

Official Final Confirmation Programs

# Radio Digest

EVERY  
WEEK

PROGRAMS  
**Illustrated**

TEN  
CENTS

REG. U. S. PAT. OFF. & DOM. OF CANADA

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FEBRUARY 13, 1926

No. 6



*Boy's Voice First Across Atlantic?; Old Fiddlers Win Fame; KGO Makes Radio Drama; New 15-130 Meter Receiver; Thordarson UX-213 B Eliminator; Open War on "Bloopers"*

# BEAUTY CONTEST IS FOR GRANDMOTHERS

## STATION TO HOLD UNIQUE VALENTINE PARTY

Radio Voters Will Be Called Upon to Decide Between Old-Fashioned and Flapper Grandams

CINCINNATI.—Will the old-fashioned granny, of which the very mention conjures before our minds a picture of a lovable old lady seated low in a great rocking chair, be replaced by the modern flapper grandam? Will those strands of silver or snow-white hair, done up in a little knot, give way to a water-waved bob of henna hue? Will those wrinkled fingers that while away the eventide of life by knitting or stroking the curled-up family cat lose favor before manicured hands that strum a ukulele or pet a pekingese pup? Will the glowing fireplace that probably hold reflections of other years be replaced by a phonograph or Radio blaring forth the latest "hot-diggity" Charleston?

The answer to those questions will be decided by the Radio fans through the Crosley station WLW here on the eve of St. Valentine's Day, Saturday, February 13.

The third annual beauty contest to be conducted by Radio will be held on that date, but the contestants this year, however, will be grandmothers, instead of girls in their "teens." The contest will last two hours, from 8 to 10 p. m., Central time, and Radio voters will be asked to decide the winners. The event is unique in beauty contests because the voters will be called upon to not only judge beauty, but will also have an opportunity to voice their sentiments and decide an issue regarding the two types of grandmothers that will compete.

The contest has been open to all grandmothers sending their photographs or calling in person at the Crosley studio.

Prizes will be awarded to Radio listeners who send in their votes as well as to the winners of the contest. Complete rules of the contest and the manner in which it is to be conducted will be broadcast over the WLW microphone.

## \$25 GIVEN DAILY IN WGN CONTEST

### Chicago Tribune Finding What Old-Time Melodies Linger After Being Laid on Shelf

CHICAGO.—Do you know the titles of old-time favorite musical compositions? Want to make money? WGN, Chicago Tribune station, here, is giving away \$25 every day for just that information.

Of course, WGN knows what the names are, but it wants to learn if you likewise do. Three old-time songs are played each evening from WGN. Listeners are requested to name them and tell in a single sentence which one they liked best and why.

Send your letters to "Old-Time Favorites," care of the Chicago Tribune, Chicago.

## Stations on Pacific Coast Unite by Wire

### KFI and KPO Take First Step Toward Western Chain

LOS ANGELES.—KFI, Los Angeles, and KPO, San Francisco, are now linked by telephone wires, a program being broadcast simultaneously by the two stations each Monday night between the hours of 9 and 10 o'clock Pacific time.

Although there is little reason to believe it will come true, the lines may be extended to other Pacific coast and inland cities, expanding into a western network. The great distances separating western cities and conflicting policies of stations will materially interfere with the consummation of such a chain.

## Station Changes

February brings back an old Radio favorite to the ether world. WCEE, of Elgin, Illinois, is now heard with the new call, WSW5, the S. W. Straus and company station. The old wave lengths, 275.8 meters, is used. This is a 1,000 watt transmitter.

WSSH, is the new call of the Tremont Temple Baptist church station in Boston, Mass. This plant originally had the call WDBR.

## BET THAT YOU KNEW PATSY RUTH MILLER

IF YOU did not recognize the dark-eyed beauty on our cover at once it is quite obvious you have been neglecting your moving picture theater lately—perhaps too much interest in trying to snatch a song or a call from across the briny deep on your Radio.

Anyhow, the maiden is none other than the charming Miss Patsy Ruth Miller, star of the Warner Brothers moving picture productions. Miss Miller, besides performing for the screen, sometimes steps in and takes over the microphone of the KFVB broadcasting studio in Hollywood, Calif. She is a charming hostess as a screen announcer and the listeners are quick to recognize her voice as she comes on the air.

## Short Wave Experimenter Did Most to Advance Radio

NEW YORK.—The 1925 Morris Liebmann memorial prize, awarded annually by the American Institute of Radio Engineers for the most important contribution to Radio progress, has been presented to Frank Conrad, assistant chief engineer of the Westinghouse company in recognition of his work in short wave development. The prize, a check for \$500, was presented to Mr. Conrad by Dr. J. H. Dellinger, president of the institute.

## SAYS POMP NEEDED BY NATION'S HEADS

NEW YORK.—Speaking before the microphone at Station WJZ, Frank O. Salisbury, of the British Royal academy, recently made the statement that President Coolidge should be clothed in picturesque garments for the benefit of artists, and senators and judges should wear similar clothing. There is a spiritual value in pomp and pageants, which might be called the art of government, he continued.

Besides the robes of office, he suggested mace bearers and wands, so that "your artists could have a chance and inspiration for decorations for your public buildings." The display and pageantry of British state functions lend themselves to painting, he said.

## Will Continue Hearings on Charges of Radio Monopoly

WASHINGTON, D. C.—William C. Reeve, examiner of the federal trade commission, after having heard argument by attorneys for the Radio Corporation of America and others on a motion to dismiss the case, has overruled the motion and the case will proceed. Announcement has been made that the commission will continue the taking of testimony in this case in New York city, on February 15, this year.

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## Looking Ahead

Dad and Ma Salter, both over 86 years old and married sixty-four years, sit at the head of the Radio table every noon at WJAG, Norfolk, Nebr., and 20,000 listeners gather around as members of the "family." It is just one of several novel stunts to make this wide-awake, small-town station one of the best in the world. Pictures and details in the next Radio Digest.

Sam Pickard, chief of Radio service of the United States Department of Agriculture, is working out a system whereby the government can increase its efficiency in serving rural listeners. Pictures and a story of how the plans are to be put in operation will be told by S. R. Winters of Washington, in Radio Digest next week.

Did you ever, on a frosty night, bring the indicators slowly up to 400 meters and suddenly hear the "tick-tock, tick-tock" of a clock? Then, "This is the Cuban Telephone company Radio Station PWX, Havana, Cuba." An interesting story about this broadcaster in a forthcoming issue of Radio Digest.

During the popular revival of the old-time fiddlers one of the "gangs" receiving most comment has been the "Hill Billies" of WRC, Washington. These boys get the atmosphere by putting on the clothes to fit the part and include Charlie Bowman, who claims the much-disputed championship of Tennessee. Story and pictures coming.

The campaign against blooming and man-made interference will be continued next week and the technical staff will do its share by describing and explaining preventive measures on different types of receivers.

Mr. John G. Ryan, the builder of the new Two Tube, Short Wave, 15-130 meter receiver, will outline the drilling and assembly for this extraordinary set in the next issue of Radio Digest.

In the ABC Fundamentals for Everybody, Milo Gurney will next week outline types of audio frequency amplification added to the detector to serve loud speakers.

## Newsstands Don't Always Have One Left

WHEN YOU WANT

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# NEWS BRIEFS FROM THE BROADCASTERS

## ALLEN McQUAHAE, TENOR, KPO SUNDAY FEATURE

### WTIC Schedules Boy Scout Meet—"Around the World" with the Apollo Quartet at KYW

Allen McQuahae, who appeared recently over the WEAf chain, will give a program of Irish ballads Sunday, February 14, from KPO, San Francisco. Mr. McQuahae is often favorably compared with John McCormack, but is also considered one of the best of the oratorio singers.

A program presented only by Boy Scouts, in recognition of the sixteenth anniversary of the foundation of the Boy Scout movement in the United States, will be broadcast from the studios of WTIC, Hartford, Saturday evening, February 13, at 8:30 p. m. Eastern time. The program will consist of selections by a bugle and drum corps of thirty members, several saxophone solos, and a talk, "Why I am a Boy Scout?"

The Apollo quartet is taking fans "Around the World" musically through KYW, Chicago. Spain, Marseilles, Egypt, Turkey and Japan are a few of the ports included in the tour. These programs are given Sundays at 4 p. m. Central time.

The Repertory Theater orchestra of Boston, under the direction of Daniel Kuntz will be heard at WBZ, Springfield, again Saturday, February 13, at 7:45 p. m. Eastern time. The programs presented over the Radio are arranged especially for broadcasting by Daniel Kuntz, and frequently include selections never heard on the air.

"Olivette," a comic opera, specially revised for Radio by Charles Caldwell Dobie, is on the KGO program, Saturday night, February 20. The work will be presented by the Players Guild of San Francisco, under the direction of Reginald Travers and Harry Brown Wood.

The Katinka Gypsy orchestra which has become a tri-weekly feature at WOR, Newark, is one of the most colorful organizations in New York. George Tcherban, director, is a well-known gypsy virtuoso. While playing in Constantinople he gathered together a group of musicians whose homes were in the Caucasus mountains. Their success in New York is due not only to their treatment of our dance music, but to their rendition of their own native Russian and Gypsy airs.

George Olsen and his orchestra are to be featured regularly from Station WJZ, every Tuesday and Saturday night. The broadcasting is to be done from the grill of the Hotel Pennsylvania. Mr. Olsen has invented a novel introduction and signing off feature to supplant the "hello and goodbye" selections. His outfit imitates a railroad train. In opening, the train pulls into the station and stops. After the broadcast it roars off into the distance, the last sound being the blast of the whistle.

Morton Bates and his Elks home orchestra will broadcast the 11 p. m. Eastern time program from WPG, Atlantic city, Saturday night. The merrymaking will jazz up even the most sedate of loud speakers.

Incidental music by Grieg from the drama "Sigurd Jorsalfar" will be featured by the KGO Little symphony orchestra, Sunday afternoon, February 14, at 3:30 p. m. Pacific time. The program will be under the direction of Carl Rhodehamel.

Admirers of Vice President Dawes had an opportunity last Saturday evening, to hear him via Radio from WIP. He was the guest of the Manufacturers' club of Philadelphia.

Major Edward I. Bowie, senior forecaster of the United States weather bureau at San Francisco, will talk over KGO, Monday night, February 15, at 8:05 p. m. Pacific time. He will explain to listeners how the weather bureau conducts warfare upon frosts and the subject of his talk will be "Frost Fighting."

Songs of the Sunny South which included real southern camp meeting songs and spirituals, were contributed by the Cotton Belt quartet to the Saturday program of WOR, Newark. Perry Bradford was the director.

The Radio performance of "The Merchant of Venice," last Friday, marked the first presentation of the new weekly Shakespearean feature at WEAf. Well-known Shakespearean players appear before the microphone in this feature.

# WELCOME STEP TO CLEAR ETHER

## BUT LITTLE GAINED IN OVERSEAS TESTS

### BLOOPERS AND WEATHER GREATEST OBSTACLES

#### Lax Cooperation of U. S. Stations Added to Poor Conditions Makes Reception Difficult

Bloopers, poor Radio weather made even worse by atmospheric conditions and the aurora borealis, steamship SOS calls and a few selfish American stations who persisted in going on the air during the silent hours, were responsible for the almost complete failure of the International Radio Week foreign reception tests. A final check-up by Radio Digest shows that probably 35,000 Radio listeners heard Europe or South America, but what they heard must have been very little and poor in quality in most cases.

No one will say that the 1926 international tests were an achievement worth boasting about. As one of the members of the International Radio week committee, Powell Crosley, Jr., put it:

"The committee arranged for the foreign transmissions and the silence periods in the United States, Canada and Mexico, but were unable to arrange the weather or insure climatic conditions."

#### Foreigners Have Poor Luck Too

Equal luck was shared by the English and Continental fans who attempted to hear the American, Canadian and Mexican stations. Cable messages from Radio Digest European staff correspondents were all the same. They reported, in brief:

"Almost total failure to receive American transmissions. This is attributed to the aurora borealis and damping by the full moon. Radiating sets also were annoying. At the best the reception could but be called moderately successful."

Lima, Peru, cabled that it was impossible to hear American or European stations on account of spark station interference. WAMD, Minneapolis, was logged.

#### American Broadcasters Disregard Tests

Reports from listeners from all sections of the country—only 16,794 letters and telegrams arrived at Radio Digest's offices—give a clear cross section of some of the difficulties. Chief among these were blooming or radiating receivers. Next in line were the stations who disregarded the test hours and broadcast to the great dismay of the trying listeners.

What hatred these stations brought upon themselves can only be shown by the letters from the fans. Transmitting during one or more silence periods was done by several stations. Among these were:

KTAB, Oakland, Calif., 240 meters; KFON, Long Beach, Calif., 233 meters; KPSN, Pasadena, Calif., 315.6 meters; WGHP, Clearwater, Fla., 266 meters; and KNX, Hollywood, Calif., 336 meters.

WEAF, New York, 491.5 meters, got in bad with its audience Wednesday night of the week, when "Roxy" and Graham McNamee were heard after the silence period had begun. The two famous personages did not help their popularity by continuing their broadcasting for fourteen and one-half minutes after they should have been off the air. Both the station and the impresario overestimated the degree of their popularity.

WNYC, another New York station, in fact, owned by the municipality of New York city, overstayed its welcome Thursday night, by remaining on seven minutes after the test silence period was supposed to have begun.

#### Conditions Bad; Best Foreign Stations

After all has been said and done, the European stations demonstrated their ability to get over, but conditions were bad. The foreign stations are better this year than ever before.

The official Radio Digest eastern listening post, located in the laboratory of E. K. "Jessie" James, Flushing, N. Y., reported best reception from OAX, Lima, Peru; 6BM, Bournemouth, England; 2LO, London, England; EAJ13, Barcelona, Spain; EAJ7, Madrid, Spain, and 5WA, Cardiff, Wales. Excellent quality and volume was reported by this post for 5XX, Daventry, which was received on a special long wave receiver.

#### Mistaken Fans Complain of WOC

On Friday, the various stations of the country were to transmit during four different fifteen-minute time periods according to the time band in which they are located. Exceptions, however, were made to this rule. The tests committee, to put a few more stations in the Mountain time test period, asked all stations in Iowa, Nebraska, Kansas and the Dakotas to broadcast at the same time as KOA and the other Mountain time stations.

Fans hearing WOC, WOI and other stations from the five states listed as excep-

## STEPS ON IT AND WATCHES STEP



Miss Gladys Roy, Los Angeles daredevil aviatrix, provided the coast thrill lovers a treat recently when she Charlestoned on the wing of an airplane under flight. The noise of the machine made the use of ear phones necessary.

tions, sending when they thought they should not be, had their ire aroused on a false alarm. However, regardless of the fact that these broadcasters were in the right according to the wishes of the International Radio Week committee, thousands upon thousands of letters poured in to WOC and the other Central time stations, calling them all sorts of nasty names and threatening to tune them out forever and a day.

#### Bungles Didn't Help Tests

Little bungles such as these made the week trying not alone for the broadcasters and the listeners, but for the newspaper and magazine editors who were attempting to give the public the facts about the tests. Complete advance programs were not forthcoming from the committee. Those in charge did not get them in time.

When it was desired to know what sta-

tions would be on each night, no one knew for sure. The committee was beseeched for information. They knew very little, although they were supposed to have made all preliminary and final arrangements.

When it came to getting confirmation programs, even these were prepared in haphazard fashion. Radio Digest relied upon its foreign correspondents and the meager information available at Radio Week headquarters. Finally, the confirmation programs appearing on page eight, of this issue, were assembled after much effort.

It is to be hoped that the next foreign tests be arranged in a more business-like fashion.

The bloopers, aurora borealis, SOS signals, selfish-minded stations, etc., also are NOT invited to participate during silence periods next time.

## STATIONS AND FANS JOIN IN BLOOPER WAR

### Join I Won't Bloop Club

#### Response That Greet Campaign to Lessen Receiver Radiation Exceeds Expectations

Within one week after war was declared by the Radio Digest against the hundreds of thousands of bloopers who prevented reception of foreign programs during the international tests, the campaign is well under way. Thousands of Radio enthusiasts have pledged themselves to operate their sets so as to reduce radiation and limit interference and more than a score of broadcasting stations have offered their cooperation to help clear the air as individual chapters of the I WON'T BLOOP CLUB.

#### Situation Is Critical

The overseas tests plainly demonstrated that a situation exists that needs be corrected. Legislation cannot prevent blooming and a number of other forms of man-made static. It is the duty of each individual who considers the welfare of Radio to pledge himself to do what is within his power to keep his set from radiating; his share towards eliminating ether disturbances that could, with a little care, be prevented. With that end in view, the Radio Digest has inaugurated the I Won't Bloop club, believing the cooperation of listeners will accomplish more than legal commands with threatening penalties.

#### Stations Sending Aid

Radio fans throughout the United States and Canada have been asked to join the I Won't Bloop club, the pledge card of which appears on page 10 of this issue. The leading broadcasting stations have requested to become chapters of the club and will accept memberships from their listeners. Numerous newspapers have endorsed the move and united in the campaign, which will continue until an improvement is gained.

To those fans who sign the pledge of membership in the I Won't Bloop club, a certificate will be issued suitable for a billfold or framing. Fans wishing to enroll in the club may do so through the offices of the Radio Digest or through any of the stations which have secured chapters in the club. To enable the members to carry out their pledges, the Radio Digest will publish a series of articles of a non-technical nature for the purpose of enabling fans to operate their sets with the minimum of interference to neighboring receivers. The first of these articles appears on page 10. Others are being prepared, and if the information and suggestions given are followed, it is believed the greatest problem of Radio reception will be solved.

#### Need Individual Cooperation

The response to the I Won't Bloop club movement has far exceeded highest expectations. With the large numbers of fans, stations and newspapers joining the campaign with full enthusiasm, it is certain that the congestion of needless squeals, howls and whistles will be reduced considerably.

Have you filled out the pledge card? Are you willing to do your part? If you are a real Radio fan you will want to do what you can to clear the air for the enjoyment of all. Become a member of the I Won't Bloop club.

FILL OUT YOUR PLEDGE CARD TODAY.

At the time this issue goes to press, a large number of the broadcasting stations, both in the United States and Canada, have offered to lend their aid in the performance of this great service to listeners in.

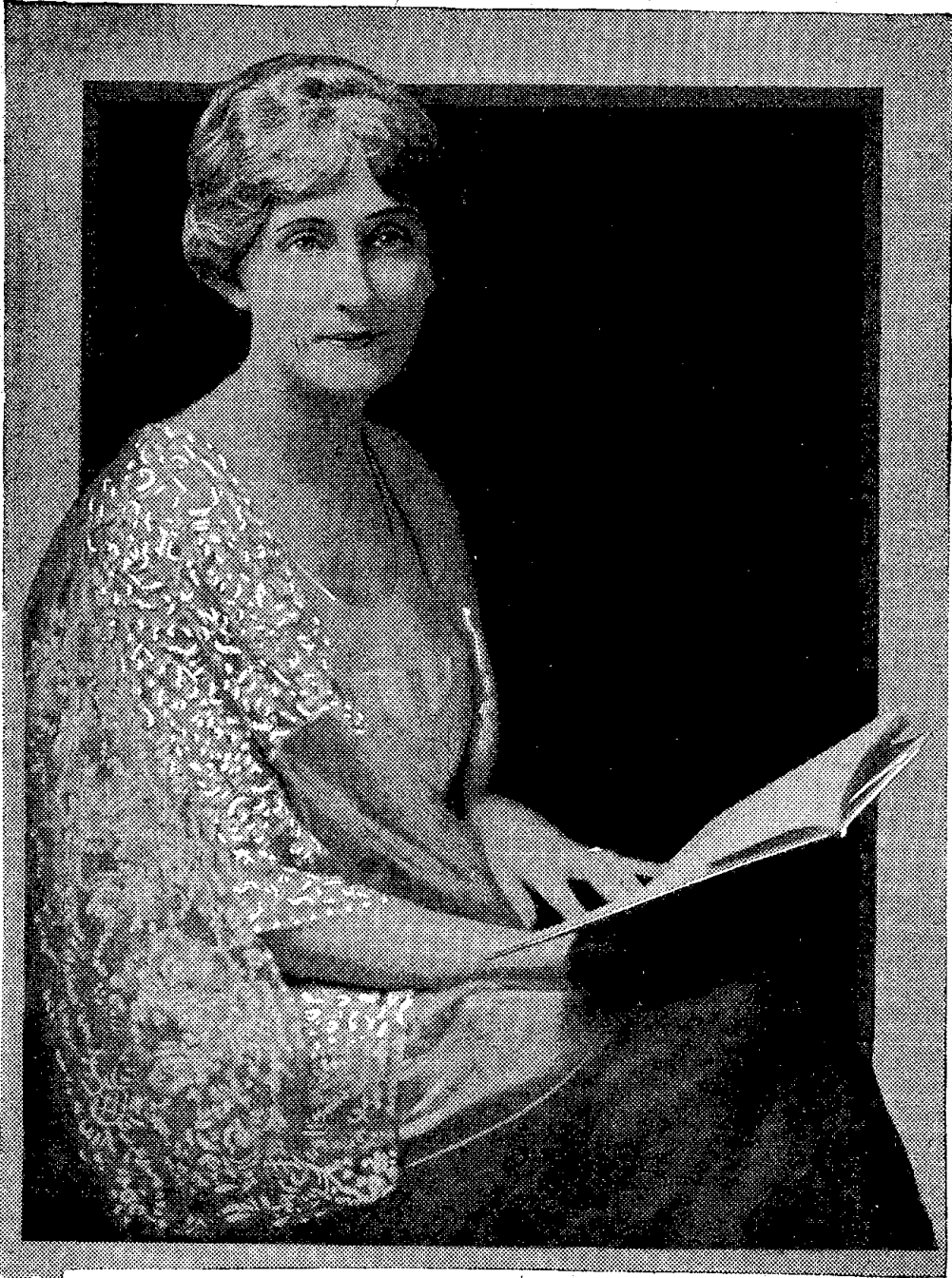
The following stations have already been issued chapters and been placed on the honor roll: WLW, Cincinnati, Ohio; WSM, Nashville, Tenn.; WMC, Memphis, Tenn.; WBAP, Fort Worth, Texas; KFNE, Shenandoah, Iowa; WOAW, Omaha; CKNC, Toronto, Ont.; WAHG, Richmond Hill, N. Y.; KGW, Portland, Ore.; WJAG, Norfolk, Nebr.; WHO, Des Moines, Iowa; WFAA, Dallas, Texas; WHT, WJAZ, WGES and WBBM, Chicago.

Join the I Won't Bloop club. There are no dues, fees or restrictions—only a promise to help bring better enjoyment and greater happiness to the estimated 25,000,000 persons of the Radio audience.

## Winners of the Gold Award for Foreign Tests

WINNERS of the \$100.00 in gold offered for best reports of foreign station reception during International Radio week tests, will be announced in the next issue of Radio Digest. Did you send in a program for verification? All reports were entered in the contest. You may have placed—you never can tell! Very few perfect reports were submitted. Watch for the winners in next week's issue.

# KGO Leads with Radio Drama



*WILDA WILSON CHURCH Relates Progress of Audio Play After Two Years Trial at San Francisco Studio. Predicts Future Greater Than the Stage. Requires Ability to Make Written Word Alive.*

burned with a fire that motivates those who have a mission, a big work ahead in life, a consuming ambition.

The interviewer beheld the embodiment of a living character in the very person of the one who imbues others with play characters. He asked concerning her own life. She smiled back at him indulgently, patiently, as though he had failed to grasp her vision.

"I always wanted to be an actress," said Mrs. Church. "And I had many offers to go on the stage. But I never did so because it took me away from a home and my two children. Now I have my opportunity, through the medium of sound, perhaps more comprehensive than the old theater ever could become."

\* \* \*

"MY EXPERIENCE as a school teacher, head of my own private school, and as an instructor of the Williams Institute, in Berkeley, comes in good stead in my KGO Radio dramatic work.

"I will say without blushing that we owe our growth of Radio drama technique almost altogether to the help we have had from listeners. Thousands of letters have been sent to us. From this great pile of writing we have learned about our short-comings and have found the way to go for future development of the Radio drama.

"I know there are many people, particularly those who have had rich experiences on the stage, who believe the Radio drama to have serious limitations. But I believe, when better Radio ears are developed and possessed by the mass of our listeners, that the audio drama over Radio will surpass any other form.

"In the theater, or even the home, the spoken drama loses much of the word value of its line because of the necessity of projecting voice tones into the farthest corners. Fine inflections are not possible under the stress of such projection. But in Radio drama, we speak right into the ears of our listeners. The other day I read an article stating that Radio drama technique differed from

stage technique in that words must be separated from each other by slight pauses to give the listener a chance. This is not true within a reasonable distance from a big broadcaster. Naturalness and spontaneity are the key words of our player's technique.

\* \* \*

"YES, we have lots of fun giving our plays before the microphone. Not all the laughs are for our listeners. My whole company always feels a little nervous, and I do myself, when a new player comes with us. Among other things, we dread the terror of twisted phrases, or mispronounced words, which will distort their meaning.

"Not long ago, one of the men in my company, testifying in a murder case in the play, 'The Thirteenth Chair,' said: 'This girl was known to have taken tea with the man just half an hour after he was shot!' Many letters came in about it, and our Radio actor would not believe until the end of the play, that he had said it. The substitution of the word 'after' for 'before' did the trick.

"One of the women in the cast of another play, describing the simplicity and purity of an English home, said: 'There are pictures on the wall which no one could look at without blushing.' Poor girl, she was a little nervous, it being her first time before the microphone, and she slipped in the word 'no.'

"One of our pretty ingenues, just before the Eastertide, won the prize, however, for twisted phrases. She said: 'Immaculate conception' when it should have been 'Immaculate condition.'"

"NO ONE can doubt the way our audience listens in to our plays, after reading a few hundred letters, which we receive. Not long ago I read one from a family who had listened. Bert Horton, our leading man, said: 'Call the ambulance!' Just at that moment an  
(Continued on page 26)



SCANNING the horizon of the future for Radio, the Radio Digest is alert to the signs and portents of forthcoming developments. Existing in wave impulses, the growth and magnitude of Radio seem to spread in the same element. Today there are restraints as there were in the early days of the moving pictures. Presently huge billows will swell through and overwhelm those restraints.

But aside from that there are forces gathering in certain salients which indicate specific trends. A short time ago there was printed in these columns an account of the impetus of the Radio drama. From the Pacific to the Atlantic various phases of the movement were described. Particularly was attention called to the work of Mrs. Wilda Wilson Church, director of the players at KGO, General Electric station, San Francisco.

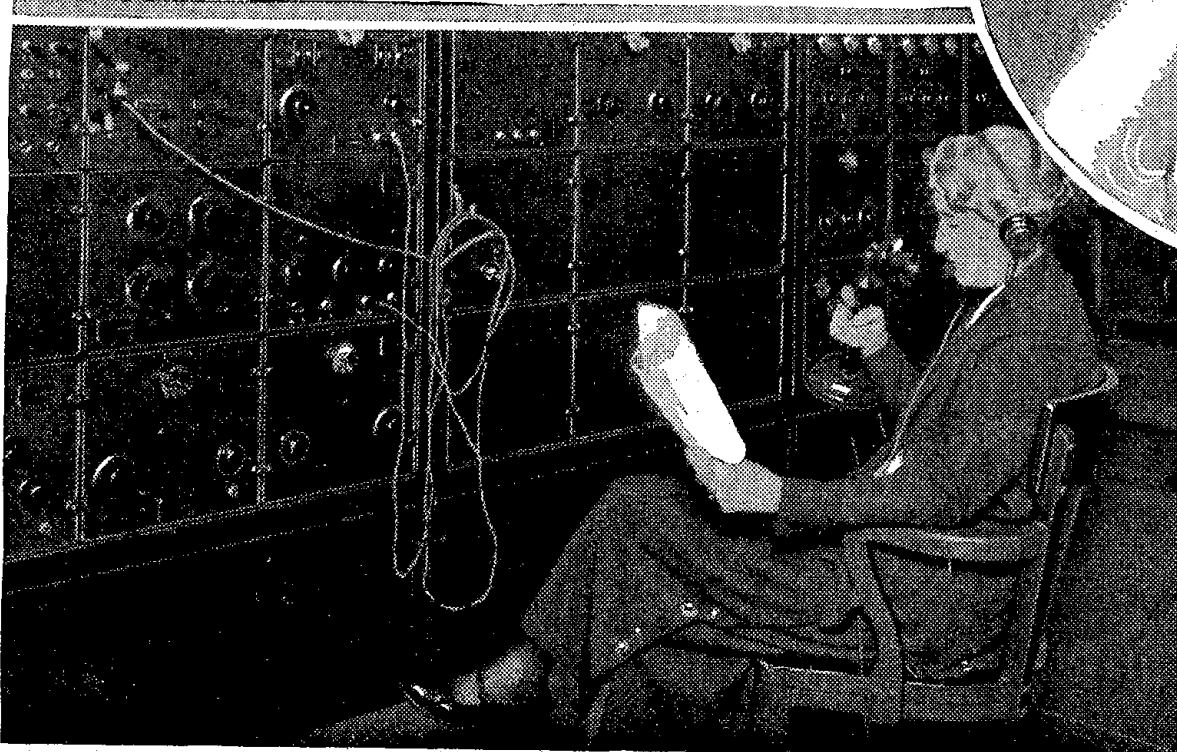
In this issue we have an interview from a correspondent which gives a close-up view of Mrs. Church and her work.

\* \* \*

"LET us consider Radio as a great, invisible channel into the homes of millions," said Mrs. Church, her head poised at a slight angle as she pointed with the tip of a pencil along a line that seemed entirely visible through her half-closed lids to her mind's eye.

"And through this channel," she continued, "flow the sounds that seem to emanate from actualities. That, in a few words, is the essence of Radio drama. Illusions, effects, situations must be fitted and floated through this stream of sound without visible substance. It is the work of the director to shape the material and guide it through this channel."

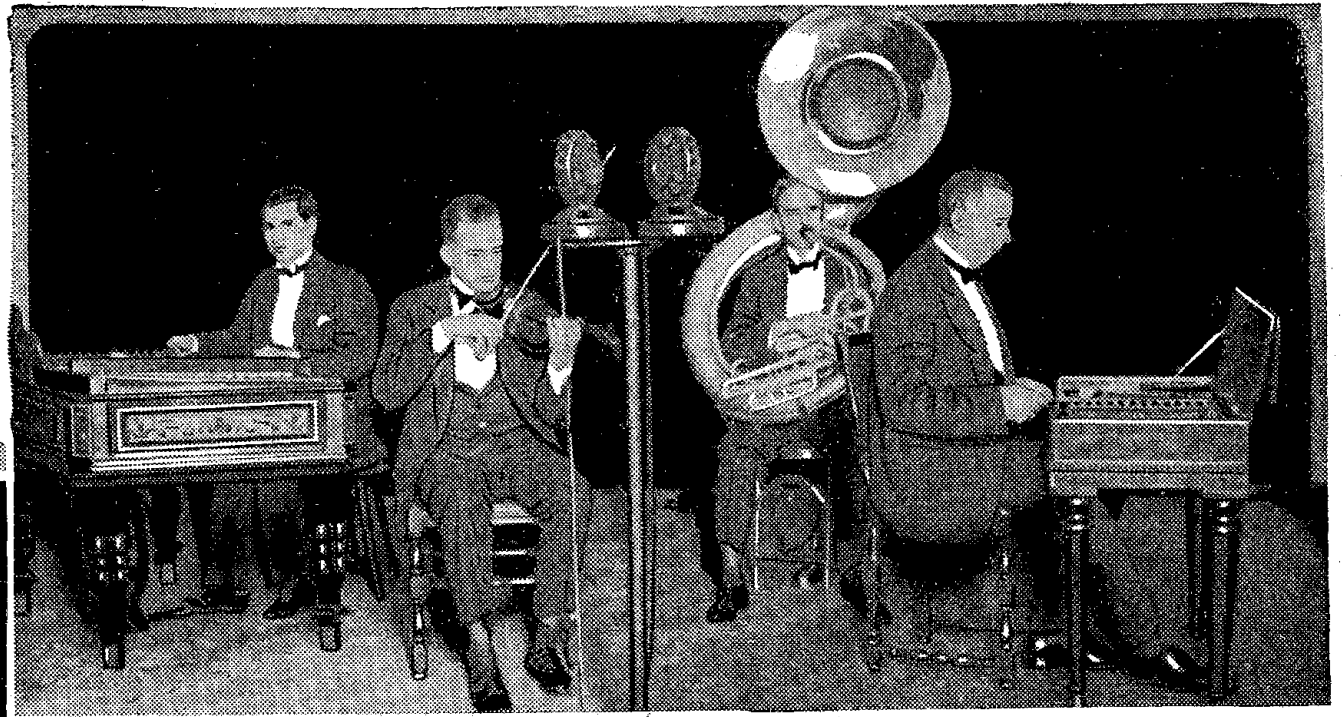
For a moment the deep, intelligent eyes of the silver-haired pioneer of this important phase of Radio



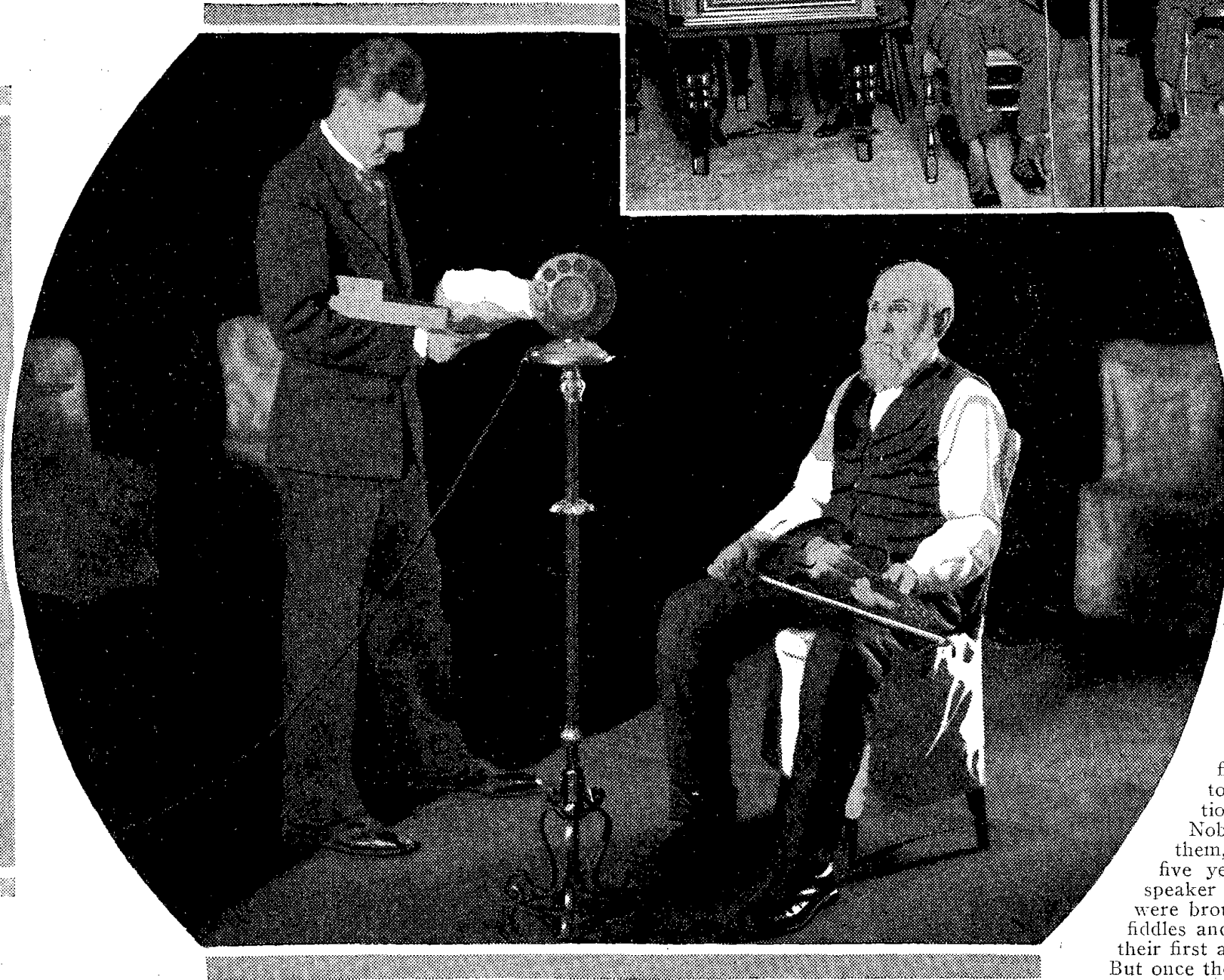
Wilda Wilson Church (upper left) as she appeared to an interviewer at the KGO Radio studio in San Francisco. Mrs. Church reads a script, then writes in the necessary alterations to make it most adaptable to the listening audience in the homes beyond the vision of the players. In the circle Mrs. Church is seen as she gives instructions to the players on the interpretation of their spoken lines. At the left, she is shown as she sits outside the studio following the script and listening to the rehearsal under the same conditions as the voices are transmitted to Radio listeners. She gives her instructions through the telephone.

