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B" Current

Supply Unit

World Radio History

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Dr. Ed Taylor . (317) 638-1641

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Jim Fred (317) 268-2214 News, Articles, RADIOADS R. 1, Box 41 Cutler, IN 46920

IHRS is a NON-PROFIT organization which was founded in 1971. Annual membership dues are \$8.00 which includes first class quarterly IHRS Bulletin. RADIOADS are free to all members.

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"PLEASE"

Send a stamped, self-addressed envelope when requesting information.

THE EDITOR'S PAGE

The next I H R S meet will be held on Saturday, September 16, 1989 at the Valparaiso Technical Institute, Valparaiso, IN.

The winners of the popularity contest at our meeting in Logansport were as follows:

Class I Crosley	Winner: model 53E owned by Ross Smith
Class II Early AC	Winner: ''BEST'' owned by George & Edna Clemans
Class III Collectibles	Winner: 10 Radio Banks owned by E. E. Taylor
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Radio Ads

WANTED: Glass dial cover for Zenith model 108669 console radio. Also, large knob for three-tube, slant-front Workrite neutrodyne radio (uses 99's). George B. Clemans, 851 West Wooster St., Bowling Green, OH 43402. 419-352-7198.

WANTED: Sea Pal gasoline engine generator made by Kingston Products. Any items made by Kokomo Electric Company. Any Kingston Radios or Airline, Coronado, or Truetone radios made by Kingston Radio Company, Kokomo, IN. James Fred, R. 1, Box 41, Cutler, IN 46920.



July 5, 1989

IHRS MUSEUM COMMITTEE and EX-OFFICIO MEMBERS

FROM: ROSS SMITH, CHAIRMAN

TO:

SUPJECT: INTERIM REPORT

- 1. AUBURN: No plans for moving. Will probably remain "as is" for the rest of 1989. Will need volunteers late in August for a clean-up day ahead of the Labor Day festivities. We need to replace and add new sighnson the material we have.
- 2. SOUTH BEND: This project will be long term. A meeting with the Northern Indiana Historical Society last May 25th revealed that the time table for additions to their museum will be 1992. They first must finish the new building and move their own museum from downtown South Eend and sort out all of the items they have in storage.
- 3. ANDERSON: No further word to date.
- 4. MADISON: Letters with enclosed ballots were mailed to 51 members located in Indianapolis and south, plus northern Kentucky and western Ohio.

A total of 16 cards were returned (31%) with the following results: Help with interior decoration and set-up 7 Serve as a guide 4 Loan of Artifacts 7 Serve as Chairman 1 Serve on Madison Museum Committee 3

Names of volunteers are being forewarded to George Freeman in Madison.

NEXT MEETING: September 16 at Valpo.

KEEP YOUR IDEAS COMING, we need them.

Barb-elec by Ralph Diller GENERAL DIRECTIONS NOTICE --- REMOVE TAG FROM BOTTOM OF CONTROLLER FIRST 20 SFRING RUBBER NOSE HOOK -GATE -LOOP POSTS: Wood or steel, 25-50 feet apart. WIRE: 2 or 4 point harb or smooth wire, stretched to one-half to three-fourths height of animal Avoid rusty wire. 눰 INSULATION: Solid knobs only. Rubber and aplit knobs cause ρ. trouble SUPI PLACEMENT: In dry building or weatherproof box. FOURT SUF GROUND: Conner wire from controller to pipe driven in ground 5 ft --- IMPORTANT LIGHTNING ARRESTER: Not needed - Built within the unit. **POWER:** A C. Controller is factory set for A.C. operation 32 VOLT Install in batters room and connect to 3 or 4 cells for 600 6-8 volts

BATTERY: 5 volt storage battery most economical, REGULATION: USE BRACKET FOB HANGING UNIT. Shake unit to start ticking. For first few hours operate unit with fast lick, then readjust for regular clock-like tick. (See disgraml IN CASE OF TROUBLE, CHECK:

Loose terminale and ground connections.

