



WARCI News

Wisconsin Antique Radio Club, Inc.

Spring At Last, Maybe?

May 2011

Super-Ball Antenna Co. of Green Bay

See the article on this off-beat company and its leader, Bearl Elmer Colburn, page 6. Figure 1 (below) shows a photograph of a genuine Super-Ball antenna (a 10 inch diameter sphere which used a roof-mounted mast) and Figure 2 (right) shows an early ad by the Super-Ball Company, Radio Retailing, November 1925.



SUPER BALL ANTENNA

Announced in October, and welcomed by the Radio World as the most practical Antenna ever invented. Jobbers and Dealers it's the best seller in the Radio line today. Thousands are leaving our factory every day. Millions will be sold. Write or wire in your order.

Deliveries guaranteed through the rush season.

List \$10.00

SUPER BALL ANTENNA CO.
Green Bay, Wis.

NEXT WARCI MEET:

Sunday, May 8; 8:00 – 12:00 Noon Outdoor (Indoor); Doors open 7:00AM
The Terminal, 5917 S. Howell Ave., Milwaukee (near the Airport)
Features: News Meeting, Donation Auction, 50-50 Raffle, and Free Pizza Lunch

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WARCI

The Wisconsin Antique Radio Club, Inc. exists to preserve the knowledge of radio, television, and other related disciplines. We have a special interest in the history of radio in Wisconsin, Wisconsin radio companies, radio stations, etc. Our members' interests include radio, television, audio, and antique phonographs.

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WARCI Information

WARCI is incorporated in the State of Wisconsin.

Annual membership dues are \$15 for each calendar year, January - December.

Seller's fee at Swap Meets is \$7.00 for members, \$10 for non-members.

Swap Meets are held at The Terminal, 5917 S. Howell Avenue, Milwaukee WI (near airport).

The next meet date is Sunday, May 8. Swap meet times are 8:00AM - 12:00 Noon. Doors open at 7:00AM for set-up.

WARCI News

This newsletter is the official publication of the Wisconsin Antique Radio Club, Inc. It is published four times per year, in January, May, July and September. The WARCI news is free to all club members.

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Articles or material for the newsletter are most welcome and should be sent to Greg Hunolt, ghunolt@excel.net or N5412 State Hwy 57, Plymouth WI 53073. Include your name, address, phone, and email. PC format (e.g. MS Word) by email is preferred. JPEG for images is preferred. Please contact Greg Hunolt for assistance.

Classified ads up to ¼ page are free to WARCI members

The cut-off date for all newsletter material is about the fifteenth of the month preceding publication of the next newsletter (e.g. June 15, 2011, for the July issue).

WARCI Website **www.warci.org**

The WARCI website features information about WARCI activities, Wisconsin radio, articles, etc. Contributions are most welcome! Contact our webmaster Nick Tillich, at webmaster@warci.org. Thank you, Nick, for your great work.

WARCI Headlines

March 27 and January 23 Meets

We had good turnouts at both meets, with 10 sellers in January and 14 in March, with good overall attendance indoors. The 50-50 Raffle was successful, bringing in \$71 to the club in the two meets. Once again, a highlight of both meets was the excellent pizza cooked and served by Joe Halser and his staff at the Terminal.

Membership

Last year, 2010, we had 46 active, paid members. So far this year, we have 39 active paid members, including 3 new members and 2 returning members, but there are another 11 members who were active last year but have not renewed yet, for a potential total of 50 if everyone renews their membership.

May 8 Meet

For May we will continue the same 8:00 AM "official" flea market start time (doors open at 7:00 AM). We will have a short club meeting at 10:00 AM, followed by the Donation Auction, the 50-50 Raffle Drawing and free pizza after the raffle drawing, so about 11:00 AM.

Auction Update

The WARCI Board met on April 23, 2011 (thank you, Bob Paquette, for hosting the meeting at the Microphone Museum), and voted to continue planning for addition of an auction to our September 18, 2011 meet. We intend to use this first auction to 'shake down' our rules and procedures on a limited scale. We will, however, have some interesting and desirable radios committed to the auction that will be announced in the September WARCI News in advance of the meet.

We do not have a volunteer auction coordinator, so planning will continue by committee, including Dale Boyce, Bill Engaas, Greg Hunolt, and Jim Menning.

There are a number of questions still to be resolved regarding legal aspects of having an auction, e.g. as a non-profit organization do we need a officially

licensed auctioneer, are there requirements for the forms bidders and sellers would sign, for disclaimers, etc.

We also have to settle on auction rules and procedures. We have a starting point with the Auction Committee Report completed earlier this year, and we will look at changes other clubs (ARCI, NARC, etc.) are making this year and see what adjustments to our procedures we may need to make. Our plan is to present a set of auction rules and procedures to the WARCI membership at the July meet, see what folks think, make any last tweaks, and finalize them.

Meet Schedule for 2011

We have the following dates set for our remaining meets in 2011, all Sundays: May 8, July 17 and September 18. We've avoided any conflicts with other radio clubs and with Elkhorn, but we will have a conflict with Maxwell Street Days on July 17.

Summer Radio Season 2011

The first of the neighboring "big meets" of summer will be NARC's Radio Daze 2011, to be held on May 20 & 21 in Plymouth, MN, a suburb of Minneapolis. This is always a very good meet, and their auction has been quite large the past couple of years.

July brings MARC's Extravaganza, July 7, 8 and 9, in Lansing, MI. The meet features a large and diverse flea market (nice old stuff for us 20's collectors) and this year the Tube Collectors Association will hold a meeting and swap as part of Extravaganza on the afternoon of Thursday, July 7.

ARCI's Radiofest will be held on August 4, 5 and 6, at the Holiday Inn in Willowbrook IL. WARCI is a co-sponsor of Radiofest this year, and has helped with planning the speaker program. The Friday night auctions have been very large the last few years, and the flea market is vigorous.

Globe Electric Follow-Up – Their Radios,

By Greg Hunolt

This is a follow-up to Dale Boyce’s fine article on Globe Electric of Milwaukee. The table was produced from the Battery Set Compendium, 2011 version (currently in preparation for release in the summer of 2011; the 2010 version is available at warci.org). The year is the year the set was first introduced or advertised. Model numbers in parentheses are variants of the basic model, e.g. the 770D was a dry cell UX12 version of the 770, other variants came with tubes, accessories, etc. Globe began using the “DuoDyne” trade name in 1924; early models of the Globe 770 did not show the “DuoDyne” name, but 1924 versions of the 770 were labeled as DuoDynes. If you have corrections or know of other Globes, let me know!

