

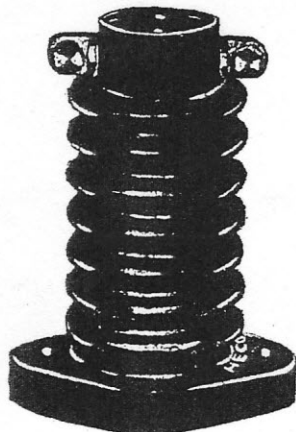
2016 PDF edition

Old Familiar Strains

a newsletter for collectors of radio strain insulators and related items

Volume 6 No. 2

April 1999



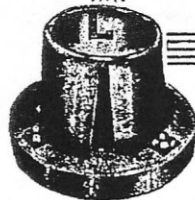
"Sensory" Lightning Arrester



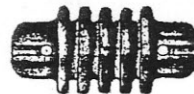
"Sensory" Lightning Switch Pedestal



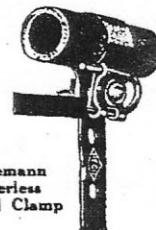
"Sensory" Standard Radio Battery Switch



"Sensory" Radio Tube Socket



"Sensory" Insulators
Brown Glazed Porcelain



Heinemann
Solderless
Ground Clamp

Radio Business Is Growing by Leaps and Bounds

and the dealer who intends to get his share of it in his territory must, necessarily, keep informed as to the most recent developments in radio equipment.

"Sensory" Radio Essentials are strictly up to the standard set by our foremost radio authorities and are the result of our constant attention to the progress made in radio practices today.

We are everlastingly at it in our testing laboratories to develop radio equipment that will simplify the operation of receiving sets and increase their receptive efficiency.

Let us co-operate with you.

HEINEMANN ELECTRIC COMPANY
Philadelphia, Pa.



Editorial

I really appreciate the letters that I have received from the readers. Several very interesting items are shared in this issue. The lead article is about the Heinemann Electric Company. HECO sold porcelain and glass insulators and several types of lightning arresters. In other words, there is something for everybody.

Please keep the letters and stories coming.

Carol MacDougald and Bill Meier have set up publicity pages for *Old Familiar Strains* within their websites. I've added the addresses to the publisher's notes page of the newsletter. Why not check them out?

Gene Condon writes:

The transmission line standoff insulator (February cover and page 9) caught my eye. I have two in brown porcelain. The lighter shade is a little longer than the darker shade. No embossing. Instead of 4 round holes, each size has 4 notched "catches" on the edges like the directive antenna transposition insulators on the cover, that is shown with the alternative holes on page 9.

"SENSORY"
Est. 1888

RADIO ACCESSORIES

HEINEMANN ELECTRIC CO.
PHILADELPHIA, PA.

Vernier Dials Lightning Arresters Battery Switches Panel Mounting Switches Screw Eye Insulators	Sockets Ground Clamps Lightning Switches Insulators Charger Switches
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DISTRICT REPRESENTATIVES

Hatheway & Co. New York City	H. P. Smith Co. Minneapolis	
R. L. Lewis Co. Boston, Mass.	W. H. Dyer & Co. St. Louis	
S. H. Stover Co. Pittsburgh	Wesco Co., Inc. Denver	
Factory Sales Co. Cleveland	A. S. Knight Seattle	
Nickelson Sales Co. Louisville	R. E. Votile San Francisco	
F. A. Krus, Jr. Detroit	Henger-Seltzer Co. Los Angeles	

Advertisement from the Radio Trade Directory 8/25 pg. 68.

BRACH DUPLEX

VIS-O-GLOW
TYPE 1003

NEON GAS LIGHTNING ARRESTER

Combines sensitiveness with heavy duty protection

MADE IN U.S.A. PATENT PENDING

Directions for Installing Non-Air Gap Arrester Type 1003

This Arrester is designed to protect your Radio Set from lightning induction or excessive static.

It is equipped with three binding posts; two are to be connected to the Antenna, the other binding post is to be connected by a wire to the ground.

The same ground that is used for the Radio Set may be used for the Arrester provided it is a good ground.

Water pipes or a pipe driven into moist earth five or six feet make the best grounds.

Locate Your Arrester Indoors. There is No Advantage in Outdoor Locations.

L. S. BRACH MFG., CORP. Newark, N. J.

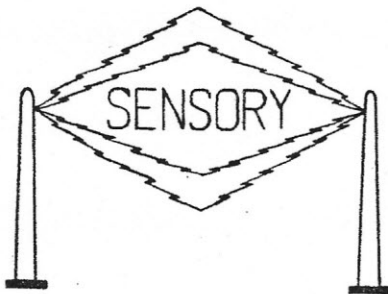
Sensory Insulators and Lightning Arresters

by Dan Howard

Odds are pretty good that you have a "Sensory" item somewhere in your collection, whether you know it or not. Heinemann Electric Co., the company behind the Sensory line, was a prolific jobber of everything electric. As you'll see below, they sold all kinds of lightning arresters, porcelain, and glass radio strain insulators.

