

# The Jersey Broadcaster

NEWSLETTER OF THE NEW JERSEY ANTIQUE RADIO CLUB

February 2010

Volume 16 Issue 2



**MEETING/  
ACTIVITY  
NOTES**

Reported by Marv Beeferman

## THE ON-LINE BROADCASTER

The New Jersey Broadcaster is now on-line. To date, 97 of your fellow NJARC members have subscribed, saving the club over \$1900 a year. Interested? Send your e-mail address to:

**mbeeferman@cs.com**

Be sure to include your **full name**.

At the January meeting, President Richard Lee presented his self-directed tour of the Ralph Williams "Voice of the 20s" Atwater Kent museum. Now being maintained by Ralph's widow, and following some large donations following Ralph's death, the museum still probably holds the record for the highest concentration of Atwater Kent breadboards in one location.

Richard has asked me to remind club members that the club still has golf shirts (\$20), tee shirts (\$15) and hats (\$15) for sale and they can be purchased at any of our meetings. Also be reminded that you don't have to wait for an "official" club auction to bring in sale items; as a member, you are quite welcome to sell your radio-related wares at the beginning or end of any of our meetings.

### CALL FOR DUES:

Well, another year has past and it's time to renew your NJARC membership. Yearly dues keep the club's generous activities at the high level you expect. It has been a tough year for many of us so, despite an increase in club costs, your Board has decided to maintain dues at \$20. If you look back on 2009, you can't argue that the price is not unreasonable:

- Twelve issues of the *NJARC Broadcaster*
- A great web site sponsored by Dave Sica.
- Webcast meetings provided by Dave Sica.
- Great technical presentations sponsored by Al Klase.



## MEETING NOTICE

The next NJARC meeting will take place on Friday, February 12th (Happy Birthday Abe!) at 7:30 PM at InfoAge. Directions to InfoAge may be found on the club's website (<http://www.njarc.org>). We're in for a real treat this month; NJARC member John Dilks will present his classic lecture and slide show "Wireless North Pole - The Adventures of Don Mix." We've previewed John's presentation in this month's *Broadcaster*. Please note that because it is copyrighted, John's talk will not be webcast. Of course, we'll be also happy to accept your 2010 dues

- Capacitors and tubes at bargain prices.
- A radio museum to be proud of.
- The Richard Kaplan estate auction in January.
- Part I and II of the Lukas estate auction in February and March.
- Our Spring "PAL" swapmeets in March and November.
- Our InfoAge "tailgate" swapmeet in July.
- An InfoAge Repair Clinic in March.

bership status. (E-mail recipients will be notified by mail.) An "H" designates an honorary member and an "L" designates a lifetime member, both with no dues required. Some members are paid through 2010 and an 01/11 or higher designation requires no payment this year. All those with a "01/10" expiration date may renew for a \$20 payment or \$25 to continue or begin a family ("F") membership. A lifetime membership ("L") requires a one-time payment of \$200. (You might want to consider this since dues will probably be increased to \$25 next year).

Please send your renewal, with checks made out to "NJARC" to our membership secretary at the following address.:

**Marsha Simkin  
33 Lakeland Drive  
Barnegat, NJ 08005**

### UPCOMING EVENTS:

February 20th: Repair Clinic at InfoAge. Members arrive at 10:00 AM, experts are requested at 9:00 AM. Pizza lunch will be served. If you don't have a schematic, forward the make and model of the radios you plan to work on to Richard Lee ([radiatorich@prodigy.net](mailto:radiatorich@prodigy.net)) so that we may prepare in advance.

March 6th: Major radio/electronics auction at InfoAge. Read all about it on page 7 of this month's *Broadcaster*.

April 24th: NJARC Spring swapmeet at the PAL Center in Parsippany.

July 25th: NJARC Tailgate Swapmeet at InfoAge.



**Caught in the act! NJARC President Richard Lee tried his best to DX those distant stations only available after midnight, but it was way past his bedtime. At least he kept a morning thirst quencher close by.**

- A show-and-tell in April and August.
- An all-day, InfoAge professional auction in May.
- Our "members only" auction in September.
- A DX and Homebrew contest.
- Our Holiday Party

To the right of your name on the *Broadcaster* mailing label is your mem-

**THE JERSEY BROADCASTER** is the newsletter of the New Jersey Antique Radio Club (NJARC) which is dedicated to preserving the history and enhancing the knowledge of radio and related disciplines. Dues are \$20 per year and meetings are held the second Friday of each month.