# Old Style Dances Win Favor

**GRANDDAD FIDDLERS**  
*All the Rage As Colleges Join  
 Movement to Displace Jazz.*  
*"Everybody's Doing It."*



Henry Ford's Old Style Dance Orchestra playing over the WEAF chain at New York, seems to have stolen a march on jazz. (Left to right) W. Hallup, cymbalist; C. A. Perry; Maurice Castle and Edwin Baxter, dulcimer.



"Which ones?" asked Mom.  
 "All four of 'em," said Dad.  
 And before Graham McNamee at WEAF had time to shift microphones there were six "kids" doing the barn dance on the parlor floor. Typical—it really happened just about like that in many homes!

\* \*

**I**F IT didn't happen during the Henry Ford recitals it may have been during one of the many other similar programs that have been growing in vogue over the Radio from one end of the country to the other for the past two years.

"Why don't you put on those old-time fiddlers for a novelty," suggested a friend to Dick Haller, director at the KGW station, Portland, Ore., along at the beginning. Nobody knew off hand just where to find them, for they had been disbanded for about five years—the particular ones to whom the speaker had referred. But at last the old chaps were brought together. They dusted off their old fiddles and felt a trifle nervous at the moment of their first appearance before the microphone.

But once they were tuned up and the announcer began calling the dances they felt as young and eager as ever. Listeners were enthusiastic and demanded more concert. Vaudeville managers sent for them. They were booked for a tour down through California. Business became so brisk for these old-time fiddlers that they opened an office in Portland and now have more bookings than they can fill.

The popularity of their style of music spread eastward. Old-time fiddlers were jerked out of the privacy of their rural communities and stood before the microphones of scores of stations. They fiddled many golden hours off the programs with the saxophones and jazz bands.

Go around the dial any Saturday night and you will find an old-time fiddler's contest at one studio or quite probably a barn dance at another. Big cities are following suit just as ardently as the country stations.

George Hay, when he was at WLS, Chicago, inaugurated the barn dance at that station. It became a rage with the WLS listeners. They still have it. When the Solemn Old Judge switched microphones from WLS and went to WSM, Nashville, he discovered Uncle Jimmy Thompson, 82 years old, who never yet has been defeated in more than one hundred fiddling contests and he has been fiddling for more than sixty years.

Then (Continued on page 24)

**H**AS HENRY FORD reversed the dance pendulum?  
 Is the Charleston the last convulsion of the wild and furious jazz?

Are our feet already turning backward toward the old barn dance, the waltz, the square, polka, minuet—the gyrations of our fathers, grandfathers and still further back?

Whatever may come of it, Radio is bound to be the medium to wield the most potent influence. Which means, of course, that you have been reading about or tuning in on the old-style dance orchestra which Mr. Ford assembled and put on the air over the WEAF chain.

In a million or more homes this series of old-fashioned dance programs was heard—and, according to the applause letters, the old tunes must have held the dials very consistently throughout the series.

\* \*

**"O**H BUD! Listen! Don't turn it off—ain't it funny!" giggled the young flapper as the steady, vibrant fiddle song came galloping out of the loud speaker in strident measures.

Grandad, sitting in the big Turkish chair looked up from his reading, beamed a juvenile smirk, placed his paper on the bookstand at his elbow and got to his feet with a jig pose.

"Gee! That makes me feel young," he chortled, rubbing his palms together and working him-

self into a shuffle. Grandmom, who was embroidering a doily for Sue's hope chest, peered over her glasses with a slight shock of surprise. Grandad sidled over and pulled her out of her chair.

"Don't be silly," she said, but she smiled as she said it and joined with him.

"Swing your partners to the right," came the voice from the loud speaker.

And, ding bust it—away they went, granddad and grandmom!

"Come on, Bud," commanded Sue. "We don't know what it is but we'll soon find out." Bud surrendered just as Dad and Momsey entered the room.

"Look at the kids!"



Uncle Jimmy Thompson (center) and George Hay at WSM microphone, Nashville. Contestants at old fiddler's contest University of Arkansas (left). Colleges are backing old style dance fad.

# Boy's Voice First Across Atlantic?

## Harold Robinson, New Jersey Boy Scout, Maintains He Was First to Be Heard in Europe by 'Phone Transmission and Submits Letter to Prove He Was Tricked Out of Credit

By ARMSTRONG PERRY

**DID Paul Godley and Edwin H. Armstrong STEAL the credit for the first amateur transmission and reception across the Atlantic ocean? Harold Robinson, an American Boy Scout, first claimed the record with what we believe are authenticated proofs. His 'phone transmitter was heard in Aberdeen, Scotland, according to George W. G. Benzie, who listened in. This occurred on October 6, 1920. Armstrong, aided by others, discredited Robinson. Read the story as written by a man who has followed the case for years.**

**W**ITH the sixteenth anniversary of the Boy Scouts of America due early in February, it is a fitting time to clear the name of the Boy Scout, who, according to the evidence, was the first Radio amateur to make his voice and music heard across the Atlantic.

Harold Robinson, a scout living in Keyport, New Jersey, and his father, Hugh Robinson, superintendent of an airplane company, announced in November, 1920, that they had received a report from Aberdeen, Scotland, stating that George W. G. Benzie, also an amateur, had heard their music, voices and call letters on October 6, 1920. The first report was followed by others from Benzie and another amateur, James Miller. I was employed at the national headquarters of the Boy Scouts of America and was especially

interested in the Radio activities of the scouts, so I visited the Robinsons at their station, 2QR. I discovered no reason for doubting their statements.

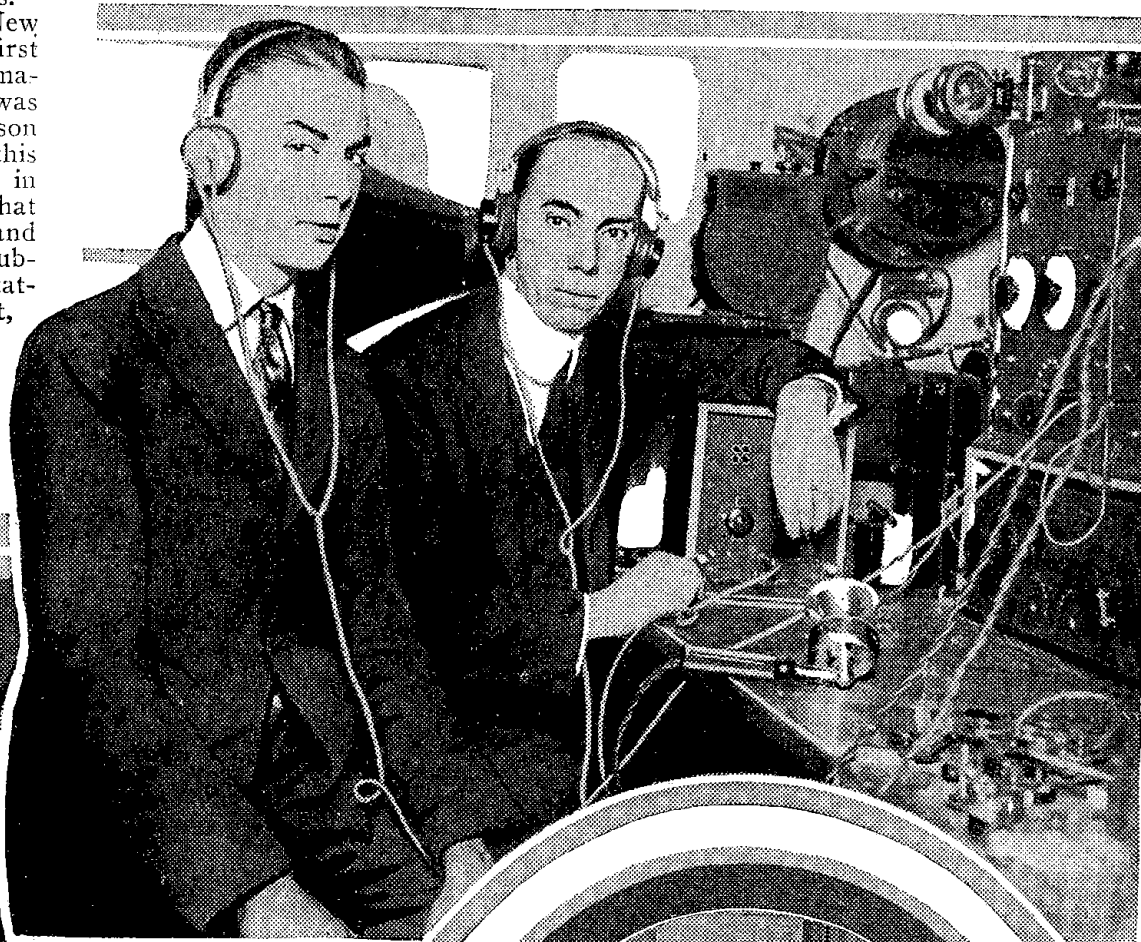
The Radio Club of America (New York) had offered a prize for the first transatlantic transmission by an amateur. An investigating committee was appointed to consider the Robinson record. After a year had passed, this committee presented its report, in which it was stated: "We find that Station 2QR was not heard in Scotland as reported." With the report was published a letter from the Robinsons stating that they were convinced that, **according to the evidence secured by the committee**, the Scotchmen were in error in believing that they had heard the station. It was apparent that if the Robinsons made their report know-

ing that their station was not transmitting when it was reported to have been heard, Harold had violated the first Scout law: "A Scout is trustworthy."

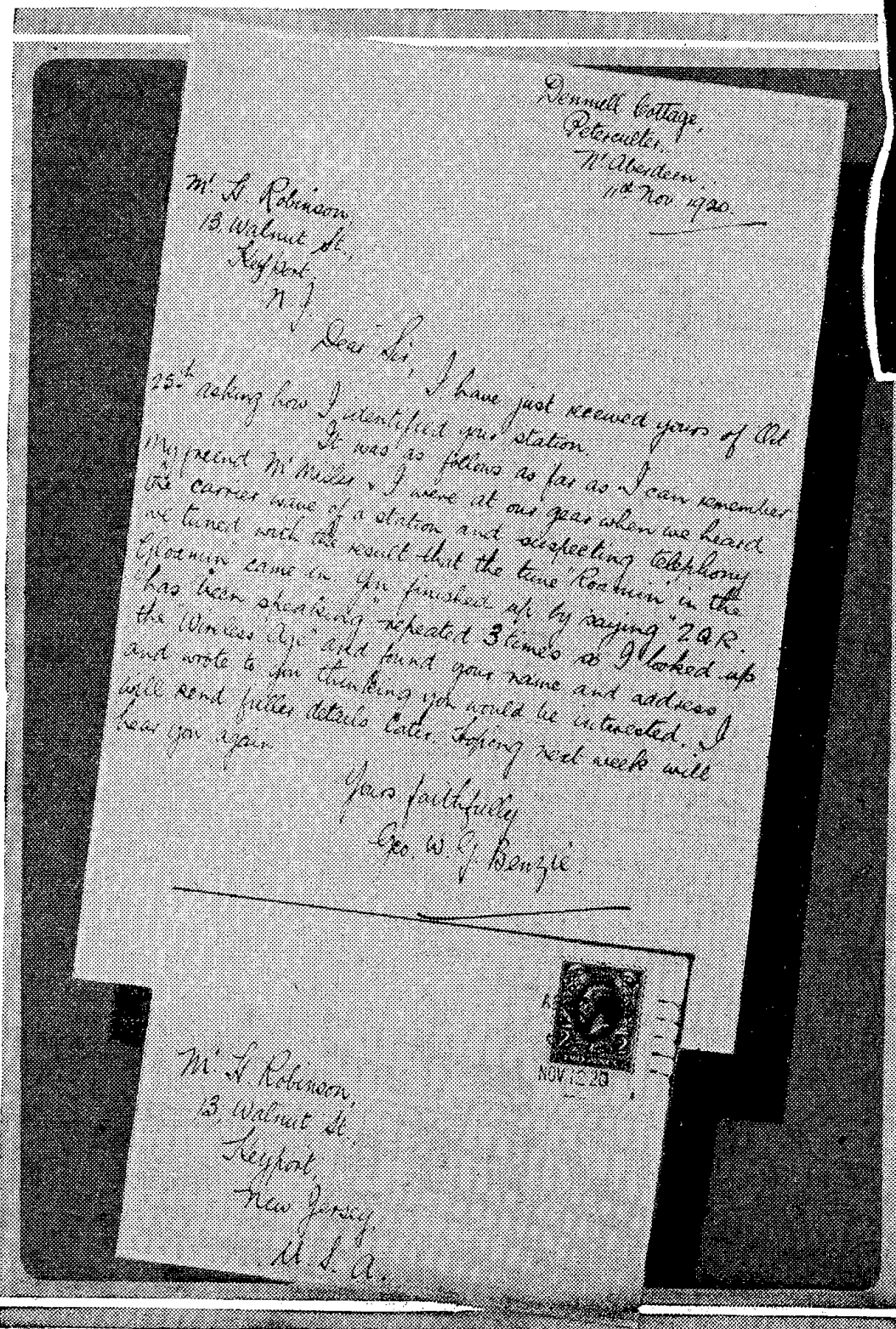
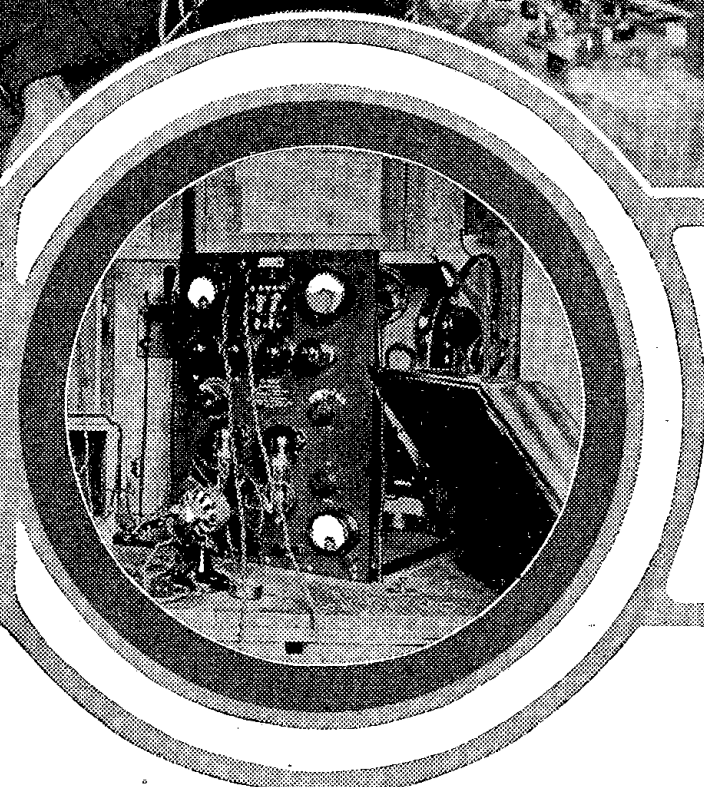
Wondering what evidence could be submitted to disprove their record, I asked a lawyer about it. He said the testimony of persons who were not at either station at the time of transmission would not have much weight, and that in a court action the testimony of the men who were at the stations, to-

his station heard across the Atlantic. Believing Mr. Armstrong and the others to be honest, they gave them the letter. They say they never saw the evidence Mr. Armstrong promised to show them.

The next day Mr. Armstrong and some colleagues entered the A. R. R. L. tests with a station erected especially for the purpose. There is evidence that a wave length was used that was extraordinary and illegal under the terms of their license and improper under the



Above are shown Hugh Robinson and his son, Harold, the Boy Scout whose voice was heard in Aberdeenshire, Scotland, singing "Roamin' Thro the Gloamin'" in the fall of 1920. Photograph of letter (left) from Scotland which seems to uphold young Robinson's claim. At right is the transmitting set "guaranteed for 25 miles" which the Keyport youth developed to transmit 3,500 miles.



gether with testimony concerning their character, reputation and probable motives would, no doubt, govern the verdict thus reached.

I asked the Robinsons what had changed their minds concerning the reports from Scotland. They said they had not changed their minds, but that they had been tricked into giving the letter to the committee. E. H. Armstrong and other members of the committee, they said, called on them the night before the American Radio Relay league transatlantic tests started, in 1921, and told them the committee had evidence, which **would be shown to them later**, disproving the record. They asked the Robinsons, in the interest of the amateur game, to give them a letter that would show that the opportunity was still open for some amateur to be the first to make

rules of the contest. I am told they were threatened with legal action because of their violation of regulations. Nevertheless, they were credited with being the first amateurs to make their signals heard across the Atlantic.

At the receiving station, in Scotland, was Paul Godley, representing the American Radio Relay league. To him went the credit of being the first amateur to receive amateur signals across the Atlantic. He stated in his report, published in QST, an amateur magazine and mouthpiece of the A. R. R. L., that he doubted whether he ever had his antenna properly adjusted for any wave length other than that of the Armstrong *(Continued on page 24)*

# Organ Is Favorite at WEAR

*VINCENT H. PERCY Takes Radio Listeners on World Tours via Music, Then Starts Second Jaunt into Realms of History. Cleveland Station Presents Programs of Interest to All Classes.*

By MARSHAL TAYLOR



While one of the principal features of the WEAR station at Cleveland is its pipe organ concerts, there are plenty of other features to give the station general interest. Madam Suzanne Dreger (above) is one of them. She plays classical piano solos and sometimes accompanies the singers.

Vincent H. Percy (below) is the WEAR organist.



Listeners who tuned in at the beginning of the series were wafted on the mellow notes of the organ to foreign shores by a variety of folk songs and national classics. As the numbers were introduced, Mr. Percy, acting as the guide and conductor, interpolated short verbal sidelights which created the atmosphere of the country to which the listener was to be transported. Ireland with its music, Scotland and its characteristic music, England—merry old England; France, Germany, Russia, Spain, Italy, Turkey, Greece, China, Japan—all distinctive in musical characteristics, were visited through the talented fingers and the keys of the famous Metcalf Memorial organ, at which Mr. Percy presided.

Of course, Mr. Percy is proud of his "vehicle" and attributes much of his success to its unusual power and scope. The organ is located in the Euclid Avenue Congregational church and was dedicated in May, 1920, to members of the congregation who were in the military service during the World War. It was named for Leslie I. Metcalf, whose personal gift and effort made it possible.

Wingfoot male quartet (left) top; down: Fred True, Albert Downing, Floyd Campbell and Chas. Fottier. Goodyear concert orchestra (below), Ivan Francis, director.

It is comprised of six complete organs in one, including the great, swell, choir, solo, echo and pedal organs.

\* \* \*

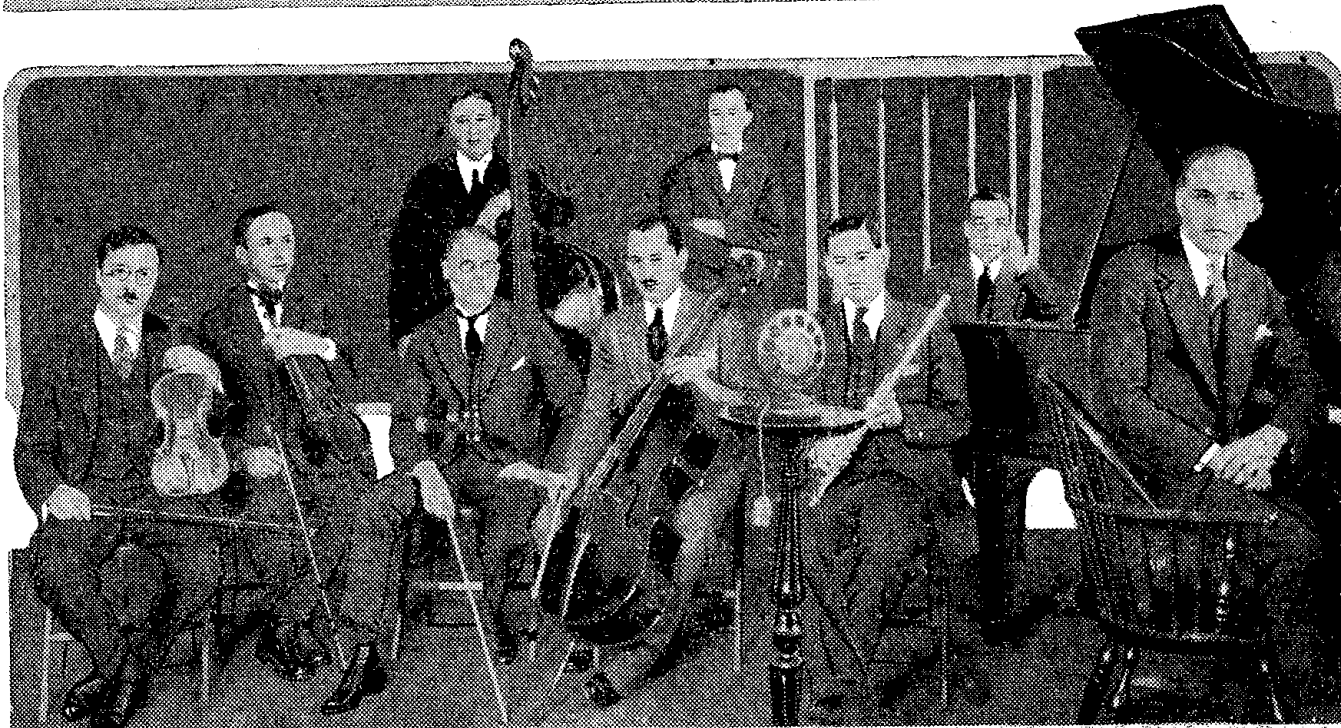
**O**RGAN recitals are becoming more popular over the Radio as receiving sets and loud speakers are improved. In trying out a new loud speaker in his home a few evenings ago the writer was overwhelmed with the faithfulness of the reproduction. Low notes that had hitherto been lost in the abysmal depths came floating into the room with gentle sweetness, exquisite in clarity and beauty.

In fact, the pipe organ had never before under any circumstances seemed so delightful, even in the studios and big auditoriums and we have heard some of the best of them from Salt Lake to New York. It was better than in the actual presence of the organ itself. We do not pretend to be an expert on acoustics, but it may have been that these particularly pleasing results were obtained not only because of the wider range in the timbre of the loud-speaker, but because in the studio the sounds coming from different points were blended together in the microphone and poured out at the terminal from one, small orifice that made each note equi-distant from the ear.

\* \* \*

**T**HIS, by way of organ prelude, brings us to Vincent H. Percy, organist at WEAR, Cleveland. Mr. Percy and his organ have made WEAR famous just as Al Carney at WHT, Chicago, also has made his station famous for its organ.

Mr. Percy started on his aerial road to fame last summer through a series of recitals he called a "Trip Around the World."



**I**N the construction of the Metcalf Memorial organ there are 100 miles of wire, 20,854 electrical connections and 3,505 pipes. Wind for the organ is supplied by the operation of a ten-horsepower electric motor.

These incidental details and many more are included in a pamphlet prepared by Mr. Percy for the listeners of WEAR, who frequently request information about the wonderful organ they hear from this station.

One thing about these organ tours, distance and time do not count. Mr. Percy would just as soon

(Continued on page 24)

## OFFICIAL AND FINAL CONFIRMATION PROGRAMS

### Sunday Evening, January 24

**OAX, Lima, Peru, 380 meters**, special international broadcast; band greetings to United States listeners; national music of the United States; orchestra; address; dance music.

**LOW, Buenos Aires, Argentine, 300 meters**, native music; announcements in Spanish, English and French.

**LOX, Buenos Aires, Argentine, 375 meters**, special program.

**HA, "Norag," Hamburg, Germany, 292.5 meters**, classical musical program.

**2LO, London, England, 362 meters**, Radio quartet; Charles Leggett, cornet solo; Clay Thomas, baritone.

**6EM, Bournemouth, England, 385 meters**, Wireless orchestra; Gerald Kaye, tenor; Philip Taylor, baritone; Winifred Scott, soprano.

**EAJ13, Barcelona, Spain, 460 meters**, program in Spanish music; "Las Corsarias," two-step; "Valencianas;" "The Night of Love;" "La Verbenade la Paloma;" "Servillanas;" "La Dolores."

**5XX, Daventry, England, 1601 meters**, same program this night as 2LO.

### Monday Evening, January 25

**HFF, "Vox Haus," Berlin, Germany, 505 meters**, special program of German airs.

**"Radio Wien," Vienna, Austria, 530 meters**, recital of chamber of music by Sedlak Winkler; string quartet by Municipal Opera company, playing compositions of Haydn and Mozart.

**EAJ7, Madrid, Spain, Radio Union, 373 meters**, featuring Zacarias Arcas, tenor; sextet, "Goyescas" by Grandos; tenor, "Le Partida" by Alzare; "Jota Del Trus De Los Tenorios" by Serrano; sextet, "Dona Fraisquitta;" "Grandinas" by Berrera; closing sextet, "Seville" by Alberrez.

**EAJ13, Barcelona, Spain, 460 meters**, program from famous operas; "Tosca;" "Sampson and Deliah;" "Faust;" "Carmen."

**Prague, Czechoslovakia, 368 meters**, "My Homeland," by Frederic Smetana.

**HA, Hamburg, Germany, 292.5 meters**, concert program, selections by Weber; Kreisler; Strauss; Schumann, Brahms.

**Stuttgart, Germany, 450 meters**, Wir Gehen In's theater, "from operetta Paganini;" "Glocken der Liebe;" "Boston Valse," by Lehar; "Ich Habe Nein Herz in Heidelberg Verloren," by Burke; "Der Schonnenschein," by Carl Struve; "Wenn der Liebe Nicht War," fox-trot, by King; "Teresina, Teresina," from the operetta by Strauss; "Die Kleine Pagode," by Benatzky; "Shanghai," by Nichols; "Hier Schlager War Dort," one and two ette-orchestra; "Im Prater Bluh Wieder die Baume;" "Das Wiener Faikerlied," by Stolz; "Besuch mich mal in Korsica," from operetta "Teresina," by Strauss; "So'ne Landpartie," shimmy dance, by King.

**MS, Muenster, Germany, 410 meters**, Wagner Tannhauser overture; Liszt preludes; Beethoven Romance in G for violin solo and orchestra; Grieg Nordische Weisen, One, Im Volkston, Two; Kuhreigen and Bauertanz for string orchestra; Strauss Rosekvavaller waltz.

**Munich, Germany, 485 meters**, concert, Anny Rosenbergers' Chamber music, quartet; "Eriksgang and Kormungmarsch," from Die "Folkunger," by Kretschmer; "Grosse Fantaisie" on Melodies," by Wagner; "Intermezzo" and "Barcarolle," from Tales of Hoffmann, by Offenbach; "Hungarian Dance" and songs.

**OAX, Lima, Peru, 380 meters**, "International Law and Radio," talk in English, by Dr. Oscar Miro Quezada; "My Old Love," Mexican song, Esparza Otero, soprano; Serenade, Widor, piano, harmonium, flute, violin, violin-cello; "Dance of the Witches," McDowell, piano; "E Ben do andro Lontano," Srta. Consuelo Paernio; Impressions of the Evening, violin; "Pippos Limenos," poems; "Ollanta," Peruvian opera, Maestro Vallerriestra, soprano, contralto; "El Llanto del Inca," characteristic native waltz, orchestra OAX; "Ritorna Vincitor," Verdi, soprano; waltz, Moskovsky, piano; Lima Girls, flirtation, orchestra OAX.

**LOX, Buenos Aires, Argentine, Radio Yaitura, 375 meters**, program of national Spanish music; announcements in Spanish, English and French.

**LOW, Buenos Aires, Argentine, 300 meters**, special musical program.

**SBR, Brussels, Belgium, 263 meters**, program unconfirmed.

**Breslau, Germany, 416 meters**, program unconfirmed.

### Tuesday Evening, January 26

**5XX, Daventry, England, 1601 meters**, station trio; Paul Specht's Canadian band; Cavalliria Rusticana; Frederick Hall, harpist; Walter Glenn, tenor.

**SWA, Cardiff, Wales, 351.6 meters**, same program as 5XX, Daventry, England, given above.

**2BD, Aberdeen, Scotland, 497.1 meters**, wireless orchestra; Dorothy Froest, mezzo-soprano; Robert Anderson, baritone.

**LOW, Buenos Aires, Argentine, 300 meters**, special musical program.

**LOX, Buenos Aires, Argentine, 375 meters**, special musical program.

**EAJ13, Catalana, Barcelona, 460 meters**, program from opera "La Geisha" by Jones; three numbers by Lehar, Count of Luxumberg; La Viuda Agegre by Eva.

**2LO, London, England, 365 meters**, Paul Specht's Canadian dance orchestra, from the "Kit Kit Club," rendering "If You Care," "Arraby," "Brown Eyes," "Pretending," "Yes, Sir, That's My Baby;" "Oh! Boy What a Girl;" "Melody in F," by Rubenstein, and "Indian Dawn."

**OAX, Lima, Peru, 380 meters**, "The Plebiscite of Taena and Arica," short dissertation by Ing. Carlos Jimenez Correa; "Variations," light soprano,

piano; "Quenas," native waltz, orchestra OAX; "Pearls of Brazil," soprano, piano; "Granada," Albeniz, orchestra OAX; legend, opera "Iris," Mascagni, orchestra; "Serenade of the Kisses," De Michell, orchestra OAX; "Unhappy Love," vocal and piano; "May," orchestra OAX; "A Furtive Tear," tenor, Marcial Calonge, piano; "The Wood on the River, piano; "A fose lui," Traviata, vocal and piano; Srta. Valentina Olin, piano; Srta. Ayarza de Morales Solar; "Rusticanela," fox-trot, orchestra OAX.

### Wednesday Evening, January 27

**HA, "Norag," Hamburg, Germany, 292.5 meters**, concert of Puccini numbers; Norag orchestra under direction of Adolph Secker, Arna Krell-Lang, singing arias from "Butterfly" and "Mimi."

**HFF, "Vox Haus," Berlin, Germany, 505 meters**, march; talk; songs; four Kreisler numbers by Max Rostal, violinist; two duet numbers; song; Strauss waltz by orchestra.

**EAJ7, Madrid, Spain, 373 meters**, jazz band and tango orchestra.

**Breslau, Germany, 416 meters**, violin solo, Dr. Alfred Laserstein; caprice for flute and piano, Herman Zanke; tarantella for cello, Curt Hasemann; duet for flute and violin with piano accompaniment.

**Prague, Czechoslovakia, 368 meters**, musical program.

**"Radio Wien," Vienna, Austria, 530 meters**, chamber of music, Schonrunner waltz by Lanner; second symphony by Schubert; Turkish March by Mozart; Peer Gynt suite I by Grieg; bits from opera by Strauss.

**LOW, Buenos Aires, Argentine Republic, 300 meters**, musical program.

**LOX, Buenos Aires, Argentine Republic, 375 meters**, special musical program and entertainment.

linist; two duet numbers; song; Strauss waltz by orchestra.

**EAJ7, Madrid, Spain, 373 meters**, jazz band and tango orchestra.

**Breslau, Germany, 416 meters**, violin solo, Dr. Alfred Laserstein; caprice for flute and piano, Herman Zanke; tarantella for cello, Curt Hasemann; duet for flute and violin with piano accompaniment.

**Prague, Czechoslovakia, 368 meters**, musical program.

**"Radio Wien," Vienna, Austria, 530 meters**, chamber of music, Schonrunner waltz by Lanner; second symphony by Schubert; Turkish March by Mozart; Peer Gynt suite I by Grieg; bits from opera by Strauss.

**LOW, Buenos Aires, Argentine Republic, 300 meters**, musical program.

**LOX, Buenos Aires, Argentine Republic, 375 meters**, special musical program and entertainment.

### Wednesday Evening, January 27

**OAX, Lima, Peru, 380 meters**, group of poems recited by their author; "Dance Granados," piano; "In the Cloister," orchestra.

(Continued on page 9)

# No More "B" Batteries on Your Radio

At last, a practical reliable "B" battery eliminator for your radio. Does away with "B" batteries; no charging; no replacing. Always 100% efficiency in "B" current. The most revolutionary development in radio.

**Genuine Fansteel  
Balkite  
"B"  
Eliminator  
Sent for Only**

**\$1.00  
Down**



U.S. PAT.  
MAY 27, 1924.

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# WAHG Great Organists Series Continues

ONE OF the outstanding contributions to the popularity of the broadcasting art has been the "Grebe Great Organists" series, given through Station WAHG, the A. H. Grebe Co., at Richmond Hill, N. Y. This excellent series has introduced the Radio audience to the most able and talented organists of the nation. The photographs herewith are of the famous artists who will give organ recitals on the next six Friday evenings, from 8 to 9 p. m. Eastern time, beginning February 19.



Above, Dr. Palmer Christian, organist of University of Michigan, and noted composer, appears March 26. In small circle is Hugh Porter, Chautauqua Institution organist, and director of organ department of Mannes School of Music, who appears March 12. Harold Gleason (right), organist of the Eastman School of Music, broadcasts March 19.

Harry Rogers Pratt, (below), organist of the University of Virginia, broadcasts his recital Feb. 26.