IS VOID IF CONTROLLER IS OPENED GUARANTEE



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Obituaries

Robert F. Halligan, 64; headed electronics firm

By Kenan Heise

Robert F. Halligan, 64, retired president and chief executive of Hallicrafters Co., worked 17 years for the Chicago-based electronics firm, now part of Northrop Corp.

Mass for Mr. Halligan, of Indian Wells, Calif., and formerly of Northfield, will be said Friday in La Quinta, Calif. He died Tuesday in Eisenhower Medical Center, Rancho Mirage, Calif.

His father, William, a graduate of the U.S. Military Academy at West Point and a former newspaper reporter, founded Hallicrafters in 1933 to produce a quality shortwave radios for amateurs.

The firm diversified into electronics, televisions and, eventually, government contracts for electronic equipment.

Mr. Halligan, after studying engineering for a year at the University of Notre Dame and for another year at Northwestern University, graduated in 1947 from West Point.

He served in the Air Force, got his wings and was assigned to Eglin Air Force Base, in Florida, and Chicago's O'Hare Field, where he tested electronic equipment in the air for the government. In 1950 he joined his father's firm, working in the purchasing department. At the time the company was producing 1,000 television sets a day and riding high. The firm lacked an adequate distribution system, however, and he participated in the decision to get out of television manufacturing.

Mr. Halligan put in lengthy stretches on the production line and in the firm's engineering and financial departments. He was made president in 1961 and chief executive in 1962, succeeding his father in both positions.

Both Halligans earned a reputation for dealing with the military and landing prime government contracts for the Midwest.

The firm became part of Northrop in 1966 through a stock merger.

"He was very personable and made everyone feel like a human being," his son, Tom, said. "As a businessman he was very streetsmart and always ahead of the competition."

Survivors, in addition to his son and father, include his wife, Marilyn; another son, Robert II; two daughters, Judith Lynn Husmer and Peg; two brothers; and four grandchildren.

Chicago Tribune, Thursday, June 15, 1989

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KINGSTON RADIO
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STORY S
1943 TO 1954
James A. Fred
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The Kingston Radio Story

1943 to 1954

This is the story of my association with the Kingston Radio Corporation, Kokomo, IN. How I came to Kingston Products-Kingston Radio is a story in itself. Needless to say I will shorten it up and tell you that I arrived in Kokomo, IN on April 18, 1943. I was employed as a Signal Corp Electronic Inspector. My first assignment was at the Kingston Products Corp. They had a contract to manufacture the "Gibson Girl" emergency radio transmitter. After eleven months I was transferred to the Delco Radio Division, also in Kokomo, IN. On August 15, 1945 I was terminated by the War Department and began looking for a job.

I wanted to learn how to design radios, so when Mr. Francis Dawson, the chief engineer, offered me a position as a Junior Radio Engineer I didn't hesitate in accepting it.

Before WWII Kingston Radio had been one of the largest "Private Brand" radio manufacturers of farm battery radios. Their largest customers were Gamble stores, and Western Auto Supply Co. Harry Masquelette, the radio sales manager, had been with Case Radio in Marion, IN and had many contacts among the retail chain store buyers.

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Kingston Radio (Continued)

Our Engineering Department was small; it consisted of the Chief Engineer and his secretary, the assistant to the Chief engineer, the chief Draftsmen and two assistants, a model shop technician, and three Junior Radio Engineers. I had been a radio repairman for seven years and an employee of the War Department for three years, but I soon realized I didn't know much about designing radios, especially tuned circuits.

One set I designed was a five tube, with loop antenna, farm battery radio. It was made for Montgomery-Ward as "Airline", for Gamble stores as "Coronado", and for Western Auto as "Truetone".

Other sets I worked on were Radio-Phono combinations, an end table radio in two different models, and a four tube TRF radio in a steel cabinet for Montgomery-Ward that came in five different colors.

Since Kingston hourly employees were members of the United Steel Workers Union it was difficult to compete with small radio manufacturers in New York and Chicago. The R E M C movement had almost ended the demand for farm battery radios, so things didn't look too good for the radio division. Television made itself known in 1949 and an attempt was made to enter the TV market. I built seven sample TV sets which were hand carried to many customer and retail electronic shows. Kingston never had a factory order to produce TV sets.