Year	Trade Name and Model	Cabinet	Dials	Knobs	Circuit	Tubes
1922	Globe 600 #1 Regenerative Radio Outfit Receiver	Table	2	6	Regen	3
	Globe 600 #2 and 601 Regenerative Radio Outfit	Table	2	6	Regen	3
	Globe 605 Regenerative Receiver	Table	2	8	Regen	3
	Globe 607 Regenerative Receiver and Amplifier	Table	2	4	Regen	3
	Globe 610 Regenerative Tuner and Detector Unit	Table	2	6	Regen	3
	Globe 611 Regenerative Tuner-Detector Unit	Table	2	3	Regen	1
	Globe 615 Two Stage Amplifier Unit	Table	0	2	AF Amp	2
	Globe 616 Two-Stage Amplifier Unit	Table	0	1	AF Amp	2
	Globe 810 Radio Frequency Tuner & Amplifier (800, 801, 802)	Table	2	5	TRF	4
1923	Globe 770 Receiver (770D, 771, 771D, 772)	Table	2	5	TRF	4
1924	Globe 772 Console Radio (773)	Console	2	5	TRF	4
	Globe 820 Receiver	Table	1	4	TRF	4
	Globe 825 Console Receiver (826)	Console	3	5	TRF	5
	Globe DuoDyne 1010 Console Phonograph Radio Receiver	Radio-Phono	2	4	TRF	4
	Globe DuoDyne 1060 Upright Phonograph Radio Receiver	Radio-Phono	2	4	TRF	4
	Globe DuoDyne 775 Receiver (776, 777, 778)	Table	2	6	TRF	4
	Globe DuoDyne 815 Receiver (816, 817, 818, 819)	Table	3	8	TRF	5
	Globe DuoDyne 900 Receiver (901)	Table	3	6	TRF	5
	Globe DuoDyne 902 Console Receiver (903, 904)	Console	3	6	TRF	5
1925	Globe 253 Radio Receiver (254, 255)	Table	3	6	TRF	5
	Globe 353 Radio Receiver	Table	3	6	TRF	5
	Globe 526 Radio Receiver (527, 528)	Table	2	4	TRF	5
	Globe 626 Radio Receiver (627, 628)	Table	2	4	TRF	6
	Globe DuoDyne 1110 Console Phonograph Radio Receiver	Radio-Phono	3	5	TRF	5
	Globe DuoDyne 1160 Upright Phonograph Radio Receiver	Radio-Phono	3	7	TRF	5
	Globe DuoDyne 772, 773 Console Receiver	Console	2	5	TRF	4
	Globe DuoDyne 830 Receiver (831, 832)	Table-Low	3	7	TRF	5
	Globe DuoDyne 834 Console Receiver	Console	3	7	TRF	5
	Globe DuoDyne 880 (881) Receiver	Table-Low	3	6	TRF	5

Editor's Note:

The WARCI News is your newsletter.

Your comments and suggestions for the newsletter are most welcome.

Your contributions of articles or other material are urgently needed. Your help is needed to make the WARCI News a success and to ensure that it covers the full scope of the interests of WARCI members.

If you're not seeing articles on topics you are interested in, *write one.*

You may submit complete articles, but information from which an article can be developed is also welcome.

Don't agonize over format, etc., as I will have to adapt your submission to the newsletter anyhow. Simple text is best. PC format (e.g. MS Word, separate jpegs by email) is preferred, but hardcopy text and photos are accepted.

In this issue our series of articles on Wisconsin radio companies and Wisconsin radio history continues with a feature article on the Super-Ball Antenna Company of Green Bay.

We were delighted to see Dale Boyce's recent WARCI New article on Globe Electric reprinted in the April issue of Radio Age.

We will also cover tube audio and television and other member interests – but we need your contributions of articles or information for articles.

Articles on radio repair or restoration (perhaps a nice case study with before and after photos) would be most welcome.

We have a few Classifieds, but once again no "Odd Bits" in this issue. Your ads are welcome and your 'odd bits', as you can see, are needed.

Thank you,
- Greg Hunolt, Editor, WARCI News

Renew Your WARCI Membership for 2011!

WARCI membership runs January to December, so it is well past time for you to renew for 2011! If you're late, please complete the Membership Renewal form that you received with the January issue of WARCI News and bring it to the May meet or mail it, with \$15, to Terry Hanney, 2501 S. 99th St., West Allis, WI 53227.

Bob Paquette's Microphone Museum



WARCI member Bob Paquette's Microphone Museum features his collection of well over 1,000 different makes and models of microphones as well as related pieces of equipment. The emphasis is on historically important microphones made between 1876 and 1950, and early radios, telephones, and many other communications devices, including an assortment of military gear.

You can see more photos and find out more about Bob's book "History and Evolution of the Microphone" at his website, <http://www.sssmilwaukee.com/Microphone%20Museum.html>

Bob always enjoys visitors and will be happy to give a guided tour to individuals or groups. You can call Bob at Select Sound (414) 645-1672 to arrange for your visit. Just ask for Bob Senior. The museum is located on the second floor of Select Sound, 107 E. National Avenue in Milwaukee. Enjoy your visit and allow yourself plenty of time.

The Super-Ball Antenna Company, Green Bay WI

By Greg Hunolt

Radio and radio broadcasting took off with the “radio boom” of the early 1920’s and the rapid, even explosive growth of commercial radio and broadcasting during the mid and late 1920’s. It was a fascinating time of great chaos, with fierce competition between stations, radio set manufacturers large and small, tube manufacturers large, small, and tiny, and with the heavy hand of the new Radio Corporation of America trying its best to maintain its stranglehold on key patents. Regulation of broadcasting was developing to bring some order to the industry but that process was also chaotic, proceeding in fits and spurts punctuated by court and legislative battles.

Amidst all the chaos, and spurred by the explosion in demand for radio and everything having to do with radio, many entrepreneurs started many small companies, each going after some piece of some aspect of the market, whether it be radios, tubes, accessories, etc.. Some were serious, offering genuine, technically sound innovations and quality products, some were fly-by-night fast-buck exploiters of an eager but barely informed and gullible public. Most got run over by the Great Depression and the big boys of radio like RCA, Philco, and Crosley.

Some of the small companies that popped up in the 1920’s were somewhere in between the serious and the exploiters. They were companies that offered something innovative that had at least some technical plausibility, offered at least some real benefit, and with some effective marketing enjoyed at least temporary success.

This is the story of one such company, the Super-Ball Antenna Company of Green Bay, Wisconsin, and its creative force, Bearl Elmer Colburn of Green Bay. As we’ll see, Super-Ball manufactured an odd-looking home radio

antenna in the mid-1920s and early 1930s, a ten inch aluminum alloy sphere (the genuine “Super-Ball”, (see figure 1, page 1) that was to be mounted on a rooftop mast as shown below.

The *Super-Ball* Antenna

**Increases Selectivity
Minimizes Static
Thousands of Satisfied Users**

Unique Features of the Super-Ball Antenna

- Increases selectivity * * *
- Clarifies tone * * *
- Minimizes static * * *
- Non-directional * * *
- Easy to install * * *
- Less costly to erect * * *
- Sheds snow and ice * * *
- Not affected by heat * * *
- Will not corrode * * *
- Lasts a lifetime

Write today for full information

YAHR - LANGE, Inc.
National and International Distributor
207-215 East Water St. Milwaukee, Wis.

Figure 3 - Super-Ball, Citizens Radio Call Book, September 1926.

Super-Ball - continued on Page 7

Yahr-Lange, the wholesale drug emporium of Milwaukee, became the distributor for the Super-Ball antenna and other devices produced by the Super-Ball Antenna Company. The Super-Ball Company was also very tightly related to the Aerial Insulator Company of Green Bay, which manufactured the "Radio-Lite" antenna.

Although I had been long aware of Super-Ball, having seen their ads in radio magazines, and having been the happy recipient of a "New Ball Aerial" from my good friend and fellow collector Dale Boyce, my attention was fully engaged by Dan Howard of Milwaukie, Oregon. Dan asked me if I had any information on Super-Ball. I sent him what I had at the time, and he responded with copies of a newsletter for insulator collectors that he had published, the *Old Familiar Strains Newsletter*. His April 1997 edition included his article "Ball Antennas", in which he noted that "In the pre-depression 'hey day' of radio, dozens of companies made radio accessories such as aerial eliminators, underground antennas, and balloon aerials. Tabloid-style radio magazines of the period touted some of the most unbelievable schemes for improving reception. First-time radio owners frustrated with weak or poor reception or who were anxious to have the 'best on their block' spent freely on these gimmicks. Though many were of questionable value, one idea that did seem to have merit was the ball antenna." He described the Super-Ball and a few other examples of ball antennas. I was intrigued, I decided to see what I could find out about Super-Ball, and I needed an article for the WARCI News, so here we go.

