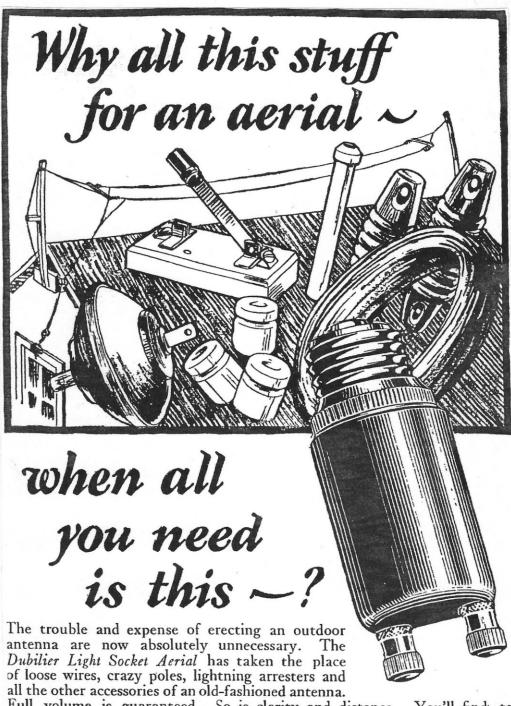
2016 PDF edition Old Familiar Strains

a newsletter for collectors of radio strain insulators and related items Volume 7 No. 3 June 2000



Full volume is guaranteed. So is clarity and distance. You'll find, too that this remarkable device greatly reduces both static and interference. Convince yourself without risk—all dealers sell the Dubilier Light Socket Aerial on a 5-day money-back basis.

Editorial

I hope that your spring went well and that you are looking forward to an insulatorfilled summer. After a busy spring schedule, most of my major shows are now behind me and I'm looking forward to addressing other cares for a few months. We have three show reports in this issue.

Still seeking information on MacBeth-Evans

I'm still working on an article about some strains made by MacBeth-Evans. Please send me what information you can about the company so that I can get the article finished.

Going to the NIA National in Bloomington?

I'm leaning toward a feature on E F Johnson for this fall's double length issue. Here again I could really use some more information about the company's history. Please share what you can. Waseca, the company's headquarters, is only 50 miles south of Bloomington. If any of the readers is in a position to visit the company's museum this summer, I would covet your comments. Perhaps information (old catalogs, etc.) can be copied at the museum library??? Please help where you can.

More on Altered Insulators

The May, 2000 issue of *Crown Jewels of the Wire* has a very informative and beautifully illustrated discussion of altered insulators. Dwayne Anthony has published a great deal of information dealing with problems of insulators that have been changed in color by artificial means.

Other than the dark amber strains discussed previously (see *OFS* October, 1997), I've heard very little about "faked" radio insulators. Those amber strains were showing up in Florida flea markets and we were able to get the scoop on them thanks to **Jeff Hogan**. Dwayne mentions three fake colors in relation to radio insulators, Dark Orange Amber, Orange Amber, and Royal purple. I don't know if these colors have been found for sale, or just produced in the lab. I've certainly not heard about items of this type on the market.

Dwayne's article also goes into the issue of coloring. When I first began meeting pin insulator collectors, I heard that many purple insulators contained manganese and had turned purple from sun exposure. Selenium replaced manganese as a clarifying agent in World War I. Thus, it seemed that sun coloration could not explain the beautiful purple radio strains since none were made prior to World War I. I still have my doubts, but Dwayne describes one possible explanation manganese may have been reintroduced in insulators after World War I, through the used glass "cullet" that is included in every batch.

Pyrex Updates

Additional Markings for Navy-Type Strains

At the Northwest Collector's show I was able to compare my 12" Navy-Type Pyrex insulator to one belonging to **Gil Hedges-Blanquez**. While mine has no visible markings, Gil's is clearly embossed with the standard Pyrex nomenclature "Pyrex" "Made in USA" "Pat 1700066." In a past article we had identified a specimen with an incuse "CGW" mark. So this makes three versions so far. I would say that units with the patent marking are probably the most recent.

