

Readers Give Views on Interference

Radio Digest

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*Directions for Building the 1927 DeLuxe Super, the Set That Heard the Philippines;
New B-T Power-Six; Uncle John and KHJ's Radioland; Directory of Stations, Part II*

UNCANNY DEVICE CAN SEE THROUGH DARK

NEW INVENTION BY BAIRD, SCOTCH RADIO WIZARD

Has Tremendous War and Peace Applications—Can Locate Airplanes in Night Attacks

LONDON, England.—A remarkable invention by which it is possible to obtain sight of an object by means of light rays invisible to unaided human sight, was demonstrated in London recently. From the fact that, by the light rays employed, a person in entire darkness may be watched by an unseen observer, it will be seen that there are vast possibilities for the application of the invention in times of war or peace.

Among the claims made for this invisible ray are that it will:

1. Enable approaching enemy aircraft to be detected and observed without the disclosure of the whereabouts of the observer, by the customary tell-tale beam of the ordinary searchlight.
2. Reveal at night the presence above water of a submarine.
3. Disclose secret movements of troops at night.
4. Warn ships in time of fog of impending collision with icebergs or other vessels.

Baird Inventor Again

This further great stage in the practical application of television has been reached by John L. Baird, the young Scotch inventor, who holds the only license granted by the British postmaster-general for research work in television by Radio, and who early in 1926 successfully demonstrated his claims before a gathering of members of the Royal Institution, the leading scientific body in Europe.

Hitherto it has been necessary to focus an intensely brilliant ray of light on the object to be transmitted, and in the case of an individual the intensity of the light is so great as to be bothersome. Obviously, before the commercial application of television could become possible, it would be necessary to diminish the enormous brilliancy of the light. Along this line Mr. Baird and Captain O. G. Hutchinson, his associate, have been working for the past six months.

So successful have been their experiments that they have now evolved a ray of light completely invisible to the eye, which through the Baird televisor projects onto the screen the image of the person or the object which it is desired to transmit. This ray penetrates to a much greater degree than the ordinary light rays, but being infra red, is outside the visible spectrum. The ray itself is not new, but its application to television will have far-reaching results.

Experiences of Observer

In a demonstration of the ray in which two independent persons took part the results were wholly successful. One of the participants narrates his experience as follows:

"I was first shown into the room in which is placed the transmitting screen of the televisor. The windows were heavily curtained, and above the screen were arranged a number of ordinary electric lights. Before the light filter was placed in position the intensity of light was almost blinding, but when the filter was brought into use it had the effect of cutting out everything that was visible from the rays, and the room was plunged in total darkness. I groped my way to the screen and sat in front of it. My colleague, in an adjoining room, sat before the receiver and watched. Almost immediately, he told me afterwards, my head and shoulders were brought into focus.

"Involuntarily I opened my mouth, and from afar I heard my colleague shouting to me to close it. I put my tongue out, imagining that the darkness protected me, and was told not to be rude. It was uncanny in the extreme. I stumbled out of the room into the light, and my colleague described to me in detail everything I had done. Then we reversed the process, and I became the watcher.

"We had been enabled to see in total darkness."

Light There But Eye Can't See

Mr. Baird explained that what happens is that after the light has been switched on the filter which has been superimposed cuts off all visible rays, but in no way interferes with those rays in the lower spectrum invisible to the human eye. These invisible rays are picked up and are transmitted through space to the sensitive cell of the televisor, which projects the image upon which the rays have been directed onto a screen.

The uses to which this power of seeing in darkness may be put are manifold, and the value of such a power in modern warfare can easily be imagined. Take, for example, an attack from the air. It is comparatively easy for a squadron of airplanes to approach under cover of darkness.

With the invisible ray of the televisor attacking airplanes could be watched

KNOW COVER GIRL? CHANCE TO WIN \$5

WHO is she? What do you know about her? Where did you hear her over the air? Does she play, sing or tell stories? Answer these questions and afford such other interesting information as you may glean, and if it is the best letter received, you will be awarded a check for \$5. Just one lead to guide you—the lady's name is Ida May Chadwick. Now sit down and write us a letter of 100 words. Send it to Cover Girl Editor of Radio Digest, 510 N. Dearborn St., Chicago, before February 1. Identical prizes will be awarded in the event of tie.

without the watch being so immediately manifest. They could be followed by searchlights emitting not light, but invisible rays, they would be allowed to come within range and then brought down by the ground guns.

Peace-Time Uses; Penetrates Fog

The same thing could be applied to submarine warfare. The use of the invisible ray would force a submarine to remain under water even during the hours of darkness, for if it came to the surface to attack it would immediately come within the view of the televisor. Darkness, the great cloak for military operations, will no longer give any security.

The invisible ray has its peace-time uses as well as its destructive purposes. It can penetrate to a much greater extent than an ordinary ray of light, and this power of penetration would be of the greatest service to ships in fogs and in avoiding collisions with icebergs. Tests of the ray have already been made by the British Army, Navy, and Air Force.

Crosley Controls DeForest

NEW YORK.—Powel Crosley, Jr., owner of the Crosley Radio Corporation in Cincinnati and holding control of the American Radio and Research Corporation of Medford Hillside, Mass., was on January 4 elected to presidency of the DeForest Radio Corporation, of New York, of which he has obtained control for the next five years.

Mr. Crosley is also owner of Superstation WLW, at Cincinnati.

Congress Will Do Own Sweet Way Signs Point

Radio Control Law May Not Even Be Passed

WASHINGTON, D. C.—Are listeners to get some relief from Congress or are they not?

That is the question. Indications are at the time of this writing that Congressmen are being besieged to such an extent by various interests that they do not know who to believe and in such a situation they generally "go their own sweet way." If Radio legislation is enacted at the present session of Congress and it is not what it should be, the public has only itself to blame.

Every branch and phase of the Radio industry is represented at the National Capitol these days except the fan. However, he is being heard from to some extent through correspondence with his Congressman.

Since the holidays, progress in Radio legislative efforts has been what may be described best by the single word—nothing.

Nelson at WPCH

NEW YORK.—Ted Nelson, formerly associate managing director of Station WMCA, of the McAlpin Hotel, has joined the studio staff of Park Central hotel as associate managing director of American Bond and Mortgage Station WPCH. The addition of Nelson's name to this organization rounds out the prestige of the station to one of the first rank, according to the New York Radio chat. Associated with Nelson are such old timers as Lewis Reid and Norman Brokenshire, both formerly of WJZ; and Walter Neff, formerly of WAHG. Ted Nelson is a graduate of Columbia and a former newspaper man. He is known to millions of listeners.



WSB, WHAS Join Red Chain

NEW YORK.—Announcement is made of the addition of Stations WSB, Atlanta, Ga., and WHAS, Louisville, Ky., to the WEAJ or Red Network.

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Looking Ahead

At Last We Are Going to Have Wyndham Martyn's Green Mamba, a most fascinating story of love and gold by this famous author. The old alliance between Eve and the snake has a setting in Green Mamba that is ultra modern—a vivid cross-section of life in a Long Island millionaire's paradise and the wilds of barbarous Africa.

Only Three More Sections of Whozit to Come, so hurry and prepare to send your solved sets of Whozits in to win part of the \$26,000 in prizes.

We Told You the Philippine Super Was Coming. And here it is, on page seven this issue. Then, on page nine there is a more modest set for the home builder. Making either? More details next issue.

Special articles about broadcasting stations and artists, with photographs, and NON-RADIO fiction 5,000, 10,000 and 30,000 words in length are desired. No manuscripts accepted unless typewritten and prepaid, or returned without return postage being inclosed. All manuscripts are sent at owner's risk.

Newsstands Don't Always Have One Left

WHEN YOU WANT

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Please find enclosed check M. O. for Three Dollars (Four, Foreign) for One Year's Subscription to Radio Digest, Illustrated.

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SHORT WAVES

By Marcella

Quin Ryan; Carl Menzer; Bobby Griffin; Pattison Coates; "Ivories" Lee Sims; Doug Richardson; Graham McNamee and Phillipps Carlin, WEAJ Twins; Val McLaughlin Busy with Her Own; Everett Mitchell New Voice at WENR.

HOW many of your nice new New Year's resolutions have you broken? *

Here is a query about that ace of football announcers, Quin Ryan of WGN, Chicago. Mr. and Mrs. P. J. Halm, Rock Island, Ill., want to know all about him—"Is he married? We hope so. If he is, how many children—he should have several he entertains them so well. A sheik? Don't tell us that he is. Red hair? We think so. Irish? Must be. Is he as human, every day and old shoeish as he sounds?" *

And the Halms want to know whether Quin is so generally admired by the feminine listeners as Lester Palmer of WOW. I knew Quin way back when and I think he is a regular fellow, not spoiled by the fame that has come to him through this very popular broadcasting station. He dresses neatly, chooses the right kind of a tie, has dark wavy hair, deep blue eyes, is courteous and a gentleman at all times. He is not married and so far as I can learn is fancy free. He stands five foot nine inches and puts his whole soul into his work as the feature director and announcer of WGN. Oh, and to be sure, he belongs to the cult of column conductors and his Irish wit is evident in the Loud Speaker of the Sunday Tribune. Girls, he DOES have one—you know, one of those nifty little lip winkers dubbed a mustache. *



A bashful college boy, Edna, just a modest young fellow who presides at the WSUI microphone, naturally a student at the State University of Iowa and his name is Carl Menzer. The picture you see here is taken from a snapshot I begged of him for your delectation. I don't believe all the things we hear and see about this college deviltry, do you? *



Could you, now, just looking at this manly countenance? Eyes, hair, state of matrimony, hobbies? Tush! Tush! Edna, he simply doesn't tell in his letter. He says, "Go ahead, Miss Marcella, say anything you like. I trust you." *

M. I. M., West Branch, Ia. and T. W. W. of Eyote, Minn. It just had to be. Bobby was bound to rise. So when it happened that they had two crack-jack announcers at WHO, Des Moines, Ia., and Bobby was the assistant announcer Station KVOO of Bristow, Okla., beckoned and Bobby Griffin came over to be installed as chief announcer. Bobby is 26, unmarried and a real war hero. He has a winning Radio voice which reflects the genuine sincerity of his nature. He made a fine showing in winning an honorable mention certificate in the last Radio Digest Gold Cup award for America's most popular announcer. *



Ruth and Jane, you are right in your supposition about Mr. Pattison Coates at WGN. Same man. And he is such a big handsome fellow. He is younger than you would suppose from hearing him over the air. How old do you think? Nope. He's only twenty-two. He has dark hair, blue eyes, and the most be-ootiful teeth. He does the Great Lover feature and his love songs are simply divine. And Oh, my dears, he is NOT married. How unusual! *

Bob and Bobby, Sparland, Ill. The only sure thing about Lee Sims, recently of WBBM and KYW, is that he is not attached to any special broadcasting station. Last night I heard him over WGES but tonight he is apt to be at some other Chicago station. His one fixed association is with Garland's Music studio where he teaches his masterful modulations to ambitious ivory ticklers. *

May of Tacoma. It appears that you are decidedly impressed with the ethereal attractions of Doug Richardson at KJR. I would be glad to go into details concerning this particular favorite but it was only a few weeks ago that we responded to many other inquiries with just about everything that could be told. He has gray-blue eyes and hair that sometimes looks a dark brown and again could be taken for red. But here is what you want to know, May, he has a wife and a little

(Continued on page 4)

PEOPLE VOICE STRONG OPINIONS

SHENANDOAH DEBATE BRINGS HAIL OF LETTERS FROM FANS

Interference Problem Gets Real Airing—Many New Lines of Thought Are Brought to Light—What Listeners Say

If you want to start something, criticize a broadcasting station! Immediately that station will have numerous champions who will expostulate, fill your mail with letters of threatening nature, and say nasty things about you.

In the past several issues, "The Reader's View" column of this publication, a column devoted purely to letters from readers and listeners, has contained several rather warm complaints against certain stations. Immediately the war started.

The issues became magnified, Radio Digest was called a "tool of the trusts" and many other things not nice to print, and the criticized stations felt deeply chagrined to think that anyone should criticize them, even going to the extreme of believing that Radio Digest was behind it all.

The letters resulting from the interference issue are meaty and interesting. Some suggest good ideas. Many excerpts from them are being published below for that reason. However—

None of them carry the stamp of the editorial policies of Radio Digest. Remember that they are readers' views or opinions, and not the Digest's.

Radio Digest's Policy

To prove that this publication is not sidestepping, the Radio Digest policy regarding wave lengths and interference is quoted herewith:

"It is the right of every listener to receive the program he desires, without interference from other stations, regardless how humble and meager the Radio receiver installation he possesses may be.

"It is the right of every station to broadcast what it pleases, as long as it is neither indecent nor immoral, for the listener has the option of tuning out what displeases him."

The two sentences above cover a multitude of ground. Think them over. Then read on and learn what various listeners have to say about interference and stations that interfere:

What Are the Public's Rights?

"There is urgent need for immediate federal laws and strict government super-

ME SNEEZE? NO IT'S MOSCOW ON THE AIR

NEW YORK.—Allo! Allo! Toot rah-dee-to-tellay-grain-ayah tue-see-atsche tschay-tueresta pec-atdee-sa-tee-mee-trov, toe-var-eescht-tschee, soos-tcha-ee-tee.

Radio fans should not be alarmed if they hear these strange sounds issue forth from their loud speaker some evening. It is merely the opening statement of the announcer at RDW Moscow, a new 12,000-watt station.

WHOZIT GAME WINS THOUSANDS OF FANS

\$26,000 AWAITS FANS WHO PAY CLOSE ATTENTION

Pasting Artists' Faces Back Together Correctly Proves Favorite Winter Pastime—Fifth Game Starts

(Whozits on 10, 12 and 13)

Are you keeping up with Whozit, the \$26,000 prize national game?

Prediction by Radio Digest that Whozit would prove the most popular and fascinating Radio diversion of the year has already been verified by the thousands of letters received through the twenty-four broadcasting stations in the Whozit chain and by the Whozit editor of the Radio Digest.

The rules are not being repeated in detail in the current issue, but may be had by obtaining back numbers.

How Whoziteers Play Games

In the main, for those who have not followed the game it may be stated that in each issue of Radio Digest will be found forty-eight Whozit pictures. These pictures represent two artists from the twenty-four participating stations.

Listeners who wish to play the game turn to the Whozit pages during the broadcast hour of the nearest Whozit station. They are told to look for the names under a certain panel. Then the characteristics of the artist are described, and it should be stated that the Whozit picture is a composite of four different faces. From the description the listener picks out the segments of the pictures that belong to each individual, assembles them, notes five facts about the individual and then holds the picture until the last of the eight games have been played.

Although this is the fifth game of the series, it is not too late for those who have not taken part heretofore to begin the game now.

Whozit Schedule

The schedule for the game of Whozit at the twenty-four participating stations remains the same for January 15-31 as was published last issue, with the following changes:

WPG (299.8), January 17 and 24, 8:30 p. m. Eastern time; January 21 and 28, 9 p. m. Eastern time.

Station WOOD, temporarily off the air, is back again with Whozit daily at 11 p. m. Eastern time.

HEARD ON FIRST OF VICTOR SERIES



Rosa Ponselle, above, dramatic soprano of the Metropolitan Opera Company; Mischa Elman, right, famous violinist; and Alfred Cortot, left, pianist of note, who were heard in concert with John McCormack, beloved Irish tenor, on the occasion of the first Victor Hour of the season, broadcast on the evening of January 1 from a large chain of stations, including members of both the Red and Blue Networks. Not only was this the first Victor concert of the season, but it was a "first" for the artists pictured herewith—the first time any of them had appeared before a Radio microphone. McCormack was heard in the two previous Victor New Year's programs, in 1925 and 1926. Since the New Year's broadcast, the remaining concerts in the Victor series are being heard on alternate Friday evenings from 9 to 10 o'clock, Eastern Standard Time, through the Blue link of the National Broadcasting Co.



vision in Radio. It may be true that the 'air is free,' but if the air is free to the broadcasters, it should be equally free to the receivers (the public). I believe the public have a vested right to have the air kept clear from pollution of interference, heterodyning and blanketing, and that this right of the public existed long prior to any rights accruing to broadcasters."—E. O. M., Galesburg, Kans.

"There are still a few stations that stick out above the general dog fight, but they are getting scarcer. WEAFF is almost submerged at times, WTAM is being interfered with, WBAL is also almost a total loss when the other stations get going right, and WBZ is another good station that is wiped off the map at times. A lot of other good stations are gradually being lost in the 'Symphony of Discord'."—J. S. R., Stratford, Ont.

For and Against Small Town Stations

"There is a great deal of interference chiefly from stations on the air at the same time on the same wave length. The greatest curse is the super-power stations. They smother smaller stations on adjacent wave lengths. Why should they be allowed to spoil the pleasure of millions of fans to satisfy their selfish ends?"—G. C. H., Kewanna, Ind.

"My opinion of this interference business is that the small towns should not be on the air, as they can't possibly supply the best talent, and if you are close to them, you can't tune them out."—W. P. L., Kenton, O.

Against WSMB; Slap for KWKH

"When WSMB with all its power comes on the air, it blankets the dials from 250 to 390 meters, thereby depriving many from enjoying such fine programs as

broadcast by KPRC, WGN, KDKA, KFDM, WGR, KOA, WSAI, WBZ, WCB, WLS, KTHS, WGY and ever so many more. If WSMB only gave a real program—but all it yields as a friend of mine from the far West said, is 'rotten tingle-tangle'."—A. F., New Orleans, La.

"KWKH refused to be silent on the night of the big Natl. Broadcasting Co. program. When numerous people phoned that they desired to hear Will Rogers, who was on the N. B. C. program, KWKH derided the 'nabobs' who 'thought they owned the air' and then drowned out the living Will Rogers with a 'canned edition' (phonograph record) of himself."—C. K. B., Shreveport, La.

Riding Chicago and WEAFF Chain

"Chicago with its forty or more stations completely blocks out Canada, Cuba and Mexico, and does not accomplish any good

transmission for her own stations. I sure thank Chicago for the one silent night."—E. D. T., Nebraska City, Nebr.

"Why should WEAFF and its chain be permitted to monopolize the air every evening for three hours to the exclusion of other stations whose programs we would like to hear? WEAFF programs are for the most part good; some are poor, but because they are good is insufficient reason for crowding other stations off the air."—W. R. P., Heron Lake, Minn.

The Shenandoah Discussion

Many readers of Radio Digest have no doubt followed the letters from readers, in "The Reader's View" column, criticizing the two Shenandoah stations, KMA and KFNE.

The letters drew much fire. Indignant readers, feeling that Radio Digest was in

(Continued on page 28)

IT'S CHILDREN'S HOUR IN RADIOLAND



Children's Hour at KHJ So Good That Even Grownups Delight in Hearing It

"Uncle John" Daggett, With Able Help of Queen Titania and Sandman, Becomes So Popular That Little Tots Dwelling Many Miles Distant Journey to KHJ Studios

By Elsa Brocker Harvey
CHILDREN'S hours, like children's books, ever hold a charm for many grownups. This is undoubtedly one reason why children's hour at KHJ, Los Angeles Times, the oldest broadcasting station in the city has become such a popular feature of the evening's entertainment in Radioland.

Uncle John, who is known all over the country for his genial announcing together with the Sandman and little Queen Titania have brought many a youngster from a good many miles distant to the visitors' room at KHJ for a glimpse of the elusive fairy who has helped to turn the bedtime hour for the wee ones throughout the city into one of so much pleasure. So popular have the stories become in which

(Continued on page 29)

WILL ROGERS, BEWARE! FOR TIMELY TOPICS AT KYW MAKE SORDID NEWS ITEMS JOYOUS



LOOK at this amiable couple and behold the KYW Follies! Pardon! Wrong again—it is not the Follies—just Timely Topics. But that is only another way of saying the same thing because Timely Topics only brings the doings of a Mauve Decade or a year, up to date by presenting a review of the doings of a day or a week. And of course these two Follies are not broadcasting news from a pulpit. They see how it happens from the funny side of life. One may tune in KYW any Saturday night at 11 or 11:30 o'clock and

get a slant at the papers through pink glasses. No matter what happens to alarm the world Adolph and Rudolph put it all in the comic supplement. Adolph, the merry gentleman in the dilapidated relic of the opera, is known to his more intimate associates as Ned Becker while his robust companion with the Hula Hula cravat and the nom-de-air of Rudolph has his speeder slips made out to Bill Doyle. There is no excuse for them not making their ideas plain to all Radio listeners, as they are masters of the Dutch, Swedish and Gaelic dialects.

FRANK TILTON, BLIND PIANIST, TOGETHER WITH HARMONY FOUR, FAVORITES AT KPRC



of Mr. Daniel's is Frank Tilton, "our boy wonder pianist." Frank has been totally blind from birth, but the light that ever beamed from his eyes glows with doubled brilliance within his soul.

Without any piano instruction whatsoever he has mastered the keyboard and technique in a remarkable manner. His repertoire is almost endless and the music of the world is veritably at his finger tips all the time. A call for a number, and without a moment's hesitation, Frank is into it with skill and precision.

"Frank is KPRC's biggest feature," said Mr. Daniel, "and the most popular artist we have ever broadcast. He is destined for world fame, I am sure."



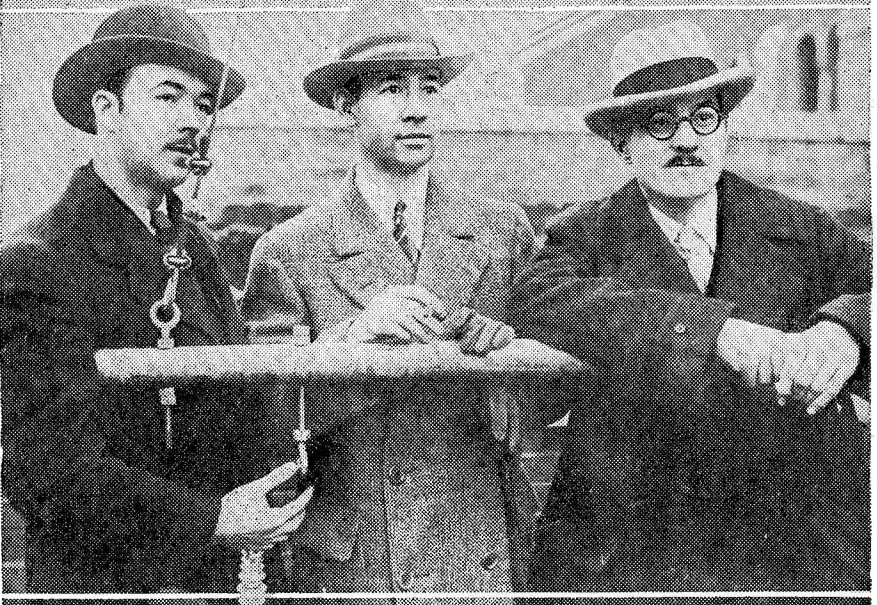
WHY do we not have more girl quartets on the air? This question is prompted after listening at long distance to The Harmony Four at KPRC, Houston, Texas. Feminine voices have seemed the most difficult to adjust to the limitations of Radio transmission. But the crooners and the lullaby ladies have always proved satisfactory. Blended feminine voices also have seemed to melt into the microphone satisfactory. There should be more female quartets like The Harmony Four. These Lone Star maidens are Miss Vivian Soby, Miss Violet Elder, Miss Florence Wood and Miss Eileen Ponton, in the usual picture order.

Alfred P. Daniel, the KPRC director-announcer, is alert for features and the Houston Post-Dispatch listeners never complain about the entertainment from this Texas station. Another happy find

City Council Would Bar Stations

MINNEAPOLIS.—A movement has been started in the City Council of Minneapolis to formulate an ordinance forcing all broadcasters to move their transmitting stations outside of the city limits. The matter has been referred to the city attorney's office to determine its legality. Such an ordinance would be the first of its kind.

THREE KNICKERBOCKER MIKETEERS



PRESENTING, ladies and gentlemen of the Radio audience, three well-known miketeers of the Knickerbocker main.

However, we have to our port side the gentleman in the sheet-iron kelly in the act of seizing the belaying pin for such sinister purposes as we know not, Mr. Norman Brokenshire, erstwhile announcer at WJZ, then at WRC, later back to WJZ and more recently associated with the Arrow Amusement company.

In the center, the square set gentleman in gray with the striped hat band, the well-aimed cigarette in his right hand, two gloves on the left, is none other than Mr. Walter Neff, former pilot of WAHG, now called WABC. Note the sturdy stick ready for instant use to repulse any belligerent intent that may be in the mind of Mr. Brokenshire as the latter reaches for the weapon so frequently used aboard ships for murderous assault.

To port, confident and reposeful although there is a grim and purposeful set to the jaw, we have Mr. J. Lewis Reid, whose name for some time became vividly associated with the call letters, WFBH. All up and down the American Atlantic and far inland, these three miketeers have touched at every port and countryside. Their voices are known to millions. And here they are, ladies and gentlemen of the Radio audience, face to face you meet them—on a strange, new craft today; on a world-famed cruiser tomorrow. They come and go together.

Is Child Prodigy



SOME day you are all going to hear and see a lot of the little girl shown in this picture, shaking her finger at a microphone. Her name is Phyllis Kono, four years old, whose mother is a descendant of the Emerald Isle, and whose father came from the Island of Japan. The Konos all live very happily in Atlantic City, where Daddy Kono is a successful merchant.

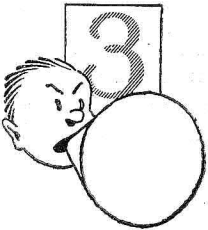
Phyllis, who first opened her eyes on this earth only a little over four years ago, (Continued on page 29)



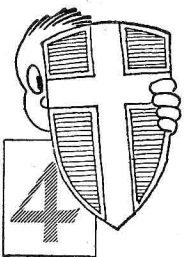
Single drum control enables you to get stations in the dark. Drum turns under slightest pressure of finger. The stations are a slight turn of the drum apart. Station letters can be written on drum to be returned to at will. Nothing in radio equals the convenience of single drum control.



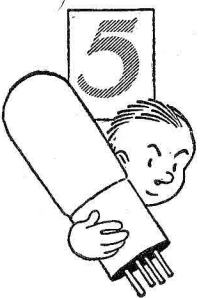
"Acuminators" (an exclusive Crosley feature) so sharpen tuning that weak distant stations which are entirely missed because of the limitations of ordinary one dial control sets are easily picked up and satisfactorily brought in on the loud speaker. Stronger stations come in without adjusting Acuminators.



The "Crescendon" (an exclusive Crosley feature) enables you to increase volume of distant signals to room filling proportions. Not necessary to strain the ears to catch stations miles away, a turn of the crescendon instantly swells reception. This device makes much far away broadcasting equal in volume of local nearby stations.



All metal shielding from the steel chassis on which radio elements are mounted increases reception efficiency greatly. Such shielding prevents interstage, external coupling and improves stability of circuit, as well as simplifies manufacturing costs.

