Aetaco Products Meet the Requirements of Quality and Pocket Book

Here's Our Newest Model Crystal Detector!

Our new model Crystal Detector is mounted on Genuine Bakelite XXX Grade base—not moulded. Has double rubber tip binding posts. Supplied with a super-sensitive, mounted galena crystal. Over-all dimensions of detector 2½"x2"x2". Net weight ¾ lb. Shipping weight ¾ lb.

This AETACO Detector is the best instrument of its kind that has ever been developed along the line of radio equipment. It has no equal for convenience of operation, efficiency and finish.

Price, $2.00

Radio Fans Will Welcome This AETACO Inductance Coil Mounting!

The AETACO 3 Coil Inductance Coil Mounting is another high quality, medium priced product of ours. It is not a moulded affair. Manufactured from genuine Bakelite, XXX Grade. Consists of three Bakelite standard plugs held in place by Bakelite frame. As the plugs are mounted on bearings the coupler between the coils can be changed at will. All metal parts are nickel plated. Connecting wire is soldered on rear of plugs so that connection can be easily made. Shipping weight 1 lb.

A truly high-class and thoroughly well made mounting.

Price, $5.00

COMPLETE RECEIVING SETS, $15 TO $300

Write for Catalog!

American Electro Technical Appliance Co.

227-229 Fulton Street, New York

Branch Store, 235 Fulton Street, New York
The Ideal Broadcast Receiver

It is unrivaled in its simplicity of installation and its efficiency of operation, in its beauty of form and finish.

The Ideal Broadcast Receiver

Let your dealer show you this unique instrument.

Federal Telephone & Telegraph Co.

BUFFALO, NEW YORK

DX AMPLIFIER

Type DX-2. Detector and Two Step, with special amplifying transformers, completely wired, only $48.00

IMMEDIATE DELIVERY

Satisfaction Absolutely Guaranteed

MANUFACTURED BY

DX RADIO COMPANY

SUMMIT, ILL. FACTORY, ARGO

"Where Dependable Quality Is Low Priced"

THE National Radio Monthly

Radio Topics for

New York Radio Show Surpasses Greatest Anticipations

Attendance of 12,000 at Exhibit. Greatest Show Ever Held Sets All New York Wild Over Radio. Newspapers Fire Public's Imagination

O THE second annual radio show held by the Executive Radio Council of the Second District at the Pennsylvania Hotel, New York City, March 7 to 11, achieved the greatest success of any commercial exhibitions held in New York. The phenomenal attendance proved conclusively the extent to which the radio broadcasting has been taken up by the general public. A total of over 25,000 paid admissions were recorded and more than 10,000 additional are estimated to have been present during the four and one-half days that the show was open.

The interest displayed by the press and general public was far above the highest estimations of the committee, with the result that thousands of people were unable to obtain admission, the attendance being so great at times that it was necessary to stop the sale of tickets. Two hours before the show was scheduled to open the first night the crowds thronged every corridor and passageway in the hotel. The passenger elevators could not handle the multitude, so the freight elevators were brought into play. The wonderful showing is even more remarkable when it is considered that very bad weather prevailed during a good part of the time.

Despite the unforeseen conditions, the members of the committee, prominent among whom are Renville H. McMann and J. O. Smith, handled the entire show with commendable skill.

Manufacturers and dealers from every part of the country were present with a diverse number of exhibits, none of which were very unique. The following is a list of those who had displays:

American Electric Works
Andrus & Company
L. S. Black Manufacturing Company
Commercial Telephone & Electric Company
Connecticut Electric Supply Company
Date Manufacturing Company
Electrical Supply Company
Electrical Supply Company
Electrical Supply Company
Engineers' Supply Company
Engstrom Manufacturing Company
Experimenter Publishing Company
Fisher Manufacturing Company
General Apparatus Company
General Electric Company
Hoffman Radio Works
International Radio Exchange
Janssen-Hall Electric Corporation
Kaye Manufacturing Company
Leitner Electric Company
Loewy Manufacturing Company
Magazine Manufacturing Company
Mako Manufacturing Company
Powers Manufacturing Company
Rettey Manufacturing Company
Summit Manufacturing Company
United Electric Company
Wadsworth Electric Company
"We don't quite understand when the idea of the transmission is, but it helps the general effect of the picture. The resulting pictures and the music are entirely satisfactory, and if the thing success economically it will be a great thing for the future of wireless telegraphy in this country and the United States. It is the most wonderful thing that ever took place, as far as I can see, in the world.
developing radio receiving apparatus. It points towards the efforts to produce a self-contained complete receiving set in cabinet form likened to the music boxes. It is soon coming when every phono
cabinet into which sets can be brought in the continual broadcasting
of the news, and to present the speakers of the top broadcasting
stations, and to present the speakers of the night's entertainment.

Edward F. Glavin and his wireless
apparatus, which is a model of the
big mechanical stunt of the night,
was the big mechanical stunt of the
night. He was dressed as Mr. De Forest.
Edwin Smith's pounding gavel
was the big mechanical stunt of the
night. He was dressed as Mr. De Forest.
and demonstrated the marvels of the
"Marvel," receiving sets at the show.
The firm's numbers are the inventions
and sole manufacturers of this do have
looking receivers. Mr. Glavin displayed
much good humor. Despite the fact
that he had to be a human information
center for the throngs that assembled
at his booth day and night. The young
and old enthusiasts marveled at the
"Marvel" and would have liked
to see it take it apart and put it
together again if their curious
questions were answered in full.
Mr. Godley and his apparatus em
ployed in receiving the Trans-Atlantic
signals proved of interest to the visi-
tors, as did the complete transmitter
installed by station WGB. The New
York Globe and the New York Mail,
daily newspapers, passed out sample
copies of their papers, which are now
altered in the same way. A. H. Grebe & Co. &
came of the people in the balcony all
were ordered with a smile in answer to
the queries of the young nurses.