The Spark - Bearl Elmer Colburn

Bearl Elmer Colburn was born in Ingalls, Michigan in 1888 and lived in Escanaba, Michigan before moving to Green Bay in 1909. In 1925 Mr. Colburn was a technician employed by the Widrig Motor Car Company of Green Bay. In 1926 he became an officer of both Super-Ball and Aerial Insulator, and was the author of patents issued to Super-Ball. His association with the two companies appears to have been ended by 1931; in the 1931 Green Bay City Directory Mr. Colburn was listed as secretary of a different company, the National Electric Company, and then in 1933 he was listed as being with

Sterling Products, Inc., at the same address. In 1935, Mr. Colburn was listed in the directory but without any company affiliation.

Mr. Colburn continued to patent a variety of inventions (he held a total of 17 U.S. patents) including those for a coin sorter (granted in 1938), a paper dispenser (granted in 1938), a soap dispenser (granted in 1943) and a power operated fish scaler (granted in 1958). He was a member of the International Inventors' Association as well as Green Bay civic and business associations. He retired in 1960, and died on January 21, 1967, at age 79. His obituary remembers him as the "inventor of the Super-Ball Antenna, one of the most efficient antennas of the early days of radio".

Company History - Super-Ball and Aerial Insulator

The Super-Ball Antenna Company began work in 1925; my guess would be by Spring or Summer. By then the Green Bay area had its first radio station, operated by St. Norbert College in De Pere, WHBY ("We Have the Best Yet").

The earliest evidence I have of the Super-Ball Antenna Company is an ad by Super-Ball in the November 1925 issue of Radio Retailing, see figure 2 on page 1. The ad states that the Super-Ball antenna was announced in October, 1925. This is the only ad I have found placed by the Super-Ball company itself; it preceded the distributor agreement with Yahr & Lange described below.

The Super-Ball Antenna company was formally incorporated in Green Bay "to promote the manufacture and sale of radio antennas" on January 21, 1926, by Bearl E. Colburn, R. W. Fancher, and A. L. Cannard, all of Green Bay.

An agreement by which Yahr & Lange, later Yahr-Lange Inc., of Milwaukee, became the "national distributor" of the Super-Ball antenna was apparently reached in late 1925. The earliest Yahr & Lange ad I have found for the

Super-Ball - continued on Page 8

Super-Ball was published on November 22, 1925; I have not found any later U. S. ad for the Super-Ball other than those published by Yahr & Lange. Yahr & Lange and Super-Ball advertising are discussed in more detail below.

In Green Bay city directories, the Super-Ball Antenna Company first appears in the 1927 edition, at an address of 324-326 N. Washington in Green Bay, with Mr. Colburn listed as the company's secretary. The company was listed in the 1927-1928 issue of Polk's Wisconsin State Gazetteer and Business Directory. In the 1929, 1931, and 1933 editions of the Green Bay city directory, the company appeared with an address of 429 N. Washington in Green Bay. Super-Ball did not appear in the 1935 city directory, and appears to have been out of business by then.

The Aerial Insulator Company, Inc., of Green Bay was incorporated on February 27, 1928, also by Bearl E. Colburn, R. W. Fancher, and A. L. Cannard, for the "manufacture and sale of radio appliances, equipment, accessories, and supplies". In the 1929 and 1931 Green Bay city directories, the Aerial Insulator Company was listed at the same address as Super-Ball, 429 N. Washington Street. It did not appear in the following editions.

Mr. Colburn was listed as the secretary of Aerial Insulator as well as Super-Ball in 1929. By 1931 he had apparently moved on. In the 1931 city directory he was listed as secretary of a different company, the National Electric Company, 1114 S. Monroe, and then in 1933 he was listed as being with Sterling Products, Inc., at the same Monroe address.

Colburn Patents

I have not found a U. S. patent or patent application for the Super-Ball antenna itself, but I did find a Canadian patent for it. I do not know why there might have been no U.S. Patent; Mr. Colburn might just not have applied for one, an

application might have been rejected, or it could be that the idea of a ball antenna was not original with him. I believe now that the absence of a U.S. Patent opened the door to legal copycats, as we'll see. Mr. Colburn did obtain U. S. patents for devices related to the ball antenna, and to two horn speakers as will be described below.

The Canadian patent for the "Super Ball Antennae" was most probably applied for in early 1926; the drawing included in the patent application is dated February 1, 1926. The patent was issued on June 26, 1927 (number 271812) to Bearl E. Colburn, R. W. Fancher, and A. L. Cannard. Figure 4 is the drawing of the Super Ball Antenna from the patent application.

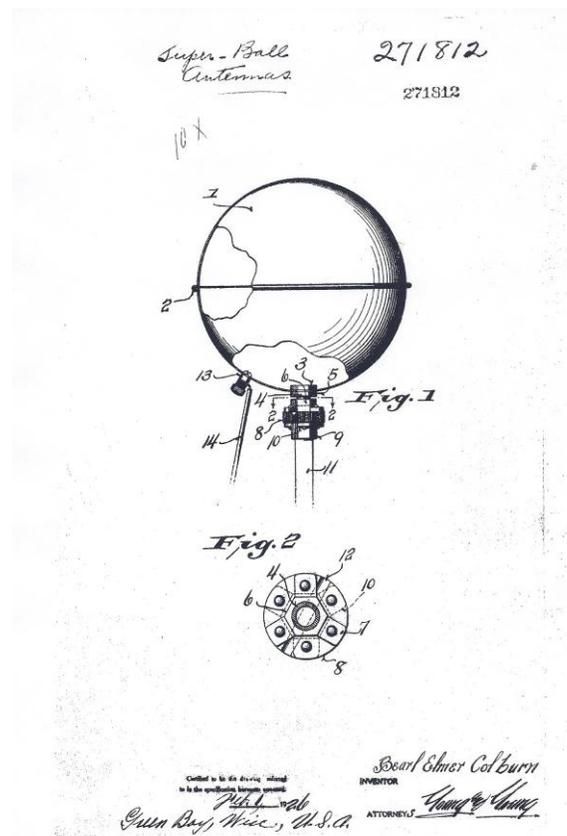


Figure 4 - Super-Ball Canadian Patent 271812 Drawing

The rationale for the Super-Ball antenna described in the patent was: "In radio work as heretofore practiced, it has been the universal custom to employ an extended antenna such as an elongated wire or group of wires which extend a considerable distance from the receiving set. From actual practice, it has been found that this sort of antenna is very readily affected by atmospheric disturbances and by induction from power mains. Further this type of antenna obviously has both distributed capacity and inductance. Under these conditions it is clear that sharp tuning of the set is not obtainable as would be the case if the inductance and capacity both had been concentrated. [The Super Ball antenna] is designed to overcome the defects noted above." The patent application notes that "high frequency currents travel primarily upon the surface of conductors, and consequently the ordinary elongated wire antenna offers an enormous resistance to these very small high frequency currents. [The Super-Ball Antenna] "presents a very extensive surface ... consequently the resistance is reduced to a minimum." "... a very much sharper tuning may be attained with this type of antenna than with the usual types for the reason the capacity is lumped and not distributed over great lengths as in the usual practice. Consequently this antenna can be sharply tuned and will not have the broad characteristics of the usual type of antenna".

The Super Ball Antenna "has concentrated or lumped capacity and is substantially free of inductance", "great selectivity which insures a perfect clear reception for it has less electrical losses such as resistance losses", it is "non-directional [being symmetrical about its vertical axis]... devoid of sharp corners and instead presents a smooth and unobstructed surface", and it is "strong and durable and ... will last indefinitely".

