



# WARCI News

*Wisconsin Antique Radio Club, Inc.*

October 2009

## Bob Paquette's Microphone Museum

*Just a small part of Bob Paquette's fabulous microphone collection! See the full story of Bob's Microphone Museum starting on page 3*



### INSIDE THIS ISSUE...

- 3 Bob Paquette's Microphone Museum – Dennis Schrank
- 5 News! WARCI Donation Sale, etc.
- 6 On Klitzen! – Greg Hunolt
- 15 News from the Neighborhood Clubs

### NEXT WARCI MEET!

Sunday, October 11;  
8:00AM – 11:00 AM

The Terminal, 5917 S. Howell Ave.,  
Milwaukee (near the Airport)

Features: Donation Sale and WARCI  
Appraisal Booth!

## **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.

## **OFFICERS AND BOARD**

President - Bill Engaas  
[craftyradio@earthlink.net](mailto:craftyradio@earthlink.net)  
262-786-8183

Vice President - Greg Hunolt  
[ghunolt@excel.net](mailto:ghunolt@excel.net)  
920-893-0422

Treasurer - Terry Hanney

Secretary - Ralph Larsen

Board - Jim Choroszy  
Steve Lange  
Dennis Schrank

WARCI News Editor - Greg Hunolt

WARCI Website - Nick Tillich  
[webmaster@warci.org](mailto:webmaster@warci.org)

## **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 final 2009 Swap meet date is Sunday, October 11. Swap meet times are 8:00AM - 11:00AM.

## **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 October. The WARCI news is free to all club members.

The entire contents of this publication are copyright ©2009 Wisconsin Antique Radio Club, Inc. unless specifically marked otherwise. Generally, all articles in the WARCI News may be reprinted, provided specific permission is first obtained from the Editor (and copyright holder, if not WARCI) and full credit is given.

Articles or material for the newsletter are most welcome and should be sent to Greg Hunolt, [ghunolt@excel.net](mailto: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 first of the month preceding publication of the next newsletter (e.g. December 1 for the January issue).

## **WARCI Website New URL**

**[www.warci.org](http://www.warci.org)**

The WARCI website features information about WARCI activities, Wisconsin radio, articles, etc. Contributions are most welcome! Contact webmaster Nick Tillich, at [webmaster@warci.org](mailto:webmaster@warci.org).

## Bob Paquette's Microphone Museum, by Dennis Schrank

WARCI member Bob Paquette's microphone museum located in Milwaukee is a treasure that many of us may not be aware of. It's a safe bet that Bob's is the largest microphone collection in the world. It includes well over 1,000 different makes and models of microphones as well as related pieces of equipment (desks and floor stands, microphone enclosures, transformers, preamplifiers and test equipment). The emphasis is on historically important microphones made between 1876 and 1950, but you will also find early radios, telephones, and many other communications devices, including an assortment of military gear.

Bob has been researching the history and evolution of microphones for over 50 years. He published an article "Early Microphone History" in the A.W.A. Review, Volume 4 (1989) and articles in Don Patterson's Radio Age, "Broadcast Microphones of the 1920's" and "Early Condenser Microphones". His research culminated in his 842 page book, "The History and Evolution of the Microphone". In the course of his work he has amassed a large number of interesting microphones, many that are rare and unique, including one of a kind prototypes from RCA and Western Electric, the leaders in quality broadcast equipment during the Golden Age of radio. There is also a huge collection of microphone related paperwork, including specification sheets, patent copies, catalogs, advertising literature, technical papers and copies of articles that appeared in early books, magazines, and technical periodicals.

Bob displayed an early interest in electronics and by the time he reached his teens was repairing radios for his Merrill Park friends and neighbors. Bob served in the Air Force where, among other things, he taught basic electronics. In 1950 he started Select Sound Service from the basement of his home near



*Bob hard at work in his shop.*

Thirty First and Clybourn, thus sparking his interest in early microphones. In 1958 Select Sound moved to Fifty Fourth and Vliet. It moved to the present location on First and National in 1976, and the museum followed shortly thereafter. Over the years Bob has become friends with some of the engineers that designed these incredible old mics for Western Electric, RCA, Shure, Turner, and many other manufacturers. He also has many contacts in the broadcast industry and stays in touch with other collectors from around the world. Knowing the right people is just one way that Bob has put together this outstanding collection.

Bob's newest project is a full size replica of the radio room of a WWII era B-17 bomber including all electronic equipment. This project is still in the early stages and is coming along nicely. It will be housed in a room adjacent to the museum.

On entering the museum, the sheer quantity is staggering, but after closer inspection you will find that the quality is even more impressive. Although the primary focus is on American made microphones, you will also find mics from all over the world including

*Bob Paquette's Microphone Museum – continued on Page 4*

early German condenser mics, ancient double button carbon microphones from around the globe, and ribbon microphones from England, France, Australia, and Japan. Crystal and dynamic mics from the U.S. and other countries are also well represented. But the real joy is in exploring the huge assortment of rare and beautiful broadcast microphones. I have visited this remarkable museum many times and I still find things that I had not noticed before. Although a number of photos are shown in this article it only scratches the surface. 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>

But the museum must be seen in person to be appreciated. 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 Ave. Enjoy your visit and allow yourself plenty of time. You won't want to leave! [30]



*Floor standing models, too!*



*WLW Front and Center!*

### **WARCI's First Donation Sale - Oct 11!**

WARCI will hold its first Donation Sale during the October 11, 2009 Swap Meet. The sale will begin at 10:00 AM.