The gala affair terminated with a
banquet at Walker and Lispenard
Streets, and the news of intense interest
received much praise from the
schoolboys and amateurs in
making the Topics: flying machines do
bore the inscription, "Just a plane
above the others-RADIO TO PI CKS,"
and then to shoot it on its way,
instead of the planes performed
in the regular broadcastings of concerts
were arranged for the reception of the
waves, and the crystal set was
bought. Every conceivable stunt was
presented to the speakers of the night's
entertainment.

A review of the apparatus on dis-
play clearly showed the trend in the
development of radio receiving ap-
paratus. It points towards the efforts to
produce a self-contained complete
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Radio Station 9HY
of Chicago

Radio Topics for April, 1922

Just a Little Radio Jealousy
A Short Story by EVALD A. SCHIVO

I
F Vivian Darus intended to marry Harold Gayley by her telephone, the arrangement amounted to a gross
vulgarity, but once under every circumstance.
Although she might be the only girl he said, Gayley
plunged into the distance, but he was, being aware of
his own action, the apparent outcome was her own
concern.

That a girl should even think she might outdo a radio
man was preposterous, and, to have her actually start
the wheels to turning—radio! Gayley was for men, young
especially, not for girls. Harold was sorry for Vivian,
but it was her own doing. He could do nothing to prevent
other radio men from entertaining her.

He listened for her voice, half expecting—she might
not get the set in operation. A course of action had been
decided upon; he would expect her as such an aspect
that she would accommodate herself to the radio in
distress.

He waited. She had told him over the telephone
to expect her call. Eight o'clock, and—she was
now eight-thirty.

The minutes passed. The young man's heart
would not have room in it; he was nervous.

"Hello, Harold," the girl's voice seemed to say through
the receiver. Gayley adjusted his apparatus.

"Odyssey, Odyssey," Gayley repeated, "what's the matter?
I am getting very little return here."

"Hello, Harold," the girl's voice seemed to say through
the receiver. Gayley adjusted his apparatus.

"Hello, Vivian," he replied, half expecting the
answer.

"Hello, Vivian," he asked, hoping for the
answer.

She seemed to know the meaning of the
word. "Very good, gay," he thought to himself.

Dr. Newton, who had been the engineer, said
when he got the set in operation.

Sexual jealousy and the psychology of
radio was fairly well understood.

A drawee and an arch opening for the
key was made for the above and
which elevates it to the level of
other equipment. The complete
receiver assembly is mounted
plate glass, as a key. A typewriter
keys enclosed in the desk ready for
was, but also that he could
ment in use in wireless telephone
communication.

Vivian Darus intended to marry Harold Gayley by her
telephone, but once under every circumstance.

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plunged into the distance, but he was, being aware of
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for his call she came back with an answer immediately.

"Please stand by for a few moments, Harold," she said. "I was a little busy."

"I know," replied Mr. Davis. "Vanancock is only a few miles away."

"I also have a few messages for you, please answer. Go ahead."

"I am a little busy, but I'm glad you called."

"My name is Harold," she said graciously. "I am going to be mighty glad to oblige you. 'Where are you? Your voice stopped."

"I'll be right there," she replied. "I will answer your call for sure."

"Is there anything else you would like me to do?"

"Please stand by for a few moments, Harold."
and there are no guys used whatever. They are bolted to concrete pad with 1 1/4 inch bolts and do not go into the ground, hence, will not rust at the base.

The lead-in consists of four wires brought together about 10 feet above the ground, forming a mast that tall from the ground. The wires are held 4 feet above the antenna, the northwest flat top portion, and directly underneath the antenna, the wire being about 15 feet apart and 70 feet long, and very carefully insulated. The counterpoise extends 15 feet beyond the antenna at both ends. This counterpoise is connected to the inductance on the transmitting end by using a 1/2 inch copper tube, tubing, which should be about 3 inches long and 3/4 inches.

**Radio Topics for April, 1922**

**The Milwaukee Amateur Radio Club**

By C. N. CRAPO, President

The Milwaukee Amateur's Radio Club was founded in January, 1919, by L. S. Baird, A. C. Kletzsch, Jr., D. B. Hinz and Antonio Pawling. In its pre-war existence it could have been characterized as the Junior amateur radio organization of the city. This existence being one of but a few months, all the early members were drawn from but a limited section of the city.

Previous to the founding of the Milwaukee Amateur's Radio Club, two of the local high schools had organized radio clubs, and one or two other attempts were made to found local wireless clubs, but with pre-excepted none endured long. This exception was the Milwaukee Radio Association, which at the time of the founding of the Milwaukee Amateur's Radio Club constituted the senior radio association of Milwaukee. This association did not survive the war and period of government ban on amateur radio activities. Its post-war membership was absorbed by the Milwaukee Amateur's Radio Club. Among these members were Robert Hinzler, C. F. Bates, L. J. Prall and L. A. Degner.

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The club became affiliated with the American Radio Relay League, Inc., and officer's appointed city manager. Many other events, both business and social, took place this year.

The club opened the season of 1920-1921 with L. S. Baird, chairman of the board of directors; G. C. Craig, president; A. B. Lound, vice president; Louis Haymon, secretary, and W. K. Supplested, treasurer and business manager. Mr. Craig succeeded Mr. Dugger as city manager for the American Radio Relay League, Inc. Meetings were held on the second Tuesday of each month, in the trustees' room of the Milwaukee Public Library.

