

May 5, 1923

Price 10 Cents

LISTENING-IN

Devoted to the Interest of Radio
Fans in Western New York

Vol. I

No. I



Radio—Past, Present and Future. Many Other Special Features.



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We extend our Congratulations to this City in being the home of such a "Live Wireless" Publication, and we believe that the Radio Fans and Radio Dealers of Rochester and vicinity should support it wholeheartedly.

"Listening-In" will put Rochester on the Radio Map and keep it there, so let's all lend a hand to Rochester's Radio Magazine and make it a real success.

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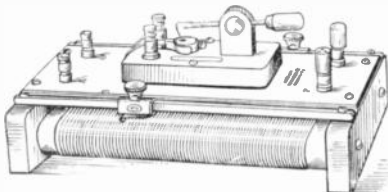
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This applies to Radio goods here—even as it does to our other lines.

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ROCHESTER, NEW YORK

LISTENING IN

The RADIO Illustrated MAGAZINE

Devoted to the welfare of everyone interested in radio.

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Publisher's Announcement

When a new periodical is born it is customary for the publishers to give their prospective readers some reason for producing another magazine, newspaper, class or trade journal for what might appear on the surface to be a field already pretty well supplied with publications.

In making our initial bow with this issue of "Listening-In" — The Radio Illustrated Weekly — we have attempted to produce a magazine which will meet the needs of all those interested in radio—the beginner who is unfamiliar with the technicalities of radio equipment as well as the "dyed-in-the-wool" fan who can build, erect and operate successfully elaborate wireless outfits.

"Listening-In" Magazine's mission is to entertain and instruct as well as supply the latest news concerning radio affairs and happenings throughout the world. We are in touch with all the great news-gathering organizations located in every metropolitan center of this country and abroad. Our human interest and news photographs are obtained from camera men connected with big, well-organized staffs scattered over the entire globe and, as "Listening-In" is issued weekly we are enabled to give our readers all the worthwhile radio news and pictures promptly and long in advance of monthly periodicals.

Our constant effort will be to improve "Listening-In" each issue and we invite and will appreciate constructive criticisms and suggestions from our readers.

We have gone to great expense in making this an attractively illustrated weekly magazine as well as one which contains helpful information for beginners and timely news and amusing items for the entertainment of all.

Future issues will contain interesting feature articles by prominent radio authorities as well as the regular departments conducted by our news editors, art staff and technical writers.

We are especially proud of our two-color process front covers reproduced from the original paintings done by that capable artist, Mr. George M. Cortright. We are preparing more paintings of timely interest to appear on the front cover of "Listening-In" each issue.

We trust that our efforts to produce an attractive and entertaining radio publication will meet with your approval and merit your continued patronage.

Will W. Zimmer

Radio—Past, Present and Future

By Raynal W. Andrews, Jr.

With the rapid strides present day radio is making, it is easy to forget what has gone before. No excitement is caused by a man stating that "the transatlantics are easily readable on one bulb." But stop and consider how recent is this achievement.

In 1865 Clerk Maxwell, an eminent mathematician and physicist, propounded this theory of the electro magnetic nature of light. This theory can hardly be said to have given much impetus to the invention of radiotelegraphy but taken in the light of the work of Heinrich Hertz, who discovered the phenomenon of electrical radiations in the form of waves in the "ether" which was culminated in 1888, it assumes great importance.

Sir William Crookes, a great scientist, who died within the past decade, presented in outline form the

possibilities of wireless communication, but he was far from being the inventor.

Thus, you see, the stage was set for the producing of a working wireless instrument. The theory had been advanced by the earlier scientists and it was left for Guglielmo Marconi, whom we recognize as the inventor of wireless to assemble these ideas and make the instruments operate. He began this work in 1895 and it is from that date that the present day developments must be traced.

Five years before the beginning of the present century, Marconi, using two twin tubes, 100 centimeters on a side in place of antenna and ground, mounted on poles eight meters high, transmitted signals over a distance of 2400 meters or about one and one-half miles.

The epoch-making patent of



In the Broadcasting Studio of WGY, Schenectady, N. Y.

"wireless telegraphy" was taken out on June 2, 1896, a little more than twenty-five years ago. At that time a six-inch spark coil was used to transmit signals four miles.

Radio was advancing rapidly at that time. In fact it was advancing even more rapidly than at present for in 1898, about the time of the Spanish-American war, wireless was employed in news service. Yacht races at the Kingstown Regatta were reported for the Dublin Express over a distance of nine miles.

The first mile stone, figuratively speaking, in the development of radio, was probably passed in 1899 when Marconi succeeded in carrying on communication across the English Channel from Wimereux near Boulogne in France, to South Foreland Lighthouse near Dover. It must be remembered that at this time coherers were the only detectors known and tuning devices but imperfectly understood.

Probably the greatest event in the history of radio, greater even than the feats of our own Radio Central, occurred on December 17, 1899, nineteen hundred and one when Marconi, sitting in a cold hut on the bleak shore of Nova Scotia using a wire supported by a kite for an

aerial, saw his "ticker" give three short strokes, the letter S — and thereby accomplished transatlantic communication via radio. Fourteen kilowatts input represented the full power of Marconi's station at Poldhu from whence the signals were transmitted.

In 1904 the Cunard Daily Bulletin, published on board the R. M. S. Campania gave the journalistic world a jolt as the first newspaper ever printed on shipboard employing news by radio.

Three years later transatlantic press service found its inception. The New York Times and the London Times, representing the most progressive newspapers in Great Britain and the United States, began a movement which was later to be taken up and amplified by nearly every press association in the country.

Later came Fleming and then DeForest who produced the vacuum tube. Then Armstrong and Reinartz and Flewelling.

Broadcasting was inaugurated and the popularity sprang overnight to its present gigantic proportions. What will happen in the future is a matter of speculation, but the question of better radio is up to you. Carry on!



Billy Dove, ~~Star~~ Star, Listening-in

Harnessing Radio

Secretary Hoover has been asked by a special committee of the National Radio Conference to make certain changes affecting broadcasting by radio.

Enthusiasts, using at least 1,500,000 receiving sets this year as against some 600,000 last year, will welcome a readjustment that should bring order out of chaos.

Regulation is equally to the interest of the broadcasting companies. They have increased from 60 to 588 in a year. It is as important to harness radio as it has been to harness fire and water.

A Description of Station WHAM, Rochester, N. Y.

Many people have heard the music and programs broadcasted from the radio station located at the Eastman School of Music of the University of Rochester. Few actually know what and where the station is. It is owned and operated by the Rochester Times-Union and the Democrat and Chronicle. The new programs are furnished by the Radio Dealers' Club which provided a special studio for the good variety of entertainment furnished by talented friends. What this means to all interested in radio can not be over estimated. The interest and support shown by the steadily increasing membership of the Radioceptors Club indicates that the broadcasting from WHAM is appreciated.

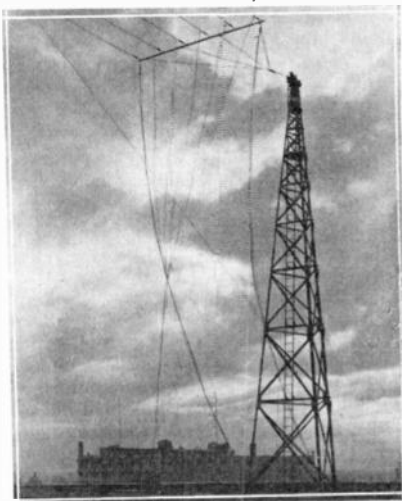
The station or operating room is located on the top floor at the corner of the south-west wing of the School of Music building, and is directly under the tower which supports one end of the aerial. This room contains most of the radio apparatus and is in charge of Mr. Victor Martin, who also announces all programs from the School of Music of Eastman Theatre.

The operator controls all necessary broadcasting operations when seated at the desk in the center of the room. Directly to the left is the modulation panel with several switches, control levers, vacuum tubes, and transformers somewhat similar to the amplifiers used by the best receiving sets. It is the latest and best speech amplifier produced by the Western Electric Co. There are three wires run thru steel conduit all the way from the microphone in the music room to this panel.

Nearly all broadcasting stations have a studio in a room adjacent, or nearly so, to the operating room where practically all programs are produced. Since it was desired to broadcast theatre music, programs in Kilbourn Hall, and in other rooms in the School of Music, a considerable delay was experienced in perfecting special apparatus to

satisfactorily accomplish this. The greatest difficulty was to eliminate the roaring noise which appeared when the long line was connected to the modulator. This has been eliminated so that a cable a little over a hundred feet long brings the music from the new dealers' studio quite clearly.

