauty languishing amongst the porcelain nail knobs and tubes. After taking what we needed, we later got our $5.00 back from someone else who had an interest in the porcelain sockets and other items remaining in the box.

The purple insulator washed up nicely and measures nearly 4" long.

One of the large glass insulators, like those used with the Super Ball antenna, showed up (you don't see those very often). Other items were the common 2" to 3" clear glass, loads of white porcelain egg insulators, and other low-end items.

I found a new military insulator. It is an IN-104 Emily knob with a medium brown glaze.

The socialization at this swap is great. I don't get to Seattle as often as I used to so I relish the chance to renew friendships. And several friends promised to go through their files for E F Johnson ads for our features.

Third Annual "End of the Road" Insulator and Bottle Swap Meet and Potluck September 9, 2000 Yakima, WA reported by Dan Howard

I visited with Dan Spanton, the host of the Yakima show, at my show in August. I'd not been to the picturesque Yakima Valley in central Washington since the late 1970's. So we decided to put together a car pool and drive over.

At about 3 hours driving each way, it made for a long day. But Dan was right – Yakima is beautiful in September. The Spantons have a wonderful old farmhouse in the corner of the apple and pear orchards. Couldn't be nicer.

There were lots of insulators to look at. Several Washington pin insulator collectors were there that I'd not met before and some older stock was brought out for the first time. I brought home a couple of fence insulators that were marked WP, just so that I could have a couple of Wisconsin Porcelain pieces for my collection.

I enjoyed seeing *OFS* reader **Gil Hedges-Blanquez**, although there were few strains for the two of us to choose from. I did acquire a porcelain socket with an embossed F in a circle that I believe was made by Circle F (see *OFS* 12/96). What made the socket doubly interesting was the inclusion of a small fiber strain insulator in the ball-style pull chain. I like the cute little strain even though it has nothing to do with radio.

It was sad to see that more of the Yakima Valley Traction right-of-way has been abandoned. On my last visit we rode the YVT trolleys out through the orchards. In

the last 20 years, freight service has been discontinued, and much of the track and trolley overhead was taken down. On the way home we stopped by a few antique shops and I knocked on the door of an older home that still had a wonderful old cage-style radio antenna on the roof. I hope to get back there soon, when the homeowner is available, to see about acquiring that antenna for my collection.

A friend had made previous arrangements to purchase and pick up a collection on his way back from Yakima. I understand that the collector lived so far out of town that they agreed to meet at the end of the marked road and then follow him several more miles into his farm. When Chuck got out of his new van, he sank into dust about 6" deep! He said that it was "riding low" on the way back out, with the contents of several barrels of glass. After unloading, he spent more than a little time vacuuming fine dust from upholstery, carpet, etc. Amongst the pin insulators were a few nice strains for my collection.

Northland Antique Radio Club Meeting and Swap
November 4, 2000 West St. Paul, MN
reported by Phillip Drexler

The NARC (Northland Antique Radio Club) had their last meeting of the year on November 4th. It is held indoors in the lunchroom of a school in West St. Paul. About 25 people set up as well as about another 20 people coming just to buy. I did see a few common Belden arresters and a few unmarked strain insulators, but I did not buy anything there. It will be quiet now until the end of the year as all of the major flea markets and shows are over.

4th Semi-Annual Mid-Willamette Valley Insulator Swap and Potluck
October 14, 2000 Salem, OR
reported by Dan Howard

Despite severe scheduling conflicts, I hated to miss this fine fall event. So, I arranged for a friend to pick me up Saturday morning from a radio show here in Portland for a short visit to the home of Nathan Lamkey's family. Held each spring and fall, Nathan's Mid-Willamette show is really taking off. His family lives on a farm on the eastern outskirts of Salem. Fresh-squeezed apple juice after lunch is always looked forward to. *OFS* reader **Tim Wood** was there too, but neither of us went home much in the way of new strains. I did get a couple of glass and porcelain pieces, but neither was new.

As you may have read, the National Insulator Association is planning to bring its big Western Regional Convention to southern Oregon on June 2, 2001. Several of the people involved with planning the show attended Nathan's show and the discussions were quite interesting. We're looking forward to a great show in an area rich with insulator history. If your plans will bring you here to Oregon, let me know. We may be able to plan our own strain-oriented displays, get-together, mini-swap, or whatever.

Insulators Across the Pond

We've not done much with foreign strain insulators since the article on British shell insulators was published in the December 1995 issue. I recently found these pages in the 1927-1928 catalog from The General Electric Company LTD (the British arm of GE). I thought that you might enjoy seeing how they did things over there.

Cat. No. B.C. 508.