The Milwaukee membership of the club has been growing rapidly, and has an active interest in both the business and social affairs of the club. The membership of the club has been growing rapidly, and has an active interest in both the business and social affairs of the club.

In the spring of 1919 and shortly after the founding of the club, amateur radio activities were afoot on a very small scale. For only a short period, its members were receiving communication on wireless from a local radio station, and the School of Engineering. Some of its members joined the Milwaukee Amateur Radio Club.

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WASHINGTON despairs in indicate that the radio conference has not come to a conclusion as to the use of the wireless telephone and the great waves of energy of various wavelengths.

Broadly, the committee seems to have determined that amateurs shall continue to make use of the apparatus, except in cases where they are carrying on experiments similar to technical and training schools, in which cases they may be permitted to go to 275 meters.

Various members of the Washington conference on Radio Wavelengths.

Radio Topics for April, 1922.

Elevated Roads to Adapt Radio

F the present plans of the Chicago Elevated Railroad do not work out, the patient stragglers will gladly pay the dernier d'oraire without any murmur and be willing to donate an extra fare or two for the privilege of riding on the elevated. The elevated is figuring on installing a radio telephone system for its lines and furnishing its passengers with music, even grand opera on their way to and from work, not only will the passenger be entertained, but it will be possible for you to call your home while in transit and order your meals, and the first trial of the radio was made on a Chicago North Shore and Milwaukee electric line yesterday. A dozen pretty girls from the offices of the line danced with the radio officials to the strains of music transmitted from the radio station on top of the City Hall. They were also able to carry on conversations with the chief of the fire alarm system in Chicago, and every test proved eminently successful.

Radio Dance for Boys

April, 1922.

Radio Dance Orchestra will play the dance program after 9 O'clock.

Miss Abby Putnam Morrison, the New York society girl, who is the only licensed U. S. naval operator, and who served as an inspector of radio on board ships for the government during the war, is boosting her Woman's Amateur League Alliance, etc. , which it aims to the Amateur Radio Relay League.

Her efforts to have chapters of the national organization in Chicago and other cities will soon be increased by a similar organization in the West, in the Middle West who know of the vastness of chapters among the girls and women of their towns may help the thing along by sending the news to Miss Morrison, who will be glad to have their names when they mention the name of their respective towns that would be interested in becoming affiliated with the league to the office of Radio Topics.

New York society girt, who is the unit women's club of the service, recently received from the offices of the line dance director, a number of radio leaflets which had something on the hip at that time; and these will be several hundred miles.

Radio and Electric Corporation, of 6 E., New York, signs up a young man who is a son of the line dance director, and looks like a chance to make a success.

A few weeks ago, when the severe snows of the northward came, a radio of the telephone and telegraphic communication was in operation.

A few months ago, the reasonable work of the line dance director proved eminently successful.

Radio Dance for Boys.

To raise funds to add valuable parts to the present set, the members of the ladies union of the service, under the chairmanship of Miss Mary Maylin, the music of the department will be sold through the set will have a receiving radius of several hundred miles.

Radio Dance for Boys.

Where the Century Dance Orchestra will play the dance program after 9 O'clock.

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A Short Wave Regenerative Receiver

Easily Made In This 150 to 600 Meter Set, Fitted With A Tickler Coil For Amplification.

OW that the experimenters are getting on the scratch line for the long distance, short wave work for which everyone is preparing, every man wants a regenerative set. There is a certain amount of choice between systems circuits to use at present, but if the majority favors the type using no condenser in the secondary, it is probably because the manufacturers have specified it. While we are on the subject of the variable-tuned secondary set, it

...might be well to clear up a question that seems to rank amongst the in the minds of many radio-engenies—a sort of skeleton in the closet, ignorance of which no one wants to admit. "What does the secondary varicitor do?" How can it tune the circuit to a given wave-length, when there is no capacity in the circuit? Yet the varicitor does tune, and very sharply.

The answer is simply this: The condenser effect between the grid and filament furnishes the capacity, a small amount, enough to make the secondary circuit oscillate. To one to 200 meters with such a capacity, require only 1/1,00002 mil. condenser.

However, the variable tuned is designed to furnish the capacity, a large variation in inductance is required to cover a considerable wave-length range. Since only a part of the inductance is adjustable, the balance acting as the coupling coil, the variation of the inductance and, consequently, the wave-length range, is quite limited. Therefore, to make the set of wider utility, the equipment described in this article is designed to operate with a 0.0003 mil. condenser in the secondary circuit.

Again, a straight tickler coil is employed instead of a tuned plate circuit. The reason is a constructional one. A tickler is much easier to make than a varicitor.

The Primary Coil

A tube 3½ in. in diameter and 2½ in. long is used for the primary coil. This is wound for 1.7 in. with 20 Ks. 38 high frequency cable, giving 38 turns per inch, or a total of 60

... These are tagged as follows:

Tap 1...5 turn
Tap 2...4½ turn
Tap 3...3½ turn
Tap 4...3 turn
Tap 5...2½ turn
Tap 6...2 turn
Tap 7...1 turn
Tap 8...¾ turn
Tap 9...¾ turn
Tap 10...½ turn
Two methods of tapping can be employed. One is to wind the coils without taps. Then mark with ink where the taps should be. Unwind the wire, scrape at each marked point, and solder on leads. The other way is to bring on a loop for each tap, and in a knot in the loop. This holds the wire securely at the tapping point while the coil is being wound. When the work is complete, the loops are cut to the proper length and soldered to the switch points. A better method is to make short loops, and use No. 14 bare copper wire leads to the points and other connections.