Mr. Colburn filed a patent application on June 30, 1926, for an antenna insulator, and the

patent, no. 1,655,892 was granted on January 10, 1928. The application states that "[This invention] provides a novel form of antenna in which the guy wires themselves form an active part of the antenna, and, instead of detracting from the efficiency of the antenna, aids in such efficiency". The invention also included a novel insulator "adapted to receive an antenna having lumped capacity and connecting this antenna with the guy wires" [themselves] "being insulated at their lower ends."

Mr. Colburn filed a patent application for a "Ground Clamp" on August 13, 1926, and the patent (number 1,675,163) was granted on June 26, 1928. The patent was assigned by Mr. Colburn to the Super-Ball Antenna Co., Inc., of Green Bay Wisconsin.

The last Colburn antenna related patent I have information about was applied for on March 22, 1928, for a "Insulator for Radio Antennae", and was granted (number 1,705,174) on March 12, 1929, and assigned to the Aerial Insulator Co., Inc., of Green Bay Wisconsin. The insulator was designed to allow attachment of any kind of antenna "as for instance those commonly termed 'straight-line', 'cage', or 'umbrella' types".

Mr. Colburn's interest was not confined to the Super-Ball antenna and related equipment. A follow-up article will describe his work with speakers: two models including the Yar True-Tone Speaker.

The Super-Ball Antenna

The Super-Ball antenna was written up in the "What's New in Radio" section of Radio News, November 1926, as "A Unique Antenna": "This spherical antenna, which is ten inches in diameter, is non-directional. It is built of metal having great electrical conductivity, receives all wavelengths, increases selectivity, and clarifies tone. It is said to reject a large part of the noise and interference collected by long-wire aerials". The drawing of the antenna that is included is credited to the Yahr-Lange Company, probably also the source of the text. A somewhat longer write-up appeared in the Citizens Radio Call Book Magazine, November 1927, "Super Ball Antenna", including in

part "The remarkable results you can obtain from the Super-Ball Antenna – with your present radio – are due to its perfected design and the way in which Super-Ball engineers have anticipated every problem of radio reception."

The photograph in figure 1, page 1, is of a genuine Super-Ball Antenna. In addition to the name, the Super-Ball Antenna bears a "U.S. Serial Number 21053" and "Made in USA". It does not, however, carry the name of the Super-Ball Antenna Company. In his 1997 article on "Ball Antennas", Dan Howard describes his own Super-Ball (serial number 230422), noting that "the ball is made of two halves of pressed 80/20 aluminum-copper alloy which are permanently crimped together".

Figure 5 presents a dealer flyer produced by Super-Ball in 1926. Note that the dealer who passed out this flyer was located in Beaver Falls, Pennsylvania.

Figure 5 – Super-Ball Antenna Co. Flier, 1926.

Advertising the Super-Ball – Yahr & Lange

As noted above, Yahr & Lange, later Yahr-Lange, Inc., of Milwaukee (207-215 E. Water Street) advertised as the national distributors for the Super-Ball Antenna.

Yahr-Lange began as the Charles Bombach Company dealing in whole sale drugs in 1872 in a small building at Oneida and East Water street in Milwaukee. As its business grew, it moved to larger quarters in 1880 and 1888, and in 1901 the name was changed to the Yahr & Lange Drug Company, and in 1914 the company moved to the 207 – 215 E Water Street address. Mr. Ferdinand T. Yahr had become a stockholder in the Bombach Company and its president in 1893 until his death in 1910. His son Eugene F. Yahr (a.k.a. Fred E. Yahr) became treasurer of the company in 1901 and was its president in 1922.

Yahr & Lange began carrying radio items in the early 1920's. The earliest ad that I have is from the January 11, 1925 issue of the Milwaukee Journal for Brighton

A FEW BASIC FEATURES
of the
SUPER-BALL ANTENNA

1. Increases Selectivity.
2. Clarifies Tone.
3. Non-Directional.
4. Easy to Install.
5. Less Costly to Install.
6. Snow and Ice cannot collect and stick to it.
7. Will last a Lifetime.
8. Heat has no effect on its conductivity.
9. Cannot Corode.
10. Accepts Radio frequency signals and rejects a large part of interference from atmospheric or casual electrical disturbances.

It's a remarkable Antenna and you will never know what is really in Radio until you have connected your set to one.

List \$10.00
West of the Rockies \$10.50

The SUPER-BALL ANTENNA

has been tested under all conditions, and on all Radio circuits, and it's just what you predicted, and everybody expected, the "griefless" "worryless" Radio Antenna, welcomed by the Radio World.

The successful operation of your Radio depends largely on the type of Antenna it is connected to.

Long wire aerials will collect more noise and interference which is sure to destroy the quality of tone,

the clarity and selectivity of your set. Short wire aerials will limit the receiving distance and undesirable features in Radio reception.

The **Super-Ball Antenna** is designed for any make of receiver, will receive all wave lengths and is fully insured against any change which the future might bring forth.

"IT'S NEW" – "IT'S BETTER"
and
"ALWAYS EFFICIENT"

Remember—

There is only one **SUPER-BALL ANTENNA** with its Non-Directional smooth surface exposed to the path of High Frequency Current.

The **SUPER-BALL ANTENNA** is not composed of discs or plates, to corode and impair its efficiency. It has no welded, brazed or soldered joints to collect moisture and foreign substance. It is designed to eliminate these impractical features which offer a resistance to high frequency current, which in a very short time would render it useless as a good conductor of high frequency current.

The **SUPER-BALL ANTENNA** is nationally known, as a product of merit, has proven its efficiency on every set and circuit, and is without a doubt the most practical Antenna offered the trade at this time.

IT IS USED AND SOLD ALL OVER THE WORLD.

Copyright 1926 by Super-Ball Antenna Co.

Super-Ball Antenna
— for —
BETTER RADIO

WM. H. BONNAGE
RADIO DEALER
1508 7th. Ave. Beaver Falls, Pa.

Commercial Printing Co. Green Bay, Wisconsin

"True Blue" tubes available from their 'musical merchandise' department. In March 1925, Yahr & Lange ads featured a line of Ware Neutrodyne Receivers and Sonora speakers.

The first Yahr & Lange ad for the Super-Ball Antenna, for \$10, that I have found appeared on November 22, 1925, in the Sunday Sentinel and Milwaukee Telegram, see figure 6.

Figure 6 - Yahr & Lange Super-Ball Ad, SS&MT, November 22, 1925

The Super-Ball Antenna for Better RADIO

The successful operation of your radio depends largely on the type of antenna it is connected to. With the new Super-Ball, you'll enjoy reception such as you have never known before. The Super-Ball is designed for any make of radio, will receive all wave lengths and is fully insured against any change the future might bring forth.

Here are a few basic features of the Super-Ball Antenna:

1. Increases selectivity
2. Clarifies tone
3. Non-Directional
4. Easy to install
5. Less costly to install
6. Smoke and ice cannot collect and stick to it
7. Will last a lifetime
8. Heat has no effect on its conductivity
9. Cannot corrode
10. Accepts radio frequency signals and rejects a large part of interference from atmospherics or casual electrical disturbances.

DISTRIBUTED BY
Yahr and Lange
207 E. Water St. Milwaukee, Wis.
Downtown Dealer—Orth's Music Store, 504 Grand Ave.
Dealers Write For Information.

The first Yahr & Lange Super-Ball ad that I have from a national radio publication is from the January 1926 issue of Radio Retailing, see figure 7. It is the only Yahr & Lange ad I have seen that acknowledges the Super-Ball

Antenna Co. of Green Bay as manufacturers of the antenna.