All proceeds from the sale will go to the WARCI club treasury

Each member is encouraged to bring at least one item worth a buck or few to donate to the sale and help raise money for the club!

### **WARCI vs the Weather! Winter Meet Ground Rules**

Winter meets will be held on a weather-permitting basis. This applies to swap meets planned for January and March (and who knows, October and May!).

On the afternoon before the meet, if there is a forecast of snow or ice for the morning of the meet, the meet will be cancelled.

Notice of the cancellation will be posted to the WARCI website. In addition, all members will be notified by email or telephone the afternoon or evening before the meet.

### **Wisconsin Historical Museum's "War of the Worlds" exhibit to feature WARCI Member's Zenith Radio!**

WARCI member David Milke will provide a Zenith radio to be featured in replays of Kenosha native Orson Welles' famous 1938 "War of the Worlds" broadcast followed by movies depicting the event. This will be held at the Wisconsin Historical Museum in Madison as part of its "Halloween Week" event.

Times for the "War of the Worlds" are:

Wednesday, October 28:

12:00 PM - The War of the Worlds (60 min.)  
2:00 PM - The Night America Trembled (1948, 65 min.)

Thursday, October 29:

12:00 PM - The War of the Worlds (60 min)  
2:00 p.m - The Night That Panicked America (1957, 70 min.)

Friday, October 30:

12:00 PM - The War of the Worlds (60 min.)  
2:00 PM - The Day That Panicked America (2005, 70 minutes)

Admission is by donation. For further information call 608-264-6550 and see the museum's website:

[www.wisconsinhistory.org/museum/](http://www.wisconsinhistory.org/museum/)

The Wisconsin Historical Museum features four floors of changing exhibit galleries, permanent exhibits and the museum store — located on Madison's Capitol Square at 30 North Carroll Street.

### **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.discoveryworld.org/teslalives.php](http://www.discoveryworld.org/teslalives.php) for information.

## On Klitzen! by Greg Hunolt

The Klitzen Wireless Apparatus Company, and its post-World War I incarnation, the Klitzen Radio Manufacturing Company, originally of Racine, Wisconsin, with a later connection to Grand Rapids, Michigan, was one of the Midwest's pioneer radio companies, with a history extending from 1913 and the spark era across the World War I divide into 1927.

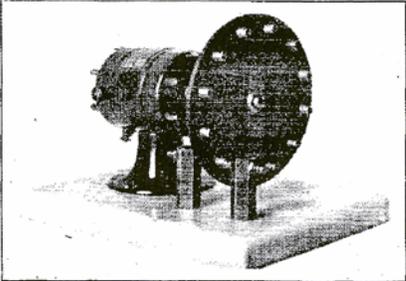
Alan Douglas has told the story of Milhart F. Klipcera and his Klitzen company in his section "Klitzzen / Michigan" in his *Radio Manufacturers of the 1920's*, Volume II, page 167. In this article I will summarize and add to Alan's narrative, and add detail on the Klitzen equipment and sets. I would be most happy to receive any corrections or additions that other collectors might care to provide, about either the history of the Klitzen company or about the wireless apparatus and radios it manufactured.

Douglas reports that Milhart Klipcera, who was licensed as an amateur station operator with the call sign 9CM, established the Klitzen Wireless Apparatus Company in Racine, Wisconsin. According to a Klitzen ad in *Radio News*, November 1922 (see figure 3), Klitzen started his company in 1913. Douglas notes that Klipcera apparently adopted the "Klitzzen" name by playing off the trade name "Blitzen" that Clapp-Eastham had made well known for its wireless apparatus before World War I. (For example, in the October

1913 issue of *Modern Electrics*, Clapp-Eastham advertised a "Blitzen Receiving Set" (crystal) and a "Blitzen Transformer".)

Before World War I, the Klitzen Wireless Apparatus Company, 1123 Herrick Avenue in Racine, advertised apparatus for radio amateurs in *QST*. In February, 1916 Klitzen offered a rotary spark gap motor and disk assembly (see figure 1). In December, 1916, and February, 1917, Klitzen offered the No. 202 Undamped Wave Coupler (tuned 2,000 to 18,000 meters) and No. 200 Load Coil ("suitable for use in Armstrong circuits"). Klitzen advertised parts in *QST* in March 1917.

**Klitzzen Apparatus** means Efficiency



Klitzen Rotary  
complete

**\$12.00**

Marble base, Bakelite Disc,  
Universal Motor, operates  
on 110-130 volts AC-DC,  
25-60 cycles. 6000 r.p.m.