The Secondary Coupling Coil and Tickler Coil

The construction of the secondary coupling coil and tickler are identical, both as to the method of mounting and the size of the coils. The tubes are 3 in. in diameter, and 1½ in.

A coil. The coupling to the primary is ordinarily made tight for transmission, and loosened for sharp tuning. If the tickler leads are of the correct polarity, regeneration can be readily adjusted, and will need practically no changing from 300 to 600 meters; another advantage is that the tickler plate circuit which must be fixed for each signal.

The Second Connection to the regeneration receiver

To Phantom's Grip

Mr. Beck hasn't a radio receiving set. Still he gets messages sent through the air at night, he says. The silence of his bedroom is occasionally interrupted with lectures, music and other things transmitted by radio. One night, he said, a voice came in the grasp of a phantom. A cracking noise greeted him. A cold chill ran down his back and something touched him with unaccountable grasp. He had been shaken by the wireless telecommunications. Can a new device be spreading through the country now that the forlorn have become so filled with confusions? People who have heard of the strange case wonder.

OperatIon

Tuning in the primary circuit, accomplished by the 13-point switch, will be found quite simple. The secondary condenser, giving a false control over a considerable range, saves the amount of time which, with a receiver less easy to handle, causes the loss of

...to disturb his peace of mind, he said. Radio amateurs here say his bed springs, an ideal wireless aerial, may have attracted the signals but cannot account for the reception of signals without a receiving set. Can Mr. Beck be afflicted with a strange case of

...complications? Can a new device be spreading through the country now that the forlorn have become so filled with confusions? People who have heard of the strange case wonder.

CANADIAN NOTES

(BY CANADIAN JPD)

1GM is reported QSA here. 25G is his tide and is still taking to himself. 4CB is proceeding away on his CW.

The secondary loading coil, in series with the coupling coil, provided coupling to the tickler, independent of the primary-secondary coupling. This coil is 1½ in. long by ½ in. in diameter, wound 80 turns with 20 Ks. 6. Starting at the rear end near the tickler, 8 turns are taken off. 3 turns are short circuited to the tickler and connected to the first point of the secondary, which is shown in Fig. 3.

This coil should be mounted in a manner that is used for the primary. With this coil completed and in place, and the set carefully connected with No. 14 bare copper wire, all joints soldered, the set is ready for test. A condenser, mounted as shown in Fig. 4, is inserted for 12 turns, articles, and a vacuum tube mounting, complete the set. If a 6 in. 3 panels are used for the audion and condenser, the set can be made up neatly with the 5 by 10 in. panel below, and the two smaller ones above.

The Secondary Coupling Coil and Tickler Coil

The secondary coupling coil and tickler are identical, both as to the method of mounting and the size of the coils. The tubes are 3 in. in diameter, and 1½ in.

A coil. The coupling to the primary is ordinarily made tight for transmission, and loosened for sharp tuning. If the tickler leads are of the correct polarity, regeneration can be readily adjusted, and will need practically no changing from 300 to 600 meters; another advantage is that the tickler plate circuit which must be fixed for each signal.

Complaints about poor operation can usually be traced to wornout parts. When anything goes wrong the plate batteries should be examined first of all.

Fig. 3. Connections for the regeneration receiver

In Phantom's Grip

Mr. Beck hasn't a radio receiving set. Still he gets messages sent through the air at night, he says. The silence of his bedroom is occasionally interrupted with lectures, music and other things transmitted by radio. One night, he said, a voice came in the grasp of a phantom. A cracking noise greeted him. A cold chill ran down his back and something touched him with unaccountable grasp. He had been shaken by the wireless telecommunications. Can a new device be spreading through the country now that the forlorn have become so filled with confusions? People who have heard of the strange case wonder.

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CANADIAN NOTES

(BY CANADIAN JPD)

1GM is reported QSA here. 25G is his tide and is still taking to himself. 4CB is proceeding away on his CW.
A Radio Frequency Amplifier Without Transformers

High Efficiency and Freedom From Limiting Resonance Effects Are Characteristic of This Amplifier Which Also Cuts Down Interference.

In a parallel circuit, such as that in Fig. 2, and a complete circuit for the B-C wave-length range, that is, from 200 to 2,000 meters. (See page 116, Everyman Engineering, November, 1919.) Fig. 3 shows the front of panel, with the inductance and condenser controls, and Figs. 4 and 5 the side and rear views.

The point is simply a 1/2 in. brass rod, slotted at one end and threaded at the other. In the slot, a piece of No. 30 brass sheet is soldered and filed down at an angle corresponding to the beveled edge of the disk.

For this particular condenser, the knob is made with a hole drilled part way through it of a diameter to take the handle is held securely in place.

One set of binding posts go to the plate and filament of the amplifier, and particularly at long wave-lengths, and cannot be made readily by experimenters.

The set described in this article is well made, and particularly at long wave-lengths of farm reports. It has been found that the farmers do like the idea of learning the continental code.

Chicago is Awarded Silver Lining Cup for 1921 Achievements

The Chicago Executive Radio Council has been awarded the Smith-ARRL silver lining cup for the greatest achievements and having made the most prominent advance in amateur radio during the year of 1921. The prizes from the representative or the award committee, Mr. R. E., states in his final report that 317 of the cup was justly awarded and that the Chicago organization without at all produced the outstanding developments in amateur radio during the foregoing year.