The Editor or NJARC is not liable for any other use of the contents of this publication.

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## DON MIX'S ARTIC ADVENTURE

By  
**John Dilks K2TQN  
and  
Marv Beeferman**

"Imagine for a minute you are a young 21-year-old ham living in Connecticut with your parents. You have recently completed your schooling and are thinking about a career in radio. Self-taught, you are able to build or troubleshoot any radio circuit. You have honed your Morse skills, and are one of the top radio operators around. You are well known by your peers. So what are you going to do?"

"It is early winter 1923. You receive an invitation from Hiram Percy Maxim to apply for the position of radio operator on an expedition to the North Pole. It sounds exciting doesn't it? The only hitch is, you will be leaving in the spring and the trip will last over an entire year. You will be spending most of your time on an 88-foot schooner and anywhere you can walk from there. You will be a working crew member, but your primary duty is being responsible for keeping contact with the outside world on a ham radio set. All crew members have primary responsibility duties, but will share in the work associated with the trip... while under way you will be standing watch, cleaning the ship, and helping in the galley. Once the final location has been selected, you will help hunt, fish, find fresh water and bring it on board. You will help clean and prepare any fish or wild game for storage or for dinner. And when the Eskimo dogs arrive, you will help feed and take care of them."

"That sure sounds like fun. How many of us would be willing to take this trip? Keep in mind that very little was known about the Arctic and the risk of being lost there was great. Historically, many explorers never came back and were never found."

"For Don Mix, the answer was simple, yes! Don's father and brother Mit, were both hams so you can imagine what advice they gave. He applied for

the job."

"Mix found out it was a 15-month expedition to the Arctic with an Explorer named Donald MacMillan. MacMillan had wanted to take a ham radio operator with him, and asked ARRL to help him find a good one. He was very experienced in the Arctic, having first gone with Peary in 1909 when he discovered the North Pole. He insisted on a personal interview with Don Mix to insure he would fit in with the crew and the expedition. Mix did, and was accepted immediately."

Sounds exciting? The above quote is just a short description of an adventure that NJARC member has meticulously researched and documented based on the original diaries and photographs of Don Mix. But we'll let John tell that part of the story. Your editor has seen this presentation scheduled for our February meeting and all I can say is "don't miss it!" The story will keep you glued to your seats and chopping at the bit to ask a hundred questions. Here's a few photos to wet your appetite:



**Captain Donald MacMillan's 88-foot schooner *Bowdoin* at Wiscasset, Maine, ready to leave on it's Artic voyage in 1923. Mix would spend 15 months frozen in the ice at Refuge Harbor, Greenland.**

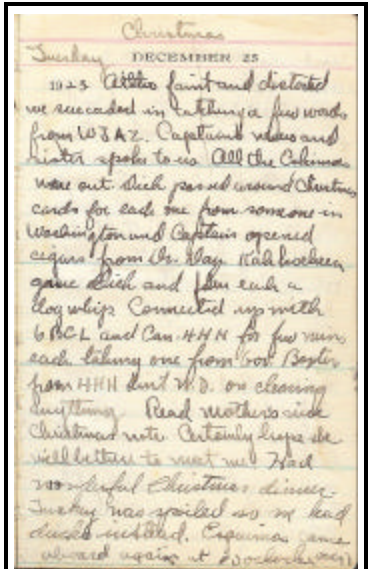
Don Mix...continued



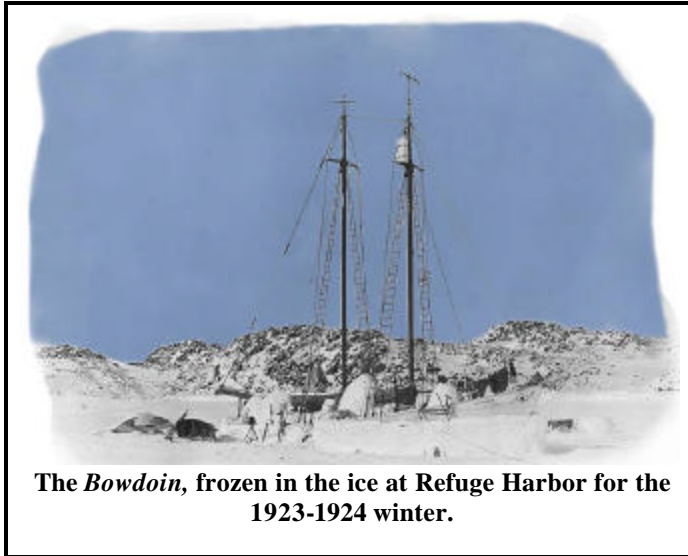
**Captain Donald MacMillan in a fur suit at the wheel of the Bowdoin (c. 1922)**