Milk Glass Pyrex Egg Insulators

The ad on the following page appeared during World War II. Pyrex used this June, 1943, ad in Radio News to publicize its new Multiform glass. The chart below, from March, 1943, shows how Multiform glass stacks up against steatite and porcelain.

Take a close look at the picture - it sure looks like they were making egg insulators out of this white-colored material. Greg Hafer reported a clear glass Pyrex johnny ball but none of these white glass units has been reported - yet. Good hunting.

A QUICK CHECK LIST FOR ENGINEERS !

GLASS CODE		790	7761	707	774	Steatites* P	Electrical Porcelains*
GLASS TYPE		Multiform Glass	Multiform Glass	Multiform Glass	Conventional Glass		
ENGINEERING PROPERTIES	UNIT						
DENSITY	- ~	2.15	- ,	2.10	2.23 820	2.5-2.8	2.3-2.5
SOFTENING TEMPERATURE MAX. OPERATING TEMPERATURE	°C	800	500	425	500	1250-1400	1500-1000
LINEAR EXPANSION (0-300°C)	per °C X 10-7	8.5	500	32	32	60-90	30-50
	%	<.01	<.01	<.01	NONE	0-0.1	0-2.0
WATER ABSORPTION-24 HRS. MODULUS OF RUPTURE 	LBS./IN. ² X 10 ³	5	7	7	10	-	6-12
-SPECIAL PROCESS	LBS./IN.2 X 103	-	-	12	18	17-24	
VOLUME RESISTIVITY			1				
LOG R AT 20°C		-	-	-	14.7	14	12-14
LOG R AT 250°C	OHMS PER	9.3	-	-	8.1	9-14	7-10
LOG R AT 350°C S. I. C20°C1 MEG.	CM. CUBE	7.8	4.0	4.0	6.7 4.65	8-13	5.0-7.5
P. F20°C-1 MEG.	50	0.18	0.11	0.10	0.42	0.03-0.20	0.70-1.2
L. F20°C-1 MEG.	50	0.72	0.44	0.40	1.95	0.15-1.24	3.5-9.0
DIELECTRIC STRENGTH	VOLTS/MIL	>500	>500	>500	HIGH	200-300	200-280

*Data from Rigterink, M.D., Review of Scientific Instruments, vol. 12, no. 11, 527-534 (1941).

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Glass Lightning Arresters

by Dan Howard

Of all the different styles of lightning arresters, glass lightning arresters must surely be thought of as the "glamour girls." Porcelain-bodied arresters constitute the vast majority of the arresters in my collection. The few glass arresters always attract my eye, however. Besides "looking different" I find it fascinating to be able to see the parts inside.

Besides the pictures shown here, a Brach doublet appears on the color page. A similar picture got a lot of comments when it appeared on the cover of Crown Jewels of the Wire a few years back.

In the last few months, I've informally polled a few of the readers in an attempt to make a list of the known brands. There is a two-post version, and a three-post doublet. Most appear to have been made by the same company (probably L.S. Brach). Interestingly, the doublet version has only been reported with the Brach brand name.

Brach also made the doublet style arrester in clear plastic. These are also interesting arresters but they are quite common (you can still buy them for a few dollars from surplus dealers).

So far we've come up with the following names. (Please write and/or send pictures of any additional items from your collection).

Two-post arresters

(all 4.5" long by 1-5/16" wide) (all embossed "ANT." "GRD."

- Birnbach Radio Co., New York
- L.S. Brach Mfg. Co., Newark, NJ "Vis-O-Glow"

- Cornish Wire Co., New York, #800 "Vulcan"
- Silvertone
- Quam-Nichols Co., Chicago, "Kant Strike"

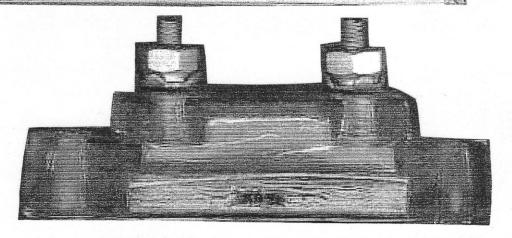
Three-post arresters

➢ L.S. Brach

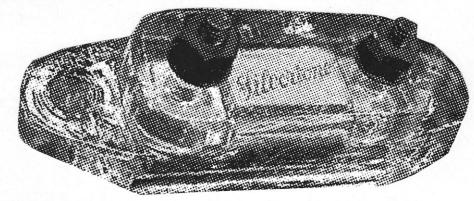
Sources: Phillip Drexler Jeff Hogan Dick Mackiewicz Bob Puttre Don Wrigley Brach Ad – Concord Radio Catalog 4-46 pg 76



BIRNBACH RADIO CO. NEW YORK N.Y.











