

Indiana Historical Radio Society
BULLETIN

Vol. 2

December 1973

No. 4



FALL MEET FEATURES DEFOREST DISPLAY and WSBT GUEST SPEAKER

The Fall Meet was held on Sunday, October 14 at the Concord Mall Community Room in Elkhart. Our guest speaker was Mr. Justin Meacham, promotion manager of Station WSBT, South Bend.

Mr. Meacham told of the early days of WSBT, including the South Bend Tribune's claim to "The Birthplace of Commercial Broadcasting." Station WGAZ received a federal license to operate on June 29, 1922. On July 3, 1922, the Ries Furniture Co. sponsored the dedication program. Mr. Meacham also read some very interesting and amusing notes from the station's early log sheets.

Jim Thomas was moderator for a successful Communications Panel. The "Old Timers" came through with some very interesting stories about early radios in Indiana. It was suggested that each member of the Club gather more information from his own area on early Indiana Radio Companies. We need to publish such information in a special edition of our IHRS Bulletin.

Election of officers, new motions, and changes in the Constitution By-laws were on the list for the business meeting. The following persons were elected to office for the coming year. President - James Thomas, 915 S. Washington Street, Kokomo, IN 46901. V-President - Fred C. Prohl, 7257 Murphy Drive, Indianapolis, IN 46256. Secretary - Ross Smith, 1133 Strong Avenue, Elkhart, IN 46514. Treasurer - Ed E. Taylor, 245 N. Oakland Avenue, Indianapolis, IN 46201. Historian - Julian Stark, 3230 E. Maplegrove, Fort Wayne, IN 46805. Editor - Gary A. Vierk, 2505 Kickapoo Drive, Lafayette, IN 47905. Membership Committee - Marshall Howenstein, 807 Elm Drive, W. Lafayette, IN 47906 and Delbert Barrett, 1517 Pacific Drive, Fort Wayne, IN 46819.

A motion was passed to establish Ed Taylor's new Radio Museum in Indianapolis as the IHRS Headquarters and mailing address. A change in the By-laws also was voted on to allow a maximum of 5 consecutive years for the Treasurer to hold office instead of two. A motion for the IHRS to donate \$25.00 to the Antique Wireless Association Museum Fund was also accepted.

OFFICERS

President	ROSS SMITH, 1133 Strong Avenue, Elkhart, IN 46514
Vice President	JIM THOMAS, 915 So. Washington Street, Kokomo, IN 46901
Secretary	JIM FRED, Rural Route 1, Box 28, Cutler, IN 46920
Treasurer	E. E. TAYLOR, 245 N. Oakland Ave., Indianapolis, IN 46201
Historian	MARSHALL HOWENSTEIN, 807 Elm Drive, W. Lafayette, IN 47906
Editor	GARY A. VIERK, 2505 Kickapoo Drive, Lafayette, IN 47905

"An amateur organization devoted to the history of wireless"

NEWS JOURNAL:
"Old Timer's Bulletin"
RADIO STATION:
"Amateur - W2AN"
FACILITIES:
"A.W.A. Museum"
MEMBER:
"American Assn. of Museums"
"Affiliate - A.R.R.L."

The Antique Wireless Association, Inc.

HOLCOMB, NEW YORK 14469

255 Danbury Circle South
Rochester, New York 14618
October 29, 1973

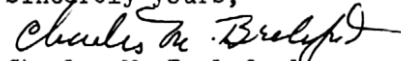
Mr. James A. Fred, Secretary
Indiana Historical Radio Society
245 N. Oakland Avenue
Indianapolis, Ind. 46201

Dear Fred:

Thank you for your letter of October 21st enclosing the check of twenty-five dollars toward our Museum Fund. This will give you an official acknowledgment of its receipt.

Bruce Kelley, Linc Cundall and I on behalf of our members certainly thank your organization for your interest and support. While we have not yet signed lease papers with the East Bloomfield Historical Society for use of part of their Academy Building, we are at the stage of final negotiations about the details and hope to have the program really under way before long.