TUBULAR EARTH FOR WIRELESS.

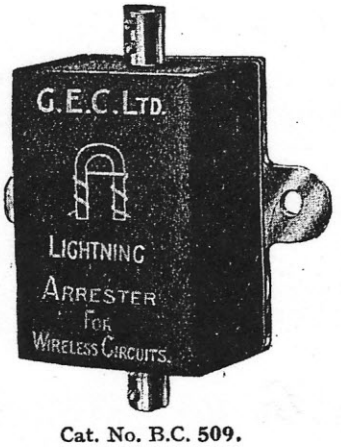
(KILLINGWORTH HEDGES PATENT).

The **GECoPHONE** (Killingworth Hedges Patent) Tubular Earth consists of a pointed tube, filled with carbon, and a top cap, soldered to the tube, through which is fixed a 15-ft. length of 7/22 bare copper wire.

By its use, an extremely efficient earth connection can be made with the minimum of trouble. The carbon filling, which is the chief feature of this earthing device, enables a permanent conductivity to be maintained, even after the original metal tube has become oxidised and perished.

The device can be easily and quickly installed with the minimum of trouble, no special clips or clamps, nor any soldering being needed.

Cat. No.	Specification.	Price. s.	d.
B.C. 508	**GECoPHONE Hedges Tubular Earth,** length 2ft. 6in., complete with 15ft. of 7/22 bare copper wire	10	0



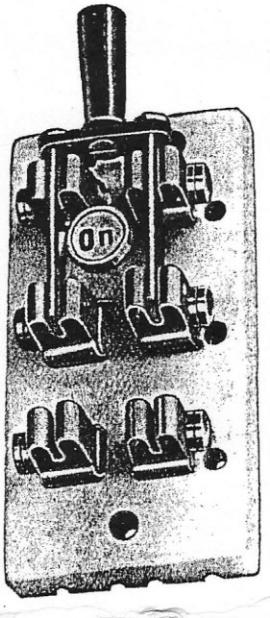
Cat. No. B.C. 509.

LIGHTNING ARRESTER.

The **GECoPHONE** Lightning Arrester gives full protection to both the set and the building in which it is installed. It should be fitted near the lead-in, the upper terminal being connected to the aerial and the lower to earth. The cover is a Bakelite Moulding.

Cat. No.	Specification.	Price. s.	d.
B.C. 509.	**GECoPHONE Lightning Arrester**	5	6

Cat. No. B.C.X. 370.



Cat. No. B.C.X. 375.

AERIAL EARTHING SWITCHES.

GECoPHONE Earthing Switches are specially designed for the efficient protection of wireless receiving sets from damage by lightning discharges.

They are of robust construction, with metal parts heavily nickelled and mounted on porcelain bases, in either the single or double pole, double throw type.

The design of these switches embodies several distinctive features, and marks a considerable advance in the methods previously employed for obtaining efficient insulation.

The usual method of mounting the contact clips of switches employs metal screws, which pierce the insulating base at vital points, thus reducing the efficiency of the insulating material.

In the GECoPHONE Earthing Switch the contact clips are mounted on additional blocks fixed to the porcelain base, thus producing an impenetrable insulating medium.

Another novel feature is an indicator for showing whether a switch is in the "on" or "off" position, which prevents the possibility of forgetting to earth the aerial.

GECoPHONE Earthing Switches are of neat appearance, and their installation will ensure freedom from short circuits or breakdown of insulation, under all conditions.

Cat. No.	Specification.	Price each s.	d.
B.C.X. 370	**GECoPHONE Patent Earthing Switch,** Single Pole, Double Throw	2	0
B.C.X. 375	Do. Double Pole, Double Throw ...	3	6

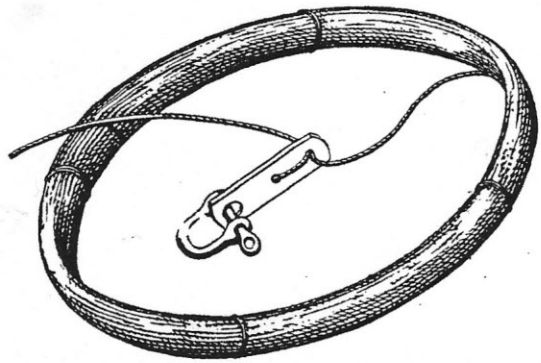
GECoPHONE

(Registered Trade Mark.)

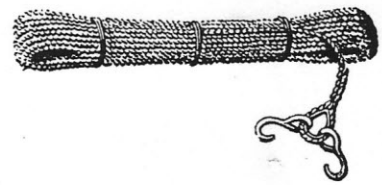
AERIAL EQUIPMENT.