The modulator strengthens and it is put onto the radio waves which controls the voice and music as it is put onto the radio waves which are produced by the apparatus back of the large panel which is in front of the operator's desk. There are large vacuum bulbs, coils, transformers and condensers here and 800 volts of direct current is applied to the plates of the tubes to generate radio waves. This voltage is considerably more than the 550 volts used to operate our city street cars. It is supplied by a special motor generator unit in the next room.



Station Aerial of WHAM

The radio waves are carried from the generating panel to the aerial on the roof by the usual lead in wire. The outfit is grounded to the steel frames of the building. This in

turn is connected to the heavy water pipes underground.

A good aerial and ground means everything to the success of any radio transmitter. The aerial for this station composed of six heavy stranded copper wires 150 feet long and stretched from the triangular steel tower, 75 feet above the roof of the School of Music, to the high chimney some distance back of the building. The aerial was carefully designed and drawn in place by the Engineering Department of the Rochester Telephone Corporation.

The Radio Dealers' Studio is located in a front corner of Mr. Kerr's dance hall on East Avenue and is draped and enclosed by heavy curtains which are expected to improve the quality of music broadcasted and to eliminate all echo which at first was so unpleasant. Allan Ross, radio editor of the Democrat and Chronicle is in charge of the program arrangement of the radio dealers.

Although there is a large number of volunteer entertainers, this work quickly becomes a voluminous task. Mr. Ross is assisted by David Clark, announcer, and Miss Georgina Speare who tells the nightly bedtime story.

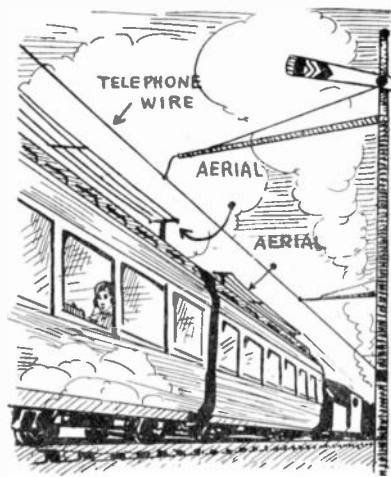
"Listening in" to radio has its thrills, but to be present or take part in the broadcasting has thrills far more impressive.

There is also the humorous side of broadcasting. One evening as an orchestra was producing a selection for WHAM, the drummer put on a head set from a crystal outfit at his side and beat his drum with glee while hearing the music of the entire orchestra by radio.

Four big broadcasting stations in Philadelphia, Pa., have agreed to a "silent night" each month for the benefit of the listeners when everybody may try for long-distance messages.

Radiophone on Berlin Trains

Business men traveling on an express train between Hamburg and Berlin were able to trade on the stock exchange while the train was running at top speed by using a radiophone in the dining car. Tests show that conversations with any telephone subscriber were carried on as easily as between offices.



The train radio, as reported last autumn, has passed from the experimental stage to one of practical use. A unique feature is the utilization as antenna of the telegraph wire paralleling the track the whole way, this leading into two radio centrals which can be plugged in an ordinary telephone central. The closeness of the wire to the antenna on the train roof makes it practical to use a simplified low power radiophone on the train.

A radio station, somewhat similar to the Eiffel tower in Paris, but not quite so large, will shortly be erected in Dublin, according to the British press. It will be entirely a government enterprise, and is expected to be situated in the Phoenix park, where there is every facility for such a plant.

The Development of Radio

Radio, thru its development in broadcasting, has become the subject of the day and has also become a prominent factor in our home life in this country. It is a source of good amusement and will gradually become more and more a means of bringing news and educational matter directly to us at home or wherever we have our receiving outfit. The value of radio in the country is not yet realized, for it will probably become more useful than the telephone.

Broadcasting of music, speeches, and plays, was introduced nearly two years ago by one of the great electrical manufacturing plants, which realized it was an opportunity to keep a large part of its factory equipment and its help busy during the slump following the world war.



Several other factories producing electrical supplies have gradually added radio products to their lines and many allied industries have been quite busy making radio apparatus or small parts for radio. So radio has been a very timely stimulus to business and industry which dropped off so suddenly after the war, and should be given much credit for its general economic value.

Nearly everybody has some incorrect impressions about radio. The most common of which is the belief that radio was invented and developed in the past year or two. Radio is the new name applied since broadcasting was started. Wireless was discovered by Hertz in 1892 and successfully used by Marconi to send telegraph messages in 1898.

During the next few years voice transmission gradually developed and was made successful by Valdemar Poulsen, when words spoken at the Eiffel Tower station in Paris were heard at the Arlington, Va.,

station in 1915. But our real and great achievements in radio tele-telephone were made possible by the work of Dr. DeForest, who invented the three element vacuum tube AM in 1907, essentially as it is now used.

During the war our government made great improvements in wireless but did not release this information until several months after the armistice. Then the amateurs, whose outfits had been closed down, quickly improved their sets and were the first to hear the music broadcasted in April 1920 from XJ, the testing station of the Western Electric Co. at Deal Beach, N. J.

The writer will never forget the experience of hearing this operator talk to a steamer on the Atlantic and those selections of phonograph music played over 350 miles away. This was a big success and in a few months our pioneer broadcasting station KDKA was in operation.

Many people hesitate to buy or make a radio outfit now because it is their belief that great improvements are coming along so fast that in no time their sets will be old-fashioned. The most popular and satisfactory outfit was essentially known and used three years ago by the Signal Corps and Navy.

There, has nothing been developed during the past year which is fundamentally new and generally accepted by radio specialists as satisfactory.

However, there are detailed improvements brought out now and then by the manufacturer— but this should not give us any more concern than when the new model of an automobile comes out. Do we refrain from having an automobile because the next model may be a little better?

Gradual refinements in radio will doubtless be made during the next few years, just as they were made in talking machines and motor cars. But in the meantime hundreds of thousands of sets are being bought.

and enjoyed. There is no more reason for waiting for radio to be perfected than there would have been for you to wait for talking machines to be perfected.

The wave length is a measure in meters of the distance which one wave travels before the next one is started.

Very often a layman asks how far a receiving outfit will work and he expects that the meter range of the set determines this. It has practically nothing to do with it!

Some of the outfits on our lake boats, which operate on 600 meters, are able to send messages not over 150 miles, while some of the amateurs in Rochester on a wave length of 200 meters have been able to send radio messages heard in England.



Radio waves are very strong when they start from the transmitting aerial but the power is spread like the wave on the water when a pebble is thrown in. And every long wire or steel structure ab-

sorbs some of these waves so we find it much more difficult to receive them on radio outfits in the center of our cities

When our aerial wire is up and our set tuned, it catches a tiny part of the waves and we are able to change them back so we hear a message in our headset like the one one sent out.

In the next serial article we will consider the construction and principles involved in our receiving antennae and tuning elements.

The first radio experiments made in the United States were carried out by the navy in 1899.

More than 1,800 amateur radio transmitting stations and 50 broadcasting and commercial stations are now licensed in Canada.

SERVICE

"I had six honest, serving men:
(They taught me all I knew);
Their names are WHAT and WHY
and WHEN and HOW and
WHERE and WHO."
Kipling.

WHAT was the Declaration of London?

WHY does the date of Easter vary?

WHEN was the great pyramid of Cheops built?

HOW can you distinguish a malarial mosquito?

WHERE is Canberra? Zeebrugge?

WHO was the Millboy of the Slashes?

Are these "six men" serving you to? Give them an opportunity by placing —



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Rochester Radio Dealers' Club

In presenting our first issue of "Listening-In," we, the publishers, felt that a more intimate acquaintance between the Radio Dealers' Club and the radio audience might be built up by giving in these columns an insight into what the fans may expect in the coming months from the Radio Dealers' Studio

With this in mind we arranged an interview with J. D. Sheehan of the Wheeler-Green Electric Company, who, in addition to looking after the many details in connection with the radio department of that company, finds time to take care of the duties as secretary and treasurer of the Radio Dealers' Club.

There are nineteen firms in the club membership and nearly every well known dealer is represented. The Club was formed about ten weeks ago and is supported by subscriptions from the various members. The programs are broadcast five evenings a week from 7:30 to 8:30 p. m. and consist of entertainment numbers only.