In large circle in exact center of layout is shown John Priest, organist of the Colony theater, New York city. He was formerly organist at Oxford university, England. His date of appearance at WAHG is February 19. Louis Potter (above), organist of Baptist Temple, Charleston, W. Va., broadcasts March 5.

## FINAL CONFIRMATIONS

(Continued from page 8)

chestra OAX; "Voices of Spring," by Strauss, sung by Elvira Sanchez, twelve-year-old soprano; "Sorrow," Indian song on primitive instrument; "Yaravi," "Zana," and "Marinera y Tondero," native airs, voice, guitar, piano, bandurria and cajon; "When the Soul Is Lulled to Sleep," tenor solo; "The Little Black Girl and the Shoe Polish," native popular song, orchestra; contemporary Peruvian poetry, recitation; "Little Princess," Spanish song, soprano; "The Little Peruvian Girl," two-step, orchestra OAX.

—, **Munich, Germany, 485 meters**, Professor Georg Baumgartner rendering "Schuberg One Las Wandern," "Wich-in," "Halt," "Danksagung an den Bach," "Am Feierabend, der Neugierige," "Morgengruss," "Des Muellers Blumen," "Tranenregen," "Der Mueller Und Der Bach," piano accompaniment; "Description of My Life as a Ship's Operator," talk.

**Thursday Evening, January 28**

**HA, "Norag," Hamburg, Germany, 292.5 meters**, Wagner concert, soloists, Ferdinand Schneider, Bernhard Jakschat; Norag orchestra under direction of Adolph Secker.

**HFE, Vox Hans, Berlin, Germany, 505 meters**, overture, Mozart number; overture by orchestra; song, Wagner's "Lohengrin"; Straus "Dannbe Waltz" by Frinkstude orchestra.

**LOX, Buenos Aires, Argentine, 375 meters**, musical program and entertainment.

**LOW, Buenos Aires, Argentine, 300 meters**, special musical program.

**"Radio Wien," Vienna, Austria, 530 meters**, Silving band playing six numbers; Gold and Silver waltz by Lehar; "Fledermauss" overture by Strauss; Narcissus by Nevin; Liebestod and Liebesfreud by Kreisler; second Hungarian rhapsody by Liszt; Night in Vienna by Komsak.

—, **Stuttgart, Germany, 446 meters**, selections from Wagner's "Meistersinger"; overture to "Leonoren"; Aria No. 3 by Beethoven; selections from Mozart's "The Magic Flute"; "Melody" by Gluck; song, "Land so Wunderbar" from Meyerbeer's "Die Afrikanerin"; overture and aria from Mozart's "Figaro"; overture from Weber's "Freischuetz"; song from Flotow's "Martha"; "Invitation to the Dance" by Weber; aria from Nicolai's "The Merry Wives of Windsor"; "Rosenkavalier" waltz by Strauss.

—, **Breslau, Germany, 416 meters**, Allegro Molto of Mendelsshon's violin concerto in E minor; capriccio for flute and piano by Lothar Kempner; tarentello for cello by David Opper; duet for flute and violin with piano accompaniment by Caesar Qui.

—, **Prague, Czechoslovakia, 368 meters**, "Slavische Tanza," by Dvorak.

**EAJ7, Madrid, Spain, 373 meters**, concert artists Nino De Los Lobitos and Domingo Marin, with station sextet and barrel organ; "Sextet Suspiros de Espana," by Alvarez; "Am Alborada Gallega," by Veiga; "Lobitos Song," by Soleares, entitled "Granadinas," guitar accompaniment by Domingo Marin; organ recital, "Pasodoble," Lobitos song by Dulerias and Caracoles, accompaniment by Domingo Marin, guitar; barrel organ schottische; Lobitos song by Guajiras and Fandanguillos, accompanied by Domingo Marin on guitar; sextet tango and Zapatiadode, entitled "Ensefianza Libre," by Gimenez, and "La Dolores Jota," by Breton.

**MS, Muenster, Germany, 410 meters**, "Hoch Heidecksburg March," by Herzer Rosen; "Aus Dem Suden Waltz," by Strauss, "Jones," from the operetta "Die Geisha," "O Tanz DuKleine Geisha," "Goldschlied"; soloist, Lisa Hillow; "Waldteufel Ganz Allerliebste," "A Merry Medly Willy Wittig," "Fall Dollarprinzessin," Casa songs, sung by Anton Himkamp, "Lacrima Christo," by Bohn; "In Der Waldschenke," by Simon; "Der Schimme Zecher," by Reissiger; Strauss Radetsky march.

**OAX, Lima, Peru, 380 meters**, "The Problem of Tacna and Arica After the Decision of President Coolidge," address; "Take the Ring I Gave You," soprano-tenor duet; "El Condor Pasa," prelude, Orchestra OAX; "Eight Variations on an Inca Theme," Rev. Father Paulo C. Aguilar; Sacred music by mixed chorus of three voices; Nocturne No. 3, Chopin, piano; "Lorelei," Orchestra OAX; "Prelude and Allegro," Pugnani-Kreisler, violin; "Sad Little Sister," tenor solo; "The Lima Today Which Likes Radio," talk; "She Is My Love," fox-trot, and hymns of Peru and the United States, Orchestra OAX.

—, **Munich, Germany, 485 meters**, orchestral concert, overture to "Die Beiden Nusaren," by Doppler, and "Der Schonen Blauen Danau Waltz," Strauss;

## Sport Broadcasts

**Track Meet**  
Saturday, February 13  
WOI, Ames, Iowa (270m-1110kc) Drake-Grinnell-Ames, 7:30 p. m., Central time.

**Hockey**  
Tuesday, February 16  
WBZ, Boston (333.1m-900kc) Boston Bruins-Pittsburgh, 8 p. m., Eastern time.

**Wrestling**  
Friday, February 19  
WOI, Ames (270m-1110kc) Oklahoma Aggies-Ames, 7:30 p. m., Central time.

**Basketball Games**  
Saturday, February 13  
WSUI, Iowa City (483.6m-620kc) Michigan-Iowa, 7:30 p. m., Central time.  
WIP, Philadelphia (508.2m-590kc) University of Pennsylvania-West Point, 8:15 p. m., Central time.

**Monday, February 15**  
KWSC, Pullman, Wash. (348.6m-860kc) University of Idaho-W. S. C., 7:30 p. m., Pacific time.

**Tuesday, February 16**  
WNAD, Norman, Okla. (254m-1180kc) University of Oklahoma-Oklahoma A. & M. College (time to be announced).  
WREO, Lansing, Mich. (285.5m-1050kc) Notre Dame-Michigan College, 8 p. m., Eastern time.  
KFRU, Lawrence, Kan. (275m-1090kc) K. U.-Iowa State College, 7:30 p. m., Central time.

**Friday, February 19**  
KWSC, Pullman, Wash. (348.6m-860kc) University of Washington-W. S. C., 7:30 p. m., Pacific time.  
KUOM, Missoula, Mont. (244m-1230kc) Montana State College-University of Montana (no time given).  
WKAR, East Lansing, Mich. (285.5m-1050kc) Michigan State College-Carnegie Tech., 8-9:15 p. m., Eastern time.

intermezzo from "One Thousand and One Nights," by Strauss; Kunstler-Leben Waltz," by Strauss; overture from "Die Schone Galathee," by Von Suppe; "Die Schonbrunner Waltz;" "Lanner Germania March," by Kral.

**SSC, Glasgow, Scotland, 422 meters**, program unconfirmed.

**5PY, Plymouth, England, 338 meters**, program unconfirmed.

**5IT, Birmingham, England, 479 meters**, program unconfirmed.

**2EH, Edinburgh, Scotland, 324 meters**, program unconfirmed.

## Germany Is 'Pipe' If You Know How

In Which Mr. Canaday Puts One Over on Mr. McCulloch, His Rival DX Friend

By S. J. Doss

FORT WAYNE, Ind.—There may be two more "bitter" Radio rivals in Fort Wayne than O. P. Canaday, of the Canaday Manufacturing company, and Robert McCulloch, assistant postmaster, but if there are they haven't come forward to be recognized.

Both are extremely proud of their respective sets and rivalry in tuning in on difficult stations to get is at a high pitch. Just now, Mr. Canaday is enjoying a good laugh at his friend's expense and "here's the how."

European test week naturally provided both fruitful ground. On one of the nights Mr. McCulloch received an invitation from his rival to "come over and hear Germany." "I've been getting it over my Radio." Mr. McCulloch was skeptical but willing to be convinced. Accordingly, he was on hand at the appointed hour. Mr. Canaday "tuned in on Stuttgart, Germany."

Music unmistakably Teutonic came clearly through the loud speaker and a moment later, Mr. McCulloch and other hearers present were informed in German as to the station and the next selection.

"Wonderful, not a bit of static," grudgingly admitted Mr. McCulloch, reaching for his hat and coat with the words and almost dashing out of the Canaday home in his anxiety to tune in on Stuttgart with his own set.

He didn't get it, however. The answer was:

In order to hoax his friend and rival, Mr. Canaday had arranged a small talking machine in the basement of his home and had attached his loud speaker to it by means of a rubber hose running through a cold air duct near the receiver. Three wax records in German comprised the "foreign station's program" and Dr. Walter Kruse, local German-speaking physician and accomplice in the hoax, played the part of the "German announcer."

A new insignia for United States naval Radio electricians, until recently classified as gunners Radio, in the form of "a jagged spark," has been adopted for uniform wear.

# STOP Bloops and Human Static!

## ARE You a Blooper and if so, Why? The Foreign Tests Showed the Evil of Blooping. You Can Prevent It Easily and Simply. This Article Tells How.

By the TECHNICAL STAFF

THE hour was that which occurs in every 24 known as 10 to 11 p. m. Central time. The day was the 26th of January—this year. Somewhere out in the darkness to the Eastward a score of European stations were shattering distance and atomic quiet with all the power available from great dynamos and acres of storage batteries, in the hope that some small part of their great power might reach American shores in the form of enjoyable entertainment. The tubes of three carefully adjusted super-heterodynes glowed dimly in the quiet of the laboratory. Each was attached to an antenna and the dials went relentlessly back and forth in patient search of fragments of the music and speech speeding Westward. "Bloop, bloop, whur-r-r click, click, bloop," said the big special with the neutralized, honeycomb intermediates. "Whistle, whistle, crash, bloop, bang and a coupla bong," answered the shorter but fatter special with the resistance coupled intermediates. The third, not to be outdone, retaliated with a siren whistle that started high, went down to a grumble and again soared to a piercing screech. Suddenly the big

"If the broadcast listeners would take effective steps to put a stop to the squealing of regenerative sets, probably 25 per cent of Radio interference would be removed in many localities," says the Interference Co-ordination committee's report of the National Electric Light association. On this subject, Radio Guide states, "Apparently every one cooperates except the Radio listeners themselves, just the people one would think would try the

range; much of it is wilful and in disregard of the rights of others. Do YOU know what causes squeals? Do YOU know what oscillation is? Do YOU know what regeneration is? If you do not, and you'd like to, so you can do your bit toward making the world safe for a self-respecting Radio set to operate in, then read on.

### Principle of Regeneration

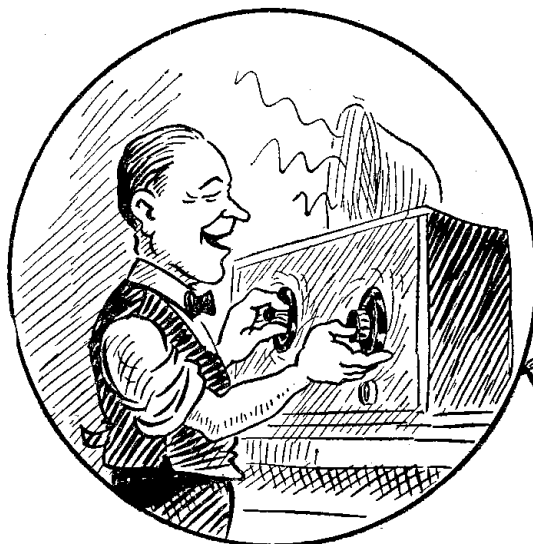
The principle of regeneration, as used

circuit a current of electricity of the same frequency as that of the received electric waves. The energy, therefore, which comes down the antenna wire is automatically strengthened by impulses from the output of the tube.

Unless properly controlled, this action will continue to build up until the saturation point or climax is reached, the tube being then said to be in a state of oscillation. When a receiving set is in oscillation, it causes howling and squealing in your own and your neighbor's receiving sets. Regeneration should therefore never be allowed to proceed to this point as it then constitutes a public nuisance.

### Your Set Can Oscillate

You may be one of hundreds of thousands who can say, "But, my set is not a single circuit regenerative receiver. Mine is a five tube, so made that it cannot oscillate." That may be perfectly true, but if your set has tubes, anywhere from one to ten, it can cause interference. That may upset all your ideas on the subject; it may not agree with statements you've seen elsewhere, but it CAN cause interference. This brings us to the point that whether your set is to be classed as a

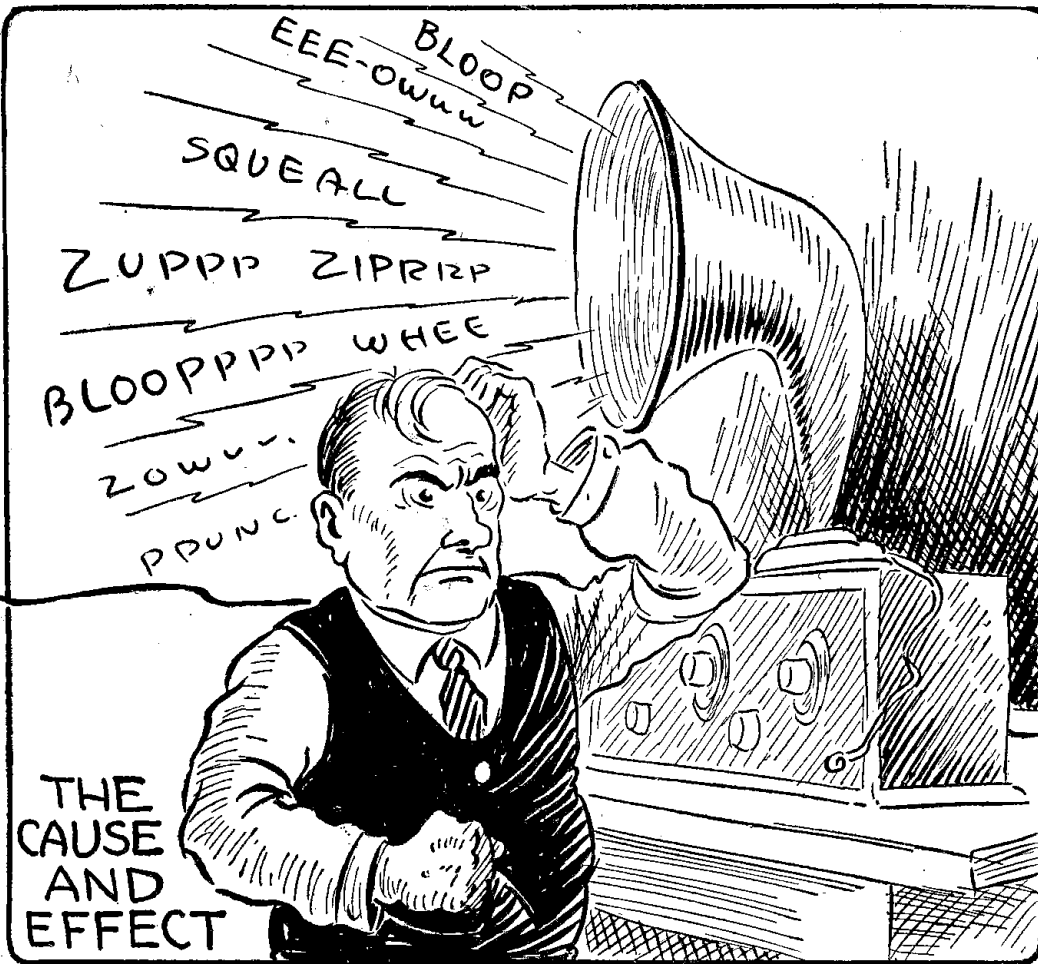


THE RACING DIALS

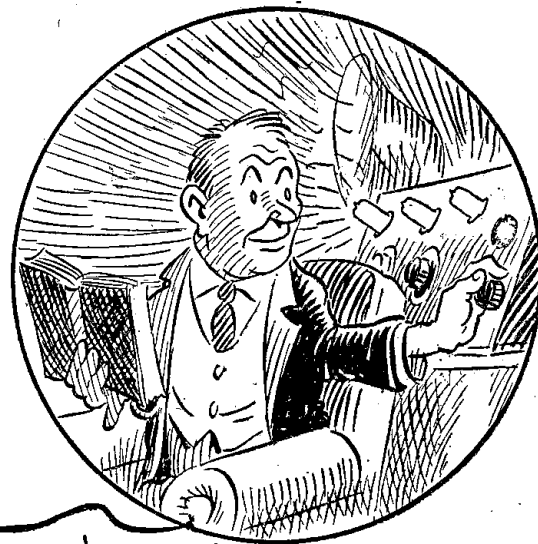
special landed on an orchestra. For a moment the melody poured forth, clear and pure with but a slight background of the ever present static. Then it died, with the grumble of a nearby blooper as its swan song. The search went on. At 200 meters, at 350, at 425, at 500, always the chorus of whistles, bloops, grumbles and clicks. Occasionally, the hum of vibrator or violet ray machine varied the monotony. One more snatch of music, one announcement was all the reward for the hours of building, the hours of search. Reports that trickled in during the rest of the week indicated that such was the result of the International tests for about 2,000,000 other set owners.

### Who Is to Blame?

Many were the invectives used to comment on the condition of the atmosphere. New words were coined to properly express disappointment and chagrin. The older words were run to death. All of which has led to much speculation and argument on one technical staff as to who is to blame. Let's first take the stations. Surely, no one can logically lay the finger of blame on them; the Americans were quiet at the times requested, the Europeans and South Americans were on their waves and not heterodyning. Second, there are the makers of sets. You cannot blame them. The Radio public wants range, coast to coast reception and dance volume on everything from KFI to WEA. To even approach such needs, regeneration must be possible on from one to three tubes. You people wanted it, you got it. A recent survey made by the Department of Marine and Fisheries of Canada relative to Radio broadcast conditions in the more populated centers in the Dominion indicates that approximately fifty per cent of the "preventable interference" which prevails is caused through the incorrect operation of regenerative receiving sets by the broadcast listeners themselves. An article prepared by Mr. Andrew J. Allen, secretary of the National Broadcast Listeners' league, states that the most difficult sources of interference to overcome, and which create as much annoying and widespread interference to Radio reception in all cities at this time as any other cause, are the squeals, whines, whistles, squawks and howls of the radiating receivers.



THE CAUSE AND EFFECT



CANT GET 'EM BRIGHTER

hardest to behave. Regenerative sets still hold all records for interference and practically every magazine and newspaper in the country has run articles warning about such outfits. Radio etiquette among broadcast listeners calls for the elimination of such interference. If each listener would remember that every time his set whistles coincidental with his tuning of it, he is sending out that same whistle to annoy all other listeners for a considerable area, it is believed that much of the trouble would soon be eliminated."

So there you are; no matter what agency investigates the complaints of the Radio public as to squeals and howls during International Test week, or any other time, the blame comes right back to the aforementioned Radio public's own door. Part of this interference is due to igno-

in Radio receiving sets, is that part of the output of the detector, or a radio frequency amplifier, tube which feeds back into its own input and thus greatly increases the volume of the signal. The electric waves reaching the receiving set from the transmitting (broadcasting) station travel down the aerial and its lead-in, through the first coil in the set and so to earth through the ground wire. The energy set up in this first coil is transferred, either directly or by induction, into the grid of the first tube and influences it in such a way as to set it functioning.

The resulting output from the plate circuit of this tube is fed back in such a manner as to set up a "field" or influence, in the part of the circuit connected, as mentioned above, to the input or grid of the tube. This "field" induces in the input

"blooper" depends upon the amount of the interference. So far in this article one would gather that interference is caused only when the set breaks into oscillation, to be recognized by the yowl in one's own set. That is the extreme; any tube set radiates, causing interference, when the regeneration is advanced to the point where distortion creeps in.

Some sets are supposedly "balanced" or neutralized so that high amplification can be had in the radio frequency amplifier tubes without the possibility of oscillation. Such construction is designed to set up a reverse feeding back around the radio frequency stages so that any regenerative feeding back will be offset and cannot build up into the condition known as oscillation. That is all very well at the particular wavelength at which the neutralizing was carried out but the further away in the broadcasting wavelength band that one gets, the greater the regeneration, and in most cases this closely approaches actual oscillation. These sets certainly can and do radiate.

### Can "Bloop" 1,000 Miles

You and many others may question the extent to which such radiation interferes with others. It is this which determines whether one is a blooper or not. A lighthouse keeper in New York harbor, who is located several miles from shore, finds that his only form of interference is caused by whistling receivers whose interference must travel at least five miles to enable him to hear it. In another case an amateur is reported to have experimented with such a device and was actually able to exchange signals with another station over a distance of five miles with only a WD-11 tube used as a detector. An oscillatory circuit can be built around a 199-tube, with only 140 volts B battery, and transmission accomplished, at times, over 1,000 miles.

In Cleveland two tests were conducted under joint auspices of the Cleveland Plain-Dealer and the Cleveland Radio association, to determine the extent of the area affected by oscillating Radio receivers. In one of these tests the oscillating set was heard clearly within a radius of 50 miles. An interesting incident is contained in Mr. A. J. Allen's article, mentioned before. "I was trying to locate a neighborhood blooper which was a source

(Continued on page 24)

<b>PLEDGE CARD</b>	<b>Radio Digest</b> PROGRAMS Illustrated <small>Reg. U. S. Pat. Off. &amp; Dom. of Canada</small>	<b>I WON'T BLOOP CLUB</b>
I pledge myself to operate my Radio set to reduce radiation or blooping. If I am unable to make my present set operate properly, I further pledge myself to replace it with a receiver that will create less interference.		
Make of my set:	Signature .....	
Number of tubes is:	Address .....	
	City and State.....	
I am cooperating in this campaign with Station.....		
Upon mailing this pledge to Radio Digest, "I Won't Bloop Club" membership card suitable for wallet or framing will be issued.		

# WBAL GIVES GREIG PROGRAM SUNDAY

## Sunday, February 14

### Central Time Stations

**CKY, Winnipeg, Can. (384.4m-780kc)**, 7 p. m., church services; 9, Eveready hour, classical music, Earle C. Hill's Capitol theater orchestra.

**KFAB, Lincoln, Nebr. (340.7m-880kc)**, 12-2 p. m., orchestra; 4-5:30, vesper service; 9-11, musicale.

**KFDM, Beaumont, Texas (315.6m-950kc)**, 11 a. m., services, First Christian church; 7:30 p. m., services, First Christian church.

**KFEQ, Oak, Nebr. (267.7m-1120kc)**, 4 p. m., Sutton, Nebr., old-time fiddlers; 8:30-10, Eddie Fales' dance orchestra.

**KFKU, Lawrence, Kan. (275m-1040kc)**, 4 p. m., vespers, School of Finer Arts.

**KFNF, Shenandoah, Iowa (263m-1140kc)**, 10:45 a. m., First M. E. church; 2:30 p. m., Golden Rule song service; 3, Free Methodist German church services.

**KFRU, Columbia, Mo. (409.7m-690kc)**, 7:30 a. m., sunrise service, Nellie Lee Holt; 9:20, Burrall Bible class, Jessie Burrall; 7:30 p. m., First Baptist church, Rev. Luther Wesley Smith, pastor.

**KFUO, St. Louis, Mo. (545.1m-550kc)**, 4 p. m., "Look Up and Lift Up Your Heads, For Your Redemption Draweth Nigh"—Comfort Against the Passing Away of the Present World and the Coming of Judgment; 9:15, "Be Thou Faithful Unto Death and I Will Give Thee a Crown of Life," Rev. P. E. Gose; songs and music.

**KLDS, Independence, Mo. (441m-680kc)**, 11 a. m., Stone church service; chorus choir; Mrs. E. C. Harrington, soprano; Robert Miller, organist; 3 p. m., sacred program, Watson Memorial M. E. church; Mrs. R. W. Rucker, soprano; Mrs. C. E. Krimminger, soprano; Mrs. Anna Rued, contralto; Mrs. Ira Drymen, contralto; Hazel Cook, organist; Edward Schowengerdt, baritone; sermon, Rev. W. E. Brown; 6:30, vesper service, Walnut Park quartet; sermon, Elder U. W. Greene; 9:15, Walnut Park choir; Mrs. C. E. Haden, soprano.

**KMA, Shenandoah, Iowa (252m-1190kc)**, 12:15-1:15 p. m., sacred songs, Mrs. May; 4-5, church choir music; 5-6, Bible study, G. H. Van Houten.

**KOIL, Council Bluffs, Iowa (278m-1080kc)**, 11 a. m., First Congregational church services, Rev. J. R. Perkins, pastor; 1 p. m., dinner program; Randall's Royal Fontenelle orchestra; 7:15, "The Sleepy Time Girl," Bernice Oltzbe; 7:30, popular program; Monarchs, Jerry McMillan, director; 11, college club orchestra.

**KPRC, Houston, Tex. (296.9m-1010kc)**, 10:45 a. m., First Methodist church services, Rev. A. Frank Smith, pastor; Mrs. E. G. Rountree, organist; Mrs. John Wesley Graham, director; 7 p. m., St. Paul's chimes, rung by Edith Brown; 7:30, St. Paul Methodist church services, Rev. K. P. Barton, pastor; Mrs. Anna Clyde Plunkett, director; Edith Brown, organist; 9:30, concert.

**KSD, St. Louis, Mo. (545.1m-550kc)**, 6:15 p. m., St. Louis Post-Dispatch concert orchestra; 8:15, Atwater Kent hour, WEAJ.

**KTHS, Hot Springs National Park, Ark. (374.8m-800kc)**, 11-12:15 p. m., Saint Luke's Episcopal church services, Rev. Charles Collins, pastor; 9:15, tenor solo recital, Arthur Platz; 9:15-9:30, piano selections, Elizabeth Bove; 9:30-10, songs, New Arlington hotel grand ensemble, Lon Chassy, conductor; 10-11:30, Arkansas Traveler Limited frolic, Benny Ford and his musical train crew.

**KWWG, Brownsville, Texas (278m-1080kc)**, 2:30 p. m., church service.

**KYW, Chicago, Ill. (535.4m-560kc)**, 11 a. m., Central church; 2:30 p. m., chapel service; 4:30, program, Edwin Harper, director; 7, Chicago Sunday evening club; Clifford W. Barnes, president; "Washington and Lincoln," Dr. Edgar DeWitt Jones; 9:30, classical program, Commonwealth Edison company.

**WAMD, Minneapolis, Minn. (244m-1230kc)**, 10:30 a. m., First Unitarian church services, John Dietrich, pastor; 6:45, Arthur H. Faust, Leone Faust and WAMD Radio stock company; 9:30, Gayle Wood, pianist; Harmony hurricane.

**WBAP, Fort Worth, Texas (475.9m-630kc)**, 9:30 p. m., Chief Gonzales' Texas hotel Royals.

**WBBM, Chicago, Ill. (226m-1330kc)**, 12:30-2 p. m., classical program; William P. Zimmer, tenor; Harold Morava, lyric tenor; Kantor and Krutz; Sandy Meek and Harry Sosnik; Edna Wheeler Ballard, harpist; Little Caruso and Moulton Rouge operatic quartet; 4-6, Larry Shay; Lew Russell; Spencer, Lavergne and Shayne, zylophonist; Pete Kules; Tip trio; Ziegler sisters; Two Jays; Harold Anderson; Charlie Garland; George Thurn, uke and kazzo; visualized Hawaiian guitar artists; Shayne melody monarchs; Rudy Winter; Floyd Falch; 8-10, Sunset male quartet; WBBM string trio; Maurice Shterman; Moulton Rouge orchestra; Vivian Sheffer, contralto; Pauline Stiffler, violinist; Rudy Winter; Floyd Falch; 12-2, Nutty club; Moulton Rouge orchestra.

**WCAL, Northfield, Minn. (336.9m-890kc)**, 8:30 a. m., Norwegian church services, Rev. K. O. Lundberg; 8:15 p. m., Rev. Nils Kleven; Mrs. Edwin Brye, pianist; Alvin Martinson, tenor; Sylvia Sundal, soprano.

**WCBD, Zion, Ill. (344.6m-870kc)**, 8 p. m., mixed quartet; Fred Faassen, organist; Mr. and Mrs. Steel, vocal duets; Mrs. Hill and Mrs. Wedekind, vocal duets; Daniel Mason, trombone solos; Alexander DePew, flute; Richard F. Hire, violinist; Mrs. Blanche Keeler, readings.

**WCO, Minneapolis-St. Paul, Minn. (416.4m-720kc)**, 10:50 a. m., Hennepin Avenue M. E. church; 4:10 p. m., House of Hope Presbyterian church; 6:20, Second Church of Christ, Scientist; 8:15, Atwater Kent program, Anna Case, soprano.

**WDAF, Kansas City, Mo. (365.6m-820kc)**, 3-4 p. m., ladies' glee club, Missouri Wesleyan college; 4-4:45, Sabbath vespers.

**WDOD, Chattanooga, Tenn. (256m-1170kc)**, 7:30-9 p. m., services.

**WEBB, Chicago, Ill. (370.2m-810kc)**, 10:45 a. m., Seventh Church of Christ, Scientist; 7-8 p. m., artists' program.

**WENR, Chicago, Ill. (268m-1130kc)**, 2-4 p. m., concert and sacred program; Rauland-Lyric trio; church music; John L. Baker, tenor; John A. MacFarland, basso; 9:30-12, popular program; All-American Pioneers; Cora Deacon; G. W. Voss, bass; Frank Westphal, pianist; Everett G. Mitchell, baritone.

**WFAA, Dallas, Tex. (475.9m-630kc)**, 2:30-4 p. m., Sunday hour for farmers; music; 6-7, Radio Bible class, Dr. William M. Anderson, pastor First Presbyterian church; Bible study and Gospel song; 7:30-8:30, services, City Temple, Dr. B. P. Fullerton, pastor; 8:30-9:30, East Dallas Christian church quartet, Dan Rodgers, director; 11-12, Jack A. Davis, pianist; Jack Bell, tenor, "A Pair of Jacks."

**WGES, Oak Park, Ill. (250m-1200kc)**, 10:15-2 a. m., Austin M. E. church services, Dr. James L. Gardner, pastor; choir, organ; 5-7:40, Moody Bible institute program; 11-12, organ, sacred and classical.

**WGN, Chicago, Ill. (302.8m-990kc)**, 10:45-11:45 a. m., Uncle Walt; 11:45-12:45 p. m., Sunday noon musical hour, Chicago theater; 12:45-1:45, Chicago theater complete performance; 2-3, Edwin Stanley Seder's organ concert; Lyon and Healy studio; 3-4, concert, Chicago Philharmonic orchestra; 4-5, musical program; 5-5:15, old time favorite songs; 7-7:30, musical program; 7:30-7:45, old time favorite songs; 7:45-8:15, musical program; 8:15-9:15, Atwater Kent concert; 9:15-10, musical program.

**WHAD, Milwaukee, Wis. (275m-1090kc)**, 8:15 p. m., Turnverein symphony orchestra.

**WHAS, Louisville, Ky. (399.8m-750kc)**, 9:57 a. m., organ prelude; 10, Broadway Baptist church services, Rev. Dr. Spencer Turner, pastor; choir music, H. U. Woodwin, director and organist; Mrs. O. W. Edinger, soprano; Angeline McCrocklin, contralto; Charles E.

Barnes, Jr., tenor; William Cornwell, baritone; 4:30-5:30, evensong choral service, Christ church cathedral, Rev. Richard L. McCready, dean; Ernest Arthur Simon, organist and choirmaster; boys' choir.

**WHB, Kansas City, Mo. (365.6m-820kc)**, 9:40-10:45 a. m., Linwood Blvd. Christian church services, Dr. Burris Jenkins, minister; Rev. Mr. E. A. Blackman, co-minister; 11:45-12:30 p. m., Independence Blvd. Christian church service, Dr. R. H. Miller, minister; 8-9:15, Westport M. E. church services, Rev. W. A. Tatley, minister; 11:15, Sunday evening organ concert, Linwood theater.

**WHO, Des Moines, Iowa (526m-570kc)**, 11 a. m., B'Nai Yeshurum Congregational church services, Eugene Mannheimer, rabbi; 7:30-8:30, Bankers' Life trio, Helen Birmingham, director; Myrtle Williams, soprano; Stewart Watson, baritone.

**WIBO, Chicago, Ill. (226m-1330kc)**, 2-4 p. m., Sunday afternoon concert; Mr. Bunte and quartet, song biographies; Charlotte Edwards, contralto; Bernice Taylor, soprano; Chester Newman, baritone; 6-8, dinner concert; sacred songs, Walter Preston; WIBO string trio; Laura Remer, contralto; Sydney Ellstrom, baritone; Helen Snyder, soprano; Earl Bigelow, pianist; 10-12, popular program; The Jordans, Irene Beasley, Everette G. Mitchell; Eugene Wallenius, tenor; Marie Tully, soprano.

**WJJD, Mooseheart, Ill. (370.2m-810kc)**, 7:45-8:45 a. m., Catholic services; 9:40-10:30, Protestant services; 3-4 p. m., Mooseheart Sunday concert.

**WKAF, Milwaukee, Wis. (261m-1150kc)**, 4-6 p. m., Jean Hammond and her Tune Tinkers; Olga Christiansen, mezzo-soprano; Anne Bauman, contralto.

**WKRC, Cincinnati, Ohio (422.3m-710kc)**, 6:45 p. m., services, Walnut Hills Christian church, Rev. J. J. Castleberry; 10, classical program, vocal and instrumental numbers; 11:30, Marion McKay and his dance orchestra.

**WLIB, Chicago, Ill. (302.8m-990kc)**, 5-7 p. m., musical program.

**WLS, Chicago, Ill. (344.6m-870kc)**, 6:30 p. m., prelude to WLS Little Brown church; 7, Little Brown church.

**WMBB, Chicago, Ill. (250m-1200kc)**, 3-5 p. m., Trianon orchestra; Woodlawn theater orchestra; Earle Smith, Lucile O'Hara; Bob Duffy; 7:40-9, Fifth Church of Christ, Scientist; 9-11, Trianon orchestra; Woodlawn theater orchestra; Jack Goodwin; Billie Allen Hoff, Bob Bennet.

**WNAD, Norman, Okla. (254m-1180kc)**, 9:30 p. m., Mu Phi Epsilon.

**WOAN, Lawrenceburg, Tenn. (282.8m-1060kc)**, 9-10 p. m., quartet, sacred songs.



One of the voices well loved at KHJ, Los Angeles, is that of Ruth Pitts, soprano, above. She is a coast favorite. The young artist to the left is Rosita Escalana, pianist, who appears this month when the New England Conservatory of Music gives a program at WEZ, Springfield.



**WOWA, Omaha, Nebr. (526m-570kc)**, 9 a. m., chapel service, Rev. R. R. Brown; 1:30 p. m., matinee program; 6, Bible study period, Mrs. Carl R. Gray, director; 9, chapel service.