It is reported that the Department of Agriculture will soon change to the use of radio telephone instead of radio telegraph stations for the broadcasting of farm reports. It has been found that the farmers do like the idea of learning the continental code.

The further popularity of radio telephony was reflected in an advertisement appearing in a Philadelphia newspaper, in which a local builder announces that the $1,000,000 houses he is constructing will be wired for radio telephone service.

Radio station XKM of Princeton, N. J., will suspend operation until September. A fire occurred last month which completely destroyed the transmitting equipment. It is believed that the fire resulted from sparking caused by surges of high voltage current.

Recognition of the wonderful advances in radio telephony, especially in the farm reports, is given in the Grain Dealers' Bulletin, which devoted a full page to the subject.
BUSINESS CONDITIONS

The boom in the radio business struck the automotive new dealers springing up over night like the beetles when the prohibition act went into effect. From drug stores and garage shops to automobile dealers, they have all seen big possibilities and have turned to the radio manufacturers requesting delivery of the radios. With the result that the manufacture has been literally swamped with correspondence.

It has become really a question of common to the radio field, within the short time covering the closing of the New York show and the opening of a stack of business cards that piled almost a foot high, each card representing a new dealer who was interested in learning of this particular manufacturer’s proposition.

The business field is without a doubt expanding by leaps and bounds. There is not that many are overlooking—the fact that business conditions are very much inflated. One will ask, “How, why?” Says the dealer, “Why, if I had the material I could sell. $5,000 worth has been sold.” We will take that situation as an example and set our stage in a fair sized city. Say there are five dealers in radio matters. Let us imagine that two of them are making a proposition directly to the manufacturer to buy a stack of business cards that would not be able to get the business. Say, the other three dealers who would be interested in getting an idea of the business will have the manufacturer to them in one day. It is a fact, which is not so much in the radio field, but in many other business that is true. The manufacturer is not able to put out a stack of business cards that piled almost a foot high, each card representing a new dealer who was interested in learning of this particular manufacturer’s proposition.

This Radio Book Log Should Be in Your Station

It is indeed a beautiful and useful book in which to keep a record of orders. Formerly sold for $1.50. Now on sale everywhere for only $1.00. You can obtain a copy at the following:

Ray-Bea Company, 1487 N. Wells St., Chicago.

Dobson Company, 314 S. La Salle St., Chicago.

Llewellyn, 137 E. 5th St., College Ave., Montreat, N. C.-Winston-Salem, N. C.-Wilmington, N. C.-Greensboro, N. C.

Atlantic Electric Company, 452 Boylston St., Boston.

Dewey Sporting Goods Co., 70 E. Main St., Davenport.

Best Publishing & Electrical Company, 410 W. 3rd St., Richmond, Va.

Krell & Longboard, Clevecland.

Williams Radio Company, Binghamton.

The Chicago Council. This Radio Log Book has taken deritive steps to put just a bit bigger. Better and more interesting results will still be available. It is quite impossible to please everyone all of the time, but we can and will please the majority.

The editorial staff of our publication has taken on a number of expert radio men who understand the field from every angle, whose day’s work will be to produce editorial matter material above the average. It promises a volume of the country are being recruited, and the editorial force has been enlarged in this period. In the following, you will find work other than that of the editorial staff, and a national advertising organization will all combine to make this Radio Topics a better magazine for the benefit of your better.

The cover of this issue will undoubtedly open a point for discussion pro and con. It is a little less described by our new art staff. The readers will confer a great favor upon us if they will let us have their opinion, or any suggestions with any suggestions as to our future covers. At the same time a discussion of the editorial contents would be very much appreciated. Realizing that many writers feel that their efforts are worthy of your consideration, announcement is made that future contributions will be made for at space rate upon their acceptance, which we sincerely hope will bring to us many good articles.

Announcing

THE ANNUAL
National Radio Exposition
At CHICAGO
June 26 to July 1 (inclusive), 1922

HEADQUARTERS
417 South Dearborn St.
CHICAGO, ILLINOIS
Newark Show Managers Prevent Actors from Appearing on Radio Telephone Programs

The Theatrical Managers' Association of Newark, N.J., has voted that no artist in the employ of any of its members shall be allowed to contribute to any performances for the radio telephone broadcasting stations.

This vote was taken upon the grounds that the radio telephone broadcasting offers direct competition to the theaters, and as such they desire such opposition. As Newark has one of the most prominent broadcasting stations in the vicinity of New York, they hope to hand a serious blow to performances.

The Ambitious Company has co-operated hourly with the broadcasting program. This company, open to conditions and quick to grasp the possibilities of the growing interest in radio, for quite a length of time soberly furnished the entertainment in addition to an Ambitious phonograph and records grants for broadcasting when a band in person, or an artist could not be obtained. This information, to a large extent, although the assumption that a prevalent phonograph and music publishers' circles that the radio interest will materially hurt their business. It is not very likely the Ambitious people would be restricted to the service for the radio interest. If not they would want to catch the forces.

The Ambitious Company has incidentally installed a time receiving set in its plant which it uses to signal its working whistle. As one of the employees has said, "Time ain't what it used to be."

The radio craze has been raging in Kansas City, and the question of how show people lending their services for the broadcasting programs was considered in an article by B. E. Garrard, _Rural Radio_, of the Kai City Star. He said in part: "The worst people in the commonly called show business are turning their eyes and ears to the possibilities of the radio phone. It is a method that most instantly challenges every mind that houses whatever degree of intelligence required to look into the future to look out for itself. Just now the performer, singer, player or composer who is a creator of music or even an authority on the radio will consult a lawyer or someone versed in the drawing of contracts. The near future is very apt to offer great opportunities for any artist who can attain the purveyor of sound thus far. Not only will concert and opera managers have to hold forth some information to performers in the way of royalties for air rights, but they themselves may be compelled to pay royalties to composers for music broadcasted by radio. The producers who are now finding wireless concert broadcast by commercial companies very profitable because of the unusual publicity accorded them soon may discover there is a large market waiting to be reached to the radio. The air mail lacks back."