It was through the courtesy of the Rochester Times-Union and the Democrat and Chronicle that the Radio Dealers' Club was able to arrange the broadcasting of its programs through Station WHAM. These two newspapers operate WHAM and from the thousands of complimentary letters received, the radio audience is surely appreciative of this courtesy.

The Dealers' Studio has just been completed as to its acoustic properties. Several hundred yards of heavy velour have been hung about the walls and ceiling and this has added greatly in bettering the quality of the music and solos broadcast.

It is expected that some time during the coming month the amplifying

Features of the May 12th Issue

Amateur's Round Table.
Radio Controlled Aeroplanes
In Deah Ol' Lunnan.
Wireless Willie.
Latest News and Illustrations
Interesting Radio Articles
If Radio Had Been—Part Two.
Radio Lessons for Beinnners—
Part Two.
List of Call Stations in U. S.
Weekly Broadcasting Programs.

the Radio Dealers'

ing apparatus which has been purchased by three of Rochester's best known churches will have been received and put into operation. This will mean that the complete Sunday services, direct from these churches will be had for the tuning in. This apparatus and maintenance will cost well over \$3000.00 for the first year's operation.

Incidentally, it is expected that arrangements between the churches and the Radio Dealers' Club, which has agreed to assume one-fourth of the expenses incurred by the churches, will permit the broadcasting of many events of national importance which may come up from time to time. Too, on week day nights you may have the privilege of listening to concerts by Rochester's famous Park Band as you and your family are enjoying the evening breezes at some lakeside or summer cottage.

The programs from the Radio Dealers' Studio will continue through the summer months and it is quite possible, special dance programs will be broadcast at frequent intervals. When asked if anything new or startling might be looked for in the development of radio receiving sets during the coming year, Mr. Sheehan said that despite the many rumors afloat to the contrary, advices from the leading manufacturers indicate that the present receiving sets will remain standard for quite a few years.

The trend of development at this time is directed towards the improvement of the tubes.

Taken all in all, radio has come to stay and the fascination and enjoyment which may now be had 365 days of the year is one of the reasons why a good home radio set will soon be a necessity of the first order.

First Radio Widow Appears

A Radio Widow.

That's what the newspapers call her. She is suing her husband for divorce because he has fallen in love with his radio outfit.

She claims he hurries home from work, eats, even reads radio news while he is eating, then retires to his den and she does not see him until he slips into bed at three o'clock next morning.

That's why she is divorcing him. She is suing on the grounds of negligence, claiming that he devotes all his time to his little radio and none of his time to her.

Her name is Lillian Waitt and she hails from Newton, Boston. She is America's first "radio widow" and in her divorce suit, her husband's innocent radio set is named as co-respondent.

And from this the pessimist concludes with the Blue Law Maker that "radio widows" will be numerous in coming months.

But this ain't so!

R. R. Mayo, 19-year-old radio wizard, with the assistance of his wife, built a ten tube super-hetro-dyne receiving set, which is capable of receiving Europe and all over the United States and Canada.

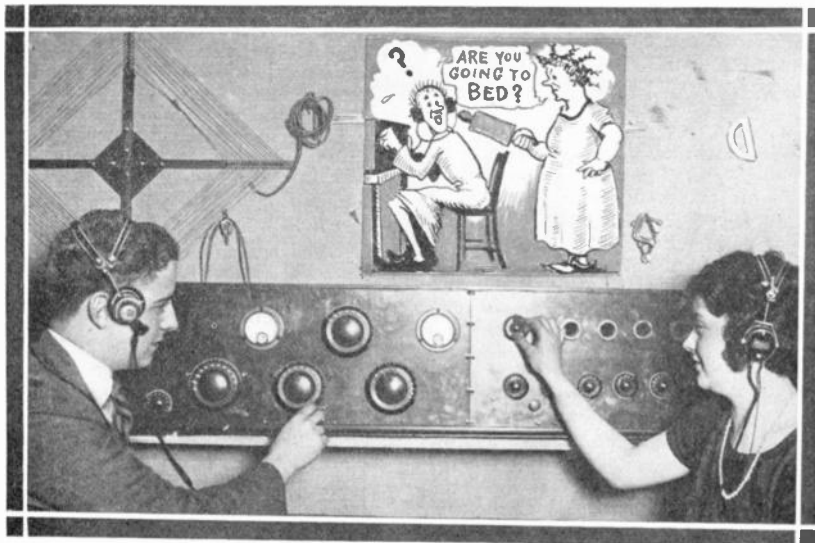
And remember this:

When tuning this super-set both Mayo and his wife are required to regulate all the bu'bs. Nightly these newlyweds enjoy the fun and entertainment of "listening in". Radio has brought their home together!

And from this the optimist concludes with the philanthropist that many more homes will be united in this manner in coming months.

WOC

Station WOC, at Davenport, Iowa, has an evening audience of a million people, a government bulletin estimates. You have noticed that it's about the easiest station to get—and usually about the hardest to tune out. Observe, it's centrally located.



Kadel & Herbert Photo

Mr. and Mrs. R. E. Mayo Tuning in their Mammoth Set

If Radio Had Been

A Three Part Travesty on Radio Programs

Part One

Radio programs, thinks I, seated beside the office window, in the balmy spring breezes, listening in turns to jazz tune from Atlanta, Georgia; opera from the Metropolis; or snatches of drama from Toronto, are decidedly dry when compared to the ones our fore-fathers might have heard if radio had been discovered with the Garden of Eden and all the great events and all the adventures of the great men since then had been broadcast at the time of their happening.

Naturally, of course, old Adam would have had no object in broadcasting the dire fact that he had eaten the proffered apple, nor would it have benefited Noah to have placed a radio in the ark.

But imagine the excellent use Moses could have made of an outfit—broadcasting the commandments from the summit of Mt. Sinai.

One, too, can easily realize the fine sport story the world missed simply because Jacob had no broadcasting set with him the time he dreamed of the ladder to heaven, and wrestled there with the arch-angel Gabriel.

And who wouldn't have enjoyed immensely hearing the walls crumble at the time of the destruction of Sodom and Gomorrah?

Without a doubt, the world would have delighted "listening in" on a program rendered by Jonah, reciting his thrilling life and travels in the stomach of the whale.

His tales would surely have made a fine bed time story for blood thirsty Africans, and which he could have had syndicated; and with a bull as a trade mark, he could have sold digestion hints via radio.

Daniel lost a fortune through not broadcasting his trip into the lion's den. It is easy to visualize the excited world at the time listening over the 'phones to the growling of the enraged lion, the calm voice of David, and then to the jeering of the mobs.

The royal movies would have gone broke if some syndicate, which made it a business to broadcast such great events, had been on hand the



day David met and conquered Goliath.

Then that old bird Alexander the Great might have carried a radio set along to broadcast each night the cities he had captured and named after him.

There might have been a first class outfit on Cleopatra's barge which would have entertained the worshipers along the banks of the Nile, as her gorgeous float drifted with the stream.

And her vanity surely would have invited her to broadcast her seven lessons in love, or a book on "How I Enticed Antony." She even might have revealed to the world her beauty secrets; and by giving the syndicate a tip, the entire world could have "listened in" on her dramatic death.

Indeed, "if radio had been," the ancient world would have known no sleep, being too busy "listening in" to thrilling radio programs, instead of watching reels of "Desperate Octavius, the Chariot Rider," in the royal theater.

A first-class broadcasting station in the United States spends \$6,000 a month, or nearly \$75,000 a year on the programs for the station.

EXTRA! EXTRA! EXTRA!

Radio Helping to Capture Kidnappers

Radio owners are requested to aid in the search of Verner "Dodo" Alexander, the kidnapped six-year-old son of E. F. W. Alexander-



son chief engineer of the Radio Corporation of America.

Hundreds of stations throughout the country are informing the radio world of the kidnapping, the description of the kidnappers, and the latest clues as to their whereabouts.

On Thursday, during the printing of this issue of "Listening In" Magazine, we understood the kidnappers to be in the vicinity of the Adirondack mountains and that the police are following clues.

Radio owners and operators, especially those in Western New York, are asked to immediately flash any clues to General Electric Company, Schenectady, N. Y., care Broadcast Station WGY.

A reward of two thousand dollars awaits information leading to the return of Vernon and arrest of the kidnappers. Reports will be broadcasted.

Heard Over Our Radio

Buzz! Zip! Bang!!!