**WOC, Davenport, Iowa (483.6m-620kc)**, 1-2 p. m., Palmer Little symphony; 2:30-3:45, Second Christian conference; 8:15-9:15, Atwater Kent Radio artist; 9:45-11:45, Palmer Little symphony.

**WOI, Ames, Iowa (270m-1110kc)**, 10:45 a. m., chimes; 11, chapel service, Dr. George Irving; 3 p. m., "Rose Maiden," cantata, Prof. Tolbert MacRea, director.

**WOK, Chicago, Ill. (217.3m-1380kc)**, 1-2 a. m., Tearney's Town club orchestra; Carl Lorraine's Pershing Palace orchestra; Husk O'Hare's Coccoanut Grove orchestra; 6-1 a. m., Tearney's Town club orchestra; Pershing Palace orchestra; Husk O'Hare's Coccoanut Grove orchestra; Capitol theater complete musicale.

**WOO, Kansas City, Mo. (278m-1080kc)**, 11-12:30 p. m., services; 7-7:45, services.

**WORD, Batavia, Ill. (275m-1090kc)**, 10 a. m., sacred solos and duets, W. E. Page; 2:30-3:30, program, Chicago Rapid Transit company; 7-8, Evensong service; 9-10:30, I. B. S. A. choral singers; Howard Hanks; Phyllis Burton.

**WOS, Jefferson City, Mo. (440.9m-680kc)**, 9:30 a. m., religious services, Christian church, Rev. Walter M. Haushalter, pastor; 4:30 p. m., vesper services, First Presbyterian church, Rev. A. E. Jackson.

**WOL, Chicago, Ill. (447.5m-670kc)**, 9:30-11:30 a. m., People's church services; 3-4 p. m., Sunday afternoon concert, Jerry Sullivan, director; Ballantine stringed trio, Kirste Galle Kallella, cellist; Helen Leon, violinist; Sadie A. Ballantine, accompanist; Oscar Werner, flute solos; operatic trio; Luella Schwarz, soprano; Milton Cooper, tenor; Russell Stern, basso; Monica Caldwell, piano solos; 8-10, Ralph Williams and his Rainbo Gardens orchestra; Pierson Thal, pianist; Marvyl Larson, soprano; Everett G. Mitchell, baritone; Frederick Mueller, German tenor; Kathryn Diepenbrock, pianist and accompanist; Lorena Anderson, soprano; Fontella trio; Peggy Jewett, first soprano; Bertha McGrath, second soprano; Evelyn Hendricks, contralto; Lillian Melcher, pianist.

**WSAI, Cincinnati, Ohio (325.9m-920kc)**, 3-4:30 p. m., men's conference, Walter Riland, presiding; music, Gloria Trumpeters; 7:45, WSAI Radio chime concert, Robert Badgley; 8, sermon, Press Radio Bible service; 8:15-9:15, program, Atwater Kent Radio hour, featuring Anna Case, soprano, Max Jaffe, accompanist; 9:15, Union Central Life Insurance company orchestra, Sigmund Gulp, director.

**WSB, Atlanta, Ga. (428.3m-700kc)**, 5 p. m., First Baptist church choir.

**WSM, Nashville, Tenn. (282.8m-1060kc)**, 7:30 p. m., First Presbyterian church, Dr. James I. Vance.

**WSUI, Iowa City, Iowa (483.6m-620kc)**, 4 p. m., vesper service, University orchestra; 9:15, familiar hymns, Celeste Fuhrmann.

**Mountain Time Stations**

**KFXF, Colorado Springs, Colo. (250m-1200kc)**, 11-11 p. m., First Presbyterian church; 7:30-9 p. m., First Methodist church.

**KOA, Denver, Colo. (322.4m-930kc)**, 10:55 a. m., St. John's Episcopal cathedral; 3 p. m., Karl O. Staps, organist; 7:25, St. John's Episcopal cathedral.

**Pacific Time Stations**

**KFI, Los Angeles, Calif. (467m-642kc)**, 4-5 p. m., vesper service; 6:30, Nightly doings; 7-8, program, A. H. Grebe & company, presenting the Synchronphase string ensemble; 8-9, Aeolian residence pipe organ, Dan L. McFarland, organist; 9-10, Mabelle Hein and Her Blue Bird band; 10-11, Packard Six dance orchestra.

**KFON, Long Beach, Calif. (232.4m-1290kc)**, 6-6:30 p. m., Brayton's theater organ; 6:30-7, amusement information; 7-7:45, investment hour; 7:45-9, service, First Church of Christ, Scientist; 9-11, studio program.

**KFWB, Hollywood, Calif. (252m-1190kc)**, 9-11 p. m., Warner Brothers' Sunday night movie frolic; Jack Smith's dance orchestra; Jack Kurtz, whistling pianist; Albert Keglovich, violinist; Dan Gridley, tenor.

**KGO, Oakland, Calif. (361.2m-830kc)**, 11 a. m., service, St. Luke's Episcopal church; 3:30 p. m., KGO Little Symphony orchestra; Marjorie Sprague Stoner, contralto; 8, St. Luke's Episcopal church.

**KGW, Portland, Ore. (491.5m-610kc)**, 10:25-12 noon, services, First Presbyterian church; 7:30-9 p. m., services, East Side Baptist church; 9-10, concert, Chevrolet symphony orchestra.

**KHJ, Los Angeles, Calif. (405.2m-740kc)**, 4-5 p. m., Masonic service; 6:30-7, Leighton's Arcade cafeteria orchestra, Jack Cronshaw, leader; 7-7:30, First Methodist Episcopal church; 8-10:30, program, Fifteenth National Orange show at San Bernardino; Jose Arias' Mexican orchestra and entertainers; Arlon quintet.

**KNX, Hollywood, Calif. (336.9m-890kc)**, 6:30-7 p. m., Unitarian church service; 7-9, First Presbyterian

church of Hollywood; 9-10:30, program, Beverly Hills Nurseries with Russian string trio; Calmon Luboviski, master violinist.

**KPO, San Francisco, Calif. (428.3m-700kc)**, 9:45-10:45 a. m., undenominational and non-sectarian church service; contralto solos, Lillian Waddington; improvisation, Uda Waldrop; 10:45, "Ye Towne Cryer"; 5-6, p. m., organ recital, Marshall W. Giselman; 6-6:30, Waldemar Lind and the States Restaurant orchestra; 6:30, "Ye Towne Cryer"; 6:30-8:35, Palace hotel concert orchestra, Cyrus Trobbe, director; 8:35-9, Rudy Siegler's Fairmont hotel orchestra; 9:15-10:15, Atwater Kent artist program, Ernest Ingold, Inc.; Allan McQuehae, tenor; Mildred Marsh, pianist.

**KPSN, Pasadena, Calif. (315.6m-950kc)**, 8:45-9:45 p. m., Maryland artists' ensemble, Henri J. Van Praag, director.

**KTAB, Oakland, Calif. (240m-1250kc)**, 9:45-10:45 a. m., Bible lecture, Prof. B. G. Lansley; 11-12:30 p. m., church service; 7:45-9:15, church service; 9:30-11, concert.

## Monday, February 15

**Headliners Today**

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	5:30 p. m.	4:30 p. m.
WMCA (340.7m-880kc)	Kurtz Karnal Kings	7:45	5:45
7:45	6:45	5:45	4:45
WGYY (379.5m-790kc)	Pittsfield mixed quartet	8:15	7:15
8:15	7:15	6:15	5:15
WLIT (394.5m-760kc)	Mrs. Snyder's quartet	8:30	7:30
8:30	7:30	6:30	5:30
WNIC (526m-570kc)	Friendly Sons of St. Patrick's glee club	9	8
9	8	7	6
WLIT (394.5m-760kc)	Stanley hour of music	9:30	8:30
9:30	8:30	7:30	6:30
WCAU (278m-1080kc)	Monday Nighters	10	9
10	9	8	7
KSD (545.1m-550kc)	Scotch program	10:50	9:50
KYW (535.4m-560kc)	An hour of music	11:00	10:00
WEAF (491.5m-610kc)	WOO, WJAR, WCAP, WTAG, WCAE, WSAI, Grand opera, "La Sonnambula"	11:30	10:30
11:30	10:30	9:30	8:30
KFXF (250m-1200kc)	Musical	12:00	11:00
KTHS (374.8m-800kc)	Semi-classic hits	10:50	9:50
10:50	9:50	8:50	7:50
WTIC (475.9m-630kc)	Works of Franz Schubert, Travelers' symphonic ensemble		



# OYSTER DISHES ARE STRICTLY AMERICAN

## BETTY CROCKER PRESENTS WAYS OF PREPARING

### Food Expert Says We Should Perfect National Cookery Like People of Other Lands

Have you heard, and do you regularly listen for Betty Crocker's Radio talks? Miss Crocker is nationally known as a home food specialist who is broadcasting from a dozen of the country's largest stations. By special arrangement Radio Digest has secured a series of exclusive articles by Miss Crocker dealing with her current Radio talks. These broadcasts are made through WEBE, WEAF, WCAE, WGR, WEAR, WWJ, WDAF, WJAB, WHT, WFL, KSD, KFL and WCCO, the Gold Medal station at Minneapolis-St. Paul. All of Miss Crocker's recipes and discussions are based upon actual investigations and work of herself and her assistants in model kitchens.—Editor's Note.

By Betty Crocker

**W**IN the United States are constantly talking about the famous old German dishes, the roast beef of old England, Italian spaghetti, and the wonderful French sauces and pastry. I wonder how many of you realize that we have some very fine culinary productions that are distinctly American. If we would be 100 per cent American we should at least know the dishes for which our land is famous, and furthermore, we should endeavor to perfect our national cookery so that we can point to it with pride, as do the people of these other lands.

Oysters are distinctly American, largely due no doubt to the fact that we have such an enormous production in this country. Oyster stew, oyster cocktail, and oysters on the half shell, are no doubt the most popular oyster dishes.

### Various Kinds of Oysters

This is the season when oysters are best, and so we should use them often. Any reasonable food is not only cheaper when in season, but is also much better in flavor than at any other time. For that reason it is always wise to use such food in its natural season as much as possible.

I wonder if you know that oysters come in different sizes. At large markets you may find as many as five sizes, and they usually vary in price, according to

## "MISS KITTY" GIVES RECIPES FROM WMC



"Miss Kitty," otherwise Katherine Nelson of WMC, Memphis, is making a furor in the Southlands with her Monday and Thursday morning home economics discussions. Eighteen years of experience are behind this pretty domestic science specialist, although she doesn't look that old, and her rapidly growing audience which tunes in her 9:50 a. m. talk twice each week speaks well for her knowledge.

size. In smaller towns the dealers may carry only one size or grade. Local dealers sometimes use different terms to specify these different grades, but they are commonly called "standard," "extra standard" and "select." The small oysters are more tender and have a better flavor than the large ones, and are also more convenient to eat raw. The large oysters are good for frying. If you have any choice it will pay you to buy the

## Daily Women's Program Popular KFNF Feature

### Afternoon Talks and Golden Rule Circle Winning Friends

**SHENANDOAH, Iowa.**—Although the Henry Field Seed company station, KFNF, here is regarded as the most popular farmers' station of America, its feminine friends are legion and the number is rapidly increasing. Every afternoon from 3 to 4 p. m., Central time, the program is known as the ladies' hour and features songs and talks of interest to housewives, with the musical numbers being mostly in answer to requests.

Every Wednesday afternoon a special talk on flowers is given by Mrs. Helen Fisher, sister of Mr. Field. Mrs. Fisher is a garden specialist and is capable of giving explanations and hints regarding the care of flowers.

Another feature of the station which the women have been especially interested in, is the Golden Rule Radio circle, which is an informal union of people who write in to the station that they are trying to live according to the Golden Rule. A certificate of membership is issued as an incentive to live such a life.

### Woman Champ Set Builder

**KANSAS CITY, Mo.**—Mrs. J. R. Garrison, 1002 East Thirty-third street, here, has become a strong contender for honors among amateur set makers. She has just recently won second prize in a receiver building contest in the five and six-tube class. Mrs. Garrison's entry in the contest was a six-tube Bremer-Tully counter-phase, and last year she constructed a five-tube set.

size that is best for the particular use you wish to make of it.

### Famous Oyster Stew

Oyster stew is especially good because it is so hot and stimulating. The combination of the oysters with milk and butter gives us a very wholesome and appetizing dish. There is nothing more welcome than a piping hot oyster stew after a sleigh ride, skating party, or a long automobile ride.

There is oyster stew, and then again (Continued on page 12)

## SHORT WAVES

By Marcella

Now what ever prompted you, Ellen, to believe that "Tom Thumb" and Peter MacArthur, both of WOC, Davenport, are one and the same? Yes, the voices are very, very similar. But then, Mr. Twamley, the studio director of the Palmer station, asked me not to divulge "Tom Thumb's" identity—it's a mystery, you see. So a mystery it must remain.

"Bill" W. G. Hay, ex-KFKX and ex-WOK, is now doing a full turn on WGN and WLIF. The Tribune tells me he is so popular they had to put special heavy railings in the studio to keep the ladies away. But why run after him? He's not a ladies' man. He's a Scoo-ootchman and his beloved is his bonnie wife (whose lemon fluff pies I reported on previously). But you can't help liking him, can you?

Graham McNamee doesn't sing over the Radio to my knowledge, but I have written him just to be sure. Will let you know soon.

E. L. Tyson is all wrought up over what I said about him recently. He says his wife will call me to account to explain why I said he was probably single. Well, the charming WWJ announcer didn't tell me whether he was matrimonially zero or not, and he didn't have that worried look, so I just thought he must be single—just like I am. But now the truth comes out.

Speaking of benedicts, girl friends, here's another one to cross off the mash note list. To wit, one CBL, or C. E. Locke, announcer for WBAP, the Hired Hand-Star Telegram station at Fort Worth, Texas. Why he's so married, he has a brand new C. B. Jr., and the younger chip off the old block is broadcasting all night, thus getting in training to take over his daddy's job later on.

Continuing along the popular WBAP strain, for the boy chums this time, let me tell you sheiks about a dandy, fine girl you must tune in. She's known at Fort Worth as the "Sunflower Girl from Kansas" and her home is Kansas City, Mo. Real name? It's Bessie Coldiron, but don't shy away from her harsh par-

(Continued on page 12)

## WOMEN'S PROGRAMS INDEX

### Saturday, February 13

Eastern	Central	Mountain	Pacific
9:30 a. m.	8:30 a. m.	7:30 a. m.	6:30 a. m.
WWJ (352.7m-850kc) Tonight's dinner.			
11	10	9	8
WEAR (389.4m-770kc) Home service talk.			
WHT (399.8m-750kc) Women's club, Jean Sargent.			
12 n.	11	10	9
WGN (302.8m-990kc) Household hints.			
WQJ (447.5m-670kc) "Character Analysis," F. E. Ormsby.			
1 p. m.	12 n.	11	10
KMA (252m-1190kc) Domestic science topics.			
12:30	11:30	10:30	9:30
WGN (302.8m-990kc) Discussion of fashions.			
12:35	11:35	10:35	9:35
KYW (535.4m-560kc) Table talk.			
4	3	2	1
KJR (384.4m-780kc) Tonight's dinner.			

### Monday, February 15

Eastern	Central	Mountain	Pacific
9:30 a. m.	8:30 a. m.	7:30 a. m.	6:30 a. m.
WWJ (352.7m-850kc) Tonight's dinner.			
10	9	8	7
WJZ (454.3m-660kc) Women's hour.			
WRC (468.5m-640kc) Women's hour.			
10:45	9:45	8:45	7:45
WEAF (491.5m-610kc) Home service talk, Betty Crocker.			
WFI (394.5m-760kc) Gold Medal talk, Betty Crocker.			
WTAG (268m-1120kc) Talk, Marjorie Woodman, nurse.			
11	10	9	8
WEAR (389.4m-770kc) Home service talk.			
WHT (399.8m-750kc) Women's club, Jean Sargent.			
WNYC (526m-570kc) Women's program.			
11:15	10:15	9:15	8:15
WTIC (475.9m-630kc) "Interior Decorating," Mrs. C. Barstow.			
11:30	10:30	9:30	8:30
KFAB (370.7m-880kc) "Why Girls Enjoy Clothing Clubs," Mary Borreson.			
11:45	10:45	9:45	8:45
WTIC (475.9m-630kc) Housewives' forum.			
WCCO (416.4m-720kc) "For the Jam Pot," Betty Crocker.			
WDAF (365.6m-820kc) "For the Jam Pot," Betty Crocker.			
WHT (399.8m-750kc) Home Service talk, Betty Crocker.			
12	11	10	9
WGN (302.8m-990kc) Household hints.			
WQJ (447.5m-670kc) "Baking Talk," Cleve Carney. Starches the Tropics Send You," Maude R. Jacobs.			
12:15	11:15	10:15	9:15
KYW (535.4m-560kc) Talk.			
12:30	11:30	10:30	9:30
WEBB (370.2m-810kc) Fashion and Household talks.			
12:35 p. m.	11:35	10:35	9:35
KYW (535.4m-560kc) Table talk.			
1:30 p. m.	12:30 p. m.	11:30 p. m.	10:30 p. m.
KFN (263m-1140kc) Mothers' hour.			
WGY (379.5m-790kc) Cooking lesson; Household talks. "Simple Toys and Handwork for the Child Under Six," Pauline Parke.			
3	2	1	12 n.
WCCO (416.4m-720kc) Women's hour.			
WSOE (246m-1220kc) Cooking chats.			
4	3	2	1 p. m.
WIP (508.2m-590kc) Market hints for housewives.			
WOC (483.6m-620kc) Home Management schedule, Aunt Jane.			
WQJ (447.5m-670kc) "Making Fritters," Helen Downing; "Chinese Fantastics," Thomas Steeg; "The Care of the Skin and Hair," Madame Huntington.			
5 p. m.	4 p. m.	3 p. m.	2 p. m.
KJR (384.4m-780kc) Home helps.			

7:15 p. m.	6:15 p. m.	5:15 p. m.	4:15 p. m.
WKAR (285.5m-1000kc) "Improvised Equipment for Large Quantity Cookery," Elizabeth Bemis.			
7:50	6:50	5:50	4:50
WKAR (285.5m-1000kc) "Hints on Selecting Domestic Floor Coverings," Winifred Gettmy.			
7:45	6:45	5:45	4:45
WKAR (285.5m-1000kc) "Foods to Serve for 100 People," Louise Clemens.			

### Tuesday, February 16

Eastern	Central	Mountain	Pacific
9:30 a. m.	8:30 a. m.	7:30 a. m.	6:30 a. m.
WWJ (352.7m-850kc) Tonight's dinner.			
10	9	8	7
KDKA (309.1m-970kc) Domestic Science. Arts for the Housewife.			
WIP (508.2m-590kc) Menu, Anna Scott.			
WJZ (454.3m-660kc) Women's hour.			
WVRC (468.5m-640kc) Women's hour.			
10:45	9:45	8:45	7:45
WTAG (268m-1120kc) Talks to Mothers, Rosabelle Jacobus.			
11	10	9	8
WEAR (389.4m-770kc) Home service talk.			
WHT (399.8m-750kc) Women's club, Jean Sargent.			
WMCA (340.7m-880kc) Home makers' hour.			
11:35	10:35	9:35	8:35
WOI (270m-1110kc) "What Every Woman Wants to Know," Misses Miller and Friant. "Still Some Questions," Winifred Tilden.			
12 n.	11	10	9
WGN (302.8m-990kc) Household hints.			
WQJ (447.5m-670kc) "How to Select a Becoming Hat," Mrs. Lillian Russell.			
12:30	11:30	10:30	9:30
WEBB (370.2m-810kc) Fashion and Household talks.			
12:35 p. m.	11:35	10:35	9:35
KYW (535.4m-560kc) Table talk.			
1	12 noon	11	10
KPO (428.3m-700kc) Domestic science talk.			
4	3 p. m.	2 p. m.	1 p. m.
WIP (508.2m-590kc) Menu talk.			
WOC (483.6m-620kc) Home Management schedule.			
WQJ (447.5m-670kc) "Cookies Every Week," Helen Downing; "Suggestions for a George Washington Party," Julia Deal.			
4:30	3:30	2:30	1:30
WLIT (394.5m-760kc) Household helps and hints.			
5	4	3	2
KJR (384.4m-780kc) Home helps.			
5:30	4:30	3:30	2:30
KOA (322.4m-930kc) Housewives' matinee.			
6	5	4	3
KOA (322.4m-930kc) Culinary hints, Clara Hoover.			
6:15	5:15	4:15	3:15
KOA (322.4m-930kc) Fashion review, Sally Dee.			
7	6	5	4
KFOA (454.3m-660kc) Today's recipe.			
8	7	6	5
WPG (299.8m-1000kc) Fashion Flashes.			
8:30	7:30	6:30	5:30
KGO (361.2m-830kc) As a Woman Thinketh.			

### Wednesday, February 17

Eastern	Central	Mountain	Pacific
9:30 a. m.	8:30 a. m.	7:30 a. m.	6:30 a. m.
WWJ (352.7m-850kc) Tonight's dinner.			
10	9	8	7
WIP (508.2m-590kc) Menu.			
WJZ (454.3m-660kc) Women's hour.			
WVRC (468.5m-640kc) Women's hour.			
10:45	9:45	8:45	7:45
WEAF (491.5m-610kc) Home service talk, Betty Crocker.			
WFI (394.5m-760kc) Gold Medal Service talk, Betty Crocker.			
WTAG (268m-1120kc) Talk to Housewives, Mrs. Lydia Flanders.			
11 a. m.	10 a. m.	9 a. m.	8 a. m.
WHT (399.8m-750kc) Women's club, Jean Sargent.			
WNYC (526m-570kc) Women's program.			

### Thursday, February 18

Eastern	Central	Mountain	Pacific
9:30 a. m.	8:30 a. m.	7:30 a. m.	6:30 a. m.
WWJ (352.7m-850kc) Tonight's dinner.			
10	9	8	7
WIP (508.2m-590kc) Menu talk.			
WJZ (454.3m-660kc) Women's hour.			
WVRC (468.5m-640kc) Women's hour.			
10:45	9:45	8:45	7:45
WTAG (268m-1120kc) Talk, Marjorie Woodman, nurse.			
11	10	9	8
WEAF (491.5m-610kc) Talks. Cookery lecture.			
WEAR (389.4m-770kc) Home service talk.			
WHT (399.8m-750kc) Women's club, Jean Sargent.			
11:35	10:35	9:35	8:35
WOI (270m-1110kc) "George Washington Party," Miss Kelly; "What Refreshments Will We Have," Mrs. Minert.			
12 n.	11	10	9
WGN (302.8m-990kc) Household hints.			
WQJ (447.5m-670kc) "Cheese Offers Variety for Lenten Meals," Erna Bettrams.			
12:30	11:30	10:30	9:30
WEBB (370.2m-810kc) Household and Fashion Talks.			
12:35 p. m.	11:35	10:35	9:35
KYW (535.4m-560kc) Table talks.			
1	12 n.	11	10
KPO (428.3m-700kc) Domestic science.			
2	1 p. m.	12 n.	11
WGY (379.5m-790kc) "Stories for Children Under Six," Marjorie Cutler.			
4	3	2 p. m.	1 p. m.
WOC (483.6m-620kc) Home Management schedule, Aunt Jane.			
WQJ (447.5m-670kc) "Invite Your Neighbors to Afternoon Tea," Helen Downing; "Care of the			

Feet," Dr. Frank Furch; Golf lesson, Ralph Thorn.			
5 p. m.	4 p. m.	3 p. m.	2 p. m.
KFOA (454.3m-660kc) Home helps.			
KSD (545.1m-550kc) Women's hour.			
5:30 p. m.	4:30 p. m.	3:30 p. m.	2:30 p. m.
KOA (322.4m-930kc) Housewives' matinee.			
6	5	4	3
KOA (322.4m-930kc) Culinary hints, Clara Hoover.			
6:15	5:15	4:15	3:15
KOA (322.4m-930kc) Fashion review, Sally Dee.			
7	6	5	4
KFOA (454.3m-660kc) Today's recipe.			
8	7	6	5
KFKU (275m-1090kc) Why Study Design.			
KFMQ (299.8m-1000kc) "How Do Children Get Their Food Habits?" Emma Johnson; "Poetry for Children," E. Prunell Wilson.			
8:15	7:15	6:15	5:15
KSAC (340.7m-880kc) "The Family Budget," Luella O. Rust; "Food After Forty," Pearl Ruby.			

### Friday, February 19

Eastern	Central	Mountain	Pacific
9:30 a. m.	8:30 a. m.	7:30 a. m.	6:30 a. m.
WWJ (352.7m-850kc) Tonight's dinner.			
10	9	8	7
KDKA (309.1m-970kc) Domestic science and Arts for the Housewife.			
WJZ (454.3m-660kc) Women's hour.			
WVRC (468.5m-640kc) Women's hour.			
10:45	9:45	8:45	7:45
WTAG (268m-1120kc) Food hints, Mildred Thomas.			
11	10	9	8
WHT (399.8m-750kc) Women's hour, Jean Sargent.			
WTIC (475.9m-630kc) "Dental Hygiene for the Pre-School Child," Dr. C. R. Salmon.			
11:30	10:30	9:30	8:30
KFAB (340.7m-880kc) "Good Manners Eventually—Why Not Now?" Mrs. True Colbert.			

AN EVENING AT HOME WITH THE LISTENER IN IN CENTRAL TIME

Table listing radio stations by call letters, location, and frequency. Columns include Call, Location, Met., Saturday, Sunday, Monday, Tuesday, Wednesday, Thursday, Friday.

Table listing radio stations by call letters, location, and frequency. Columns include Call, Location, Met., 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.

SHORT WAVES

By Marcella (Continued from page 11)

entail name. She's a beauty—20 years old, bright red hair, all that a bachelor could desire. The Hired Hand heard her sing last fall and gave her a special course in microphone singing. She had never seen a mike before this winter at WBAP. Now her popularity is overwhelming—has been from the start—and her mail averages somewhere between 150 and 350 cards and letters a day. The postman bewilders her for she hasn't yet quite conceived that she is gaining fame continent-wide. The H. H. informs your special gossip pervader that she no doubt will return to Kansas City "when the robins bloom" as she is visiting Fort Worth for the mild winter climate (adv.) and to get away from the harsh winters up north (not adv.). Any Saturday night from 9:30 to 11 p. m., Central time, will bring her in on 475.9 meters.

The "Oh Henry" Boy, Walter Preston, known to thousands of WIBO listeners, is married, Sarah. Sorry, my dear, but he's very happy. No chance at all. He directs WIBO now, having been recently promoted, and has a beautiful tenor voice, as you know. Besides being married, he proves himself a model husband by liking to play bridge and winning a prize now and then. Very good looking, slender, "built for speed," weighs about 140 pounds, is about five feet eight inches tall, and Charleston's modestly but admirably.

You home-seeking fair ones, you experimental cooks, listen with Georgia to the facts regarding Wayne Meyers, the new announcer at WIBO. Wayne is single. I place that first because that is the first question Georgia asks. He is also one of the most even-tempered men I have had the good fortune to meet. His hobbies are his mother and music. He supports his mother for his dad is dead. Went overseas for the big fight and there got acquainted with another now popular announcer, Pat Barnes of WHT. Wayne Meyers is now 27 years old, stretches up five feet five inches, weighs 135 pounds, has hair "betwixt and betwixt" and looks at you through gray eyes. He is persistent and careful, nice and pleasing. He sings if urged, and as an excellent matrimonial quality, I must add, he does not play golf.

What deep secret would you like to know about your favorite broadcast star? Drop me a note, girls and boys, and I'll do by best to answer here. MARCELLA.

OYSTER AMERICAN DISH

(Continued from page 11)

there is oyster stew. It is all according to the way you make it. A certain chef in New York city is quite famous for his oyster stew. His secret is in the way he prepares the oysters. He cooks them in butter quite slowly for several minutes before adding to the milk. It is quite surprising what a difference that one thing makes in the flavor of the stew.

This is the way we prepare it in our model kitchen: Model Kitchen: One pint of oysters, 1/4 cup butter, 1 teaspoonful salt, 1 pint of milk, 1/2 cup of cream.

Method: Pick over the oysters, removing any pieces of shell. Melt butter in a sauce pan. Add the oysters and cook gently until the edges curl. Scald the milk and cream. Add to the oysters. Season with salt and pepper. Let stand hot several minutes, then serve. This stew may be made with all milk, or with a larger proportion of cream, according to how rich you wish it.

Scalloped Oysters

In preparing scalloped oysters, use equal parts of bread crumbs and cracker crumbs. If you use all bread crumbs the mixture will be too wet, and all cracker crumbs are objectionable because they soak up too much of the oyster liquor. Here is our recipe for scalloped oysters that has been very popular among our friends all over the country:

One pint oysters, 1 1/2 cups crumbs, 1 teaspoonful salt, 1/4 teaspoonful pepper, 1/3 cup butter, 4 teaspoonful cream, 4 teaspoonful oyster liquor.

Method: Be sure to use half bread crumbs and half cracker crumbs in this recipe. Place a layer of the mixed crumbs in a buttered baking dish. Add a layer of oysters. Season with salt and pepper and dot with butter. Add another layer of crumbs, then more oysters, and season as before. Pour over the cream and liquor. Cover with another layer of crumbs. Bake in a moderate oven thirty minutes (350° Fahrenheit).

Fried Oysters

I have discovered that many people think of fried oysters as a restaurant dish, and seldom, if ever, attempt to prepare them at home. Fried oysters are very easily prepared, and there is no reason why you cannot have a fried oyster supper at home whenever you wish. Drain off any liquor. Roll each oyster in flour so that it is entirely covered with a coating of flour; then dip in egg, roll in sifted bread crumbs and fry in deep fat.

The reason for rolling the oysters in flour first is that you must have a dry surface or else the egg will not stick. To prepare the egg, beat the whole egg slightly and add one tablespoon water or milk for each egg. Dry crumbs are better than the soft ones for crumbing, and they should be sifted. The coarse crumbs will not stick as well as the fine sifted crumbs.

The oysters may be fried in a kettle of deep fat or in fat at least an inch deep in the frying pan. As soon as they are a golden brown remove from the fat, and place on a brown paper in order to drain off any excess fat. For a fried oyster supper serve the oysters with catsup or chili sauce, pickles or olives, sandwiches or rolls, a hot beverage, and fruit salad for dessert.

# ADVANCE PROGRAMS FOR THE WEEK

## Saturday, February 13

### Headliners Today

Eastern 8 p. m.	Central 7 p. m.	Mountain 6 p. m.	Pacific 5 p. m.
WFI (394.5m-760kc) Boosters' club.			
WGR (319m-940kc) Allen's saxophone band.			
WTAM (389.4m-770kc) Hollenden hour.			
8:10	7:10	6:10	5:10
WAMD (244m-1230kc) Matlmen's musical quartet.			
8:15	7:15	6:15	5:15
WNAC (280.2m-1070kc) Intercollegiate glee clubs.			
8:30	7:30	6:30	5:30
WTIC (475.9m-630kc) Boy Scouts program.			
9	8	7	6
KPRC (296.9m-1010kc) "Sunset Limited of 1926," musical comedy.			
WLS (344.8m-870kc) National barn dance.			
WTAM (389.4m-770kc) Novelty program.			
9:10	8:10	7:10	6:10
WRVA (256m-1170kc) Shrine band.			
9:15	8:15	7:15	6:15
KPYE (240m-1250kc) Harmonica duo.			
10	9	8	7
KFI (467m-642kc) Gamut male quartet.			
WGR (319m-940kc) Buffalo Arts club.			
WOC (483.6m-620kc) Augustana college program.			
11	10	9	8
KFWB (252m-1190kc) Lyric string trio.			
11:10	10:10	9:10	8:10
KGO (361.2m-830kc) "The Geisha," Japanese musical comedy.			
11:15	10:15	9:15	8:15
KTHS (374.8m-800kc) Big Four Hawaiians orchestra.			

Saturday, silent night for: CFAC, CFCA, CNRA, CNRC, CNRE, CNRM, CNRR, CNRT, CNRV, CNRW, KFDM, KFEQ, KFKX, KFKU, KFMX, KFUO, KFXF, KLX, KMA, KOAC, KOB, KQP, KSAC, KSO, KTAB, KWSG, WABQ, WCX, WDDD, WEOA, WEBJ, WEBW, WEEI, WGCP, WGST, WHAD, WHAZ, WGR, WHN, WHO, WIP, WIAR, WJAZ, KKAQ, WKAR, WLIT, WLWL, WOAI, WOS, WRVA, WTAG, WTIC, WWI.