Sincerely yours,


Charles M. Brelsford
President

CC. L. Cundall with check.

RADIO PIONEER SELINGER DIES

Henry Selinger died October 21st, at the age of 78. He had managed WGN in Chicago from 1924 to 1931.

Mr. Selinger was responsible for the development of the first "daytime serial" entitled Painted Green aired on WGN. Also the famous Amos 'n Andy serial got its start on WGN under the name of Sam 'n Henry.

news roundup

ED TAYLOR (Indianapolis, IN) now has a Radiola V in his collection.

MARSHALL HOWENSTEIN (Lafayette, IN) found a telegraph sounder at a flea market. He has restored it to fine condition. Also he has restored a Zenith 4R receiver.

JOHN NOBLE (Loveland, CO) found a Crosley Ace. John is now residing at Loveland, Colorado. His address is P.O. Box 171, Loveland, CO 80537. He is working for the Colorado Crystal Corporation.

DR. RALPH MUCHOW (Elgin, IL) is continually expanding his collection with rare items.

ROSS SMITH (Elkhart, IN) got another telephone for his growing collection of phones made by the Chicago Telephone Supply Company.

GLEN ROGERS (Lafayette, IN) has added a Crosley Pup to his collection.

ED TAYLOR (Indianapolis, IN) found a nice Bunnell brass wireless key at a flea market last week. It was in the bottom of a box of junk.

GARY VIERK (Lafayette, IN) added several items to his collection including a Federal 59, a Crosley VI, and two tuning condensers and a billi condenser from a 1913 Marconi No. 103 Receiver.

SPEAKER DISPLAY

Through the combined efforts of IHRS members in Lafayette, IN, a display of early radio speakers has been assembled at the Tippecanoe County Historical Museum in Lafayette. Marshall Howenstein, Glen Rogers and Gary Vierk contributed equipment and arranged the display.

for every
Christmas Radio Set
use only genuine RCA Radiotrons

IHRS ESTABLISHES PERMANENT HEADQUARTERS IN INDIANAPOLIS

The permanent headquarters and mailing address for the Indiana Historical Radio Society has been established to help coordinate our expanding organization. The address is 245 N. Oakland Ave., Indianapolis, IN 46201. This is the home of the new museum opened by our Treasurer, Ed Taylor.

****1974****

****Membership dues are now payable****

Please make check payable to "TREASURER INDIANA HISTORICAL RADIO SOCIETY" and send to E. E. Taylor, 245 N. Oakland Ave., Indianapolis, IN 46201. Dues are only \$5.00 for the year.

	Wholesale Radio Equipment
Same Day Shipments	

- - APPRECIATION - -

The IHRS wishes to extend its appreciation to Robert G. Middleton (Santa Cruze, CA). Bob has contributed articles to this Bulletin throughout the year. His articles have certainly added to the quality of this publication. We hope he will continue to support the IHRS with his Bulletin material.

The quality of this Bulletin would not have been possible without the help of Mr. George Bradfield, printing instructor for the Clinton Prairie High School in Frankfort, Indiana. Our thanks go out to Mr. Bradfield for a fine job.

CREBE
SYNCHROPHASE
RADIO

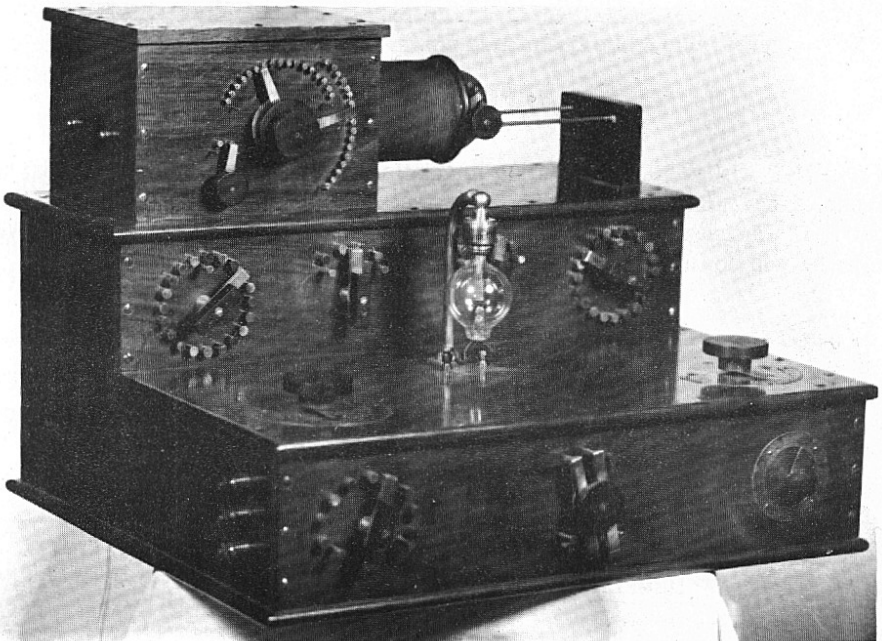
Polymet Mfg. Corp.
70-74 Lafayette Street
New York City