"Boy!" ejaculated the associate editor "listening in" between copy reading to a snatching of "Carolina in the Morning."

"Gracious!" exclaimed our little "sfenog", as the sudden noises interrupted her work.

And the Boss, dear fellow, bit off the end of his cigar.

Quietly our "associate" tuned in on another station, which happened to be WHAM broadcasting its daily program; and as the tones were softer, work began again throughout the office.

The other day as Snipes, the office boy, was killing time monkey-doodling with the tuner, we heard a drama which ran something like this:

"Then you, Phillis, must leave my house! I want you here no longer! Go, if you wish, to your home down south! Go to your lover Philip—

"Oh, he's the sheik of Alabamam. He's a dark town strut—!"

Which caused the Boss to glance at frightened Snipes, who hurriedly turned the knob and got:

"Phillis—"

"Go-o-d-bye for-ever—"

"He's the sheik!"

Shriek! Shriek!! Shriek!!

After which he hastily shut off all music and the loud-speaker spoke softly for two days.

The other day a rather stout lady stepped into our office. The office boy was requested by her to get a glass of water as she "was rawther thirsty from the heat of the day."

It happened the office boy was "listening in" to a speaker bragging on "Rising to Success" and just as the stout lady made her request, the speaker said: "I'm done waterin' elephants!"

Poor Snipes nearly lost his job.

Be Sure To Get Next Week's Issue of



The RADIO Illustrated MAGAZINE
Devoted to the Interests of the Owners of Radio Equipment

If YOU want all the RADIO NEWS, UPTODATE, you should be sure to get your copy EVERY WEEK of this lively, newsy, ILLUSTRATED RADIO MAGAZINE.

"LISTENING-IN" keeps you posted on the latest events in the radio world. It gives interesting articles, helpful advice, and practical information concerning radio subjects, and all is presented in simple, easy-to-understand words. You do not have to be an electrical engineer or radio expert in order to comprehend and enjoy every issue of this weekly magazine.

Dyed-in-the-wool radio fans also will like the many unusual features presented in each number of "LISTENING-IN."

FEATURES IN THE MAY 12th ISSUE

- The Bath Tub Miss.
- Radio Controlled Aeroplanes.
- In Deah Ol' Lunnon.
- Wireless Willie.
- Technicalities of all Sorts.
- Interesting Radio Articles.
- If Radio Had Been—Part Two.
- Radio Lessons for Beginners—Part 2.
- List of call stations in U. S.
- Weekly Broadcasting Programs.



SPECIAL INTRODUCTORY OFFER—To readers of this Magazine who will send in a subscription now, we make the following get-acquainted offer:

FIRST—For \$1 we will send you "LISTENING IN" Magazine regularly each week for six months.

SECOND—For \$2.00 we will send you the magazine for one year and in addition send FREE of charge your choice of ONE of the following books:—"How to Make Radio-Phone Receiving Sets." "How to Build Loud-Talkers." "Radio Frequency Amplifiers and How to Make Them."

COUPON

WILL W. ZIMMER, Inc., Publishers,
47 North Clinton Avenue, Rochester, N. Y.

Enclosed find \$.....for which send me the next number of your "LISTENING IN" Radio Magazine as per your Special Offer Number advertised in this Magazine.

My Name

Address

(Write name and address very plainly)

RADIO

**Improved Junior Grand
\$7.00**

This is positively the best buy in Rochester—'phones, aerial wire insulators, wiring and crystal—ready to listen in. Anyone can install without previous knowledge or experience. Money back if not satisfied, or—We will install the Junior Grand in your home and allow you to listen in before paying one cent, or—drop in at—

ROOM 6, 107 STATE ST.

During the afternoon and listen in as our guests.

Radio Factory Branch

**(\$2.00 Extra for Installing)
107 State Street**

RADIO TROUBLES

Our Expert Can Help You!
Specialist on Reflex and
Radio Frequency Circuit

All Makes Repaired

Have us design a portable
set for your summer trip.

—FREE—

Copies of the ERLA DUO
REFLEX circuit. The most
powerful one tube circuit
ever built.

J. Lawrence Hill Co.

**2 Plymouth Avenue S.
Rochester, N. Y.**

**News from all Corners
of the Earth**



May 10th—Big Date

President Harding's address before the Volunteers of America at the Metropolitan Opera House on May 10 will be broadcast by WEAJ, the American Telephone and Telegraph Station at 195 Broadway.

The occasion is the twenty-seventh anniversary of the founding of the Volunteers, held in honor of General and Mrs. Ballington Booth. President Harding will be the guest of honor and John W. Davis, former Ambassador to Great Britain, chairman.

Sensitive microphones of the condenser type will be placed in the Metropolitan Opera House to pick up the President's voice and send it over the wires to the broadcasting apparatus at the station.

Minute capacity changes will occur when the voice waves impinge upon the exposed plate of the condenser microphone, causing a change in potential in the grids of vacuum tubes.

A battery of tubes will amplify the feeble output of the microphone and overcome the resistance of the wire line leading from the Opera House to the apparatus at 195 Broadway and from that point to the antenna on West St.

Here other tubes will amplify and increase the power to a great magnitude. From the studio to the

antenna the power carrying Mr. Harding's voice will be amplified about three thousand billion times.

If the strength of the average man could be amplified to such a degree he could move the largest yearly haul of freight traffic in the history of the United States and replace all the locomotives in freight service. He would find the task as easy as moving a four-ounce weight.

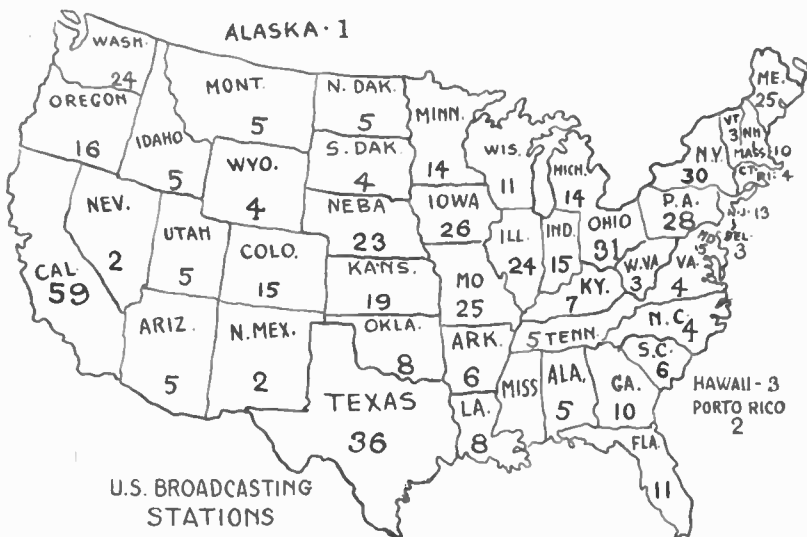
Broadcasting in India

Wireless schemes for India were recently the subject of questions in the Legislative Assembly at Delhi. Sir Sidney Crookshank Public Works Member, stated that the main wireless station of India, for which Agra appeared to be the most convenient center, would probably be handed over for construction and working by private enterprise, the government retaining a certain amount of control through the possible possession of shares or by reversion.

KSD Will Broadcast Opera

Ten weeks of light opera, extending through the entire season of the St. Louis Municipal Opera Company, will be broadcast throughout the summer by Station KSD, St. Louis. The season will open May 28th with "Naughty Marietta." Broadcasting will be done on Monday and Friday nights of each week.