Heinemann Electric Co. (HECO) was established in Philadelphia in 1888. The company's early products probably included lightning arresters and other accessories for rail signal lines. In the 1920's, ads listed radio accessory items including strain and standoff insulators, lightning arresters and switches, and ground clamps.

Ser. No. 169,208. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) HEINEMANN ELECTRIC COMPANY, Philadelphia, Pa. Filed Sept. 8, 1922.



Particular description of goods.—Battery Switches, Vacuum-Tube Sockets, Lightning Switches, Lightning Arresters, Variometers, Variocouplers, Detector Panel Units, Condensers, Rheostats, Detectors, Amplifiers, Porcelain Insulators, Loop Antenna Receiving Sets and Parts Thereof.

Figure 1: Sensory trademark

In 1923, the company trademarked the Sensory name and the lightning bolt logo. In actual usage, the logo appeared

with the words "Reliable Efficient Wireless Apparatus" inside the lightning symbols.

The company often put "HECO" and "SENSORY" on its porcelain insulators. However, only SENSORY appeared on the lightning arresters.

Strain Insulators

Heinemann included both glass and porcelain strain insulators in their line.

The 3020 is the only known Heinemann glass insulator. As shown on page 9, it is a very common unembossed style. The insulator was identified after I found several of them new-in-box (see below). Maybe other unmarked glass will be linked to the company in the future.

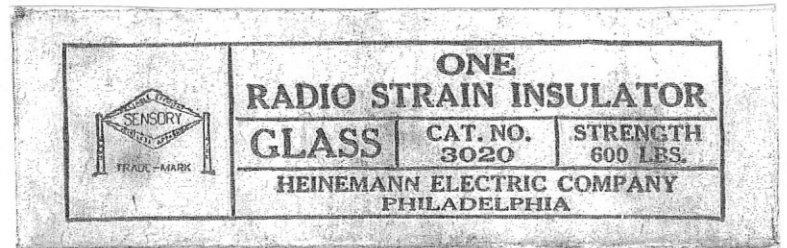


Figure 2: strain insulator box

The company sold a whole raft of brown glazed porcelain strain insulators. Nearly all of my correspondents report having them in their collections. I've only seen the company's porcelain insulators in brown. **Dick Mackiewicz** reported that they also sold insulators glazed in blue. Alas, I never had the chance to confirm this.

(continued on page 7)

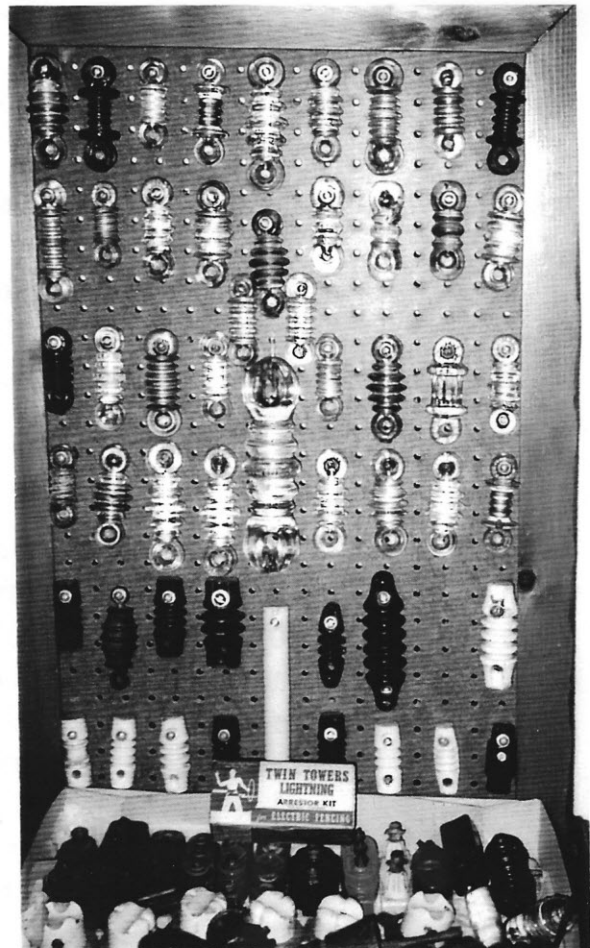
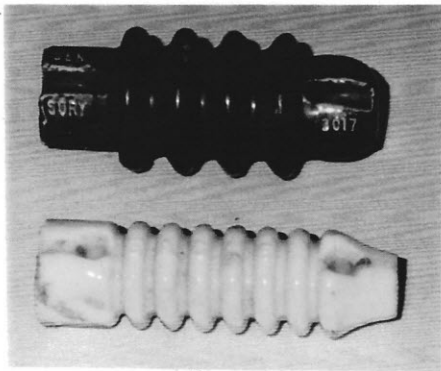
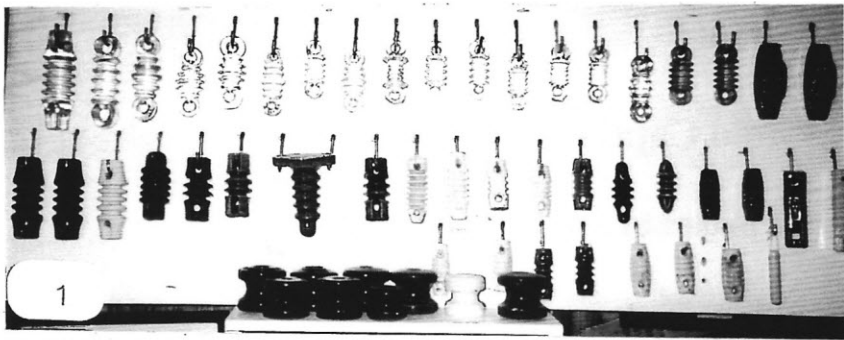