World Radio History

Kingston Radio (continued)

Managment then decided to enter the U H F T V converter field. Every U H F converter manufacturer, except Kingston, converted the U H F signal down to V H F channel 3 or 4. The Kingston U H F converter was different in that it converted the U H F signal down to channel 9 or 10. The Kingston converter found only one customer. It as the Regency Div. of I.D.E.A. Inc., of Indianapolis, IN. Less that half of the 100,000 U H F converters on order were produced and shipped. About this time the FCC mandated that all TV sets built had to be able to receive both UHF and VHF stations. I built several sample TV sets with both VHF and UHF tuners.

When Mr. Dawson died on April 7, 1947 and Mr. Masquelette died on November 8, 1947, the desire behind the Kingston Radio Corp. died too. The Corporation was dissolved on December 31, 1951 and all assets were turned over to the Kingston Products Corp. In May 1954 the Radio Engineering Department was closed and the employees were looking for jobs.

Kingston Radio Corporation was founded on February 14, 1933 and dissolved on December 31, 1951.



AIRLINE MODEL 54KP-1209B



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TRUETONE MODEL D-2621



CORONADO MODEL 43-6451

Early Vacuum Tube History

Bernhard F. Tellkamp

After Dr. Lee DeForest's discovery that current could be conducted in a vacuum and controlled by a voltage applied to an intervening grid; the development of the vacuum tube began.

It should be noted that Thomas Edison put a separate electrode in an experimental electric lamp and recorded that a current would flow between it and the filament if voltage was applied, but did no further work on this device.

Western Electrics WD-11 and similar tubes were among the early ones avialable.

My own Electrical Education began about 1914 when I found, in our attic, an electric alarm clock for sound sleepers, that my Father had made by adapting the wind/set lever of an alarm clock to close the circuit of a dry battery to a door bell so it would ring continuously, a sure awakener! My grade school teacher explained to me how the door bell worked, and the education of a future Vacuum Tube Engineer had begun!

I was urged by Don Myers to outline some early experiences. Here is the result.

During early High School summers and weekends I worked for Tyner Telephone Company, climbing poles to install insulators and wires, and replaces batteries in Magneto Telephones. Later summers I worked for Colip Brothers in South Bend, wiring old (Continued Next Page)

houses for electric lights. One plug outlet was installed in the kitchen for an electric iron! We often removed gas lighting fixtures and mounted the electric fixtures on a special insulated cap we placed on the gas pipe.

During this time the Electo Imporing Co. catalog and Hugo Gernsbacks publications were my preferred reading, and an electric striking clock was one of the products. I began acquiring parts for a crystal receiver and spark gap transmitter; and studied Morse Code. A Wehnhelt Electrolytic Interrupter was one part, I wish I still had it! Entry of the United States into World War I essentially stopped Amateur Radio activities.

The year of 1920-1921 was devoted to earning money for college by working in the inside plant drafting room of the Commonwealth Edison Co. in Chicago's Loop. Many people were discussing Vacuum Tube Radio Circuits, and a store at 509 South State Street became the early "Radio Shack" for parts, and the Commonwealth Edison employee's store began to stock 201 tubes at \$6.00 each, a lot of money to me in those days when I was paid \$85.00 a month!

After a year at Commonwealth Edison I entered Purdue and the summer after Freshman year was again at Commonwealth Edison and at nights in my room at the Division Y.M.C.A. I assembled a regenerative set with Grid Leak detector and two-stage audio amplifier with 201 tubes. This was set up in our General Merchandise (Tellkamps) store in Tyner, Indiana, the first Radio in the area. WGY and KDKA were the usual staticns (on clear nights)! Quite a few people listened in. (Continued Next Page)

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A fifty-watt tube needed to be adapted for shorter wave-lengths; this was done by bringing the plate terminal (anode) out the side instead of the base to reduce the plate to grid coupling, resulting in the 852 transmitting tube, one of the first to reach the fivemeter wave-length.