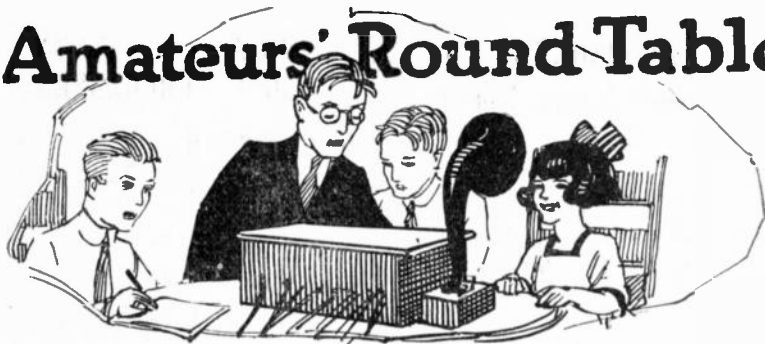
**Tell them you saw their ad. in
"Listening-In" Magazine.**



U.S. BROADCASTING STATIONS

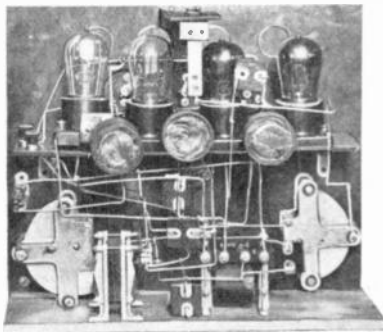
Chart Showing Number of Broadcasting Stations in Each State

Amateurs' Round Table



Reflex Set Easy to Make

Here, radio fans, is the much talked of Reflex Receiver, embodying unusual principals, and unexcelled for DX reception. Well worth your building, it consists of 3 stages radio



Wide World Photo
frequency detector and 2 audio—using only the four tubes on the reflex principal, functioning as Chas. Hall of 923 8th Ave. built the set and has received on a loud speaker all the principal stations within a 1500 mile radius this on a loop in a basement an unusual feat.

The RF transformers are unusual, having soft iron core, and especially designed for short wave reception.

Build Your Own Set

Radio has developed as have other sciences. In the first stage, only technically trained men—radio operators—received and sent. Then fear of the technical details disappeared or was overcome. Men and

boys now make their own sets. Radio has entered the home.

A little study will open the doors of radio knowledge to the least technical mind. The fascination of making your own set far outweighs anything else. You get the same thrill you felt in fashioning your first snow-man, or in making something with tools for the first time. Besides you get first hand knowledge easily, quickly, and at small cost.

Talented Boys Entertain

Radio fans will, no doubt, be interested in knowing that when being entertained by Heitsman's Orchestra, heard from Station WHAM, they were listening to a group of talented young boys. One of whom, George Pettinger, 17 years of age, has studied violin for more than ten years and is exceptionally gifted. Let's encourage our young people to perform. The world has more talent and ability than one realizes.

Making a Set

There are certain starting points in making a set. From many sources you can get the description of various types of outfits and decide which will meet your needs the best. Each week we will publish a complete description of an outfit representing the best of its type. There are also many good books giving easily understandable knowledge of how to make these instruments.



PEERLESS—DAVIS

(2,000 ohm)

**Superior Type
Matched Tone**

Super-Sensitive Phones
Quality Products—
—Moderate Prices

United Radio Corp.

Manufacturers

ROCHESTER, N. Y.

A Complete Line of Parts to Build Your Radio

Distributors for

FEDERAL STANDARD RADIO EQUIPMENT

Come in and see our special bargains in parts

E. C. Sykes & Co., Inc., 12 Front St., Rochester, N. Y.



**SUMMER
IS MOST
HERE**

Your summer home or camp won't be complete this summer without a radio to entertain you on rainy days, furnish you dance music from the finest hotels in the country, baseball news right from the bleachers, and church services on Sunday.

Now is the time to look over our stock and let us advise you.

LAUBE ELECTRIC COMPANY

338 MAIN STREET EAST

Fixtures — Repairs — Motors — Appliances

Radio in the Country



Radio on the Farm

In a recent address General James G. Harbord, president of the Radio Corporation of America and former deputy chief of staff, U. S. A., said that the radio will in time be to the farmer what the stock ticker is to the speculator.

"Broadcasting stands out as a primary function in dissemination of news, weather and market reports," General Harbord asserted.

"Its possibilities for making the farm a happier place to work and live indicate radio as a gold mine that has been scarcely touched.

"Every school, especially those in remote districts, should have the benefits of radio as it brings them within reach of lectures, music and educational methods of cities."

Weather Reports for Farmers

An innovation in providing weather reports for the benefit of farmers of this state this year, according to the announcement from the Department of Agriculture at Washington, will be the broadcasting of reports from the Syracuse Weather Bureau by radio.

These weather predictions, which it is stated will be for three or four days in advance, are expected to be of much help to farmers in caring for and harvesting their crops.

Hundreds of farm houses throughout the state are equipped with radio receiving sets and these will be given the opportunity of tuning in every morning to obtain the latest weather forecast and report of con-

ditions likely to affect farm crops.

Farm bureaus in sixty counties, which in previous years have been giving the weather forecast to farmers calling by telephone, will continue this service, it is stated.

A Short Story

Once upon a time there lived in the country a skeptical farmer. This agricultural expert was only luke warm to radio, or looked upon it merely as a diversion for women and a toy for children.

Now it happened this farmer lived in New York State, where last winter fierce storms raged which covered the ground for miles around with a snow twenty-six inches in depth.

The farmer was snowed in. Rural mail carriers found it impossible to get through for days. In some cases the telephone lines were temporarily out of commission.

Notwithstanding this, the farmer with a radio receiving set was able to get news of the day; he kept in touch with the market prices, though he was unable to take advantage of them, and during the evening his entire family were entertained with music and speeches.

And because this skeptical farmer was a good friend of this radio owner, he "listened in" frequently; and seeing the advantages of a radio outfit, he bought one and lives happily ever after.

H. Hile, of Ridgewood, N. J., owns a 10-watt transmitter which has been heard 2,000 miles east of New York City.

BROADCAST

YOUR RADIO NEEDS HERE

We "Receive" Clearly and understand your requirements.

We furnish only the best in all standard makes of Radio equipment and parts.

We have the new No. 199 Tubes and Sockets.
For real service call on—

ROWE & WADDELL CO.
INC.
The Electric Store
23 EXCHANGE ST.
Main 3086

RADIOPHANS OF ROCHESTER

Are You Having Trouble
with Your Set?

THE RADIO DOCTOR

Will locate the trouble and
tell you what to do

Questions not requiring re-
search work answered by
mail at rate of 25c each.

Phone Stone 5059-L

Dr. Harber,

48 Mayberry Street

McCurdy's

Fine Radio Outfit

Complete, \$12.50

Every Set Fully Guaranteed



A splendid crystal receiving set, including one pair of 2,000-ohm head phones, ground wire, aerial wire, insulators, etc.

This set is particularly well suited to the receiving of WHAM broadcasting from the Eastman Theater. It will be found to be remarkably satisfactory and dependable.



Rochester, N. Y.



Trouble Finders

Safety First

The solution of electrolyte used in lead acid battery is composed of water and sulphuric acid. It will destroy any but wool cloth and hence should not be spilled on carpet or clothing.

If this solution should become spilled, apply as quickly as possible, household ammonia or baking soda to the spot covered or spattered by the solution.

When working around storage batteries it is a good plan to have a solution of ammonia or soda and water, ready to wash over your clothes spattered by acid solutions. The ammonia or soda, being alkalies, will neutralize the sulphuric acid and prevent its further destructive power.

Thunder Storms and Radio

Relation of weather conditions to radio audibility is a point of interest to the broadcasting stations and to thousands of radio listeners.

As a result of work done by Nebraska Wesleyan University based on thunder storm reports furnished by the Weather Bureau, the investigators reached the conclusion that there is no relation between barometric pressure and audibility.

High static audibility and a near-by thunder area, however, tend to reduce the audibility at the receiving station.

The Grewol Radio Detector

In considering the crystal rectifiers and their relative ability we too often neglect to take into account two features of prime importance in connection with their operation. The first of these is the adjustment device, and the second the method of protection. Both these points have been emphasized in the Grewol, which is after all simply a good natural crystal well adapted to its work.

Beneath a tiny glass dome, similar in shape to the kind the grocer-man uses for the protection of his cheese cakes, is a solid plug of red insulative material with the crystal cup mounted upon it.

A connecting screw straight from the crystal holder to the under side of a small nicked base is used for connection of one lead to the rectifier. Over the cup edge beneath the glass dome a whisker contact arches gracefully making the rectifying contact at the crystal face.

This whisker is springy and much less flimsy than those ordinarily employed so that the setting may be maintained more or less permanently, despite the vibrations to which it is liable to be subjected. A small screw beneath the base is used for connection of the incoming lead to this side.

A storage battery must be recharged as soon as it becomes weak, or the set will not work.

A B C Lessons for Radio Beginners

First let us consider briefly the general transmission of radio waves. Radio waves are a form of electricity, but travel freely thru the air, brick and stone without a conductor such as the wire used for current electricity.