Brach Update by Dan Howard

I am again indebted to Phillip Drexler for an article idea. One product that was omitted from the Brach profile in October, 1995 was the Brach Arres-Tenna. This combination aerial eliminator, lightning arrester, and potential set-shocker was patented by Brach in 1930. I've reproduced the patent abstract below, along with an article from Radio Digest that heralds the new product.

Several of the readers include aerial eliminators in their collections. These devices work by using electrical capacitors to couple the antenna wire from the radio to your house wiring. In theory, you could use the electrical wires in your house walls to form a huge antenna system. In practice, you risked great harm to your radio and yourself by hooking your antenna lead to the house current. Capacitors frequently breakdown with dramatic results

Light socket aerials had a brief heyday in the late 1920's. Prior to that time, relatively few homes had wiring and most radios operated from storage batteries. In the 1930's high-performance outdoor doublet antennas became the rage for short-wave listening. Light socket aerials are still sold today in various forms and styles.





BRACH **ARRES-TENNA**

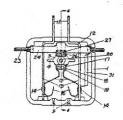
The L. S. Brach Mfg. Corp., are intro-ducing a new product which is the result of an experience that dates back twentythree years in the manufacture of elec-trical protective devices. This new prod-uct is called the Arres-Tenna and it is the first means of fully protecting electric radio sets against lightning which may enter either through the outdoor antenna through 110 volt service wiring. The introduction of electric sets or

sets has brought an additional hazard to radio because of the direct connection of 110 volt lighting circuits to the delicate wiring which is part of the power packs of radio sets and which is unusually sensitive to lighting induction. These facts have been fully verified by the number of radio sets brought to the Brach Company for repairs as a result of having offered a \$100.00 free insurance guarantee with each Storm King Lightning Arrester which is designed to give protection against lightning induction entering through an outdoor antenna. As these sets have been coming in so frequently the Brach Company have found it necessary to make an Arrester that not only offers a "double protection for a double danger" but offers at the same time a light-socket aerial as the instrument is built between the lighting circuit and the aerial.

This combination further serves to im-prove reception by reason of increasing the capacity of the aerial circuit, acting as a filter and also providing a convenient outlet to the radio set attachment plug. The instrument lists at \$2.50 and carries

a \$100.00 free insurance guarantee.

1,754,709. COMBINATION CONNECTER AND LIGHT-NING ARRESTER. LEON S. BRACH, East Orange, N. J. Filed June 11, 1929. Serial No. 370,084. 20 Claims. (Cl. 175-30.)



1. An arrester including a two-part casing of insulating material, a metallic stud passing through said casing and serving to hold the two parts together as well as a grounding stud, a pair of spaced metallic members disposed within the casing away from said, stud, but having associated contacting members extending toward the stud and supporting a piece of silicon carbide between their ends and against said stud, said casing having openings in one wall thereof, said contacting members also having portions disposed in alignment with said openings to be engaged by sliding plug members inserted through said openings, said metallic members having ends protruding from the casing for engagement with a lighting socket member, a metallic member extending across the interior part of the casing but spaced from said stud and said pair of metallic mem-

bers, contact studs connected to the ends of said cross member and protruding through the casing to receive the incoming and outgoing ends of an antenna circuit, an arm extending from said cross member terminating in a holder, and a piece of silicon carbide carried in said holder against said stud.