"For example, the Star on Friday recorded several incidents where worthy young men and their mothers, who otherwise might have been at the Convention Hall for the symphony concert, remained at home and heard the music on their wireless sets."

Radio and Actor Fought for by Kansas City Papers

As part of the Theatrical Managers' Association was hurriedly called one day last week and it considered the question of allowing acts to appear at the radio concerts being given by the Star and Post, _daily newspapers_ of Kansas City, Mo.

The two papers were in a heated contest with their radio entertainments and the managers were caught between the forces. The climax was reached when the Post announced a concert on the occasion of the Monday's concert.

The story goes that the Star immediately notified the Orpheum management of the program and the President who is a supporter of the radio. For the Post the Star would throw the Orpheum advertising out. In return, the Post threatened the theatre. The climax was reached when Miss Friganza did not appear. It did not appear, claiming that it was not the question, as she had orders from the Post, but to do so. The Star tried several acts from other houses for their Monday concert.

The climax was reached when the Post announced Friganza, bandleader at the Orpheum, as its feature for Monday's concert.

Within the last few months the demand for books on radio at the public libraries has resulted in a deluge of books. The public libraries have had a wave of requests for books, from people who are interested in the purchase of equipment for the purpose of receiving the concerts in their own homes. They are given an opportunity to hear these sets in operation, to learn of their simple operation and get any information about radio that they might desire.

Radio telephone service is to be installed in several of the largest apartment houses in New York as a result of tenants who wish to install receiving sets.

An estimate that seems almost improbable places the number of receiving sets in Pittsburgh as one in every six homes in the city.
TRADE NOTES
The Chicago Amateur Radio Club, formerly located at 388 South Dearborn Street, has moved to some very expensiver quarters on the sunny fourth floor of the Dearborn Building, Dearborn Street, Chicago. Every possible accommodation has been made for the purchasers and visitors.

The Tri-State agent picture above is manufactured of the finest material available, metallized white, with a silver edge. The pads and the terminals are made of pure silver and the metal parts are soldered with pure silver. Silver is a good conductor and makes a better connection than copper. The pads are all made of Bakelite and the metal parts are soldered with a silver solder. The Tri-State agent picture is guaranteed to last for a lifetime.

Our stock is complete in all classes, from the finest to the cheapest, from the most expensive to the cheapest. We have a large stock of receivers, microphones, keys, jacks, plugs, etc., which we are anxious to dispose of. We are prepared to meet all reasonable offers for any of our goods.

Super-Regeniset CW-8
Unexcelled Wireless Apparatus
Price $2.50

American Electric Company
State and 64th Sts., Chicago, Ill.

Super-excelled Filament Rheostat
A vacuum tube filament rheostat must be more than a mere current regulator. It must be an instrument mechanically and electrically perfect. To dominate tube noise the switch must make smooth and positive contact.

Our Type 244 Rheostat is made exactly alike in the "DX" town, the radio experimentalist's paradise, to which you are given only a set for the reception of radio broadcasts, and which is capable of being used by the amateur. It is a valuable addition to the amateur's equipment. The switch must be smooth and positive. It is made of the finest materials available, such as molded unshrinkable variometers, 180° couplers, and high-grade copper.

The Widdicombe Sales Company, manufacturers of the distinctive Widdicombe phosphorescents, will shortly place upon the market eight different kinds of television picture tubes. The tubes are designed for the reception of television pictures and are said to be equal to any other horn ever made.

Price $2.50—All described in free bulletin 911T

General Radio Company
Massachusetts Avenue and Windsor Street
Cambridge, 39

Biesman Storage "B" Battery
Here's what the radio world has long been looking for: the practical, the reliable, the luxurious, the "B" battery. Twenty-four volts, individually charged, permitting use of up to 20 batteries or any size battery for longer service. Contactor is easily adjusted, permits highly polished sound and in special cases can be overdriven without injury. Price $2.50.

Radio Division
Telephone Maintenance Company
20 South Wells St.
Franklin 3955
Chicago, Ill.

Another Telmaco Achievement
The Telmacophone

Here's the height of Telmaco perfection. Equipped with Baldwin Type C Unit, inverted form, reflected form, equal to any made twice its length. Designed and perfected by expert acousticians. Complete in every detail.

Price $18.00

Dealers! We advise the presence of the Telmacophone with cap attached to the public.

We are distributors for nearly all standard lines. Full detailed information on the Telmacophone. Write for our complete line.

Radio Division

Radio Division

Telephone Maintenance Company
20 South Wells St.
Chicago, Ill.

Unexcelled Microphones
A complete line of receivers, de

Price $2.50—All described in free bulletin 911T

General Radio Company
Massachusetts Avenue and Windsor Street
Cambridge, 39

Massachusetts Standard on General Radio Equipment Throughout

Radio Topics for April, 1922

The Milwaukee Amateur Radio Club

(Continued from page 33)

February 27, 1922, "Some Possibilities in the Development of Electronic Telephone." By A. S. Hinrichs, Consulting Engineer.