Motor only, \$6.50  
Disc complete, \$2.50

**Klitzzen Wireless Apparatus Company**  
1123 Herrick Avenue, Racine, Wisconsin

Figure 1 – *QST*, March 1917. *On Klitzzen - continued on Page 7*

**ARCI, the Antique Radio Club of Illinois, has issued a Special Invitation for WARCI members to join in a visit to the Sanfilippa Foundation of South Barrington, IL (near US-14 and IL-59), a private estate known worldwide for its magnificent collection of antique music machines, phonographs, arcade and gambling machines, steam engines, cars, trains, and many etc. The visit will take place October 24, 2009, from 2:30 - 6:00 PM. A tax deductible donation of \$25 per person is required.**

**For information and reservations (required) contact David or Julia Bart, home 847-676-0612, cell 847-542-9875, or email [jbart64@sbcglobal.net](mailto:jbart64@sbcglobal.net)**

**See [www.placedelamusique.org](http://www.placedelamusique.org) for information on Sanfilippa.**

**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.

You may submit complete articles, but information from which an article can be developed is also welcome. Don't agonize over format, etc., as the editor will have to adapt your submission to the newsletter. Simple text is best. PC format (e.g. MS Word, jpegs by email) is preferred but hardcopy text and photos are accepted.

In this issue we feature an article describing WARCI member Bob Paquette's fantastic microphone museum.

We also continue the series of articles on Wisconsin radio companies and Wisconsin radio history with an article on Klitzen of Racine, a radio pioneer. We will also cover tube audio and television and other member interests - but we need your contributions!

We will add classified ads as soon as you send them in. The first "Odd Bits" appears in this issue.

Thank you,

- Greg Hunolt, Editor WARCI News

When the United States entered World War I in 1917 the government put a war-time halt to all amateur radio activities. QST itself suspended publication from October, 1917 through May, 1919.

Douglas reports that Klitzen re-started as the Klitzen Radio Manufacturing Company in October 1919. In QST for November 1919, the Klitzen Radio Manufacturing Company, 1501 Flett Avenue in Racine advertised the Rotary Spark Gap. In the December, 1919 QST Klitzen advertised the No. 102 Undamped Wave Coupler, which looked very much like, and probably was, the earlier No. 202, to "copy signals from high power Arc sets" (see figure 2).

**Copy Signal from High Power Arc Sets with**

**Klitzen No. 102 Undamped Wave Coupler**

Reasonable price brings it within range of all Amateurs. Will tune up to 17,000 meters and over. Has copied Nauen, Germany; Lyons, France; Rome, Italy; and Carnarvon, Wales **without the aid of an amplifier.**

Primary and secondary wound with double green silk covered wire on non-shrinkable bakelite tubes. All switches are of self cleaning type-insuring good contact—and are keyed so that they will always be firm and positive. Wood work is ebony finished and hand rubbed. All metal parts high grade nickel-plated. A first quality, attractive, sensitive instrument—good enough for the expert—inexpensive enough for the amateur.

Price, complete.....\$35.00

Just Out—Catalog C—Write for it.

**KLITZEN RADIO MANUFACTURING CO.**  
1501 Flett Ave., Racine, Wis.

Figure 2 - QST, December 1919

The December, 1919 ad also announced the availability of Catalog C. This catalog offered a wide range of apparatus, and in particular included the No. 225 Regenerative Receiving Set, a tuner with a range of 150 to 800 meters. It was intended to be used with the No. 250 Audion Panel, configured as a detector and using a Marconi VT tube, and with a headset (Klitzen offered Baldwin and Murdock headsets in Catalog C).

Klitzen advertised the No. 225 Regenerative Receiving Set tuner in 1920, e.g. in Radio Amateur News (i.e. Radio News) in April, 1920, in an ad also featuring the No. 125 Rotary Spark Gap.

Douglas notes that in November, 1921, both the Barawik Company (Chicago) and Montgomery Ward advertised the Klitzen regenerative tuner and detector-amplifier, and Montgomery Ward offered them in its 1922 catalog. These must have also been the No. 225 Regenerative Tuner mentioned above and its successor and the No. 125 Detector & Amplifier to be discussed below.

**At It Since 1913** **KLITZEN RADIO** Mfd. Under Armstrong License U.S. Pat. No. 1,113,149

**"Armstrong" Regenerative Receiving Set De Luxe**

Model 225—Cut below shows contents      Model 125—Cut below shows contents

**Reasonably Priced at \$60 per Unit**

**Back of This Set Stands:**

- 1** Nine years continuous experience in the manufacture of Radio Equipment.
- 2** A modern plant, tooled up for high-class quantity production.
- 3** License to manufacture under Armstrong Patent No. 1,113,149.

**A Beautiful Set**

Beautiful to the eyes of the expert radio engineer, because of its simple, scientific, sensible hook-up.  
 Beautiful to the eyes of the trained mechanic, because of the fine workmanship and finish of every detail—external and internal.  
 Beautiful to the eyes of the layman, because of its attractive outward appearance.  
 Beautiful in the clear musical resonance of its messages, from near or far.  
 Can be used either with head-sets or loud-speaker. All connections thoroughly insulated.

All moving parts have positive contacts—no friction connections used.  
 Receives a wide range of wave-lengths in both amateur and professional scales.  
 Equally effective on local or long distance circuits.  
 Quality is apparent in both materials and workmanship. The Regenerative Tuner is thoroughly shielded against body capacity effects. Harmony of action by the interior parts is evident when tuner and amplifier are used together.  
 The set you've been looking for—Best value for the money yet offered by anybody.

**Sold Only Thru Dealers** Show this ad to your dealer and ask him to get in touch with us. Send for descriptive circular.