Figure 7 - Yahr & Lange Super-Ball Ad, Radio Retailing, January 1926.

The ANTENNA

that has made good on every claim we made for it.

Endorsed by Radio Experts as the

Superior Antenna

FROM a World of radio owners it is on Top in Popularity.

Because for distance reception and clarity of tone it has no equal.

For the best in Radio reception the outside Antenna is always better if you have the right Antenna.

Jobbers and Dealers, are you ready for the demand? Deliveries at once.

List \$10.00

Sales Department
Yahr & Lange
215 E. Water St., Milwaukee, Wis.
Mfg's
Super-Ball Antenna Co.
Green Bay, Wis.

Super-Ball - continued on Page 12

Discovery World of Milwaukee - "Tesla Lives!" Show

Filling the stage with 20 million volts of roaring, crackling, sizzling electricity, a continuing live theater show **TESLA LIVES!** delivers an energetic and sometimes humorous glimpse into how our modern world was designed by the godfather of the 21st century, Nikola Tesla. Through Discovery World's latest theater production, audiences will meet the genius who invented the modern world and find the genius within themselves. See www.teslalives.com for information.

THIRTY-VI THE SUNDAY SENTINEL AND MILWAUKEE TELEGRAM—SUNDAY, JANUARY 17, 1926

Get Europe With a Super-Ball Antenna

SuperBall Antenna
The Griefless Aerial FOR BETTER RADIO RECEPTION
any time - any place!

No Aithis Would Have Been Needed If They'd Had a Super-Ball Antenna

Notice to Dealers Everywhere—The Super-Ball Antenna is Distributed Nationally by

Yahr & Lange, 207-215 East

Two Sonora Radio Sets
International Radio Last Week begins next Sunday from London, Paris and other foreign centers. Because this is the first year of the Super-Ball Antenna that makes complete radio reception possible. It does do more than you will expect from it. All you have to do is place the Super-Ball Antenna on your roof, and you are ready to receive the best of Europe during International Two Weeks. If you are to that effect, followed by a letter giving particulars of the contest.

1st Prize \$200
Sonora Highboy

CONTEST
The contest will be open to all who have a Super-Ball Antenna on their roof. The contest will be held during the two weeks of the International Two Weeks. The contest will be held during the two weeks of the International Two Weeks. The contest will be held during the two weeks of the International Two Weeks.

Partial List of Milwaukee Dealers

SUPER-BALL ANTENNA

THE SUNDAY SENTINEL AND MILWAUKEE TELEGRAM—SUNDAY, JANUARY 17, 1926 NINE-VII

Super-Ball Antenna

It's New It's Better and Always Efficient

Prizes Will Be Given Away
Thousands of Americans will listen for the signals and progress of the contest. It is possible to get the best from your set. The Super-Ball Antenna will give you the best of Europe during International Two Weeks. If you are to that effect, followed by a letter giving particulars of the contest.

2nd Prize \$90
Sonora Model "C"

Real Radio Satisfaction Is Guaranteed With the Super-Ball Antenna

If Your Dealer Cannot Supply You, write to us at once and give us your nearest dealer's name.

Yahr & Lange, 207-215 East

Figure 8 - Yahr & Lange Super-Ball ad, SS&MT January 17, 1926

Yahr & Lange rapidly expanded their Milwaukee area dealer network. Its December 13, 1925 ad in the Sunday Sentinel and Milwaukee Telegram listed nine dealers. The Yahr & Lange ad in the January 3, 1926 Milwaukee Journal said "Notice to Dealers Everywhere - The Super-Ball Antenna is Distributed Nationally by Yahr & Lange", and listed forty two Milwaukee area dealers where you could purchase your Super-Ball. Figure 8 above is another example of a Yahr-Lange Super-Ball from the January 17, 1926 issue of the Sunday Sentinel and Milwaukee Telegram.

Now known as Yahr-Lange, Inc., the company ran a Super-Ball ad in the September 1926 issue of Citizens Radio Call Book, and in Radio News for February 1927. The November, 1927 issue of

Citizens Radio Call Book contained a Yahr-Lange, Inc. ad that featured the True-Tone Speaker as well as the Super-Ball antenna.

Yahr-Lange continued to advertise the original Super-Ball antenna in 1930 (e.g. Radio News, April 1930). In the September, 1930 issue of Radio News Yahr-Lange advertised a very different mast-mounted antenna, the Red Arrow Antenna, which looked and operated like a wind vane. The Red Arrow sold for \$3.25 (with a \$3.50 installation kit available that may have been identical to the Super-Ball antenna installation kit).

The Super-Ball Antenna also appeared in dealer catalogs, for example the Shadbolt & Boyd Company of Milwaukee catalog 62R for 1926-27 and the Standard Radio Co. of Kansas City,

Super-Ball - continued on Page 13

Missouri catalog for 1928.

Aerial Insulator and the Radio-Lite

Meanwhile, in December of 1928 and March of 1929 the Aerial Insulator Company, which we have seen was located at the same Green Bay address as the Super-Ball Antenna Co. and which was incorporated by the same people, Colburn, Fancher and Cannard, ran small ads for the "Radio-Lite Antenna" in the "Radio Directory" section of Radio News, e.g. November 1928, January 1929, and March 1929. See figures 8, 9 and 10 for an example of a Radio-Lite ad and photographs of a Radio-Lite antenna. The Radio-Lite was a plug-in lamp as well as an antenna, and the plain cylindrical illuminated screen shown in the photo was easily replaced with one bearing a message; an example of one with an Atwater-Kent message has been seen.



Figure 8 – Ad, Radio News, November 1928
Figure 9 & 10, Dale Boyce’s Radiolite

Super-Ball Cousins

By 1927 other companies were selling ball antennas. That they were able to do this indicates that the Super-Ball was enjoying some success that other companies wanted a part of, and that there was no U.S. patent held by the Super-Ball Antenna Co.

As we have seen there was a Canadian patent, and a 1927 Yahr-Lange (and Canadian distributors) ad for the Super-Ball, "the Original Ball-Type Antenna", from an unknown Canadian publication (the ad was seen on eBay) is interesting because it contains a three paragraph warning to companies that were selling ball antennas in Canada and therefore infringing on the Canadian Patent issued to the Super-Ball Antenna Co. The warning stated that "Any other manufacturers of 'ball-type' antennas sold in Canada, embodying the features and claims covered by Canadian patent [incorrect number in ad] are infringers of Super-Ball Antenna rights and, as such, will be prosecuted accordingly", and "This announcement will serve as notice to manufacturers, sales agents, or users of "ball type" antennas, other than "Super-Ball" that they will be held liable to the Super-Ball Antenna Co., Inc., of Green Bay Wisconsin on account of any infringements."

The photographs in figures 11 and 12, next page, show two other ball antennas, with different embossed names on the top of the antenna sphere. These are the Ball Aerial, and the New Ball Aerial, both ten inches in diameter. The New Ball Aerial bears a "Made in USA" marking, and the Ball Aerial has no other marking. Neither of these antennas carry a manufacturer's identification. Recalling the apparent absence of a U.S. Patent for the Super-Ball Antenna, it is my belief that the Ball Aerial and/or New Ball Aerial were most likely not manufactured by the Super-Ball Antenna Co., but instead were made by another company seeking to deal themselves into Super-Ball's business.