**Don Mix at the start of the expedition.**



**A sample diary page.**



**The Bowdoin, frozen in the ice at Refuge Harbor for the 1923-1924 winter.**



**Donald MacMillan:** In 1926, MacMillan led a group of explorers to Sydney, Nova Scotia. He believed it was possible that the ancient ruins off Sculpin Island, twenty miles from Nain, Labrador, were the remains of a Norse settlement 1,000 years old. However, MacMillan could not say for certain if these had been built by Vikings. According to Eskimo

tradition, the stone igloos were constructed by men who came from the sea in ships. Eskimos called the site *Tunitvik*, meaning the *place of the Norseman*. (Wikipedia)

**NOTE: Material in quotes and all photos not appearing in Wikipedia are Copyright John Dilks and used with permission.**

**PRESIDENT'S DX NOTES**

**By Richard Lee**

Hi Marv!

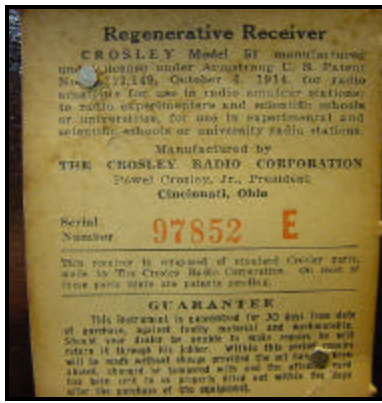
You had asked us to send in photos of members competing in the DX contest. The radio I used, a Crosley Model 51, fits into category B, primitive tube receivers. It's a regenerative battery set using 45

volts to the plate of the '01A detector, 90 volts to the plate of the '01A amplifier and 5 volts to the tube filaments. Power was supplied by an ARBE III battery eliminator. The set was very popular for its size and 1924 price of \$30.25 (with tubes and headphones).

As for my DXing, the radio's performance left much to be desired. The famous "book" style tuning capacitor acted as if it were spring-loaded (which it actually is) and slid out of tune so often that the operator's hand had to be fixed on the tuning dial. Sensitivity was OK; selectivity was nil.

The radio has a very high 9-to-1 audio transformer ratio. When landing on power-house stations like WCBS and WABC, the gain could blow an eardrum - no AVC here. Changing from a helical antenna to an indoor loop antenna made no noticeable improvement in reception. All DX loggings were from New York City and the north. WKBW, 1520 in Buffalo N.Y. was my farthest catch...nothing spectacular but lots of fun.

Here's a couple of photos...enjoy!



## THOSE AMAZING AERIAL ELIMINATORS

By  
Marv Beeferman

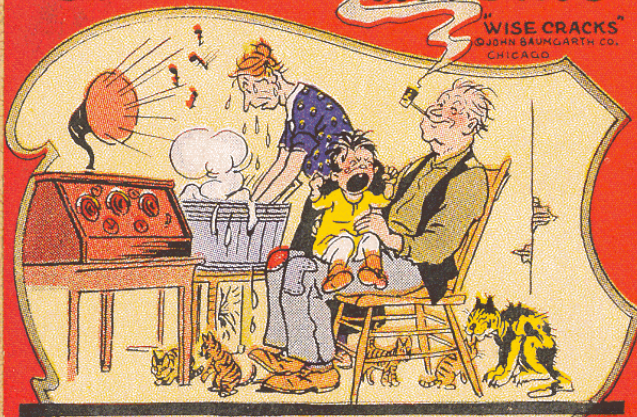
*At the August 2009 NJARC show-and-tell, President Richard Lee displayed something called a "Radio Master - 4 Radio Instruments in 1" and asked the membership if anyone could guess what it was. I immediately identified it as one of those totally useless items that were advertised in the '30s to improve reception and reduce noise. Opening one end proved my point; what appeared to be a shoelace was attached between the terminal ends. With that, I promised to dig up an old Broadcaster article that discussed these devices. Here it is, from the September 1998 issue...Ed*



**Richard Lee's "Radio Master."** Note the high-tech "shoelace" to the right which connected the two terminals.

Most radio buyers of the early '30s understood the basic requirements for effective radio reception...that a radio set had two terminals; one, the antenna post to be connected to a suitable antenna and the other, the ground post, to be connected to a good electrical ground (usually a radiator or water pipe). They also understood that if the antenna post was connected to ground and the ground post left free, volume would not be as great but, on stronger