### Eastern Time Stations

CFCA, Toronto, Can. (356.9m-840kc), late news reports.  
 CKAC, Montreal, Can. (410.7m-730kc), 7:15 p. m., Windsor hotel dinner hour; 8:30, studio concert; 10:30, Harold Leonard's red jackets.  
 CKNC, Toronto, Can. (556.9m-840kc), 4 p. m., CKNC chamber orchestra; Arthur VanderVoort, bass; Hazel Hall-VanderVoort, soprano; 8-10, Charles E. Bodley and his dance orchestra; Elgar male quartet.  
 CNRO, Ottawa, Can. (434.5m-690kc), 8 p. m., Chateau Laurier concert orchestra; 8:45, Myrlah Kendall, pianist; Mrs. F. J. Homing, violinist; Marie Ricardi; Chateau Laurier dance orchestra.  
 KDKA, Pittsburgh, Pa. (309.1m-970kc), 7:15-8 a. m., exercises, O. Shannon, conductor; 5:45 p. m., Daddy Winkum; 6:30, dinner concert; 8:30, concert, Westinghouse band, T. J. Vastine, conductor.  
 WAHG, Richmond Hill, N. Y. (315.6m-950kc), 12:03 p. m., Joe Zimmerman, pianist; 12 midnight, Wein-zoff's concert orchestra.  
 WBBR, New York, N. Y. (273m-1100kc), 8 p. m., Prof. Charles Rohner, violinist; 8:20, Fred Twaroschik, tenor; Bible discussion; 8:40, Fred Twaroschik, tenor; 8:50, Prof. Charles Rohner.  
 WBZ, Springfield, Mass. (333.1m-900kc), 6:30 p. m., Little Symphony orchestra, KDKA; 6:45, Hotel Lenox ensemble; 7:45, Daniel Kuntz's theater orchestra; 8:15, musical program, Hotel Brunswick; 9:15, C. H. Anthony, mandolinist; Frank Peters, tippie uke; 9:45, Leo Reisman's Hotel Brunswick orchestra.  
 WCAE, Pittsburgh, Pa. (461.3m-650kc), 6:30 p. m., William Penn hotel; 7:30, Legion banquet; 8, Youngstown artists.  
 WEAF, New York, N. Y. (491.5m-610kc), 6:45-7, 7:20 a. m., health exercises; 4-5 p. m., dance program; 6-12 midnight, dinner music; Ross Gorman and his orchestra; Chamber music, Elvira Boni, soprano; Nino Ruisi, bass; American vocal quartet; Rosella Scheiner, violinist; Dora Gutentog and Sadie Zuckerman, piano duettists; Irvine Players, two one-act plays; Hughie Barrett and his orchestra; Vincent Lopez and his orchestra.  
 WEAR, Cleveland, Ohio (389.4m-770kc), 7 p. m., Hotel Stadler concert orchestra, Maurice Spitalny, director.  
 WEEI, Boston, Mass. (348.6m-860kc), 6:45 a. m., Tower health exercises; 8 p. m., Boston symphony orchestra.  
 WFI, Philadelphia, Pa. (394.5m-760kc), 1 p. m., Tea room ensemble; 3, Mapleshade Country club dance orchestra; 6:30, Bellevue-Stratford concert orchestra; 7, Bellevue-Stratford dance orchestra; 8, Boosters' club; Howard Lanin's dance orchestra; double male quartet; harp ensemble; Goldy and Dusty; 11, Bellevue-Stratford dance orchestra.  
 WGBS, New York, N. Y. (315.6m-950kc), 1:35 p. m., Joseph Turkel, tenor; Leonard Garfunkel, pianist; 3, Ben Goldman and his Boy Scout entertainers; 6:30, Bill Hines' orchestra; 8:30, Comedy Four male quartet; 9, Jack Loacasio juvenile syncopators; 9:10, Deborah Greenburg, soprano; 9:20, Juvenile syncopators; 9:30, Samuel Kurland, violinist; 10, Douglas Donaldson, baritone; 10:30, Arrowhead Inn dance orchestra.  
 WGCP, New York, N. Y. (252m-1190kc), 3 p. m., orchestra; 4:15, John Moriarty, ukulele soloists; Reta Redwood, soprano; 5:15, Joe Turkel, tenor; 8:30, Strickland's orchestra; 9, Hilda Deighton, contralto; 9:30, Ukulele Bob McDonald; 9:45, June Lee; 10, Yama Yama Boys; 10:30, Strickland's orchestra.  
 WGR, Buffalo, N. Y. (319m-940kc), 2:30 p. m., WGR's afternoon program.  
 WGY, Schenectady, N. Y. (379.5m-790kc), 6:30 p. m., dinner program, Hotel Lafayette orchestra; 7:30-8:30, Philharmonic society student symphony series; 10:30, dance program, Porter E. Potts' Hotel Van Curler orchestra.  
 WHAR, Atlantic City, N. J. (275m-1090kc), 2 p. m., Seaside hotel trio; 7:30, lecture period; 8, Seaside hotel trio.  
 WIP, Philadelphia, Pa. (508.2m-590kc), 6:45 a. m., setting-up exercises; 7, setting-up exercises; 10, menu talk, Mrs. Anna B. Scott; 10:30, reducing exercises; 1 p. m., organ recital; 3, Dal Ruch and his Arcadians; 6:05, Benjamin Franklin concert orchestra; 7, Uncle Wip's bedtime stories; 9, sports concert, Dr. Francis D'Eliscu; 8:15, basketball game, University of Penn. vs. West Point; 10:05, dinner to Colonel George E. Kemp, Postmaster of Phila., speakers: Senator George Wharton Pepper, Senator David A. Reed, Hon. Harry S. New, Postmaster-General of U. S.; 11:15, organ recital, Germantown theater.  
 WJAR, Providence, R. I. (305.9m-980kc), 1:05 p. m., Zikes Bon Ton orchestra.  
 WLIT, Philadelphia, Pa. (394.5m-760kc), 12:02 daily almanac; Stanley theater organ recital; Arcadia cafe concert orchestra; 2, dance orchestra; 4:30, Cotton Pickers' dance orchestra; 7:30, Benjamin Franklin hotel concert orchestra.  
 WMAK, Buffalo, N. Y. (266m-1130kc), 6:15-7:15 p. m., dinner music, Hotel Lafayette orchestra; 7:30-8:30, musical program; 8:30-9, musical program, Wolff's furniture house; 9-9:30, musical program, Beaver Products company; 9:30-10:30, program, Sunrise Point Development company.  
 WMBF, Miami Beach, Fla. (384.4m-780kc), 7-9 p. m., Fleetwood Radio orchestra; 10-11 p. m., Gene Fosdick and his orchestra; Fleetwood Radio orchestra.  
 WMCA, New York, N. Y. (340.7m-880kc), 6 p. m., Olcott Vail and his Hotel McAlpin ensemble; 6:30, Club Caprice orchestra; 7, Elite orchestra; 8:30, Henry Burgig and Henry Kaye; 9, Tracy Pearl musical program; 9:30, Five Messner Brothers; 10, Woodmaunton Inn orchestra; 10:30, Norman Pearce, reader; 11, Ernie Golden and his Hotel McAlpin orchestra.



This beautiful actress is Miss Kay Hammond whose readings over WSMB, New Orleans, have charmed thousands. Miss Hammond is an athlete and enthusiastic sportswoman. She is also a lieutenant in the Ambulance Corps of America.

WNAC, Boston, Mass. (280.2m-1070kc), 6 p. m., Smilers; 6:30, Shepard Colonial dinner dance; 8:15, intercollegiate glee club concert; 10:30, Copley Plaza orchestra.  
 WNYC, New York, N. Y. (526m-570kc), 7 p. m., dance program; 7:35, dance program; 8, vocal and instrumental program; 9, novelty; 9:30, joint song recital.  
 WOO, Philadelphia, Pa. (508.2m-590kc), 11 a. m., organ recital; 12:02 p. m., Golden crystal tea room orchestra; 4:45, organ recital; 7:30, Ritz-Carlton concert orchestra.  
 WOR, Newark, N. J. (405.2m-740kc), 2:30 p. m., Mildred Dehma, soprano; 3:15, Zit's Central Park Casino orchestra; 6:45, Jacques Jacobs Hotel Shelton ensemble; 7:30, Vart's Collegians; 8:45, Davous orchestra.  
 WPG, Atlantic City, N. J. (299.8m-1000kc), 1:30 p. m., Hotel Morton luncheon music; 6:45, organ recital, Arthur Scott Brook; 7, Hotel Traymore dinner music; 8:15, program; 9, Hotel Ambassador concert orchestra, Harry Loventhal, director; 10, Nick Nichols' dance orchestra; 11, dance orchestra, Morton Bates, director.

### High Lights of the Week

"SUNSET LIMITED OF 1926" takes to the ether from KPRC, Houston, Saturday night. This is one of the latest vehicles of the year to carry light opera music. The crew is the Southern Pacific glee club. Another event of the evening is the intercollegiate glee club concert at WNAC, Boston. Colleges competing are Boston university, Clark, Holy Cross, Wesleyan, Williams, Boston college, Brown, Bowdoin, Middlebury and Trinity. Boy Scouts are meeting this same evening at WTIC to celebrate their sixteenth anniversary.

Hired hand, branchman, Klondyke miner, engine wiper, vaudeville and cabaret singer are a few of the past professions of Allen McQuhae, tenor, who sings from KPO, San Francisco, Sunday. Mr. McQuhae is now famous for his Irish songs. The twilight program of WBAL, composed entirely of Grieg music given by the WBAL concert orchestra, will also tempt fans to dial 246 meters. John Wilbourn is the tenor soloist.

The Cincinnati community committee will play a pretty compliment to the governor of Ohio Monday evening when all his favorite musical compositions are given by the community quartet. Slavonic music by the Zahpad trio is the Monday feature at KFI, Los Angeles.

CNRV of Vancouver will enter the

dramatic world Tuesday when the three-act play, "Peg o' My Heart," is produced. This promises to be the Radio theatrical event of the CNR stations. An interesting series of lectures on points of peril in contemporary diplomacy is scheduled for Tuesday evenings at KFMX, Northfield. Prof. Keith Clark's talk this week will be on Mosul as a strategic point of the Near East. This city is located in Syria.

Historical glimpses of the West during the heroic struggle of Colorado trail blazers in 1858 and 1859 will be given Wednesday from KOA, Denver. "There Were Giants in Those Days" is the subject of the talk by Joseph Emerson Smith.

Madame Olga Samaroff, pianist, who was heard recently over the WVEAF chain, will talk at 5 p. m., Eastern time, from WTIC Thursday. An airplane trip to the Big Ten universities will be taken by the Columbus men's quartet from WEOA this same evening. Snappy news items from each campus and university songs will entertain the listener.

Paul Ash and his merry-mad gang will invade the studio of KYW, Chicago, Friday evening for a frolic which will begin at 11 p. m., Central time. Paul Ash is as informal with his Radio audience as he is with his stage spectators. A merry time is always had by all.

WRC, Washington, D. C. (468.5m-640kc), 12 m., organ recital; 1 p. m., Hamilton hotel orchestra, Daniel Chwalow, director; 6, Lee House trio, Sam Udrin, director; 7, Irving Boernstein's Hotel Washington orchestra; 8:30, students' concert; 10:30, "Crandall's Saturday Nighters."  
 WREO, Lansing, Mich. (285.5m-1050kc), 6-7 p. m., dinner concert, Speed Wagon serenaders; Gold Standard ensemble; 10-12, Speed Wagon serenaders, Carl Hall Heavy, director.  
 WTAG, Worcester, Mass. (268m-1120kc), 12:05-2 p. m., WTAG orchestra; 3-5, WTAG orchestra.  
 WTAM, Cleveland, Ohio (389.4m-760kc), 12:30-1:30 p. m., Austin Wylie's Vocalion Recording orchestra; 6-7, Carl Rupp and his Hotel Hollenden orchestra; 8-9, Hollenden hour; 9-12, Ev Jones and his gang.  
 WTIC, Hartford, Conn. (475.9m-630kc), 6:30 p. m., children's period, "Skinny and his Gang"; 6:50, dinner music, Hotel Bond trio; 8, Sunday school period; 8:30, Boy Scouts; 10, dance music, Le Bal Tabarin orchestra.  
 WWJ, Detroit, Mich. (352.7m-850kc), 9:30 a. m., "Tonight's Dinner"; 12:05 p. m., Jules Klein's Hotel Stalter orchestra; 3, Detroit News orchestra.

### Central Time Stations

CKY, Winnipeg, Can. (384.4m-780kc), 9 p. m., concert, J. A. Banfield, Limited, Royal Alexandria hotel.  
 KFAB, Lincoln, Nebr. (340.7m-880kc), 8:30-9:30 p. m., Schunneller and Mueller musicale.  
 KFEQ, Oak, Nebr. (267.7m-1120kc), 2-3 p. m., program, Alton, Kan.; 8:30-10, Blue Bird Inn orchestra.  
 KFKX, Hastings, Nebr. (268.3m-1040kc), 5:30 p. m., dinner concert, KDKK.  
 KIDS, Independence, Mo. (411m-680kc), 8 p. m., Louise Mason, soprano; Francis Henser, tenor; Reid Hilliard, baritone; Otto Rothenberger, bass; Frank Towsley, organist; Amy E. Winning, accompanist.  
 KFNF, Shenandoah, Iowa (263m-1140kc), 7 p. m., old-time music, Emerson Sisco, director; 11, old-time fiddling.  
 KMA, Shenandoah, Iowa (252m-1190kc), 6-7 p. m., popular musical program; 9-11, pipe organ recital, William Howie.  
 KOIL, Council Bluffs, Iowa (278m-1080kc), 5 p. m., Tea Dansant; Randall's Royal Fontenelle orchestra; 5:30, Leo Kears; McCrory's popular music period; 6:15, Mona Motor Oil entertainers; 6:30, Randall's Royal Fontenelle orchestra; 7:15, educational period; 7:30, harmony chapter; 11, Hugo Heyn and his Happy Hollow club orchestra; 12, Indian pow-wow.  
 KPRC, Houston, Tex. (296.9m-1010kc), 12 m., Jack Willrich's orchestra, featuring Virginia Willrich, piano accordionist; Fred Simmons, blues trumpeter; 7:30 p. m., Bible class, Rev. M. M. Wolf, conductor; 8, "Sunset Limited of 1926," Southern Pacific glee club; 11, Alexander's ragtime band.  
 KSD, St. Louis, Mo. (545.1m-550kc), 7 p. m., Grand Central theater; 8:30, St. Louis symphony orchestra.  
 KTHS, Hot Springs National Park, Ark. (374.8m-800kc), 12:30-1:15 p. m., Bible class, Rev. Chauncey Hickok; 9-9:25, classical selections; New Arlington hotel orchestra; 10:15-10:45, concert, Big Four Hawaiian orchestra; steel guitar solos, novelties; 10:45-11, dance selections, Meyer Davis artists.  
 KWWG, Brownsville, Texas (278m-1080kc), 6 p. m., dinner concert.  
 KYW, Chicago, Ill. (536m-560kc), 6:30-7 a. m., exercises, Paul A. Leonhardt, director; 7:30, morning family worship; 12:05 p. m., noonday concert; 1, luncheon concert, Congress hotel, Joska DeBarbary's orchestra; Con-Sanders' Original Nighthawks; 4, Saturday frolic; 6, dinner music, KDKA; 7:05, bedtime story, Walter Wilson; 7:30, home-lovers' hour; 11:30, Congress carnival; 1 a. m., Insomnia club, Con-Sanders' Original Nighthawks.  
 WAMD, Minneapolis, Minn. (244m-1230kc), 12 noon, Medley trio, George Sawyer, Maurine Heft, pianist; 6:15, dinner concert, George Osborn's orchestra; 7:10, popular program, Minneapolis post-office entertainers; Skyrrocket frolic, George Osborn's orchestra; 11:12 midnight, organ recital, Jack Maierlich.  
 WBAP, Fort Worth, Texas (475.9m-630kc), 7:30 p. m., Sunday school lesson; 9:30, Sunflower girl of Kansas.  
 WBBM, Chicago, Ill. (226m-1330kc), 4-6 p. m., Harry and Sandy; Valentino Inn orchestra; Court Banks, Johnny Black, Russell Meyers; Jack Pennewell and Freddy Palmiter; 8-9:30, musical comedy, "The Four Seasons"; 9:30-11, Sandy and Harry; Moulton Rouge orchestra; William E. Anderson, steel guitarist; Sy Berg; Fred Johnson; 11-2 a. m., Sunset male quartet; -WBBM harmony four; George Thurman uke, and kazoo soloist; Two Jays; Charlie Garland; Spencer, Lavergne and Shayne, xylophonist; Joe Buck, uke and songs; Lew Russell, Romo Vincent, Nick Probst, Moulton Rouge orchestra; Vivian Sheffer, contralto; Claire Matthews and Jimmy Griffin.  
 WCAL, Northfield, Minn. (336.9m-890kc), 8:30 p. m., music, college music faculty.  
 WCCO, Minneapolis-St. Paul, Minn. (416.4m-720kc), 12:30 p. m., Emmet Long's Golden Pheasant orchestra; 2:30, afternoon concert; 8:15, Biley's St. Paul hotel concert orchestra; 8:15, musical program; 10:05, Arnold Frank's St. Paul hotel orchestra.  
 WDAF, Kansas City, Mo. (365.6m-820kc), 3:30-4:30 p. m., The Star's string trio; 6-7, organ music, Pantages theater; music, Trianon ensemble; 11:45-1 a. m., Ted Weem's Victor Recording orchestra; Billy Adair's Kansas City club orchestra; Eddie Kuhin's Kansas City Athletic club orchestra.  
 WEBB, Chicago, Ill. (370.2m-810kc), 3-4 p. m., special features; 7-8, Oriole orchestra; Howard Neumiller, pianist; 9, Oriole orchestra; 9:45, James Murray, tenor; Marie Kelly, reader; 11-12, Oriole orchestra; Wayne Myers, Frank Greif; 1-2 a. m., Marie Kelly, reader; Kay Ronayne, singer.  
 WENR, Chicago, Ill. (266m-1130kc), 6-7 p. m., dinner concert, Rauland-Lyric trio; instrumental solos; vocal selections; 8-10, popular program; Art Bilquist; saxophone and banjo duets; vocal selections; 12-2 a. m., frolics, Frank Westphal and his All-American Pioneers; Rita McFawn, Mary Bieber, vocal numbers; instrumental solos.  
 WFAA, Dallas, Tex. (475.9m-630kc), 3:30-4 p. m., Tom Fowler, violinist; 4:30-5, James G. Grimes, pianist; 6:30-7:30, Baker hotel orchestra; 8:30-9:30, J. Wesley Hotel club, vocal and instrumental music recital; 11-12, Jack Gardner's orchestra.  
 WGES, Oak Park, Ill. (250m-1200kc), 5-7 p. m., basso, tenor, organ; 8-9, piano, organ, orchestra; 11-1, "Uke Girl," pipe organ, orchestra, violin, piano.  
 WGN, Chicago, Ill. (302.8m-990kc), 10-10:15 a. m., good health period; 10:15-10:45, entertainment for shut-ins; 11-11:30, morning organ concert, Chicago theater, Dean Fossler; 12:01-12:30 p. m., noon hour entertainment for children; 12:40-2:30, luncheon concert music; 2:30-3, Lyon and Healy artist recital; 3:25, Port o' Missing Men; 3:30-4:15, tea time music; 4:30-5, syncopation matinee, Edward Benedict, organist; 5:30-5:57, Skeezix time; 6:30-6:45, dinner concert music; 6:45-7, old-time favorite songs; 8-10, musical program; 10-10:10, "Sam n' Henry," Radio comic strip; 10-10:15, old-time favorite songs; 10:15-11, dance music; Correll and Gosden, Freda Leonard and Jewell Barnett, songs.  
 WHAD, Milwaukee, Wis. (275m-1090kc), 11 a. m., piano-logue, Andy Hertel; story for children, Faye McBeath; Margaret Cunningham, pianist; Willard Kalcieba, tenor banjo soloist.  
 WHAS, Louisville, Ky. (399.8m-750kc), 1-2 p. m., concert, Benson trio; 2:45-3:30, concert, auspices of Madege Wright; 4-5, concert, Music Box of Harry Currie; readings, Martha Pope Robinson; 7:30-9, concert, Royal Peacock orchestra, Richard Kent, director; music from automobile show.  
 WIBO, Chicago, Ill. (226m-1330kc), 2-4 p. m., program for shut-ins; Ted Fiorito, pianist; Dan Russo, violinist; Marie Tully, soprano; Wayne Meyers, reader; Pearl Holzman, pianist; Lenore Preston's organ; request 6-8, dinner concert; Walter Preston's organ request night; WIDO string trio; Elsie Orr, soprano; Ruth Ford, contralto; Mr. Leonard, baritone.

# IRISH TENOR GUEST ARTIST AT KPO



An Irish tenor rivaling John McCormack is Allen McQuhae, above. His songs of auld Erin will go out upon the ether Sunday from KPO. The operatic star scheduled to appear over the WFAF chain February 14 is Anna Case, soprano.



KFWA, Ogden, Utah (261m-1150ke), 4-5 p. m., organ recital, Paramount theater; 5-6, Ogden Radio dealers' program; 9-10:30, music, Paramount theater; 10:30-12 midnight, dance music, Olie Reeves and his orchestra.

KFWB, Hollywood, Calif. (252m-1190ke), 8-9 p. m., Lyric string trio; Eunice Wynn, soprano; Bill Hatch and Ray Kellogg, the jazz twins; Ashley Sisters, vocal duets; 9-11, program, Reeve-Gartzmann, Inc., presenting the Oakland Six dance orchestra, Charlie Wellman, tenor.

KGO, Oakland, Calif. (361.2m-830ke), 8:45 a. m., songs, William H. Hancock; 4-5:30 p. m., concert orchestra, Hotel St. Francis; 8:10, "The Geisha," Japanese comedy, Carl Anderson, director; 10-12, Girvin-Deuel's Californian Collegians.

KGW, Portland, Ore. (491.5m-610ke), 10-11:30 a. m., the town crier; music; 12:30-1:30, concert, Oregon Radio Trades association; 6-7, dinner concert, Olds Wortman and King company; 9-12 midnight, dance music, Malmomah hotel; intermission piano solos, Curt Kremer.

KHJ, Los Angeles, Calif. (405.2m-740ke), 6-6:30 p. m., Leighton's Arcade cafeteria orchestra, Jack Cronshaw, leader; 6:30-7:30, history story, Prof. Hertzog; Dolly Wright, Henrietta Poland and Uncle John; 8-10, program, Broadway Department store.

KMTR, Hollywood, Calif. (238m-1260ke), 6-7 p. m., Starr Piano company studio; 8-10, The Turner orchestra in classical selections, Loren Powell director.

KNX, Hollywood, Calif. (336.9m-890ke), 5-5:30 p. m., Sunny Jim's story; 5:30, First Presbyterian church organ; 5:55, Town Tattler; 6:15, travel talk, W. F. Alder; 6:30-7, Atwater Kent Radio orchestra; 7, stories of Insect Hfe, H. W. McSpadden; 7:15, church announcements; 7:30-8, studio program; 8-11, KNX feature program; 11-2 a. m., Filmland Frolickers.

KOWW, Walla, Wash. (256m-1170ke), 8-12 midnight, musicale.

KPO, San Francisco, Calif. (428.3m-700ke), 7, 7:30, 8 a. m., daily dozen exercises; 10:30, "Ye Towne Cryer"; 1-2 p. m., Rudy Seiger's Fairmont hotel orchestra; 2:30-3:30, popular music, Willard Ridings' orchestra; piano solos, Helen Heineman; 3:30-5:30, Cyrus Trobabe's Palace hotel concert orchestra; 6:30, "Ye Towne Cryer"; 6:35-7:30, Waldemar Lind and the States Restaurant orchestra; 8-12 midnight, Fairmont hotel dance orchestra, Red Code, director.

KPSN, Pasadena, Calif. (315.6m-950ke), 8-9 p. m., Star-News concert; 9-10, dance orchestra, Maryland hotel.

KTAB, Oakland, Calif. (240m-1250ke), 12-1 p. m., luncheon concert.

Sunday, silent night for: CFAC, CHIC, CKNC, CNRA, CNRC, CNRE, CNRM, CNRO, CNRR, CNRT, CNRV, CNRW, KFAB, KFAU, KFKX, KFKU, KFMQ, KFOA, KFVE, KFWA, KFLX, KMA, KMTR, KOAC, KWAH, KOWW, KSCA, KSO, KWSC, PWR, WEBQ, WAGB, WCAP, WCA, WDAF, WEAQ, WEBJ, WEBW, WGES, WGH, WGT, WHD, WHAS, WHAZ, WJAZ, WJLD, WKAF, WKAQ, WKAR, WMAQ, WMC, WNYC, WOI, WOO, WRC, WRVA, WSB, WTAM.

### Eastern Time Stations

CFCA, Toronto, Can. (356.9m-840ke), 11 a. m., St. Paul's Anglican church services, Canon H. J. Cody, preacher; 7 p. m., Timothy Eaton Memorial church services, Dr. Trevor Davies, preacher.

CKAC, Montreal, Can. (410.7m-730ke), 2:45 p. m., Capitol theater symphony, Jerry Shea, director; organ selections, Buddy Payne; vocal and instrumental.

CHIC, Toronto, Can. (356.9m-840ke), 5 p. m., George H. Graham, organist.

KDKA, Pittsburgh, Pa. (309.1m-970ke), 11 a. m., church services; 4 p. m., organ recital, Dr. Charles Heinroth; 4:45, vesper services, Shadyside Presbyterian church, Rev. Hugh Thomson Kerr, pastor; 7:15, chimes, Calvary Episcopal church; 6:30, dinner concert; 7:45, services.

WBAL, Baltimore, Md. (246m-1220ke), 6:30-7:30 p. m., twilight program; "Al Grieg" program, WBAL concert orchestra; Gustav Klemm, conductor; John Willbourn, tenor; George Bolek, pianist.

WBBR, New York, N. Y. (273m-1100ke), 10 a. m., violin-viola duets, Prof. Charles Bohner and Martin Hartman; 10:15, Sunday school lesson, W. N. Woodworth; 10:25, violin-viola duets; 10:35, I. B. S. A. choral singers; 11:30, I. B. S. A. choral singers; 11:40, violin-viola duets; 11:50, I. B. S. A. choral singers; 2 p. m., Watchtower orchestra; 2:30, Fred Twaroschk, tenor; 2:40, Bible study; 2:50, Fred Twaroschk, tenor; 3:30, Fred Twaroschk, tenor; 3:40, Watchtower orchestra; 9, Watchtower violin choir; 9:15, Bible questions and answers; 10, Watchtower violin choir.

WBZ, Boston, Mass. (333.1m-900ke), 10:45 a. m., church services, Trinity church; 7 p. m., Sunday evening dinner concert, Copley Plaza orchestra, W. Edward Boyle; 8, varied program, saxophone orchestra, 25 pieces; instrumental trio.

WCAU, Philadelphia, Pa. (278m-1080ke), 5 p. m., recital; 5:15, Undenominational church service; 5:25, "Humanizing Life as Taught in the Creation Story," talk, Rev. John W. Stockwell; 5:35, recital; 5:45, "Like the New Buds of Spring," Rev. John W. Stockwell; 6:45, Clarence Searman and his Hotel Pennsylvania orchestra; 7:45, Cathay concert orchestra; 8:30, Bonwit Teller Light Opera company; 9, Potash and Perlmutter.

WEAF, New York, N. Y. (491.5m-610ke), 2-3 p. m., services, Federation of Churches; Rev. Herbert LaFlamme; Lotta Madden, soprano; Mildred Brvans, contralto; Albert Miller, tenor; Arthur Billings Hunt, baritone; George Shackley, pianist; 3-4, Young People's conference; 4-5:30, Men's conference; Gloria Trumpeters; George Betts, chime soloist; Mr. and Mrs. Howard Wade Kinsey, baritone; 7:20-9:15, musical program, Major Edward Bowes and the Capitol family; 9:15-10:15, Atwater Kent hour; Anna Case, soprano; Max Jaffe, accompanist.

WEAR, Cleveland, Ohio (389.4m-770ke), 3:30 p. m., Goodyear concert orchestra afternoon musicale; 7, Stillman theater orchestra, Maurice Spitalny, director; 7:45, Fireside hour; 8:30, Vincent Percy, organist; 9:15, Atwater-Kent hour, WEAF.

WEEL, Boston, Mass. (348.6m-860ke), 10:50 a. m., Old South church services; 2 p. m., Golden Rule hour of music; 3, Chamber of Commerce organ recital; 6:20, Portsmouth naval band and assisting soloists; 7:20, Major Bowes and his Capitol family; 9:15, Atwater Kent hour.

WFI, Philadelphia Pa. (394.5m-760ke), 4:30 p. m., talk, Hon. Walter M. Chandler; 7:30, services, Arch Street Presbyterian church, Dr. Clarence E. Macartney; 9:15, Atwater Kent hour, Anna Case, soprano; Max Jaffe, accompanist.

WGBS, New York, N. Y. (315.6m-950ke), 3:30 p. m., Crystal Palace orchestra.

WGCP, New York, N. Y. (252m-1190ke), 3-5:30 p. m., Sunday afternoon concert.

WGY, Schenectady, N. Y. (379.5m-790ke), 10:30 a. m., services, Emmanuel Baptist church, Rev. A. W. Rogers, pastor; 12:30 p. m., symphony society concert, Walter Hampden theater; Josiah Zuro, conductor; WJZ; 3, musical program, Syracuse, N. Y.; 5, organ recital, Dr. Frank Hill Rogers, T. Roy Koedler, violinist; 7:30, services, Emmanuel Baptist church; 9, studio program; 10, Godfrey Ludlow, violinist, WJZ.

WGR, Buffalo, N. Y. (319m-940ke), 10:45 a. m., Westminster Presbyterian church; 7:45, Central Presbyterian church; 9:15, jointly with WEAF, Atwater-Kent program.

WHAR, Atlantic City, N. J. (275m-1090ke), 10:45 a. m., morning services, Chelsea Baptist church; 2:15 p. m., sacred recital, Seaside hotel trio; 2:45, sermon; 7:30, Chelsea Baptist church.

WHN, New York, N. Y. (361.2m-830ke), 11:30 a. m., Calvary Morning service; 12:30-1 p. m., Lexington organ recital; 2-3, Queen's County Christian Endeavor program; 3-4, Radio Bible class; 5-5:30, Roseland dance orchestra; 7:30-9:45, Calvary evening service; 10:15-10:45, Anatol Friedlans; 10:45-11:15, Janssen's Hofbrau orchestra; 11:30-12, Twin Oaks orchestra; 12-12:30, Harry Richman and his entertainers.

WIP, Philadelphia, Pa. (508.2m-590ke), 4 p. m., religious talk, Hon. Fletcher Stiles; 7:15, services, Holy Trinity church; 10, Opera "Il Trovatore"; Ben Stad and his Little Symphony orchestra.

WIAR, Providence, R. I. (305.9m-880ke), 7:20 p. m., Capitol theater family; 9:15, Atwater-Kent Radio hour.

WLIT, Philadelphia, Pa. (394.5m-760ke), 2:15 p. m., Arcadia cafe concert orchestra; 6:30, Benjamin Franklin organ recital; 7, Benjamin Franklin hotel concert orchestra.

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

WMAK, Buffalo, N. Y. (266m-1130ke), 10:25 a. m., morning service, First Presbyterian church, Rev. Stewart M. Robinson, pastor; 7:30 p. m., Churchill tabernacle evening services.

WMBF, Miami Beach, Fla. (384.4m-780ke), 7-9 p. m., Fleetwood Radio orchestra; 10-11 a. m., Gene Fosdick and his orchestra; Fleetwood Radio orchestra.

WNCA, New York, N. Y. (340.7m-880ke), 11 a. m., Fifth Church of Christ, Scientist; 3 p. m., readings from All Soul's church, Rev. Dr. Minot Simons; 5:30, Woodmanster Inn orchestra; 6, Roemer's Homers; 7, Hotel McAlpin orchestra; 7:30, Oloetz Vail and his Hotel McAlpin string ensemble; 8, "Laquer," Hugo Zeller; 9:30, Donald Flamm's Frolickers.

WOO, Philadelphia, Pa. (508.2m-590ke), 10:30 a. m., services, Bethany Presbyterian church; 2:30, Sunday school exercises, Bethany temple; 6, organ recital, Clarence K. Bawden.

WREO, Lansing, Mich. (285.5m-1050ke), 10 a. m., chimes, belfry Plymouth Congregational church; 10:30, services, First Baptist church, Rev. Ralph W. Hobbs, pastor; Mrs. Henry Chambers, organist; 7 p. m., services, Central M. E. church, Rev. Frank Kingdon, pastor; James Tillitson, organist.

WTAG, Worcester, Mass. (268m-120ke), 4:53-5 p. m., Y. M. C. A. program; 7:20-9:15, Capitol theater; 9:15-10:15, Anna Case, soprano, Atwater Kent Radio hour.

WTIC, Hartford, Conn. (475.9m-630ke), 5 p. m., Newberry organ recital, Prof. Jepson; 9, concert, Church of the Good Shepherd choir.

WWJ, Detroit, Mich. (352.7m-850ke), 11 a. m., St. Paul's Episcopal Cathedral services; 2 p. m., Detroit News orchestra; 7:20, Capitol theater family, WEAF; 9:15, operatic stars.

## Saturday, February 13

WKAJ, Milwaukee, Wis. (261m-1150ke), 10-11 p. m., Trixie Ann Troy and her Royal Hawaiians; Hi Coleman's dance orchestra.

WKRC, Cincinnati, Ohio (422.3m-710ke), 10 p. m., Marion McKay and his orchestra; Jack Tilson, singer; 11, Eugene Perazzo, violinist; 11:15, Marlon McKay's orchestra; 11:45, request piano program.

WLIB, Chicago, Ill. (302.8m-990ke), 7-8 p. m., musical program; 11-1 a. m., dance music; Correll and Gosden, Freda Leonard and Jewell Barnett, songs.

WLS, Chicago, Ill. (344.6m-870ke), 12 noon, R. F. D. program; Doris Wittich; 7 p. m., Ford and Glenn; lullaby time; 7:20, Thurlou Lieurance and assisting artists; 8, national barn dance, with Ruth Etting; 11, Ford and Glenn; Ralph Emerson; WLS twin wheeze.

WLW, Cincinnati, Ohio (422.3m-710ke), 7 p. m., popular organ concert, Johanna Grosse; 7:30, safety talk for children; 7:40, meeting of the Seektary Hawkins Radio club; 8, St. Valentine's day feature; the third annual WLW beauty contest for grandmothers; 9, dance music, Castle farm.

WMAQ, Chicago, Ill. (447.5m-670ke), 5:15 p. m., Topsy-Turvy time; 6, Chicago theater organ; 6:30, Hotel LaSalle orchestra; 7, Frederick Daw and Russell Pratt; 9, Chicago theater revue.

WMBB, Chicago, Ill. (250m-1200ke), 7-8 p. m., Trianon duo; Edith Stonehouse, soprano; Vella Cook, contralto; Frank Bordner, baritone; 9-11, Trianon orchestra; Woodlawn theater orchestra; Maggie Murphy's home; Dollinger and Lyeria; Fred Rose, Clinton Kettley.

WMC, Memphis, Tenn. (499.7m-600ke), 7:15 p. m., bedtime stories, Peter Pan and Tinker Bell; 8:30, concert, Walter Moore, sponsor.

WQAW, Omaha, Nebr. (526m-570ke), 6 p. m., orchestra, soloists; 7, after-dinner hour; speakers, musical program; 9, classical; 10:30, Frank Hodek and his Nightingale orchestra; 11, Arthur Hays and his organ jubilee; Dr. Applesauce announcing.

WOC, Davenport, Iowa (483.6m-620ke), 5:45-6 p. m., chimes concert; 6:30-6:50, sandman, bedtime stories, L. Emory Wass; 9-10:30, musical program, Martin Johnson, director; Wennerberg chorus; Oriole chorus; Augustana quartet; Lutheran A. Capella choir; Augustana concert band; 11-12 a. m., orchestra program; LeClaire hotel orchestra; song numbers, Peter MacArthur, baritone.

WOI, Ames, Iowa (270m-1110ke), 12:30 p. m., chimes.

WQJ, Chicago, Ill. (447.5m-670ke), 11-12 m., character analysis on dates; 3-4 p. m., coffee klatsch, Jerry Sullivan, percussor; Rose Vanderbosch, soprano and pianist; Hal Lansting, ukulele; 7-8, dinner concert, Ralph Keim, pianologue; Anne Keim, mezzo-soprano; Otis Pike Jester, soprano; Mary Trash House, pianist.

Ralph Keim, pianologue; Anna Keim, mezzo soprano; 10-3 a. m., Ralph Williams and his Rainbo Skylarks; Dr. Carl Bertschinger, pianist; Jerry Sullivan, singing "Whadd-a-ya-say?"; Rose Vanderbosch, soprano and pianist; Hal Lansting, ukulele; Everett George Ople, dramatic director and character reader; Clarence Theaders, tenor; Joe Warner, character songs; The Oxford Girls, harmony singers, Juanita Swank and Loretta Cluman; Rita McFava and Mary Bieber, harmony duo; George Thurn, kazoo and uke.

WOK, Chicago, Ill. (217.3m-1380ke), 4:30-7 p. m., Capitol theater organ; Howard Will, tenor; 10-1, Tearney's Town club orchestra; Carl Lorraine's Pershing Palace orchestra; Husk O'Hare's Cocoonut Grove orchestra; Capitol theater program.

WOO, Kansas City, Mo. (278m-1080ke), 8-9 p. m., musical program; 10-11, musical healing service.