Super-Ball - continued on Page 14

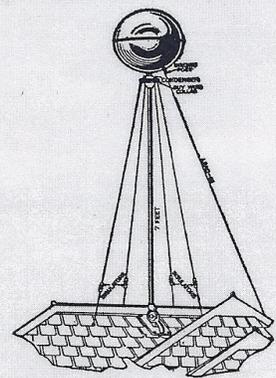


Figures 11 and 12 - Ball Aerial (mine) and New Ball Aerial (Dale Boyce)

The October 1928 issue of the Wisconsin Radio Trade Association, the W. R. T. A. Broadcaster, contains two different Yahr-Lange ads. One is an ad for the genuine Super-Ball, with a new lower price of \$7.50 (plus a \$4.00 installation kit; earlier ads listing a \$10 price implied that the needed accessories were available at little cost without mention of an installation kit). The second ad, see figure 13, is for a "New Ball Aerial" for \$4.75 (plus a \$3.75 installation kit) that looks identical to the Super-Ball. The text of the ad is very similar to all of the Super-Ball advertising. It seems most likely that by this time Yahr-Lange was distributing antennas from a competitor of

the Super-Ball Company. In the declining price for the Super-Ball we are probably seeing the impact of the copycats on Super-Ball's business.

BALL ^{NEW} AERIAL



\$4.75

The New Ball Aerial is designed to give increased selectivity, improves summer reception and minimizes static. It is unaffected by heat and is impervious to ice and snow.

The New Ball Aerial receives all wave lengths and functions with all makes of receiving sets. It accepts radio frequency signals and rejects a large part of the interference which long aerial wires collect.

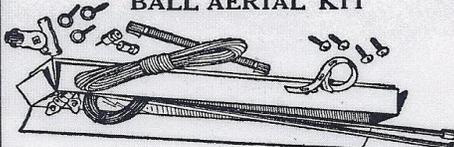
The New Ball Aerial is made of non-corroding aluminum alloy, containing 20% copper, and will give a lifetime of absolutely reliable service.

Ball Antennas will function perfectly when placed only ten feet apart. This makes the New Ball Aerial ideal for apartment houses or congested districts.

The Ball Aerial complies with the standard of the National Electric Code and the rulings of the National Board of Fire Underwriters.

Ball Aerial (10 in. diameter)..... each, \$4.75

BALL AERIAL KIT



This accomodation set is complete for the installation of the "New Ball Aerial."

50 ft. No. 14 Rubber Covered Lead-in Wire	3 Nail-it knobs
50 ft. Guy wires (tinned copper)	4 Eye screws
80 in. 1/2 in. Conduit pipe	4 Insulators
1 Aluminum Antenna Base	4 Screws
1 Super-Ground Clamp	1 6 in. Emily Screw type insulator.
1 Sensory lead-in	

Ball Aerial Kit.....each, \$3.75

YAHR-LANGE INC.

National Distributors
MILWAUKEE, WISCONSIN
WISCONSIN DISTRIBUTORS

Julius Andrae & Sons Co., Milwaukee
Michael Ert Inc. Milwaukee
John Fritzlaff Hardware Co., Milwaukee
Interstates Sales Co. Milwaukee
Radio Specialty Co. Milwaukee
Geo. C. Beckwith Co. Milwaukee

Figure 13 - Yahr-Lange ad, WRTA Broadcaster, Oct 1928

The 1929 Chicago Salvage Stock Store catalog listed "Ball Aerials" for \$2.75 (installation kit for \$1.89); these were most likely not Super-Balls.

In addition to the Ball Aerial and New Ball Aerial described above, there were other ball or (more or less) ball-type mast mounted antennas that have come to light.

Arc-Aerial, Inc., also of Green Bay, Wisconsin, ran small ads in the "Radio Directory" of Radio News, e.g. May 1929, July 1929, and August 1929. See figure 14 for an example. The Arc-Aerial looks like a disk configuration that could be attached to the side of a house "without climbing on the roof". The articles of incorporation for Arc-Aerial show it to have had no connection to the Super-Ball Antenna Company or Bearl Colburn.

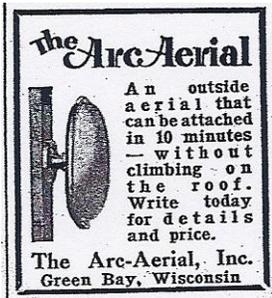


Figure 14 - Arc-Aerial, Radio News, August 1929.

There were two other Green Bay companies that advertised mast mounted antennas that were different in design from the Super-Ball. The Gordon Mfg. Co. advertised their "Epochal Antenna" for \$10.00 in the Sunday Sentinel and Milwaukee Telegram for January 17, 1926, see figure 15. The ad's text parallels the ads for the Super-Ball, touting its being non-directional, offering "finer selectivity", and "clarity of tone". The Haworth Mfg. Co. of Green Bay advertised its "Haworth Disk Antenna" in the Sunday Sentinel and Milwaukee Telegram for February 26, 1926, see figure 16.

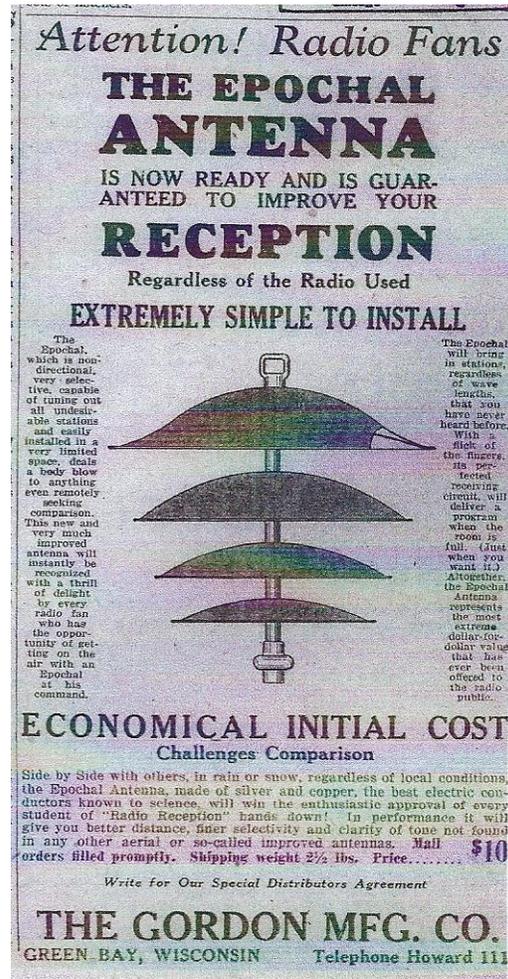


Figure 15 - Gordon, SS&MT, January 17, 1926



Figure 16 - Haworth, SS&MT, Feb 26, 1926

Dan Howard in his article "Ball Antennas" included information about other ball type antennas. One was the "Morris Collapsible Ball Antenna", advertised in a 1928 Harco catalog. See figure 17 for the Morris ad.

MORRIS COLLAPSIBLE BALL ANTENNAS

To meet the ever increasing demand for high efficiency plus attractiveness in aerials the Morris Collapsible Ball Antenna was designed. Not only does its high efficiency recommend it, but ease in erection is a feature not to be overlooked. Being collapsible it is shipped knocked-down facilitating shipment.

COLLAPSIBLE CONSTRUCTION

No experience is required in setting up the Morris Ball Antenna. All necessary parts for its assembly are included in the carton with explicit instructions for assembling. Insulators and all necessary fittings are included except pipe. The pipe used can be secured locally and cut to proper size by the dealer. There is an ever increasing market for ball antennas and we recommend that dealers put in a stock. They are sure sellers.

LIST PRICE \$5.00
STOCK NO. A109
DISC. 40%
CASH 2%
2.94
NET

Figure 17 - Morris, Harco Catalog, 1928

Mr. Howard describes his Morris antenna, noting that the two hemispheres were held in place by a removable band instead of being permanently crimped like the Super-Ball.