10. In a device for the purpose described, a divided cas. ing of insulating material, a stud carried by the casing and having ends projecting on opposite sides thereof means cooperating with said ends to hold the parts of the casing together and to clamp a ground wire thereto, electrical contact members housed within said casing but having protruding parts, certain of which are to make con. nections with an antenna circuit and others with a lighting circuit, means for passing an extension plug through the wall of the casing into contact with said other contact members, and spark gap means within the casing for both circuits, said means including said stud as a ground. ing device, and a filter condenser within the casing connected from the antenna circuit to at least one of the contact members adapted to be connected to the lighting circuit.

Phillip kindly sent this picture of the carton from his Arres-tenna. I don't have one of these and I've not found an ad for one. I wonder how well they sold.

Phillip also found a similar unit made by Dubilier. The Dubilier company is most famous for making capacitors. I suppose that the units shown below are just a natural extension of Dubilier's line. The first unit, a Ducon, closely resembles the Brach unit. Note that the unit has a threaded base like a light bulb. In the 1920's especially, many homes had overhead electric lights but wall receptacles as we know them today were not that common. Many electrical devices came with screw in plugs so that they could be connected to a light socket.

The patent number on the unit just refers to one of Dubilier's capacitor patents and doesn't relate specifically to the antenna device.

The second Dubilier unit, the Dubilier Light Socket Aerial, is also shown on this month's cover. It promises to take the place of "loose wires, crazy poles, lightning arresters, and all the other accessories of an old-fashioned antenna."

Sources:

Front Cover – Radio Broadcast 10/27 pg 407

- Pg. 8 Courtesy of Phillip Drexler
- Radio Engineering 9/29 pg. 32
- Pg. 9 U.S Patent Gazette 4/15/30 pg 680
- Pg. 10 Radio Broadcast 12/26 pg 190 Radio Broadcast 1/28 pg 254 Radio Broadcast 11/27 pg. 69



Aerials have gone out of style

In the old days, when radio was new, the fan was known by crazy festoons of wire that decorated his housetop or yard. These were the old fashioned aerials, and no one has forgotten all the grief they caused.

Modern radio may use the hidden loop, or the short indoor aerial. But there is a better way. The Dubilier Ducon enables you to use the complete wiring system of your house without risk, and with better results than most outdoor aerials give.

You simply screw a Dubilier Ducon into any lamp socket, and connect it with the antenna binding post of your set. You will find that it increases selectivity-especially in crowded neighborhoods, and will reduce "static" in the summertime.

Try a Dubilier Ducon on your set tonight. They are sold by all good dealers on five days' trial for \$1.50.



When Static Ruins Good Programs-Switch Over to a

LIGHT-SOCKET AERIAL

Just connect this neat little device to your set, plug into the nearest light-socket—and listen to the difference! socket—and listen to the difference! It takes only one program to convince you that crazy poles, loose wires, lead-ins, etc., are not only unnecessary, but downight inefficient when compared to the Dubilier Light Socket Aerial. Works perfective on AC or DC, totally tes the lightning hazard and uses absolutely no current.

Sold at all good radio stores on a 5-day money-back basis. Price \$1.50.

Used in the Power-Units You Consider Best

Dubilier Condenser Blocks are the choice of manufacturers whose battery eliminators are known for reliability and long life. In building your own unit remember that the condenser blocksarethemostexpensiveandimportant ele-ments in the circuit. Make sure that yours will stand heavy loads and long hours of service by insisting on Dubilier. Diagrams upon request.



Dubilier Micadon

The Standard Fixed Condenser of Radio in a new case of moulded Bakelite, shaped to meet the newest type of receiver construc-tion. Terminals adapted to either acceved or soldered connections. All standard ca-pacities. Priced from 45c to \$1.50.

Dubilier Metaleak ance ratings a ance make they with mateurs who build with small, but highly impopular with a care. They an

quiet performane leaks popular wi great care. They portant items in of receiver. All -75c and 50c.

DUBILIER CONDENSER CORP., 4377 Bronx Blvd., New York





While your neighbors are cussin' the static

Your set, with its Dubilier Light-Socket Aerial, is bringing the programs in smooth as silk. It's a fact! This little aerial, which you simply attach to the set and plug into the nearest light socket, reduces both static and interference to a marked degree. It uses no current whatever and absolutely eliminates the lightning hazard. Costs you nothing to prove it, for the Dubilier Aerial is sold by all good dealers on a 5-day, money-back basis. If your dealer can't supply you, write direct to us. Price, \$1.50.