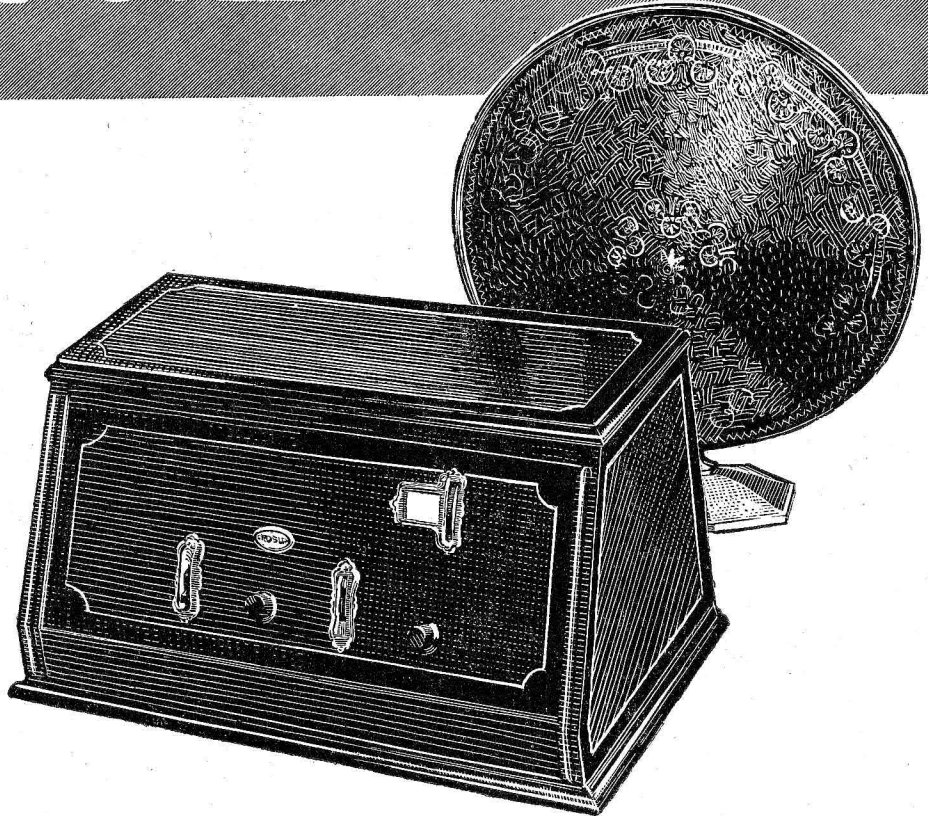


Power tube adaptability marks the Crosley "5-50", the "5-75" and the RFL sets. This feature typifies Crosley provision for the best radio reception at moderate cost. Enables you to increase volume on weak signals.

CROSLLEY

BETTER — COSTS LESS

RADIO



5 advanced features mark this amazing SINGLE DRUM CONTROL SET

an incomparable
radio value at..

\$50.

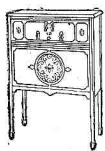
It's wonderful. A radio that delivers entertainment and pleasure as you would expect it from the most costly apparatus. One finger operates it. Station selector—the drum dial—provides space for station letters to be written where they can be returned to at will. The exquisite finish and fittings of cabinet are in line with far more expensive radios. This set is a definite tribute to Powel Crosley, Jr.'s ability in manufacturing standardization and mass production. It's difficult to estimate what the price of this 5-50 would be if they were made in small quantities instead of by the thousands daily.

Write Dept. 49 for Descriptive Literature

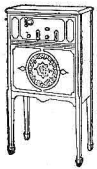
The Crosley Radio Corporation
Powel Crosley, Jr., President
CINCINNATI, OHIO

Crosley sets are licensed under Armstrong U. S. Patent No. 1,113,149, or under patent applications of Radio Frequency Laboratories, Inc., and other patents issued and pending.

Prices slightly higher west of the Rocky Mountains.



At left is the 6-tube R. F. L.-90, Crosley's non-oscillating perfectly balanced tuned radio frequency set. True cascade amplification achieved through use of Wheatstone bridge in each stage of amplification. Musicone built in. 40 inches high \$90.

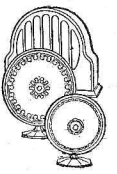


Sketch at left is the 5-50 table model featured in this advertisement enclosed in a beautiful two-toned mahogany console with super-musicone built in. Stands 40 inches high. Ample space for all batteries and accessories. \$75 without accessories.



The Musicone, pictured at left, is a welcome radio accessory to many homes. Hide unsightly wires and batteries within its ample depth. Crosley Musicone skillfully concealed. Mahogany finish. Makes a console set of your present table model.

The secret of the popularity of this biggest selling loud speaker on the market lies in its actuating unit. This and NOT the cone shape is the reason for its perfect reproduction of all audible sound. BEWARE of imitations. There is only one genuine Musicone. It is built solely by Crosley under mass production methods which makes its unmatched value possible.



1927 De Luxe: the Finest Super

PART I: Build This "Rolls Royce" Set and Tune in the Philippines Through Local Chicago Interference, as One Listener Has Done.

By MARVIN W. THOMPSON

THIS receiver is the culmination of a long-felt desire on my part to assemble into one outfit all the parts which, from experience, I thought should result in the greatest possible range, selectivity and natural reproduction. Since a Radio set must also be an attractive piece of furniture, the appearance was to be pleasing to the eye and controls symmetrically arranged. The builder, I believe, will be interested in the reasons for my choosing certain units in preference to others, so we will take this up first, and also touch on the why of the layout of parts.

There are many makes of super-heterodyne units on the market and having what might be called a "super complex," I've built just about all of them. They're all good. Using any of them in a carefully built assembly one can outdo a tuned R. F. outfit. However, St. James have incorporated in their parts some features that make them seem preferable in this deluxe outfit.

St. James Units Ideal

Of outstanding importance, from my viewpoint, is the small size of the coils. Intermediate coils can be reduced in diameter without loss in efficiency, something that cannot be done with tuned R. F.

it, it doesn't have to be mounted behind the panel, nor do you have to wreck the set to put it on. Instead, one merely slips it on the condenser shaft, tighten the set screw and that's all. And what efficiency! The ratio is 63 to 1 between the front gripping surface and the main dial. Course tuning is done by merely pushing the fingers forward, then when one pulls the fingers back, close to the edge, there is a smoothness of rotation that can only be called "liquid-like." No trace of gears meeting, no slipping and—NO back-lash. Just immediate, almost imperceptible rotation of the main dial. For tuning a super-heterodyne there is nothing anywhere that approaches Karas Micrometric dials.

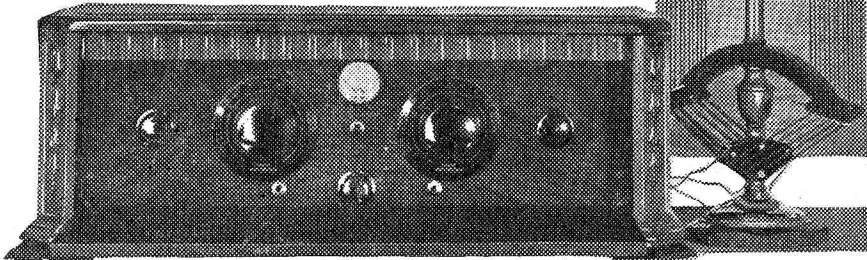


Figure 1—Completed 1927 DeLuxe Super in Cabinet and Attached to Loop

coupling arrangements. St. James have brought the diameter down to one inch, a feature which results in less pick-up of stray currents on the intermediate wave length and less interaction between the fields of these units on strong signals. This makes for easier control and greater stability.

Another point for which the experienced builder looks, is the amplification factor and tests show that of the St. James transformer to be very high. Matching of transformers is also very important and, being right here in Chicago, I happen to know that Mr. St. James does this work himself rather than entrust this operation to a subordinate. Last, but certainly not least, is the 240-kilocycle feature, which is good because there will be less oscillator repeats and there is comparatively little Radio activity on the wave length of 1,250 meters, the length corresponding to the 240-kilocycle frequency.

Karas the Incomparable

Personally I always feel, when holding a Karas condenser, that I have in my hand a beautiful piece of mechanism. The care in design and construction is apparent even to the inexperienced builder. The plates are not only inserted in slots in the supporting bars but are carefully and individually soldered there. The rotor shaft is large in diameter for ruggedness and revolves at each end in perfectly machined, adjustable bearings.

When inspecting one, note the distance at both front and back between the active plates and the end plates. These end plates have gone far in design from the old Bakelite disks of 1920. They are of heavy brass, skeletonized, and thicker than one ordinarily finds. Then there is the well-anchored pig-tail, and, of course, the straight frequency line tuning. There may be other makes that approximate true S F L tuning but I have seen none that, with the proper coils, will give as true a line when stations are plotted by frequency on graph paper. Most of the short wave experimenters seem to prefer Karas condensers in their work and the laboratory condenser has not been found that can accurately measure the very small losses in these units. Probably, in many cases, the Karas could be used to measure the losses in the laboratory's "standard."

The average set builder may not be as familiar with Karas dials as with this make of condenser and transformer. The dial is a comparatively new item in the line. No! It hasn't any electric lights in

THE writer of this article, and the two which follow, is not so well-known to Radio Digest readers as his many previous articles have appeared under several noms de plume. In Radio circles, however, he has friends with practically every well-known maker of parts and sets and is in a position to know the innermost details of both manufacturing processes and tests. Since at this time he is neither connected with any manufacturer nor publication, his choice of parts and his design have been without bias and precisely as his years of experience thought best. Incidentally, he was building sets and "pounding a key" back in 1909.

During the war Mr. Thompson was in the air service at both the Air Service Radio Telephone School at Columbia University and the Advanced School for Practical Work at Guerstner Field. A little later he was with DeForest, then the Radio Corporation, still later with Freed-Eisemann and, during the 1924-25 and 1925-26 Radio seasons he was Technical Editor of Radio Digest. —THE EDITOR.

curves shown below indicate the success attained." That is all.

I get a large chuckle out of that; I've written the advertising on a few American makes myself and no American piece of literature on a unit as perfect as this would run less than four paragraphs. So we'll give the maker a little help and I'll tell you a few more reasons why the use

give even amplification of all the notes we must hear in order to resemble natural reproduction. How well each maker succeeds in making his audio transformer pass all notes with equal increase depends on both the materials used and the design.

For good handling of low notes, Ferranti has put in a large cross-section but well-laminated core, as high a winding

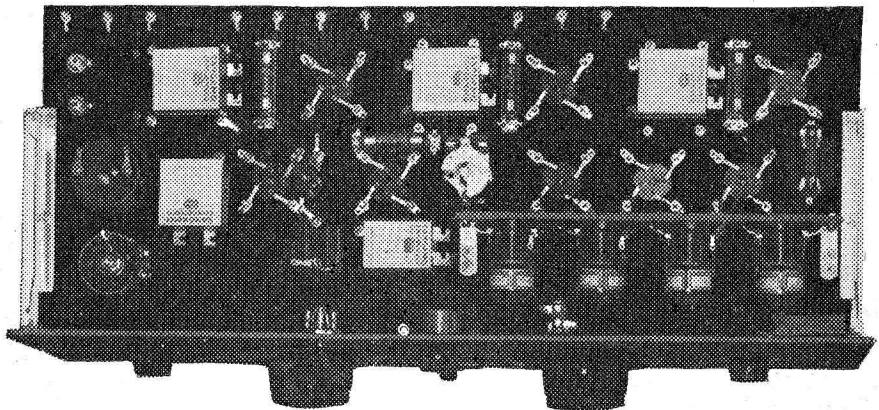


Figure 2—Bottom of Sub Base, Showing Special Mounting of St. James Transformers

of the Ferranti audio transformers is worth their price.

Requirements for handling low musical notes are considerably different from those to efficiently handle very high notes, and any transformer is a compromise to

ratio as they found practical, and a very large primary with an inductance value of 80 Henries. This is larger than the chokes now on the market for taking the ripple out of B eliminators. Incidentally, I understand there is about 2½ miles of fine wire in a Ferranti transformer.

With appreciation of the fact that high notes also must go through, and be amplified in correct proportion to low notes, Ferranti have cut up their large windings into well-separated sections to reduce inherent capacity of these windings and eddy current losses. The result is a curve which is beautifully straight from well down in the range of human voice clear up to an audible frequency of around 5,000 vibrations per second. It is in the higher ranges that the harmonics occur and it is harmonics that make music beautiful; that enable you to distinguish one instrument from another, and that make reproduction either "tinny" or natural.

In the lower notes of the voice range there is a slight falling off and down in the lower organ notes it runs as high as 25 per cent but that is very little compared to many audio transformers on the market.

Speaking of Meters

For consistently good results, in preference to "now and then" operation, a good super should have meters. It is not enough to put in good parts and good workmanship. There must be careful operation. For this, meters are needed, and I have specified two. By all means use the voltmeter on the front panel; if one must be omitted because of short finances, disregard the milliammeter I have placed on the sub base. This milliammeter is a great help to one who takes pride in his receiver performance, and several uses for it will be described later, but it is not as necessary as the voltmeter.

The meters used are Jewell model 135. In them, Jewell has kept all the precision and laboratory features of larger case instruments, while the outside diameter of the main case is only two inches. This is small enough to present a pleasing appearance on a seven-inch panel without forcing the makers to lower efficiency.

The mounting of this series is unique in that instead of drilling three small holes close to the larger hole for securing to panel, the outer case clamps against the back of the panel while the flange holds the instrument in front.

In this special series of instruments, a number of very desirable voltage or current ranges are available and, in our

(Continued on page 27)

LIST OF PARTS

- | | |
|---|---|
| <p>St. James Laboratories, 845 Washington Blvd., Chicago:
 4 St. James Intermediate Transformers @ \$7.50
 1 St. James Oscillator Coil @ 5.00
 1 St. James Choke Coil @ 1.50</p> <p>Karas Electric Co., 19 S. LaSalle St., Chicago:
 2 Karas Orthometric Condensers, .0005 mfd. @ \$7.00
 2 Karas Micrometric Dials, 0-Left @ 3.50</p> <p>Ferranti, Inc., 130 W. 42nd St., New York City:
 2 Ferranti Audio Transformers, type AF 3 @ \$12.00</p> <p>Benjamin Electric Mfg. Co., 120 S. Sangamon St., Chicago:
 8 Benjamin Baseless Sockets, type 9044 @ \$0.50
 1 Benjamin Pair Brackets, type 8629 @ .70</p> <p>International Resistance Co., Perry Bldg., Philadelphia:
 1 Durham Metallized Resistor, 2 megohms @ \$0.75</p> <p>Hammarlund Mfg. Co., 424 W. 33rd St., New York City:
 1 Hammarlund Jr. Midget Condenser, MC-5, 16 mmfd. @ \$1.80</p> <p>Jewell Electrical Inst. Co., 1640 Walnut St., Chicago:
 1 Jewell Voltmeter, 0-8, type 135 @ \$7.00
 1 Jewell Milliammeter, 0-25, type 135 @ 7.00</p> <p>Formica Insulation Co., Cincinnati, Ohio:
 1 Formica Panel, Walnut, 7"x 24"x3/16" @ \$4.20
 1 Formica Panel, Black, 9 3/4"x 23 1/2"x3/16" @ 4.60</p> <p>The Radiall Co., 50 Franklin St., New York City:
 3 Amperite Filament Resistors, type 1A @ \$1.10
 1 Amperite Filament Resistor, type 112 @ 1.10</p> | <p>Sangamo Electric Co., 50 Church St., New York City:
 4 Sangamo Bypass Condensers, 1 mfd. @ \$1.25
 2 Sangamo Bypass Condensers, .5 mfd. @ .90
 1 Sangamo Fixed Condenser, .006 mfd. @ .85
 1 Sangamo Fixed Condenser, .0025 mfd. @ .40
 1 Sangamo Pair Grid Clips @ .10</p> <p>Herbert H. Frost, Inc., 160 N. LaSalle St., Chicago:
 1 Frost Bakelite Rheostat, 6 ohm, type 800 @ \$0.75
 1 Frost Bakelite Rheostat, 20 ohm, type 820 @ .75
 1 Frost Bakelite Potentiometer, 400 ohm, type 824 @ 1.00
 1 Frost Gem-Jac, Double Circuit, type 951 @ .45
 1 Frost Super-Variable Resistance, 500,000 ohm, type 895 @ 1.25
 1 Frost Pair Cord Tip Jacks, type 253 @ .30
 2 Frost Pair Push-Pull Switches, type 608 @ .30</p> <p>Miscellaneous from Any Radio or Hardware Store:
 3 doz. 1/2-inch round head brass machine screws, 6/32.
 2 doz. 1/2-inch flat head brass machine screws, 6/32.
 5 doz. hexagonal brass nuts, 6/32.
 2 doz. soldering lugs.
 1 doz. lengths Celatsite bus bar, any color.</p> <p>11 Binding Posts, Preferably "Eby," with These Markings:
 3 marked Loop, 1 marked plus A minus B, 1 marked minus A plus C, 2 marked minus C, 1 marked plus 22, 1 marked plus 45, 1 marked plus 90, and 1 marked plus 180.</p> |
|---|---|

(The Radio Digest Shopping Service will purchase all or any of the above specified parts, at the prices listed, for builders of the 1927 DeLuxe Super who may be located in isolated communities or unable to obtain the parts from local dealers. Address: Shopping Service, Radio Digest, 510 N. Dearborn St., Chicago, and enclose express or postal money order covering total cost of parts ordered.)

GOODY GOODY GIRL

CHARACTER and Truth Hold Lois Faithful to Her Ideals of Right as She Faces More Temptations. Can She Conscientiously Marry Raymond Lancaster?

CHAPTER XIII

A Confession

By *MERLIN MOORE TAYLOR*

RURNING from a daily quest for work—her lack of experience was proving a tremendous handicap—Lois, several days later, was met in the hall by Mrs. Trickett, who laid a finger on her lips in an admonition for silence and beckoned her into a room off the hall.

"A man's here asking for you," she said. "He seems quite determined, insisted upon waiting, said he wouldn't go until he'd seen you—I showed him into the parlor."

"A man?" Lois' heart skipped a beat. A detective? Had she been tracked down after all? Was she to be arrested, made the "goat" for Victor Jermin, as he had predicted? "What kind of a man, Mrs. Trickett?"

The landlady's description was vague. "I think, though, he's a gentleman," she added.

Lois considered. A policeman wouldn't strike Mrs. Trickett as a "gentleman." "I'll see him," she said and went to the parlor door. It was Raymond Lancaster who awaited her. He rose eagerly and came toward her.

"Lois! I've hunted all over for you—!" The light died out of his face, the smile vanished from his lips. "You aren't glad to see me, yet I've come in sackcloth and ashes, ready to grovel at your feet—would it be asking too much of you to come over to the park to hear what I've got to say?"

His pleading eyes stopped the refusal that rose to her lips. It was going to be no easy task to break with him as she had done with Jermin and Mildred. If there was going to be a scene—

"I'll come," she said.

DURING the few blocks to the park they said little. But when he had ensconced her upon a bench in a grassy plot under the trees he at once went straight to what was in his mind.

"Neil Becker came to me a few days ago and admitted like a man that he had lied about you," he said. "It made me see red. If he hadn't had a broken arm—he was rather evasive as to how it happened—"

"He insulted me and I hit him with his own stick."

"You did? Bully for you! Evidently there must be a decent streak in the fellow and you roused it—but let that go. I came to you to beg from the bottom of my heart that you'd forgive me for—"

"Please. You hurt me horribly, but I don't want apologies. I'll forgive you, yes. Now, if that's all—"

"It isn't. I want you to marry me. You must know that I love you."

Yes, she told herself, she did know it. And she liked him, too; better than any man she knew. The one kiss he had given her had thrilled her, but—

"I'm sorry," she said. "What you ask is impossible. I cannot marry you. In fact, I hope never to see you again. I'm through with—"

"Nonsense. Mildred told me you had some such idea of cutting away from all of us, severing all relations—"

"It's not nonsense," she contradicted. "It's the only thing to do. Your kind of people are not my kind. Your kind of life is not mine. I don't fit. I don't want to fit. I—"

"What do you mean my kind of people, of life?" he broke in.

"YOU know the set you run with and their lives," she replied impatiently. "Goldfish, human goldfish. People with money, idle hands, idle brains; hard put to it to kill time from one day to the next, jaded, bored, but unwilling or unable to do anything about it. Goldfish in a bowl, that's all. I've had a whirl at it. No more for me, thanks."

"Now I'm more sure than ever that I want to marry you," he asserted. "And I'm no goldfish. I hate them as much as you do. I have only contempt for them. Their silly lives disgust me. I—"

"But—," she began.

"I know what you're going to say. Let me say it for you and answer it, too. You've thought I was connected with a bond house on La Salle street. I am—as a salesman, a plain, every-day salesman just like a couple of dozen others who work there. You've thought I was rich. I'm not. I own a few thousands, but I've earned them, just as I earn my daily bread and that of my mother and my sis-

ter. You think I play around with the people you've called goldfish because I was one of them. I don't. I mingle with them and pretend to be one of them and to have the same interests because it's good for me in a business way. They buy my bonds because they know and like me. Do you think I'd pick a Victor Jermin—a bootlegger for all that he deals in truck loads where others deal with cases—do you think I'd pick him for an associate unless he salted away his profits in my bonds?"

"Do you think I'd have anything to do with a Neil Becker, who handles only schemes that squall aloud for public support unless he bought my good safe bonds—or did until we broke? Do you suppose for an instant I'd have been on terms of friendship with a Mildred Gayton, until a week ago no better than a woman of the streets, if she wasn't smart enough to put by for a rainy day by investing the money she's been able to get out of Becker in what I have to sell?"

"WHEN I ask you to marry me, I'm not dazzling you with any hopes of a luxurious apartment, a fine motor car, a handfull of servants, silks

and satins, jewels—none of that. I can afford a small place or a cottage like that in which I live with my mother and sister now, if you prefer it. When I'm not using it in business you can have the roadster. Perhaps, if you're a good manager, we could afford one all-around servant—you get the idea, don't you? On top of that, I love you. Now—will you marry me?"

He had astounded her, left her gasping, by his confession. It was incredible. Not once in the circles in which he moved and into which she had dipped so briefly had she heard even a hint of such a thing. She was quite certain that he never had confided in anyone else just what he had told her. As evidence that he really loved her, it was most convincing.

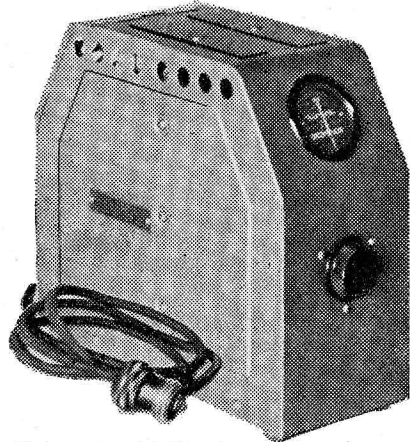
Temptation assailed her. Believing him wealthy, beyond the necessity of working and just playing at it she would not have married him. But in the face of his revelations, what did it matter if she did not love him as she always had expected to love the man she would want to marry? He offered her security, a home, a chance to do the things she wanted to do—

Evidently he misunderstood her delay in answering him, for he broke in: "You're fighting against your instincts, I think."

THE LATEST IN RADIO ACCESSORIES

Crosley A Power Unit

SIMPLIFICATION in Radio receiver operation has attracted the attention of engineers from the time when the public first became aware of the tremendous possibilities of the broadcasting art. The Crosley Radio Corporation, in Cincinnati, has just placed a new A power unit on the market which takes the place of batteries. The unit is shown below.

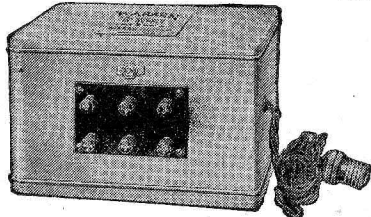


It is not a trickle charger and operates only when the receiver is in use, inasmuch as it is automatically controlled by the filament switch on the set. The voltage output is constant, despite variations that may occur in the power supply line voltage.

This unit will supply power for from three to eight vacuum tubes. Its maximum output is two amperes. A plug receptacle in the rear of the unit permits the attachment of a B eliminator, thus making both the A and B power units automatically controlled.

Warren B Eliminator

THE Warren Electric company of Peoria, Ill., has been successful in producing a B battery supply of 150 volts capacity at an unusually popular price. The manufacturers claim their



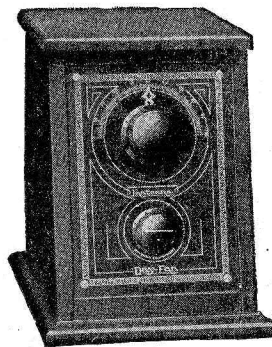
product gives constant, unvarying power to any set up to ten tubes and will operate power tubes also.

The Warren B eliminator has no variable resistance, but does have 150, 90, 67½, 45 and 22½ volt taps to give correct voltage. It also does not employ acids or tubes. The makers claim the eliminator costs less than one dollar a year to operate; gives full tone reception; is easier to hook up than a set of batteries; cannot blow out receiver tubes from short circuit; needs little more attention than a loud speaker; is simple, compact, free from distortion; wonderfully well made of finest materials, beautifully finished in old gold color; bears the stamp of approval of Radio laboratories and is unconditionally guaranteed.

The device weighs but 17½ pounds, measures 5½x8x9 inches and is intended for connection to 110 volt, 60 cycle, alternating current.

Day-Fan Fantenna

THE effectiveness of Radio reception has been greatly increased with the use of the Fantenna, a new development recently announced by the Day-Fan Electric company, of Dayton, Ohio, which multiplies the pleasure in Radio reception by making possible the clearer reception of an increased number of programs. The Fantenna is adapted to the majority of six and seven-tube receivers and will bring in distant stations hardly audible from ordi-



nary antenna reception. When used with an antenna of normal length the Fantenna will afford the equivalent of nighttime reception during the daytime with surprising volume and clarity.

The Fantenna has proved very practical when operated from inside antenna or short length of wire in congested districts, apartment houses, office buildings and similar locations.

The installation is simple, requiring only the connection of three wires, all of which are supplied with the Fantenna. The device increases B battery life by reducing the amount of current used. No additional tubes are necessary.

Woman was cut out for motherhood but you're thinking only of a career, your singing. Do you realize how much enters into a career beside ability? Health, vitality, training—a lot of things—and opportunity. Who's going to give you a chance—you a little Miss Nobody from Nowhere, to speak bluntly?"

"IM not thinking of a career," she said slowly. "I have learned that I lack even ability. I'm thinking how dishonest it would be, how unfair to you, to say 'yes' when I don't love you, when the only emotion I feel toward you is liking. I do like you. I respect you. I—"

"I'll take a chance that I can make you love me, Lois. I'll take you on any terms; if not love now, then liking, respect."

She shook her head. "It wouldn't be fair to me, because someone might come along later. I can't say 'yes.'"

"Well, don't say 'no,' either," he begged quickly. "Don't say anything. I'll wait. Give me a chance. You intended to cut me off tonight, didn't you? Don't do it. Let me see you once in a while, let me try to sell myself to you."