WORD, Batavia, Ill. (275m-1090ke), 8-10 p. m., Webster hotel orchestra and concert program; Webster hotel concert trio and solo artists.

WRR, Dallas, Texas (246m-1220ke), 12-1 p. m., "Pair of Jacks," Davis and Bell; 5:15, bedtime story; 6-7, dinner hour concert, Jack Gardner's orchestra; 8-9, program, auspices Cecilian music club; 12-1, organ recital, George Perfect and assisting musicians.

WSAI, Cincinnati, Ohio (325.9m-920ke), 6:30 p. m., Freda Sanker's orchestra; 7:30, children's stories, Mrs. Ethel Knapp Behrman; 7:50, chime concert, Robert Badgley; 8:15, Bicycle Playing Card sextet; 12, Freda Sanker's orchestra.

WSB, Atlanta, Ga. (428.3m-700ke), 8 p. m., Atlanta Atwater Kent; 10:45, Ernest Rogers Red-Head club.

WSM, Nashville, Tenn. (282.8m-1060ke), 6:30 p. m., concert, Francis Craig's orchestra; 7, bedtime story; 8, Uncle Jimmy Thompson; 9, J. P. Balle, pianist; 10, Chesterfield Four; 10:30, barn dance program.

WSMB, New Orleans, La. (319m-940ke), 9:30-11:30 p. m., Cotton Pickin' Twins; Ray McNamara, pianist.

**Mountain Time Stations**  
KFXF, Colorado Springs, Colo. (250m-1200ke), 8:30-11 p. m., studio musicale.

KOA, Denver, Colo. (322.4m-930ke), 12:15 p. m., Rialto theater musicale; 9, Harmony Peerless orchestra; 10:30, Scheuerman's Colorado orchestra.

**Pacific Time Stations**  
KFI, Los Angeles, Calif. (467m-642ke), 5:30-6 p. m., California serenaders; 6, Nightly doings; 6:15, KFI's Seeing California; 6:30, vest pocket program; 6:45, Radiotrotter period; 7-8, Gamut male quartet; 8-9, Packard Six dance orchestra; 9-10, Louise Klos string trio; 10-11, Packard Radio club with usual favorites; 11-3 a. m., KFI's midnight frolic, Don Meaney, master of ceremonies.

KFOA, Seattle, Wash. (454.3m-660ke), 9:30-11 p. m., Jackie Souder's club.

KFON, Long Beach, Calif. (232.4m-1290ke), 6-6:30 p. m., organ, Brayton's theater; 6:30-7, Amusement information; 7-7:30, Investors' hour; 7:30-9, Long Beach Municipal band; 9-11, Echophone artists frolic.

## Sunday, February 14

### Headliners Today

Eastern	Central	Mountain	Pacific
6:30 p. m.	5:30 p. m.	4:30 p. m.	3:30 p. m.
WBAL (246m-1220ke)	"All Grieg" program.		
8	7	6	5
WLWL (288.3m-1040ke)	Paulist choristers.		
8:30	7:30	6:30	5:30
WCAU (278m-1080ke)	Bonwit-Teller light opera company.		
9	8	7	6
WTIC (475.9m-630ke)	Church of the Good Shepherd choir.		
9:15	8:15	7:15	6:15
WEAF (491.5m-610ke)	WEEL, WCAP, WJAR, WGR, WCAE, WSAL, WWJ, WOC, WCCO, WGN, WEAB, KSD, WTAG, WOO, Atwater Kent program.		
10	9	8	7
WIP (508.2m-590ke)	Opera, "Il Trovatore."		
10:30	9:30	8:30	7:30
KTHS (374.8m-800ke)	Best loved songs of the Southland.		
11	10	9	8
KHJ (405.2m-740ke)	Fifteenth Annual Orange Show program.		
12	11	10	9
KFWB (252m-1190ke)	Sunday night movie frolic.		
KNX (336.9m-890ke)	Russian string trio.		
WFAA (475.9m-630ke)	"A Pair of Jacks."		
12:15 a. m.	11:15	10:15	9:15
KPO (428.3m-700ke)	Allan McQuhae, tenor.		
1	12	11	10
KFI (467m-642ke)	Packard Six dance orchestra.		



# WSAI PLAYS GOVERNOR'S FAVORITES

his regular Tuesday evening French seated below is Mrs. Kenneth Rose, a well liked by fans listening to WSM.



tra in classical selections, Loren Powell, director; 10-11, Starr Piano company studio.

**KNX, Hollywood, Calif. (336.9m-890kc), 5-5:30 p. m.** Sunny Jim's talk; 5:30, First Presbyterian church organ; 5:55, Town Tattler; 6:15, travel talk, W. P. Alder; 6:30-7, Atwater Kent orchestra; 7-7:30, Mutual Motors mirth contest; 7:30-8, studio program; 8-9, program, L. V. Stockwell company; 9-10, Glass-noble Minstrels; 10-11, Goodrich Silvertown Cord dance orchestra, Lilyan May Challenger, contralto.

**KOWW, Walla Walla, Wash. (256m-1170kc), 8-10 p. m.** Walla Walla college; 10-12, dance music.

**KPO, San Francisco, Calif. (423.3m-700kc), 7, 7:30, 8 a. m., daily dozen; 10:30, "Ye Towne Cryer"; 12 m., Scripture reading; 1-2 p. m., Rudy Seiger's Fairmont hotel orchestra; 2:30-3:30, matinee program; 5:15-6:15, children's hour; 6:30, "Ye Towne Cryer"; 6:40-7, Waldemar Lind and the States Restaurant orchestra; 7-7:30, Rudy Seiger's Fairmont hotel orchestra; 8-9, organ recital, Uda Waldrop; 9-10, simultaneously broadcasting for Walter M. Murphy Motor company; 10-11, Jack Coakley's Cabriens.**

**KTAB, Oakland, Calif. (240m-1250kc), 12-1 p. m.** luncheon concert; 8-10, program, Western States Life Insurance company.

**KWSC, Pullman, Wash. (348.6m-860kc), 7:30-9 p. m.** Glow Williamson, vocalist; Margery Segesennann, pianist; Gladys Fraser, violinist.

## Tuesday, February 16

### Headliners Today

Eastern 3 p. m.	Central 7:15	Mountain 6:15	Pacific 5 p. m.
KFNZ (263m-1140kc) Papillon.	7:15	6:15	5:15
WIP (508.2m-590kc) Civic symphony orchestra.	8:30	6:30	5:30
WHAS (399.8m-750kc) Zoeller's Metodists.	WJZ (454.3m-660kc) WGY (379.5m-790kc), WRC (468.5m-640kc) Edison hour.	6	6
WMAQ (447.5m-670kc) Kent-Oklahoma debate.	9:30	7:30	6:30
KPRC (296.9m-1010kc) Edna Adams, Sweetheart of the Air.	11	9	8
KFMX (315.6m-950kc) "Mosul," Prof. Clark.	11	9	8
KGO (361.2m-830kc) Eveready program.	KTHS (374.5m-800kc) College night.	11:30	10:30
CNRV (291.1m-1030kc) "Peg o' My Heart."	WOC (483.6m-620kc) Orpheus club.	11:45	10:45
WSB (423.3m-700kc) Suwanee glee club.			

Tuesday, silent night for: CFCA, CHIC, CKNC, CKY, CNRC, CNRE, CNRM, CNRO, CNRW, CNRT, KFKX, KFKU, KFMQ, KFUC, KFWA, KYX, KOA, KOAC, KOAB, KOWW, KUOM, KWSC, PWZ, WABQ, WAHG, WHAD, WHAZ, WJAD, WJAZ, WCAP, WGGP, WGST, WLWL, WOI, WRVA, WSUI, WTAM, WTIC.

### Eastern Time Stations

**CKAC, Montreal, Can. (410.7m-730kc), 7:15 p. m.** Windsor hotel dinner concert; 10:30, Windsor hotel dance program.

**CNRA, Moncton, Can. (291.1m-1030kc), 7 p. m.** juvenile program, Prof. C. M. Wright, director; 8, Hiram Ball, organist; Mrs. Harold J. Cole, soprano; Alice Lea, contralto; Walter Neale, tenor; 10, CNRA orchestra.

**KDKA, Pittsburgh, Pa. (309.1m-970kc), 7:15, 8 a. m.** services, O. Shannon; 5:45 p. m., Daddy Winkum; 6:30, dinner concert; 8:30, sacred song period; 9, American program, Tuesday musical choral club; Charles N. Boyd, director; 10:10, Little symphony orchestra concert, Victor Sudek, director; Clara Huhn, soprano; Sara Logan, contralto; Roy Strayer, tenor; 11:35, concert, Grand theater.

**WAHG, Richmond Hill, N. Y. (315.6m-950kc), 12:03 p. m., musical.**

**WBAL, Baltimore, Md. (246m-1220kc), 6:30-7:30 p. m.** dinner program, WBAL dinner orchestra, Robert P. Lula, conductor; 7:30-8, WBAL quartet; 8-9, musical program; Marie Buddy, soprano; George Bolek, pianist; James Wilkinson, baritone; 9-10, WBAL string trio; Philip Jeffreys, pianist.

**WBZ, Boston, Mass. (333.1m-900kc), 6:30 p. m.** Little symphony orchestra, KDKA; 6:45, Hotel Lenox ensemble; 8, professional hockey game, Boston Bruins vs. Pittsburghs.

**WCAU, Philadelphia, Pa. (278m-1080kc), 7:30 p. m.** concert, N. Snellenburg and company; 8, building and loan talk; 8:10, Three Brothers; 8:25, theater digest; 8:35, WCAU players; 9, Robert Fraser, blind Gospel

## FARMERS' PROGRAMS INDEX

### Farmer Dinner Concerts

#### Daily Except Sunday

##### CENTRAL TIME

KFNZ, 12:15-1:35 p. m.  
KMA, 12:30-1:30 p. m.  
KSO, 12:30-1:30 p. m.  
WLS, 12 noon.

#### Saturday, February 13

Eastern 1:45 p. m.	Central 12:45 p. m.	Mountain 11:45 a. m.	Pacific 10:45 a. m.
WOI (270m-1110kc) Soils, questions and answers.	7	6	5
KDKA (309.1m-970kc) Farm program.			

#### Sunday, February 14

Eastern 3:30 p. m.	Central 2:30 p. m.	Mountain 1:30 p. m.	Pacific 12:30 p. m.
WFAA (475.9m-630kc) Sunday hour for farmers.			

#### Monday, February 15

Eastern 1:15 p. m.	Central 12:15 p. m.	Mountain 11:15 a. m.	Pacific 10:15 a. m.
WFAO, (293.9m-1020kc) Timely Economic Information for the Farmer, C. J. West.			
WOC (483.6m-620kc) "Alfalfa Meal in the Brood Sows Ration."			

Eastern 1:35	Central 12:35	Mountain 11:35	Pacific 10:35
KSAC (340.7m-880kc) "Register Your Winter Calf Crop," J. W. Linn.			
Porter.			

Eastern 1:50	Central 12:50	Mountain 11:50	Pacific 10:50
WOI (270m-1110kc) Dairy Production.			
WMAQ (447.5m-670kc) Radio farm school.			

Eastern 7:45	Central 6:45	Mountain 5:45	Pacific 4:45
WGY (379.5m-790kc) Agricultural program.			
WSOE (246m-1220kc) Hog Raising.			

Eastern 8:15	Central 7:15	Mountain 6:15	Pacific 5:15
KSO (242m-1240kc) Farm talk.			
KSAC (340.7m-880kc) "Industrial Wages and Farm Prices," W. Grimes.			

Eastern 8:30	Central 7:30	Mountain 6:30	Pacific 5:30
KFMQ (299.8m-1000kc) Farmers' night. "Temporary Spring Pastures," Dr. J. Burleson; "Hogs in Northwest Arkansas," O. L. McMurray; "Keeping Young Farm Folks Busy," W. J. Jernigan; "Rice as an Industry in Arkansas," W. D. Ezell.			

Eastern 8:45	Central 7:45	Mountain 6:45	Pacific 5:45
WCCO (416.4m-720kc) The Farm Vegetable Garden, "Planting and Care of Crops," F. Kranz.			
9:05	8:05	7:05	6:05

Eastern 9:30	Central 8:30	Mountain 7:30	Pacific 6:30
KOB (348.6m-860kc) "Mating and Breeding," L. N. Berry.			
9	8	7	6

Eastern 10:30	Central 9:30	Mountain 8:30	Pacific 7:30
KOAC (280.2m-1070kc) Agricultural question box. "Preparing Lambs for Market," H. A. Lindgren.			
10:30	9:30	8:30	7:30

Eastern 10:45	Central 9:45	Mountain 8:45	Pacific 7:45
KOAC (280.2m-1070kc) "Factors in Growing Spring Vegetables," A. G. Bouquet.			
10:45	9:45	8:45	7:45

Eastern 11:15	Central 10:15	Mountain 9:15	Pacific 8:15
KSWC (348.6m-860kc) "Hints on Feeding Young Chicks," W. D. Buchanan.			

### Tuesday, February 16

Eastern 11:30 a. m.	Central 10:30 a. m.	Mountain 9:30 a. m.	Pacific 8:30 a. m.
KEAB (340.7m-880kc) "Brooding the Chicks," S. Marsden.			
1:15 p. m.	12:15 p. m.	11:15	10:15

Eastern 1:35	Central 12:35	Mountain 11:35	Pacific 10:35
KSAC (340.7m-880kc) "Potato Prospects for Kansas Growers," E. A. Stokdyk.			
1:45	12:45	11:45	10:45

Eastern 1:50	Central 12:50	Mountain 11:50	Pacific 10:50
WMAQ (447.5m-670kc) Radio farm school.			
1:50	12:50	11:50	10:50

Eastern 7:10	Central 6:10	Mountain 5:10 p. m.	Pacific 4:10 p. m.
WMAQ (293.9m-1020kc) Poultry. "Brooding Problems of the Poultry Man," E. L. Dakan.			
7:15	6:15	5:15	4:15

Eastern 7:45	Central 6:45	Mountain 5:45	Pacific 4:45
WFAO (293.9m-1020kc) "Making New Friends Among Vegetables," L. M. Montgomery.			
7:45	6:45	5:45	4:45

Eastern 8	Central 7	Mountain 6	Pacific 5
KPRU (499.7m-600kc) "Horses and Mules as Farm Power," D. Chittenden.			
8	7	6	5

Eastern 8:33	Central 7:33	Mountain 6:33	Pacific 5:33
KYW (535.4m-560kc) "Forests and Life," Edward Hines.			

### Wednesday, February 17

Eastern 1:15 p. m.	Central 12:15 p. m.	Mountain 11:15 a. m.	Pacific 10:15 a. m.
WOC (483.6m-620kc) The ABC's of Dairying.			
1:35	12:35	11:35	10:35

Eastern 1:45	Central 12:45	Mountain 11:45	Pacific 10:45
KSAC (340.7m-880kc) "Supplementing the Rain-fall," Claude K. Shedd.			
1:45	12:45	11:45	10:45

Eastern 1:50	Central 12:50	Mountain 11:50	Pacific 10:50
WMAQ (447.5m-670kc) Radio Farm school.			
1:50	12:50	11:50	10:50

Eastern 7:15	Central 6:15	Mountain 5:15 p. m.	Pacific 4:15 p. m.
WMAQ (293.9m-1020kc) "What Does It Cost to Raise a Pig to Weaning Time?"			
7:15	6:15	5:15	4:15

Eastern 7:45	Central 6:45	Mountain 5:45	Pacific 4:45
WFAO (293.9m-1020kc) "Getting Horses Ready for Spring Work," W. W. Derrick.			

### Thursday, February 18

Eastern 1:15 p. m.	Central 12:15 p. m.	Mountain 11:15 a. m.	Pacific 10:15 a. m.
WOC (483.6m-620kc) "The Soy Bean—Its Place in Corn Belt Agriculture."			

Eastern 1:35	Central 12:35	Mountain 11:35	Pacific 10:35
KSAC (340.7m-880kc) "Buy Baby Chicks from Tested Flocks," J. W. Lumb.			
1:45	12:45	11:45	10:45

Eastern 1:45	Central 12:45	Mountain 11:45	Pacific 10:45
WMAQ (447.5m-670kc) Radio farm school.			
1:50	12:50	11:50	10:50

Eastern 7:15	Central 6:15	Mountain 5:15 p. m.	Pacific 4:15 p. m.
WMAQ (288.3m-1040kc) "The Soy Bean—Its Place in Corn Belt Agriculture," J. Hackleman.			
7:15	6:15	5:15	4:15

Eastern 8	Central 7	Mountain 6	Pacific 5
WMAQ (285.5m-1050kc) "Cow Testing Associations," A. Baltzer.			
8	7	6	5

Eastern 8:30	Central 7:30	Mountain 6:30	Pacific 5:30
WMAQ (285.5m-1050kc) "Importance of Minerals in the Dairy Ration," C. Huffman; "History and Development of Cheese Industry," O. Reed.			
8:30	7:30	6:30	5:30

Eastern 8:33	Central 7:33	Mountain 6:33	Pacific 5:33
KYW (535.4m-560kc) "Future Cattle Kings in the Making," W. Tomhave.			
8:33	7:33	6:33	5:33

Eastern 9:30	Central 8:30	Mountain 7:30	Pacific 6:30
KOA (322.4m-930kc) Farm question box.			

Eastern 1:15 p. m.	Central 12:15 p. m.	Mountain 11:15 a. m.	Pacific 10:15 a. m.
WOC (483.6m-620kc) Special farm service day.			
1:35	12:35	11:35	10:35

Eastern 1:45	Central 12:45	Mountain 11:45	Pacific 10:45
KSAC (340.7m-880kc) "Kansas Three Billion Dollar Manure Pile," E. B. Wells.			
1:45	12:45	11:45	10:45

Eastern 2	Central 1	Mountain 12 n.	Pacific 11
WMAQ (270m-1110kc) Agricultural Economics.			
2	1	12 n.	11

Eastern 7:15	Central 6:15	Mountain 5:15 p. m.	Pacific 4:15 p. m.
WMAQ (288.3m-1040kc) Special Farm Service day.			
7:15	6:15	5:15	4:15

Eastern 8:45	Central 7:45	Mountain 6:45	Pacific 5:45
WCCO (416.4m-720kc) Flower Growing—Perennials, H. R. Mackintosh.			
8:45	7:45	6:45	5:45

Eastern 9:45	Central 8:45	Mountain 7:45	Pacific 6:45
KOAC (280.2m-1070kc) "Inspection of the Auto's Electrical Wiring System," K. F. Coulson.			

Eastern 9:30 a. m.	Central 8:30 a. m.	Mountain 7:30 a. m.	Pacific 6:30 a. m.
WFAA (475.9m-630kc) Markets.			
9:45	8:45	7:45	6:45

Eastern 10	Central 9	Mountain 8	Pacific 7
KDKA (309.1m-970kc) Livestock, grain.			
10	9	8	7

Eastern 10:30	Central 9:30	Mountain 8:30	Pacific 7:30
WLS (344.6m-870kc) Livestock, markets, fruit.			
10:30	9:30	8:30	7:30

Eastern 11:15	Central 10:15	Mountain 9:15	Pacific 8:15
WTAQ (268m-1120kc) Markets, weather.			
11:15	10:15	9:15	8:15

Eastern 11:30	Central 10:30	Mountain 9:30	Pacific 8:30
KFKX (288.3m-1040kc) Weather, hog market, local produce, hay, Chicago Board of Trade futures.			
11:30	10:30	9:30	8:30

Eastern 11:45	Central 10:45	Mountain 9:45	Pacific 8:45
WFAA (475.9m-630kc) Markets.			
11:45	10:45	9:45	8:45

# "PEG O' MY HEART" COMEDY AT CNRV

## Tuesday, February 16

singer, Elizabeth Holtz, accompanist; 9:30, Sea Gulls; 10, Ed McCauley and his Pals; 10:30, Billy Hayes and his orchestra.

**WEAF, New York, N. Y. (491.5m-610ke)**, 6:45, 7, 7:20 a. m., health exercises; 7:45-8, prayer service; 11, Louise Lawrence trio; 11:25, 11:30, Louise Lawrence trio; 4 p. m., Sonia Troiano, soprano; 4:15, Harry Planten, pianist; 6, dinner music; 7, James Blauvelt, tenor; 8, Blue Ribbon quartet; 8:30, Gold Dust Twins; 9, Eveready hour; 10, auction bridge game; 10:30, Vincent Lopez and his orchestra; 11-12, Ross Gorman and his orchestra.

**WEAO, Columbus, Ohio (293.9m-1020ke)**, 1:15 p. m., Robert Coleman, pianist; 4:10, Mrs. Harvard Vallance, soprano; Charlotte Vallance, pianist; 8:50, music; 10, Hotel Fort Hayes hour of music.

**WEAR, Cleveland, Ohio (387.4m-770ke)**, 7 p. m., State theater vaudeville and music; 8, studio program, instrumental ensemble; 8:30, Gold Dust Twins, WEAF; 9, Eveready entertainers, WEAF; 10, program; 10:30, Vincent Lopez and his orchestra, WEAF; 11, Wormack's singing syncopators.

**WEI, Boston, Mass. (348.6m-860ke)**, 6:45 a. m., health exercises; 7, Eugene's singing orchestra; 5, Joe Herlihy's Collegians; 6, George Joy and Nell Cantor, popular songsters; 7, Big Brother club; 7:30, Salem Chamber of Commerce program; 8, Blue Ribbon quartet, WEAF; 8:30, Gold Dust Twins, WEAF; 9, Eveready hour, WEAF; 10, Radio auction bridge game, WEAF; 10:30, Vincent Lopez and his orchestra, WEAF.

**WFI, Philadelphia, Pa. (394.5m-760ke)**, 1 p. m., tea room ensemble; 6:30, Bellevue-Stratford concert orchestra; 7, Bellevue-Stratford dance orchestra; 8, concert from WEAF; 8:30, Gold Dust Twins; 9, Eveready hour; 10, concert from WEAF.

**WGSS, New York, N. Y. (315.6m-950ke)**, 1:30 p. m., Landa's serenades; 3, Inez Quick, soprano; Rex Benware, reader; 7, Arrowhead Inn concert orchestra; 8:15, New York Newspaper Women's club; 10:30, Arrowhead Inn orchestra.

**WGCP, New York, N. Y. (252m-1190ke)**, 3 p. m., Ona Welsh, pianist; 3:20, Paul Hogan, tenor; Isabelle Henderson, soprano; Max Heitt, violinist; 4:10, Leslie McLeod, tenor; 4:25, studio program; 4:45, Ukulele Bob McDonald.

**WGR, Buffalo, N. Y. (319m-940ke)**, 2:30 p. m., WGR's afternoon program; 6:30, Vincent Lopez Hotel Statler dance orchestra, Harold Giesler, director; 8, jointly with WEAF, including Blue Ribbon male quartet, the Gold Dust Twins, Eveready hour, auction bridge players, and Vincent Lopez and his Casa Lopez orchestra.

**WGY, Schenectady, N. Y. (379.5m-790ke)**, 2 p. m., music; 2:30, organ recital, Stephen Boisclair; 6:30, dinner program, Porter E. Potts' Hotel Van Curler orchestra; 7:45, Marine band, WRC; 8:30, Edison hour, WJZ; 9:30, WGY orchestra; 10:30, dance program.

**WHAR, Atlantic City, N. J. (275m-1090ke)**, 2 p. m., Seaside hotel trio; 7:30, talk; 8, Seaside hotel trio; 11:15, Strand theater organ recital.

**WHN, New York, N. Y. (361.2m-830ke)**, 12:30-1 p. m., organ; 2-3:15, vaudeville; 3:15, Lexington orchestra; 6, Treasureland Neighbors; 6:30, Everglades orchestra; 7, Vincent Lopez's Iceland orchestra; 7:30, Will Oakland Chateau Shamley; 11:30, Charles King's Fifty-fourth Street club orchestra; 12:30-1 a. m., Bob Murphy's orchestra.

**WIP, Philadelphia, Pa. (508.2m-590ke)**, 1 p. m., organ recital, Germantown theater; 3, Carolyn Schimminger, soprano; Elizabeth Gear, pianist; Babette Gerhab, contralto; Flora Ripka, pianist; 6:05, Al Lantz and his Versatile entertainers; 7, Uncle Wip's bedtime stories; songs, Naomi Walsh; 8, dramatic review, Elliott Lester; 8:15, Civic symphony orchestra of Camden, Raymond Vetter, conductor, Helen Buchanan Hitner, soloist; 10:05, movie talk, Eli M. Orowitz; 10:30, Pagoda cafe orchestra.

**WJAR, Providence, R. I. (305.9m-980ke)**, 1:05 p. m., Providence Biltmore concert orchestra; 7:30, Novelty Park club program; 8:05, Novelty Park club; 8:30, Gold Dust Twins; 9, Eveready hour.

**WLIT, Philadelphia, Pa. (394.5m-760ke)**, 11 a. m., organ recital; 12:02 p. m., daily almanac; Arcadia cafe concert orchestra; 2, Arcadia cafe concert orchestra; 7:30, Dream Daddy's bedtime stories.

**WMAK, Buffalo, N. Y. (266m-1130ke)**, 6:15-7:15 p. m., dinner music program.

**WMBF, Miami, Beach, Fla. (384.4m-780ke)**, 7-9 p. m., Fleetwood Radio orchestra; 10-11 a. m., Gene Fosdick and his orchestra; Fleetwood Radio orchestra.

**WMCA, New York, N. Y. (340.7m-880ke)**, 8 p. m., American School association; 8:15, Lantry hour; 9:25, Insurance Square club dinner; 11, Hotel McAlpin orchestra.

**WNYC, New York, N. Y. (526m-570ke)**, 7:10 p. m., Canadians; 8, concert; 10, Harry Ash's orchestra; 10:35, Harry Ash's orchestra.

**WOO, Philadelphia, Pa. (508.2m-590ke)**, 11 a. m., organ recital; 12:02 p. m., Golden's crystal tea room orchestra; 4:45, organ recital; 7:30, A. Candeloni's concert orchestra.

**WOR, New York, N. Y. (405.2m-740ke)**, 7:15 p. m., Jacques Jacobs' Hotel Shelton ensemble.

**WRC, Washington, D. C. (468.5m-640ke)**, 12 m., George F. Ross, organist; 1 p. m., Hotel Washington orchestra; 7, "Show Shopping," Leonard Hall; 7:30, U. S. Marine band; 8:30, New York Edison hour, WJZ, WGY; 10:30, W. Spencer and his Hotel Mayflower orchestra.

**WREO, Lansing, Mich. (285.5m-1050ke)**, 6-7 p. m., dinner concert, Speed-Wagon serenaders; Gold Standard ensemble; 8, Univ. of Notre Dame vs. Michigan State college basketball game; 9:15, Reo Motor Car company band, Carl Hall Dewey, conductor; Reo Motor Car company glee club, Fred Killeen, director; Werner Taplo, xylophonist.

**WTAG, Worcester, Mass. (258m-1120ke)**, 12:05-2 p. m., WTAG orchestra; 9-10, Eveready hour; 10:30-11, Vincent Lopez and his orchestra.

**WTAM, Cleveland, Ohio (389.4m-760ke)**, 6-7 p. m., Hotel Hollenden orchestra.

**WWJ, Detroit, Mich. (352.7m-850ke)**, 9:30 a. m., "Tonight's Dinner"; 12:05 p. m., Jules Klein's Hotel Statler orchestra; 3, Detroit News orchestra; 6, dinner concert; 8, concert, WEAF.

### Central Time Stations

**KFAB, Lincoln, Nebr. (340.7m-880ke)**, 5:30-6:30 p. m., Cow Bell boys; 8:05-10:30, musicale, Univ. of Nebraska.

**KFDM, Beaumont, Tex. (315.6m-950ke)**, 12:30-1 p. m., banter concert; 7-7:30, children's program; 8-10, musical program, South Park Junior college.

**KFEQ, Oak, Nebr. (267.7m-1120ke)**, 2-3 p. m., Nelson Church's program; 8:10, concert, Superior, Nebr.

**KFKX, Hastings, Nebr. (288.3m-1040ke)**, 5:30 p. m., dinner concert, KDKA.

**KFMQ, Fayetteville, Ark. (299.8m-1000ke)**, 8 p. m., David C. Hansard, violinist.

**KFNF, Shenandoah, Iowa (263m-1140ke)**, 7 p. m., Pappillon, Nebr., concert.

**KFRU, Columbia, Mo. (499.7m-600ke)**, 8:45 a. m., public school convocation; music, students of Stephens College Conservatory of Music; 6:15 p. m., dinner program; 8:45, children's hour.

**KFVE, University City, Mo. (240m-1250ke)**, 9:15 p. m., piano selections; entertainers; Solan Nealy, organist.

**KLDS, Independence, Mo. (441m-680ke)**, 6:30 a. m., morning devotional program; 8 p. m., program, William Jewell college, Liberty, Mo.; 11:59, midnight program; organ requests, Herbert Johnson.

**KMA, Shenandoah, Iowa (252m-1190ke)**, 11:30-12:30 p. m., request songs, Mrs. May; 6-7, May Flower trio; 9-11, May's mandolin musicians.

**KPRC, Houston, Tex. (296.9m-1010ke)**, 12 m., educational programs; 5:30 p. m., Uncle Judd's kiddies'

hour; 7:30, Ralph Park's dance orchestra; 8:30, Circle H glee club; Prof. C. A. Hammond, director; 9, Edna Adams, assisted by Mrs. E. E. Sawyer, pianist.

**KSD, St. Louis, Mo. (545.1m-550ke)**, 6:55 p. m., WEAF chain.

**KSO, Clarinda, Iowa (242m-1240ke)**, 7-7:30 p. m., music; 7:30-8:30, Snappy Seven; 8:30-9:30, Roy Wilson's orchestra.

**KTHS, Hot Springs National Park, Ark. (374.8m-800ke)**, 9-9:15 p. m., organ recital; 9:15-10, dance concert; 10-11, college night.

**KWVG, Brownsville, Texas (278m-1080ke)**, 8 p. m., songs.

**WGES, Oak Park, Ill. (250m-1200ke)**, 5-7 p. m., flute duo; organ basso; 8-9, piano; orchestra; organ; tenor; 11-11 a. m., piano; tenor; soprano; organ features.

**WGN, Chicago, Ill. (302.8m-990ke)**, 10-10:15 a. m., health period; 10:15-10:45, entertainment for good health; 11-11:30, morning organ concert, Chicago shut-ins; 12:01-12:30 p. m., noon hour entertainment for children; 12:40-2:30, luncheon concert music; 2:30-3, Lyon and Healy artists' recital; 3:25, Port o' Missing Men; 3:30-4:15, tea time music; 4:30-5, organ recital, Edward Benedict; 5:30-5:57, Skreezix time; 6:30-6:45, dinner concert music; 6:45-7, old-time favorite songs; 8-9, Eveready hour; 9-10,

**WLIB, Chicago, Ill. (302.8m-990ke)**, 7-7:30 p. m., musical program; 7:30-8, Gold Dust Twins; 11-11 a. m., dance music; songs, Correll and Gosden, Freda Leonard and Jewell Barnett.

**WLS, Chicago, Ill. (344.5m-870ke)**, 12 noon, R. F. D. noon program; Ford and Glenn; 6 p. m., R. F. D. school program; Ford and Glenn; 6:40, Ralph Emerson's organ recital; 7, Ford and Glenn, lullaby time; 7:30, group ladies voices of Apollo club, violin solos.

**WMAQ, Chicago, Ill. (447.5m-670ke)**, 2 p. m., program for shut-ins; 4:15, Chicago High School Teachers' council; 4:45, pupils of Columbia School of Music; 5:15, Topsy Turvy time; 6, Chicago theater organ recital; 6:30, Hotel La Salle orchestra; 9:30, Mary Bowen, violinist.

**WMAZ, Macon, Ga. (261m-1150ke)**, 8-9 p. m., religious services, Bishop Ainsworth.

**WMBB, Chicago, Ill. (250m-1200ke)**, 7-8 p. m., Trionon duo; Genevieve Barry Burnham, soprano; Edwin House, bass; Preston Graves, pianist; short talk on finance; 9-11, Trionon orchestra; Woodlawn theater orchestra; Oxford girls; Harmony duo; Eddie Matts; Billie Donovans; Bob Duffy.

**WNAD, Norman, Okla. (254m-1180ke)**, 7 p. m., Billy Thompson, baritone; Roywell Stephens, pianist; Tiny Mary Gaylord, violinist; Ada Nye, violinist; Pi Kappa Phi quartet; 10:30, Boomers.

**WOAN, Lawrenceburg, Tenn. (282.8m-1060ke)**, 9-9:30 p. m., Walter B. Seale and orchestra; 9:30-10, quartet, orchestra.

**WOAW, Omaha, Nebr. (526m-570ke)**, 12:45 p. m., Gilbert Jaffy and his Little Symphony; 6, entertainment; 6:50, orchestra; 9, classical program; 10:30, Herb Feerman and his Omadala orchestra; 12, Rialto alarm.

**WOC, Davenport, Iowa (483.6m-620ke)**, 7:30-8 p. m., Gold Dust Twins, WEAF; 8-9, Eveready hour, WEAF; 9-9:30, bridge game; 10:30-11:30, Orpheus club.

**WOL, Ames, Iowa (270m-110ke)**, 12:30 p. m., chimes.

**WOK, Chicago, Ill. (217.3m-1380ke)**, 4:30-7 p. m., Capitol theater organ program; 10-1:30 a. m., Tearney's town club orchestra; Carl Lorraine's Pershing Palace orchestra; Husk O'Hare's Cooanant Grove orchestra; Capitol theater program.

**WQQ, Kansas City, Mo. (278m-1080ke)**, 8-9 p. m., devotional musical program.

**WORD, Batavia, Ill. (275m-1090ke)**, 7-7:45 p. m., musical program; 7:45-8, Bible questions and answers; 9-9:45, program, W. A. Sheaffer Pen company; 9:45, readings; 11-11:45, program, Public Service Company of Northern Illinois.

**WQJ, Chicago, Ill. (447.5m-670ke)**, 7-8 p. m., Ralph Williams and his Rainbow Gardens orchestra; Fontenelle duo, Harmony singers, Peggy Jewett, first soprano, Bertha McGrath, second soprano; Kenneth Sterling, baritone; Everett George Ople, dramatic director and character reader; 10-11, Jerry Sullivan, singing "Whadd-a-ya-say?"; Rose Vanderbosch, soprano and pianist; Hal Lansing, ukulele; Merrill Carder, baritone; La Shannabrook, soprano; Will Rossiter; Hollingsworth and Altamore, guitars; Romeo Vincent, boy baritone; 1-2 a. m., Ginger hour, Ralph Williams, the Ginger man and Little Skylarks.

**WSAI, Cincinnati, Ohio (325.9m-920ke)**, 5:30 p. m., twilight musicale, WSAI concert studio; 6:30, musical program, WSAI; 7, Mabey and Clevor orchestra, Reuben Lawson, director; 8, Eveready hour, WEAF; 9-9:30, auction bridge, WEAF; 9:30-10, musical program; 10, Freda Sander's orchestra.