Spreader.
Cat. No. B.C. 457.

Pulley Block.
Cat. No. B.C. 463.



Enamelled Copper Aerial Wire.
Cat. No. B.C. 451/3.



Halyard.
Cat. No. B.C. 461.

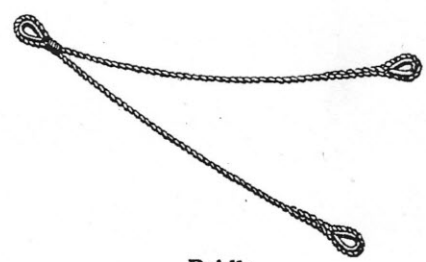
Leading-in Terminal.
Cat. No. B.C. 469.

Aerial Insulator.
Cat. No. B.C. 455.

Wall Spike.
Cat. No. B.C. 449.

Fixing Eye.
Cat. No. B.C. 465.

Earth Clip.
Cat. No. B.C. 467.



Bridle.
Cat. No. B.C. 459.

Cat. No.	Description.	Price.
B.C. **451.**	**GECoPHONE Aerial Wire.** 70-ft. coil of enamelled copper wire, complete with down-lead locator and two galvanised end shackles	8/-
B.C. **453.**	Ditto ditto, 100-ft. coil	9/-
B.C. **455.**	**GECoPHONE Aerial Insulator.** Moulded Bakelite, with galvanised fixing eyes ..	2/2
B.C. **457.**	**GECoPHONE Spreader** (for twin-wire aerial) made of pitch-pine, coated with preservative compound, with two galvanised end fittings for attachment to bridle and aerial insulators	6/-
B.C. **459.**	**GECoPHONE Bridle.** Best white manilla rope, tarred, fitted with three galvanised thimbles for attaching to spreader and aerial halyard..	2/-

Cat. No.	Description.	Price.
B.C. **461.**	**GECoPHONE Halyard.** Length 20 yards. Best white manilla rope, tarred, fitted with twin hooks for attachment to bridle ..	5/6
B.C. **463.**	**GECoPHONE Pulley Block,** galvanised, with hooks	1/-
B.C. **465.**	**GECoPHONE Fixing Eye.** Galvanised iron	1/-
B.C. **449.**	**Galvanised Wall Spike**	4d.
B.C. **467.**	**GECoPHONE Earth Clip**	1/3
B.C. **469.**	**GECoPHONE Leading-in Terminal.** Terminal at each end. Connector enclosed in ebonite tube for fixing through window frame	1/-
B.C. **601.**	**GECoPHONE Steel Mast,** 30 ft., complete with set of stay wires, strainers, earth pegs, etc.	£7 5 0

COMPLETE AERIAL EQUIPMENT.

SINGLE POST OFFICE AERIAL EQUIPMENT.

Cat. No. B.C. **501.**

This equipment is supplied as a complete outfit, and consists of the following accessories :—

One No. B.C. **453** 100-ft. coil of 7/22 enamelled copper aerial wire, fitted with down-lead locator and end shackles; Two No. B.C. **455** Aerial Insulators; One No. B.C. **461** 20-yard Halyard; One No. B.C. **463** Pulley Block; One No. B.C. **645** Fixing Eye; One No. B.C. **467** Earth Clip; One No. B.C. **469** Leading-in Terminal. One No. B.C. **498** Aerial Earthing Switch.

Complete Outfit £1 5 0

TWIN POST OFFICE AERIAL EQUIPMENT.

Cat. No. B.C. **550.**

This equipment is supplied as a complete outfit, and consists of the following accessories :—

Two No. B.C. **451** 70-ft. coils of 7/22 enamelled copper wire, fitted with down-lead locators and end shackles; Four No. B.C. **455** Aerial Insulators; Two No. B.C. **457** Spreaders, with end fittings; Two No. B.C. **459** Bridles, with thimbles; Two No. B.C. **461** 20-yard Halyards; Two No. B.C. **463** Pulley Blocks; Two No. B.C. **465** Fixing Eyes; One No. B.C. **467** Earth Clip; One No. B.C. **469** Leading-in Terminal; One No. B.C. **498** Aerial Earthing Switch.

Complete Outfit £3 0 0

When complete outfits as scheduled above are not required separate component accessories can be supplied to meet requirements.