"It may do no good, probably won't," she warned. "In the end it may be harder for you and me, too."

"It isn't because you know I'm a bluff, that I have no money? I haven't lost ground with you because of that?"

"You've gained it," she told him. "I don't care about money. If I had—Mr. Jermin asked me to marry him last week."

"The devil! Jermin? You passed up a cool million at least there. Well, shall we let things stand as they are? Good! Now, if you'll go to dinner with me. The refectory over there—"

Several nights after that on North Clark street—she had eaten a solitary dinner downtown and elected to walk to Mrs. Trickett's—Lois saw just ahead of her a youth, she judged him to be, walking slowly and casting frequent glances over his shoulder in her direction. There were not many people on the street and half a block further along a building in the process of construction and material for use in it made a dark canyon of the sidewalk that she did not fancy. As a precaution she crossed the street.

THE youth did not seem interested in her. He stopped beside a lighted window and divided his attention between a display of food and watching the street along which he had come. As she came abreast of him, but on the other side of the street, she caught a glimpse of his face. Herbie Coles!

But what a change from the dapper, cocky youth he once had been! Even from where she stood she could see that his clothing was rumpled, his face unshaved, his manner dejected. She stopped, debated whether she should cross over and speak to him.

As she watched he leaped toward a great pile of bricks beside the curb, snatched up one and hurled it through the window. Then he reached through the shattered glass, seized a handful of what was being displayed and took to his heels.

Ignoring the outcry that followed, the rush of people to the broken window, Lois started walking swiftly in the direction which Herbie had taken. He stopped running after a bit, slowed down to a saunter and thus she was enabled to keep him in sight and see that he turned into the door of a dingy little hotel a block away.

Impulsively she crossed back to the other side and went into the hotel, too.

"I'd like to see the young man who just came in," she said to the elderly man reading a newspaper behind the tiny desk.

"Go right on up. Room 207," he told her and went back to his paper. Apparently such a thing as conventions did not enter into consideration here.

LOIS took the stairway he had indicated by a wave of the hand. The carpet was almost threadbare, the steps creaked. The hallway above was narrow, poorly-lighted, illy-ventilated. She quickly found 207, tapped upon the door. There was no answer. She tapped again.

"Herbie," she called.

A key grated in the lock, the door was jerked open.

"Lois Sylvester!" cried Herbie Coles. "What are you doing here?"

"Calling on you," she returned evenly and when he made no move to ask her in, pushed past him into the shabby room. "Close the door. I want to talk to you."

(Continued on page 28)

Bremer-Tully's New Power-Six

How to Build It to Operate Entirely from the House Electric Lighting Supply

By GEORGE R. IVES

A LITTLE over a year ago Radio Digest published a series of articles describing how to build the Bremer-Tully Counterphase, the perfect bridge tuned R. F. set. The success of the Bremer-Tully Counterphase circuit during the past year has established its continued popularity. The selectivity and sensitivity of the three stages of stabilized tuned radio frequency amplification appeal alike to the DX listener and those located in a maze of powerful stations.

The successful operation of the three stages of radio frequency is due to the patented Bremer-Tully Counterphase method used to counteract the tendency of radio frequency stages to oscillate. The efficient design of the Bremer-Tully Torostyle transformers insures an efficient energy transfer from stage to stage and freedom from the difficulties of inductive coupling which is unavoidable with solenoid or single layer wound coils.

Two-dial control of the four-tuned circuits simplifies tuning to a degree to which none can seriously object. The methods employed insure exact resonance between all stages without materially adding to the difficulties of tuning.

Power-Six Is Batteryless

Now Radio Digest will describe the Bremer-Tully Counterphase Power-Six circuit, operated direct from the electric light socket. This is made possible through the use of the Bremer-Tully B-Power Unit, which affords a positive and dependable source of plate current, and

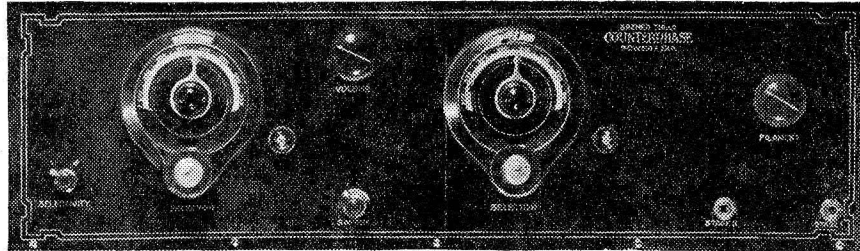


Figure 1.—The Front Panel Presents a Very Finished Appearance

amplification. Although fundamentally the same as the Counterphase Six, it has been materially improved by the use of a power tube in the last stage of audio frequency.

Improvements in Circuit

Another new feature is a resistance just outside of the tuned circuit in series with the grid. Although this resistance does not alter the amplification properties of the tube, it assists in the stabilization of

The set is tuned with two Bremer-Tully control dials which have a ratio of 12 to 1.

Has Two Degrees of Antenna Coupling

Two degrees of antenna coupling are provided in order to adjust the set to the selectivity and sensitivity requirements of the individual locality and antenna. A Carter number 3 jack switch is used to control the amount of energy which is fed from the antenna to the set.

Four CX-201A tubes are used for the three stages of radio frequency and for the first stage of audio. The new CX-200A tube is employed as detector because it has greater sensitivity than the ordinary detector tube and is especially effective in bringing in weak signals. It also does not require critical adjustment of the filament or plate voltages. In using the CX-300A tube Cunningham recommends that it be lighted for a period of three minutes before tuning in distant or weak stations. This permits the tube to attain the extra sensitive condition, because the internal parts will have reached constant temperature. On local, strong stations it will not usually be necessary to wait for the tube to reach the sensitive condition.

One CX-112 power tube is used in the second audio stage.

C batteries are connected in both the radio and audio frequency stages. These greatly improve the all-around performance of this receiver and prevent overloading of the tubes. Two 4½-volt Eveready C batteries are employed.

Assembly Directions

Figure 1 shows the front view of the panel. The engraved panel gives the receiver a finished and manufactured appearance.

Figure 2 shows a top view of the baseboard layout without the wiring. It is advisable to mount all of the sockets first, being sure to place them in the same position as shown on the baseboard layout accompanying the kit. Then mount the MMF condensers, the radio frequency chokes, the grid leak, audio transformers and binding posts.

The Torostyle transformers should be handled with care and mounted last. Be sure that coil TA, the first coil on the left of the baseboard directly in back of the antenna binding post, is mounted in its proper place. The three TC coils are mounted between the sockets as designated on the baseboard layout.

Before attaching the panel to the baseboard, mount the instruments on the panel; first the Carter Jack switch at the extreme left (looking at the front), then the volume control and the Carter Imp Filament switch. The Carter 3-ohm Imp rheostat is mounted in the hole at the extreme right of the panel near the top. The two holes at the bottom are for the two jacks. The Carter double circuit jack No. 104 is fitted in the left hole and the Carter single circuit jack No. 101 in the right hole. The two condensers are mounted last.

The next issue of Radio Digest will contain the wiring, balancing and tuning instructions and directions for connecting the A and B current supply units.

Wave traps, for best efficiency in filtering out undesired stations, should either be in completely shielded cases, or placed four or more feet away from the receiver. Often traps do not function because these precautions are not observed.

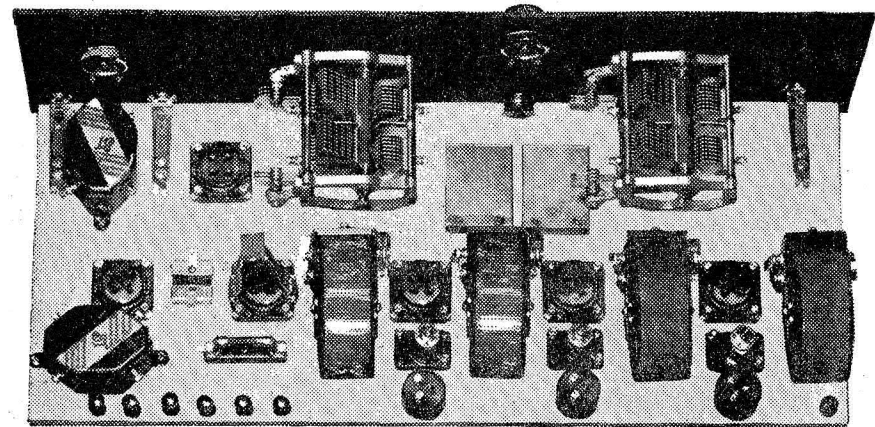


Figure 2.—Rear of Panel and Baseboard with Parts in Position

by obtaining A power by running the alternating current from your light socket through a Model J Balkite battery charger and then through an Andrews Abox filter. The Abox filter is connected direct to the set in place of a storage battery, making a dependable A power supply. The connections and operation will be fully described in the next issue of Radio Digest.

This circuit employs three stages of tuned radio frequency amplification, a detector and two stages of audio frequency

the circuit and, still more important, it eliminates one of the greatest general difficulties observed in the past in regard to amplifiers, in maintaining the sensitivity constant over the entire range. This new resistance arrangement, properly balanced with the Counterphase feature, makes the sensitivity almost constant over the entire broadcasting band. It practically eliminates the necessity for a variable adjustment in the sensitivity control, thus affording greater simplicity in construction as well as operation.

Radio frequency chokes are added to the plate circuit of each radio frequency tube and the "Mikro Mike" condensers have been improved to make easier the balancing of the set.

All of these refinements make the Counterphase Power Six more selective, easily balanced and simple to operate.

Essential Kit Made with Care

The essential units for the construction of this set are marketed in one complete kit by the Bremer-Tully Mfg. Co., and in developing these parts, this firm has gone the limit in efficiency. This kit contains, one TA Torostyle Transformer; three TC Torostyle Transformers; two LD-17 condensers, three MMF condensers, three radio frequency chokes, one 500,000-ohm resistance; three 1,500-ohm resistances, socket wrench, 50 soldering terminals and a set of very exact size color charts and understandable wiring diagrams.

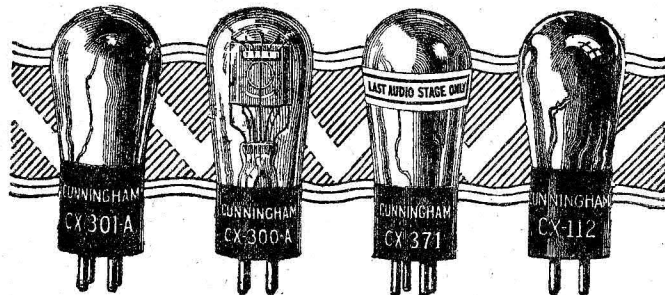
In order to build this excellent set it is necessary first to buy the kit. To try to make these coils or parts would not only cause needless trouble but cut down considerably the efficiency of the receiver. The color charts and diagram accompanying the kit give exact size templates for drilling the front panel and for placing the instruments on the base-board. For this reason we will not show these two diagrams.

The sockets used are the new Bremer-Tully absorber type, five of the UXA type and one type UXD, which is a special shockproof model with extra side absorbers designed for the detector tube.

The panel is drilled and engraved Micarta 7" x 24" panel as manufactured by the Westinghouse Electric and Mfg. Co. Formica also makes a drilled and engraved panel which may be used. The sub base is of wood, 9 3/4" x 23 1/2".

Two Bremer-Tully "Euphonic" audio transformers are used, one with a ratio of 2.2 to 1 and the other, 4.7 to 1. These transformers help to make the faithful tone quality for which this set is noted.

Cunningham RADIO TUBES



The Tubes That Fill Millions of Sockets

Every radio receiver requires one tube as a detector, one tube to feed adequate undistorted power to the loud speaker and may have one to six or more stages of intermediate radio or preliminary audio frequency amplification. If your receiver is designed for 5-volt tubes, the right combination includes a special detector, **CX-300A**, a power output tube, **CX-371** or **CX-112**, and **CX-301A** in all other sockets.

Consult your radio dealer. He will tell you the right combination of Cunningham Radio Tubes for your receiver.

CX-300A, CX-371, CX-112, CX-301A and eleven other types in the orange and blue carton

E. T. CUNNINGHAM, Inc.

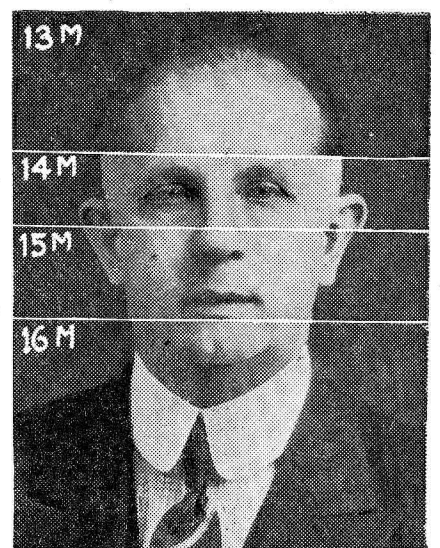
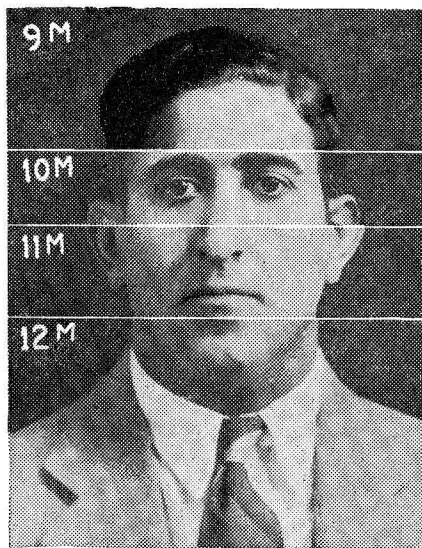
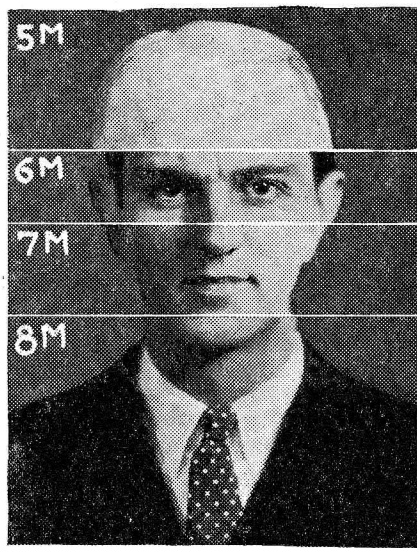
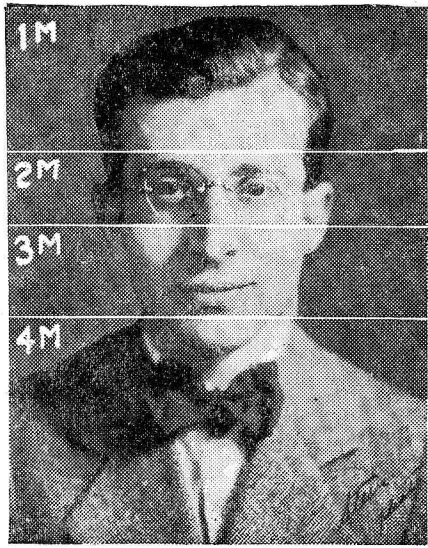
NEW YORK

CHICAGO

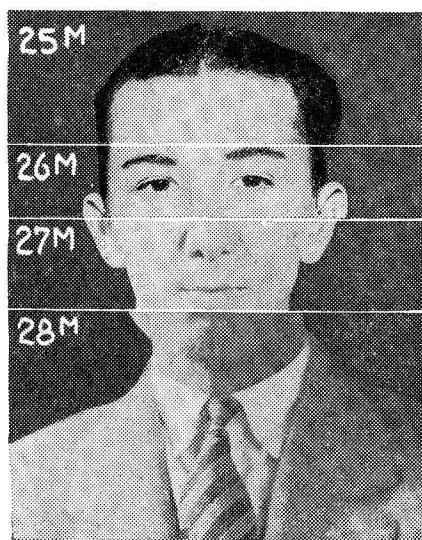
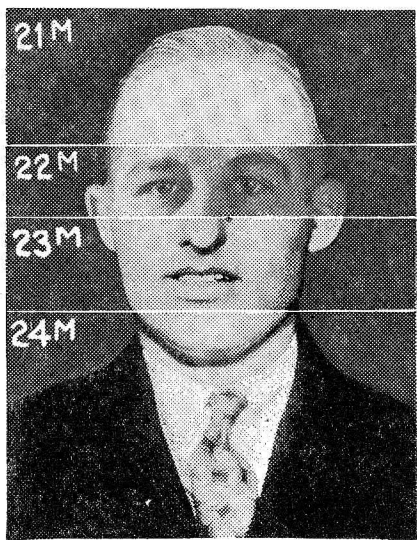
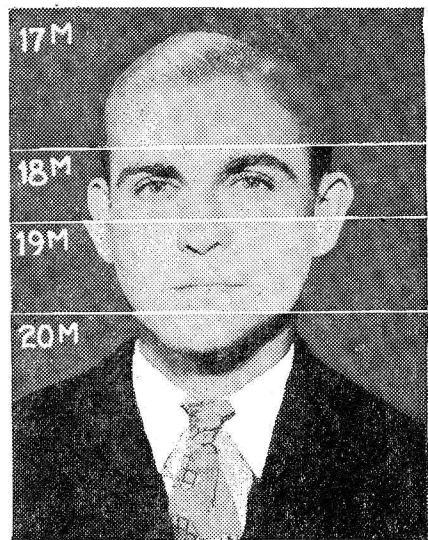
SAN FRANCISCO

- LIST OF PARTS**
Bremer-Tully Mfg. Co., 520 S. Canal St., Chicago:
 1 B-T Power-Six Kit (Containing 1 TA Torostyle transformer, 3 TC Torostyle transformers, 2 LD-17 condensers, 3 MMF condensers, 3 RF chokes, 3 1,500-ohm resistances, 1 500,000-ohm resistance, 1 condenser wrench, 50 soldering lugs and set of color charts and wiring diagrams)@ \$41.50
 1 B-T Euphonic Audio Transformer; 2.2 to 1 ratio@ 5.00
 1 B-T Euphonic Audio Transformer; 4.7 to 1 ratio@ 5.75
 2 B-T Tuning Controls (dials)@ 2.50
 5 B-T Type UXA Sockets@ .75
 1 B-T Type UX Detector Socket@ 1.00
Westinghouse Elec. & Mfg. Co., Pittsburgh, or Formica Insulation Co., Cincinnati:
 17" x 24" Drilled and Engraved Power-Six Panel@ \$5.25
Carter Radio Co., 300 S. Racine, Chicago:
 1 Carter No. 104 Jack@ \$1.00
 1 Carter No. 101 Jack@ .70
 1 Carter 3-Ohm Imp. Rheostat@ 1.00
 1 Carter Imp. Filament Switch@ .65
 1 Carter No. 3 Jack Switch@ 1.15
Dubilier Condenser & Radio Corp., New York City:
 1 Dubilier .001 mfd. Fixed Condenser@ \$0.40
 1 Dubilier .00025 mfd. Fixed Condenser@ .35
 3 Dubilier .006 mfd. Fixed Condensers@ .75
 1 Dubilier 2 Meg. Grid Gate@ .50
Sangamo Electric Co., 50 Church St., New York City:
 2 Sangamo 1 mfd. Bypass Condensers@ \$0.80
Eby Mfg. Co., Philadelphia, Pa.:
 7 Eby Engraved Binding Posts (ANT, GND, A-, A+B-, B+45, B+90, B+135)@ \$0.15
National Carbon Co., New York City:
 2 Eveready No. 771 4½-Volt C Batteries@ \$0.60
Any Radio Store:
 8 Lenghis Celastis (any color) or Other Type Bus Bar
 5 Oval Head 1" Nickel-Plated Wood Screws
 (The Radio Digest shopping service will purchase all or any of the above specified parts at prices listed, for builders of the Power-Six who may be located in isolated communities or unable to obtain the parts from local dealers. Address: Shopping Service, Radio Digest, 510 N. Dearborn St., Chicago, and enclose express or postal money order covering total cost of parts ordered.)

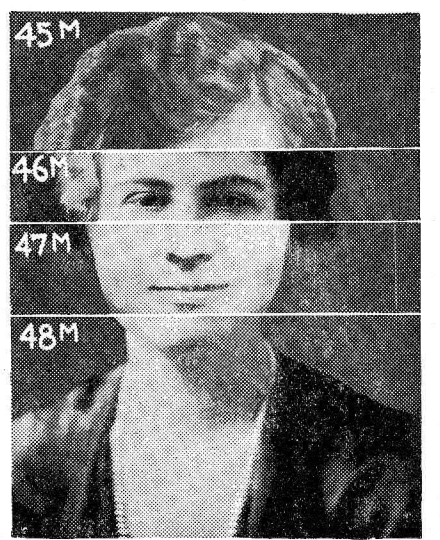
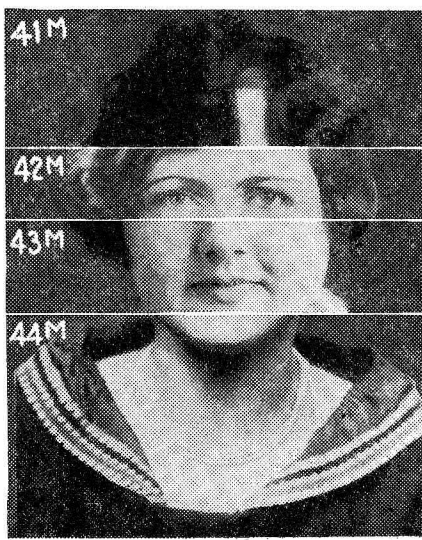
FIFTH FASCINATING GAME OF "WHOZIT" BEGINS



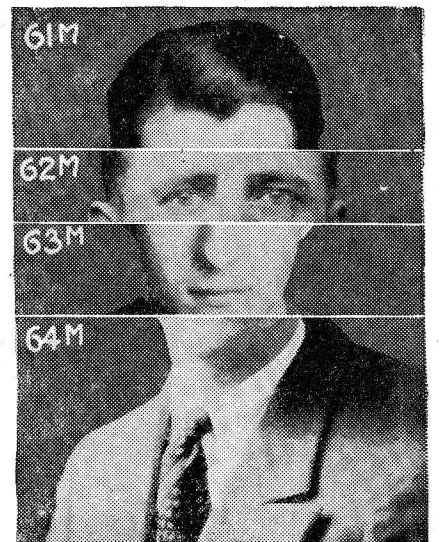
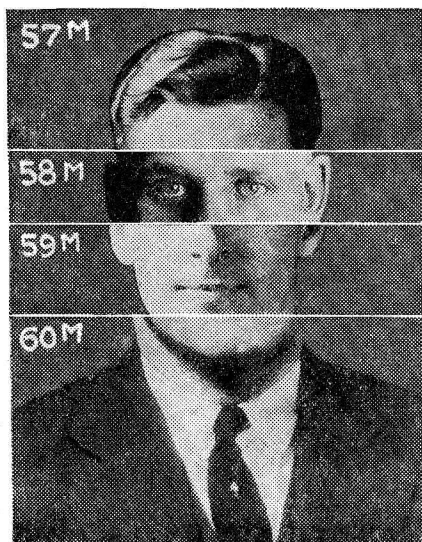
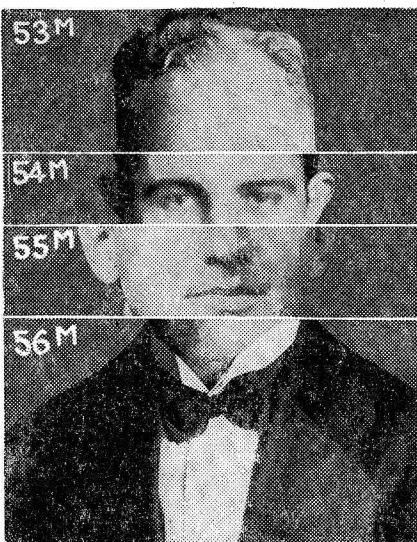
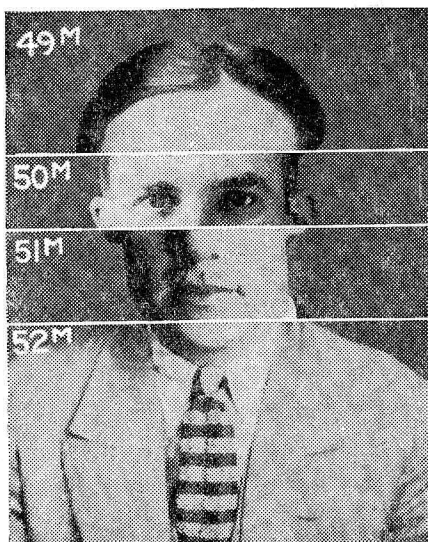
The following artists are in above panel: Maurice Kipen, WSOE; Frank Kuhl, WSOE; Charles Garden, KTHS; Urey McKenzie, KTHS.



The following artists are in above panel: Louis Peine, KPRC; Richard Shannon, KPRC; Henry Slavick, WMC; Percy G. Root, WMC.

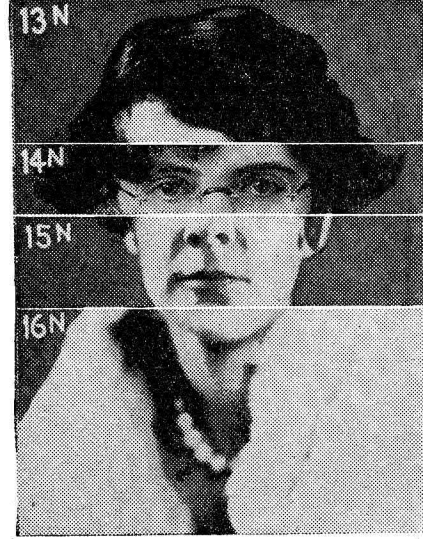


The following artists are in above panel: Jean Weiner, WPG; Hazel McOsker, WOOD; Clara Leckie, CKY; Charlotte Linnell, WNAC.

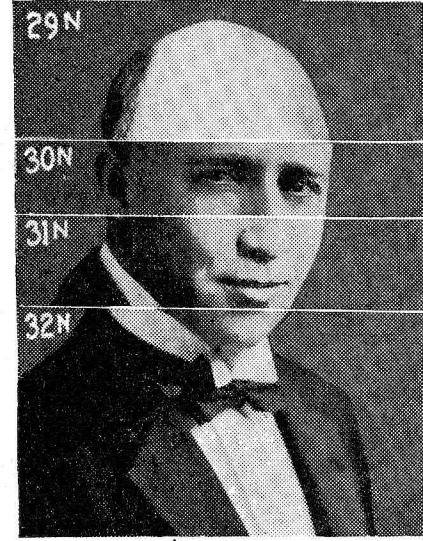
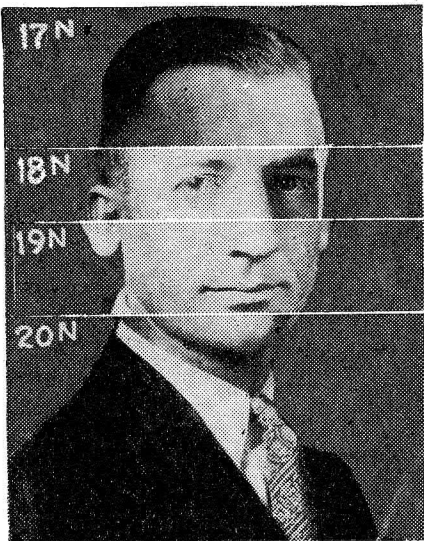


The following artists are in above panel: Louis Cunningham, WOOD; Edwin Fessenden, WPG; Al Kilgour, CKY; Frank Jenkins, WNAC.