The Harco catalog included an ad for another ball-like antenna, the "Superior Aerial", which was made of pure copper rather than an aluminum alloy. See figure 18.

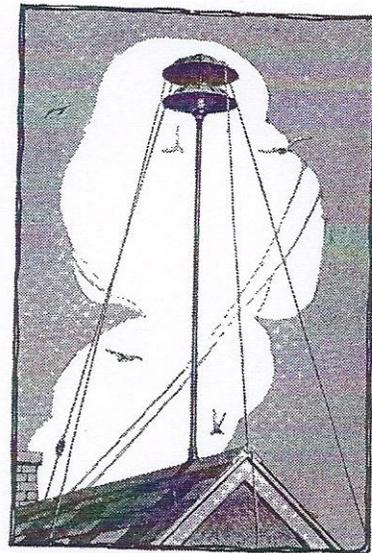
SUPERIOR AERIALS

The Superior Aerial is constructed throughout of copper and will last indefinitely. It is durably constructed and has proven its reliability under the most trying conditions. Will bring in distant stations with surprising ease. Its non-directional feature produces maximum efficiency. Has no welded, brazed or soldered joints to impair its efficiency. It gives increased selectivity and is not affected by heat or cold. It assures you of clearness and volume from every direction.

LIST \$10.00
NO. A383
DISC. 40%
CASH 2%
5.88
NET

Figure 18 - Superior, Harco Catalog, 1928

The Shadbolt and Boyd Company of Milwaukee in their 1926-27 catalog 62R listed along with the Super-Ball the mast mounted "Ortho-Tenna", which was made entirely of copper, "the only correct material for aerial purposes". The antenna was not a sphere but what appear to be two copper dishes, see figure 19.



ORTHO-TENNA

The Ortho-Tenna is a scientifically designed radio aerial. It is simple in design and construction, easy to put up, neat and attractive in appearance and highly efficient.

The Ortho-Tenna is made entirely of copper—the only correct material for aerial purposes. Copper has a comparative conductive capacity of 100%, while aluminum has only a 60% capacity and some of the other metals even less. The Ortho-Tenna consists of two deep drawn copper discs and four aerial wires, three of which, with their insulators, act as guy wires, while the fourth serves as a lead-in connection.

Another highly desirable feature of the Ortho-Tenna is the fact that it can be adjusted to the aerial footage recommended by the manufacturers of your set. This is a feature that is not possessed by any other aerial of this type. Some manufacturers recommend only 50 feet of aerial, including the lead-in, while others suggest 100 feet. With the Ortho-Tenna this problem is easily solved by setting the insulators at the point in the guy wires where maximum efficiency is obtained. From every viewpoint—tone, distance, selectivity, ease and compactness of installation—the Ortho-Tenna is the most logical aerial for use with any set.

No matter what type of a dwelling you live in, the Ortho-Tenna can be installed to meet your individual requirements. It is adaptable for use with any height of mast—10, 12 or 15 feet. It comes fitted with an insulated 3/8 inch pipe connection.

Stock No. RA-291—Price.....\$10.00

Figure 19 - Ortho-Tenna, Shadbolt & Boyd, 1926-27

The Standard Radio Company of Kansas City, Missouri, in its 1928 catalog listed, also along with the Super-Ball, another ball antenna, the "Ideal Ball Umbrella Aerial", made of "copper, heavily nickel-plated". See figure 20.



Figure 20 - Ideal Ball, Standard Radio Co., 1928

Dan Howard also reported a large blue colored ball antenna on display at the AWA Museum, and a smaller diameter (about six inches) ball with an eagle mounted on top. The ball was marked "Majestic".

I'm sure there were other ball or ball-like antennas – if you have information on one, or more, please let me know!

Conclusion

Dan Howard in his April 1997 article "Ball Antennas" wrote about the Super-Ball that "... one idea that did seem to have merit was the ball antenna. ...When properly installed above surrounding obstructions, there is no reason why such a design would not work for simple broadcast reception. And in a close-quarters situation, it might be quite a bit more practical than stringing a long-wire antenna." I believe that Dan's is a reasonable assessment. I haven't been able to try using my own ball antenna (a "Ball Aerial") but I believe the metal sphere (and its lead-in wire) would pick up signals and be non-directional, i.e. 'work', but without any advantage for selectivity or clarity as claimed. I can also see that for folks living in an apartment building who wanted to install roof-mounted antennas that multiple ball antennas could be installed (as some

of the advertisements suggest) where multiple long wire antennas would have been very difficult or impossible.

What did in the Super-Ball, as well as its long wire and other more odd cousins, was the vast improvement in the quality of the radios in the late 1920's and early 1930's, especially with the proliferation of factory made for home use superheterodyne receivers, and the increase in power of commercial transmitters. These combined to render obsolete the cumbersome outdoor antenna for the commercial broadcast band in urban areas, long wire as well as the ball antenna. Indoor loop and short wire antennas worked well with the new receivers.

That's what I know of the story of Bearl Colburn and the Super-Ball Antenna Company; one entrepreneur / inventor and the small company he was part of, in the midst of the 1920's take-off of radio. Mr. Colburn was not a 'radio engineer', not a David Grimes or a Lawrence Cockady. But he was a practical inventor, with a true flair for design revealed by his drawings of the Yahr True-Tone Speaker (article to follow soon) and later non-radio inventions. Like many of his time, he had an idea, saw an opportunity, ran with it, and achieved at least some degree of temporary success. When the state of radio passed by the Super-Ball, Bearl Colburn just went on to other things, inventing and marketing and no doubt enjoying himself all the way – indeed, who would not have gotten a kick out of inventing and experimenting with a power operated fish scaler!

Acknowledgments

I would like to express great appreciation to Dan Howard of Milwaukie, Oregon, who provided copies of his Old Familiar Strains newsletter with his articles on ball antennas, pointers to Mr. Colburn's patents, and photos of his Super-Ball antenna.

Thanks also to Dale Boyce who allowed me to

photograph his Super-Ball, Ball Aerial and RadioLite antennas, and provided me with access to copies of vintage Milwaukee newspapers and magazine advertisements.

Finally, I would like to thank the Brown County Central Library's Local History and Genealogy Department's librarian for her great help with the research I did there.

As always, I would welcome and appreciate any corrections or additions, or comments, that any of you might wish to make. Please send to me at ghunolt@excel.net.

References:

1. Obituary, Bearl Elmer Colburn, Green Bay Press Gazette, January 22, 1967.
2. Polk's Wisconsin State Gazetteer and Business Directory, 1927-1928.
3. Green Bay City Directory, 1927, 1929, 1931, 1933, 1935.
4. "History of Milwaukee, City and County", Volume 2, William George Bruce, S. J. Clarke, Publishing Company, Chicago Illinois, 1922.
5. Articles of Incorporation: Super-Ball Antenna Co., January 21, 1926, Brown County, Wisconsin (Volume 6, p363).
6. Articles of Incorporation: Aerial Insulator Company, Inc., February 27, 1928, Brown County, Wisconsin (Volume 7, p417).
7. "What's New in Radio: A Unique Antenna", Radio News, November 1926, p482.
8. "Super Ball Antenna", Citizens Radio Call Book, November 1927, p194.
9. "Super-ball" dealer flyer, 1926.
10. "Ball Antennas", Dan Howard, Old Familiar Strains, Dan Howard editor, April 1997.
11. "Having a Blast with Masts", Dan Howard, Old Familiar Strains, Dan Howard editor, April 2001.
12. Harco Wholesale Radio Catalog, the Harco Co., Chicago IL, 1928 p 43 and 44 (cited by Howard).
13. Shadbolt and Boyd, Radio Catalogue No 62R, Milwaukee WI, 1926-27.
14. Standard Radio Company, 1928 Catalog, Kansas City, Missouri, 1928.