A Terrific Estate Sale

By Phillip Drexler

I went to an estate sale today (Sept, 2000) that listed "old insulators" in the ad. I discovered that the person who they were having the sale for was a telephone technician during the 1920's and 1930's. Most of the insulators and equipment was telephone-related, but I did find some radio equipment and strain insulators. I found a purple L.S. Brach that was 3-3/4" long. This is similar to the two purple strains on page 11 of the October 1999 issue of *OFS*. However, it is a much lighter purple. I also found a large clear 4-1/2" strain labeled "A.G.K." and "D.C.J." This strain has five ribs, with the center rib being the largest. A similar unit was found with the "Consolidated" marking. I also got a porcelain strain with brown glaze over a white body. It is labeled "Sensory," "H.E.Co.," "3099" and appears to be identical to the strain on page 9 of the April 1999 issue.

These strains were not in mint condition. Unfortunately, all of them had been in a box with a lot of other junk, so they all had small scratches on the ribs. But they were only 50 cents each, and I so seldom see marked strains that I thought that I should pick them up. (And of course I was not going to leave the purple Brach!!)

Classifieds

Wanted: Information on MacBeth-Evans Glass Company. I'd appreciate information on company history, copies of old ads or catalogs. What have you. Information is needed for an upcoming article. Dan Howard

Wanted: Please send your lists of Pyrex mold markings (for example "C4") for our next issue. Please list the length of the insulator, end-style (if known), the embossing (for example "PYREX MADE IN USA"), and the mold mark. If you have any questions, please call or e-mail. I would like to make the list in the February issue as representative as possible.
Dan Howard

Wanted: Radio strains, lightning arresters Contact Allen Hohnhorst at a.hohnhorst@worlednet.att.net or (513) 948-9141.

Wanted: Old style "Rite-Hite" golf tees as pictured on the next page. I'd like to put them in a display with my golf-ball strains.
Dan Howard

Wanted: E F Johnson strain insulators with metal end caps. Also like to find 20" porcelain rod strain insulators from Macomb or Johnson. Dan Howard

New Address:
Kevin Lawless
3363 Guilderland Ave Apt 3
Schenectady, NY 12306-1820

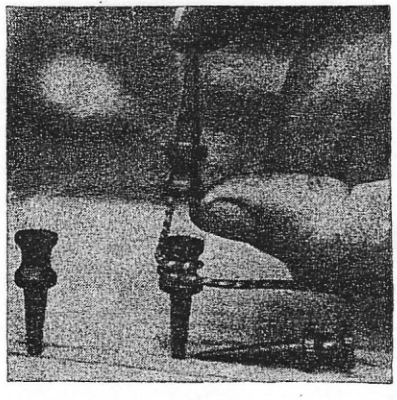
More Golf Insulators?

In the June 1997 issue, I introduced you to the strain insulators that had been made from golf balls. Well, now that golf weather is here (ok, wishful thinking on my part), I felt led to offer these updates.

The first is from the "With The Experimenters" column of the October 1932 issue of *Radio News*. I guess that the perfect accompaniments to your golf ball strains are these golf tee standoff insulators.

Golf Tees as Wiring Supports

Holding and placing light battery wires temporarily around the bench or on dis-



tributing blocks is often an aggravating incident when hurriedly hooking up for an experiment. Inexpensive hardwood golf tees of the type shown here are a very handy thing for the purpose. The long sharp ends can be firmly stuck in any small hole or opening, while the upper end due to its spool-like head is an excellent temporary fastening for the wire. Some thirty or forty of these little pieces can be procured for a dime or less and are quite handy and convenient for this purpose.

FRANK W. BENTLEY, JR.,
Missouri Valley, Iowa.

These stories appeared in the 7/86 *QST*. They are copyrighted and are reprinted by permission of the ARRL.

Antenna Insulators From the Golf Course

While erecting a dipole, I found that I had no insulators for the ends. After some rummaging, I came upon some plastic practice golf balls, the kind with the holes in them, and decided that they might work. To use them, thread the antenna wire through two of the holes (making sure to get one on each side of the seam); then put nylon cord through two other holes in the opposite side and string them up. They work perfectly! Not only are they light, but they are inexpensive and have a spring to them that tends to cushion the antenna as it sways in the breeze. Sam Fischer, KA0ILO Moberly, MO

Most golf courses now use fiberglass flagsticks on the greens. They usually measure about seven feet long by 1/2 inch in diameter. Occasionally, some are damaged and discarded. Material salvaged from these flagsticks makes excellent dipole end insulators. Cut the sticks into suitable lengths (I use seven-inch pieces) with a fine-tooth hacksaw. Dress the ends with a fine-cut mill file and drill a 1/8 inch diameter hole about 3/4 inch from each end of the insulator. (I used a high-speed twist drill.) Presto! You now have effective, durable and inconspicuous dipole insulators – and the price is right! No doubt you will have more insulators than you can use, so why not pass some of them out to new hams? Troy Sherrill, WD8MQP, Oak Harbor, OH.