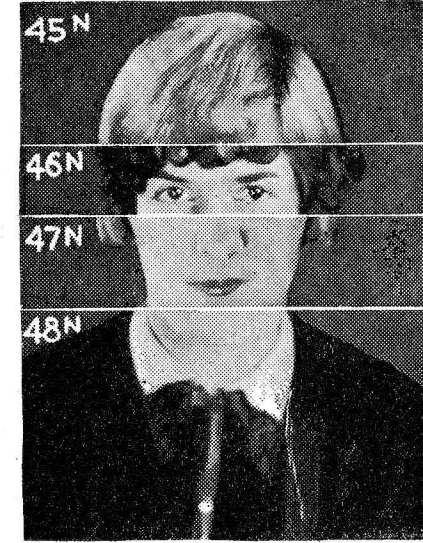
\$26,000.00 IN PRIZES FOR SOLVING "WHOZITS"



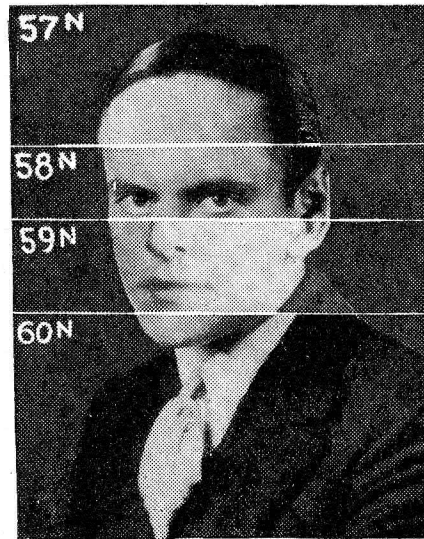
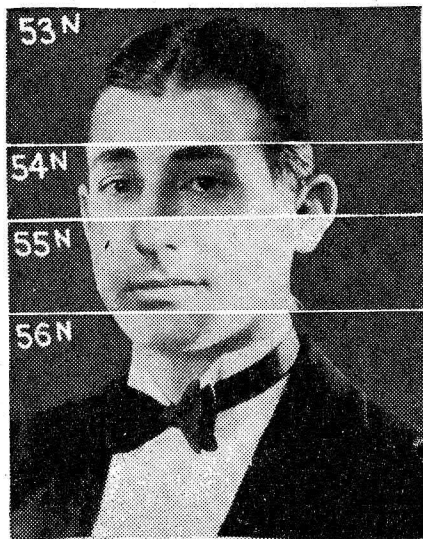
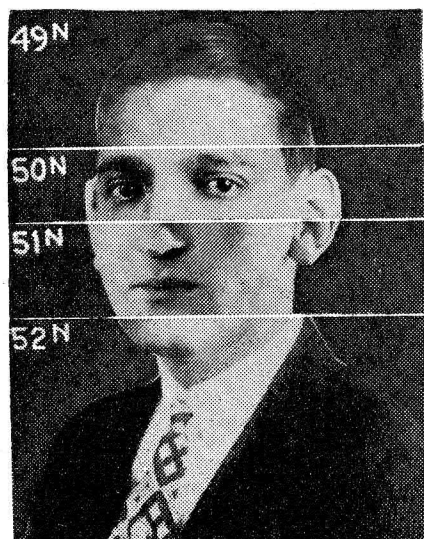
The following artists are in above panel: Honorine LaPee, KMOX; Lucille Mayer, KMOX; Pearl Howard Melvin, WOW; Mrs. Guy Ulysses Purdy, WOW.



The following artists are in above panel: E. E. Schultz, WLW; W. G. Kirchner, WLW; Bill Perry, KJR; Bud Wieser, KJR.

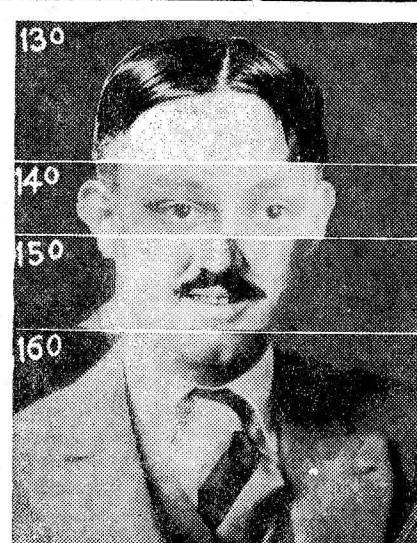
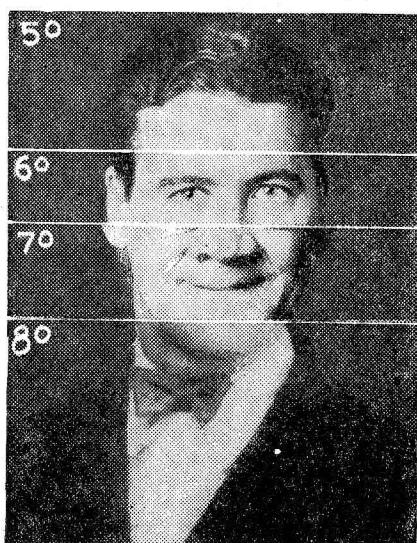


The following artists are in above panel: Deora L. Wolfe, WJR; Edith Sedrel, KOA; June Parker, KFVB; Nell Larson, KFVB.

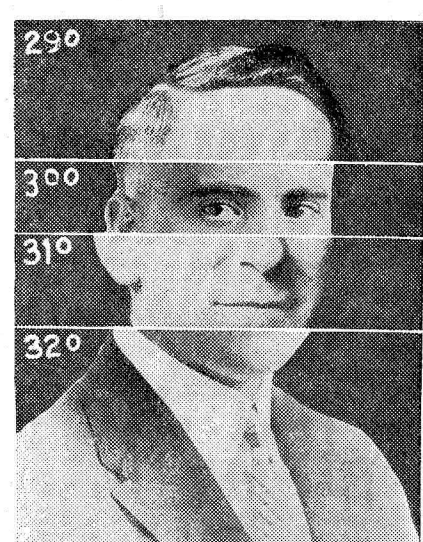
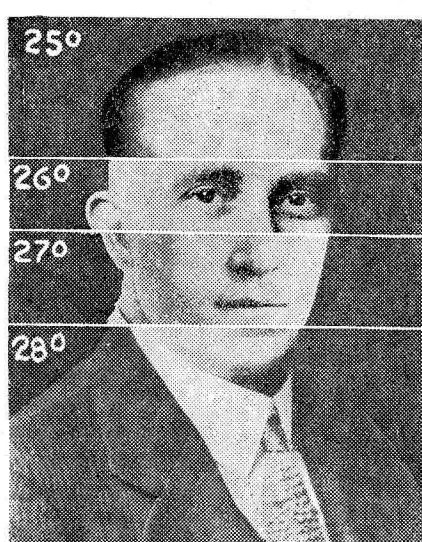
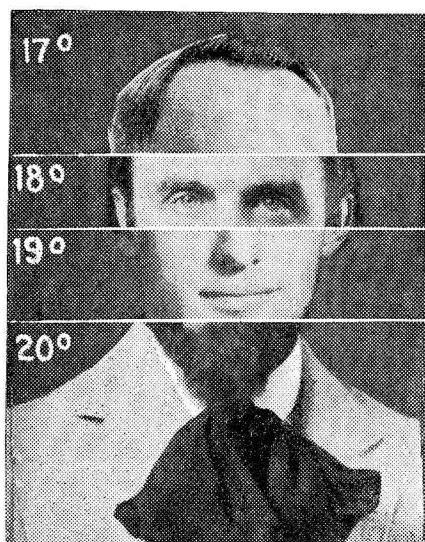


The following artists are in above panel: Joe Davis, WMCA; "Uke" Al. Bert, WMCA; Leroy Burrill Phillips, KOA; John F. Patt, WJR.

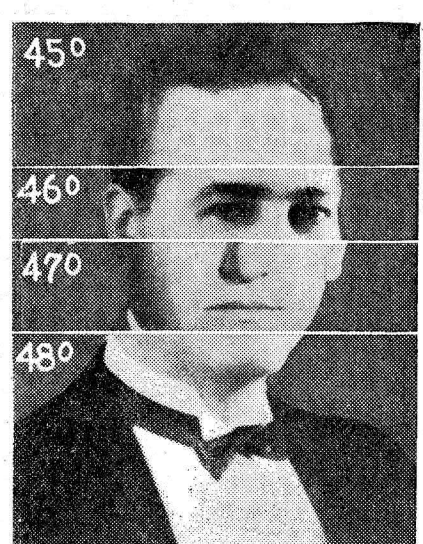
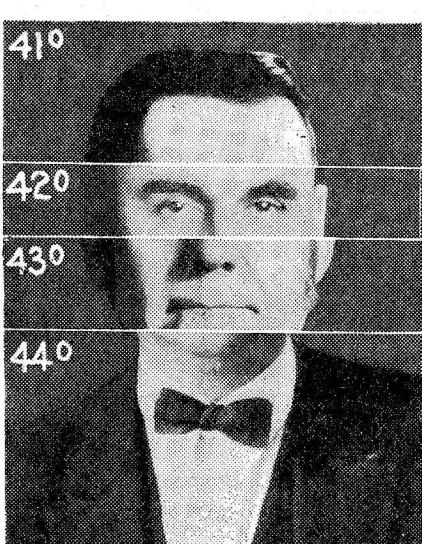
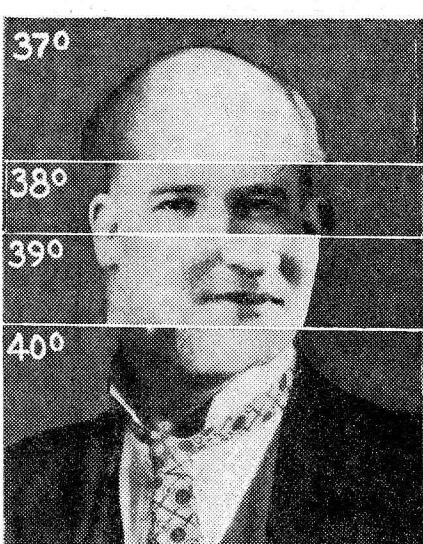
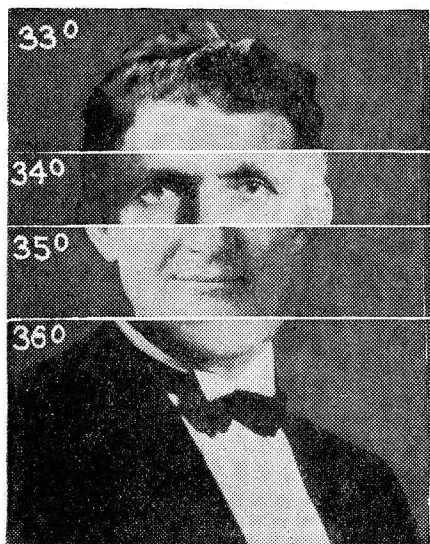
ASSEMBLE THESE PICTURES OF RADIO ARTISTS



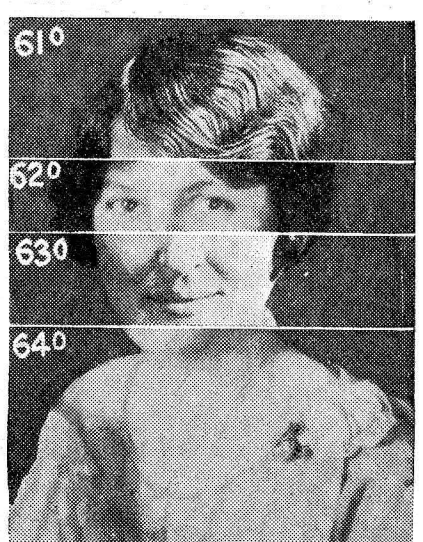
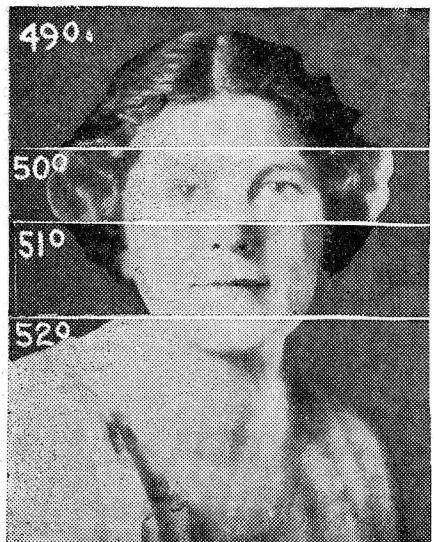
The following artists are in above panel: Avery Powell, WJAX; Art Cook, WHK; Dick Moffet, WJAX; Eddie Soto, WHK.



The following artists are in above panel: Dr. B. J. Palmer, WOC; Reed E. Snyder, WOC; Frank R. Marks, WHB; S. F. Rendina, WHB.



The following artists are in above panel: George E. Butts, WMAK; Uncle Dave Macon, WSM; Walter Schoggin, KVOO; Duke Rehl, WHT.



The following artists are in above panel: Ruth Pettit, WMAK; Mrs. Daisy Fentress, WSM; Princess Pakaneli, KVOO; Alice Johnson, WHT.

Radio Digest Illustrated

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Vol. XX

January 15, 1927

No. 1

Who Is to Pay for Radio?

MANY times during the past few years interested persons and economists have asked the vital question, "Who is to pay the bill for Radio?" We have steadfastly maintained that advertising would. We are now seeing that prophecy come true.

Many large national magazines, and one in particular, are almost solely supported by the advertisers' dollars. One very large magazine sells for a ridiculously low price, hardly as much as the magazine is worth as waste paper. The publisher of that magazine could not give his readers the stories, illustrations and splendid articles that every issue contains, were it not for the many conspicuous advertisers.

The public does not object to the advertising in this magazine we are discussing. In fact, it is known that many of its readers buy the periodical chiefly to look over the advertising pages.

The American public are applying the same philosophy to high grade good will advertising via the Radio microphone. It is the answer to "Who will pay?" And the big advertisers are finding that broadcast or Radio advertising of the proper quality and correctly done, is a wonderful new medium to reach the public.

Read from the splendid exposition of broadcast advertising which was prepared by Lee Bristol, of the Bristol-Myers company, manufacturers of Ipana toothpaste, and sponsors of the Ipana Troubadours over the Red Network of the National Broadcasting company. He says:

"The statistics of one of the largest stations made us sit up and take notice. They showed . . . an approximate total audience of more than 20,000,000 persons.

"With the network nook-ups maintained by some of the biggest stations, broadcasting simultaneously from stations all over the country, it is possible to obtain almost a complete national coverage. At least this applies to practically all the territory east of the Rocky Mountains, an area with a population of over 85,000,000.

"We studied these figures but remained incredulous as to the value of the medium. Then a year ago last April . . . we ventured into Radio advertising.

"Of course, it goes without saying that Radio advertising and a national magazine campaign are not comparable. But I know of no other form of advertising that carries the peculiarly human interest value this does, and creates to such a degree good will toward the advertiser on the part of the public.

"I do not claim that Radio advertising is to be credited with the direct sale of merchandise. I do claim that it serves as an auditory billboard, potentially as important in advertising as the ocular, with which we are all familiar.

"The manufacturer . . . has never had such an opportunity to enter innumerable homes and leave his listeners in such a cordial, friendly and grateful state of mind. It is advertising that tucks away the name of the product in the mind along with the pleasant memory of entertainment.

" . . . Another point to watch is high standard of quality in the entertainment you offer, taking care to broadcast only from the first class station in any community.

"Our vehicle is music—good music—cheerful music—joyous advertising, and we have received thousands of cards and letters, various as life itself, as a result . . . Letters showing how we have cheered the sick in hospitals; entertained lonely people on the plains; provided entertainment for large gatherings of people in hotels; while away tedious hours for passengers on a snowbound Canadian train.

" . . . The largest station in the country, realizing that a turn of a dial is all the revolt necessary on the part of its public tired of listening in on programs overloaded with advertising, has stipulated against this very thing, imposing exacting limitations upon its advertising clients. . . . It is a list of restrictions that would seem to make the case hopeless. But 'the faith' is quite scrupulously maintained for it pays to respect a valuable medium."

RADIO INDI-GEST

Adoration

Sweetheart with the rose-kissed cheek,
You move me to this song,
A finer feeling ne'er will speak;
So high it knows no wrong.

Though untold time it's taken,
For slow nature to unfold,
At last 'tis not mistaken
And has struck the proper mold.

You personify the fragrance
That rules the Realm above;
I look an Angel askance
With you on Earth to Love—

My wave length.

ERNEST O. GROSS.

Well, Whattaya Gotta Say About It?

TWICE a month, Indi-Gest, aided and abetted by P. T. S. (of Fort Wayne, KKKindiana), will allow Radioknuts to chew the fat upon some vital question of general Radio interest. This issue's question:

If 6,000,000 receiving sets are installed within the borders of continental United States, why don't Bill and George Hay, Graham McNamee, Lambdin Kay, the Hired Hand, Leo Fitzpatrick, Gloomy Gus Grubb, Pete MacArthur, Henry Field, et al, wear brown derbies?

Der Dritte Tromboner Gespieler: "Yes and no. On the other hand, I am convinced that the safer course would be to pursue the safer course."

Old King Tutt, Hiz-self: "If you are referring to the percentage found in the usual run of hair tonic, I would recommend you distil Ed Pinaud's brand in a copper-lined kettle."

Barbara of the Short Shaves: "My yes, oh mercy me, for goodness sake, yes. I agree with you perfectly—his left leg IS wood, because I pushed a thumb tack into it."

London Bobby: "At 2LO we have encountered a most unusual incident, dontcher know. The walls of the studios, to be soundproof, have to felt. This, the B. B. C. insists, makes the artists sing with much more feeling."

Well, now that that's settled, the great questions for the First and Second February numbers, respectively, of Radio Indi-Gest will be: "Resolved, that you can always tell a wave-grasshopper, but you can't tell him much," and "If George Washington were alive today, would he permit broadcasting by direct wire of his crossing of the Delaware?"

Ode to the Whozits

Whozit, Whozit, What a game!
Many faces without a name,
Come this way but not in vain;
For the artists are of fame.

Misplaced segments, misplaced names
All go as part of the game.
Beware lest they are placed awry;
Get the paste and have a try.

Eyes of blue, of brown or black
Of the ears they do not lack;
Lips that could a volume speak;
But to me they are a freak.

So I'll paste them down with care,
Lest they wander from the trail;
Send them to the "Digest"—there!
Place them on the morrow's mail.

WHOZITEER LILLIAN.

Insert Missing Word Before "World"

Dear Indi: The romantic young announcer momentarily forgot, in the ardor of his newly-awakened affections, that he had failed to shut off his "mike." Hence, he exclaimed spontaneously, as the fair soprano entered the studio: "Oh, Alice, how lovely you are this morning. I adore you!" and more than one hundred thousand fans, listening in, chortled with glee.

And thus originated the popular phrase: "T'll tell the world."
J. E. R.

NuRsRie RiMes % @c/.

Hie DeCkerie DeCkErie DoeK/,c/;
HeNrey LookEd at Thee Clock, @c/;
Thee CLOcK stRiked OnE,
BuTt hee HaD jEst BuGun—
too Reede leeteRs froAm FannS%—
AsKin HoW too SmoAK HaMMS/,
Oar WaUT waz GooD to FedE a Dogue,
& PleeZe seNd mEE a SedE caTalOgue.
Hee DeD noTt caRe
Iff hee MesseD upP Thee Aer,
TaLk is CheeP i've HeeRed Em saY,
BuTt we Wazent looKin feR barGinS theT day
So we LeTT him Rave and LeTT hiM sHoUt
And PRoMptlie TunneD thee SuCker OUT.
Yourns Turlie,
OLD KING TUTT.
Hiz-Self.

Station HUMOR

Broadcasting on 131313 Meters
Arthur C. Stowell, Announcing

"At 8:15 p. m. the Grand Bank's quartet, composed of various members of a Gloucester fishing boat crew, will render a pleasing little vocal number, entitled, 'Three Crabs and a South Sea Octopus.' A nice kettle of fish, as your Aunt might say. However, if the Grand Bank's quartet arrives from the fishing grounds without getting floundered on a bar somewhere, or rather around one, we hope you enjoy their little program contribution swimmingly."
INDI

It's Coming to Him



Condensed BY DIELECTRIC

Each time that Station WSMB, New Orleans, Louisiana, is tuned in there is an added feeling of cordiality toward the broadcaster. This may be due largely to the personality of the announcer—the same one having charge of Mike each time I get them—as the features presented are seldom extraordinary either in character or talent. There is a quality in the voice of this announcer which rings true to the spirit of friendliness, while the announcements are utterly free of any taint of self-glory.

When the National Broadcasting company secured the reappearance of Ernestine Schumann-Heink on their program they presented a great musical artist with as large a Radio following as held by any artist of the day. After so many years of generous response to the public's demand for more program than concerts listed; after, too, giving her artistry so freely to the encouragement of the war's maimed, it would be base ingratitude to mention any defects that hour of broadcasting revealed. Remarkable is her vitality, but more so her wonderful retention of vocal control, besides revealing a huge capacity for taking us all into her affection. It is fortunate that so gifted a woman should live until Radio broadcasting could reveal her to those no other medium might reach.

Surely the majority listening to a program arranged by a singing club of Dayton, Ohio, broadcast through Station WLW, Cincinnati, Ohio, experienced nothing but pleasure from their efforts. The selections chosen for the evening were taken from among songs known to everyone. That should have insured them a continuous hearing. Add to that voices blending harmoniously in common accord as to phrasing and modulation and you have a feature to make Radio's appeal almost universal. By some miraculous means I was able to hear most of this feature, while denied the pleasure of hearing numbers marked for broadcasting on subsequent evenings.

Precious little weight would the law have with me if I could reach some of these station directors whose length of programs, broadness of tuning or shifted position in wavelength prevents getting distant features worthy a place of review in these columns. Just here reference is intended to Station KOA, Denver, Colorado, which should have a full review of the anniversary program, but which must be content with a partial review. Seldom do my dials register this station with success, as compared with former years, yet it is possible to state how well balanced was the program and pleasing the instrumental and vocal numbers received. No doubt those able to get the whole program found it worthy a place beside that presented on their first anniversary. How long shall we suffer this intolerable condition in Radio broadcasting to continue?

Station WSB, Atlanta, Ga., offered skillful saxophone players interspersed with—TELEGRAMS; WNAC, Boston, Mass., an organ recital from the Metropolitan theatre in that city which introduced some interesting and surprising effects on that instrument; another concert by the famous Boston symphony orchestra of classical numbers ranging from Bach to Rimsky Karsakoff—at least the last named composer was to be represented. Thanks to the stations rebroadcasting this feature that last great number, "Scheherzade," was not heard. Some other minor feature must needs have the air and the station to which I was listening—WJZ, New York—got the same atmospheric tribute.

AN EVENING AT HOME WITH THE LISTENER IN IN EASTERN TIME

Table listing radio stations by location and time slot. Columns include Call, Location, Met., Kc., Saturday, Sunday, Monday, Tuesday, Wednesday, Thursday, Friday.

STATIONS IN ORDER OF WAVE LENGTHS

Table listing radio stations in order of wave lengths. Columns include Meters, Call, Meters, Call, Meters, Call, Meters, Call, Meters, Call, Meters, Call.

New Stations

New stations licensed by the department of commerce last month include: WLBR, Belvidere, Ill., 335m-895kc; KGDZ, Shreveport, La., 291.1m-1030kc; WBSO, Wellesley Hills, Mass., 242m-1239kc; WBET, Boston, Mass., 384.4m-780kc; WMPC, Lapeer, Mich., 222m-1351kc; WLPP, Ashland, Ohio, 220.4m-1360kc; WLBK, Cleveland, Ohio, 300m-999.4kc; WLBK, Chicago, Ill., 225.4m-1330kc; KGDY, Oldham, S. D., 210m-1428kc; WCOM, Manchester, N. H., 252m-1190kc; KGDZ, Decorah, Ia., 431m-695.6kc; KYA, San Francisco, Calif., 399.8m-750kc; WLBA, Philadelphia, Pa., 236.1m-1270kc; WRSC, Chelsea, Mass., 270.1m-1110kc; KFRC, Santa Barbara, Calif., 413m-726kc; WTRL, Midland Park, N. J., 280.2m-1070kc; WOKT, Rochester, N. Y., 340m-881.8kc; WLBQ, Galesburg, Ill., 243m-1234kc; WLBQ, Atwood, Ill., 230.6m-1300kc.

WKBO, Jersey City, N. J., may now be found on 303.9m-986.6kc. Two stations, KFUU, Oakland, Calif. and WIBH, New Bedford, Mass., are off the air.

The two deletes of the month are KGBW, Joplin, Mo., and WEBZ, Savannah, Ga.

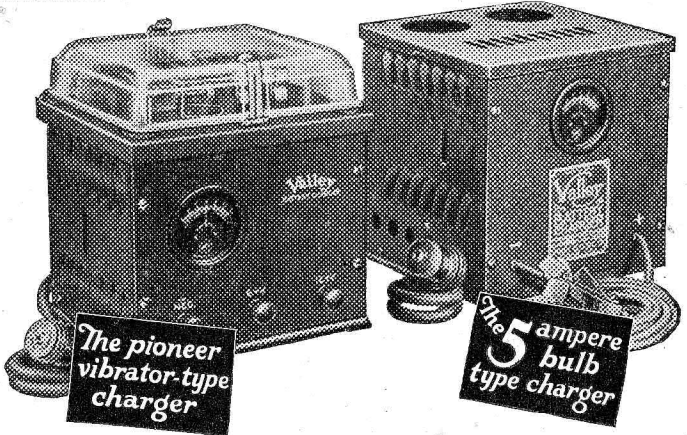
The General Electric Company of Mexico City has just entered the ether with a new 2,000-watt station. This station uses the call CYJ and may be heard on 400 meters.

The Atlantic Broadcasting Corporation announces a change in call letters for the new super-power 5-kw transmitter WAHG. This new giant of the air will be known hereafter as WABC.

"This is Station KGA of Spokane, U. S. A." This sentence will be used within the next few weeks to announce the opening of the new north hill broadcasting station at Spokane, Wash., by the Northwest Radio Service company of Seattle, owners. The Spokane station is one of five in a Pacific coast chain. The new Station KJR, located near Seattle, was opened recently. The Portland, Ore., station will be ready for broadcasting in a few days. The other two stations are being built in California.