**Very Early De-Forest Spherical Audion
Receiver – Built 1912–14
First Place Winner - Regenerative Receivers - 1973 A.W.A.**

This very interesting Receiver was found at the Missouri Technical Institute, St. Louis, MO, in the Spring of 1973. The set had been built of factory components by the students as a teaching project, and has been restored to excellent condition. The school had been closed for some time, and the lab equipment had to be sold this year, thus the opportunity to acquire the receiver presented itself.

This receiver uses a tuned primary and tuned secondary circuit, and has two huge loading coils, (one for primary and one for secondary) enclosed in the base of the cabinet. Primary tuning is by taps only, and secondary tuning is by taps and variable condenser (a 43 plate Murdock). Regeneration is very critical, and is controlled by very closely adjusting the "B" battery voltage by 2 series of taps, and adjusting the regeneration variable condenser (Murdock 23 plate) in the plate circuit. Filament control is by varying the Deforest Porcelain Rheostat.

The loading coils may be shunted in or out of the primary and secondary circuits, and are themselves varied by means of three sets of taps. A fixed paper and tinfoil capacitor can also be shunted across the 43 plate variable to increase the capacity of that tuning condenser. With these adjustments, it is possible to tune from 200 to 10,000 meters with the receiver. Provision is also made for connecting an external crystal detector if desired.



This so called "staircase," or "step" design was a popular approach to cabinet design in the very early days, as it made it possible to have many controls available without extending the panel length to unwieldy proportions.

Dr. Ralph Muchow

PART TWO.

Apparatus & Instruments



THE ELECTRO IMPORTING CO.
233 Fulton Street 23 Rue Henri Maw
New York Brussels
U. S. A. BELGIUM

Restoring Antique Radio Receivers

Audio Transformers

The collector soon discovers that a good audio transformer is the exception rather than the rule in an old battery radio. Fig. 7-2 illustrates a typical audio transformer in an Erla reflex set. It is very difficult to repair an open winding in an audio transformer, because the wire is very fine and the coils are impregnated with wax. If a replacement transformer cannot be obtained from an antique radio dealer, or from another collector, it is usually possible to put the receiver into operation by changing the amplifier circuit from transformer coupling to

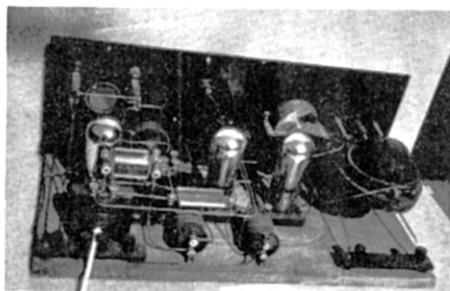


Fig. 7-2. Arrow points to audio transformer.

impedance coupling, as shown in Fig. 7-3. In this example, the primary winding is used because the secondary winding is open. A coupling capacitor and a grid-leak resistor are added to the circuit to provide impedance coupling between the tubes. In case the primary winding happens to be open, the secondary winding of the transformer can be used in the impedance-coupled circuit.