February 27, 1922, "Some Possibilities in the Development of Electronic Telephone." By A. S. Hinrichs, Consulting Engineer.
SAVE MONEY ON STORAGE BATTERIES FOR WIRELESS USE

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Price</th>
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<tbody>
<tr>
<td>5 volts 40 amp</td>
<td>$2.00</td>
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<tr>
<td>5 volts 60 amp</td>
<td>$3.00</td>
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<tr>
<td>6 volts 40-100 amp</td>
<td>$4.00</td>
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</tbody>
</table>

Batteries shipped fully charged, ready for use.

GUARANTEED 18 MONTHS ON ADJUSTMENT

If your dealer can’t supply you, send check or money order direct to LIBERTY BATTERY CO.

Distributors — jobbers—dealer—wholesale users.

4243 Armitage Ave., Chicago, Ill.

GREATLY AMPLIFICATION

Than Any Other on the Market!

See Guarantee Below

NO HOWLING!

No Plate Circuit Tuning Adjustments

Equally Effective on Phone, CW or Spark

RADIO FREQUENCY AMPLIFICATION

on Short Wave LengtJh

Here is a new promise in radio frequency amplification. The MUL-BAD is both simple and efficient. It requires no filament voltage, no special transformers, and can be used with little trouble. With amplification above 15000 volts per gain.
Here's the Receiving Set
You Are Looking for

The Clapp-Eastham Type H R Regenerative Receiver

Price $35.00

You can pay more money for a receiving set—yes, you can get any better results or greater ability to hear—

since we put this set on the market we've been literally swamped with orders. Dealers, radio fans, service men—everybody who has tried the instrument—has become a booster for it.

Regeneration is perfect on all wave lengths between 180 and 25 meters. The range is from distance which signals are received and the clear, sharp

satisfaction at any price.

5000...price $35.00

Price $35.00

You can pay more money for a receiving set—if you want to—but you can't get any better results or greater ability to hear.

since we put this set on the market we've been literally swamped with orders. Dealers, radio fans, service men—everybody who has tried the instrument—has become a booster for it.

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satisfaction at any price.
Radio Topics for

We Are
Representing

all the leading manufacturers of the better class of Radio Merchandise.

DEALERS' BUSINESS SOLICITED

Detroit Electric Co.
113-115 East Jefferson Avenue

DETOIT   MICHIGAN

Readers and Advertisers will find a message for them on page 34

Radio Topics

use as a stage effect for dramatic stories. Similarly with a chance timelapse, but total objectionlessness, the telegraph code breaks into the harmony of the child’s cry.

This, too, might also be harmonized for effective use, for when the voice went on the horn and "Woo" out from the horn comes a series of scraping sounds which will represent the bear’s growl.

This is fine, but all through the story is an underlying motif and at the end where the boy is saved and the bear has fled with an incongruity pie in the scraping spark of the emergency oil for peculiar modulation.

While standing in the crowd listening for scraps of news from the horn the Observer finds herself scientifically picking the sounds apart. Wonders why certain vowels are clear and the rest muffled, why she’s and she’s are distinguishable and the a’s and o’s are not. If it is lack of resonance in the voice on those vowels or is it due to horn characteristics? But this problem takes too much brain effort and he leaves it to the experimenters to settle the question and mores to where another crowd is gathered about a large cabinet with an open mouth. Into this several men are screaming their ears.

The crowd behind him is under the impression that it is hearing the bedtime story but those present are in reality listening to the apparatus which the Observer has just left across the hall.

In another room the Observer beholds again the woman’s voice but this time it is set out by an ordinary Victrola horn and lacks the extreme distortion of the other devices. Passing by it he notes that there is a photograph hidden in the flower pot behind the horn. The voice stops and code observer has just left across the hall.

That’s not wireless,” volunteers a passing man. “It’s something else but what that something is he does not explain.

Then a song is transmitted from a photograph at the sending station. This makes the observer certain that it is fake wireless.

“I hear the circular whirling sound of the phonograph record, and you wouldn’t hear that in the wireless, you can’t fool me,” he insists.

However, if the voice comes clearer from this horn no, also does the audioswell of anguish. For the first time one is witness that woman has found her mate—a worthy competitor in a talk- ing competition. Man she may vanquish in her particular metier, but the elements are mightier than man or even woman.

In discerning some of nature’s electrical energy has generously increased the scope and enlarged the audience for woman’s words. Now women is attempting to conquer the opposition of nature to her efforts so far, and she is having an interesting game in doing so.

"Why is there so much interference? Why do you get the audio-erb’s? They just seem to be making the apparatus crackle.

"Oh, it’s because there are too many people in the road," volunteered one bystander. And from another came the explanation:

"It’s Paul Godfrey’s transatlantic set. Every time he makes his adjustment we hear his audition."

Just Off the Press!


This new book contains 250 practical questions and answers on the New Rating for Radio Operators’ License Examinations, as well as Electric Art, Art and Torch Transmitters along with Radio Control and Radio Laws.

SENT TO YOU FOR ONE DOLLAR!

Publishers, Radio Topics
4533 North Sawyer Avenue
CHICAGO, I11.

IT’S THE "BERRIES" SURE NUFF
SAYS ONE OF THE LARGEST MAKERS OF AMPLIFIERS

A-A

3 to 1 ratio, type R-2.
MOUNTED, $4.25.
SKIM-MOUNTED, $3.75.

10 to 1 ratio, type R-3.
MOUNTED, $4.50.
SKIM-MOUNTED, $3.90.

UNMOUNTED, $2.55.

Our new type R-3 amplifying transformer designed for the new U. V. 203 Radiotrons and Cunningham tubes. Type R-2 is most efficient on the earlier tubes. Every transformer guaranteed. Type R-4 50 watt power tube sockets, $3.00. For the U. V. 203 power tubes.