The Spokane station will start broadcasting with 8,000 watts power but the ultimate power will depend on tests made over a period of a week or more. KGA will operate on a tentative wave length of 340 meters.

New equipment to cost around \$35,000 was announced recently for Station KHQ of Spokane. The power will be raised from 1,000 to 5,000 watts.



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B Power Units—Radio Receiving Sets—Vibrator Type Chargers—Twin Bulb Type Chargers

Eastern	Central	Mountain	Pacific
6:30 p. m.	5:30	4:30	3:30
WCCO (416.4m-720kc)	Minneapolis string quartet.		
7:30	6:30	5:30	4:30
WBZ (333.1m-900kc)	Home Folks' organ music.		
7:35	6:35	5:35	4:35
WBZ (333.1m-900kc)	Mendelssohn trio.		
8:45	7:45	6:45	5:45
WLW (422.3m-710kc)	"Getting Acquainted with Beethoven."		
8:45	7:45	6:45	5:45
WBZ (333.1m-900kc)	French program direction, Marie A. Comeau.		
8:45	7:45	6:45	5:45
WLWL (288.3m-1040kc)	Paulist choristers.		
8:45	7:45	6:45	5:45
WCCO (416.4m-720kc)	"Leaders in Today's World, Prof. Thomas Williams.		
9:15	8:15	7:15	6:15
WCOB (344.6m-870kc)	Studio ensemble, Celestial Bells.		
9:15	8:15	7:15	6:15
WFAA (475.9m-630kc)	Little Symphony.		
9:15	8:15	7:15	6:15
WEAF New York, N. Y. (491.5m-610kc)	WEEL, WGR, WRC, WWT, WSAI, WGN, WCCO, KSD, WJAR, WTAG, WCAE, WTAM, WOC, WSM, WGY, WFI, Atwater Kent Radio hour, Maria Kurenko, soprano, Salvatore De Stefano, harpist, Atwater Kent orchestra.		
9:30	8:30	7:30	6:30
a. Aria: "Pur Dicesi".....Lotti			
b. "Shadow Dance, from Dinorah".....Meyerbeer			
c. Air de Venus.....Lully			
	Madame Kurenko.		
a. Gavotte (Arr by De Stefano).....Haendel			
b. Impromptu, Opus 13.....Schuecker			
c. "Way Down Upon the Swanee River".....Poster			
d. The Fountain, Opus 23.....Zabel			
a. Aria: "Dumka Parase, from Sorotchinkaja Jarome".....Moussorgsky			
b. "Regrets de Manon".....Massenet			
	Madame Kurenko.		
a. Menuet Ancien.....Del Aqua			
b. Romance.....Hippolitoff-Ivanoff			
c. "Little Boy Blue".....Joyce			
d. (Berger).....XVIII Century			
e. Le Printemps.....Gounod			
Madame Kurenko, Salvatore De Stefano.			
a. Spanish Dance.....K. Zuera			
b. Tarantella.....De Stefano			
c. La Danse des Sylphes.....Godeirold			
Salvatore De Stefano			
a. Grief.....Chopin			
b. Pastorale.....Carey			
c. Soldier's Wife.....Rachmaninoff			
d. Phyllis Has Such Charming Graces.....Anthony Young			
	Madame Kurenko.		
II Bacio.....L. Arditi			
	Madame Kurenko and orchestra.		
9:30	8:30	7:30	6:30
WBBS (315.6m-950kc)	Old Time Minstrels.		
10:30	9:30	8:30	7:30
WBZ (333.1m-900kc)	Hugh Swift and his serenaders.		
10:30	9:30	8:30	7:30
WBAP (475.9m-630kc)	Texas hotel orchestra.		



SUNDAY, JANUARY 23
Church Services

Eastern	Central	Mountain	Pacific
12 m.	11	10	9
KLDS (440.9m-680kc)	Stone church service.		
KTHS (374.8m-800kc)	First Methodist church.		
WBAP (475.9m-630kc)	First Methodist church.		
1 p. m.	12	11	10
KOA (322.4m-930kc)	Montview Presbyterian church.		
1:55	12:55	11:55	10:55
KGW (491.5m-610kc)	St. Stephen's cathedral.		

Eastern	Central	Mountain	Pacific
8 p. m.	7	6	5
WFAA (475.9m-630kc)	First Church of Christ, Scientist.		
8:30	7:30	6:30	5:30
KPRC (299.8m-1000kc)	First Christian church.		
9	8	7	6
WSB (428.3m-700kc)	First Methodist church.		
9:45	8:45	7:45	6:45
KOA (322.4m-930kc)	Montview Presbyterian church.		
10:30	9:30	8:30	7:30
KGW (491.5m-610kc)	Hinson-Memorial Baptist church.		

SUNDAY, JANUARY 23
Headliners

Eastern	Central	Mountain	Pacific
3:30 p. m.	2:30	1:30	12:30
WWJ (352.7m-850kc)	Detroit symphony.		
5	4	3	2
WSBC (288.3m-1040kc)	Ambrose Wyrick.		
WTIC (475.9m-630kc)	State theater concert.		
8	7	6	5
PWX (399.8m-750kc)	band concert.		
8:30	7:30	6:30	5:30
KOA (322.4m-930kc)	Mrs. Blanche Townsend Chase, organist.		
9:30	8:30	7:30	6:30
PWX (399.8m-750kc)	orchestra.		
10	9	8	7
CNRW (384.4m-780kc)	Sunday evening musicale, Fort Garry hotel.		
KTHS (374.8m-800kc)	Music Lovers' hour.		
WSBC (288.3m-1040kc)	Muriel Keneally, soprano.		
10:50	9:50	8:50	7:50
KTHS (374.8m-800kc)	Sybil Seaman, organist.		
12 mid.	11	10	9
WFAA (475.9m-630kc)	Four Horsemen.		

SUNDAY, JANUARY 30
Church Services

Eastern	Central	Mountain	Pacific
11 a. m.	10	9	8
WHAS (399.8m-750kc)	Temple Adath Israel.		
12 n.	11	10	9
WBAP (475.9m-630kc)	First Methodist church.		
12:30 p. m.	11:30	10:30	9:30
KOA (322.4m-930kc)	Solemn High mass.		
4:30	3:30	2:30	1:30
WHAS (399.8m-750kc)	Choral Evensong service, Christ Church Cathedral.		
8	7	6	5
WFAA (475.9m-630kc)	Service First Presbyterian church.		
8:30	7:30	6:30	5:30
WFAA (475.9m-630kc)	First Presbyterian church.		
9:45	8:45	7:45	6:45
KOA (322.4m-930kc)	Service of Immaculate.		

SUNDAY, JANUARY 30
Headliners

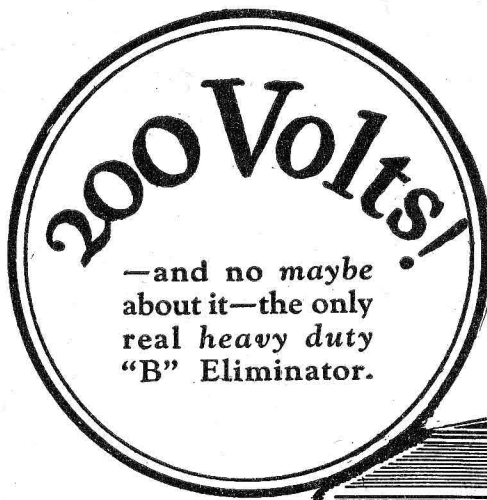
Eastern	Central	Mountain	Pacific
3:30 p. m.	2:30	1:30	12:30
WWJ (352.7m-850kc)	Detroit symphony orchestra.		
5	4	3	2
WTIC (475.9m-630kc)	Professor Harry B. Jepson.		
8:30	7:30	6:30	5:30
KEH (267.7m-1120kc)	"Martha."		
12 mid.	11	10	9
WFAA (475.9m-630kc)	Amphion male quartet.		

Regular Sunday Features
Eastern Time Stations

CFCA Toronto, Can. (356.9m-840kc) 11 a. m. services; 7 p. m., St. Paul's Anglican church; 8:45, musical program.

WBBR New York, N. Y. (416.4m-720kc) 10 a. m. music, choral singers; 2 p. m., Watchtower string quartet, vocal, Bible lecture; 8, Watchtower violin choir, vocal selections.

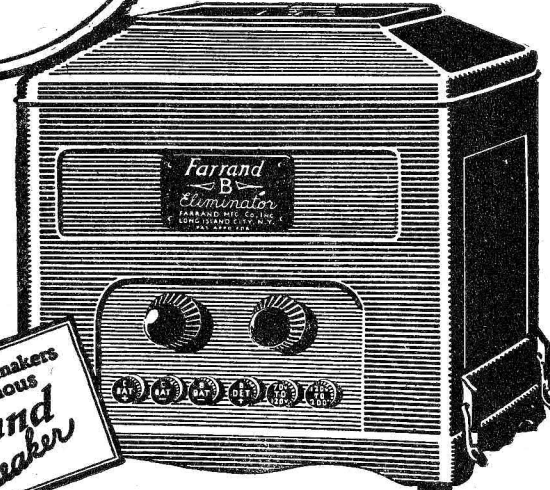
WBZ Springfield, Mass. (333.1m-900kc) 10 a. m. services; 6:30 p. m. organ; 7, quartet; 7:30, program; 8, musical; 9, program.



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 "27 Years Making Good Instruments"



Garrison at WBAL



An intimate little talk to young music students was given recently by Mabel Garrison, operatic and concert star from WBAL. Miss Garrison is well known to listeners through her broadcasting on various Atwater Kent hours.

WBAP Fort Worth, Texas (475.9m-630kc) 11 a. m. First Methodist; 5-6 p. m. vesper services, Baptist seminary; 9:30-11, Sorin-White Texas hotel orchestra.

WBBM Chicago, Ill. (226m-1330kc) 8 p. m. Coon-Sanders Night Hawks; 9-12, Iroquois; 12, Nutty club; Coon-Sanders orchestra.

WCBD Zion, Ill. (344.6m-870kc), Sunday evening musicale.

WCCO Minneapolis-St. Paul, Minn. (416.4m-720kc) 10:50 a. m. services; 4:10 p. m. House of Hope Presbyterian church; 6:20, Second Church of Christ, Scientist; 8:15, WEAH; 9:15, musical program; Chippewa Indians; 10, St. Paul Municipal organ recital, Hugo Philler Goodwin.

WCFL Chicago, Ill. (491.5m-610kc) 4 p. m. Lutheran church; 7:45, Belden Avenue Baptist church.

WDAF Kansas City, Mo. (365.6m-820kc) 3-4 p. m. Star's orchestra; 4-4:45, vespers.

WEBB Chicago, Ill. (370.2m-810kc) 10:45 a. m. Seventh Church of Christ Scientist; 5-6 p. m. twilight musicale; 7-9, artists' program.

WEMC Berrien Springs, Mich. (315.6m-950kc) 11 a. m. studio sacred services; 8:15 p. m. chapel.

WENR Chicago, Ill. (265.3m-1130kc) 2-4 p. m. classical program; 9:30-10:30, classical program; 10:30-12, Samovar orchestra.

WFAA Dallas, Texas (475.9m-630kc) 6-7 p. m. Bible class; 7:30-8:30, services; 8:30-9:30, artists; 11-12, orchestra.

WGBF Evansville, Ind. (236.1m-1270kc) 7:30 p. m. services.

WGN Chicago, Ill. (302.8m-990kc) 6:45-7 p. m. Blackstone string quintet, solo artists; 7, The Million Sing; 7:20, Old Fashioned Almack; 7:30, Drake concert ensemble; Correll and Gosden; 8, Auld Sandy; 8:15, WEAH; 9:15, Our Music Room; 10, Sam n' Henry; 10:10, Armand Buissere, violinist; 10:20, Bible reading; 10:25, piano.

WHAD Milwaukee, Wis. (275.1m-1090kc) 3:15 p. m. Turnverein concert.

WHAS Louisville, Ky. (399.8m-750kc) 10 a. m. services; 4:30-5:30 p. m. choral evensong.

WHB Kansas City, Mo. (365.6m-820kc) 9:40 a. m. Linwood Blvd. Christian church; 11:10-12:30, Inde-

pendence Blvd. Christian church; 7-7:45, Dr. Burriss A. Jenkins; 8-9, Westport Methodist church; 11:15-1, Morrill Moore, organist; Don Anchors, poet.

WHO Des Moines, Iowa (526m-570kc) 11 a. m. service; 5-6 p. m. Bankers Life Little symphony; 7:30-8:15, orchestra; 11-12, musical program.

WHT Chicago, Ill. (399.8m-750kc) 1-12 midnight, Paul Rader.

WJAZ Chicago, Ill. (329.5m-910kc) 4:30-9 p. m. Sunday evening concert.

WJJD Mooseheart, Ill. (370.2m-810kc) 7:45-8:45 a. m. Catholic services; 9:30-10:30, Protestant services; 1-2 p. m. Howard Peterson, organist; 2-2:30, Bible class; 2:30, Sacred song service; 3-4, popular concert; 4-5, Palmer House Sunday symphony orchestra.

WLIB Chicago, Ill. (302.8m-990kc) 5-6:15 p. m. Herbert Johnson, pianist; Leon Lichtenfeld, cellist; Tommy Coates, baritone; Blackstone string quintet.

WLS Chicago, Ill. (344.6m-870kc) 10:45 a. m. University of Chicago service; 12:15, Elsie Mae Look, organist; 1-1:30, trio; 1:30-2:30, chapel service; 6-8, WLS Little Brown church.

WMBB Chicago, Ill. (249.9m-1200kc) 3-6 p. m. Sunday afternoon concert; 7:40, Fifth Church of Christ, Scientist; 9-11, Trianon orchestra, artists.

WMC Memphis, Tenn. (499.7m-600kc) 11 a. m. church service.

WOC Davenport, Iowa (483.6m-620kc) 1-2 p. m. old folks' musicale; 6:30-7 church service; 8:15-9:15, WEAH; 10-11, Palmer Little symphony.

WOQ Kansas City, Mo. (278m-1080kc) 11 a. m. Unity service; 7 p. m. evening service; 7:45, Grand Avenue Methodist church.

WORD Chicago, Ill. (275.1m-1090kc) 10 a. m. I. B. S. A. service; 2:30 p. m. Chicago Rapid Transit company program; 3:30, Bible lecture; 7, Webster hotel duo orchestra; 9, I. B. S. A. choral singers.

WOW Omaha, Nebr. (526m-570kc) 9 a. m. Omaha Gospel tabernacle; 1:30 p. m. Father Flanagan's Boys' home period; 6, Bible study; 9, chapel service.

WQJ Chicago, Ill. (447.5m-670kc) 10:45 a. m. 12:45 p. m. People's church; 3-4, musical program; 8-10, popular program; Rainbo Gardens orchestra; Jack Klein, Adelaide Kerkoff, Harry Geise.

WRR Dallas, Tex (245.8m-1220kc) 11 a. m. service; 8 p. m. service; 9:30, program.

WSB Atlanta, Ga. (428.3m-700kc) 5 p. m. sacred concert; 8, services.

WSBC Chicago, Ill. (288.3m-1040kc) 5-7 p. m. Sunday concert; 9-10, concert.

WSM Nashville, Tenn. (282.8m-1060kc) 10:30 a. m. service.

Mountain Time Stations

KOA Denver, Colo. (322.4m-930kc) 10:30 a. m. church service; 3 p. m. afternoon musicale; 6:30, organ; 7:45, church service.

Pacific Time Stations

KFI Los Angeles, Calif. (467m-642kc) 7-8 p. m. Jack Smith's dance orchestra; 8-9, Aeolian organ recital; 9-10, Bob Bottger's Venetians; 10-11, Packard Six dance orchestra.

KFWB Hollywood, Calif. (252m-1090kc) 9-11 p. m. Warner Brothers Sunday night movie frolic.

KGO Oakland, Calif. (361.2m-830kc) 11 a. m. service; 2:40 p. m. symphony; 6:30-7:30, little symphony; 7:35, service; 9-10, symphony.

KCW Portland, Ore. (491.5m-610kc) 11 a. m. church; 7:30-9 p. m. church; 9-10, symphony orchestra.

KHJ Los Angeles, Calif. (405.2m-740kc) 7-8 p. m. service, First M. E. church; 8-10, Request program by Orpheus Four male quartet and Frederick MacMurray, viola soloist.

KMTR Hollywood, Calif. (370.2m-810kc) 6:30-7 p. m. Leila Castberg's half hour; 7-8, Cafe Lafayette string quartet; 8-9:30, orchestra.

KNX Hollywood, Calif. (336.9m-890kc) 6:30 p. m. service; 8, orchestra; 9, feature.

KPO San Francisco, Calif. (428.3m-700kc) 6 p. m. States Restaurant orchestra; 6:35, Palace hotel concert orchestra; 8:35-10, Rudy Seiger's Fairmont hotel concert orchestra; 10-12, Trianon ballroom.

KPSN Pasadena, Calif. (315.6m-950kc) 10:30 a. m. Family Altar service, United Brotherhood.

WCAE Pittsburgh, Pa. (461.3m-850kc) 6:30 p. m. orchestra; 7:15, WEAH; 9:15, WEAH; 10:15, trio.

WCAU Philadelphia, Pa. (277.6m-1080kc) 11 a. m. services, First Unitarian church; 5, recital; 5:15, Undenominational church services; 5:25, sermon, Rev. John W. Stockwell; 6:45, orchestra; 7:45, Cathay Garden orchestra; 8:30, Bonwit Teller Ensemble; 10, Al Zemsay's orchestra.

WCX Detroit, Mich. (516.9m-580kc) 7:15 p. m. Central Methodist Episcopal church.

WDBO Winter Park, Fla. (239.9m-1250kc) 11 a. m. church; 7:30, service.

WEAF New York, N. Y. (491.5m-610kc) 6 p. m. program; 7:20, musical program from the Capitol theater, WEI KSD, WRC, WWJ, WJAR, WCAE, WTAG; 9:15, Atwater-Kent Radio hour, WEI, WGR, WRC, WWJ, WSAI, WGN, WCCO, KSD, WJAR, WTAG, WCAE, WTAM, WOC, WFI; 10:15, musicale.

WEI Boston, Mass. (348.6m-860kc) 10:50 a. m. Old South church; 2 p. m., program; 4, WEAH; 7:20, WEAH; 9:15, WEAH; 10:15, B. F. Keith's theater.

WCBS New York, N. Y. (315.6m-950kc) 9:30 p. m. Old Time minstrels.

WGR Buffalo, N. Y. (319m-940kc) 10:45 a. m. service; 7:45, Central Presbyterian church; 9:15-10:15, WEAH.

WGY Schenectady, N. Y. (379.5m-790kc) 11 a. m. service; 3 p. m. musicale; 5, organ; 9, WJZ; 9:15, Atwater Kent Hour.

WHK Cleveland, Ohio (272.6m-1100kc) 10 a. m. Bible association; 5 p. m. twilight musicale; 6, dinner program; 7:30, lecture; 8:45, program.

WHN New York, N. Y. (361.2m-830kc) 6:30 p. m. Libby's Hotel orchestra; 10, orchestra; 11, orchestra; 12, The Playground.

WICC Bridgeport, Conn. (285.5m-1050kc) 10:50 a. m. service; 2 p. m. Sunday afternoon concert; 7, Forum.

WIP Philadelphia, Pa. (508.2m-590kc) 7:15 p. m. evening service; 10, symphony.

WJAX Jacksonville, Fla. (336.9m-890kc) 11 a. m. service; 8-9, services.

WJR Detroit, Mich. (516.9m-580kc) 10 a. m. First Baptist church; 10 p. m. special song service, First Baptist church.

WJZ New York, N. Y. (454.3m-660kc). Note: WJZ programs will be announced, following only tentative lineup. 11 a. m. and 7 p. m., Park Avenue Baptist Church Carillon; 7:20, Hotel Ambassador trio; 8, musicale, WBZ; 9, Hotel Commodore concert orchestra, WBZ, WGY; Godfrey Ludlow, violinist.

WKRC Cincinnati, Ohio (325.9m-920kc) 6:45 p. m. Walnut Hills Christian church; 10, classical program; 11:15, Louisville Loons; 12, Marie Turner; 12:15, Louisville Loons.

WLW Cincinnati, Ohio (422.3m-710kc) 11 a. m. Seventh Presbyterian church; 3 p. m. organ; 7:30, Presbyterian church; 8:30, Beethoven program; 8:50, Crosley concert orchestra.

WLWL New York, N. Y. (288.3m-1040kc) 8:15 p. m. Paulist choristers.

WMAK Buffalo, N. Y. (265.5m-1130kc) 10:25 a. m. service; 3 p. m., WFBL; 7:50, First Church of Christ, Scientist.

WMCA New York, N. Y. (340.7m-880kc) 6 p. m. Romer's Homers; 7, Eric Golden and his Hotel McAlpin orchestra; 9, Moment musicale; 10, Monte Carlo orchestra.

WOO Philadelphia Pa. (508.2m-590kc) 10:30 service; 2:30 p. m. Sunday School musical exercises; 6, organ recital, Clarence K. Bawden; 7:30, service.

WOR Newark, N. J. (405.2m-740kc) 6 p. m. ensemble; 7:45, concert.

WPG Atlantic City, N. J. (299.8m-1000kc) 3:15 p. m. organ recital, Arthur Brook; 4:15, community vocal and instrumental recital; 5:30, concert; 9, news; 9:15, concert orchestra; 10, Sunday evening concert.

WRC Washington, D. C. (468.5m-640kc) 11 a. m. service; 4 p. m. chapel; 6:45, vespers; 7:20, WEAH; 9:15, WEAH.

WSAI Cincinnati, Ohio (325.9m-920kc) 11 a. m. Presbyterian church; 3:45 p. m. chimes; 4-5:30, WEAH; 8, sermonette; 9:15-10:15, WEAH.

WSKC Bay City, Mich. (260.7m-1150kc) 11-12 noon services.

WTAG Worcester, Mass. (545.1m-550kc) 7:20 p. m. WEAH; 9:15, WEAH.

WTAM Cleveland, Ohio (389.4m-770kc) 10:45 a. m. service; 3 p. m. musicale; 6, Hollenden hotel orchestra; 7, Stillman theater orchestra; 8, services; 9:15, WEAH; 10:15, Austin Wylie's Vocalion Recording orchestra.

WTIC Hartford, Conn. (475.9m-630kc) 6 p. m. State theater concert.

WWJ Detroit, Mich. (352.7m-820kc) 10:30 a. m. service; 3:30 p. m. orchestra; 7:20, WEAH; 9:15, WEAH.

Central Time Stations

CKY Winnipeg, Can. (384.4m-780kc) 11 a. m. Wesley church; 7-8:30 p. m. First English Lutheran church; 9-10, Royal Alexandre hotel.

KFAB Lincoln, Neb. (340.7m-880kc) 9-10:30 p. m. Sunday evening musicale.

KFH Wichita, Kan. (268m-1120kc) 7 p. m. church service.

KFNF Shenandoah, Iowa (461.3m-650kc) 10:45 a. m. services; 2:30 p. m. Seed House song service; 3, program; 6:30, Golden Rule Circle; 7:30, services.

KLDS Independence, Mo. (440.9m-680kc) 8:30 a. m. Bible study; 11, Stone church; 3 p. m. Radio church; 6:30, vespers; 9:15, studio service.

KMA Shenandoah, Iowa (461.3m-650kc) 4-5 p. m. sacred program; 7:30-8:30, service.

KMOX St. Louis, Mo. (280.2m-1070kc) 9 p. m. Sunday night club; 10:30-12, ballroom.

KOIL Council Bluffs, Iowa (305.9m-980kc) 11 a. m. First Congregational church; 7, children's hour; 7:30, program; 11, Paramount orchestra.

KPRC Houston, Texas (299.8m-1000kc) 7:30 p. m. church service; 9:30, evening concert; 11, Texan theater pipe organ.

KSO Clarinda, Iowa (405.2m-740kc) 11 a. m. M. E. church.

KTHS Hot Springs National Park, Ark. (374.8m-800kc) 11 a. m.-12:15 p. m., service; 9-9:45, Meyer Davis ensemble, classic hour concert; 9:45-10:30, Lawson Reid, organist; 10:30-11:30, Arkansas Traveler Radio Train.

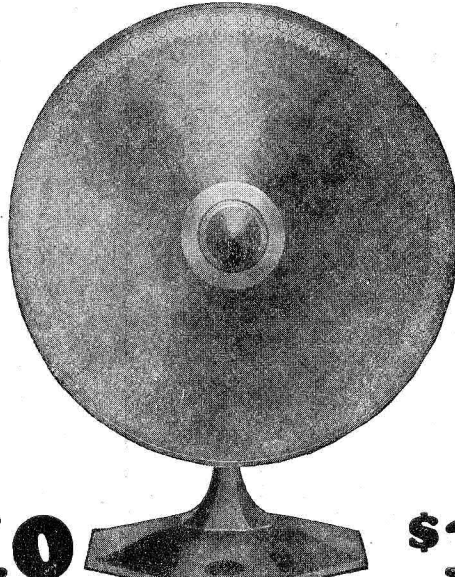
KVGO Bristow, Okla. (374.8m-800kc) 1-2 p. m. Walter Schoggan, Doris Kintner; 5-6, Gospel hour; 6-7, Sophia Osina, pianist; 7-9, services; 12-1, Melody Boys.

KYW Chicago, Ill. (535.4m-560kc) 11 a. m. Central church service; 4:30 p. m. Edwin Harper; 7-8:30, Sunday evening club; 9:30-11, classical concert.

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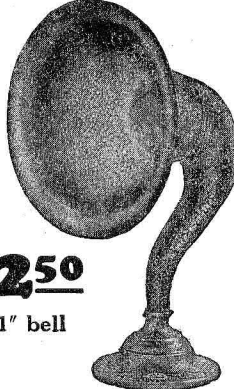
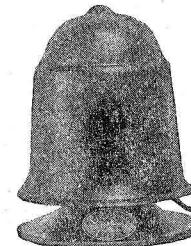
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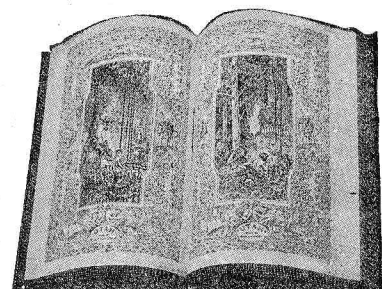
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MONDAY, JANUARY 17 Headliners

Table with 4 columns: Eastern, Central, Mountain, Pacific. Lists radio stations and their programs for Monday, January 17.

MONDAY, JANUARY 24 Headliners

Table with 4 columns: Eastern, Central, Mountain, Pacific. Lists radio stations and their programs for Monday, January 24.

MONDAY, JANUARY 31 Headliners

Table with 4 columns: Eastern, Central, Mountain, Pacific. Lists radio stations and their programs for Monday, January 31.