To clean up gases remaining after tip-off and those released during operation a "getter" is used. This is a material that will absorb and hold the gas, often a film of magnesium deposited on the inside of the bulb by evaporating a 2x2 mm tab of Mg ribbon spot-welded to a corner of the plate. A few turns of the tank coil of a 5 K.W. Radio frequency oscillator around the outside of the tube during exhaust quickly heated the parts red hot. drove out the remaining gases and finally flashed off the getter-tab as the side rods heated to the Mg melting point. The tip-off torch then melted off and sealed the exhaust tube.

At Cleveland we found that a dab of red phosphorus on this tab would not only help in the gas clean-up as it did in lamps, but also had the field-effect of a small negative bias on the grid, lowering the gridcurrent on small signals thus making the "rainbow" colored tubes operate much better in the neutrodyne radio-frequency amplifiers built by Hazeltine and others to compete with the Armstrong Super-heterodyne circuit. The rainbow colored film produced by the phosphorus-magnesium combined, became identified with E. T. Cunningham private brand as all their tubes were supplied by Cleveland and became preferred for the Neutrodyne circuits. This superior performance by

(Continued Next Page)

For one of the Purdue Open House features several of us in Electrical Engineering School built a large Tesla Coil about five feet high, driven by a 60 cycle (no Hertz then!) High voltage transformer and a very noisy Rotary Spark Gap. We checked the frequency to be sure it would not be Lethal and put on shows of 8 to 10 inch sparks to a hand-held metal rod through one's arms to another rod in the other hand and to ground, the lower terminal of the Tesla secondary. It made one's hair stand out straight but only caused a tingling 60 cycle shiver. It attracted a lot of the visitors attention.

The rotary spark gap of WBAA Radio could be heard a long way if the E. E. Building basement windows were left open. Twenty-eight years later our son did some announcing for WBAA when he was in school there.

From Purdue in 1925 I started work in the Vacuum Tube Division of General Electric Company at Nela Park in Cleveland, a factory converted from electric lamp manufacturing to Vacuum Tube production; the machinery for handling the bulb was the same. My first job was installing and operating a meter test and repair laboratory. Meters were often damaged by short circuits that easily occurred in early tubes. Next was design and building a life-test rack to check tube quality.

An Automatic Method of introducing and controlling the amount of Carbon in the Thoriated Tungsten filament of five watt tubes used in Train Control Amplifiers resulted in my first U. S. Patent.

(Continued Next Page)

the "Competitor" did not please the Harrison, New Jersey, Tube Division and a company edict for uniform "appearance" of silver color for all tubes was circulated. The Phosphorus dab was relocated to flash last, a uniform silver resulted and superior action remained!

One of our Engineers, Terry Schrader built an experimental Superheterodyne using a high intermediate-frequency amplifier to avoid the "hiss" audible to some people when listening to the original Armstrong Super-Het with 45 K. C. intermediate. Schenectady set Engineers were given a demonstration of this set. Later sets were built in this manner.

Screen-grid tubes improved the Radio Frequency performance. Size was reduced with the 199 and 120 types.

All tubes were "aged", operated for up to an hour to weed out short circuits and tubes with poor vacuum (gassy) then tested to remove those outside the specifications for Filament current, Grid Current (Caused by poor vacuum), Plate Current, Mutual conductance, (milliamperes per volt change in grid voltage), and lightly tapped to detect and remove nearshorts or loose elements. These tests put a premium on quick insertion and removal from sockets and caused the change from the early bayonet-pin type base to the long pin UX base.

The fragile nature of glass prompted the development of tubes with metal envelopes but the glass-tometal lead seals were a problem and the all-glass button base helped further decrease the size in the later years.

Use of Proximity Fuses for Artillery shells produced some very small and very rugged vacuum tubes, but the ultimate could only be obtained by eliminating the need for a vacuum which the Bell Laboratories Engineers did with the development of the Transistor.