ALL-AMERICAN ELECTRICAL MFRS.
1516 NORTH LOREL AVE, CHICAGO, I11.

WIMCO CW 100 INDUCTANCE

WIMCO apparatus is very distinctive—it is very high grade and resonant. As soon as possible, try one. For instance, the CW Inductor shown above—high conductivity, super insulation, low H.F. resistance, low distributed capacity—is the ideal CW Inductor. We are specializing in CW apparatus. Send for catalog.

WIMCO products are sold in Chicago by

MANHATTAN ELECTRICAL SUPPLY CO.
875—WIRELESS MFG. CO., CANTON, 0.—875.

April, 1922

(Continued from Page 12)

"Q" to the switch lever and from there to the inner post "T." To place set in operation, connect your antenna, which may be a single wire, either bare or insulated, about 75 feet in length and strong as high above the ground as possible, to coil post marked "A." Post "Q" is connected to the water, gas or steam pipe to provide of a ground connection. A variable condenser of say 2000 capacity is connected across the antenna and ground as indicated in Fig. 3.

This new book contains 250 practical questions and answers on the New Rating for Radio Operators’ License Examinations, as well as Electric Art, Art and Torch Transmitters along with Radio Control and Radio Laws.

SENT TO YOU FOR ONE DOLLAR!

Publishers, Radio Topics
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ALL-AMERICAN ELECTRICAL MFRS.
1516 NORTH LOREL AVE, CHICAGO, I11.
ANNOUNCING THE

Radio
Bradleystat
(Filament Rheostat)

A GRAPHITE COMPRESSION RHEOSTAT

for

Exact Control of Critical Tubes

The Radio Bradleystat consists of two small columns of graphite discs enclosed in a porcelain container. The resistance of these tubes varies with the pressure applied to these columns of discs by means of the adjusting knob and pressure screw. There are no "steps" or "jumps" in resistance—the variation is absolutely smooth and even from zero up to the highest degree of resistance. No exasperation in trying to increase the sensibility of your vacuum tube. You can get just the exact control of critical tubes that you desire. No "steps" or "jumps" in resistance—the variation is absolutely smooth and even from zero up to the highest degree of resistance. No exasperation in trying to increase the sensibility of your vacuum tube. You can get just the exact control of critical tubes that you desire.

Notes About the Broadcasting Stations

A radio service about market prices is being broadcast by the United States Department of Agriculture from 1100 to 1500 miles surrounding the station. This service will be available to anyone who has a receiver, and is designed to provide information on prices and other economic factors in the various regions of the United States.

The U.S. Army Signal Corps station, WGCY, located at Fort Wood, broadcasts daily at about 9:00 p.m. in the Eastern time zone. Its wave length is 1450 meters.

The Radio Bradleystat is practically indestructible.

By Reading Page 34

The Radio Bradleystat is entirely inclosed, with an inverting mechanism. No Coils—no Contact Sliders or Battinex—No Delicate Parts. The Radio Bradleystat is practically indestructible.

PANEL MOUNTING FOR 9 OR 1 AMPERES TUBES

Price $1.85

If your dealer hasn't one and will not get it for you, send $1.85, PLUS 10 CENTS for mailing, and we will send you one.

DEALERS: ACT QUICK.

You Can Make a Dollar By Reading Page 34

Radio Topics for April, 1922

Sidelines On the Second District Convention

Did you see the editor of Topics with his polo coat (not coffee)? He who started those paper acupuncture at the banquet? I wonder who.

That fellow in the Press box must have been great. It sure reached out. He shook a mean fist, though.

The Oaks were there in numbers and new were expected.

Did you try and find anyone at the convention? If so, did you discover a medal. J. O. and McLean must have used a shielded wire to get the people in.

The Radio Bradleystat is entirely inclosed, with an internal switch that opens the battery circuit when the receiver is released. No Coils—no Contact Sliders or Batteries. No Delicate Parts.

The Radio Bradleystat is practically indestructible.

You Can Make a Dollar By Reading Page 34

THE MICROPHONE "XG" USES

The "J.K." Type M-3 illustrated here. A reasonably priced, efficient microphone that will secure voice transmissions without distortion. Three types, all equally efficient:

M-3 Hand...$8.00

M-2 Panel...$6.00

M-1 Microphone...$3.00


SIGNAL WIRELESS APPARATUS IS BUILT COMPLETE IN SIGNAL SHOPS. Send the wiring of the radio expert who says, be careful, Mr. Radio Beginner, to prove the quality of your radio equipment before you buy new apparatus. What does he use?—how does it compare with other makes at or near its price?

SIGNAL WIRELESS APPARATUS is built complete in Signal factories, by Signal workmen, following tests and developments by Signal and other expert Radio Engineers in the Signal Radio Laboratory. The same "Signal" is the guarantee of satisfactory Radio Service.

WRITE TODAY FOR LITERATURE AND NAME OF NEAREST DEALER

Signal Electric Manufacturing Co.

MENOMINEE, MICH.

See Page 34

THE EFFICIENT PORTLAND RADIO STATION TXG

quartz amplification and three power stages, which also allow all the stages of power and five stages of radio frequency amplification.

This station (TXG) has been heard in C.W. from Canada, in the Oceana Islands near Honolulu, a distance of about 2,500 miles, and is also heard in the Hawaiian Islands, near Honolulu. This station (TXG) is located at 400 East 22nd Street, North, Portland, Ore., and would be identical with the other stations in the Portland area.

JOY & KELSEY

4021 W. Kinzie St., Chicago, III. Chicago "Home"

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