Educational Features

Table with 4 columns: Eastern, Central, Mountain, Pacific. Lists educational programs and their times.

Regular Monday Features

Table with 4 columns: Eastern, Central, Mountain, Pacific. Lists regular Monday features and their times.

WGR Buffalo, N. Y. (319m-940kc) 6:30-7:30 p. m. dinner music; 7:30, musicale; 9:10, dance program, WQJ; 11-1, supper music.

WNYC New York, N. Y. (526m-570kc) 6 p. m. Piano selections. WOC Philadelphia, Pa. (508.2m-590kc) 8, organ recital. Mary E. Vogt; 8:30, address. Rev. Forest E. Dager; 9, concert; 10:30, dance orchestra.



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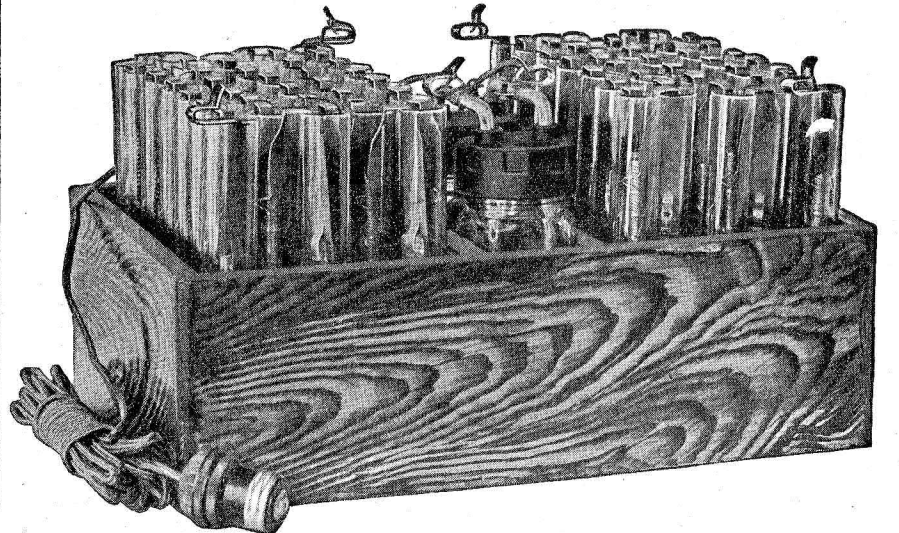
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KOIL Council Bluffs, Iowa (305.9m-980kc) 7:03 p. m. Hotel Lassen program, Don Hill and his ukulele; 7:30, musicale; 8, program; 9, play; 10, Crosley hour; 11, program.

KPRC Houston, Texas (299.8m-1000kc) 7:30 p. m. Houstonians; 8:30, concert; 9, studio concert.

KSO Clarinda, Iowa (405.2m-740kc) 6:30 p. m. old-time music.

KTHS Hot Springs National Park, Ark. (374.8m-800kc) 9:11:20 p. m. musicale.

KYVO Bristow, Okla. (374.8m-800kc) 6-7 p. m. Warner trio; 7-8, quartette; 8-9, Luckey's orchestra; 12, Earl Thurston, organist.

WBAP Fort Worth, Texas (475.9c-630kc) 7:30-8:30 p. m. Classical concert; 9:30-11, old time music; 11-12, midnight musicale.

WCCO Minneapolis-St. Paul, Minn. (416.4m-720kc) 6:15 p. m. St. Paul hotel orchestra; 8, U. of Minn.; 9, Vagabonds; 10:10, dance program; 11:30, organ.

WCOA Pensacola, Fla. (252m-1190kc) 6:30 p. m. WCOA happiness period.

WEMC Berrien Springs, Mich. (315.6m-950kc) 8:15 p. m. Lighthouse Music Makers.

WFAA Dallas, Texas (475.9m-630kc) 6:30-7:30 orchestra; 8:30-9:30, Sears-Roebuck Agricultural Foundation program.

WGBF Evansville, Ind. (236m-1270kc) 7 p. m. radiograph; 7:20, children's program; 7:40, Gospel trio; 8, studio program; 9, orchestra.

WHAD Milwaukee, Wis. (275.1m-1090kc) 6-7 p. m. dance selections; 7, news; 10-11:30, dance music.

WHB Kansas City, Mo. (365.6m-820kc) 7 p. m. Sweeney Radio orchestra.

WHO Des Moines, Iowa (526m-570kc) 7:30-8 p. m. music; 8-9, dance orchestra; 11-12, dance program.

WLS Chicago, Ill. (344.6m-870kc) 5:40 p. m. Al Melgard, organist; 6, supperbell program; 6:40, Maurice Sherman's College Inn orchestra.

WMC Memphis, Tenn. (499.7m-600kc) 8:30 p. m. Melody Makers; 9:30, Movie club.

WQQ Kansas City, Mo. (278m-1080kc) 6:15 p. m. Unity Inn orchestra.

WOS Jefferson City, Mo. (440.9m-680kc) 7:30 p. m. program.

WOW Omaha, Nebr. (526m-570kc) 6 p. m. Joe Bauer and his Highway Gardens orchestra; 6:50, classical; 9, Nash-Finch orchestra.

WRR Dallas, Tex. (245.8m-1220kc) 6 p. m. music; 8, band; 9:30, frolic.

WSB Atlanta, Ga. (428.3m-700kc) 8 p. m. Sears Roebuck program; 10:45, program.

WSMB New Orleans, La. (319m-940kc) 8:30 p. m. dance night; 11:30, Radio varieties.

WSOE Milwaukee, Wis. (245.8m-1220kc) 7 p. m. program; 8, Whozit.

Mountain Time Stations

KOA Denver, Colo. (322.4m-930kc) 8 p. m. Scheuerman's Colorado orchestra; 8:15, studio program.

KOB State College, N. M. (348.6m-860kc) 7:30 p. m. State College orchestra.

Pacific Time Stations

KFI Los Angeles, Calif. (467m-642kc) 7-8 p. m. Owen Fallon's Californians; 8-9, popular program; 9-10, program, Walter M. Murphy Motors Co.; KPO; 10-11, program by Meiklejohn Brothers.

KFWB Hollywood, Calif. (252m-1190kc) 6-7 p. m. Pontiac dinner hour; 7:50, news; 8-9, program; 9-10, program; 10-11, Warner Brothers frolic.

KGO Oakland, Calif. (361.2m-830kc) 6-6:55 p. m. Stanislas Tern's little symphony.

KGW Portland, Ore. (491.5m-810kc) 7:45-8 p. m. talk; 8-9, vaudeville; 9-10, orchestra; 10-12, dance music.

KJR Seattle, Wash. (384.4m-780kc) 6:30 p. m. dinner hour; 8-8:30, program; 8:30-10, program.

KLX Oakland, Calif. (508.2m-590kc) 8-9 p. m. Studio program, Biggly Wiggly company; 9-10, Lake Merritt Ducks.

KMTR Hollywood, Calif. (370.2m-810kc) 8-10, program; 10-12, Palais de Danse.

KNX Hollywood, Calif. (336.9m-890kc) 7:30 p. m. playlet; 8, program; 9, feature; 10, Alexandria hotel orchestra; 11, frolic.

KPO San Francisco, Calif. (428.3m-700kc) 6:30-7 p. m. States Restaurant orchestra; 7-7:30, Rudy Seiger's Fairmont hotel concert orchestra; 8-9, music; 9-10, studio program; 10-11, Mandarin cafe orchestra; 11-12, variety hour.

KWSC Pullman, Wash. (348.6m-860kc) 7:30 p. m. students concert.

Monday, silent night for: CFCA, CKAC, KFDM, KFDY, KGO, KHJ, KLDS, KPSN, KYW, PWX, WBBM, WCBW, WCFL, WEBB, WEBJ, WENR, WFL, WGBF, WGBS, WGES, WGN, WGY, WHAS, WHI, WIBO, WIP, WJAZ, WJJD, WLIB, WLS, WMAQ, WMBB, WOAI, WOC, WOK, WORD, WQJ, WSAI, WSWB.

TUESDAY, JANUARY 18 Headliners

Eastern	Central	Mountain	Pacific
12 m.	11	10	9
WQJ (447.5m-670kc) D. F. Abel, "What is Hypnotism."	5:50	4:50	3:50
WEAF (491.5m-610kc) Ray Porter Miller, coloratura soprano.	6	5	4
WEAF (491.5m-610kc) James E. Phillips.	6:30	5:30	4:30
WFAA (475.9m-630kc) Joe Strother, pianist.	7:30	6:30	5:30
WLW (422.3m-710kc) American composer.	8	7	6
KSO (405.2m-740kc) Mrs. Pauline Peterson.	8:30	7:30	6:30
KSO (405.2m-740kc) Howard Boyden and bunch.	9:30	8:30	7:30
WBAL (245.8m-1220kc) Edward Jendrek, tenor.	9:30	8:30	7:30
WRNY (374m-802kc) "Backstage at the Opera."	10:30	9:30	8:30
WTIC (475.9m-630kc) Alice Chester, violinist.	11:15	10:15	9:15
WSBC (288.3m-1040kc) Sanger travelogue.	12 m.	11	10
WTIC (475.9m-630kc) University glee club.	12 m.	11	10
CNRA (322.4m-930kc) Sunny Brae Rink band.	12 m.	11	10
WOS (440.9m-680kc) Missouri state farmers week.	12 m.	11	10
WCBW (344.6m-870kc) Mandolin and guitar club.	12 m.	11	10
WHB (365.6m-820kc) Glee club.	12 m.	11	10
WHN (361.2m-830kc) Prince Piotti.	12 m.	11	10
WBBM (226m-1330kc) Modern Masters of Music.	12 m.	11	10
WHO (526m-570kc) Prof. Paul Stoye, pianist.	12 m.	11	10
KPRC (299.8m-1000kc) George Parker, whistler.	12 m.	11	10

Eastern 10:15 p. m. CNRR (312.3m-960kc) Verne's Revellers. 10:30 CNRV (291m-1030kc) Children's CNRV train. 11 KFI (467m-642kc) Gattone string quartet. 12 mid. CNRV (291m-1030kc) Feature, Strand theatre. WMCA (340.7m-880kc) McAlpin entertainers.

Central 9:15 Verne's Revellers. 9:30 Children's CNRV train. 10 Gattone string quartet. 11 Feature, Strand theatre. 12 mid. McAlpin entertainers.

Mountain 8:15 Verne's Revellers. 8:30 Children's CNRV train. 9 Gattone string quartet. 10 Feature, Strand theatre. 11 McAlpin entertainers.

Pacific 7:15 Verne's Revellers. 7:30 Children's CNRV train. 8 Gattone string quartet. 9 Feature, Strand theatre. 10 McAlpin entertainers.

TUESDAY, JANUARY 25 Headliners

Eastern	Central	Mountain	Pacific
7 p. m.	6	5	4
WEAF (491.5m-610kc) Irene Peckham, pianist.	7	6	5
WFAA (475.9m-630kc) Southern Methodist University School of Music.	7:15	6:15	5:15
WRNY (374m-802kc) "Sampling in a Pastry Cook's Pantry."	8	7	6
CNRA (322.4m-930kc) Mount Allison ladies' college.	8:15	7:15	6:15
CNRR (312.3m-960kc) Verne's Revellers.	8:30	7:30	6:30
WSBC (288.3m-1040kc) "Touring Ireland."	9	8	7
WTIC (475.9m-630kc) The Travelers symphonist ensemble.	9:30	8:30	7:30
KPRC (299.8m-1000kc) "Sweetheart of the Air."	10	9	8
WHB (365.6m-820kc) West Brothers Hawaiian team.	10:30	9:30	8:30
WBBM (226m-1330kc) Modern Masters of Music.	11	10	9
WHO (526m-570kc) Prof. Paul Stoye, pianist.	11:15	10:15	9:15
KFI (467m-642kc) Azure music club.	12	11	10

Educational Features Tuesday

Eastern	Central	Mountain	Pacific
6 p. m.	5	4	3
WGN (302.8) Spanish lesson.	6:30	5:30	4:30
WNYC (526m-570kc) Elementary Italian lessons.	7	6	5
KVOO (374.8m-800kc) University of Tulsa.	7:30	6:30	5:30
WDAF (365.6m-820kc) School of the Air.	8	7	6
WNYC (526m-570kc) Advanced Italian lessons.	8:30	7:30	6:30
WTIC (475.9m-630kc) Trinity college course.	9:15	8:15	7:15
WEAF (491.5m-610kc) Columbia university.	10	9	8

Eastern 7:30 p. m. KSAC (340.7m-880kc) College of the Air. Sociology. WEEL (348.6m-860kc) Jan. 18, representative of Simmons college; Jan. 25, A. O. Morse, U. of N. H. 7:45 KDKA (309.1m-970kc) U. of Pittsburgh. WEAO (293.9m-1020kc) travel talks. 8:30 WOS (440.9m-680kc) "The New Generation—Its Demands," Mr. Paulsen. 9:10 WMAQ (447.5m-670kc) University of Chicago. WJZ (454.3m-660kc) WGY (379.5m-790kc) Cook's tours. 9:30 KPFM (336.9m-890kc) Jan. 18, National Defenses against Bacteria; Jan. 25, Toxins and Antitoxins.

Regular Tuesday Features Eastern Time Stations

CKAC Montreal, Que., Can. (410.7m-730kc) 7:15 p. m. dinner concert; 8:15, hop; 9:30, bridge; 10:30, dance program.

KDKA Pittsburgh, Pa. (309.1m-970kc) 8 p. m. sacred song concert; 8:45, gems from American literature; 9, musicale; 11:35, Grand theater.

PWX Havana, Cuba (399.8m-750kc) 8:30-11:30 p. m. program.

WBAL Baltimore, Md. (246m-1220kc) 6:30-7:30 p. m. dinner orchestra; 7:30-8, quartet; 8-9, trio; 9-9:30, Jubilee singers; 9:30-10, violin and piano recital; Michael Weiner, violinist; LeRoy Evans, pianist; 10-11, Municipal band of Baltimore; 11-12, dance orchestra.

WBBR New York, N. Y. (416.4m-720kc) 8 p. m. program.

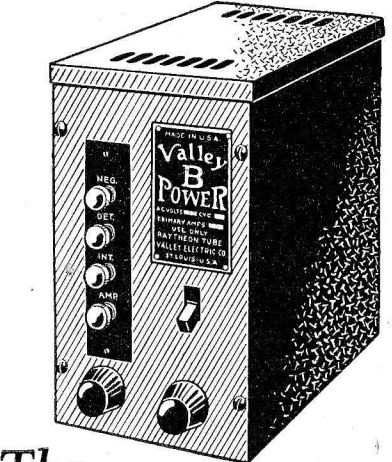
WBZ Springfield, Mass. (333.1m-900kc) 7 p. m. organ; 7:30, features; 10:20, orchestra.

WCAE Pittsburgh, Pa. (461.3m-650kc) 6 p. m. dinner concert; 7:45, talks; 8, WEAF; 8:30, feature; 9, WEAF; 10, bridge; 10:30-11, orchestras.

WCAU Philadelphia, Pa. (277.6m-1080kc) 7:30 p. m. Snellenburg instrumental trio; 8:15, Gurnee Buttermaker; 8:30, recital; 9, Montbard Follies; 9:30, Robert Fraser, blind gospel singer; 10, Prof. Doolittle; 10:35, Chapman Elgart Syncopators; 10:15, tenor; 10:30, Cathay dance orchestra.

WCX Detroit, Mich. (516.9m-580kc) 6-7 p. m. dinner program, Goldkette ensemble; 10, Red Apple club.

WDBO Winter Park, Fla. (239.9m-1250kc) 8, program.



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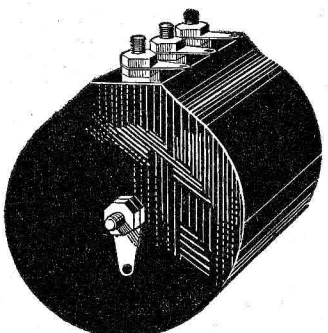


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CHICAGO

WEAF New York, N. Y. (491.5m-610kc) 6 p. m. dinner music; 7, headline; 7:10, talk, Columbia University; 7:30, Great Moments in History; 8, The Vikings, WEEL, WFL, WCAE, WWJ, WGR, WTAM, WSAL, WJAR, WTAG, WOC, WCCO, WCSH, KSD; 8:30, Jolly Buckeye Bakers, WEAF, WTAG, WFL, WTAM, WWJ, WSAL, KSD, WLBB, WCCO; 9, Eveready hour, WEAF, WEEL, WFL, WTAG, WJAR, WGR, WCAE, WTAM, WWJ, WSAL, WOC, WCCO, KSD, WRC; 10, auction bridge instruction, WEAF, WEEL, WCSH, WTAG, WJAR, WGR, WCAE, WTAM, WFL, WWJ, WSAL, WGN, WOC, WCCO, KSD; 10:30, orchestra, WFL, WWJ, WCAE, WGR, WTAM, WCSH; 11:30, orchestra.

quartet; 8:30, organ; 11, Wadsworth's Carlton Terrace orchestra. WPG Atlantic City, N. J. (299.8m-1000kc) 7:15 p. m. organ recital, Arthur Brook; 7:30, Hotel Morton dinner music; 8:05, Hotel Shelburne dinner music; 8:30, concert; 9, Dual concert trio; 10, bridge; 10:30, studio program; 11, dance orchestra; 11:30, orchestra. WRC Washington, D. C. (468.5m-640kc) 7 p. m. Raleigh hotel orchestra; 8:30, WEAF; 9, WEAF; 10, WEAF; 10:30-11:30, Meyer Davis' Swanee Synchopators. WSAI Cincinnati, Ohio (325.9m-920kc) 6 p. m. quartet; 7, quartet; 8, WEAF; 9-12, WEAF; 12, dance orchestra. WSOE Milwaukee, Wis. (245.8m-1220kc) 8 p. m. talk; 8:15, popular program; 9, Whozit. WTAG Worcester, Mass. (545.1m-550kc) 8-10:30 p. m. WEAF.

WGBF Evansville, Ind. (236.1m-1270kc) 8 p. m. musical program; 9, classic hour. WGN Chicago, Ill. (302.8m-990kc) 6:35 p. m. dinner concert, Drake concert ensemble; 8-9, WEAF; 9, Auction Bridge game; 9:30-10, WGN male quartet; 10, Sam 'n' Henry; 10:10, The Music Box; 10:20, musical program; 10:40-11, songs, Correll and Gosden. WHAD Milwaukee, Wis. (275.1m-1090kc) 6 p. m. dinner hour, orchestra selections; 8:30, theater review. WHAS Louisville, Ky. (399.8m-750kc) 7:30-9 p. m. concert. WHB Kansas City, Mo. (365.6m-820kc) 7-7:30 p. m. organ concert; 7:30-8, Hawaiian team; 8, program; 9-10, concert. WHO Des Moines, Ia. (526m-570kc) 7:30-8:30 p. m. 14th Cavalry band; 8:30-9, Paul Stoye, pianist; 11-12, dance program. WHT Chicago, Ill. (399.8m-750kc) 6 p. m. Al Carney, organist, Bob York, Julie Juliens; 7:45 (238m-1250kc), Stuart Dawson, songs; 9:30 (399.8m-750kc), quartet; 10:30, variety program; 11, Al and Pat. WJAZ Chicago, Ill. (329.5m-910kc) 6:30-8 p. m. Shoreland hotel; 8-8:30, highlights; 8:30-9, Realty program; 9-12, diversified program. WJJD Mooseheart, Ill. (370.2m-810kc) 8-9 p. m. child artists; 11-1, Palmer House Victorians. WLIB Chicago, Ill. (302.8m-990kc) 7-7:30 p. m. dinner concert; 7:30-8, WEAF; 11-12:15, Ruth Farley, organist; dance orchestra; songs. WLS Chicago, Ill. (344.6m-870kc) 6 p. m. Supperbell; 6:40, Maurie Sherman's College Inn orchestra; 6:55, Tony's scrap book; 7, May and June; 10:30-12, organ; Maurie Sherman's College Inn orchestra; Jack Chapman's orchestra. WMAQ Chicago, Ill. (447.5m-670kc) 6 p. m. organ; 6:30, orchestra; 8:10, U. of C. lecture; 8:45, radio-graph; 9, talk; 9:15, musical. WMC Memphis, Tenn. (499.7m-600kc) 8:30 p. m. program; 11, midnight frolic. WOAI San Antonio, Tex. (394.5m-760kc) 8:30-9:30 p. m. Gebhardt Mexican players. WOC Davenport, Iowa (483.6m-620kc) 7-7:30 p. m. WEAF; 7:30-8, musical; 8-9, WEAF; 9-9:30, 9:30-10:30, lecture; 11-12, dance music. WMBB Chicago, Ill. (250m-1200kc) 7-8 p. m. ensemble; 8-8:30, recital; 8:30-11, frolic. WOQ Kansas City, Mo. (278m-1080kc) 8-9:30 p. m. devotional music.

Central Time Stations

KFAB Lincoln, Nebr. (340.7m-880kc) 5:30-6:30 p. m. musical; 8:05-10:30, University of Nebraska. KFDM Beaumont, Texas (315.6m-950kc) orchestra. KFNN Shenandoah, Ia. (461.3m-650kc) 7 p. m. program. KLDS, Independence, Mo. (440.9m-680kc) 8 p. m. studio program. KMA Shenandoah, Ia. (461.3m-650kc) 9-11 p. m. May's Mandolin Musicians. KMC St. Louis, Mo. (280.2m-1070kc) 6 p. m. dinner music; 7, program; 8, quartet; 9, soloist; 9:30, soloists; 10-15, orchestra; 12-1, frolic. KOIL Council Bluffs, Iowa (305.5m-960kc) 6 p. m. Warner Brothers' program; 7, studio program; 7:30, program; 8, program; 11, spark plugs. KPRC Houston, Tex. (299.8m-1000kc) 7:30 p. m. concert; 9, bridge; 9:30, concert. KTHS Hot Springs, Ark. (374.8m-800kc) 9-11 p. m. musical. KVOO Bristow, Okla. (374.8m-800kc) 7-8 p. m. KVOO orchestra; 8-8:30, mixed quartet; 8:30-9, Dinah; 12, Rough and Ready. KYW Chicago, Ill. (535.4m-560kc) 6:30 p. m. Joska DeBarby and his orchestra; Johnny Hamp and his orchestra; 7, Family hour; 8, American Farm Bureau federation; 9-10:30, classical concert; 10:30-12, carnival. WBAP Fort Worth, Tex. (475.9m-630kc) 7:30-8:30 p. m. musical; 9:30-11, musical. WBBM Chicago, Ill. (226m-1330kc) 8 p. m. Coon-Sanders Night Hawks; 9-11, staff artists, orchestra; 11, supper club. WCBZ Zion, Ill. (344.6m-870kc) 8 p. m. classical program. WCCO Minneapolis-St. Paul, Minn. (416.4m-720kc) 7-9:30 p. m. WEAF; 9:30, musical comedy, Garrett's Chocolate Soldiers; 10:05, Izaak Walton League. WCFL Chicago, Ill. (491.5m-610kc) 6 p. m. talks; 7, Brevort trio; 8, Spinning Wheel hour; 10, Alamo orchestra; 11-12, entertainers. WDAF Kansas City, Mo. (365.6m-820kc) 6-7 p. m. school of the air; 11:45-1, Nighthawk frolic. WEBH Chicago, Ill. (370.2m-810kc) 7 p. m. classical hour; 9-11, Balaban and Katz Uptown theater musical hits. WENR Chicago, Ill. (266m-1130kc) 6-7 p. m. organ; 8-9, trio; 9:10, frolic. WFAA Dallas, Texas (475.9m-630kc) 6:30-7:30 p. m. musical; 8:30-9:30, bridge game, selections; 11-12, orchestra.

At WGN SANGAMO Mica Condensers Prevent Shifting of Frequency Bands



BECAUSE the Sangamo Condenser is solidly molded in bakelite, mechanical movement of dielectric or plates is impossible. This is one important factor in the permanent accuracy of the Sangamo.

No one has greater need for condenser accuracy than a great broadcasting station like WGN. Read Mr. Leverett's comment:

"Last June I used Sangamo Mica Condensers in a multiple band pass filter. This has been in use for some time, and has given the best of results, showing no shifting of the frequency band. This permanency I believe is due entirely to the consistency of these condensers, there being no apparent change in capacity nor leakage across them. I cheerfully recommend them wherever a constant capacity is required. (Signed) Geo. H. Leverett, Asst. Engineer Station WGN Chicago

Everybody said it couldn't be done—but here it is. A real, long distance radio which will operate a loud speaker to retail for only \$25.00. Plenty of volume and satisfactory tone.

ONE DIAL CONTROL Just one dial to operate—so simple a child can tune it. All the latest modern improvements, operates on three ordinary dry cells—well made parts test of workmanship. Will equal results of many high priced radios.

AGENTS WANTED Sell what the public wants—a good radio, attractive in appearance, built to bring in long distance, selective, with a pleasing tone, and yet at a price within the reach of all.

BIG COMMISSIONS Even at the low retail price of \$25.00 without accessories our commission to salesmen is large—you can easily make \$50.00 to \$100.00 a week. A demonstration in a prospect's home means a sure sale—the results will do all the selling.

SELL IN SPARE TIME The time to sell radio is in the evening. You can give it your spare time and not interfere with your present employment. Increase your income—pleasant work, no experience in selling or radio necessary—we teach you.

FREE 100 Page Book Send for your copy today—fully describes a proven plan of selling which has been thoroughly tried for five years. Also shows full line of radios from \$25.00 to \$235.00. Read what others are doing—you can do the same.

Form for requesting a 100 page book, including fields for name and address.

Sangamo Condenser Blocks

American-made condensers, wound under uniform tension to eliminate air or ozone bubbles that cause breakdowns.

Handy sizes: 12 mfd. tapped 8, 2, 2 mfd. 14 mfd. tapped 8, 2, 2, 1, 1 mfd. 14 mfd. tapped 4 (high voltage), 4, 2, 1, 1, 1, 1 mfd.

Also separate condensers; special capacity blocks to order.

Sangamo Electric Company Springfield, Illinois

6332-11

RADIO DIVISION 50 Church Street, New York

SALES OFFICES—PRINCIPAL CITIES



Steinite NOISE ELIMINATOR IMPROVES RADIO RECEPTION—BETTER TONE—STOPS DISTORTION

New Steinite Invention guarantees to stop the noises within your set. Nearly all annoyance you lay to static comes from noises created within the set, or from stations interfering. Steinite Noise Eliminators delight you with the new performance of your radio. Tone quality is improved beyond your expectation, or we will refund immediately every cent of your money. Hundreds of thousands of users have cut out undesirable stations with the Steinite Interference Eliminator and will welcome this new Steinite invention. Let this new improvement cause you to marvel at the performance of your set—make the simple test at once at our risk.