Radio Ads

AMAZE yourself and your friends. Build Scanning Disc Televisions. Why wait to find one. (We're getting older fast). You can build one for a lot less. It'll work and you'll have it now! Send for my info package, \$2 (refundable). Don't put it off any longer. Write to Peter Yanczer, 835 Bricken, St. Louis, MO 63122.

WIKI RADIO and the Jefferson County Historical Society invite you to come see collections of old radios, broadcasting memorabilia, advertising, and a salute to Powell Crosley. Madison, IN 9/23 thru 11/17/89. Mondays thru Saturday 10 A.M. - 4:30 P.M. Sunday 1-4. Next to the J. F. D. Lanier Mansion on West 1st Street.

FOR SALE: Model IV and prototype Slagle Radios, with original documentation, Slagle picture, Q S L cards etc., 1921-1928. Home built loose coupler crystal receiver. Del Barrett, 1517 Pacific Dr., Fort Wayne, IN 46819. 219-747-5655.

WANTED: Power supply/amps-for McMurdo Silver III and SW-33 Lincoln. Trade or generous cash. Don K. Johnston, R. 1, Box 218A, Windfall, IN 46076. Ph. 317-945-7735.

FOR SALE: RCA model 5-T tombstone radio in good original condition: 50's test equipment, and parts such as Kinescope analyzer, sweep circuit analyzer, multimeters etc., as well as a variety of service manuals and literature. Lead from George B. Clemans, 851 West Wooster St., Bowling Green, OH 43402, 419-352-7198.

Radio Ads

FOR SALE: Crystal set with Boston 2 slide tuner and good unusual xtal detector, \$60.00; incomplete but great starter set for Remler Super with 7 Remler UV-99 sockets, 2 Acme enclosed variable condensers, 3 good Remler IF's, 2 rheostats, good panel with meter opening and sub panel, all for \$25.00; Capehart T30 Maroon table set, good shape, \$20.00, add UPS.

WANTED: Sleeper Troubador diagram and cabinet for 7 x18 panel. George Hausske, 1922 E. Indiana St., Wheation, IL 60187. Phone (312) 668-3845.

HAVE a manual for Ryders RCA Chanelyst. WANTED: Federal no. 65 audio transformer, winding condition not importat. Restorable Atwater Kent model 50 battery recvr. A power supply, made by Radio receptor Co. and sold under the trade name "Powerizer". Was used to convert battery receivers using 201A tubes to use 226 and 227 tubes (AC) with adapters. Also had a power amp in the supply using a 210 tube. Cornell-Dublier RF transformer, 220-550 kc. Garod 5 tube neutrodyne using UV199 tubes, has voltmeter on panel for A&B voltages. Western Electric type 216A, 205D, e, or F, 239 tubes. 216A glows with 6 volts & 205 with 4.5 volts. Tad Drogoski, 507 Coal Valley Rd., Clairton, PA 15025. Ph. 412-466-5950.

FOR SALE: Radio related Jewelry, Send L. S. A. S. E. with 45¢ postage to: Michael S. Sabodish Sr., 28 Middlesex St., Matawan, NJ 07747, for illustrated list.



I H R S Meeting At Martinsville

Beautiful sunny weather in Southern Indiana combined with the company of radio and phonograph collectors produced a very successful Indiana Historical Radio Society meeting in Martinsville.

The parking lot swap and sell provided a wide variety of radio gear for the collector. A sample of items available includes Crosley 52, Areola Sr., Radiola VIII, Zenith all band portables, Scott Console, and many more radios and parts.

Dr. and Mrs. Drake lead an informative tour for I H H S members at the Midwest Phonograph Museum.





World Radio History

OBITUARIES Ellery Drake; avid collector of phonographs

Martinsville, Ind. — Memorial services for Dr. Ellery T. Drake, 75, retired surgeon and internationally known collector of early phonographs, will be at 7 p.m. today in Neal & Summers Mortuary, with calling from 2 p.m. until services.

He died Wednesday.

Dr. Drake practiced at the Morgan County Hospital from January 1963 until August 1974, when he joined the Social Security Administration as a medical adviser. He retired in 1977.