"Radio transmitting" is the correct term to use when we are considering any apparatus which sends out these electric waves in the form of buzzing code messages, voice and music, or anything else which our radio outfit brings in. "Broadcasting" is a term generally used incorrectly by our new radio friends. This term includes only the formal transmission of general information, news events, music and entertainment, but should not include any messages directed to one particular station or person.

An amateur is not licensed to broadcast but is permitted to send messages to only one person or station at a time. Of course if we are

tuned in on his wave we can hear the message.

Radio waves are now generally produced by applying a current of electricity at high voltage to the vacuum tube in a large heavy form called transmitting tubes. These are connected indirectly to the antennae or aerial which starts the waves traveling thru space.

If we are sending voice, music or code messages, it is impressed upon these waves as they leave the tubes and charge the aerial. The waves travel in all directions from the transmitting aerial at the same speed of light waves which is 186,000 miles per second, or 300,000,000 meters per second.

All waves whether they are on 200, 360 or any other meter wave lengths travel at the same rate from the transmitting station. Our radio signals are a series of electrical vibrations sent out on every cycle.

RADIO SUPPLIES AND SERVICE

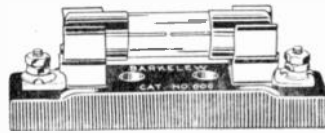
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If you want to build an outfit let us show you how.

We can save you time and money

Lightning Arresters

Barkeley are the best
New Model, Gap only 2.00
Combination Switch \$3.50



Dials - 35c to \$1.00

Genuine Conensite
Na-Ald and Tait

HOMCHARGERS

are giving good service
\$18.50

Will charge B Batteries

EASTMAN RADIO COMPANY

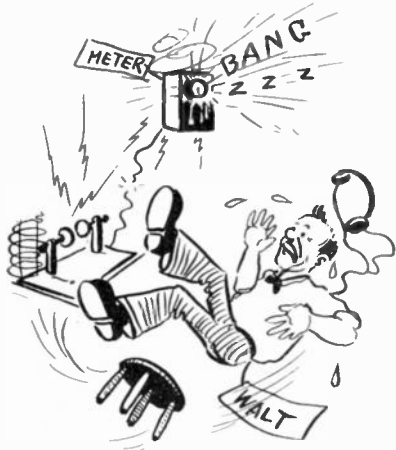
Member of Radio Dealers' Club

102 MAIN STREET EAST

ROCHESTER, NEW YORK

Main 6352

Opposite Security Trust Co.



Speaking 'bout Power

Our little town of Rochester, which boasts of an excellent broadcasting station, WHAM, c.n now boast of one of the most high powered outfits in the set owned and operated by Walter E. Langworthy, of 32 Crombie St., whose radio call is 8AYE.

Walt's little giant set uses a spark transmitter which requires 500 watts to transmit 400 miles. Until the gas and electric company installed a heavy meter, Walt's set burned out seven regular house meters.

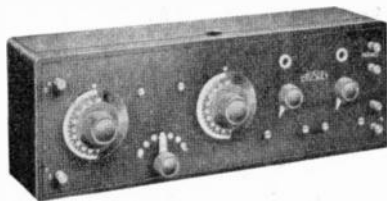
His enclosed gap spark, of which style is now practically extinct, burns nearly all the oxygen in the room and leaves only ozone, the purest of air. He is forced, because of this, to wear eye-shades when operating his powerful set.

With his present spark transmitter set he has heard that well known amateur station in London, England, 2FZ, which as we know, was heard the most consistent of all in the transatlantic tests. Walt has also heard 8AB, another amateur set located in Nice, France.

Otto Meunz, a good friend of Walt, who lives next door, owns a small crystal set, and as his aerial is horizontal with that of Walt's, he can "listen in" to all his friend's long distant concerts and calls.

Amateurs have reported receiving broadcasting stations as far away as 1,000 miles with crystal sets.





RADIO—A SUMMER PASTIME

One of the great uses for RADIO this summer will undoubtedly be for entertainment in the lake side cottage and the summer home. For this purpose we are selling the now famous—

CROSLEY "V" SET

Complete with a WD-11 tube, 1 pr. Phones, Batteries, Aerial and Ground Wire and 2 Aerial Insulators for—

\$32.75

With a range of 1500 miles you will not only be able to enjoy our local broadcasting but can reach out to the best Eastern and Western Stations.

We also carry a full line of parts for those who wish to build their own. Our line of crystal and tube sets is most complete varying in price from \$5.00 to \$116.00.

Come in and let us demonstrate.

WARDER, CLARK & CHAPLIN ELECTRIC CO., INC.

Phone, Main 1283

Member Radio Dealers' Club

362 East Main Street

Rochester, N. Y.

The Question Box

We will be pleased to give all the information and assistance possible thru this department. If you are having difficulty with your outfit, kindly send the wiring diagram or sketch of your



circuit when possible, as it greatly assists us in locating trouble. Also give size of condensers and number of turns of wire in the coils. Address—

The Question Box Editor

Periodic Disturbances

Question—What is meant by a periodic disturbance? (2) What is a periodic wave?—T. F. C.

Answer—A periodic disturbance is one which exists one moment and then disappears. It has no repetition in action. Static is a periodic disturbance because it does not occur at regular intervals. (2) A periodic wave is one which repeats itself at regular intervals.

Spain to New York

Question—I want to build a wireless station here in Spain to hear New York. What type of set do I need?—A. S.

Answer—Use three stages of radio frequency amplification, a vacuum tube detector and two audio-frequency amplifiers. The antenna should be a single copper wire about 100 feet long, including the lead-in. Point it in the direction of New York and get it as high as possible.

WD-11 and WD-12 Tubes

Question—What is the difference between a WD-11 and a WD-12 tube? (2) Can these tubes be used as amplifiers?—C. H.

Answer—The WD-11 requires an adapter to fit the standard socket. The WD-12 has a standard base and will fit the standard socket without an adapter. The electrical characteristics of both tubes are the same.

(2) Yes, use from 45 to 60 volts on the plates.

Storage Batteries

Question—How is the normal rate of discharge of a cell figured? (2) What causes sulphation of storage batteries?—H. F. S.

Answer—Divide the ampere hour capacity of the cell by the hour rating. (2) Overcharging or standing too long is a discharged condition.

Wind and Radio Waves

Question—Will wind at gale force affect radio waves? (2) How can I determine the correct connections for the variometer in the plate circuit? The set will not oscillate. (3) If I use two dry batteries in a WD-11 circuit how should they be connected?—W. T.

Answer — No, wind and radio waves do not conflict. (2) Tune in a station, then reverse the variometer connections and retune the same signals. (3) Parallel.

UV-201-A as a Detector

Question—I have a UV-201-A tube, and wish to use it as a detector. Does it give good results? How should it be used? E. B. C.

This tube operates quite well as a detector when properly adjusted, and is a little better than a peanut tube. Two dry cells in series with the usual rheostat about half way



Miss Marie Denarie

“Far Away From Honolulu”

“Hot dog!” exclaimed the editor when shown the above picture of Miss Marie Denarie playing with the musical comedy players in the Family Theater, Rochester. She delights “listening in” and playing her little “uke” to jazz tunes from far off stations, such as distant Honolulu.

Radio on “Sandwich Man”

All London is in the throes of wireless telephony, according to W. E. Wroe of San Antonio, Texas, who is at the Hotel Martinique after a long stay in England.

One of the novel uses to which the new marvel has been put, he says, is the radio sandwichman who parades up and down the Strand and Piccadilly with a complete radio outfit. He is able to pick up all the stations and all passers-by get an earful.



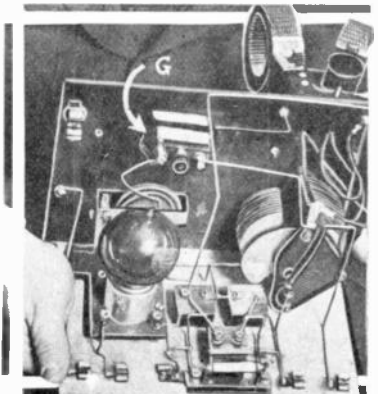
A Set for Ten Dollars

This exceptionally clear photograph shows a complete Flewelling Radio set built by a fan at a cost of \$10 (minus the vacuum tube).

Local stations are heard without aerial or ground and with an outdoor aerial station and a loud speaker, long distances can be heard.

This set is one of the most efficient all-round radio sets that can be constructed at this low figure.

When patronizing any advertiser, tell them you saw their advertisement in **“LISTENING IN.”**



Kadei & Herbert Photo

IN RADIO
WE HAVE WHAT YOU NEED
AND CAN PROVE IT

ROWE & WADDELL CO., INC.