Photo Captions

What a treat to be able to present photos of several nice collections.

Photo 1. Courtesy of **Alan Hohnhorst**.

Alan's letter mentions the mint-condition purple strain that he found. That is only one of several items that caught my attention in this shot of his nice collection.

Photo 2.

Courtesy of **Dick Mackiewicz**.

The upper insulator is one of Dick's Sensory 3017's.

The lower item is an embossed "Eagle" insulator. In his letter, Dick points out that the word "Eagle" is embossed on the ribs - spelled out one letter per rib all across the insulator. This little "missile" is a good companion piece to the blue "rocket" that was featured on page 12 of the June, 1996 issue.

Photo 3. Courtesy of **Dick Mackiewicz**.

Here Dick provides photographic evidence that the Sensory 3017 came in both 4 rib and 5 rib styles.

Photo 4. Courtesy of **Jim Singleton**.

This orange Pyrex box is a new one on me. I've seen several two-tone gray boxes and a couple of red and black boxes. But this unusual bright orange example is a real standout.

Photo 5. Courtesy of **Don Hutchinson**.

Like me, Don uses framed pegboards to show his collection of strains to an advantage. Very nice.

Photo 6 & 7. Both courtesy of **Gene Condon**.

I couldn't include the photo of Gene's glass strains but here are two shots of his huge collection of porcelain insulators. I was impressed by the variety and number of colored porcelain items.

Thanks everyone for the pictures! Keep them coming!

(continued from page 4)

HECO's insulator markings are a study in creativity. The list on page 9 includes both embossed and recess-embossed marks. And the placement of markings differed between insulators.

For some reason, HECO reused part numbers – adding to the confusion. Figure 3 on the color page is a perfect example. Dick's picture shows a 4 rib and a 5 rib Sensory *both* marked 3017.

For more information on styles and embossings, please turn to page 9.

Standoff Insulators

The Sensory brand name also appeared on screw eye standoff insulators. Except for the white glaze, mine are very similar to the Knox standoff that is pictured below. I have found embossed "Sensory" screw eye standoffs in both 3" and 7-1/4" sizes.

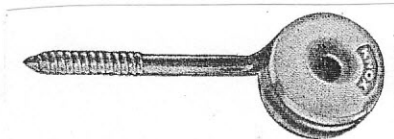


Figure 4: screw eye standoff

Spools

The white-glazed "Sensory" spool looks like it could have been "created" by taking apart a standoff insulator. The dimensions are identical. Of course, it could also have been a cataloged item. Without more research, I can't say one way or the other.

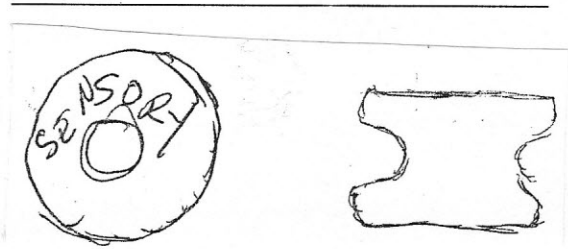


Figure 3: Sensory spool

Lightning Arresters

If you collect lightning arresters then you most likely have a Sensory or two in your collection. They apparently were very popular. HECO offered a very diverse line of arresters. And I'm sure that we haven't found them all yet.