Eliminates Noises Within the Set \$1.00 For Set of 5 Postpaid Gives Longer Life To Tubes With 4 Cabinet Supports Stops mechanical vibration; prevents microphonic feed back; gives extra added life to the tubes—worth several times the price because of this saving alone. Slip them over the tubes and tune in your favorite station and detect immediately the improvement they make. They will give the true tone and sweetness you appreciate in musical instruments and voice. 10-Day Free Trial Money-Back Guarantee We welcome this simple test at our risk and guarantee that performance of your set will convince you. Fit any tubes—no tools of any kind needed. Send Orders Today for set of 5 Steinite Noise Eliminators with 4 cabinet supports (dollar bill will do). If you only need two or three Noise Eliminators, price is 25 cents each. Two Big Atchison Banks guarantee our reliability. Rush your order. We guarantee prompt shipment. ORDER TODAY

The New Steinite 7-Tube Radio uses no batteries of any kind—only \$125. Loud Speaker Built In. Complete with tubes \$150—nothing to buy. Operates from light socket 1c an hour. Write for descriptive literature before buying an expensive Battery Set. Steinite Long Distance Crystal Set \$6; 6-Tube Battery Set \$45; Aerial Eliminator \$1; Interference Eliminator \$1; Crystals 50 cents each, 3 for \$1.

STEINITE LABORATORIES, 60 Radio Bldg., ATCHISON, KANSAS

Patented SUBANTENNA! THE AMAZING, NEW UNDERGROUND ANTENNA SYSTEM Eliminates All Interference INCREASES DISTANCE—KILLS STATIC SUBANTENNA positively makes every night a good radio night. No matter what the season, the condition, or the weather, you get clean, clear reception, free of the annoying crackles that make distant reception an impossibility with a regular antenna. DISTANT MUSIC CLEAR AS LOCAL No longer need static, air noises, arc lamps, leaky power lines, street car trolleys and other disturbances spoil your radio enjoyment. For SUBANTENNA—The new underground pickup system gets nothing but the pure radio waves. USE FILTERED GROUND WAVES NOT NOISY AIR WAVES Being buried in the ground and shielded, SUBANTENNA is sensitive only to the continuous broadcast wave. Intermittent impulses such as static, etc., are filtered out before they reach SUBANTENNA. Hence, you get greater distance because the radio signal is not held back by the interfering noise level. Cloverleaf Mfg. Co. 2716-S South Canal St., CHICAGO

Eastern 10:30 p. m. Central 9:30 Mountain 8:30 Pacific 7:30

WKH Cleveland, Ohio (272.6m-1100kc) 6 p. m. orchestra; 10, sacred hour.

KPRC Houston, Texas (299.8m-1000kc) 8 p. m. evening program; 9, band.

WIBO Chicago, Ill. (225.4m-1330kc) 6-8 p. m. dinner concert; 12-2, Aragon minstrels.

Educational Features

Eastern 8:30 Central 7:30 Mountain 6:30 Pacific 5:30

WJZ New York, N. Y. (454.3m-660kc) Tentative program only; 7 p. m. Hotel Pennsylvania dinner orchestra; 8, First National presentation, WRC; 9, Royal hour of music, WRC, WGY, WBZ will also broadcast; 10, program; 10:30, Jock Denny's Frivolity club orchestra, WBZ.

WBBM Chicago, Ill. (226m-1330kc) 8 p. m. Coon-Sanders Night Hawks; 9-11, orchestra, piano; 11, Coon-Sanders Night Hawks.

WMAQ Chicago, Ill. (447.5m-670kc) 6 p. m. Chicago theater organ; 6:30, Gus Edwards' orchestra; 7, orchestra; 8, program; 8:05, U. of Chicago; 8:30, trio; 9, players.

Regular Thursday Features

CFCA Toronto, Can. (356.9m-840kc) 8:15 p. m. musical program, Luigi Romanelli and his orchestra.

WJZ New York, N. Y. (454.3m-660kc) 7 p. m. orchestra; 7:30, Grel-Meister's Hungarian orchestra; 9, Solo soloists; 9:30, Nutty half hour; 11, Ernie Golden and his Hotel McAlpin orchestra; 12, Broadway Nite.

WJZ New York, N. Y. (454.3m-660kc) 7 p. m. orchestra; 7:30, Grel-Meister's Hungarian orchestra; 9, Solo soloists; 9:30, Nutty half hour; 11, Ernie Golden and his Hotel McAlpin orchestra; 12, Broadway Nite.

WJZ New York, N. Y. (454.3m-660kc) 7 p. m. orchestra; 7:30, Grel-Meister's Hungarian orchestra; 9, Solo soloists; 9:30, Nutty half hour; 11, Ernie Golden and his Hotel McAlpin orchestra; 12, Broadway Nite.

Central Time Stations

CKY Winnipeg, Can. (384.4m-780kc) 8:30-9 p. m. studio program; 9-10, J. A. Banfield company's concert.

CKY Winnipeg, Can. (384.4m-780kc) 8:30-9 p. m. studio program; 9-10, J. A. Banfield company's concert.

CKY Winnipeg, Can. (384.4m-780kc) 8:30-9 p. m. studio program; 9-10, J. A. Banfield company's concert.

They Laughed When I Sat Down At the Piano But When I Started to Play!



"CAN he really play?" I heard a girl whisper to Arthur, as I sat down at the piano.

A Complete Triumph!

As the last notes of the Liebestraume died away, the room resounded with a sudden roar of applause.

Free Demonstration Lesson

Thousands of successful students never dreamed they possessed musical ability until it was revealed to them by a remarkable "Musical Ability Test" which we send entirely without cost with our interesting free booklet and Demonstration Lesson.

Pick Your Course Piano Harmony and Organ Composition Violin Sight Singing Drums and Ukulele Traps Hawaiian Cello Steel Guitar Guitar Banjo (Tenor, Harp, Pectrum or Mandolin Clarinet 5-String) Flute Piccolo Saxophone Trombone Voice and Speech Culture Automatic Finger Control Piano Accordion

U. S. School of Music 1831 Brunswick Bldg., New York City Please send me your free book, "Music Lessons in Your Own Home," with introduction by Dr. Frank Crane, Demonstration Lesson and particulars of your Special Offer. I am interested in the following course: Have you above instrument? Name Address City State

Better Reception Majestic "B" Current Supply delivers pure direct current from your light socket. Includes images of radio sets and text describing features like Capacity seven tubes or six plus 1 power tube, 45 milliamperes at 135 volts.

Out of CHAOS in the AIR Make Music in your EAR! Hang it anywhere! Greater Selectivity! Better Tone! Less Static! Use Indoors or Outdoors! Includes image of a man's face and text describing the Effarsee Antennae.

Pacific Time Stations

KFI Los Angeles, Calif. (467m-642kc) 7-8 p. m. program by students of U. S. C.; 8-9, KFI drama hour; 9-10, varied hour; 10-11, Johnston and Farrell's music box revue.

Table with 4 columns: Eastern, Central, Mountain, Pacific. Lists station call letters and frequencies for various time slots.

Educational Features Friday

Table with 4 columns: Eastern, Central, Mountain, Pacific. Lists educational programs like 'Elementary French lesson', 'School of the Air', etc.

Regular Friday Features

Table with 4 columns: Eastern, Central, Mountain, Pacific. Lists regular Friday features like 'Pittsburgh', 'Baltimore', 'Springfield', etc.

FRIDAY, JANUARY 21

Headliners

Table with 4 columns: Eastern, Central, Mountain, Pacific. Lists headliner programs for Friday, January 21.

FRIDAY, JANUARY 28

Headliners

Table with 4 columns: Eastern, Central, Mountain, Pacific. Lists headliner programs for Friday, January 28.

WTAM, WWJ, KSD, WOC; 10, Whittall Anglo-Persians, WRC, WIAR, WTAM, KSD, WWJ, WCCO, WDAF, WGR, WGN, WEEL, WTAG, WCAE, WOC, WLIT; 10:30, orchestra; 11:30, orchestra.

Santa Clause; 7:30, Hotel Commodore dinner orchestra; 8, Sundial Shoe Serenades & Bonnie Laddies; 9, Breyer Ice Cream hour, WRC will also broadcast; 10, Baldwin piano hour, WGY; 11, Paul Specht's Twin Oaks orchestra.

Televocal QUALITY TUBES

Dependable and a Technical Triumph



A RADIO TUBE that is non-microphonic — won't short. Sold in matched units; tested, balanced and plainly marked detector, radio frequency or audio frequency.

Ask your dealer for this new and better radio tube that costs no more. If he can't supply you with Televocals, send us his name and address on attached coupon.

DEALERS AND JOBBERS—WRITE US

Televocal Corp'n. 67 A FIFTH AVE. — NEW YORK

Form for requesting a tube: Dealer's Name, City, State, Your Name.

The Radio Listener's Red-Book

Helps "Tune In" Stations Never Before Received

Scientifically arranged—miles ahead of a mere log. Amazing results—quick dial setting for every station in the country.

3-Way Listing—Quick Cross Index

The "Radio Doctor" section gives trouble information and remedies. Increases your satisfaction in your set 100 per cent.

If your dealer can't supply you, a copy will be mailed postpaid on receipt of 25c

ANDREWS RADIO DIRECTORY AND LOG-BOOK Ft. Wayne, Ind., P. O. Box 158-H



DEALERS This is the big seller 50 or less 40% (15c each) 100 or more 44% (14c each) Special Quantity Prices

More than an ordinary log

STOPS

RADIO INTERFERENCE ON YOUR SET. SIMPLE AND EASY TO OPERATE

NO TOOLS REQUIRED TO INSTALL. SIMPLY ATTACH YOUR AERIAL LEAD IN TO ONE OF THE LEADS ON THE LIMITATOR AND RUN THE REMAINING LEAD TO YOUR ANT. POST ON YOUR SET.

This is a new interference eliminator that limits the interfering stations from spreading all over your tuning dials. It keeps them separated from interfering with each other, helps to bring out some stations stronger.

"KING LIMITATOR"

BEST EVER OFFERED FOR ONLY ONE DOLLAR

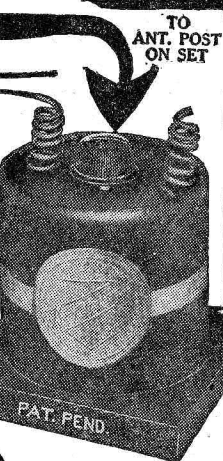
MONEY BACK IF NOT SATISFIED WITH RESULTS.

ARLINGTON RADIO MFG. CO. BOX 42 FIRESTONE PK. STA. AKRON, OHIO

PIN YOUR DOLLAR TO THIS AD.

Name Address

MAKE OF SET?



Postpaid ORDER AT ONCE

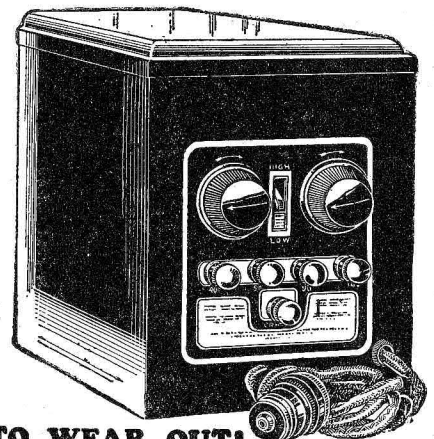
Genuine "B" Battery Eliminator

Using Famous Q.R.S.

Full Wave No Filament Rectifier Tube

Capacity 85 mills: Operates 1 to 15 tube sets up to 220 volts \$22.95

While the regular market price of the Genuine is around \$50.00, our factory-to-you price is only \$22.95.

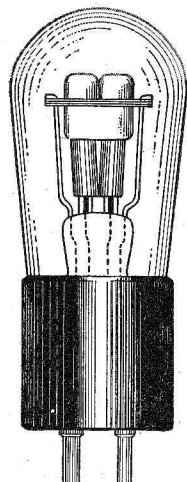


NOTHING TO WEAR OUT!

Contains no materials or parts which are subject to wear. Employs the use of the famous Q.R.S. Full Wave Tube, to rectify the current.

POSITIVELY THE GREATEST VALUE IN "B" ELIMINATORS

Materials used in the Genuine "B" Eliminator are the finest unit parts; the case a Brewster Green Duco finish; the metal fittings of polished nickel; and the genuine Q.R.S. Full Wave Rectifier Tube.



This \$6.00 Q.R.S. Rectifier Tube Free With Every Eliminator

Belmont Scientific Laboratories 1303 Wilson Ave. Dept. Q Chicago, Ill.

Belmont Scientific Laboratories, 1303 Wilson Ave., Dept. Q, Chicago, Ill.

Send me Genuine "B" Eliminator. (Include Q.R.S. No Filament Tube Free) I enclose check for \$22.95 herewith. Send C. O. D. I will pay \$22.95 and charges.

Form for ordering: Name, Street and No., R. F. D., Box, City, State.

WTAM Cleveland, Ohio (389.4m-770kc) 6 p. m. Emerson Gill's orchestra; 7, talk, Arthur Haas; 7:30, studio program; 9:30, WEAF; 10, WEAF; 10:30, studio program; 11, Jade Room orchestra.

Central Time Stations

KFAB Lincoln, Nebr. (340.7m-880kc) 8:30-10:30 p. m. entertainment. KFDM Beaumont, Texas (315.6m-950kc) band. KMA Shenandoah, Iowa (461.3m-650kc) 9-11 p. m. Dreamers.

1927 DELUXE: THE FINEST SUPER

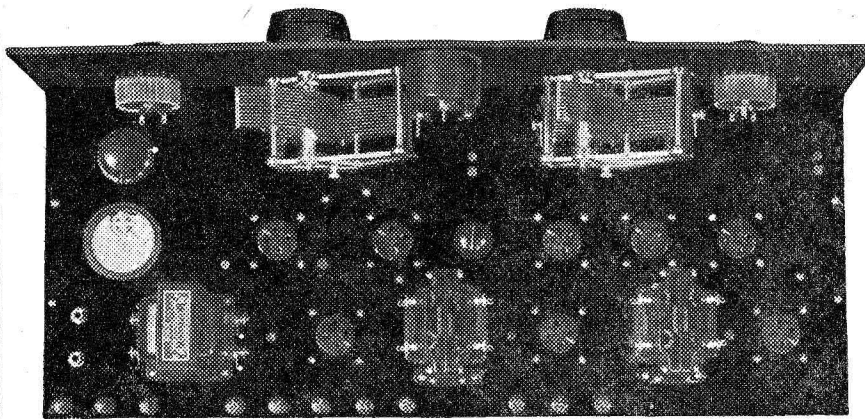


Figure 3—Top View of Assembled Receiver, Showing All Parts in Place

deluxe receiver we will use the 0-8 volt-meter and 0-25 milliammeter. This range milliammeter is recommended as most builders will put a 371 power tube in the last stage and, when checking distortion with this meter, it must carry the load of the 371.

Frost Parts of Quality

Just how the Frost organization does it is not known to me, but they turn out astonishingly good apparatus at most fair prices. Their Bakelite frame rheostats and potentiometers are both well designed and plainly carefully made.

Now right there I'm going to get a lot of argument as to why have a volume control on a super which has a potentiometer. As a rule one controls volume with the latter instrument.

WSB Atlanta, Ga. (428.3m-700kc) 8 p. m. concert; 10:45, concert. WSB Chicago, Ill. (288.3m-1040kc) 6:30-7 p. m. dinner program; 9-1, entertainers.

Mountain Time Stations

KOA Denver, Colo. (322.4m-920kc) 8 p. m. KOA orchestra; 8:15, studio program.

Pacific Time Stations

KFI Los Angeles, Calif. (467m-842kc) 7-8 p. m. popular program; 8-9, program; 9-10, semi-classical hour; 10-11, Packard ballad hour.

checkers" with the parts to secure a super-heterodyne layout that gives symmetry on the front panel without loss of efficiency.

When moving parts around on the drawing board in designing this receiver, it was at once apparent that everything could not stay on top of the sub base unless a straight eight arrangement were used and, since that was not what I wanted, considerable thought was immediately put on the subject of what could be put underneath.

From then on the problem was comparatively simple since the second detector and audio amplification went across the back, the intermediate amplification went in at the left end and the first detector and oscillator dropped into the center where wanted.

Oscillator Control

It has been my experience that an oscillator should have at least one variable feature; that is, either the grid bias, plate voltage or filament brilliancy should be under control.

An output transformer is essential in these days of high B voltages and cone speakers so it is placed at the right end where its input terminals are adjacent to the P terminal of the last tube socket.

music and background noises are balanced in favor of the former, and I hate to disturb the potentiometer. That is the chief and, I believe, satisfactory, reason for using a 500,000-ohm resistance across the first Ferranti.

The object in the two Frost push-pull switches will be apparent later.

Dependable Sangamo Condensers

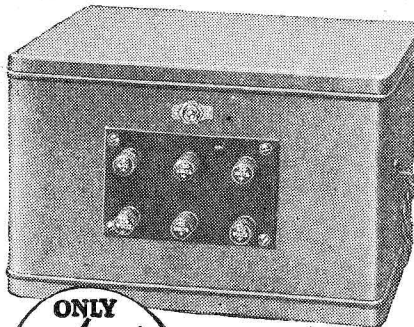
While only two small fixed condensers are used in my design they are both in important points where it is essential that they do not vary.

Getting into the large by-pass sizes, we will also use Sangamo because not only my own experience, but that of many of my engineer friends, shows that they do not break down and their claims for a special winding operation must be well founded.

Getting Down to Layout

It requires quite a bit of "playing

Warren "B" Supply



150 Volts

ONLY \$24.75 COMPLETE

Here is the "B" Eliminator you've been waiting for

Just think, \$24.75 puts an end to your "B" Battery troubles. The Warren 150-Volt Outfit does the work of others costing twice as much.

WARREN "B" Eliminator

Enclose your check for \$24.75 with order and we'll pay the express charges to your address—or—we'll ship C.O.D. and you pay the express costs.

Note these points

- 1. 150, 90, 67½, 45 and 22½-volt taps give correct voltage with no variable trouble some resistance. Full wave rectification. Delivers 150 volts at 50 milliamperes—the most efficient type of Eliminator ever built.

Warren Electric Co. Dept. R.D. Peoria, Ill.



Steinite AERIELIMINATOR

Eliminates Outside Aerial

New principle does away with the troublesome outside antenna. Better, clearer reception, especially for summertime. Reduces static and outside noises. Improves reception of any tube or crystal set.

\$1 Postpaid 10-Day Free Trial Anywhere Money-Back Guarantee

No More Outside Aerial, Once You Install It

No more corrosion from the weather. Free from nearness of neighboring aeriels and breakdowns that stop reception. No tools needed, no extra ground or tube—takes the place of your present aerial.

STEINITE LABORATORIES, 40 Radio Bldg., ATCHISON, KANSAS



Attaches to light socket—uses no current. Make comparison now with your present aerial at my risk.

The New Steinite 7-Tube Radio uses no batteries of any kind—only \$12.50. Loud Speaker Built in. Complete with tubes \$151 with nothing to buy. Operates from light socket in an hour. Write for descriptive literature before buying an expensive Battery Set.

“GOODY GOODY” GIRL

(Continued from page 8)

She noted that he locked it, too, before he came and stood beside the creaking rocker in which she had seated herself. "Herbie Coles, I saw you smash that window down the street," she said. He started, then he shrugged and laughed shortly. "You didn't see me a moment ago, wolfing down that bit of food I stole."

"What's brought you to such a pass—a place like this, starvation? I thought Victor Jermin—"

"Jermin washed his hands of me, for bungling that night the copper got you. Seems like I bungle everything. I've had a job or two since then. Lost them all. I'm no good. I can't do anything right. I was never taught to do anything. For the last two days I've had nothing to eat. Tonight I was desperate and—now I am a thief."

SHE started to open her purse. "I've only a few dollars between me and the streets, too. But I can spare—"

"No." He spoke sharply. "I haven't gotten that low yet. I may be an addle-pated incompetent, as one of my temporary bosses informed me in no uncertain terms; I may be a cad, as you are in position to testify; I may be starving and tomorrow, when my rent's up, I'll be thrown out of even this hole, but—I can't take your money. I—"

He broke off as steps sounded in the hallway. Then there was a knock upon the door. He stood biting his lips, his eyes darting from side to side as a trapped animal's eyes might dart, seeking a way of escape.

"It's the police, no doubt, looking for me," he whispered. "Come. You mustn't be found here or they'll take you, too."

He whipped off the soiled coverlet from the bed, snatched the sheet that lay beneath it, knotted their ends together and beckoned her to the window.

"Hang on to this—tight," he said, thrusting one end of the improvised rope into her hands. "Let yourself over the edge slowly, carefully. I'll play out the thing and let you down gradually. Once you're on the ground—run like hell."

The knocking upon the door was resumed. "Hurry," said Herbie and gave her a little push. "They'll probably batter the door in next. I'll answer them now, so they won't send someone around to watch under here." He faced the door. "Hello. I'll be there in just a minute," he called.

Then he turned back to the window and helped her over the edge. "All right?" he asked.

"Yes," she gasped and felt herself being lowered away.

Then there was a sharp jerk upon the improvised rope, she glanced fearfully upward to see the knot that held sheet and

coverlet together come apart, caught a glimpse of Herbie Coles' horrified face in the window, felt herself falling, landed with a thud and unconsciousness blotted out everything.

Lois came to, she did not know how much later, to find herself in a cool, white bed, with a plainly recognizable nurse and a bewhiskered individual standing beside her.

"I'm in a hospital?" she asked faintly. "Yes," the nurse replied, "and this is the doctor."

"Am I hurt badly?"

"Oh, no." It was the doctor who spoke now. "Your leg's broken, that's all. You'll be out again in two or three weeks."

He turned to the nurse. "Give her a hypodermic and let her go to sleep," he ordered and started out of the room. Beyond the door she heard him speaking again: "She's alright now. Conscious and not in any pain. No, you can't see her. Tomorrow, perhaps, but not tonight."

In the next and final chapter you will see what destiny brings to the Goody Goody Girl of Paradise. Will she marry, and whom?

PEOPLE VOICE OPINIONS

(Continued from page 3)

sympathy with the letters, else it would not publish them, began to write in praising one or both stations highly. Other readers, favoring the criticisms, sent in new complaints against Shenandoah.

To bring the discussion to a head, Radio Digest, without taking sides, is herewith presenting excerpts from many of the best letters on the Shenandoah issue. Needless to say, the arguments could probably go on forever without coming to a conclusion.

For KFNF, KMA and KTNT "Please do not send me any more of your literature as I would not subscribe for the Radio Digest under any consideration. The majority of the American public are not in sympathy with your ideas and your way of writing of such fine stations as KFNF and KMA. KTNT is a fine station and the owner, Norman Baker, a wonderful speaker and one who is doing a great deal for the Americans who love their country."—B. K. M., Webster, Ia.

"Leave KMA on the same wave length, 461. If you do anything, change some of those Chicago stations. They give us more interference than any other stations on the air."—R. W., Arnold, Kans.

"The 'Brickbat for Shenandoah' almost makes me laugh. J. P. must have a Radio

very poor in selectivity, as KFNF and KMA are very easily tuned out with my machine. . . . Listen to some of these Shenandoah talks, Brother, and it will do you good. If you can't tune them out, shorten your aerial or fix your machine."—C. P. D., St. Paul, Minn.

"KFNF Sells to Unsuspecting Farmers"

"KFNF, Shenandoah, persists in using the air from seven a. m. until midnight (dividing time with KMA) on a prominent wave, selling dress goods, shoes, batteries, automobile tires and clover seed to unsuspecting farmers who hear his prayers, then remit their checks for merchandise to him, forgetting all about their local retail establishments who have millions invested and often carry the farmer on credit. These farmers could often do better by reading their mail order catalogues."—A. B. L., Council Bluffs, Ia.

"As regards the two Shenandoah stations, the trouble is mostly their long schedules of nothing but 'hot air.' We appreciate your efforts in behalf of better things."—E. O., Parkersburg, Ia.

"KMA and KTNT interfere seriously with WJZ, New York, and the two stations should certainly be put on a different wave length."—R. J., Kansas City, Mo.

"Neutral" Letter to Henry Field

The following is excerpted from a letter from Dalhart, Texas, to Mr. Field, a copy of which was sent Radio Digest for publication:

"I admire your stand on prohibition . . . enjoy your religious services . . . but deplore the fact that you jumped from the wave length originally assigned you to one which causes serious interference down here (Dalhart, Texas) with KFI, Los Angeles, which was on the air long before your station was put into service. KFI has consistently furnished splendid programs ever since it started. . . . I also deplore the language used by some of your critics in a recent issue of Radio Digest, and a copy of this letter is going to Radio Digest as a protest against that method of criticism. . . . I do not believe you had the moral right to leave your originally assigned wave length when by so doing, you impaired the splendid service being rendered by broadcasting stations that were on the air before you

were . . . You referred to your critics as a 'small but noisy minority' in your remarks this morning, and I hope this is true of those who are guilty of offensive criticism; but I am sure that the majority of listeners who are bothered by interference from your station, sincerely feel that you made a mistake when you changed to your present wave length."—A. C. J., Dalhart, Texas.

For Shenandoah, but Against Selling

"I think the Shenandoah stations send out very good programs, just as good as WJZ. My complaint is that WJZ is messing up KFNF and KMA. . . . I do not think that it is a good policy, however, to advertise directly over the Radio, as music and songs are more enjoyed than the price of tires, Radios, seeds, plants etc."—A. E. A., Fullerton, N. D.

"Those who listen to KMA and KFNF help feed the world. Some of those stiff necks who haven't energy to feed themselves, let them have their highbrow stuff after the backbone of our country has gone to bed."—C. H. W., Fulton, Ark.

"We like the Henry Field station and KMA best of all the stations on the air. We don't get much interference only at (Continued on page 30)

Write For Hampton Wright's Radio Economy Catalog Set Builders Will Find a New Radio Delight Awaiting Them This important book lists thousands of efficient items of known worth that will be a keen delight to every radio fan. To be without this book is to not have a great aid in radio set building. SPECIFY CATALOG NO. C8 Hampton Wright P. O. Box 181 Indianapolis, Ind.

30 Days FREE TRIAL New One Dial Radio NOW! Westingale offers the last word in Radio. One Dial control—lowest factory prices—30 Days' Trial—Money Back Guarantee. Why not have the NEWEST Radio? Why pay high prices? Why take chances when you can put a New 1927 WESTINGALE in your home for 30 Days' Trial on the absolute guarantee that if you don't find it the biggest and best value you have ever seen—You Don't Have to Keep It. Westingale 5 tube sets—One or Two-Dial Models are most beautiful and powerful sets made—and easiest to operate. Music, Sports—market reports from Coast to Coast on loud speaker. Newest two-tone period style cabinets with Renaissance design on front panel embossed in dull gold. 5 Tube—2 Dial \$47.00 5 Tube—1 Dial 57.00 Agents—Dealers Your own Radio Free. Get demonstration set and make \$100 a week easy. Full or spare time. Big discount on first set placed in each locality. Be first—write today for dealers' discount and full particulars. Unbeatable for appearance, performance or price. Don't buy any radio until you send for our FREE 1927 Catalog which pictures and describes these two last minute models, and get our liberal 30 Days' Trial Offer. Westingale Electric Co., Dept. 176 1751 Belmont Ave., Chicago

Bradley-Amplifier Resistance-Coupled PERFECT AUDIO AMPLIFIER Provides audio amplification with minimum distortion. Bradley unit molded resistors used in the Bradley-Amplifier do not vary with age and are not affected by atmospheric conditions. Can be used to replace transformer amplifiers in standard radio sets with decided increase in tone quality. Allen-Bradley Co. Electric Controlling Apparatus 290 Greenfield Avenue Milwaukee, Wis.