Figures

1. Photo, genuine Super-Ball antenna, courtesy of Dale Boyce.
2. Ad, Super-Ball Antenna Company, Radio Retailing, November 1925, p771.
3. Yahr & Lange ad, Citizens Radio Call Book, September 1926.
4. Super-Ball Antenna Drawing, Canadian Patent #271812; Canadian Intellectual Property Office.
5. Super-Ball Dealer Flier, Super-Ball Antenna Company, 1926.
6. Yahr & Lange ad, Sunday Sentinel and Milwaukee Telegram, November 22, 1925.
7. Yahr & Lange ad, Radio Retailing, January 1926, p108.
8. Aerial Insulator ad for the Radio-Lite antenna, Radio News, November 1928, p584.
9. Photo, Aerial Insulator's Radio-Lite Antenna, courtesy of Dale Boyce.
10. Closeup Photo, Aerial Insulator's Radio-Lite Antenna, courtesy of Dale Boyce.
11. Photo, "Ball Aerial", author's collection (with thanks to Dale Boyce).
12. Photo, "New Ball Aerial", courtesy of Dale Boyce.
13. Yahr-Lange ad, W.R.T.A Broadcaster, October 1928, p40.
14. Arc-Aerial Inc. ad, Radio News, July 1929, p88.
15. Gordon Mfg. Co. ad, Sunday Sentinel and Milwaukee Telegram, January 17, 1926.
16. Haworth Mfg. Co. ad, Sunday Sentinel and Milwaukee Telegram, February 26, 1926.
17. Morris Collapsible Ball Antenna ad, Harco Catalog, Chicago 1928, courtesy of Dan Howard.
18. Superior Aerial ad, Harco Catalog, Chicago, 1928, courtesy of Dan Howard.
19. "Ortho-Tenna", Shadbolt and Boyd Catalog, 1926-27, p38.
20. "Ideal Ball Umbrella Aerial", Standard Radio Co. Catalog, 1928, p60.

WARCI Radio Services

We now have a list of WARCI members who would be willing to provide repair / restoration services, advice or research for folks who contact WARCI looking for help. If you would like to be added to the list, please let one of the Board members know.

Name	Email	Telephone	Service Available
Dwight Church	(none)	414-545-6972	Radio repair – electronics only.
Bill Engaas	craftyradio@earthlink.net	262-786-8183	Speaker Repair.
Ralph Larsen	radioralph@hotmail.com	414-278-7981	Repair, including Television.
Mike Lewis	deepheart@att.net	608-835-7193	Repair, restoration, training.
Dave Milke	wb9egz@gmail.com	608-838-9661	Parts, tubes, and free advice.
Greg Hunolt	ghunolt@excel.net	920-893-0422	Research, especially on 1920's radios.

WARCI Needs You!

If you would like to become more active in WARCI, please step up! Organizations like WARCI depend upon volunteers for their success. Areas where you can help include:

- Public relations.
- Providing radio services such as repair / restoration.
- Contribute newsletter articles or information from which an article can be written.
- Contribute items for the WARCI website – such as photos of your Wisconsin-made radios to add to our gallery.
- Help us plan and implement the future auction.
- Give us your ideas on how we can make WARCI better for you!

WARCI Welcomes!

WARCI welcomes new members:
 Tim Cary of Whitefish Bay;
 Mike Krawczyk of Menomonee Falls;
 Jack A. and LaRee Sarlan of Milwaukee.

We hope you enjoy being WARCI members!



Odd Bits

Send in your odd story about strange doings in the world of radio collecting, or weird items from old radio magazines.

Didn't get any from you for this issue!

News from the Neighboring Clubs

ARCI

Antique Radio Club of Illinois
www.antique-radios.org

Combined Meet with 6-Meter Club of Chicago - June 19, 2011, Outdoor Gates & Flea Market Open 7:00AM.

DuPage County Fairgrounds,
2015 Manchester Road (north of Roosevelt Rd, Rt. 38) Wheaton, IL

ARCI Swap Row and 11:00 AM ARCI Donation Auction. Last year 1,200 radio enthusiasts from 18 states participated.

Radiofest 2011 coming August 4-5-6!

MARC

Michigan Antique Radio Club
www.michiganantiqueradio.org

Extravaganza '11

July 7, 8 and 9, 2011

Causeway Bay Hotel
6820 South Cedar Street
Lansing MI

Thursday: 1:00 Tube Collectors Association
Friday: All-Day Flea Market, Programs
Saturday: AM Flea Market, Auction Check-In, Program
1:30 Auction (Rich Estes)

NARC

Northland Antique Radio Club
www.northlandantiqueradioclub.com

Radio Daze 2011

May 20 & 21, 2011

Comfort Inn of Plymouth
3000 Harbor Lane
Plymouth, MN 55447

RADIO AUCTION Friday Evening.

Outdoor SWAP MEET Saturday morning in a huge sellers-only area of the hotel parking lot.

Radio Contest and Program Saturday Afternoon, with door prizes, contest awards, and presentation by Don Patterson.

IARC

Iowa Antique Radio Club
www.iowa-antique-radio-club.com

Annual Auction
May 7, 2011, start at 10:00AM

Hawkeye Downs Auction Facility
4400 6th Street SW, Cedar Rapids, IA

Last year over 450 lots were sold. See the club website for further information and photos of items that will be in the auction.

Contact Auction Chairperson Tom Zenisek 319-362-1541 or at tomjonzee@aol.com for information.

Scenes from the March 27, 2011 Swap Meet



Scenes from the January 23, 2011 Swap Meet



Classified Ads

HELP NEEDED: Would like to contact owners of 1920's battery sets, literature, and equipment made by Globe Electric Company of Milwaukee, WI, to survey existing model types and variations for development of a company history. All responses will be kept confidential. Thanks.
Glenn Trischan, P.O. Box 240022, Milwaukee, WI 53224. E-mail: gnets142@att.net.

WANTED: Any set made in Plymouth, WI, by the Plymouth Radio and Phonograph Co.
Greg Hunolt, N5412 State Hwy 57, Plymouth, WI 53073, Email ghunolt@excel.net or 920-893-0422.

SERVICE: Michael Lewis – Radio Repair / Restoration and Training. You can hire me to restore your antique radio, but why not hire me to teach you to do it yourself? I've been teaching people how to electronically restore antique radios for over 30 years. I've assembled an incredible supply of parts, literature, and test equipment over more than 40 years. With two long-term students already, I've recently retired from my day job to devote full time to my antique radio restoration business. Whether you need just one session for some help on a "tough dog" or want to learn over the long term how to restore radios, I'm available through the end of 2010 at an introductory rate of \$15/hour, and able to make available to you the facilities described below.

At your command: test equipment including digital and analog multi-meters, high and low voltage bench power supplies, AF and RF generators, and much more. Also a large stock of parts including 50,000 vacuum tubes, and a comprehensive technical library spanning the 1920's-1980's, including the Riders and Gernsback manuals, and Sams Photofacts, and various factory manuals.

Michael Lewis, 6070 County Road D, Oregon, WI 53575, Phone: 608-835-7193, Email: deepheart@att.net

WANTED: DeForest Plug-In Butterfly Coils – Terry Hanney, 414-545-6425

Remember that classified ads up to about ¼ page are free to WARCI members.

The cut-off date for all newsletter material is about the 15th of the month preceding publication of the next newsletter (e.g. June 15 for the July issue). Send ads by email or letter to Greg Hunolt, WARCI News, at ghunolt@excel.net or N5412 State Hwy 57, Plymouth WI, 53073.