**KLITZEN RADIO MFG. CO.**  
 RACINE, Wisconsin, U. S. A.

Figure 3, Radio News, November 1922

In Radio News, November 1922, Klitzen advertised the "Armstrong" Regenerative Receiving Set Deluxe, comprised of the No. 225 Regenerative Tuner and the new companion No. 125 Detector & Amplifier (see figure 3 above). The new 1922 version of the No. 225 Regenerative Tuner can be distinguished by its two tap switches, rather than the single tap

switch on the 1919 version. The No. 125 Detector & Amplifier was a three tube unit, a detector and two audio frequency (AF) amplifier stages, intended to drive a speaker as well a headset. The ad stated that the set was manufactured under the Armstrong regenerative circuit license, which Klitzen had purchased from Westinghouse.

In December, 1922, the Radio News Klitzen ad, in addition to the No. 225 tuner and No. 125 Detector & Amplifier, also mentioned two new units. The first was a No. 300 receiver that was a No. 225 tuner with a detector added, able to drive a headset. The second unit was a No. 150 three step amplifier intended for use with the No. 300 receiver. The combination "makes a set that reaches from coast to coast and can be used with a loud speaker."

Klitzen was listed in the Radio Merchandising Buyers' Guide, September 1922, the Radio Red Book, November 1922, and the Radio Dealer Year-Book 1923-1924 at a Racine address of 4<sup>th</sup> and Lake Streets.

The November and December 1922 Klitzen ads are the last I have found for Klitzen in Racine. There was at least one additional set manufactured by Klitzen, probably in 1922 or 1923, the Model 525 Regenerative Amplifying Receiver, a photo of which appeared in Antique Radio Classified (ARC) in February, 2005. The set included a regenerative tuner, detector, and two AF amplifier stages. The late Dick Bury's magnificent collection included a Model 525 with a different panel configuration in that it lacked a tap switch present on the set that appeared in ARC (see figure 4).



Figure 4 - Klitzen 525, courtesy of Dale Boyce

Klitzen manufactured radios for at least two other companies (besides its involvement with the Michigan Radio Corporation to be discussed below). One company was the Mitchell Blair Company of Chicago, Illinois. Dick Bury's collection included a pair of units, a "Blairco Junior Model" Type T-1 one tube regenerative receiver and Type A-1 two stage AF amplifier. Both units bear identification tags including "Mfg. by Klitzen Radio Mfg. Co." and that the sets were licensed under the Armstrong patent, which would apply to the T-1 regenerative receiver. See Figure 5.



Figure 5 – Blairco T-1 and A-1, Dale Boyce

The second company was Paramount Radio Corporation of St. Louis, Missouri. The December, 1985 issue of ARC, page 9, includes a photograph of two Paramount units, a one tube "Junior" regenerative receiver and a matching two tube AF amplifier. The units have Paramount nameplates and interior decals indicating their manufacture by Klitzen under the Armstrong patent. A distinctive feature of the receiver was spring loaded verniers on the tuning and tickler dials. They would have been manufactured about 1922. A photo of a similar unit appeared in the August, 2008 issue of ARC. It is a three tube regenerative receiver with a detector and two AF amplifier stages. It is in the same style as the two Paramount units mentioned above, with the same Paramount nameplate and Klitzen decal. The receiver also features the same spring loaded verniers on the tuning and tickler dials. Paramount also sold a version of the Klitzen Model 525 Regenerative

Amplifying Receiver; Dick Bury's collection included one of these sets, identical to the native Klitzen 525 except for having a red-orange front panel with a Paramount engraved logo instead of the black front panel on the native Klitzen set.

Klitzen apparently also manufactured sets for the Globe Electric Company of Milwaukee, Wisconsin. For example, the 1922 Globe 607 receiver-amplifier has a metal tag identifying Klitzen as manufacturer on the inside of its cabinet lid.

The next Klitzen sets I have information about are the S. F-16 Receiver and S. F-17 Two-Stage Amplifier, for which I have a copy of an undated instruction sheet produced by Klitzen bearing an address of Grand Rapids, Michigan. The S. F-16 Receiver is a one tube regenerative receiver manufactured under the Armstrong patent. The layout of the front panel is distinctive; left and right dials, the left one a tickler control labeled "Intensifier", and the right dial for tuning. Between these are an upper center antenna switch, and a lower rheostat. See Figures 6.



Figure 6 – Klitzen S. F-16

Examples of these receivers indicate that they were also sold through outlets in Chicago and by the W. F. Main Radiophone Co. of Cedar Rapids, Iowa as the "Splendid Deluxe Radio Receiver Model A" (courtesy of Glenn Trischan).

This Grand Rapids address on the instruction sheet suggests that Klitzen had moved from Racine, Wisconsin, to Grand Rapids by the time these sets were produced. Alternatively, it may mean that Klitzen's front office for sales was now in Grand Rapids, but the company's manufacturing may have still been based in Racine. The instruction sheet is undated, but my guess would be 1923.

I have in my own collection two examples of the S. F-16 Receiver, both of which have inside nameplates for Klitzen in Racine, Wisconsin. They are serial numbers 1,053 and 15,893. This suggests that either they were made before Klitzen moved to Grand Rapids, or that Klitzen continued to manufacture these sets in Racine after its sales outlet was shifted to Grand Rapids. This provides a convenient segue into the Michigan Radio Corporation part of the story.