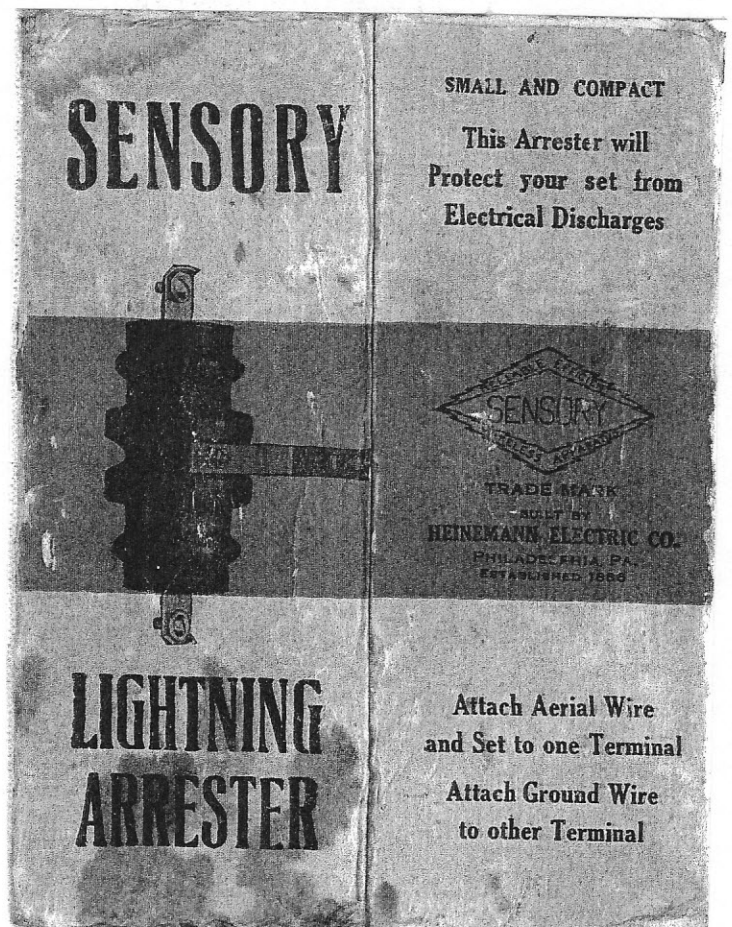


Figure 5: Sensory 3042

The 4-5/8" 3042 tubular arrester (Figure 5) is an unusual design. This big guy is designed to hang from an angle bracket on a wall. Mine is glazed in black and actually looks like a Star Porcelain Nu-Blac item (*OFS* 12/96). Since it's glazed all-over, I can't verify that gray clay lays inside without breaking it. I guess we'll have to just speculate for right now.

HECO's 3041 visible air gap arrester is shown below. The sketch is from **Dick Mackiewicz's** notebook.

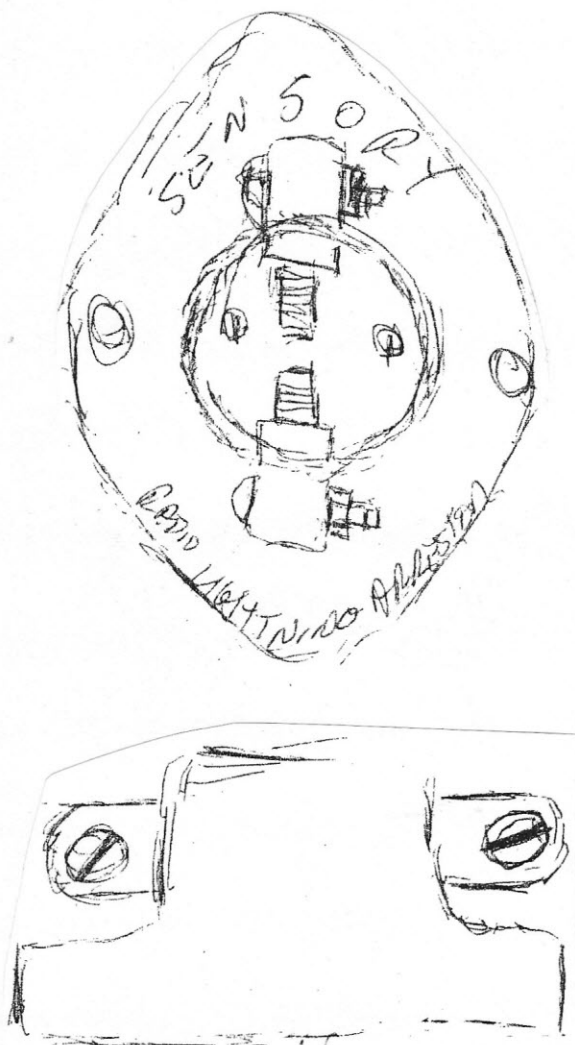


Figure 6: Sensory 3041

The 3041 works on the same principle as a spark plug. The large brass points inside are separated by a small gap. If you were inclined to do so, you could watch through the mica cover as sparks jumped across. Relatively few manufacturers elected to go the visible gap route. I find arresters of this type an interesting and desirable addition to the collection.

Returning to my question in the 12/95 issue¹, I still believe that Heinemann sold the unmarked "3043" lighting arrester. As you can see in the color photo of Bob Puttre's collection (*OFS* 10/96 pg. 11) the 3043's hardware matches the Sensory 3107's. And the part number fits neatly with the others shown the table on page 10.