If you're planning to build a power-unit make sure that the condenser blocks you intend to use are built to withstand long hours of heavy-duty service. Dublier blocks have an excessive high factor of safety and a "life" that makes them by far the most economical to buy. Full instructions enclosed with each block unit.

DUBILIER CONDENSER CORP. 4377 Bronx Blvd. New York, N.Y.

Dubilier CONDENSERS

Show Reports

Mid South Antique Radio Collector Meet, April 15, 2000 Reported by George Freeman

Our last contest had a miscellaneous category, so I looked throughout my artifacts and hit upon the idea of promoting our hobby. I found a Keystone bakelite lightning arrester, in box, at the meet and included it in my display. I included an issue of *OFS* and a brief write-up about strain collecting – and even subscription information. [Thanks, George! Ed.] **Don Wrigley** was also at the meet and had several strain insulators and related items for sale.

The Northwest Collector's Show and Sale / NIA Western Regional Show, Enumclaw, WA May 6-7, 2000 reported by Dan Howard

(Pictures on page 13)

We had the chance to attend the Northwest Collector's show again this year. This year's show was special for several reasons. First, the show's longtime host, Violet Brown, is retiring and she was honored for her efforts. Vi and her staff have made this into an outstanding annual event. Further, this year's show was designated the National Insulator Association's Western Regional Show.

As always, several OFS readers were in attendance. I enjoyed seeing our Seattle contingent, including **Robin Harrison**, **Gil Hedges-Blanquez, Don Hardestey, and Jack Hare. Elton Gish** attended the show, traveling half-way across the country from his home in Texas. We added a new reader at the show, **Ed** Sewall. Ed just started a new magazine called *Power Line Explorer Journal*. I saw a sample copy at the show and was very impressed.

I enjoyed meeting Ed Peters, the NIA Executive Director, and his wife Connie. They were easy to get to know. In fact, I think that our wives got along a little too well, if you know what I mean.

Strain sales were brisk. I found little to buy, was pleased to sell a number of "starter" pieces, and I actually wish that I had brought more. My big find for the show was a seldom-seen spool insulator. Although it is in poor condition, you can clearly read the "Electrose Trade Mark" embossing. I believe that it may be part number 4026. Finding it was a real surprise. I spotted the little gem late on Sunday. It turns out that the proprietor had been reorganizing his stock and discovered the insulator in a box of wooden pins. He had just placed it out for the first time when I wandered by.

Tim and Joanne Wood attended again this year. I think that Tim has been coming nearly every year. Tim teased Gil and me with an amethyst strain that he claims to have found at the show for \$2.00. Good for you, Tim.

The displays -

Elton and Robin put together the most marvelous display. A number of collectors, including Gil, brought examples of Fred M. Locke pin insulators from their collections to assemble a wonderful "type set." Elton brought some unique items including a hand-made Locke insulator that was pictured in his Locke biography. I was thrilled when Elton gave me a personal tour of the display, pointing out several "only one known" items. Elton was surprised to be invited out to an insulator dig on Saturday afternoon. It seems that a line just a few minutes from the show was being dug and they found pieces of several Fred Locke insulators at the site.

Gil produced his own display of Corning Pyrex insulators which included pin insulators, stand offs, and strains. Gil's display included the smallest and the largest 1-piece Pyrex pin insulators. And it included a good showing of the major types of Pyrex strains. I was pleased to see his display honored with a show ribbon.

Other displays included a display of rare insulators that were dug in southern Oregon by the Jefferson State Insulator Club. The club included digging tools and a box of dirt and leaves with insulators peeping out just waiting to be discovered. Bill Winter won the best of show ribbon for his "mainly mud" display of porcelain pin insulators.

Your editor had fun putting together a display called "The 104th Signal Company Commo Shack." An outgrowth of the military insulator article has been a continuing interest in military strains. The commo shack concept was a way of providing an appropriate setting for displaying my World War II strains. Signal Corps units had "commo shacks" for storing and distributing communications gear such as insulators.