Douglas notes that the Michigan Radio Corporation (MRC) of Grand Rapids, Michigan, began advertising in November, 1922. I have a copy of a MRC ad from a late 1922 issue of Electrical Record which features the Michigan "Senior" Receiver, a three tube regenerative receiver with a detector and two AF amplifier stages. This set very closely resembles the Paramount three tube receiver whose photo appeared in the August 8, 2008 issue of ARC, suggesting that the Michigan "Senior" might have been manufactured by Klitzen for MRC. The same set was advertised in Wireless Age in December 1922, and in Radio News in January, 1923. The January ad, unlike earlier ads, calls the Michigan "Senior" (now also referred to as the MRC-7) a regenerative set, and states that it is manufactured under the Armstrong patent. These ads also featured the smaller Michigan "Junior" set, a one tube set which was advertised as not regenerative, and noted the availability of a Michigan Two Stage Amplifier that could be used with it. The "Junior" receiver is very similar to the Paramount

"Junior" one tube set which appeared in ARC in December, 1923, again suggesting that Klitzen manufactured these sets for both Paramount and MRC. See Figure 7 for a later (Radio News, May 1923) example of an ad for these sets.

**RADIO**  
*in*  
**Strong Hands**

NOW, at last Radio sets and parts are offered by an independent corporation possessing large capital, a modern plant, and a staff of seasoned radio engineers and experts—a House that is in business to stay—whose guarantee offers complete and permanent protection

**M. R. C.**  
Regenerative Radio  
Receiving Sets

are built under Armstrong License (U.S. Patent 1,113,149 and pending letters patent No. 807,388). This means that they embody the latest development in Regeneration—the soul of radio.

**SENIOR SET**

**Long Distance Wonder Workers**  
Sweep the country from coast to coast, giving their owners their pick of the daily and nightly programs broadcasted by the 500 stations in the United States and Canada.

THE "SENIOR SET" embodies both detection and amplification, and can be used with either headphones or loudspeakers, or both.

**JUNIOR SET**

THE "JUNIOR SET" a detector unit only is limited to headphone reception. It can, however, be hooked up with the Michigan Amplifier unit, for loudspeaker reception.

MICHIGAN ACCESSORIES includes variometers, grid variocouplers, variable condensers, all-wave couplers, vernier rheostats, plain rheostats, etc.

Send for full information on both sets and parts.

**MICHIGAN RADIO CORPORATION**  
GRAND RAPIDS, MICHIGAN

Figure 7 - Radio News, May 1923

In his narrative, Douglas notes that Klitzen granted MRC a sub-license which would allow MRC to sell regenerative sets under the Armstrong patent. This apparently occurred in November or December 1922, too late for mention in December ads, but in time for January and later ads (e.g., see figure 7). The latest ad I have for the Michigan "Senior" and "Junior" sets is in Radio News in July, 1923.

Douglas reports that Westinghouse, which now held the Armstrong patent, sued Klitzen in August, 1923, charging breach of license and asking the court to prohibit Klitzen from sub-licensing in violation of the terms of its license agreement. Klitzen cancelled the sub-license to MRC, leaving MRC in legal jeopardy. Douglas says that by March, 1924, MRC had resolved its legal problems with Westinghouse and began selling Klitzen-made receivers.

In September 1923, MRC advertised a new receiver ("our latest triumph") in Radio News and Radio Broadcast, the Michigan "Midget". The Midget is not advertised as regenerative. The ads note the availability of a matching two stage AF amplifier. The "Midget" is marked by a sloped metal front panel featuring the same layout as the Klitzen S. F-16 receiver discussed above, but with distinctive lever handles on all four controls. I have two examples of the "Midget" in my collection, serial numbers 10,486 and 14,265, which are almost identical regenerative sets (see figure 8).



Figure 8, Klitzen Midget

The presumably later serial number 14,265 set has a metal tag inside the front panel indicating that the set was manufactured by Klitzen in Racine, Wisconsin, under the Armstrong patent. MRC advertised the set in January and February, 1924 (Radio and Radio News, see figure 9), now as the M-10 "Midget Detector" accompanied by the M-11 "Midget Amplifier" or, for both units on one case, the M-12 "Midget Detector and Amplifier".

**MICHIGAN MIDGET**  
Detector \$27      Amplifier \$30

**The Sensation of Radio**

No matter what you pay, you can't get a receiving set that will give you any better results than the Michigan "Midget."

*Distance*, it has received in Grand Rapids, stations from coast to coast.  
*Selectivity*, the smallest turn of the dial throws out or brings in stations.  
*Clearness*, the clearness of the reception will surprise and please you.

*The cost*, you could not build a set, buying the parts yourself, at anything like the price at which the Midget is sold.

Made in these styles:  
M 10 Midget Detector . . . \$27.00  
M 11 Midget Amplifier . . . 30.00  
M 12 Midget Detector and Amplifier in one case . . 57.00

Ask your dealer to demonstrate this wonder to you.