Previously, he did general practice medicine in Williamson, W.Va., and general surgery in Detroit.

He and his wife, Kathleen M. Krueger Drake, owned the Midwest Phonograph Museum at Martinsville. In addition to hundreds of phonographs, the museum has in its collection 50,000 disc recordings. Victrolas and other talking machines, spanning the first 50 vears of sound recording.

AUG. 23,1989

The number of phonographs in the collection, which is larger than that of the Smithsonian Institution or the Thomas Alva Edison private collection in New Jersey, is believed to be the largest in the world.

Dr. Drake's collection was begun in the 1960s because of his love of old operatic recordings. He and his family even settled in Martinsville, because it was midway between the Cincinnati and Chicago opera companies.

A graduate of Ohio State University and Harvard Medical School, he received his master's degree in surgery from the University of Michigan and completed his American Board of Surgery in 1958.

He was a Navy veteran of World War II.

He was a member of First United Methodist Church of Martinsville.

Memorial contributions may be made to the Parkinson's Awareness Association, 721 Sherwood Drive, Indianapolis, Ind. 46240.

Survivors: wife, Kathleen M. Krueger Drake: daughters, Pamela Jean Gregory, Nancy Ann Schubeck and Suzanne Louise Drake; sons, Bradford and David Ellery Drake; sister, Evelyn Horanick; five grandchildren.



I H R S July 1978 Meeting at the Midwest Phonograph Museum in Martinsville, Indiana.



Vintage radios and parts of interest to all collectors.



WANTED!

The COON-SANDERS ORCHESTRA, coled by Carlton Coon and Joe Sanders, entertained not merely the dancers at the Muehlebach Hotel in Kansas but also radio listeners throughout the country who, during the late twenties and early thirties, could pull in the band's clean, straight-ahead, commercial music via a strong radio station, WDAF. The broadcasts created such a demand for the band that it soon went to the famous Blackhawk Restaurant in Chicago. There its numerous network air shots

attracted even more people. After Coon died, Sanders, billed as "The Old Left-Hander," took over the band. It became known simply as Joe Sanders and His Orchestra, continued to find some success, mainly in the Midwest, but didn't engender the excitement it had during the days when it sported a hyphen.



"The Old Left-Hander"

As a high school boy, growing up in Mishawaka, In, I could receive all the Chicago radio stations. My favorite programs were the play-by-play broadcasts of the Chicago White Sox and the remote pickups of the Big Bands playing at the Aragon and Trianon ballrooms in Chicago.

One of my favorites was Joe Sanders, "The Old Left-Hander". For a long time I've been trying to find two songs he played; one was "The Night I Found A Rose In The Snow" and the other was "I'll Never Forget I Love You".

I would like to find these two selections on 78 RPM records. If you have these records or a cassette recording of these records please drop me a line with your price. James Fred, R. 1, Box 41, Cutler, IN 46920. Thanks.

First State FM Station Was Here Evansville Press, May 20, 1989

It is very interesting to note that the first FM radio station in Indiana was at Evansville, and its call letters were W45V (later WMLL).

In November, 1940, it was one of the first 15 FM stations in the United States to be granted a commercial license by the Federal Communications Commission. The Evansville FM station licensee was Evansville on the Air Inc., which at that time operated AM radio stations WGBF and WEOA (now WIKY) as well as W45V, all of which had their studios and offices at 519 Vine St. These were the Tri-State's pioneer AM stations: WGBF (1923) and WEOA (1936). They were operated by the Clarence Leich family.

In 1942 and early 1943, while a student at Evansville College, and prior to my being called to active duty as a naval officer during World War II, I was an announcer and control room engineer at the three Evansville stations. I hosted a two-hour program on W45V called The Victory Show, which was broadcast live from 11 a.m. to 1 p.m. five days a week and was piped into the public address systems at the cafeterias of several war industries, including the Evansville Shipyard and Republic Aviation aircraft plant. The program featured the big-band orchestras, military bands and the news.

> RALPH WAYNE MILLER IHRS Member Indianapolis, IN