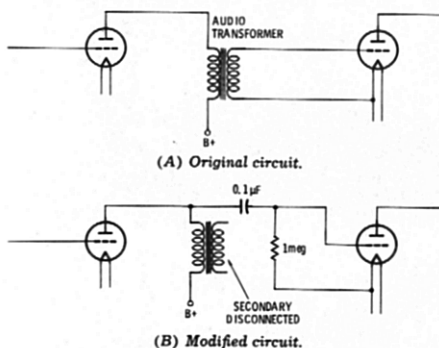


Fig. 7-3. Audio transformer used for impedance coupling.

We will often find situations in which both the primary and secondary windings of an audio transformer are open. In such a case, the receiver can be put into operation by changing the amplifier circuit from transformer coupling to resistance coupling, as shown in Fig. 7-4. Both impedance coupling and resistance coupling provide less gain than transformer coupling; on the other hand, fidelity is usually improved considerably. It is often possible to mount the added capacitor and resistor behind the audio transformer, where they are not readily visible. Thus, the original appearance of the chassis arrangement is not greatly altered. Some collectors

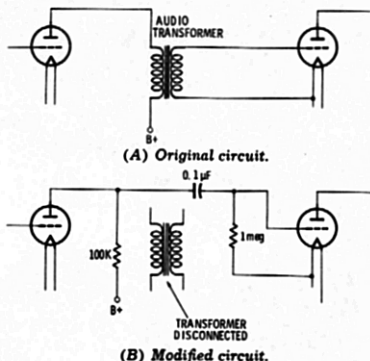


Fig. 7-4. Transformer coupling changed to resistance coupling.

will replace an original audio transformer with another type of audio transformer that is in working condition. Fig. 7-5 illustrates some various brands of audio transformers used in battery sets.

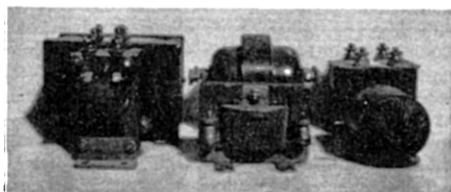
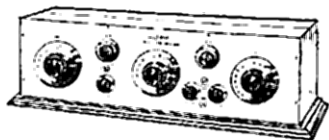


Fig. 7-5. Various audio transformers used in battery sets.



Tungar
REG. U.S. PAT. OFF.
BATTERY CHARGER

CROSLEY

The Crosley Corporation manufactured many different models during the early years of commercial radio broadcasting. The following list has been compiled from Radio News by Serge Krauss. This is a numerical list of each model in order of offer in Radio News. This list includes only those models using the name Crosley. Harko and Precision Equipment sets are not included in this list. Can anyone add to this list.

Crosley Model

Crystal Receiver No. 1	Super X-J
3B	X-L
3C	No. XV
Trirdyne	XVIII
IV	No. XX
IV Special	XX
Harko Senior No. 5	XXV
Harko Senior Model V	50
V	50-A
V Special	50-P
Vc	51
Vd	51 Special
Type V	51-A
ACE Model V	51-P
Receiver No. 6	52
Receiver Model VI	52 Special
Model VI	4-29
VI Special	5-38
Super VI	5-50
Model VIII	5-75
Receiver Model No. X	RFL-60
Receiver Model X	RFL-75
Model X	RFL-90
X-J	

FRIENDLY EXCHANGE

WANTED – Wooden case for Radiola Senior made by Westinghouse. See page 106 lower left photo of Vintage Radio. Also need Century Buzzer for IP 501A Dave McKenzie, 1200 West Euclid, Indianapolis,

WANTED – Wooden case for Radiola Senior made by Westinghouse. See page 106 lower left photo of Vintage Radio. Also need Century Buzzer for IP 501A. Dave McKenzie, 1200 West Euclid, Indianaola, Iowa 50125.

FOR SALE OR TRADE – Several issues of QST 1922 to 1928, and Radio 1927 to 1941. No list. Write your needs. Also have junker panel for Sodian Receiving Set Type DR6. Has good identification tag, knobs, rheostat, tube socket, some binding posts. Good for parts only. Have 201A and 301A tubes for trade. Dave McKenzie, 1200 West Euclid, Indianaola, Iowa 50125.