Write us for illustrated folder

**MICHIGAN RADIO CORPORATION**  
GRAND RAPIDS, MICHIGAN

Figure 9, Radio News, January 1924

In June, 1924, MRC (now showing an address of 33 Ottawa Street in Grand Rapids) advertised the Midget in Radio News as the M.R.C. 10 "Michigan One Tube Receiving Set", noting the availability of the companion M.R.C. 11 amplifier. This ad, for the first time, cites the Armstrong patent. This version of the Midget is pictured with a small Michigan nameplate on the front panel beneath the rheostat, replacing a stenciled name on the earlier Midget. My two Midgets both have such nameplates, perhaps dating them to 1924. The metal "manufactured in Racine" tag on the later one suggests Klitzen was still manufacturing in Racine then; also note the apparently later serial number on one of my S. F-16's that also bears a "manufactured in Racine" tag.

In July, 1924, MRC announced the "Michigan Four Tube Set" model MRC 4, that was an expanded Midget including an RF stage in front of the detector and two AF stages. The ad notes that the set is "non-radiating", possibly a tuned RF stage without regeneration (the Armstrong

patent is not cited). The large table model set is packaged with a speaker and battery compartment and a fold down front door. In October, November, and December, 1924 (see figure 10) and January, 1925 MRC ads in Radio News, Radio Broadcast, and Popular Radio recapped the MRC line-up.

Popular Radio  
The Best in Radio Equipment  
Dec. 1924

162

**Make it a RADIO X'mas! with a MICHIGAN FOUR \$150**

Michigan "de Luxe" 4 tube receiver. 1 stage P. C. amplification. Built in adjustable loud speaker. Solid mahogany case. America's most beautiful set. MRC 4, \$150

**RIGHT** now, settle the question of Christmas presents. Buy a Michigan Radio receiving set.

You get more real value and satisfaction from these receivers than any others, regardless of what you pay.

Distance—with greater selectivity and simplicity of operation.

Reliability—with logging and unusual tone qualities.

And each model enclosed in a cabinet designed and made by the world's best furniture craftsmen.

Models in two, three and four tubes. Styles from \$32.50 up.

Send for illustrated folder. Ask your dealer for a demonstration.

Licensed under U. S. Patent, 1,181,410-letters pending 407,288

**MICHIGAN RADIO CORPORATION**  
33 Pearl Street Grand Rapids, Mich.

Michigan "Midget" 2 tube regenerative long distance wonder. MRC 2, \$32.50

3 tube Regenerative Detector and 2 stage amplifier. The set we offer special discount on orders for last year. MRC 3, \$57.50

3 tubes in handsome case with instant quad down and compartments for batteries, lampholders, etc. MRC 11, \$67.50

All apparatus advertised in this magazine has been tested and approved by POPULAR RADIO LABORATORY

Figure 10, Popular Radio, December 1924

The Midget was now the MRC 2, which appears identical to earlier Midgets but is a two tube regenerative set, adding an AF stage. The MRC 11 is the two stage amplifier, and the MRC 12 the combination of the Midget and the MRC 11 in one case. (I have in my own collection an MRC 12, Klitzen serial numbers 3768 on the receiver, 3767 on the amplifier, and MRC serial numbers 24996 and 17979.) The MRC-3 was a three tube receiver, apparently a detector and two AF stages, in a large cabinet with left and right side panels. At the top of the line was the MRC 4 Four

Tube Set (three AF stages). These ads all cited a new Pearl Street address for MRC in Grand Rapids. The MRC 3 and MRC 4 sets were listed in the June 1925 Radio Industry 'Encyclopedia of Radio Receiving Sets' (the MRC 3 was incorrectly described as a four tube TRF set).

Douglas notes that MRC last advertised in January 1925, and I have not seen later ads for MRC. He reports that Klitzen returned in April 1925 with a Grand Rapids address, advertising two inexpensive models, the Kent and Wolverine. I have a November, 1925 ad from Radio Industry for the Klitzen Wolverine receiver (see figure 11).

**The KLITZEN-WOLVERINE**  
A Big Step Forward in Radio

**Simple—Powerful—Inexpensive**  
The 3 Things the Average Family Wants

A new set of marvelous performance. Only two tuning controls. So easy a child can operate. Yet a coast to coast range. Three tube regenerative set, manufactured under Armstrong patent. Cabinet of genuine mahogany, Grand Rapids workmanship, a handsome piece for the home. Ample space for complete dry cell equipment. Size over all, 26½ x 10 x 13.

Klitzen is a name of recognized standing. Specialists in radio since 1913.

Extra Liberal Dealer Discount.

**\$54.95 LIST**  
ACCESSORIES EXTRA

**Send Coupon**

KLITZEN RADIO MFG. CO.,  
21-21 Ottawa Ave., Grand Rapids, Mich.

Send full details of the Klitzen-Wolverine and your extra liberal dealer discount.

Name .....

Address .....