I have a military radio manual with a property stamp identifying it as coming from the 104th signal company. After choosing to name my commo shack in their honor, I learned the 104th's very interesting history. During World War II, additional soldiers were needed so college deferments were cancelled and the 104th Infantry Division ,"The Timberwolves," was formed. The unit, first garrisoned here in Oregon, was the first to go straight to France (not through England). They landed soon after D-day. The 104th fought in the Battle of the Bulge and were among the first units to shake hands with the Russians at the Elbe River.

Mainly for fun, I included an EE-8 portable field telephone in the display. (Well it makes sense that a Signal Corps installation of all places would have a phone....) Once I made the decision to include the phone, I needed to have a second phone to talk to. So I rigged up a span of open-wire communication line overhead from the display to my sales table across the aisle. We had a ball cranking the phones and playing with them all through the show. For my efforts, the display was awarded the NIA show trophy and the Crown Jewels of the Wire pennant.

NARC Meet St. Paul, MN May 19-20, 2000 reported by Phillip Drexler

There were fewer sellers (and buyers) than in past years, and this impacted what was brought for sale. There was very little antenna equipment offered. I saw only one arrester, and just a few strains.

I bought only two items: A Dubilier Ducon, and a Brach Arres-tenna. Both are "socket" antennas which use the house wiring as a radio antenna when plugged into an outlet. Both were in original boxes. For information on both of these items, see the Brach Update appearing in this issue.

Photo Captions

Views from the NIA Western Regional Show

Figure 1 – The one-of-a-kind display of Fred M. Locke insulators. OFS readers **Elton Gish**, **Robin Harrison**, and **Gil Hedges-Blanquez** all contributed goodies from their collections to make this display possible. This is the largest, most complete display of Fred Locke insulators since the Locke insulator display at the 1904 St. Louis electrical exhibition. A picture of the St. Louis display appears in Elton's Locke biography, and was prominent in this display (back left of photo). To the immediate left of the yellow Locke sign is a "hand made" Locke specimen that Jack Tod was given. This is believed to be the earliest surviving example of an insulator actually made by Locke.

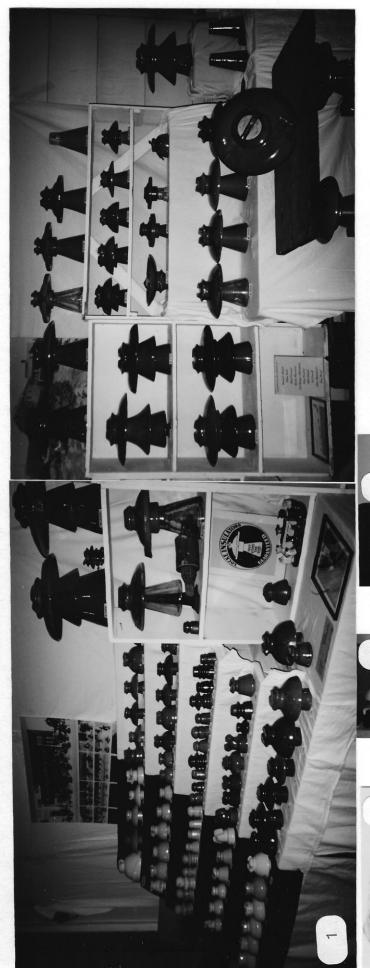
Figure 2 – Pyrex insulators were featured in **Gil Hedges-Blanquez** display. I especially enjoyed seeing the variety of radio strains and stand-offs that Gil included.

Figure 3 – The Old Familiar Strains table. Our table included a notebook with all the back issues and Vol 7 No 2 $\frac{1}{2}$ handouts like the one included in this issue.

Figure $4 - 104^{\text{th}}$ Signal Corps display. The larger porcelain styles are on the left. The center board shows the smaller "airplane" style insulators as well as the familiar IN-86 and IN-86A styles. The Board on the right shows the glass styles.

Figure 5 – Bill Winter's "Mainly Mud" display got the show's first place ribbon. Note the myriad of color shown here. Frankly, I think that there is room for a few more strains on the table!