FOR SALE – 2000 Radio and TV tubes at \$1.00 to \$3.00 each, old Radio dials \$2.00 to \$5.00 each. Write your needs. James Fred, R1, Cutler, IN 46920.

FOR SALE OR TRADE – Magnavox R-3 horn speaker (1924), several pairs of Brandes phones. **WANTED**—Crosley Model 52. Gary Vierk, 2505 Kickapoo Drive, Lafayette, IN 47905.

WANTED – My Radiola V needs both large dial knobs on the detector side and and one metal top cover. Can anyone help. Ed Taylor, 245 N. Oakland Ave., Indianapolis, IN 46201.

FOR SALE – 1925 APEX 5 tube radio with loop aerial and "A" battery Eliminator. Wm. J. Lambert, 5117 S. Merrimac, Chicago, IL 60638.

FOR SALE – 1925 AK Model 35 with Type "E" speaker. Ed Kerz, 107 Tanner. Bloomington, IL 61701.

FOR SALE – "1921 Consolidated Call Book," \$7.50; 1910 book, "Boy Aviators on Secret Service" or Working with Wireless, \$2.50; 1935 "Popular Mechanics Radio Builders Manual," \$1.50; "March 1935 Popular Mechanics" with Deforest article on TV, \$1.00. Would trade any of above for 1923 or older Radio News or QSTs. Also have 1918 "Electro Importing Co. Catalog No. 20" as part trade in on Paragon or Crystal Set. George Hauske, 1922 E. Indiana St., Wheaton, IL 60187.

H. P. Rockwell of Rockwell Engineering in Indianapolis, IN, has donated a Weston 661 Tube Tester to the IHRS. Our appreciation is extended to Mr. Rockwell.

-A- BATTERY ELIMINATOR

By Ed Taylor

The one bugaboo for operating antique radios has always been the A battery. To use a 6 volt storage battery is messy with acid, water, chargers, etc. and most people do not want the fumes and danger in their homes.

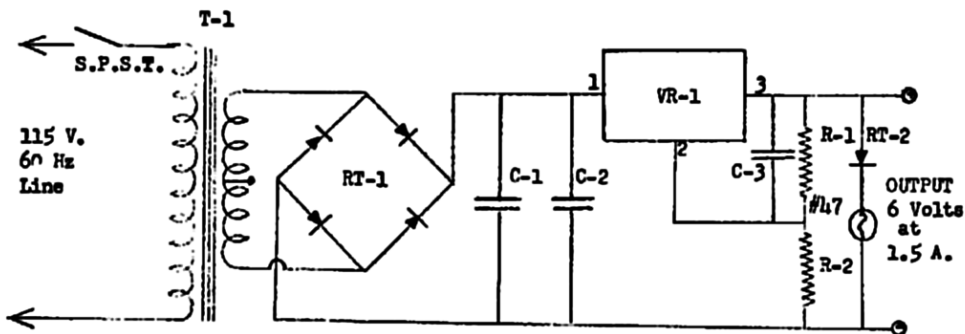
Old style A eliminators were very cumbersome with adjustments and liquid or dry rectifiers, heavy transformers, chokes, and capacitors which, even then, did not completely filter the A.C. hum.

The circuit illustrates a compact solid state 6 volt A battery eliminator which features electronic regulation and filtering. There is nothing to adjust as the correct voltage is present on 1 to 6 tube sets using the 01A type tubes. Other 5 volt tubes may be used as long as the total current does not exceed 1.5 amperes.

The heart of the package is a monolithic silicon integrated circuit voltage regulator which contains the equivalent of about 23 transistors and diodes. This \$3.75 unit must be mounted in a aluminum fin-type heat sink for maximum efficiency.

A #47 pilot lamp serves 3 functions. It signals that your eliminator is turned on and if there is a short in your receiver it will dim or go out. the bulb also discharges the filter capacitor when the unit is turned off. A diode is connected in series to lower the voltage for longer life.

This little project is well worth a few hours labor and the parts should cost about \$20.00. Normal substitutions could always be made to lower the cost even more and it will give you many happy listening hours on your antique battery radio.