How about the arrester on the front cover? It appears to be similar to the 3041, but who knows why they put the whole works at the top of a column.

By the end of the 1920's, most manufacturers had standardized on simpler tried-and-true designs. And by the 1930's, successful companies included doublet style arresters in their lines. HECO's unusual designs lead me to believe that the company probably stopped selling radio lightning arresters by the late 1920's.

Photo Credits

- Front cover: courtesy of Bob Stahr
- Figure 1: Patent Gazette 2/6/23 pg. 26
- Figure 2: Sensory insulator box
- Figure 3: courtesy of Dick Mackiewicz
- Figure 4: Knox Porcelain catalog
- Figure 5: Sensory 3042 arrester box
- Figure 6: courtesy of Dick Mackiewicz

¹ See *OFS* 12/95 pg. 11 "What Do You Think?"

Strain Insulators

3017 (type 1)

brown porcelain 4 ribs
3-3/16" L x 1-7/16" max dia.
left end flat, right end round
left top: SEN (embossed)
left bottom: SORY (embossed)
right top: HECO (embossed)
right bottom: 3017 (embossed)
pictured on pg. 5 figure 3

3017 (type 2)

brown porcelain 5 ribs
about 4" long, round ends
left top: SEN (embossed)
left bottom: SORY (embossed)
right top: HECO (embossed)
right bottom: 3017 (embossed)
pictured on pg. 5 figure 3

3017 (type 3)

brown porcelain 4 ribs
3-3/6" L x 1-7/16" max dia.
left end flat, right end round
left top: 3017 (recess embossed)
left bottom: HECO (recess embossed)
not pictured

3020

glass, 7 ribs
3-7/8" long 1-3/16" max dia.
unmarked
pictured below

CRYSTAL AERIAL INSULATOR

Constructed and designed to give the maximum amount of strain safety.



It will not absorb moisture, leak or crack. Size 3 1/2" long. Packed in an individual box.

Figure 7 1942 ICA advertisement for HECO 3020 look alike.

3096 (type 1)

brown porcelain, 2 ribs
3" L x 1-3/16" max dia., flat ends
left top: HECO (embossed)
left bottom: 3096 (embossed)
right top: SENSORY (embossed)
not pictured

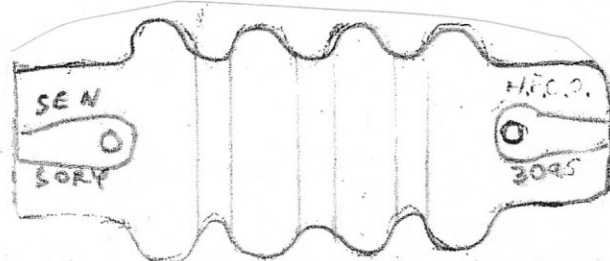


Figure 8 Sensory 3096 drawn by Jeff Hogan

3096 (type 2)

brown porcelain, 4 ribs
3" L x 1-1/8" max dia., flat ends
left top: SEN (embossed)
left bottom: SORY (embossed)
right top: HECO (embossed)
right bottom: 3096 (embossed)
pictured above

3099

brown porcelain 4 ribs
3" L x 1-1/8" max dia., flat ends
left top: SEN (embossed)
left bottom: SORY (embossed)
right top: HECO (embossed)
right bottom: 3099 (embossed)
similar to 3096 pictured above
(could be an example of a 3096 with an embossing error – except for the part number, they are identical).

Spool Insulator

white porcelain
1-1/8" dia. x 5/8" thick
SENSORY (embossed)
pictured on pg. 7 figure 4

Standoff Insulators

Unknown standoff (eyebolt style)

3" w/ white porcelain insulator
SENSORY (embossed)
pictured on pg. 7 figure 3

Unknown standoff (eyebolt style)

7-1/4" w/ white porcelain insulator
SENSORY (embossed)
pictured on pg. 7 figure 3

Lightning Arresters

3041

brown glazed porcelain air gap (visible)
3-5/16" L x 2-5/8" W x 1-3/4" H
Top: "SENSORY" (in quotes) RADIO
LIGHTNING ARRESTER
(embossed)
Bottom: APPROVED
UNDERWRITERS LABORATORIES
3041 (embossed)
(also 3041B per Phillip Drexler)
pictured on pg. 8 figure 6

3042

black glazed porcelain
tubular 4-5/8" L x 1-3/4" max dia.
Front: SENSORY RADIO LIGHTNING
ARRESTER (embossed)
Back: 3042 (recess embossed)
Pictured on pg. 7 figure 5

3043

brown glazed porcelain air gap
5-1/6" L x 1-1/2" W x 1-7/16" H
Top: 3043 RADIO LIGHTNING
ARRESTER ANT. SET GND.
(embossed)
pictured in color in *OFS* 10/96 pg. 11
(column 1 row 6)