Figure 11, Radio Industry, November 1925

The set, in a fancy mahogany cabinet, said to reflect "Grand Rapids workmanship", was a three tube regenerative set with a front panel very like the Midget's, down to its

distinctive lever style handles on its four controls. One could easily imagine the radio chassis being produced in Racine, and the cabinets being made and final assembly occurring in Grand Rapids. The Grand Rapids, Michigan address cited in the ad was 21-31 Ottawa Street, very close to an earlier MRC address. Klitzen was listed in the August 1925 McGraw-Hill Trade Directory, with an address of 21 Ottawa Street in Grand Rapids. The Wolverine and Kent sets were listed in the November 1925 Radio News Set Directory and the Radio Industry Encyclopedias of Radio Receiving Sets for November, 1925 and March, 1926, with a Grand Rapids address for Klitzen.

Finally, Douglas concludes his narrative by noting that Klitzen went into receivership in 1926 and was dissolved in January, 1927.

Looking back over the Klitzen / MRC products, one can see after an innovative early period during which Klitzen produced a variety of apparatus, that especially from 1923 on the company narrowed its focus to one basic design with variations, a regenerative tuner-detector with different numbers of AF stages (zero to three). This design became obsolete in the mid-1920's. The company advertised nationally and enjoyed some success until the world moved on (especially in the modest price range of the Klitzen / MRC sets) to TRF sets and their neutrodyne variations, and ultimately superheterodynes. The company didn't move with the world and disappeared. But it did leave behind a unique front panel design and those cool levers that I have a soft spot in my heart for.

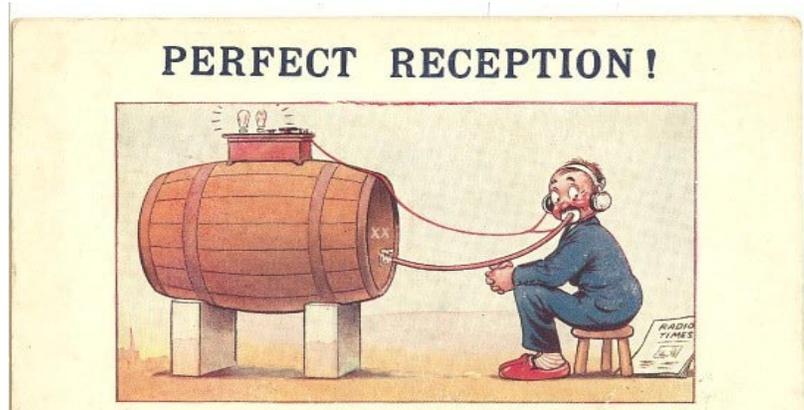
If you have any information to correct or add to what I've presented above, or photos of Klitzen sets or wireless equipment you would be willing to share, I would very much appreciate hearing from you – Greg Hunolt, [ghunolt@excel.net](mailto:ghunolt@excel.net), N5412 State Hwy 57, Plymouth WI 53073. [30]

References:

- Douglas, Alan, "Radio Manufacturers of the 1920's", Sonoran, 1989, Volume II, p167.  
Klitzten Radio Manufacturing Co., Catalog C, December 1919.  
Antique Radio Classified: December 1985, p9; October 1998, p22; February 2005, p14; March 2007, p20; August 2008, p21.  
Electrical Record, MRC ad: December 1922.  
Modern Electrics, Clapp-Eastham ad: October 1913, p661.  
Popular Radio, MRC ads: October 1924, p23; December 1924, p162; January 1925, p51.  
QST, Klitzen ads: February 1916; December 1916; February 1917; March 1917; November 1919, p56; December 1919, p56; March 1920, p56.  
Radio, MRC ad: January 1924, p93.  
Radio Broadcast, MRC ads: March 1923, April 1923, September 1923, July 1924, November 1924, p124.  
Radio Dealer Yearbook 1923-1924, p144.  
Radio Industry, Klitzen (Grand Rapids) ad: November 1925.  
Radio Industry, Encyclopedia of Radio Receiving Sets, June 1925, p46.  
Radio Industry, Encyclopedia of Radio Receiving Sets, November 1925, p40.  
Radio Industry, Encyclopedia of Radio Receiving Sets, March 1926, p35.  
Radio Merchandising Buyers' Guide, September 1922, p311.  
Radio News, Klitzen ads: April 1920, p573; November 1922, p895; December 1922, p1121; Radio News, MRC ads: January 1923, p1423; May 1923, p2047; July 1923, p99; September 1923, p346; February 1924, p1185; June 1924, p1859; July 1924, p135; November 1924, p859.  
Radio News Set Directory, November 1925, p64.  
Radio Red Book, November 1922, p78.  
Radio Trade Directory, McGraw-Hill, August 1925, p130.  
Wireless Age, MRC ad: December 1922, p108.

# Odd Bits !!

Send in your odd story about strange doings in the world of radio collecting, weird items from old radio magazines - or post cards like the one to the right, contributed by Dale Boyce.



Letter to the Editor, Radio News, August 1924, "INQUIRY ON THE REFLEX CIRCUIT"

Editor, Radio News:

I have a set which I built last month, but it does not work. It is equipped with the newest Ford carburetor, with a cut-out in series with the antenna and left hind binding post. The variable condenser is of the lead plate type, with hot air dielectric. Its capacity lies somewhere between  $17\frac{1}{4}$  and 432 horsepower. The variometer is rotated by a  $\frac{1}{2}$  horsepower motor. Do you think that if I increased the speed to 14,000 rpm I would get better results? Also, would you advise me to equip my amplifiers with 16 valves in head motor?