PARTS LIST

- T-1 12.6 V. C.T. Transformer (Stancor P-8130) 2 Amps.
- RT-1 Diode Bridge (Mallory FW50)
- RT-2 Diode (Mallory SI-05A)
- C-1 1500 μ F 30 V. Capacitor (Mallory TC 2515B)
- C-2 .02 μ F Capacitor (Mallory MAG 2512)
- C-3 .1 μ F Capacitor (Mallory MAG 1601)
- R-1 3900 ohms 1W. 5% Resistor
- R-2 180 Ohms 1W. 5% Resistor *NOTE* May need to be altered for exactly 6 v.output.
- VR-1 VOLTAGE REGULATOR (National LM309K or Motorola MLM309K)

A U C T I O N
A Playlet in One Act
by
Marshall Howenstein

SCENE I Time: Summer 1973 — At the Auction

Auctioneer: "Now here is something that looks like an old radio. This big panel with dials and a few tubes, and here is something that goes with it—looks like a transformer and a tube and some other electric parts. Who'll start this off with ten dollars?"

(No Response)

"Now folks don't be bashful, your guess as to what this should be is as good as mine. Think of the wire and parts that could provide some youngster hours of pleasure tearing it apart. Would you start it off at five dollars even?"

(No takers)

"O.K. we'll go to another item and set this one back on the fire."

ONE HOUR LATER

Mr. A. (janitor at the museum) approaching the auctioneer at the close of the auction:

"I see that that contraption didn't sell. Looks like some kind of an old radio, but I never did see anything like it before. I know a feller who collects this kind of stuff and he might be interested in it. What will ya take for it?"

Auctioneer: "Well, what'll ya give me?"

Mr. A. (searching his pockets) "Well, all I've got with me is four dollars."

Auctioneer: "That's good enough. Give me the four dollars and take it with you."

SEVERAL DAYS LATER

Scene II at the Museum

Mr. A. upon seeing **Mr. H.:** "Say Mr. H., I bought something at the Battle Ground auction last Saturday afternoon and I thought you might be interested in it. Looks like a radio of some kind, I'll get it and let you see it."

One Act Playlet - continued

(Mr. A. goes to his room and brings out the two pieces and sets them on the floor)

"I know you collect old radios and I took a chance on buying this. It only cost me four dollars, so if you don't want it I'm not out very much."

Mr. H. (Looking at it with great surprise)

"Why Mr. A. I'll be delighted to give you your money for this. It's a short wave transmitter of the early forties."

Mr. A. "Well, I thought you probably would know what it was and here is a letter that went with it." He hands the letter to Mr. H.

Mr. H. (Reading aloud)

"United States of America, Federal Communications Commission, Washington. Certificate of Registration-Amateur Transmitters. This is to certify that the apparatus described herein has been in accordance with Federal Communications Order No. 101, dated June 19, 1942, and subsequent modifications thereto.

Mr. A. I am delighted to have this for my collection and I am deeply grateful for your thinking of me. I suspect the owner of this in 1942 has long since passed on and this looks as if it had been stored in a barn for some years. I'll clean it up and try to make it look like new."

Mr. H. (Thinking to himself)

"How about that for a friend -- this transmitter and the power pack with all of the tubes good for only four dollars.

HOW ABOUT THAT?"

INDIANAPOLIS RADIO CLUB – OLD TIMER MEETING

IHRS members were guests at the Old Timer Meeting of the Indianapolis Radio Club held at the Indiana State Museum in Indianapolis, IN, on November 25. Ross Smith was on hand to present a slide show featuring the AWA Museum in Holcomb, NY. Several of our members were there to discuss the activities of our Society. The Club was very impressed with our Museum Display and even donated a Grebe CR-13 to the IHRS. This Radio Club claims to be the oldest in the world.