Figure 6 – The Brach Vis-O-Glow glass doublet style arrester.









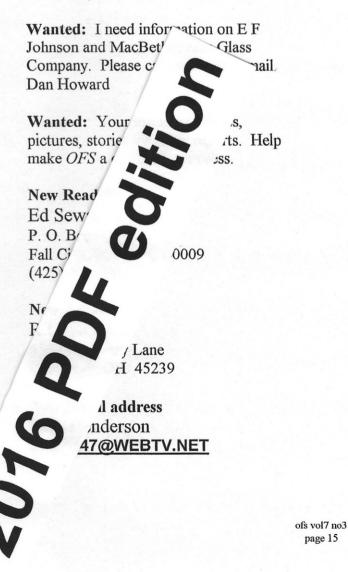




Classifieds

For Sale: Lapp antenna switch. A similar unit was pictured in the February Lapp story. This is the switch that is opened and closed with short ropes. The rope handles are porcelain balls, one brown/one white, and both are underglaze ink marked Lapp. It most likely dates from the 1940's. There are not many of these around and this one's in great shape. \$60.00 + shipping. Dan Howard

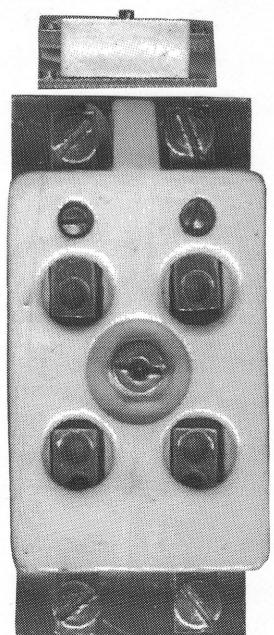
For Trade: I'm looking for E F Johnson insulators in the largest sizes. These units will have flanged metal ends. I have similar early items from Locke, etc., to trade. Also have other Johnson items to trade. Dan Howard



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What is it?

Last year, Bill Shaw sent me two views of this arrester. He asks if I, or you, might have seen one like it. He says, "I picked it up at the AWA flea market. Methinks it either is a telegraph or telephone arrestor. Inside is the perforated mica sheet in between what looks like a carbon plate on the ground side, and two more carbon strips, one connected to each side of the line. It is all brass and porcelain otherwise. There is also another arrestor very similar that is brass and what looks like bakelite. The bakelite one is very similar in construction to the porcelain one inside." Well, readers, what is it?



ESSCO Update by Dan Howard

Phillip Drexler recently solved a mystery for me. I had several ads for Protex lightning arresters but had never been able to attribute the trademark to a manufacturer.

This ad from a Taylor Electric catalog positively links the item to ESSCo. In fact, it invokes the familiar Keystone brand name (at least in the ad, if not on the arrester itself).

We profiled ESSCo (Electric Service Supplies Co) in the December, 1998 issue.

Sears and Roebuck also cataloged Protex lightning arresters in their 1927 and 1928 catalogs. Their ads describe the arrester as having a bakelite body enclosing an air gap. The arrester is composed of two brass electrodes.

I believe that this arrester has not been reported by any of the readers. It would be great to learn if any exist in collections today.

Another ESSCo item came to my attention a few weeks ago. Someone has found a quantity of small advertising blotters for the company and has been selling them on eBay. Sorry for the quality of this picture. The headline reads "A Keystone arresters in time saves the line."

(As well as I can make it out), the text reads "Now is the Time" Time is on your side now. It won't be in a short while, however. Unprotected lines might survive the first storm but there's little likelihood of them standing up against storm after storm all through the summer. And the damage then will ... the cost of ... of Keystone Expulsion and Garton-Daniels Arresters.

Before you order, however, look over the catalog of Keystone and Garton-Daniels Lightning Protective Apparatus. If you have not received your copy, please return the enclosed postcard."

The arrester pictured is one of the company's power line expulsion type arresters. These blotters have been selling for just a couple of dollars each if you have an interest.

AMERICAN AMERIC

PROTEX KEYSTONE ARRESTER List Price 75c