3107

brown glazed porcelain air gap
4-1/8" L x 1-1/2" W x 1-3/8" H
Top: "RADIO LIGHTNING
ARRESTER" (in quotes) SENSORY
3107 ANTENNA SET GROUND
(embossed)
pictured below and pictured in color in
OFS 10/96 pg. 11 (column 3 row 5 & 6)

Unknown lightning arrester
(see cover illustration)

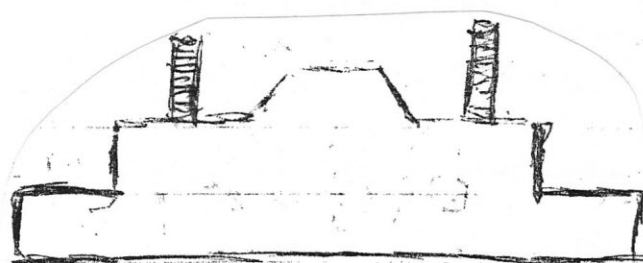


Figure 9 Sensory 3107 drawn by Dick Mackiewicz

Military Insulator Update

New Find!

Style 52, 1-1/2" white glazed. Ink-marked "61087" (new navy item) Should be NP or NS **5212.

[Don Wrigley had this information to add to the military antenna insulator story (*OFS* 10/98 pg. 27). Thanks so much Don!]

The Federal Stock Number (FSN) and National Stock Number (NSN) question isn't too complicated. The first four digits designate the "supply category" and can be separated from the rest of the number. It is also subject to change - an item can be moved from one supply category to another. The item number (National Item Identifier Number [NIIN]) does not change.

I deal with the following supply categories:

- 5800 Communications General
- 5805 Telephone
- 5810 Transmission Security
- 5815 Teletype
- 5820 Radio
- 6625 Test Equipment

When they ran out of the 7 digit Federal Stock Numbers, they added a 00 to the old number sequence, and used 01 for the new number series. I have yet to see an 02 or an 03. I do know that 01 does not mean that an item was necessarily made in the U.S. My unit currently uses 3 foreign-made radios (Canada, France, and Italy) and all bear 01 series NSN's.

Picking Insulators

by Dan Howard

I enjoy reading about the field trips that telegraph insulator collectors take. It's amazing the lengths that people will go to in order to "pick" insulators in the field. The travelogues often include tales of snakes, stickers, and other nasties. In contrast, we almost never have the opportunity to find abandoned radio insulators. Stories such as **Lee Stewart** told of wandering by the Bethany Relay (page 11) and being able to take insulators are wonderful reading but are too few and far between.

A few weeks ago some genuine "picked" insulators came my way. Here's the story.

My "insulators wanted" sign and I were watching the table at the Rickreall electronics swap earlier this spring. Mid-morning, a gentleman came looking for me with a pair of Pyrex 7-1/2" strains in his hand.

My benefactor works on commercial antennas. While we visited, we commiserated about how few wire antenna installations are left here in the Pacific Northwest. During a week-long project on Prospect Mountain (near Salem, OR) he kept eyeballing these Pyrex insulators hanging abandoned 60' up a deteriorating pole. (better him than me). Finally, on his last day, he put on the climbing spikes and climbed up to retrieve them. Now they're mine.

Though they are not rare, it is kind of special to have a couple of insulators of my own that were "picked" in the wild.

More About the Voice of America

By Lee Stewart

Here are photos of some of the items recovered from the old Voice of America grounds a few weeks ago (see page 13).

My wife and I live near the entrance to the VOA grounds and we go passed it a few times each week. Union Township is now in charge of the grounds and they are using the main building for offices.

One day in mid-December I noticed Township workers taking down poles and wires between the main building and the switching station. I stopped by there the next day and noticed a large dumpster behind the building. It had a variety of stuff in it, including white and brown long Lapp steatite insulators and white and brown post electrical insulators on short crossarms. Since it had been a year since the first large towers were taken down, I assume the antenna insulators were from the small towers that were taken down much later. With permission of the Township Administrator, I got a few of each of these insulators. It took some time to detach them from the wires and brackets.

Also in the dumpster I found the item in Photo II. It is 17 inches long with a wire coiled around a ceramic tube. The steel balls (electrical contacts?) are 5/8" in diameter with a 1/8" gap between them. I don't know where or for what it was used.

The smaller items in Photo III are porcelain wire spacers, 4" to 4-1/2" long. I know they are wire spacers because I took them off of 1/4" diameter wires that had been removed from poles and left on the ground.

The larger item in the center of Photo III is a porcelain (steatite?) rod marked LAPP with metal flanges on each end. It is 8" long and 1-1/4" in diameter. The red covers on the flanges are a rubber-like material. I found four of these in the dumpster. Since they were not attached to anything, I don't know how they were used.