**T**he champagne appetite with a beer income, has been changed to an eight-tube radio craving on a one tube income



**NOTHING NEW UNDER THE SUN:** Some experts believe that one of the contributor's to the recent economic downturn was people spending way beyond their means; in other words, "The champagne appetite with a beer income..." Although it may not be as outrageous as taking on a \$2,500 mortgage with a \$35,000 yearly income, the above vintage plaque recently obtained by member Ray Chase seems to add a 1920s "radio" slant to a similar theme.

stations, reception would be satisfactory. However, what the less technically sophisticated did not understand was that, for an AC radio, the power line supplying the set with electricity also acted as an antenna. (They also didn't understand the dangers of grounding DC and AC-DC sets in this manner, or learned through blown fuses and burned-out antenna coils. Some set manufacturers did add a warning tag advising against grounding the antenna post.)

At the same time, certain enterprising manufacturers with sufficient powers of observation to grasp this simple principle and with an appreciation of the public's gullibility, started flooding the market with a simple little device with the attractive name of an "aerial eliminator." For as little as ten cents, the consumer could buy a neat little gadget which could be attached to a radio in a minute or two and avoid those perilous trips to the roof and the costs and hazards of erecting an antenna system in the back yard. What a deal! And for those who felt that something was not quite right if ten cents could accomplish so much, there were more impressive and "adjustable" models available priced up to \$4.50. Unfortunately, unsuspecting buyers did not realize that anyone of them would work just as well as connecting the antenna post to a radiator.

People bought these useless devices by the thousands, and plenty of prosperous businessmen became even more prosperous by selling them. An afternoon spent window-shopping on New York's "Radio Row" could turn up at least twenty different types, with models ranging from the *Midget* at nineteen cents to the *De Luxe* at eighty-nine cents. They were also easily obtained through department store mail and phone orders. In many cases, it was hard to resist the glowing guarantees printed on the eliminator's carton such as "Greater Distance," "Greater Volume," "Eliminates Lightning Hazard," "Perfect Tone," "Perfect Selectivity," "Less Static," "Eliminates All Outside Wires," "Reduces Static and Noise."

One eliminator, the *Mar-Vol* (a play on the word "marvel") was similar in size and appearance to a baking powder can, had three wires emerging from the top but was essentially filled with sand. It proclaimed "To be used instead of the old-style outside antenna."

Models produced by Nu-Tone Laboratories of Chicago Illinois were originally constructed of a hollow cylinder with

closed ends. From one end protruded short red and green wires, and from the other a short brown wire. The red and brown wires were joined together inside the cylinder to form a single, continuous wire running through the cylinder but with different colored ends. On later models, the ends of the brown wires were connected by a small grid condenser consisting of a piece of mica fiber wrapped in lead foil and paper. The end of the green wire was connected to a bit of wood.

Another model, the *New Super No Aerial*, an "adjustable" model, anticipated and refuted potential skepticism (at least to its own satisfaction), with the glowing statements: "This instrument is not just another radio gadget. It is carefully designed and engineered for the purpose intended (whatever that was, but certainly not improved reception..Ed), the result of much experiment and investigation."

In its February, 1935 issue, *Consumers' Research Bulletin* (forerunner of today's *Consumer Reports*) reported the results of its testing of the *New Super No Aerial*:

"Tests on this 'instrument' showed that the volume obtained from the loudspeaker with the eliminator connected and the adjustable sliders set for maximum volume exactly equaled that obtained with the antenna post directly grounded. Adjustment of the sliders, which represented so much research and engineering, served only to decrease the volume."

In general, *Consumers' Research* found that the performance of a radio connected to any of the eliminators it tested was markedly inferior to the radio's performance when connected to a good outside antenna, and that, on the average, worse reception was obtained with the eliminators than with the antenna post directly grounded and no antenna in use. When a number of eliminators were examined, it was found that they worked simply by virtue of the fact that they grounded the antenna post, either directly or through a small condenser, inductance or resistance. It was also found that the terminal that the user was instructed to connect to the ground post of the radio was in most cases connected to nothing. Adjustable features turned out to be quite valueless, merely serving to decrease the volume of the signal.

In the case of the Fleron Lamp Socket Aerial No. 28 (M. M. Fleron and Son, Inc., Trenton N.J.), Consumers' Research found that this unit worked on a slightly different principle from most. A socket containing a capacitor coupled the antenna post of the radio directly to the power line, the ground post being connected as usual. Of course, tests showed that the device showed no advantage over direct grounding of the antenna post. However, the sample tested had faulty insulation and, when connected blew a fuse. Since fuse protection was not all that common at the time, consumers were often rewarded with a damaged radio or a dangerous shock.