**WSB, Atlanta, Ga. (428.3m-700ke)**, 8 p. m., Lyon and King de luxe concert; 10:45, Swanee glee club.

**WSM, Nashville, Tenn. (282.8m-1060ke)**, 10 p. m., Beasley Smith's orchestra.

**WSUI, Iowa City, Iowa (483.6m-620ke)**, 12:30 p. m., Jeanette Rothschild, soprano.

## CLASSICAL CONCERTS INDEX

Saturday, February 13			
Eastern 6 p. m.	Central 5 p. m.	Mountain 4 p. m.	Pacific 3 p. m.
WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ
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WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ

Sunday, February 14			
Eastern 6 p. m.	Central 5 p. m.	Mountain 4 p. m.	Pacific 3 p. m.
WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ
WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ
WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ

Monday, February 15			
Eastern 6 p. m.	Central 5 p. m.	Mountain 4 p. m.	Pacific 3 p. m.
WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ
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Tuesday, February 16			
Eastern 6 p. m.	Central 5 p. m.	Mountain 4 p. m.	Pacific 3 p. m.
WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ
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Wednesday, February 17			
Eastern 6 p. m.	Central 5 p. m.	Mountain 4 p. m.	Pacific 3 p. m.
WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ
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WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ

Thursday, February 18			
Eastern 6 p. m.	Central 5 p. m.	Mountain 4 p. m.	Pacific 3 p. m.
WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ
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WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ

Friday, February 19			
Eastern 6 p. m.	Central 5 p. m.	Mountain 4 p. m.	Pacific 3 p. m.
WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ
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WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ	WCAE, WCAU, WEAF, WEAB, WEEL, WJAR, WTAG, WWJ

**KYW, Chicago, Ill. (535.4m-560ke)**, 12:05-1 p. m., concert; 1-2, Joska De Babary and his orchestra; 4-5:45, Frolic; 6-7, KDKA symphony; 9, an hour of music; 10, evening at home; Coon-Sanders' orchestra.

**WAMD, Minneapolis, Minn. (244m-230ke)**, 12 m., organ recital, Jack Malerich.

**WBAP, Fort Worth, Tex. (475.9m-630ke)**, 7:30 p. m., Junior Euterpean club; 9:30, vocal and instrumental.

**WBBM, Chicago, Ill. (226m-1330ke)**, 4-6 p. m., Sandy and Harry; Valentino Inn orchestra; Arnold Stephen and Harry; Sidney Nireman, pianist; Harold Morava, bryson tenor; Russel Myers; 8-9, Sandy and Harry; Moulton tenor; Christian A. Grimmon, composer-pianist; Bob Haynes, baritone; Charles O'Connell, pianist; 7:30-9, concert, Harry S. Currie's Music Box; readings; 7:30-9, concert, Carl Zoeller's Melodists; Carl Zoeller, drums, director; H. C. Lampe, pianist; Ed Reichmuth, saxophone; Cliff Eblen, saxophone; Charles Albus, trumpet; Gordon Switzer, violinist; William Talamini, band.

**WHB, Kansas City, Mo. (365.6m-820ke)**, 7-7:30 p. m., organ selections, Merrill Moore; 8-10, feature program; Otts Boys' band; men's chorus of twenty voices; Helen Seckler, violinist; Sarah Burns, pianist; old-time music, Frank Johnson and Earl Garret, violinist and pianist.

**WHO, Des Moines, Iowa (526m-570ke)**, 7:30-8 p. m., piano; 8-9, Bankers Life trio, Helen Birmingham, director; 11-12 midnight, Bankers Life "Corn Sugar" orchestra.

**WIBO, Chicago, Ill. (220m-1330ke)**, 2-4 p. m., program for shut-ins; Ted Fiorito, pianist; Dan Russo, violinist; Marie Tully, soprano; Wayne Meyers, reader; Mr. Wallace, singer; Dorothy Davie Dillow, soprano; 6-8, dinner concert; American ballads, Walter Preston; WIBO string trio; 8, Bernice Taylor, soprano; Charlotte Edwards, contralto; Eugene Wallenius, tenor; Ruth Goll, pianist; 12, midnight jamboree; Dan Russo, violinist; Ted Fiorito, pianist; Wayne Meyers, reader; Marie Tully, soprano; Harry Davis.

**WJJD, Mooseheart, Ill. (370.2m-810ke)**, 12-1 p. m., Palmer House symphonic players; Palmer House trio; 2-3:30, organ hour; 4-5, child artists; children's assembly; 5:30-7, instrumental hour; Palmer House symphonic players; Howard L. Peterson, organist; Palmer House Victorians; 8-9, children's hour; 10-11, feature hour; Rushmore ensemble singers; Palmer House Victorians; 12:30 a. m., Knights of the Burning Candle.

**WKRC, Cincinnati, Ohio (422.3m-710ke)**, 10 p. m., Alvin Roehr and his Hotel Alms dance orchestra; 11, Doc Howard and his Cuvier quartet, orchestra and entertainers, Reine Gau, Phil Pavv, Olie Grimm and Jimmie Schuh, pianist.

### Mountain Time Stations

**CNRR, Regina, Can. (476m-640ke)**, 8 p. m., Al Johnston's Arcadians orchestra.

**KFXF, Colorado Springs, Colo. (250m-1200ke)**, 8:30-10:30 p. m., musicale.

**KOA, Denver, Colo. (322.4m-930ke)**, 12:15 p. m., Rialto theater musicale; 3:30, matinee; 6:30, Brown Palace string orchestra.

### Pacific Time Stations

**CNRV, Vancouver, Can. (291.1m-1030ke)**, 7:30 p. m., health talk, Dr. O. S. Parrett; 8:30, "Peg o' My Heart," comedy; incidental music, Marky Galetti; 10:30, Cabaret Belmont orchestra; Bebe Miller.

**KFI, Los Angeles, Calif. (407m-642ke)**, 6:30-8 p. m., California serenaders; 8, nightingale; 8:15, KFI's Seeing California; 8, highly pocket program; 6:45, Radiatorial period; 7-8, program arranged by Clara Belle Patton; Wallace; 8-9, program arranged by Frank Barry, tenor; 9-10, Packard Eight dance orchestra; 10-11, Packard ballad hour with Marion Boogar, Paul Roberts, Jackie Lucas and other favorites.

**KFOA, Seattle, Wash. (454.3m-660ke)**, 6-6:30 p. m., Atwater Kent boys; 7-8:15, Olympic Carpet Refining company; 8:30-10, entertainers; 10-11, Jackie Souder's Club Lido serenaders.

**KFON, Long Beach, Calif. (232.4m-1290ke)**, 6-6:30 p. m., Brayton's theater organ; 6:30-7, amusement information; 7-8, Footwarmer's dance orchestra; 8-9, Press-Telegram program; 9-11, Long Beach Aero club weekly Hi-Jinks.

**KFWA, Ogden, Utah (261m-1150ke)**, 4-5 p. m., organ recital, Paramount theater; 5-6, Ogden Radio dealers' program.

**KFWB, Hollywood, Calif. (252m-1190ke)**, 5-6 p. m., children's hour, Big Brother of KFWB; 7:45, microphone brevities; 8-9, Jack Smith's dance orchestra, Esther Horowitz, violinist, Hazel Thomas, soprano; 9-10, Mosley brothers, banjo duets; Henry Kaplan, pianist; Bill Blake, tenor; 10-11, Warner Brothers' Frolic, direction Charlie Wellman.

**KGO, Oakland, Calif. (361.2m-830ke)**, 4-5:30 p. m., concert orchestra, Hotel St. Francis; 6-6:55, Baldwin Piano company dinner concert; Knickerbocker trio; 8-9, Eveready program, Eva Gruning, Knickerbocker, contralto; Easton Kent, tenor; Marion Nicholson, violinist; 9-9:30, Marion Sprague Stoner, contralto; Beatrice L. Sherwood, accompanist; 10-12, Girvin-Deuel's California Collegians.

**KGW, Portland, Ore. (491.5m-610ke)**, 12:30-1:30 p. m., concert; 6-7, dinner concert; 8-10, educational program; auction bridge lesson; McElroy quartet; 10-12, dance music; Curt Kremer, pianist.

**KHJ, Los Angeles, Calif. (405.2m-740ke)**, 6-6:30 p. m., Leighton's Arcade cafeteria orchestra, Jack Cronshaw, leader; 6:30-7:30, history story, Prof. Herzog; weekly visit of Queen Titania and the Radio Fairies; Charles Leslie Hill, readings; Lenore Killian, contralto; 8-10, program, Builders' Finance association.

**KMTB, Hollywood, Calif. (238m-1260ke)**, 6-7 p. m., Starr Radio company

# COLUMBUS MEN'S QUARTET AT WEAO

## Wednesday, February 17

### Headliners Today

Eastern 8 p. m.	Central 7 p. m.	Mountain 6 p. m.	Pacific 5 p. m.
WBZ (333.1m-900kc) Liberty drum corps, ancient and modern music.			
WGR (319m-940kc) Audubon Terrace entertainers.			
WCAE (461.3m-650kc) Ohio Ramblers.			
WDAF (365.6m-820kc) American Legion program.			
WOO (508.2m-590kc) American male quartet.			
WSB (428.3m-700kc) Atlanta and West Point Route band.			
10:15	9:15	8:15	7:15
KOAS (322.4m-930kc) Mirado concert trio.			
KTHS (374.8m-800kc) Victor Herbert selections.			
11	10	9	8
WSM (282.8m-1060kc) University quartet.			
12	11	10	9
KPRC (296.9m-1010kc) Queen theater orchestra.			

Wednesday, silent night for: CHIC, CKNC, CNRA, CNRC, CNRE, CNRM, CNRR, CNRT, CNRV, KFAU, KFDM, KFEQ, KFKU, KFQQ, KFXF, KGO, KLDK, KOB, KTAB, WABQ, WBAL, WBBR, WCAD, WGBB, WEBW, WFAA, WGBS, WGPC, WGST, WHAR, WHAZ, WIP, WJAD, WJAZ, WLWL, WMC, WOAI, WOAW, WOJ, WPG, WRC, WREG.

### Eastern Time Stations

CKAC, Montreal, Can. (410.7m-730kc), 1:45 p. m., luncheon.

CNRO, Ottawa, Can. (434.5m-690kc), 8 p. m., Chateau Laurier concert orchestra; Ottawa male quartet; Mrs. W. G. Fraser, violinist; Gladys Ewart, pianist; Chateau Laurier dance orchestra.

KDKA, Pittsburgh, Pa. (399.1m-970kc), 7:15-8 a. m., exercises, O. Shannon; 12:30 p. m., Trinity church Lenten service; 5:45, Postman Dan; 6:30, dinner concert; 5:30, Independent Wall Paper Pierrots; 9, barn dance program.

WAHG, Richmond Hill, N. Y. (315.6m-950kc), 12:03 p. m., music; 7:30-7:45, Baller string ensemble; 8, Mischa Tulin, pianist; 8:15, Viola Scherer, soprano; 8:30-9, Serenaders Pleasure quintet; 9:15-9:45, Royal male quartet; 10, Raymond Maher, baritone; 10:20, Frank Lapierre's collegians.

WBZ, Boston, Mass. (333.1m-900kc), 6:30 p. m., Little symphony orchestra, KDKA; 6:45, Hotel Kimball dance orchestra, Bob Patterson; 7:30, Radio Nature league, Thornton W. Burgess, director; 8, Liberty drum corps, ancient and modern music; drum solos; 8:20, concert, Hazel Farrar, pianist; Clare Chalmers, lyric soprano; Eileen Kennedy, violinist; Arthur Thoun, baritone; Gladys Kiefer, pianist; 9:15, Anna Eichorn ensemble; Anna Eichorn, violinist; Marion Harlow Watson, harpist; Eulalia Snyder, pianist; Marion Harlow Watson, harpist; Eulalia Snyder, pianist; Clara Mott, soprano; Butterfly ballroom, 10:20, Addlers contest, Cooks' ballroom.

WCAU, Philadelphia, Pa. (278m-1080kc), 6:45 p. m., Parodians dance orchestra; 7:30, concert, N. Snellenburg & Co.; 8, talk; 8:10, Jeff Kame's musical adventures; 9, Rigo's Royal Gypsy band; 9:30, Jones' Jolly Four; 10, Lew Chapman's Inter-Fraternity dance orchestra; 10:45, Frank Cook, songs; 11, Artie Bitting's Cheer-up club.

WEAF, New York, N. Y. (491.5m-610kc), 6:45-7:20 a. m., health exercises; 7:45-8, prayer service; 11:05, Rev. Michael Magidson, tenor; 12, chapel services; 4 p. m., Ray Nichols Recording orchestra; 4:30, John Allegra, baritone; 6, dinner music; 7, synagogue services; 7:30, Chamber music; Elvira Boni, soprano; Nino Ruisi, bass and symphonic instrumental piano; 8:30, Davis saxophone octet; 9, Ipana quartet; 8:30, Roxy and his gang; 11-12, Hughie Barrett and his orchestra.

WEAO, Columbus, Ohio (293.9m-1020kc), 8:15 p. m., Chillother ladies quartet; 8:45, quartet.

WEAR, Cleveland, Ohio (389.4m-770kc), 7 p. m., Hotel Cleveland orchestra, Frederick Jausen, director.

WEEL, Boston, Mass. (348.6m-860kc), 6:45 a. m., health exercises; 5:20 p. m., Hughie Connor and his Black and White orchestra; 6:30, Joe Rines and his Hunters' Cabin orchestra; 7, Big Brother club; 7:30, Aiden Redmond, baritone; 7:45, Peerless tours, Joe Toye; 8, musical skit, R. V. Pettingill Electric company; 8:30, Davis saxophone octet, WEAF; Ipana Troubadours, WEAF; 10, Roxy and his gang, WEAF.

WFI, Philadelphia, Pa. (394.5m-760kc), 10:30 a. m., Betty Crocker; 1 p. m., Maude Justice, contralto; Martha Krays, soprano; 2:30, Maude Justice, contralto; 6:30, Bellevue Stratford concert orchestra; 7, Bellevue Stratford dance orchestra.

WGBS, New York, N. Y. (315.6m-950kc), 1:30 p. m., Samuel Kirkland, violinist; Albertine Babst, soprano; 3, shut-ins at Huschick hospital; 6:30, Jersey Collegians.

WGCP, New York, N. Y. (252m-1190kc), 3 p. m., Lilian Rubin; 3:45, Tracey and Mohr; 4:10, Joseph Peoney; Haines Good News Party; 4:35, Jeanne A'Dair; 5:10, Charlotte Trystman, pianist; 7, orchestra; 7:30, Clarence Williams' trio; 7:50, Kennedy harmony group; 8:15, Charlo de Thone, pianist; WGR, Buffalo, N. Y. (315.6m-950kc), 2:30 p. m., WGR's afternoon program; 6:30, Audubon Terrace entertainers; 8:30, jointly with WEAF, including Davis saxophone octet, and Ipana Troubadours; 10, concert by Ethyl McMullen; 11, Vincent Lopez Hotel Statler dance orchestra, Harold Gieser, director, John E. Gunderman, Jr., at the piano.

WGY, Schenectady, N. Y. (379.5m-790kc), 6:30 p. m., children's program; 7, dinner program, Eastman theater orchestra, WEAM; 7:30, Book of Knowledge program; 8:05, musical program, Rochester, N. Y., WEAM.

WHN, New York, N. Y. (361.2m-830kc), 7 p. m., Parody club orchestra; 7:30, Altravere entertainers; 10, Roseland dance orchestra; 10:30, Anatol Friedman; 11, Silver Slipper orchestra; 11:30, Lew Brown, Sidney Claire; 12, Cotton club orchestra; 12:30, Harry Richman and his entertainers.

WIP, Philadelphia, Pa. (508.2m-590kc), 1 p. m., Gimbel tea room orchestra; 3:15, Shapp Instrumental trio; 7, Uncle Wip's bedtime stories.

WIAR, Providence, R. I. (305.9m-880kc), 1:05 p. m., Green Acre Lodge orchestra; 7:30, music; 10, Roxy and his gang.

WKAR, East Lansing, Mich. (285.5m-1050kc), 8-9 p. m., musical program.

WKAQ, San Juan, P. R. (340.7m-880kc), 6-8 p. m., municipal band.

WLIT, Philadelphia, Pa. (394.5m-760kc), 12:02 p. m., daily all-night Stanley theater organ recital; Arcadia cafe concert orchestra; 2, Arcadia cafe concert orchestra; 7:30, Dream Daddy's bedtime stories; 8, Arcadia cafe concert orchestra; 8:20, Wincopp quartet; 10, Arcadia cafe dance orchestra.

WLWL, New York, N. Y. (288.3m-1040kc), 9:15 p. m., entertainers; 9:45, McEvoy concert.

WMAK, Buffalo, N. Y. (266m-1130kc), 7:45-8 p. m., Y. M. C. A. program; 8-8:30, song recital, Ester Thorp Throop and Grace Sandell; 8:30-9, music; 9-10, dance program, Knell's Tokio orchestra; 9-10, dance program, Knell's Tokio orchestra; 7-9 p. m., Fleetwood Radio orchestra; 10-11 a. m., Gene Fosdick and his orchestra; Fleetwood Radio orchestra.

WMAA, New York, N. Y. (340.7m-880kc), 6 p. m., Hotel McAlpin string ensemble; 6:30, Hotel McAlpin orchestra; 11, Hofbrau Haus entertainers; 11:30, Jack Denny's orchestra.

WNYC, New York, N. Y. (526m-570kc), 7:35 p. m., song recital; 8, dance program; 9, concert.

WOO, Philadelphia, Pa. (508.2m-590kc), 11 a. m., organ recital; 12:02 p. m., Golden's crystal tea room orchestra; 4:45, organ recital; 7:30, Sylvania dance orchestra; 8, concert from WEAF; 8:30, Davis saxo-

phone octet; 9, WOO American male quartet; 9:25, talk, Rev. Forrest Fager; 10, Fox theater studio program; 10:30, Hotel Sylvania dance orchestra.

WOR, New York, N. Y. (405.2m-740kc), 6:19 p. m., Hotel Shelton ensemble; 8:30, Hevre sisters; 9:45, Sam Siegel, mandolinist; 10, Ballin and Race, piano duo.

WRC, Washington, D. C. (468.5m-640kc), 12 noon, Gertrude Smallwood, organist; 1 p. m., Lee House trio; 4:15, Meyer Davis Le Paradis band; 5, music.

WREG, Lansing, Mich. (285.5m-1050kc), 6-7 p. m., dinner concert; Speed Wagon Serenaders; Gold Standard ensemble.

WRVA, Richmond, Va. (256m-1170kc), 8:10 p. m., Prof. Ernest H. Cosby, organist; 9, orchestra concert.

WTAG, Worcester, Mass. (268m-1120kc), 12:05-2 p. m., WTAG orchestra; 3-5, WTAG orchestra; 8:30-9, Davis saxophone octet; 9-10, program; 10-11, Roxy and his gang.

WTAM, Cleveland, Ohio (389.4m-760kc), Royal Canadians; 8-11, city of Cleveland program; 11-1, Royal Canadians.

WTIC, Hartford, Conn. (475.9m-630kc), 6:30 p. m., Hotel Bond trio; 8, concert, Hartford hospital nurses' glee club, Moshe Paronov, director; 8:30, Katherine Horahan, soprano; Elizabeth Flagg, pianist; 9:15, piano recital, Laura Gaudet; 9:30, organ recital, Esther A. Nelson.

WVJ, Detroit, Mich. (352.7m-850kc), 7:30-8 a. m., setting-up exercises, R. J. Horton; 9:30, "Tonight's Dinner"; 12:05, Jules Klein's Hotel Statler orchestra; 3 p. m., Detroit News orchestra; 6, dinner concert; 8, News orchestra and soloists; 9, dance program; 10, Roxy and his gang.

### Central Time Stations

CKY, Winnipeg, Can. (384.4m-780kc), 7:30 p. m., Canadian National Railway's program, Ft. Garry hotel.

CNRW, Winnipeg, Can. (384.4m-780kc), 7:50 p. m., Fort Garry hotel, Irvine Plumm and his Fort Garry hotel orchestra; 8:45, Lily Clatworthy, soprano; Syd Barnes, reader; Mrs. J. V. Dillabough, pianist; 10, Irvine Plumm and his Fort Garry hotel orchestra; Al Kilgour.

KFAB, Lincoln, Nebr. (340.7m-880kc), 5:30-6:30 p. m., dinner concert; 8:30-10:30, American Legion State program.

KFEQ, Oak, Nebr. (267.7m-1120kc), 2-3 p. m., Oak talent; 8:30-10, Fairbury (Nebr.) concert.

KFKX, Hastings, Nebr. (288.3m-1040kc), 5:30 p. m., dinner concert, KDKA; 9, musical program.

KFNF, Shenandoah, Iowa (263m-1140kc), 7 p. m., concert.

KFRU, Columbus, Mo. (499.7m-600kc), 5:30 p. m., Bella Vista quadrangle orchestra; 9-11, musical program, faculty and students of Stephens College Conservatory of Music.

KFVE, University City, Mo. (240m-1250kc), 9:15 p. m., woman's hour, Woman's National exposition; Romaine Fielding, reader; Solan Nealy, organist; Paul and Jack Snyder.

KMA, Shenandoah, Iowa (252m-1190kc), 11:30-12:30 p. m., Charles Skinner, banjoist; 9-11, Bobbie and Babe Riddle; William Cunningham, former Scotchman.

KPRC, Houston, Texas (296.9m-1010kc), 12 m., Lions' club luncheon program, I. C. Timmins, president; 5:30, Uncle Judd's kiddies' hour; 7:30, MacFarland-Cochran trio; violin, cello and piano, presenting Marjorie and Jean MacFarland, Mrs. J. Earl Cochran; 8:30, E. J. Katzmark, tenor; Mabel Lewis, pianist; 11, Queen theater orchestra, Joseph E. LeBlanc, conductor.

KSD, St. Louis, Mo. (545.1m-550kc), 7 p. m., Fur hour, Hotel Statler orchestra; 8, Ipana Troubadours.

KSO, Clarinda, Ia. (242m-1240kc), 7-7:30 p. m., music; 7:30-9, Duo Art trio.

KTHS, Hot Springs National Park, Ark. (374.8m-800kc), 9-9:15 p. m., violin recital, Lou Chassy, John G. Heyn, accompanist; 9:15-9:30, Victor Herbert selections, Meyer Davis ensemble; 9:30-10, concert, Mrs. Hubert A. Craig, vocalist; Immanuel quartet; 10-10:45, frolic.

KWWG, Brownsville, Texas (278m-1080kc), 6 p. m., frolic.

KYW, Chicago, Ill. (535.4m-560kc), 12:05-1 p. m., concert; 1-2, Joska DeLabary and his orchestra; 6-7, KDKA symphony; 7:30-8, half-hour of music; 10:12-30, midnight revue; Paul Ash and his orchestra; Coon-Sanders; 1-2, Lomania club.

WAMD, Minneapolis, Minn. (244m-1230kc), 12 m., classical program, James Harper, violinist; Bell Jones, accompanist; Rose Felker Asplen, soprano; Ella Sundstrom Pendleton, accompanist; 6:15, dinner concert, George Osborn's orchestra; 7:10, classical program, Edna Weese, soprano; Donald Mensing, violinist; Martin Friedman, pianist; 11, Skyrocket frolic, George Osborn and his orchestra.

WCCO, Minneapolis-St. Paul, Minn. (416.4m-720kc), 7 p. m., midweek church service, Rev. C. E. Bergquist, pastor; 8, Ipana Troubadours, WEAF; 9, Nash-Finch concert orchestra; 10:05, Dick Long's Nankin cafe orchestra; 11:30, Eddie Dunstetter, organist.

WBBM, Chicago, Ill. (226m-1330kc), 4-6 p. m., Harry and Sandy; Valentino Inn orchestra; Edna Wheeler Ballard, harpist; Harold Morava, lyric tenor; Johnny Black; court banks; Ralph Bothof; 8-10, WBBM string trio; Moulou Rouge orchestra; Phillip Nilles, tenor; Sunset quartet; Rudy Winter; Floyd Falch; 12-2, Lew Russell; Charlie Garland; Two Jays, Jesse and Jordan; Harold Anderson, accordionist; Moulou Rouge orchestra; Spencer, Laverne and Shayne, xylophone trio; Joe Buck, uke and banjo; Claire Matthews; visualized Hawaiian quartet; Floyd Falch; Ariston trio.

WDAF, Kansas City, Mo. (365.6m-820kc), 6-7 p. m., Trianon ensemble; 8-10, American Legion; 11:45-1, Ted Weem's Recording orchestra; Eddie Kuhn's orchestra.

WDDO, Chattanooga, Tenn. (256m-1170kc), 6:30-7 p. m., organ music, Tivoli theater; 7-8, Hotel Platten orchestra; 8:15, special features and program.

WEBH, Chicago, Ill. (370.2m-810kc), 7-8 p. m., Emerson Military band; 9, Oriole orchestra; 9:45, Florence Behrend, soprano; Eugenia Dolberg, pianist; 11, Oriole orchestra; Irene Beasley; Frank Borden, revue.

WENR, Chicago, Ill. (266m-1130kc), 6-7 p. m., dinner concert; Rauland-Lyric trio; instrumental solos; vocal; 8-10, popular program; All-American Pioneers; Claire Gorska Geis, soprano; J. E. Peterson, basso; Dorothy Cutler, pianist; Archie Rawls, tenor; Art Bilquist, singer; 12-2 a. m., frolics, Frank Westphal and his All-American Pioneers; Hal Laize, saxophone; James Beaumont, banjo; vocal.

WFAA, Dallas, Texas (475.9m-630kc), 12:30-1 p. m., Sears-Robuck Agricultural Foundation program.

WGES, Oak Park, Ill. (250m-1200kc), 5-7 p. m., basso; pipe organ; tenor; 8-9, orchestra; contralto; 11-1 a. m., Coyne serenaders; comedian; organ; tenor; piano; orchestra.

WGN, Chicago, Ill. (302.8m-990kc), 10-10:15 a. m., good health period; 10:15-10:45, entertainment for shut-ins; 11-11:30, organ concert, Chicago theater, Dean Fossler; 12:01-12:30, noon hour entertainment for children; 12:40-2:30, luncheon concert, music; 2:30-3, Lyon and Healy artist recital; 3:25, Port o' Missing Men; 3:30-4:15, tea time music; 4:30-5, Skeezix time; 6:30-8:45, dinner concert music; 6:45-7, old-time favorite songs; 8-9, musical program; 9-10, "Roxy" and his gang; 10-10:10, "Sam 'n' Henry"; Radio comic strip; 10:10-10:15, old-time favorite songs; 10:15-11, dance music, songs, Correll and Gosden, Freda Leonard and Jewell Barnett; Hawaiian guitar music, Langdon brothers.

WHAD, Milwaukee, Wis. (275m-1090kc), 11 a. m., pianologue, Andy Hertel; the Housewife; 4 p. m., "With the Humorists," John R. Wolfe; Mrs. Marie Weiss, pianist; Linda Hering, saxophone; 6:15-7, Arthur Richter, organist; 10:30-11:30, popular dance hits, Dexter's Wisconsin and Elger's Creole roof orchestras; 11:30-12:30 a. m., Edmund Fitch, organist.

WHAS, Louisville, Ky. (399.8m-750kc), 1-2 p. m., concert, Barney Kapp's orchestra; 3-3:30, organ re-



This pretty senorita is Helen Bacigalupi, soprano, will be heard from KGO, Oakland, Thursday night.

ital, Mrs. Myrtle Fuks Zahn, Jr.; 4-5, concert, Harry Currie's music box; readings; 7:30-9, concert, auspices of Liberty Insurance bank, Joseph J. Eisenbeis, director.

WHB, Kansas City, Mo. (365.6m-820kc), 2-3 p. m., program, Linwood theater, assisting artists and Merrill Moore, organist; 7-8, selections, Milo Finley string trio; girls' banjo orchestra, Alma Nash, director; selected popular solos.

WHO, Des Moines, Iowa (526m-570kc), 6-7 p. m., Bankers Life Little Symphonic orchestra, Leon A. Dashoff, director; 7-7:15, "Uncle Dutch"; 7:15-7:30, program, Bankers Life Little Symphonic orchestra; 7:30-9, Harry Lewis, soloist; Kate Miller, whistler; Maude Hughes, accompanist; artists, Capitol theater; Sam Soodhalter, Ben Jordan, popular harmony numbers; 9-12, dance programs.

WIBO, Chicago, Ill. (226m-1330kc), 2-4 p. m., Shut-in program; Ted Florio, pianist; Dan Russo, violinist; Marie Tully, soprano; Wayne Meyers, reader; 6:30-8, dinner concert; Russell Duke, singer; 6-8, dinner concert; old-fashioned songs; Walter Preston; WIBO string trio; Dorothy Rae, soprano; Florence Osterman, contralto; Joe North, baritone; Earl Bigelow, pianist; 10-12, popular program; open request night; Prof. Black, cryptologist; Marie Tully, soprano; Hicky and Johnson; William Molnar, tenor; Erwin Cornelius, uke soloist; Lenore Friedman, soprano; Pearl Holzman, pianist; Irene Beasley, the Jordans.

WJAD, Waco, Texas (352.7m-850kc), 8:30-9:30 p. m., program, Methodist Home entertainers.

WJJD, Mooseheart, Ill. (370.2m-810kc), 12-1 p. m., Palmer House symphonic players; Palmer House trio; 2-3, organ hour, Howard L. Peterson; 4-5, music, Mooseheart children; assembly of 1250 children; 5:30, 7, instrumental hour; Palmer House symphonic players; Howard L. Peterson, organist; 10-11, feature House Victorians; 8-9, children's hour; 10-11, feature House Victorians; R. V. Thomas, John Rarbel, John Norton; 12:30, Settin' up hour; Palmer House Victorians, Jack Nelson.

WKAF, Milwaukee, Wis. (261m-1150kc), 10-11 p. m., Campus Skylarks; Harry Steffel, banjo-soloist.

WKRC, Cincinnati, Ohio (422.3m-710kc), 6 p. m., dinner program, Alvin Roehr and his Hotel Alms orchestra; 8, book review; Oliver Plunkett, tenor; xylophonist; 9, Everfresh hour; concert orchestra, R. Visconti, director; 9:30, Ben Alley, tenor; 12, Wesley Helvey and his LaVista Clubhouse orchestra.

WLBB, Chicago, Ill. (302.8m-990kc), 7-8 p. m., musical program; 11-1 a. m., dance music, songs, Correll and Gosden; Hawaiian guitar music, Langdon brothers.

WLS, Chicago, Ill. (344.6m-870kc), 12 noon, R. F. D. noon program; Ford and Glenn; 6 p. m., R. F. D. school program; Ford and Glenn; 6:30, Ralph Emerson's organ recital; 7, Ford and Glenn's lullaby time; 7:30, WLS studio presentation, "Songs of the American Negro"; 7:50, Rhodeaver program; 8:20, University of Chicago, campus program; 8:35, Ford and Glenn, "Shamrocks and Blarney"; 9:05, Central Trust company chorus; 10, Tony Corcoran, baritone; 10:20, Triangle entertainers; 11, WLS circus, George Go-forth's Gold band; Ruth Utling; Ford and Glenn.

WMAQ, Chicago, Ill. (447.5m-670kc), 1 p. m., Chicago Association of Commerce luncheon; 2, shut-in program; 4:30, pupils of Cosmopolitan school of music; 5:15, Georgene Paulkner, story lady; 6, Chicago theater organ recital; 6:30, Hotel LaSalle orchestra; 8:30, Townsends sisters; 9, WMAQ players; 9:55, University of Chicago chimes.

WMAZ, Macon, Ga. (261m-1150kc), 11-12 p. m., fraternity music, Sigma Nu.

WMBB, Chicago, Ill. (250m-1200kc), 7-8 p. m., Trianon duo; Veronica Krebs, contralto; Eleanor Kaplan, violinist; Hennes Brothers; 9-11, Trianon orchestra; Woodlawn theater orchestra; Billie Allen Hoff; Cecil and Esther Ward; Bob Bennett.

WNAD, Norman, Okla. (254m-1180kc), 8:10 p. m., Louis Mosley, pianist; Hettie Maloy, vocalist; Minnie Harris, violinist; Mabel Thompson, vocalist; Fletcher Ward, violinist; Elizabeth Campbell, pianist; 8:30, Leo Garner, pianist; 9, WNAD miniature symphony; 10, Collegians; 11, Sooners.

WOAN, Lawrenceburg, Tenn. (282.8m-1060kc), 9-10 p. m., quartet, orchestra.

WOAW, Omaha, Nebr. (526m-570kc), 12:45 p. m., Phyllis Griswold, organist; 4:10, Feerman and Abbott.

WOC, Davenport, Iowa (483.6m-620kc), 4-4:45 p. m., Amphion quartet; A. E. Edwards, baritone; Ann Bradford, reader; 9-9:30, Erwin Swindell, organist; 9:30-10:30, program, Augustana college.

WORD, Batavia, Ill. (275m-1090kc), 7-7:45 p. m., program, the North Shore Line; 7:45, reading, "The Harp of God"; 9, Webster hotel trio, I. B. S. A. choral singers; 11-12, musical program.

WOI, Ames, Iowa (270m-1110kc), 12:30 p. m., chimes.

WOK, Chicago, Ill. (217.3m-1380kc), 4:30-7 p. m., Capitol theater organ; Lillian Knowles, contralto; 10:12-30 a. m., Tearney's town club orchestra; Carl Lorraine's Pershing Palace orchestra; Husk O'Hare's Coconut Grove orchestra; Capitol theater program; program.

WOS, Jefferson City, Mo. (440.9m-680kc), 8:15 p. m., program, State Bureau of Labor, Roy E. Hinkle, commissioner; Neil Harrowood, readings.

WQJ, Chicago, Ill. (447.5m-670kc), 8-4 p. m., Lavina Price, pianist; 7-8, dinner concert, Ralph Williams and his Rainbo Skylarks; Laurie, Eddie, Bernie, melodians; Clarence Theaders, tenor; Joe Warner, character songs;

George Thurn, kazoo and uke; The Oxford Girls, Juanita Sank and Loretta Clusman, harmony singers; J. Edwin Peterson, basso; 1-2 a. m., Ralph Williams, the Ginger Man, Little Skylarks.

WSAI, Cincinnati, Ohio (325.9m-920kc), 7 p. m., chime concert, Robert Badgley; 7:30, Davis saxophone octet, WEAF; 8, Ipana Troubadours, WEAF; 10:15, Congress playing card string quartet.

WSB, Atlanta, Ga. (428.3m-700kc), 8 p. m., Atlanta and West Point Route band.

WSM, Nashville, Tenn. (282.8m-1060kc), 6:30 p. m., Francis Craig's orchestra; 7, WSM bedtime story interlude; 8, Mrs. Louis Sperry, soprano; 10, Roger Williams' University senior quartet.

WSMB, New Orleans, La. (319m-940kc), 9:30-11:30 p. m., Roy Aultman and his Dixieland orchestra; Cotton Pickin' twins.

WSUI, Iowa City, Iowa (483.6m-620kc), 9 a. m., high school assembly program; 12:30 p. m., Helen Schutzbank, violinist.