The antenna consists of 700 feet of  $\frac{3}{4}$  inch copper wire, running at right angles to the equator, at an altitude of 2,340 feet, with lead-in 2,500 feet long, insulated with transparent garden hose. Would a condenser of .00025 mfd capacity connected between the lead-in and the neighbors still increase my selectivity?

The sockets are of the double contact type, designed to take special 2,000,000 candle-power bulbs. The jacks are warranted to lift 2,600 pounds.

The rheostats have a resistance of six megohms and are wound with No. 46

weather-proof gold-plated steel piano wire. Binding posts are designed to carry 1,000,000 amperes without overheating, and are equipped with a special cooling system and radiators. The grid condenser is of 0.000001 mfd capacity and is equipped with a leak of 16 drops per minute. Transformers are 3 KYW type.

All connections are made with No. 0000 trolley wire and are securely welded where necessary. The panel is of three-ply nickel plated fibre 7 inches thick, 40 inches high, and 106 inches long, and is insulated at each end by a rubber ball 2 inches in diameter.

The ground consists of a counterfeit half-dollar, buried 4 inches below the surface in a continuously damped spot with welded connections.

The circuit is the celebrated reflux, high pressure, non-backfiring, self-starting, non-corrosive, regenerative type, equipped with auxiliary air compressors and fire extinguishers.

Please give reasons for set not working at once.

Anxiously awaiting your reply, I am, most certainly,

Roland Kleinhans,  
Secor, IL

## News from the Neighborhood Clubs

### ARCI

#### Antique Radio Club of Illinois [www.antique-radios.org](http://www.antique-radios.org)

See page 6 for ARCI's Special Invitation to visit the Sanfillipa Estate on October 24.

RadioFest 2009 was another great success, with a very large auction and vigorous flea market!

October 4, 2009 – ARCI Outdoor Swap Meet, 7AM – 11AM, and Business Meeting / Officer Election at 10AM. Held at the American Legion Hall, 570 South Gary Avenue, Carol Stream IL. Great Boy Scout Pancake Breakfast! See the ARCI website for directions / map.

### MARC

#### Michigan Antique Radio Club [www.michiganantiqueradio.org](http://www.michiganantiqueradio.org)

MARC's Fall Meet will be on October 17, 2009, at the County Fairgrounds in Kalamzoo, MI – see the MARC website for details, or contact John DenHartigh, 269-217-0539.

MARC reports an increase in vendors and attendance at this year's successful Extravaganza in July – next year's Extravaganza will be held July 9-10, 2010 in Lansing, MI.

### NARC

#### Northland Antique Radio Club [www.northlandantiqueradioclub.com](http://www.northlandantiqueradioclub.com)

Note the new NARC website URL!

NARC reports that the May, 2009, Radio Daze in Minneapolis was highlighted by the largest auction in almost 20 years, with 101 registered bidders and 236 items auctioned. Next year's Radio Daze will be held on May 21-22.

NARC's Fall Meet will be November 7, 2009; see the NARC website for information.

### WARCI

#### Wisconsin Antique Radio Club, Inc., [www.warci.org](http://www.warci.org)

#### 2010 Swap meet Dates:

**January 24 (Weather Permitting, see p5)**

**March 28**

**May 16**

**July 18**

**October 10**

**Welcome to three new members, Rick Hagerty, Richard Harthun, and Verne Teske! WARCI membership is now 41.**

# Scenes from the July 2009 Swap Meet

The July 2009 WARCI Swap Meet was very good, with 17 paid sellers and a rough count of about 27 spaces in use by sellers and 40-plus people milling about! Following the usual early start the meet was notably active up to the 11:00 AM advertised closing time. Thanks to Barry Janov for taking the photos you see below and on the WARCI website!



# Classified Ads

Well, we don't have any this month, but if we did, they'd be here!

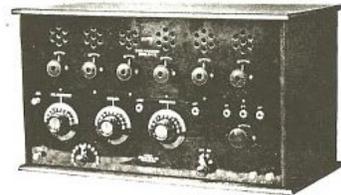
Remember that classified ads up to ¼ page are free to WARCI members.

The cut-off date for all newsletter material is about the first of the month preceding publication of the next newsletter (e.g. December 1 for the January issue). Send ads by email or letter to Greg Hunolt, WARCI News, at [ghunolt@excel.net](mailto:ghunolt@excel.net) or N5412 State Hwy 57, Plymouth WI, 53073.

*WANTED: Wells ALKIRE R. F. 6 - I want one of these, and any set made in Plymouth, WI – Greg Hunolt!  
Photos courtesy of Stewart Oliver.*



## "ALKIRE" RADIO APPARATUS



Model R. F. 6.

Manufactured by  
**Wells Manufacturing Co.**

Distributed by  
**RADIO EQUIPMENT CO.**

Dodge Brothers Agency  
22 Forest Ave.

FOND DU LAC,

WISCONSIN

---

**Wisconsin Antique  
Radio Club, Inc.**  
c/o Greg Hunolt  
N5412 State Hwy 57  
Plymouth, Wisconsin 53073

**October 2009**

**Return Service Requested**

**TO:**



**Wisconsin Antique Radio Club, Inc.**  
To preserve the History and enhance the Knowledge  
of Radio, Television, and related disciplines.