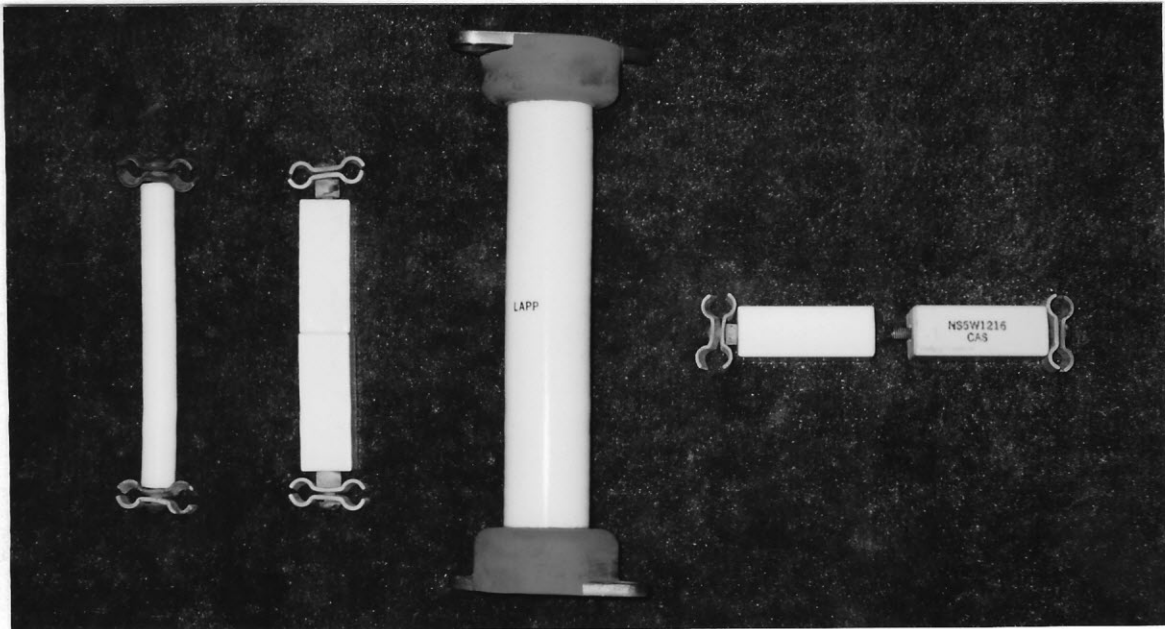
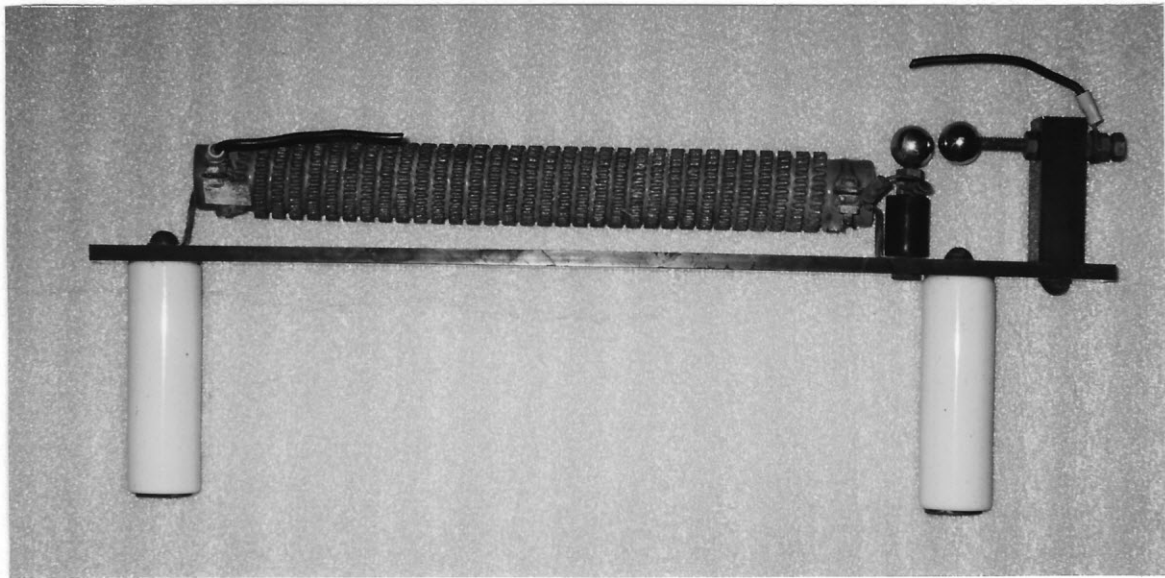
Since the time of my last visit, everything at VOA has been taken down and disposed of except the buildings and the switching station which are to remain.