It took some time, but eventually outrageous claims were forced to be tempered. On February 17, 1939, the Federal Trade Commission issued a complaint against Electrical Laboratories Company, Inc. of New York which challenged the capability of its *Walco Aerial Eliminator* and its *Dynamic Antenna* to improve selectivity and tone, remove electrical noise, give volume and distance equal to outdoor antennas and with better selectivity, and prevent any dangers resulting from lightning, storms and short circuits.

In another case, Nu-Tone laboratories, maker of various aerial eliminators and line noise eliminators ("*Nu-Tone*," "*Perfectone*," "*Clear-Tone*" and "*Marvel*"), was forced by the Federal Trade Commission (Docket No. 4645) on April 24, 1942, to cease and desist from:

1. Representing that said device designated "aerial eliminator" will improve the tonal quality or selectivity of radio receiving sets to which it is attached, render such sets capable of receiving broadcasts from stations more distant than would otherwise be the case, perform the function of a radio aerial, or reduce noises due to static or other causes except at the expense of the incoming program;
2. Representing that said device designated "line noise eliminator" when attached to the power line of a radio receiving set will reduce line noises or electrical interference, or improve the tonal quality of the instrument. ("Line noise eliminators" usually consisted of nothing more than a closed cardboard cylinder containing a small condenser, usually made from lead foil and paper. The cylinder was fitted with receptacles for connection between the radio and wall outlet. More on these in a future issue.)

(Continued on page 8)

## **NJARC 2010 HOMEBREW EQUIPMENT CONTEST**

Judging for the NJARC 2010 homebrew radio contest will be held at the **March** meeting. The objective of the contest is to preserve the tradition of building your own electronic equipment. Categories are as follows:

### **Category 1: Primitive Receivers**

The signal path of the radio may use no more than two tube functions or two discrete transistors. Solid-state diodes may be used for detection as in a crystal set or reflex circuit. Any convenient power supply may be used, and may contain additional vacuum tubes or semiconductors.

### **Category 2: Beginner**

Same rules as in Category 1. Contestant has never before made a serious attempt at building a radio from scratch.

### **Category 3: Open**

Any recently constructed homebrew radio receiver or transmitter.

### **Category 4: Vintage Reproduction**

Faithful reproduction of 1920-1939 homebrew radios.

### **Category 5: Tube Audio Equipment**

### **General Contest Rules**

1. The contest is open to NJARC members only.
2. Entries are limited to "scratch-built" radios as opposed to kits or modified production sets.
3. Entries must have recently been constructed by the contestant. Receivers must be capable of receiving at least one station.
4. Contestants should be prepared to demonstrate their creations at the March 2010 meeting and say a few words about the design and construction of their radio. Your efforts may provide a good opportunity for a *Broadcaster* article; documenting your progress with a camera could be helpful.
5. The membership in attendance at the March meeting will vote for the best entries in each category.

### **A Few of Last Year's Entries:**





# **RADIO / ELECTRONICS AUCTION**



## **Saturday March 6<sup>th</sup> 2010**

Huge Antique Radio/Electronics Auction  
conducted by the New Jersey Antique Radio Club  
and InfoAge

**InfoAge Science / History Learning Center  
2201 Marconi Road, Wall, New Jersey 07719**

All day sale of vintage radios, electronic test equipment, ham receivers,  
over 10,000 vacuum tubes along with related parts & documentation.  
Most tubes are from a former calibration lab and many are pre-tested  
and sold in large lots. Also selling smaller lots of audiophile tubes.  
Something for every radio collector.

**Auction Begins at 10:00 AM Saturday  
Viewing 8:00 to 10:00 Day of Sale**

Sale of artifacts and donations excess to the centers needs.  
Proceeds to benefit InfoAge, the Radio Technology Museum  
and the National Broadcasters Hall of Fame.  
Auction is indoors with ample seating. Noted radio auctioneer  
Richard Estes, will be wielding the auction gavel.  
Detail auction listing will be available a week prior to the sale.  
Terms are cash or good check, sorry no credit cards.  
March 7<sup>th</sup> is alternate snow/storm day

**[www.infoage.org](http://www.infoage.org) for directions**

**Information: 908-757-9741 – [raydio862@verizon.net](mailto:raydio862@verizon.net)**

CONNECTIONS

Free exposure for buyers and sellers! Unless requested otherwise, each ad will run for two months in both the *Jersey Broadcaster* and the *Delaware Valley Oscillator*. All buying and selling transactions are the responsibility of the parties involved.