The Electric Store
23 EXCHANGE ST.

Main 3086

ROCHESTER, N. Y.

SPECIAL OFFER FOR A LIMITED TIME ONLY

\$2.00 DOWN

Puts the wonderful labor and rug and carpet saving

Electric
SWEeper-VAC
With Motor Driven Brush

in your home.

☞ BEFORE YOU BUY TRY A SWEEPER-VAC ☜

DEMONSTRATION FREE

Phone—Main 3960 or Write

Rochester Gas and Electric Corporation

Daily Broadcasting Programs

WHAM—Rochester, N. Y.—360

3:00 to 3:30 P. M. Organ and orchestra selections from Eastman Theatre.
4:15 to 4:45 P. M. Organ and Orchestra selections from Eastman Theatre.
7:30 to 8:30 P. M. Organ and Orchestra selections from Eastman Theatre.
7:30 to 8:30 P. M. Program of Radio Dealers' Club.

NAA—Arlington, Va.—710

6:00, 8:45 and 10:05 P. M. Weather forecast.

KDKA—Pittsburgh—360

10:00 A. M. Music.
12:30 P. M. Music.
12:30 P. M. Music.
6:00 P. M. Music.

WGY—Schenectady, N. Y.—370

6:00. Produce and stock market quotations, news bulletins, baseball scores.
7:45. Nightly musical program.

WJZ—Newark, N. J.—360

6:00. Musical Program.
9:55 to 10:00 P. M. Arlington Time signals, weather forecast.

WEAF—New York City—400

5:05 to 8:25 P. M. Daily program of talks, music, etc.

WGM—Atlanta, Ga.—400

6:00 to 11:00 P. M. Nightly program.

CFCA—Toronto—400 meters

8:00 to 9:00 P. M. Concert program.

WGI—Medford—360

6:00 P. M. News.
8:00 P. M. Musical program.

WBAP—Forth Worth, Tex.—400

7:30 P. M. Nightly program.

WFAA—Dallas, Tex.—400

9:30 P. M. to 1:00 P. M. Musical program, talks, etc.

CKAC—Montreal—430

7:00 P. M. Stories, concert program.

KSD—St. Louis—400 meters

9:00 P. M. Concert program.
12:30 P. M. Musical program.

WWJ—Detroit—400

5:16 P. M. Private markets.
7:00 P. M. Concert program.

KYW—Chicago—400

5:00 to 9:00 P. M. News, stories, and music.

WDAF—Kansas City

3:00 to 6:00 P. M. Every half hour baseball scores.
3:30 to 4:30 P. M. Musical matinee.
6:00 to 1:00 A. M. Musical program.

WLW—Cincinnati, Ohio—300

No evening program

WOC—Davenport, Iowa—400

6:35 P. M. Bedtime story.
7:00 P. M. Musical program.
8:00 P. M. Educational program.

WGR—Buffalo—360

5:00 P. M. Weather and market reports.
7:30 P. M. Daily digest of news.

WHAS—Louisville, Ky.—360

7:30 P. M. Musical and literary program.
8:00 to 9:00 P. M. Concert program.

KFI—Los Angeles—400

11:00 P. M. to 2:00 A. M. Evening program.

WKAQ—Porto Rico—360

8:30 P. M. Evening Program.

WBZ—Springfield, Mass.—122

3:30 P. M. News of the day.
7:30 P. M. Bedtime story, musical program.
10:00 P. M. Time signals.

WWJ—The Detroit News—400

6:30 A. M. "Tonight's Dinner" and a special talk by the Woman's Editor.
10:25 A. M. Weather (485 meters.)
11:55 A. M. Time.
12:05 P. M. The Detroit News orchestra.
3:30 P. M. Weather (485 meters).
4:00 P. M. Markets.
5:00 P. M. Markets and baseball scores.
8:30 P. M. The Detroit News Orchestra.

WOC—Davenport, Iowa—400

10:55 A. M. Time signals.
11:00 A. M. Weather and river forecast.
11:05 A. M. Opening market quotations.
12:00 Noon. Chimes concert.
2:00 P. M. Closing stocks and markets.
3:30 P. M. Educational talk by C. E. Wilent.
5:45 P. M. Chimes concert.
6:30 P. M. Sandman's visit.
6:50 P. M. Baseball score.
7:00 P. M. Musical program.

A more complete list of popular broadcast stations is being worked upon by the Radio Broadcast Editor and will be published in the May 12 issue.

Getting Out Radio News

Getting out a magazine is no joke.

If we print jokes, folks say we are silly.

If we don't they say we are too serious.

If we publish original matter, they say we lack variety.

If we publish things from other papers, they say we are too lazy to write.

If we stay on the job, we ought to be out rusting news.

If we are rustling news, we are not attending to business.

If we don't print contributions, we don't show proper appreciation.

If we do print them, the paper is filled with junk.

If we knock spark sets, amateurs say we're visionary.

If we try to uplift the amateurs, they say we do it for monetary reasons.

If we tell the unvarnished truth, they say we are knocking and deserting them.

Like as not you will say we swiped most of this from another magazine.

We did! We swiped this!

Concerts for French Liners

The French Line will equip all its passenger ships sailing out of New York with radio receivers and amplifiers for the reception of broadcast programs.

Cleveland
An experiment in the use of radio as a means of mobilizing troops, conducted at Cleveland by Colonel L. S. Connelly, in command of the 145th Infantry, was pronounced a big success. Within two hours after an "emergency order" was broadcast he had received replies from all of the eighteen companies, with the exception of the one at Akron.

Radio Supplants Maid

George Ernchette, president of the French society for the study of wireless, is replacing the servants in his home by radio, from Eiffel Tower, according to recent dispatches which told the interesting bit of news, and which further added:

"Every day at 6 a. m. a wireless wave from the Tower starts an alarm clock on his dresser, opens the windows of his bedroom, and pulls back the shutters. An electric stove is started by the same wave, the chocolate is heated and is electrically controlled and never boils over.

The news of the day is disseminated from a loud-speaker as he eats his dinner, official time is given him by radio, and all clocks in the house are operated by wireless."

M. Ernchette declares next winter he is going to heat his house by wireless waves from Eiffel Tower. Perhaps M. Ernchette will drive his car by radio waves and take his bath radioly.

A Complete Line of Radio

APPARATUS AND ACCESSORIES

Prices as low as good business and quality will permit.

Repairing and Sets made to order.

Come and see our Saturday specials. Open until 9 P. M.

Tenth Ward Radio Shop

Ridgeway and Dewey Avenues

Ester Block

Rochester, N. Y.

Phone—Glenwood 966

LISTEN!



Halftones
Color Plates
Zinc Etchings
Designing
Lettering
Newspaper
Cuts



Culver
Engraving
Company,
Inc.

DEMOCRAT & CHRONICLE BUILDING
59-61 EAST MAIN STREET, ROCHESTER, N. Y.
TELEPHONE MAIN 5955

*f*rom the
Advertising Suggestion Department

Photograph, pencil, pen or brush illustration ideas, border arrangements, typographical display, text matter and other advertising suggestions are furnished by this department to old and new and prospective advertisers in "LASTING IS" MAGAZINE.

This service enables our patrons of the advertising columns to reach readers by a route of sure approach. This "Open Sesame" is *advertising* that conforms as much as may be to the general taste of the readers of that magazine in which it is published. Being on "The Inside," we are able to suggest how our readers may be best interested in your product.

This service is entirely supplementary to that of those who have regular methods of handling their advertising. It is a primary service to those who have not regular publicity systems of their own, or at their command. So if you contemplate taking advertising space in any publications, and desire our assistance, it is yours on request. Write, giving full particulars and descriptive literature, to

ANDREW G. DENARIE

THE ADVERTISING SUGGESTION DEPARTMENT

WILL W. ZIMMER, INC.

PHONE STONE 5798 47 CLINTON AVE. NO. ROCHESTER, N. Y.

NO

— Aerial
— Ground
— Storage Battery
— Static
— Interference



Complete \$137.00

*It's the Ideal Summer
Radio Set*

USE IT

At Home, at Camp, in your
Canoe, on your Auto Trip,
anywhere you happen
to be, the

D7A

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Something New
in

Brunswick Records

Every Day

No more waiting. Get the
Record you want when
you want it.