Thanks for the great story Lee. To answer a couple of your questions -

Photo II "the wire coiled around the ceramic tube with the electrical contacts" is a lightning arrester. The coil is a husky resistor shunt. The balls form the gap that insulates the feedline in normal use but provides a place for the lightning to jump across.

The Lapp insulator is a pillar-style standoff insulator. They were used to support feed lines, equipment, and other gear that would need to be insulated. I suspect that this insulator was used somewhere where people would be close by (else why use rubber covers to insulate the metal fittings?)

For more information on the Bethany (Ohio) Relay Station please see *OFS* 6/98 pg. 4.



Show Reports

The new year has started off slowwwwwly for several of us. My first two swaps were lots of fun but did not turn up much in the way of strain insulators.

This weekend I attended my first estate sale since "the big one" in October (see the 12/98 *OFS*). I did find a nice Corwico cobalt blue lightning arrester. And a new style of porcelain strain - an unglazed porcelain rod with steel wire "keepers" on the ends.

NARC Winter Work Shop, Pauck Wireless Museum February 6th.

Although there were plenty of radios and accessories to look at, **Phillip Drexler** didn't see any insulators or arresters. He said that the weather was mild. [pretty good for Minneapolis in February Ed.]

Mike and Key Electronics Swap Puyallup, WA March 13th.

Once again the show was lots of fun. This year I had the pleasure of my father's company. And his sharp eyes added a fair number of new ones to my collection. Dad found an unreported military style (see military update). He also came up with an unusual metal-ended strain that is probably foreign. The ends of the insulator are set up like ball-and-socket joints so that the metal hubs are free to swing in any direction.

About 6:30 am we came across a unique "DPA-1" military antenna. Starting with a beautiful hardwood tripod, the unit uses wooden mast sections to lift a telescoping dipole antenna about 10 feet in the air. We assembled the antenna when we got back downstairs and had an "instant landmark" to identify our table (and a terrific conversation-starter to boot).

Please support your local shows - and be sure to let me know about your strain finds.

Hope that you will attend...

Northwest Collector's Show and Sale May 1st and 2nd. Enumclaw, WA.

We'll have an *Old Familiar Strains* table and strain insulators galore on display and available. For show information call Vi Brown at (425) 868-4249 or call me (Dan Howard) at (503) 761-7799.

The third annual Filling the Void insulator show and sale August 14th in Portland, OR.

I will once again be cohosting this informal tailgate sale. Lots of radio antenna insulators and lightning arresters will be on display. All types of insulators will be available. I hope that you'll come. For more information, call me at (Dan Howard) at (503) 761-7799. RSVP appreciated but not necessary.

Old Familiar Strains 2016 PDF edition scanned from originals in the OFS archives.

Unidentified Porcelain Marking

Can you help me identify the marking shown below? The mark appears on a white glazed spreader insulator from World War II. The insulator was brought back from the Far East. The mark and the little plant(?) are printed in olive green.



Pyrex Update

I would like to continue adding to the list of Pyrex mold markings and variations. As you come across additional Pyrex insulators, please be on the lookout for unreported items.

I have one to add to the lists published in the Feb and April 1998 issues: 7-1/4" style 2 (skinny) with an "E1" mold marking on the back of the second rib.

And check out **Jim Singleton's** neat orange Pyrex insulator box shown *in color* on page 5.

Rick Soller writes:

In October last year, I bought 28 pieces of Akro Agate cullet that the seller personally dug in the Clarksburg Akro Agate dump site. She was from Kelowna, B.C. Canada so I assume Clarksburg is somewhere near there. One of the items in the cullet was an unmarked, clear glass radio strain with one deformed eye.

This opens up some interesting speculation about the source of some glass radio strains. This may have been the type of item that many glass houses produced. What do you think?

My response:

What a neat item!. This is the first dump site strain find that I've heard of. How about a picture? According to my 1943 Directory of Glass Factories, the Akro Agate Co. factory was located in Clarksburg, West Virginia. This ad appeared in the January, 1971 issue of *Crown Jewels* (reprinted by permission). Is that insulator similar to yours?

Owys
FLOWER POTS
GARDEN DISHES
VASES

MANUFACTURED BY
THE CLARKSBURG GLASS COMPANY
P. O. BOX 1175
CLARKSBURG, WEST VIRGINIA

Glassware
NOVELTIES
ASH TRAYS
PRIVATE MOLD
WORK

CRYSTAL GLASS INSULATORS

3 INCHES LONG



PACKED: As illustrated—100 pieces to Cnt. Shipping weight 12 lbs.
Also—500 pieces to Cnt. Shipping weight 59 lbs.

SHIPMENTS: All shipments are billed F. O. B. Factory, Clarksburg, West Virginia.

TERMS: 1% 15 Days—Net 30 Days.

Printed Terms apply to well-rated firms or to those who have established credit with us. To others, our terms are cash, check or draft with order.