Are you aware that NJARC now has a resistor program which includes many commonly needed replacements? Contact Walt Heskes at any club meeting for details.

FOR SALE

Check out NJARC's capacitor program for those most commonly needed replacements. Contact John Ruccolo at any club meeting or call him at home (609)-426-4568 to find out what's available. All proceeds go to the club.

By non-member: AK Model 55C in a 1929 Pooley cabinet. No reasonable price refused. Must be picked up in Margate City. Pictures available; extra tubes. Michael Seidman, 609-822-3373, mrhaj@verizon.net

Free: RCA model 9K console cabinet; fair condition, veneer issues. phil-vourtsis@gmail.com

WANTED

Rare or unusual wire recorders such as Soviet Type MH-61, WWII Signal Corps RD-15/ANQ-1, GE model 20N. Also wanted is an un-modified BC-652A with dynamotor. Contact Gary Berg, 24 Pat Road, Newburgh, NY 12550 bergg@hvc.rr.com

9002 and 9003 tubes for a BC-639 receiver. Rob Flory (robandpj@earthlink.net).

Zenith 8" electrodynamic/field coil speaker. Thomas Lee, Thomas V Lee @hotmail.com

**WANTED:** Radio repairmen and restorers. Run out of your own radios to work on? The club and Infoage have received a quantity of radio donations, some of which would look good in our museum. Others will be set aside for traveling displays, trading or resale as fundraisers. Many of these radios only need a good cleaning and polishing and a minor electrical checkout. Take one or two home with you and practice your skills...even if you just want to clean them up. Contact Ray Chase at our next meeting, at 908-757-9741 or at enrpnr@erols.com.

**\$1 DISCARD YOUR OLD AERIAL**

It is Most Likely Corroded and Has Poor or Loose Noisy Connections  
**NO MORE BUZZES, CLICKS** and shorts from summer rains and winter snow and sleet when using an F. & H. Capacity Aerial Eliminator. Equals an aerial 75 ft. long, strung 50 ft. high, yet occupies only 1 1/2 inch by 4 inch space behind your radio—guaranteed to give you nationwide reception or your money back.  
**BETTER TONE AND DISTANCE GUARANTEED**  
 Sensitivity, selectivity, tone and volume improved. No lightning danger or unsightly lead-in and aerial wires. Makes your set complete in itself. Forget aerial wires and troubles—move your set anywhere.  
**NOT NEW—VALUE ALREADY PROVED**  
 On the market five years, 100,000 satisfied customers in U.S. and foreign countries. In use from the Arctic Region of Norway to the Tropics of Africa. Chosen by Government for use on Naval Hospital bedside radios. Each factory tested on actual long distance reception. Can not harm set—Easily connected to any radio, including radios having no ground or radios for doublet aerial.  
**5 DAYS TRIAL** Mail coupon at once. Pay postman \$1.00 plus a few pennies postage on delivery. If not entirely satisfied, return within five days and your dollar will be refunded without question.

**WHAT USERS SAY**

San Antonio, Tex. It might interest you to know that with the Capacity Aerial Eliminator I get European stations easily and in the winter get Australia, Russia, Honolulu and many Jap Short Wave Stations. I get all Pacific Coast Stations on the broadcast band. Signed: J. K. Somervell.

Davenport, Ia. Received your Radio Aerial Eliminator and it sure works fine. Also works swell on Short Wave band. Wish I had found it long ago. Signed: F. B. Boarder.

**—JUST MAIL THIS COUPON—**  
 F. & H. Radio Laboratories, Dept. 3, Fargo, N. Dak.  
 Send F. & H. Capacity Aerial. Will pay postman \$1 plus few cents postage. If not pleased will return within 5 days for \$1.00 refund. Check here  if sending \$1 with order—thus saving postage cost—same refund guarantee. Check here  if interested in dealer's proposition.  
 NAME .....  
 ADDRESS .....  
 CITY ..... STATE .....



An interesting antenna eliminator from your editor's collection, the "Armstrong J5 Aerial Eliminating Tube" that also guarantees to stop aerial noises. It was manufactured by the Armstrong Radio Apparatus Co. of Westmont, N.J. Interestingly enough, the instructions suggests that in the winter, "when outside signals are less noisy," that you could increase set efficiency by re-connecting your outside antenna.