Sanger's^{Inc.}

44 CLINTON AVE. N.

Rochester, New York



Miss Marie Denarie

“Far Away From Honolulu”

“Hot dog!” exclaimed the editor when shown the above picture of Miss Marie Denarie playing with the musical comedy players in the Family Theater, Rochester. She delights “listening in” and playing her little “uke” to jazz tunes from far off stations, such as distant Honolulu.

Radio on “Sandwich Man”

All London is in the throes of wireless telephony, according to W. E. Wroe of San Antonio, Texas, who is at the Hotel Martinique after a long stay in England.

One of the novel uses to which the new marvel has been put, he says, is the radio sandwichman who parades up and down the Strand and Piccadilly with a complete radio outfit. He is able to pick up all the stations and all passers-by get an earful.



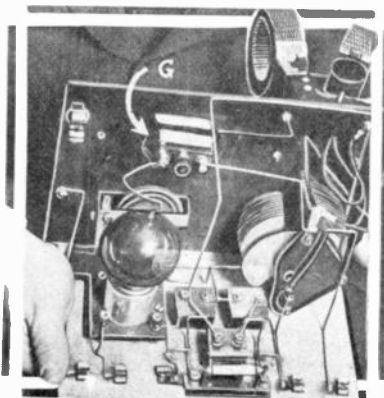
A Set for Ten Dollars

This exceptionally clear photograph shows a complete Flewelling Radio set built by a fan at a cost of \$10 (minus the vacuum tube).

Local stations are heard without aerial or ground and with an outdoor aerial station and a loud speaker. long distances can be heard.

This set is one of the most efficient all-round radio sets that can be constructed at this low figure.

When patronizing any advertiser, tell them you saw their advertisement in **“LISTENING IN.”**



Kudel & Herbert Photo

IN RADIO
WE HAVE WHAT YOU NEED
AND CAN PROVE IT

ROWE & WADDELL CO., INC.

The Electric Store
23 EXCHANGE ST.

Main 3086

ROCHESTER, N. Y.

SPECIAL OFFER FOR A LIMITED TIME ONLY

\$2.00 DOWN

Puts the wonderful labor and rug and carpet saving

Electric
SWEeper-VAC
With Motor Driven Brush

in your home.

☞ BEFORE YOU BUY TRY A SWEEPER-VAC ☜

DEMONSTRATION FREE

Phone—Main 3960 or Write

Rochester Gas and Electric Corporation

Daily Broadcasting Programs

WHAM—Rochester, N. Y.—360

3:00 to 3:30 P. M. Organ and orchestra selections from Eastman Theatre.
4:15 to 4:45 P. M. Organ and Orchestra selections from Eastman Theatre.
7:30 to 8:30 P. M. Organ and Orchestra selections from Eastman Theatre.
7:30 to 8:30 P. M. Program of Radio Dealers' Club.

NAA—Arlington, Va.—710

9:00, 8:45 and 10.05 P. M. Weather forecast.

KDKA—Pittsburgh—360

10:00 A. M. Music.
12:30 P. M. Music.
12:30 P. M. Music.
6:00 P. M. Music.

WGY—Schenectady, N. Y.—370

6:00. Produce and stock market quotations, news bulletins, baseball scores.
7:45. Nightly musical program.

WJZ—Newark, N. J.—360

6:00. Musical Program.
9 55 to 10:00 P. M. Arlington Time signals, weather forecast.

WEAF—New York City—400

5:05 to 8:25 P. M. Daily program of talks, music, etc.

WGM—Atlanta, Ga.—400

6:00 o 11:00 P. M. Nightly program.

CFCA—Toronto—400 meters

8:00 to 9:00 P. M. Concert program.

WGI—Medford—360

6:00 P. M. News.
8:00 P. M. Musical program.

WBAP—Forth Worth, Tex.—400

7:30 P. M. Nightly program.

WFAA—Dallas, Tex.—400

9:30 P. M. to 1:00 P. M. Musical program, talks, etc.

CKAC—Montreal—430

7:00 P. M. Stories, concert program.

KSD—St. Louis—400 meters

9:00 P. M. Concert program.
12:30 P. M. Musical program.

WWJ—Detroit—400

5:4 P. M. Private markets.
7:00 P. M. Concert program.

KYW—Chicago—400

5:00 to 9:30 P. M. News, stories, and music.

WDAF—Kansas City

3:00 to 6:00 P. M. Every half hour baseball scores.
3.30 to 4:30 P. M. Musical matinee.
6:00 to 1:00 A. M. Musical program.

WLW—Cincinnati, Ohio—300 No evening program.

WOC—Davenport, Iowa—400

6:35 P. M. Bedtime story.
7:00 P. M. Musical program.
8:00 P. M. Educational program.

WGR—Buffalo—360

5:00 P. M. Weather and market reports.
:30 P. M. Daily digest of news.

WHAS—Louisville, Ky.—360

7:30 P. M. Musical and literary program.
8:00 to 9:00 P. M. Concert program.

KFI—Los Angeles—400

11:00 P. M. to 2 00 A. M. Evening program.

WKAQ—Porto Rico—360

8:30 P. M. Evening Program.

WBZ—Springfield, Mass.—122

3:30 P. M. News of the day.
7:30 P. M. Bedtime story, musical program.
10:00 P. M. Time signals.

WWJ—The Detroit News—400

1:30 A. M. "Tonight's Dinner" and a special talk by the Woman's Editor.
10:25 A. M. Weather (485 meters.)
11:55 A. M. Time.
12 05 P. M. The Detroit News orchestra.
3:30 P. M. Weather (485 meters).
4:00 P. M. Markets.
5:00 P. M. Markets and baseball scores
8:30 P. M. The Detroit News Orchestra.

WOC—Davenport, Iowa—400

10:55 A. M. Time signals.
11:00 A. M. Weather and river forecast.
11:05 A. M. Opening market quotations.
12:00 Noon. Chimes concert.
2 00 P. M. Closing stocks and markets.
3:30 P. M. Educational talk by C. E. Wilent.
5:45 P. M. Chimes concert.
6:30 P. M. Sandman's visit.
6:50 P. M. Baseball score.
7:00 P. M. Musical program.

A more complete list of popular broadcast stations is being worked upon by the Radio Broadcast Editor and will be published in the May 12 issue.

Getting Out Radio News

Getting out a magazine is no joke.

If we print jokes, folks say we are silly.

If we don't they say we are too serious.

If we publish original matter, they say we lack variety.

If we publish things from other papers, they say we are too lazy to write.

If we stay on the job, we ought to be out rusting news.

If we are rustling news, we are not attending to business.

If we don't print contributions, we don't show proper appreciation.

If we do print them, the paper is filled with junk.

If we knock spark sets, amateurs say we're visionary.

If we try to uplift the amateurs, they say we do it for monetary reasons.

If we tell the unvarnished truth, they say we are knocking and deserting them.

Like as not you will say we swiped most of this from another magazine.

We did! We swiped this!

Concerts for French Liners

The French Line will equip all its passenger ships sailing out of New York with radio receivers and amplifiers for the reception of broadcast programs.

bath radioly.

Cleveland

An experiment in the use of radio as a means of mobilizing troops, conducted at Cleveland by Colonel L. S. Connelly, in command of the 145th Infantry, was pronounced a big success. Within two hours after an "emergency order" was broadcast he had received replies from all of the eighteen companies, with the exception of the one at Akron.

Radio Supplants Maid

George Ernchette, president of the French society for the study of wireless, is replacing the servants in his home by radio, from Eiffel Tower, according to recent dispatches which told the interesting bit of news, and which further added:

"Every day at 6 a. m. a wireless wave from the Tower starts an alarm clock on his dresser, opens the windows of his bedroom, and pulls back the shutters. An electric stove is started by the same wave, the chocolate is heated and is electrically controlled and never boils over.

The news of the day is disseminated from a loud-speaker as he eats his dinner, official time is given him by radio, and all clocks in the house are operated by wireless."

M. Ernchette declares next winter he is going to heat his house by wireless waves from Eiffel Tower. Perhaps M. Ernchette will drive his car by radio waves and take his

A Complete Line of Radio

APPARATUS AND ACCESSORIES

Prices as low as good business and quality will permit.

Repairing and Sets made to order.

Come and see our Saturday specials. Open until 9 P. M.

Tenth Ward Radio Shop

Ridgeway and Dewey Avenues

Ester Block

Rochester, N. Y.

Phone—Glenwood 966

LISTEN!