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SYD LIFE LONG 'B' BATTERY UNCONDITIONAL 2-YEAR GUARANTEE Taken from Laboratory News Notes which appeared in The Chicago Daily News—"The Syd Storage "B" Battery submitted to The Chicago Daily News Radio Laboratory for a test was found satisfactory." 100 VOLTS With a Complete Charger \$15.50 145 VOLTS With a Complete Charger \$21.50 Manufactured and Sold by SYD STORAGE "B" BATTERY CO. Dept. S, 1452 1/2 South Wabash Ave., Chicago Opposite Coliseum Calumet 4911 Open till 8 P. M. Sunday Till 2 P. M. Mail Orders Filled

Thank-You for your Program Heard About 5:30 P.M. on Nov. 11, 1926 Remarks: Program Clear Enjoyed the quartette We would appreciate hearing Roses of Picardy or Humoresque CHESTER A. WILSON, 640 E. 37th St. N. Portland, Ore. Applause Cards 1/2 Price and FREE LOG Extra TO INTRODUCE these individual applause cards we cut our regular price right in two and include a free log on first order for limited time only. Post-card backs. Quality cards and printing. Special radio design. Stations gladly put on numbers you request. Our special individual cards get immediate ATTENTION. Applaud your favorites. Artist and stations request and appreciate applause cards. All The Rage. FREE LOG With First Order—and a special introductory half price for 100 cards. \$1.45; 200, \$1.95; 300, \$2.45; 500, \$3.45. Money refunded if not delighted. Send No Money Just pay postman when you get cards and FREE log. Prepaid if pay with order. Write today—NOW—while introductory offer lasts. Postal will do; but write at once. RADIO PRINTERS, Dept. 8911A, MARENGO, ILL.

Lowest Wholesale Prices! LR-4 KITS NOW READY FOR DELIVERY Madison Multi-Chokes, Cockaday LC-27, Hammarlund-Roberts, Alden Truphonic, Amer-Tran Power Pack, Ultimax, Infradyne, Benjamin Controlladyne Kits in stock. JOBBERS—DEALERS PROFESSIONAL SET BUILDERS Before buying, get our quotations on our GUARANTEED KITS. 3-Hour Shipping Service. 1927 BUYING GUIDE A few copies left for Dealers and Professional Set Builders. Send for yours today. It's free! Address Dept. R.D. We are the exclusive direct representatives of the Committee of 21 Manufacturers. ALLEN-ROGERS Incorporated "Kit Headquarters" 118 East 28th St., New York, N. Y. Allen-Rogers Incorporated Kit Headquarters 118 East 28th St., New York, N. Y.

Yale GROUND HOG POWER AND DISTANCE DOUBLES The Perfect Ground. Marvelous newly-invented ground gives 100% improved reception. Doubles power and distance. Stops leakage. Reduces static. Stops jangling even in midsummer. Results never before equalled, users say. Satisfaction guaranteed. Proven absolutely essential to clear, powerful distance reception. Draws and holds moisture indefinitely. Highly sensitive to radio energy. SEND NO MONEY—To introduce, we offer to those who act at once, regular \$5.00 size for only \$2.00. Send name today and pay \$2.00 plus 17c postage on delivery. Or send only \$2.00 with order and save postage. FREE—Full description of Ground Hog and amazing special low priced battery offer on request—write today. Yale Specialty Supply Co. 123 W. 5th St., Kansas City, Mo.

HOW TO FIX SETS FOR BEST RESULTS

By "KING MILO" GURNEY Part II.

The tuning of a Radio appears to be either a lost art or one which has not been mastered by many operators.

After plugging in the loud speaker and lighting the tubes, tune in a nearby station using any method which may suit your fancy.

You may or may not know which one of the little knobs regulate the detector tube. If you do, with the station still tuned in, turn this control knob to the left as far as it will go without decreasing the signal strength.

The next step—with the station still tuned in—is in a like manner that of adjusting the knob which controls the tubes preceding the detector.

Very often one will find that a decided improvement in quality will be secured by adjusting each of the control knobs mentioned, and it is most important that once they are adjusted, that they be left alone.

Readjusting these knobs just because a station doesn't come in to suit you is as dangerous as the continued tinkering with the carburetor of your car.

Next in line, if your antenna system is longer than 75 feet, you have a fine job of antenna shortening next spring.

naturally does not hold for each type of receiver, but will be found effective eight times out of ten.

Why Tune This Way?

Many may wonder why I suggest leaving the middle or second dial at fifty while tuning the other two.

The day is not distant when manufacturers of Radio receivers will install automatic filament controls for the regulation of each tube in one's receiver.

Remember, patience is just as great a virtue in tuning as in other enterprises.

SHE IS CHILD PRODIGY

(Continued from page 5)

carries on a conversation with her playmates and elders with precise English and a vocabulary that is little less than astounding.

Called upon to entertain, Phyllis evolves her own presentation. She has been introduced to several Radio audiences in Atlantic City and New York.

KHJ CHILDREN'S HOUR

(Continued from page 5)

these three well-known artists have appeared for the past several years that they were recently compiled into book form beautifully illustrated and met with great popularity among the admiring friends of Radioland.

Queen Titania Elflike

Queen Titania, whose sweet voice has carried many a youngster into the realm of fairy castles and fairy folks, is herself a most elflike little lady to meet, with her fair fragile beauty and head of blonde curls.

Another attraction of the children's hour is the impromptu talk between Uncle John and little Richard Headrick whose photograph accompanies this story.

Nor must we forget the sweet contralto singer of beautiful lullabies and children's songs, Lenore Killian, known as the Lullaby Girl.

Even Dogs Have Hour

Then, too, little boys who are lovers of dogs also come in for their share of attention. For there is the nightly interesting talk by H. M. Robertson, the dog man or "dog fancier," as he is called, who tells the boys and girls about the latest style in canines and how to feed and care for them.

The lessons in history by the Radio Historian, Professor Silvester Hertzog, have likewise become a feature of the children's hour which is conducted daily from 6:30 to 8 P. M. Pacific time.

KHJ is the only broadcasting station in Los Angeles which has inaugurated with such success this pleasant custom and thousands of little ones in the course of a year make pilgrimages to the Radio home of Uncle John and KHJ on the top floor of the big Times Building to pay their respects, as evidence of sincere appreciation.

Dials which will not hold their settings but turn of their own accord, may be conditioned by glueing felt on their rear surfaces. The friction of the felt against the panel prevents the dial from slipping.

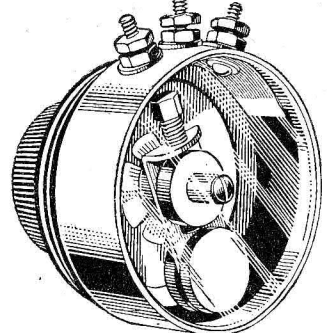


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Radio Printers, Dept. 99115 Marengo, Illinois Send 64 page Log Book absolutely FREE. I will pay postman \$1 for revision service and few cents postal charges on book after it arrives. Money to be refunded if I am not DELIGHTED, it to be sole judge. If \$1 bill or check is enclosed, postal charges will be prepaid. Name: Address: City: State: Send Coupon NOW—while offer lasts.

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THESE amazing new Frost-Radio Super Variable Resistance Units were selected for the 1927 DE LUXE Super because they give closest possible control—have no wearing parts—look better—last longer—and insure perfect results.

- Order These Other Parts For your 1927 DE LUXE Super the following Frost-Radio parts have been specified. Your dealer has them. Order them from him today. 1 No. 895 500,000-ohm Variable Resistance Unit, List... \$1.25 1 No. 850 50-ohm Bakelite Rheostat, List... .75 1 No. 820 20-ohm Bakelite Rheostat, List... .75 2 No. 253 Automatic Cord Tip Jacks, List... .30 1 No. 951 Double Circuit Gem-Jac, List... .30 2 No. 608 Push-Pull Switches, each, List... .50 1 No. 824 400-ohm Bakelite Potentiometer, List... 1.00

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How to "twist" Dials Now detune the set, starting with the three dials at zero and we will see if we cannot tune in again the station we were just hearing—with much less effort.

Set the center dial at 50. This applies irrespective of the station you desire to receive. The first and third dials should now be slowly rotated through the scale until you hear a whistle. This whistling will vary from a high to a low pitch. With the whistle sounding, carefully turn the dial furthest to your right, a few degrees both to the right and left.

Repeat with the first or left dial. Your next procedure is that of adjusting the middle or second dial which will be found as very closely approximating the setting of the third. There will now be music in the air. In general, a slight further adjustment of the first dial will be all that is required.

There you are, Brother! This method

World Storage Batteries Silent "B" Power with World Radio Storage "B" Battery Lasts Indefinitely—Pays for Itself Dependable. Quiet "B" power, clear without "hum." Economy you have never before thought possible. Convenience. Outstanding performance. Recharged for almost nothing. Solid rubber case insures against leakage or acid. Extra heavy glass jars. Heavy rugged plates. Approved and listed as standard by Pop Radio Laboratories, Pop, Set, Inst. Standards, Radio News Lab., Lefax, Inc., and other Radio authorities. Extra Offer: 4 Batteries in series (96 Volts) \$10.50. SEND NO MONEY! I wanted and we will ship same day order is received. Pay expressman after examining batteries. 5 per cent discount for cash with order. Send your order today—NOW! WORLD BATTERY COMPANY 1219 So. Wabash Ave. Dept. 76 Chicago, Ill. Makers of the Famous World Radio "A" Storage Battery Prices: 6-volt, 100 Amp. \$19.50; 150 Amp. \$22.50; 210 Amp. \$28.25. All equipped with Solid Rubber Case. Set your Radio Dials for the new 1000-watt World Storage Battery Station, WSBG, Chicago. Always something interesting.

SELECTED FOR THE 1927 DELUXE SUPER Karas Orthometric Variable Condensers .0005 Mfd. Price, \$7.00 were chosen for the new, powerful 1927 DE LUXE 8-Tube Super because they have the lowest losses of any condensers made—have absolutely straight frequency line characteristics—have no measurable resistance—and because they are the finest variable condensers on the market. Two .0005 mfd. Karas Orthometric Variable Condensers are specified in the list of DE LUXE parts. To insure best results be certain to use these marvelous condensers in building your super. Karas Orthometrics separate ALL adjoining wave-lengths by equal divisions on the dial. There is no crowding or bunching of stations. This results from the scientific eccentric form and position of Karas Orthometric rotor and stator plates. Karas Orthometrics are as finely made as a high grade watch. We use only the finest quality brass throughout in making these condensers. Plates and frame are die stamped and braced so as to give permanent, unvarying alignment. All stator and rotor plates are soldered at every point of contact. Body capacity effect is eliminated by grounded rotor plates and frame. Cone bearings give wonderfully smooth operation, and hard rubber dielectrics eliminate all absorption losses. To get BEST results from your DE LUXE Super be sure to use Karas Orthometric Variable Condensers. Your dealer has them or can get them for you. Price, .0005 mfd. capacity, each, \$7.00. Karas Micrometric Vernier Dials were found by the DE LUXE designers to give most remarkable results in close tuning, so they selected them for this great super. The 63 to 1 vernier ratio (1-1,000th of an inch precision) enables super owners to tune as close as a split hair—bring in stations never before heard—achieve results utterly impossible with any other dial made. These remarkable dials are made entirely of Bakelite, with the exception of gearing. They have a special non-slip, anti-backlash gear train that we developed after a year's research. Micrometrics cannot slip, nor can any backlash ever develop. You'll like them—you'll recommend them to your super owning friends—when once you experience their tremendous value for close tuning. You can get Karas Micrometrics at your dealers for \$3.50 each. Order two for your DE LUXE Super today. SEND NO MONEY -- JUST MAIL THE COUPON All good dealers everywhere can supply Karas Condensers and Dials. If your dealer is out of stock due to heavy demands and if you are in a hurry you can order direct from us if you wish. Just fill out and mail the coupon. SEND NO MONEY. Simply hand the postman the price of the condensers and dials plus a few cents postage. Mail coupon today to make sure of having these Karas parts in your DE LUXE. KARAS ELECTRIC CO., 1071-S Association Building, Chicago Please send me 2 Karas .0005 mfd. Orthometric Variable Condensers, price \$7.00 each, and 2 Karas Micrometric Vernier Dials, price \$3.50 each. I agree to pay postman \$21.00, plus postage, upon delivery. It is understood that if I am not entirely satisfied within 30 days you will refund purchase price upon return of these parts to you. Name: Address: City: State: (If cash accompanies order we will ship postpaid.)

PEOPLE VOICE OPINIONS

(Continued from page 28)

night, and then we hook onto our inside aerial and cut out those high-powered stations. They don't please farmers anyhow." —W. N., Greentop, Mo.

KFNF Asks for Opinion! Here It Is

"At the close of the morning worship period . . . Henry Field asked friends to write you and let you know what they think of his and May's station, KMA. Well, here it is, from one who has been a listener for a long while before the Radio public ever thought of two seed houses monopolizing the ether from 6:30 a. m. till the wee morning hours. . . . If they would observe the Golden Rule, they would not advertise everything from sparrow traps to wave traps. . . . Thought they were seed houses. . . . Wonder how long we will have to let the two stations make a fortune, and have the pioneers stand back and be gentlemen, and let Shenandoah have the best wave on the air?"—H. H., Ogden, Ia.

"You are to be commended for trying to put Henry Field off the air. KFNF uses the mantle of religion as a cloak for its advertising."—G. McN., Cherokee, Ia.

The following paragraph comes from a copy of a letter addressed to KFNF:

"The sole purpose of your station is for the advertising of your mail order house, and not for entertaining the public. . . . You pirated the wave you are now on, your programs are terrible, and you ruin good programs by heterodyne squeals. Do you call that bettering Radio?"—A. E. W., Iowa Falls, Ia.

Who Won't Print This?

"There's room on the air for someone besides those high-powered stations of the east, and all they think about is jazz and opera singers. . . . I know you won't print this for you are afraid. It's the truth that hurts. I say three cheers for Henry Field and all of our other good western and middle-western stations."—G. T., Denison, Ia.

Their reverent morning worship at KFNF enables many to start the day right. . . . Ours is supposedly a free country where we enjoy freedom of worship and speech. Let us have freedom of the air."—I. E. M., Edina, Mo.

"They (KMA and KFNF) give us many things we like and would not get from stations further east. . . . We like the friendly talks, good old songs, readings, etc., that our western stations give us.

CLASSIFIED ADVERTISEMENTS

DOGS

Beautiful registered bull pups, \$15. Bull-dogs, 501 Rockwood, Dallas, Texas.

HELP WANTED

Earn \$25 weekly, spare time, writing for newspapers, magazines. Experience unnecessary. Details FREE. Press Syndicate, 1269, St. Louis, Mo.

We pay \$48 a week, furnish auto and expenses to introduce our Soap and Washing Powder. BUSS-BEACH COMPANY, Dept. A-186, Chippewa Falls, Wis.

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PATENT ATTORNEYS

PATENTS. Booklet free. Highest references. Best results. WATSON E. COLEMAN, Patent Lawyer, 724 Ninth St., N. W., Washington, D. C.

RADIO

NEW RADIO WITHOUT BATTERIES. Why waste several hundred dollars when you can get all the radio you want on a Lambert costing only \$2.95 postpaid. Big stations 600 miles away come in loud. Needs no tubes or batteries. 250,000 homes already have them. Order direct from this adv. Crystal Radio Company, Wichita, Kan.

Headphones and Loud speakers repaired. Sam T. Sherrill, Smithville, Texas.

1,000-mile crystal hookup. Prepaid, \$1.00. Distance, 224 Conger St., Waterloo, Iowa.

Radio Consoles. Booklet sent upon application. J. A. Kelly Co., Clinton, Iowa.

For Sale: Sacrifice standard five tube receiver, \$20.00. Free trial. Write: F. Meek, Rockbridge, Ill.

Chokes and transformers for eliminators, \$1.00 up. Write for list. Radio Parts Sales Co., Box 24-A, Orange, N. J.

Ninety-Ampere Hour Storage Battery, \$7.77. Guaranteed one year. Chickasaw Battery Co., P. O. Box 2551, Memphis, Tenn.

Prove your reception by the most practical and convenient method: Proof of Reception Cards. Contains spaces for complete reception record, dial settings and signature of announcer. Handy size, 3x5 inches. Send 25 cents for sample package. Radio, 2617 Hollywood Ave., Chicago.

Is changing to another wave any worse than adopting superpower by eastern stations, when these stations were not supposed to go above 5,000 watts?"—W. J. L., Freeman, Mo.

Space Prohibits Further Views

Lack of space prohibits publishing more of the interesting views for and against one or both of the Shenandoah stations, KMA and KFNF. Radio Digest would have liked to have published all of these, especially those letters supporting Shenandoah, for evidently many listeners and readers have obtained the idea that "The Reader's View" column of this publication reflects the sentiments and policies of the publication.

NEW INFRADYNE KIT ALL GENUINE PARTS IN STOCK NOW! WHOLESALE CATALOG. Listing thousands of new radio parts, kits, furniture, accessories and complete radio sets, at prices that save you money. Write for your copy now, it's free. Dept. 6, THE HARCO CO., 1255 S. Wabash Ave., Chicago, Ill.

GUARANTEED RADIO TUBES By Return Mail! Direct from factory, saving wholesale and retail profits. Type 201-A only, quarter ampere, five volts, standard brass base. 69¢ PREPAID TRELCO SALES 1021 Moseley, Owensboro, Ky.

American Radio Now—50% DISCOUNT ON RADIO! BIG NEW 1927 CATALOG-FREE Dealers, Agents, Set Builders—get our big 1927 Catalog—225 nationally advertised lines. Lowest prices in America! Largest, most complete stock. Radio's latest developments. It's FREE—send for your copy now. AMERICAN AUTO & RADIO MFG. CO., Inc. 1444-B McGee Street, Kansas City, Mo.

Famous MARWOOD Now Sold on Easy Terms 1 Dial 6 Tube \$43.85 Get Agents Prices—Save 50% Great new! Now own a famous Marwood at the world's lowest price for real quality—and pay on easy terms. The only Radio sold direct on easy terms—proof that the Marwood MUST be a wonder. A year ahead with 4 big exclusive improvements—Super-Selectivity, Power-Tube Volume, New Easy-Tuning Principle, New Tone Quality. Save half—and get a Radio that can't be beat at ANY price. Parcel packed in gold. 30 Days Free Trial We trust you. Prove the Marwood the best buy in America. Don't buy a Radio till you get our Easy Terms, 30 Days' Free Trial, Agent's Confidential Low Prices, Free Radio Plan, new Catalog, Agents—Write quick for territory. MARWOOD RADIO CORPORATION 1747—E 48 Morse Ave., Chicago, Ill.

Amazing New 5-Tube Radio At Very Small Cost Improves Reception 100% New York City, N. Y., Jan. 15.—Lieut. Sterling G. Sears of the U. S. Naval Reserves has perfected a marvelous new 5-tube Radio that improves average home reception about 100%. Due to special features, this Radio is extraordinarily selective and powerful, easy to operate, very economical on Battery consumption—and costs only about one-third of the usual price of 5-tube machines. Perfect satisfaction absolutely guaranteed, and a 10-day Free Trial offered to all who wish to try it. Full information together with reports of tests made by experts will be sent FREE to all who write at once to Geo. W. Naylor, Jr., Dept. 157K, 161 Chambers St., New York City. Write today—no obligation!

Bradleyometer THE PERFECT POTENTIOMETER Uses graphite disc resistors which are noiseless and not affected by atmospheric conditions. Metal parts are nickel plated. One hole mounting. Finish and knob match Bradleystat. Made in 200 and 400 ohm ratings. Allen-Bradley Co. Electric Controlling Apparatus 290 Greenfield Avenue Milwaukee, Wis.

This is not true. The column is edited, but letters from readers seeming to voice the opinions of the majority are given space, which is always at a premium. For the policy of the paper—read the editorial column. "The Reader's View" is, as the title indicates, purely the sentiment of the reader.

Letters supporting and favoring the Shenandoah broadcasters, but which were more or less like those appearing above and therefore were not printed, came from Eureka Springs, Ark.; Churchman, Clarion, Decorah and Griswold, Ia.; Abilene, Antelope and Humboldt, Kans.; Eggleston, Minn.; Worth, Mo.; Falls City, Omaha, Ravenna and Sargent, Nebr.

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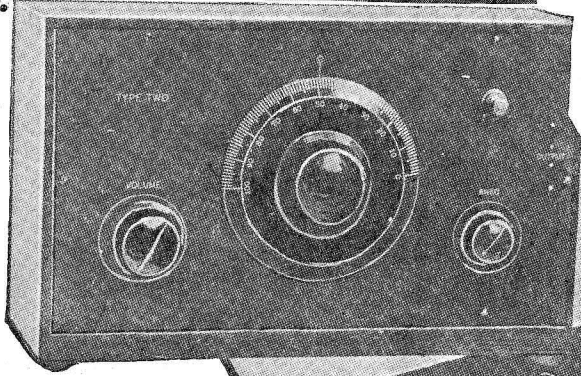
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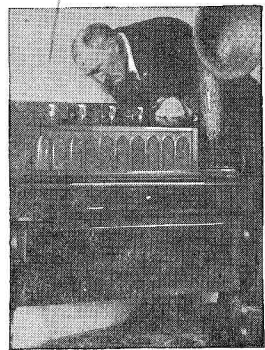
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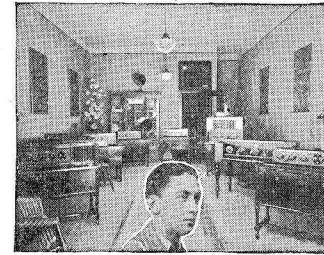
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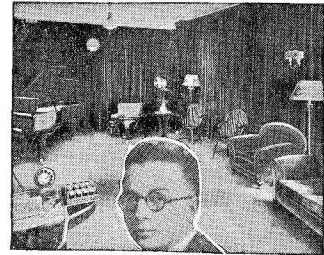
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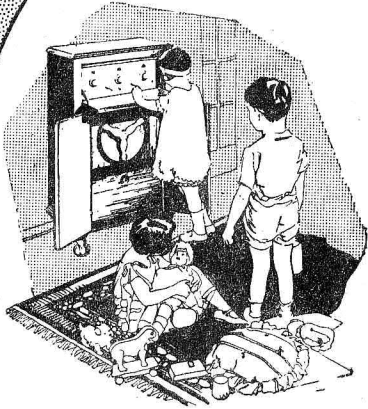
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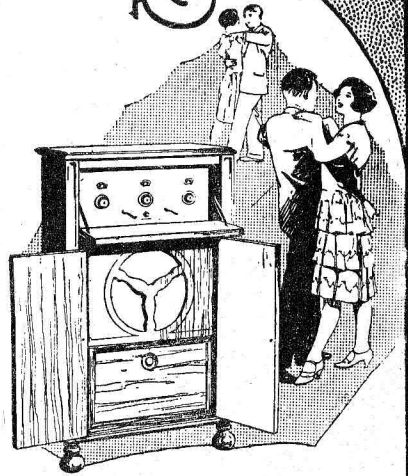
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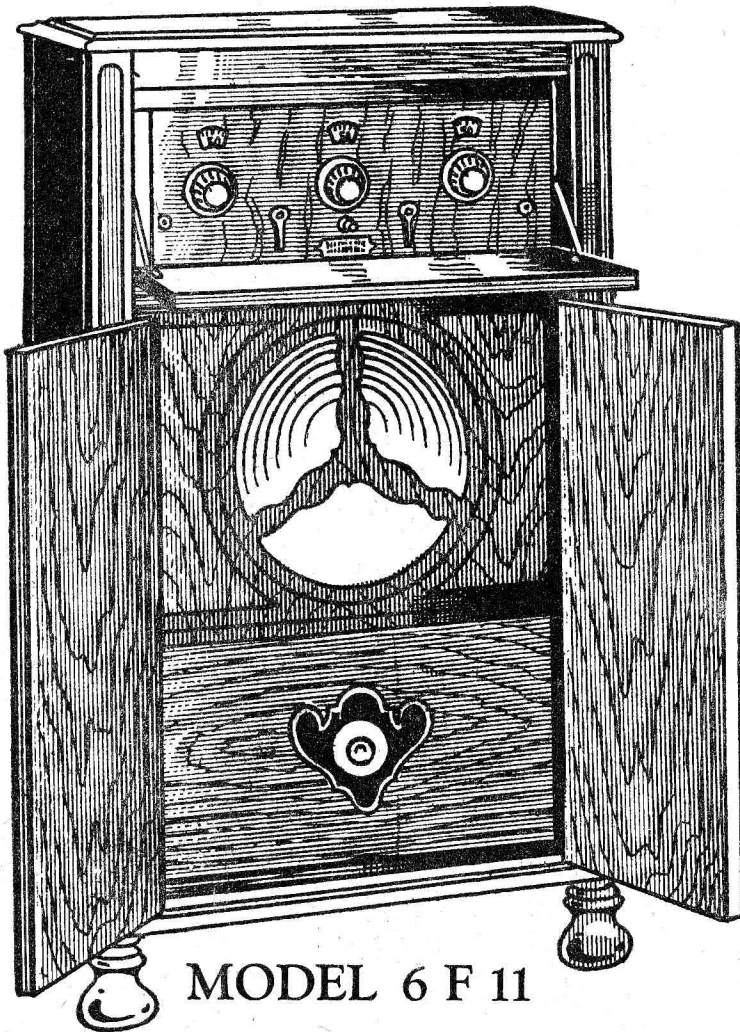
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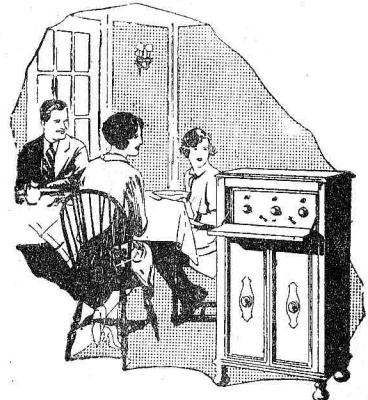
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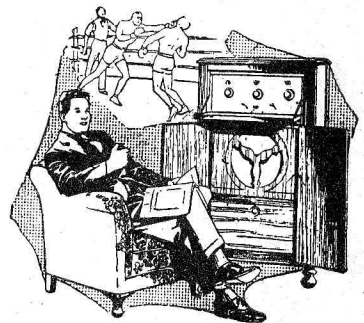


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