THE TELEFUNKEN LIEBEN TUBE

by

Robert G. Middleton

Among the very rare types of early tubes is the Telefunken Lieben tube, shown in Fig. 1. It used a perforated metal-disk grid, and was a "soft" tube. In other words, it operated in a gas vapor instead of a high vacuum. A platinum filament was utilized, which had a total length of approximately three feet. Platinum and tantalum filaments used in this era were quite long, because these metals have a comparatively low resistance. Fig. 2 shows a 1906 tantalum lamp. One of the advanced features of the Lieben tube was the use of a coated filament. The filament was coated with a mixture of calcium and barium oxides; it operated at a bright red heat. Lieben tubes required a 30-volt 2-ampere filament supply, provided by storage batteries. A 220-volt plate supply was used, with a drain of approximately 10 milliamperes. The anode was formed from heavy aluminum wire. A current amplification up to 30 times was provided by the Lieben tube. With a 440-volt plate supply, an rf output of 12 watts was provided at 600 meters.

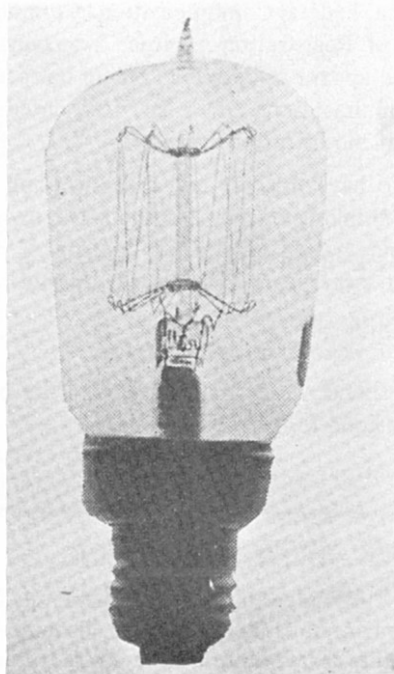


Fig. 1

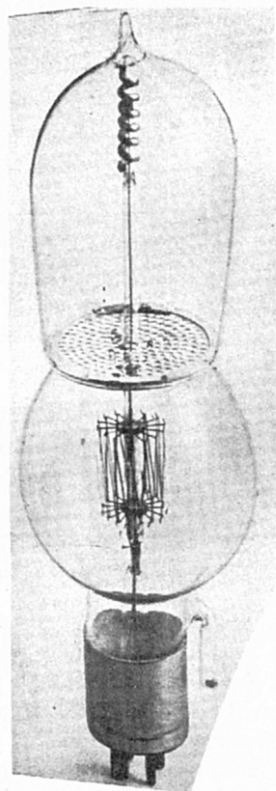


Fig. 2

Tower's

Bring Christmas
Cheer from far
and near



Think of the little hearts that will beat the faster on Christmas morn on finding in their stocking a gift so pleasing.

If you only will — Old Santa himself from way up North will talk to the kiddies, and stories tell.

No Other Gift
Can Bring Such Cheer
A Gift to Last
Throughout the Year.



*A Merry Christmas
and a Happy New Year*

Tower's Scientific Headset

Every set tested and approved by Government Licensed Radio Operators.

Tower's Scientific Headsets are guaranteed to be made of the best materials money can buy — highest test enamel, insulated magnet wire, best grade five-foot tinsel cord, unbreakable caps, polished aluminum cases — using the famous scientific head-band constructed for maximum comfort.

If your dealer cannot supply you, order direct by post card, and we will ship immediately Parcel Post, C. O. D., plus a few cents postage.

The Tower Mfg. Corp.
98 Brookline Ave., Dept. E, Boston, Mass.

Scientific

Tell them that you saw it in RADIO

Tower



The Gift Incomparable!

A gift ALL may enjoy—
A gift of unending pleasure—
now, and for years to come.
Tower Speakers and Headsets possess all the quality of the most expensive makes. Correctly designed, their perfect tonal capabilities are known from coast to coast.

Wherever there are ears that hear there's a Tower Product to brighten your Christmas and bring cheer and happiness throughout the year.

On Sale by Reliable Dealers Everywhere
TOWER MFG. CORPORATION
98 Brookline Ave., Boston

Meistersinger
Speaker

\$15.00

All Tower Loudspeakers
equipped with adjustable units



Scientific

\$8.50



Midget



Meistersinger \$15.00
CABINET MODEL

Phonograph
Attachment



\$3.25

Little
Spitfire



\$4.95

WORLD'S GREATEST SPEAKER VALUES