### Mountain Time Stations

KOA, Denver, Colo. (322.4m-930kc), 12:15 p. m., Rialto theater music; 6:30, Brown Palace string orchestra; 8, Scheuerman's Colorado orchestra; 8:15, Mirado concert trio; Ada Marie Castor, soprano; Jane Ballantyne, contralto; KOA orchestra; 10-12, Broadmoor Rhythm Rustlers.

### Pacific Time Stations

KFI, Los Angeles, Calif. (467m-642kc), 5:30-6 p. m., Norman Harvey and his orchestra; 6, Nightly doings; 6:15, KFI's Seeing California; 6:30, vest pocket program; 6:45, Radiatorial period; 7-7:30, program, A. H. Grebe and company, Synchrophase trio; 7:30, Nick Harris, detective stories; 8-9, program, Ventura Refining company; Ventura string quartet; 9-10, program, Chevrolet Motor company of California; Chevrolet ensemble; 10-11, Patrick-Marsh dance orchestra, Betty Patrick, soloist.

KFOA, Seattle, Wash. (454.3m-660kc), 7-8:15 p. m., Hopper Kelly company studio program; 8:30-10, program.

KFON, Long Beach, Calif. (232.4m-1290kc), 6-6:30 p. m., Brayton's theater organ; 6:30-7, amusement information; 7-8, Investors' musical hour; 8-9, Press Telegram program; 9-10, program, Sam Abrams, the tailor; 10-11, KFON artists frolic.

KFWA, Ogden, Utah (261m-1150kc), 4-5 p. m., organ recital, Paramount theater; 5-6, Ogden Radio dealers' program; 9-10:30, music, Paramount theater; 10:30-12 midnight, dance music, Olive Reeves and his orchestra.

KFWB, Hollywood, Calif. (252m-1190kc), 5-6 p. m., children's hour, Big Brother club of KFWB; 8-9, California serenaders' dance orchestra; Paul Ford, baritone; Esther White, blues singer; 9-10, Bill Hatch and his Oakmont Country club dance orchestra; 10-11, Warner Brothers' frolic, direction Charlie Wellman.

KGO, Oakland, Calif. (361.2m-830kc), 11:30-1 p. m., Pacific States Electric company luncheon concert; 3-4, Edna Linkowski, Russian pianist; George Briscoe, Chester Gintner, Jack Manley, violinist; Frank Clark, pianist; 4-5:30, concert orchestra, Hotel St. Francis; 6-6:55, Knickerbocker trio.

KGW, Portland, Ore. (491.5m-610kc), 12:30-1:30 p. m., concert; 6-7, dinner concert; 8-9, concert, Seventh United States Infantry band; 9-10, concert; 10-11, concert.

KHJ, Los Angeles, Calif. (405.2m-740kc), 6-6:30 p. m., Arcade cafeteria orchestra, Jack Cronshaw, leader; 6:30-7:30, history story, Prof. Hertzog; Dick Winslow, juvenile reporter; Mickey McBan, Vivian Marple; 8, Dr. Mars Baumgardt, scientific lecturer; 8:30-10:30, program, Architects and Engineers association.

KLX, Oakland, Calif. (508.2m-590kc), 5-5:30 p. m., Aunt Elsie's sunset matinee; 6:30-7, Athens Athletic club orchestra; 7-7:30, news; 8-9, educational program; Roy Harrison Danforth, Ad Schuster, Harry Noyes Pratt, Nadine Shepard, Prof. E. R. de Ong and others; 9-10, program.

KMTR, Hollywood, Calif. (238m-1260kc), 8-10 p. m., the Turner orchestra in request selections, Edmund Foerster, guest conductor; Dan Gridley, tenor; 10-11, Starr Piano company studio.

KNX, Hollywood, Calif. (336.9m-890kc), 5-5:30 p. m., Sunny Jim's talk; 5:30, First Presbyterian church organ; 5:55, Town Tattler; 6:15, travel talk; W. F. Alder; 6:30-7, Atwater-Kent concert orchestra; 7-8 p. m., studio program; 8-9, program, Security Trust and Savings bank with talk by Sarah Ellen Barnes on the Philharmonic; 9-10, program, John A. Vaughn corporation; 10-12, Ruth Roland and G. Allison Phelps frolic.

KPO, San Francisco, Calif. (428.3m-700kc), 7-7:30 a. m., daily dozen; 10:30, "Ye Town Crier"; 12 m., Scripture reading; 1-2, Rudy Seiger's Fairmont hotel orchestra; 2:30-3:30, matinee program; 5:15-6:15, children's hour; 6:30, "Ye Town Crier"; 6:40-7, Waldemar Lind and the States Restaurant orchestra; 7-7:30, Rudy Seiger's Fairmont hotel orchestra; 8-9, program, Atwater Kent artists, Ernest Ingold, director, orchestral numbers and vocal solos; 9-10, program, Goodrich Silvertown Cord orchestra, Reg Code, director; 10-11, Waldemar Lind and the States Restaurant orchestra.

KTAB, Oakland, Calif. (240m-1250kc), 12-1 p. m., luncheon concert.

KWSC, Pullman, Wash. (348.6m-860kc), 7:30-9 p. m., Treadwell's dance orchestra; Rich Whitman, violinist; Dorothea Allen, reader.

## Thursday, February 18

### Headliners Today

Eastern 5 p. m.	Central 4 p. m.	Mountain 3 p. m.	Pacific 2 p. m.
WTC (475.9m-630kc) Olga Samaroff.			
10:15	9:15	8:15	7:15
WVRA (256m-1170kc) College night, pep songs.			
8:30	7:30	6:30	5:30
WEAO (293.9m-1020kc) Columbus quartet.			
WHAAS (399.8m-750kc) Keith Mannard and Kentucky Ramblers.			
WOC (483.6m-620kc) Ploy Boys quartet.			
WSM (282.8m-1060kc) College Anniversary program.			
10	9	8	7
KPRC (296.9m-1010kc) Operatic excerpts.			
KTHS (374.8m-800kc) Folk songs.			
10:15	9:15	8:15	7:15
WJZ (454.3m-660kc) WRC (468.5m-640kc) Record boys.			
10:30	9:30	8:30	7:30
WRVA (256m-1170kc) Negro chorus.			
11	10	9	8
WJAZ (322.4m-930kc) Male chorus, 70 voices.			
12	11	10	9
KGO (361.2m-830kc) 159th Infantry band.			

Thursday, silent night for: CHIC, CKNC, CNRA, CNRE, CNRO, CNRR, CNRT, CNRV, KFAU, KFDM, KFEQ, KFKU, KFOA, KFOU, KFXE, KFWA, KGW, KLX, KOA, KOAC, KOB, KWSC, PWX, WABQ, WAFD, WAHG, WCAP, WCEE, WDDJ, WEAO, WEBI, WEBW, WHAD, WHAZ, WJJD, WOAI, WOR, WSM, WSUI,

# PIONEER PROGRAM THROUGH KOA

## Thursday, February 18

**CNRM, Montreal, Can. (410.7m-730kc), 8:30 p. m.**, Hart House string quartet.

**KDKA, Pittsburgh, Pa. (309.1m-970kc), 7:15-8 a. m.**, exercises, O. Shannon, 12:20 p. m., Lenten service, Trinity church; 5:45, Uncle Ed's 6:30, dinner concert, Little symphony orchestra; Victor Saudek, conductor; 8:15, farm program; 8:30, with famous composers—Edward William Elgar, Little symphony orchestra, Victor Saudek; 9, Little symphony, Victor Saudek, director; Walter Earnest, tenor; 11, concert, Post studio.

**WAHG, Richmond Hill, N. Y. (315.6m-950kc), 12:03 p. m.**, Grebe matinee trio.

**WBAL, Baltimore, Md. (246m-1220kc), 6-6:30 p. m.**, children's program, "Aladdin, the Boy With the Wonderful Lamp," Hazel Knox; 6:30-7:30, dinner program, WBAL dinner orchestra, Robert P. Iula, conductor; 7:30-8, organ program, recital, Peabody Conservatory of Music; Frederick D. Weaver, organist; 8-10, musical program; Mary Mitchell, pianist; Hilda Hopkins, Burke, soprano; Adele Schaefer, contralto; William Miller, tenor; Edgar R. Bobson, baritone; Frederick H. Gottlieb, flutist; Hendrick Essets, violinist.

**WBRR, New York, N. Y. (273m-100kc), 8 p. m.**, Watchtower string quartet; 8:40, Watchtower string quartet.

**WBZ, Boston, Mass. (333.1m-900kc), 6:30 p. m.**, Little symphony orchestra, KDKA; 7, Hotel Kimball dance orchestra, Bob Patterson, director; 8, musical program, Noyes Bulck company; Leo Reisman's orchestra; 9, Humbert Tos's program; Philharmonic trio, vocal soloist; 9:30, concert, Prof. Charles A. Wilhelm, violinist; Nina Mae Forde, soprano; Edith Wilkins, violinist; Dorothy Wilkins, pianist; Lillian Walker, cellist; 10:05, Edwin J. McEnelly and his orchestra.

**WCAU, Philadelphia, Pa. (278m-1080kc), 6:30 p. m.**, Billy Hayes and his dance orchestra; 7:30, Shellenburg symphony orchestra; 8, Mitchell Gondler; 8:15, Elizabeth Papetina, coloratura soprano; Michael Pauticell, operatic tenor; Virginia Klein, pianist; 8:45, Kandy Kids; 9, Barry O'Moore, Irish tenor; 9:30, Musical Chorus; 9:45, burlesque lesson, Prof. Doolittle; 10, Sesqui Centennial hour; 11, Parodians orchestra; 11:30, Club Cadix revue.

**WEAF, New York, N. Y. (491.5m-610kc), 6:45-7:20 a. m.**, health exercises; 7:45-8, prayer service; 11, Einar Hansen, violinist; 11:25, Einar Hansen, violinist; 4 p. m., Thelma Van Norden, pianist; 4:15, Dixie Brand and F. W. Hultquist, songsters; 4:30, Pauline Watson, violinist; 6, dinner music; 7, mid-week hymn singing; 7:30, Smith Brothers; 8, Larkinties; 8:30, Hires Harvesters; 9, Clicheot Club Eskimos; 10, Silvertown Cord orchestra, Joseph Knecht, director; 11-12, Vincent Lopez and his orchestra.

**WEAO, Columbus, Ohio (293.3m-1020kc), 1:30 p. m.**, Robert Coleman, pianist; 8:15, music; 10, Hotel Fort Hayes hour of music.

**WEAR, Cleveland, Ohio (389.4m-770kc), 7 p. m.**, Hotel Statler concert orchestra, Maurice Spitalny, director; 8, Larkinties Four, WEAF; 8:30, program, "Workrite Radio artists; 9, Clicheot club, WEAF; 10, Vincent Percy, organist, assisting artists.

**WEEL, Boston, Mass. (348.6m-860kc), 6:45 a. m.**, health exercises; 3 p. m., Lou Klyman and his orchestra; 6, Dok Eisenberg and His Sinfonians; 7, Big Brother club; 7:30, musicals; 8, Larkinties; WEAF; 8:30, Hires Harvesters, WEAF; 9, Clicheot club entertainers, WEAF; 10, Silvertown Cord orchestra.

**WFI, Philadelphia, Pa. (394.5m-760kc), 1 p. m.**, Tea Room ensemble; 3, Twentieth Century Club of Lansdowne; 4, Kathleen Mary Quinlan, beauty specialist; 6:30, Bellevue Stratford concert orchestra; 7, Bellevue Stratford dance orchestra; 8, Larkinties; 8:30, Hires Harvesters; 9, Clicheot Club Eskimos; 10, Silvertown Cord orchestra.

**WGBS, New York, N. Y. (315.6m-950kc), 1:30 p. m.**, Ramblers' trio; 3, women in the home hour; 7:45, Crystal Palace orchestra; 9, Helvella Mannechor quartet; 9:30, Lida Grimm, contralto.

**WGCP, New York, N. Y. (252m-1190kc), 3 p. m.**, Elvira Rosa Geigler, pianist; 3:20, Osborne Tucker; 4:15, Twentieth Century entertainers; 5:10, Sylvia Schatz, pianist; 10:30, Irving Perstenberg, pianist; 10:45, Judith Roth, soprano; 11:30, Strickland's orchestra.

**WGR, Buffalo, N. Y. (319m-940kc), 2:30 p. m.**, WGR's afternoon program; 6:30, Vincent Lopez Trio; Hotel Statler dance orchestra, Harold Gleser, director; 8, jointly with WEAF, the Larkinties, Clicheot Club Eskimos, Goodrich Silvertown Cord orchestra, direction of Joseph Knecht.

**WGY, Schenectady, N. Y. (379.5m-790kc), 6:30 p. m.**, dinner program, Ten Eyck concert trio; 7:30, book chat, L. L. Hopkins; 7:45, Syracuse University program; 9, Royal hour, WJZ; 10, Elizabeth Joyce, soprano; Anthony Reese, baritone; 11:30, organ recital, Stephen E. Boisclair.

**WJAR, Atlantic City, N. J. (275m-1090kc), 2 p. m.**, Seaside hotel trio; 7:30, lecture period; 8, Seaside hotel trio; 9, studio concert; 11:30, dance orchestra.

**WLN, New York, N. Y. (361.2m-830kc), 12:30-1 p. m.**, Lexington organ recital; 3:15-4:30, Lexington orchestra; 6, Treasureland Neighbors; 6:30, Charles King and his Fifty-fourth street club orchestra; 7, Vincent Lopez Iceband orchestra; 7:30, musicals; 8, Will Oakland's Chateau Stanley; 10:30, Club Kentucky entertainers; 11, Joe Ward's Swanee entertainers; 11:30, Everglade orchestra; 12, Parody club orchestra.

**WJAR, Providence, R. I. (305.9m-980kc), 8 p. m.**, Hudson-Essex orchestra; 9, Clicheot Club Eskimos; 10, Goodrich Silvertown Cord orchestra.

**WIP, Philadelphia, Pa. (508.2m-590kc), 1 p. m.**, Gimbel tea room orchestra; 3, recital, Students Combs Conservatory of Music; 6:05, Pagoda cafe orchestra; 7, Uncle Wip's bedtime stories; 8, "The Sesqui-Centennial," Hon. Harry A. Mackey; 8:15, Arline Smith, soprano; Margaret Souder, contralto; Theodore H. Morris, tenor; Aubrey Cummings, baritone; Henry Meyer, accompanist; 9:15, Esther Louise Binker, contralto; Tom Burke, Irish tenor; 10:05, real estate talk; 10:15, Al and his Versatile entertainers.

**WKAO, San Juan, P. R. (340.7m-880kc), 6-8 p. m.**, Rialto theater musicale.

**WLIT, Philadelphia, Pa. (394.5m-760kc), 12:02 p. m.**, daily almanac; Stanley theater organ recital; Arcadia cafe concert orchestra; 2, Arcadia cafe concert orchestra; 4:30, Harry Connelly, baritone; Anna E. Speck, soprano, and Alice Wightman, accompanist; 7:30, Dream Daddy's bedtime stories.

**WMAK, Buffalo, N. Y. (266m-1130kc), 6:15-7:15 p. m.**, dinner music, Hotel Lafayette trio.

**WRC, Washington, D. C. (468.5m-640kc), 12 noon.**, organ; 1 p. m., Hotel Mayflower orchestra; 7, New Willard hotel orchestra; 8, U. S. Army band; 8:30, Radio-Movie presentation; 9, Royal Salon orchestra.

**WJZ, WGY, WCAD, 10:15, "The Record Boys," WJZ.** 10:30, Meyer Davis Swanee orchestra; 11:30, Otto F. Beck, organist.

**WREO, Lansing, Mich. (285.5m-1050kc), 6-7 p. m.**, dinner concert, Speed Wagon Serenaders; Gold Standard ensemble; 8:15, varied musical program, Reo Broadcasting orchestra, Carl Hall Dewey, director; Thomas E. Metzger, flutist; Walter Sayo, clarinetist; Radiator male quartet; vocal and instrumental solos.

**WRVA, Richmond, Va. (256m-1170kc), 8:10 p. m.**, Randolph-Macon college night; 10:30, Negro chorus.

**WTAG, Worcester, Mass. (268m-1120kc), 12:05-2 p. m.**, WTAG orchestra; 8-8:30, Larkinties; 9-10, Clicheot Club Eskimos; 10, Silvertown Cord orchestra.

**WWJ, Detroit, Mich. (352.7m-850kc), 9:30 a. m.**, "Tonight's Dinner"; 12:05, Jules Klein's Hotel Statler orchestra; 3, Detroit News orchestra; 8, dinner concert; 8, concert, WEAF.

**Central Time Stations**

**KFEQ, Oak, Nebr. (267.7m-1120kc), 2-3 p. m.**, Hadam Hans.

**KFKU, Lawrence, Kan. (275m-1040kc), 7:15 p. m.**, Alice Pearing, soprano; Virginia Arnold, pianist; 8, Esther Ott, soprano.

**KFKX, Hastings, Nebr. (286.3m-1040kc), 5:30 p. m.**, dinner concert, KDKA.

**KFMQ, Fayetteville, Ark. (299.8m-100kc), 8:45 p. m.**, Lorraine Allen, Queen of the Ivories.

**KFNF, Shenandoah, Iowa (263m-1140kc), 7 p. m.**, concert, Bartlett H. S.

**KFRU, Columbia, Mo. (499.7m-600kc), 8:45 a. m.**, public school convocation; music, students of Stephen's College Conservatory of Music; 4:30 p. m., Bella Vista quadrangle orchestra; 6:15, dinner music; 6:45, children's hour; 7, playlet, dramatic club.

**KLDS, Independence, Mo. (441m-680kc), 8:15 p. m.**, orchestra program.

**KMA, Shenandoah, Iowa (252m-1190kc), 11:30-12:30 p. m.**, Parnham trio; 6-7, Iowa Federation of Women's Clubs; 9-11, Delmonico Dreamers.

**KPRC, Houston, Texas (296.9m-1010kc), 12 m.**, optimists' club luncheon, Jerry Mitchell, president; 5:30, Judd's kiddies' hour; 7:30, Blanchard's dance orchestra; 8:30, Silverstring players; Mrs. Clarence L. Brock, director; 9, Mr. and Mrs. H. T. Huffmaster, artist baritone and dramatic soprano.

**KSD, St. Louis, Mo. (545.1m-550kc), 6:55 p. m.**, WEAF chain; 7:30, Esmeralda Berry Mayes, pianist; 8, WEAF chain.

**KSO, Clarinda, Iowa (242m-1240kc), 7-7:30 p. m.**, music; 7:30-9:30, band concert, A. Mitchell.

**KTHS, Hot Springs National Park, Ark. (374.8m-800kc), 9-9:30 p. m.**, folk songs, Eastman hotel eight, Jack Lube, director; 9:30-9:40, organ selections; 9:40-10, New Arlington hotel orchestra, Lon Chassy, director; 10-11, Kiwanis club.

**KWVG, Brownsville, Texas (278m-1080kc), 6 p. m.**, violin solos; 8:30, classical program.

**KYW, Chicago, Ill. (535.4m-560kc), 1-2 p. m.**, Congress hotel orchestra; 2:30-4, frolic; 6-7, dinner music, KDKA; 8:20-9, music; 9, an hour of music; 10-11:30, evening at home; 1, Insomnia club.

**WAMD, Minneapolis, Minn. (244m-1230kc), 12 m.**, popular program, Ray Covert, tenor; Norry Mulligan, pianist; Roy Nowack, banjoist; Jack Leeman, clarinetist; Katherine Grill, contralto; 6:15, dinner concert, George Osborn and his orchestra; 11, Skyrocket frolic, George Osborn and his orchestra.

**WEAP, Ft. Worth, Texas (475.9m-630kc), 7:30 p. m.**, musical program; 9:30, vocal and piano selections, Pantages theater.

**WBBM, Chicago, Ill. (226m-1330kc), 4-6 p. m.**, Sandy and Harry; Valentino Inn orchestra; William Dalton, baritone; Irene Beasley; Sidney Nirenberg, Russell Meyers; Jack Pennewell and Freddy Palmer; 8-10, Ziegler sisters; Moulou Rouge orchestra; Two Jays; Charlie Garland; Brewers' Zig Zag trio; Maurice Silverman; Pauline Stiffler Atlas, violinist; Floyd Falch; 10-12, Harry and Sandy; Moulou Rouge orchestra; Harry Brailford, mandolin; Pearl Jarrett, pianologue; Fred Jacobson; Dolly Sterling, stars from Moulou Rouge cafe.

**WCAL, Northfield, Minn. (336.9m-890kc), 9 p. m.**, program, Norwegian Lutheran church, Rev. N. M. Yrisaker; Comfort Hinderlie, pianist; Ella Hiertaas, contralto.

**WCBD, Zion, Ill. (344.6m-870kc), 8 p. m.**, Hiro trio; Mixed quartet; brass quartet; Carl Newcomer, saxophone; George Beem, marimba solo; P. B. and Carl Newcomer, cornet and saxophone; Mrs. Isabelle Nelson, soprano; Mrs. Nelson and Mrs. Harwood, vocal duets; Mrs. Thomas and Mr. Barton, vocal duets; Lillian Detienne, reading.

**WCCO, Minneapolis-St. Paul, Minn. (416.4m-720kc), 12 m.**, Donaldson's orchestra; 7, Larkinties, WEAF; 7:30, program; 8, Clicheot Eskimos; Silvertown Cord orchestra; 10:20, Arnold Frank's St. Paul hotel orchestra.

**WDAF, Kansas City, Mo. (365.6m-820kc), 3:30-4:30 p. m.**, Star's string orchestra; 6-7, Trianon ensemble; 11:45-1, Ted Weem's Recording orchestra; Ted Meyn, organist; Pantages theater; Billy Adair's orchestra.

**WEBB, Chicago, Ill. (370.2m-810kc), 7 p. m.**, Oriole orchestra; 8, special recital; 9, Oriole orchestra; 9:45, Belle Forbes Cutter, soprano; Ruth Buhl Plick, reader; 11, Oriole orchestra; 12:30, Belle Forbes Cutter, soprano; Ruth Buhl Plick, reader; Rita McFawn, Mary Bieber.

**WENR, Chicago, Ill. (266m-1130kc), 6-7 p. m.**, dinner concert; Rauland-Lyrie trio; vocal selections; instrumental solos; 8-10, popular program; All-American Pioneers; Mid-West quartet; Rosa Kutta, soprano; Ray Hibbler, popular songs; Frank Westphal.

**WFAA, Dallas, Texas (475.9m-630kc), 12:30-1 p. m.**, Johnny Davis, pianist; 4:30-5, Edgar Norris, pianist and singer; 6:30-7:30, Baker hotel orchestra; 8:30-9:30, Virginia Wiley, pianist; Jack Andrews, marimbaphonist; 11-12, Martha Morna Whitaker, pianist.

**WGES, Oak Park, Ill. (250m-1200kc), 5-7 p. m.**, pipe organ; classical program; 8-9, orchestra; pipe organ; 11-1 a. m., mezzo-soprano; violin; orchestra; Evans Lloyd, composer; Tiffin organ; pianist.

**WGN, Chicago, Ill. (302.8m-990kc), 10-10:15 a. m.**, good health period; 10:15-10:45, entertainment for shut-ins; 11-11:30, morning organ concert, Chicago theater, Dean Fessler; 12:01-12:30 p. m., noon hour entertainment for children; 12:40-2:30, luncheon concert music; 2:30-3, Lyon & Healy artist recital; 3:25, Port O'Missing Men; 3:30-4:15, tea time music; 4:30-5, organ recital, Edward Benedict; 5:30-5:57, Skeet songs; 6:30-6:45, dinner concert music; 6:45-7, old-time favorite songs; 8-9, Clicheot Club Eskimos; 9-10, Silvertown Cord orchestra; 10-10:10, "Sam N. Henry," Radio comic strip; 10:10-10:15, old-time favorite songs; 10:15-11, dance music; songs; Correll and Gosden, Fred Leonard and Jewell Barnett.

**WHAD, Milwaukee, Wis. (275m-1090kc), 11 a. m.**, pianologue, Andy Mertz; 4 p. m., Mrs. Fernie Medley Hanson, vocalist; I. E. Clayton, baritone; 6:15-7, Bill Benning's Milwaukee Athletic club orchestra.

**WHAS, Louisville, Ky. (399.8m-750kc), 1-2 p. m.**, concert, Benson trio; 3:30, Mrs. Myrtle Furks Zahn, Jr., organist; 4-5, concert, Harry S. Currie's music box; readings; 7:30-9, concert, Keith Kannard and his Kentucky Ramblers; Keith Kannard, saxophone, clarinet, trumpet, director; Marty Mennen, saxophone, clarinet; Gus French, banjo; Bill Lippy, pianist; Bin Wilder, drummer; Francis Wathen, saxophone, clarinet; Warren Lane, trombone; J. J. Humble, sousaphone.

**WHB, Kansas City, Mo. (365.6m-820kc), 7-7:30 p. m.**, organ concert, Linwood theater; Morrill Moore, organist; 7:30-7:45, aeronautical question box; 8-9, accordion solos, Clem Cupka; vocal solos, C. Arthur Rugg, baritone; Zelma Waite, accompanist; Hawaiian music, Honolulu Strummers; 9-10, program, ukulele Songsters, Harry Taylor and Sam Martin, assisted by Mrs. Harry Taylor.

**WHO, Des Moines, Iowa (526m-570kc), 7:30-8 p. m.**, Raleigh quintet; 8-9, Bankers Life trio, Helen Birmingham, director; 11-12, Bankers Life "Corn Sugar" orchestra.

**WIBO, Chicago, Ill. (226m-1330kc), 2-4 p. m.**, Shut-in program; Ted Fiorito, pianist; Dan Russo, violinist; Marie Tully, soprano; Wayne Meyers, reader; Hicky and Johnson, guitarists; Dorothy Davie Dillow, soprano; 6-8, dinner concert; songs made famous by John McCormack, Walter Preston; Helen Snyder, soprano; Harriet Hebert, contralto; William Molmair, tenor; string trio; Chester Newman, baritone; Swedish program; 12, sambore, Ted Fiorito, pianist; Dan Russo, violinist; Marie Tully, soprano; Wayne Meyers, reader; Henry Davis; Erwin Cornelius, uke soloist; Jack Goodman.

**WJJD, Mooseheart, Ill. (370.2m-810kc), 12-1 p. m.**, Palmer House symphonic players; Palmer House trio; 2-3, organ hour, Howard L. Peterson; 4-5, child artists; assembly of 1250 children; 5:30-7, instrumental hour; Palmer House symphonic players; Howard L. Peterson, organist; Jack Nelson; Palmer House Victorians; 8-9, children's hour; 10-11, feature hour; Palmer House Victorians; Ruth Allanson; 12:30, Settlin' up hour; Palmer House Victorians; Jack Nelson.

**WJAZ, Chicago, Ill. (322.4m-930kc), 10 p. m.**, chimes; Swift & Co. male chorus; E. Arthur Schlamp, baritone; Swift & Co. male chorus; Adalbert Huguelet, pianist; Swift & Co. male chorus; 11, chimes; Aldo del Mester; violinist; Doris Irene Berry, contralto; Daniel Garbut Dodge, contralto; Aldo del Mester, violinist; Doris Irene Berry, contralto; Ethel Garbutt Dodge, contralto; Aldo del Mester, violinist; 12, midnight chimes.

**WKAF, Milwaukee, Wis. (261m-1150kc), 8:30 p. m.**, Trixie Ann Troy and her Royal Hawaiians; Ted Osmundsen, baritone.

**WKRC, Cincinnati, Ohio (422.3m-710kc), 10 p. m.**, Marion McKay and his orchestra; 11, popular song review; Bert Lindsey, Merrill Schwartz, Kera Alward, Abe Farb; 11:15, Marion McKay and his orchestra.

**WLBB, Chicago, Ill. (302.8m-990kc), 7-7:30 p. m.**, musical program; 7:30-8, Hires Harvesters; 11-1 a. m., dance music; songs, Correll and Gosden. Hawaiian guitar music, Langdon Brothers.

**WLS, Chicago, Ill. (344.6m-870kc), 12 noon.**, R. F. D. noon program; WLS trio; 6 p. m., R. F. D. school program; WLS trio; 6:40, Ralph Emerson's organ recital; 7, Ford and Glen, lullaby time; 7:20, WLS studio trio concert; Ford Rush, baritone; Glenn Rowell, accompanist.

**WLW, New York, N. Y. (288.3m-1040kc), 9:15 p. m.**, musicale; 10:35, musicale.

**WMAQ, Chicago, Ill. (447.5m-670kc), 2 p. m.**, shut-in program; 4:45, pupils of Maclean college; 5:15, Topsy-Turvy time; 6, Chicago theater organ recital; 6:30, Hotel LaSalle orchestra; 8, program, Grant Hadley; 8:40, Vincenzo Gullotta, violinist; 9:20, Chicago Heights woman's club chorus; 9:55, University of Chicago chimes.

**WMAZ, Macon, Ga. (261m-1150kc), 10-11 p. m.**, Wesleyan Conservatory of Music.

**WMBB, Chicago, Ill. (250m-1200kc), 7-8 p. m.**, Hebrew music; 9-11, Woodlawn theater orchestra; Trianon orchestra; Martin and Baker; Lucile O'Hara, soprano; Tommie Hughes, baritone; Billie Lightfield, tenor.

**WMBF, Miami Beach, Fla. (384.4m-780kc), 7-9 p. m.**, Fleetwood Radio orchestra; 10-11 a. m., Gene Fosdick and his orchestra; Fleetwood Radio orchestra.

**WMCA, New York, N. Y. (340.7m-880kc), 6 p. m.**, Hotel Alphi string ensemble; 6:30, Club Caprice orchestra; 11, Ernie Golden and his Hotel McAlpin orchestra.

**WNAD, Norman, Okla., 8:10 p. m.**, Ernest Sharpe, vocalist; Helen Rubin, violinist; 10:30, O. U. Troubadours.

**WOAN, Lawrenceburg, Tenn. (282.8m-1060kc), 9-10 p. m.**, gospel songs.

**WOAW, Omaha, Nebr. (526m-570kc), 12:45 p. m.**, Gilbert Jaffy and his Little Symphony; 6, entertainment; 6:20, Manna Kea trio; 6:50, Randall's Royal Fontenelle orchestra; 9, classical; 10:30, Herb Washington jubilee.

**WOC, Davenport, Iowa (489.6m-620kc), 7:30-8 p. m.**, Plov Boys' quartet; 8-9, Clicheot Club Eskimos; WEAF; 9-10, Goodrich Silvertown Cord orchestra; 11-12, LeClaire hotel orchestra; Peter MacArthur, baritone.

**WOI, Ames, Ia. (270m-1110kc), 12:30 p. m.**, chimes; 7:50, music.

**WOK, Chicago, Ill. (217.3m-1380kc), 4:30-7 p. m.**, Capitol theater organ; program; 10-1:30 a. m., Tearney's Town Club orchestra; Carl Lorraine's Pershing Palace orchestra; Husk O'Hare's Cocoanut Grove orchestra; Capitol theater program.

**WNYC, New York, N. Y. (526m-570kc), 7:10 p. m.**, dance orchestra; 7:35, dance orchestra; 9, instrumental novelty; 9:30, male quartet.

**WOO, Philadelphia, Pa. (508.2m-590kc), 11 a. m.**, organ recital; 12:02 p. m., Golden's crystal tea room orchestra; 4:45, organ recital; 7:30, A. Candelori's concert orchestra.

**WQQ, Kansas City, Mo. (278m-1080kc), 7-8 p. m.**, Unity educational program; 8-9, concert.

**WOR, Newark, N. J. (405.2m-740kc), 6:19 p. m.**, Jaecque Jacobs Shelton ensemble.

**WORD, Batavia, Ill. (275m-1090kc), 8 p. m.**, Webster hotel concert trio; 8:15, international Sunday school lesson, M. E. Woodley; 8:30, program, Cosmopolitan school of music; 9:30-10, world news digest.

**WQJ, Chicago, Ill. (447.5m-670kc), 3-4 p. m.**, lessons in golf; 7-8, dinner concert, Ralph Williams and his Rainbo Gardens orchestra; Clement Laskowski, tenor; Boston area concert trio, violin, cello and piano; 10-11, Ralph Williams and his Rainbo Skylarks; Otis Pike Jester, soprano; Mary Thrash House, accompanist; Lena Auer Klok, soprano; Jerry Sullivan, singing; "Whadd-a-ya-say?"; Hal Vanderbosch, soprano and pianist; Lew Butler; Sidney Lachman, tenor; Bert Davis, clown; Marie Pollitt; 1-2 a. m., Ralph Williams, Ginger Man; Little Skylarks.

**WSAI, Cincinnati, Ohio (325.9m-920kc), 7 p. m.**, program; 7:30, Hires Harvesters, WEAF; 8, Clicheot club program; 9, Silvertown Cord orchestra.

**WSB, Atlanta, Ga. (428.3m-700kc), 8 p. m.**, Alfred Hollins, organist; 10:45, Dr. Charles A. Sheldon, Jr., organist.

**WSM, Nashville, Tenn. (282.8m-1060kc), 7:30 p. m.**, George Peabody college special anniversary program.

**WSMB, New Orleans, La. (319m-940kc), 9:30-12 p. m.**, Owl's orchestra, Radio Revelers' orchestra; Liberty theater orchestra.

**WSUI, Iowa City, Iowa (483.6m-620kc), 12:30 p. m.**, Mrs. Preston C. Coast, organist.

**WTAM, Cleveland, Ohio (389.4m-760kc), 6-7 p. m.**, Hotel Hollenden orchestra.

**WTC, Hartford, Conn. (475.9m-630kc), 6:30 p. m.**, "Twenty Minutes in Happyland"; 6:50, Hotel Bond trio.

Chamberlain, baritone; Helen Bacigalupi, soprano; Mary Aelia Chamberlain, violinist; Hugo Carver, tenor; Blair Manchester, tenor; 9-10, 159th Infantry band; 10-11 a. m., Brokaw and his orchestra.

**KTAB, Oakland, Calif. (240m-1250kc), 12-1 p. m.**, luncheon concert; 8-10, studio program.

**KGW, Portland, Ore. (491.5m-610kc), 12:30-1:30 p. m.**, concert; 6-7, dinner concert.

**KHJ, Los Angeles, Calif. (405.2m-740kc), 6-6:30 p. m.**, Leighton's Arcade cafeteria orchestra, Jack Cronshaw, leader; 6:30-7:30, history story, Prof. Hertzog; Dickie Brandon and Baby Jeanne de Bard, screen starlets; Uncle John; 8-10, program, Cochran Brothers with Caswell Coffee orchestra.

**KMTR, Hollywood, Calif. (238m-1260kc), 6-7 p. m.**, Starr Piano company studio; 7:30, auction bridge game, Bertie D. Hilands; 8-10, the Turner orchestra, Loren Powell, director.

**KNX, Hollywood, Calif. (336.9m-890kc), 5-5:30 p. m.**, Sunny Jim's talk; 5:30, First Presbyterian church organ; 5:55, Town Tattler; 6:15, travel talk, W. F. Alder; 6:30-7, Atwater Kent concert orchestra; 7-8, program, H. L. Crockett; Ilya Bronson, concert cellist; May McDonald Hope, pianist, Corvine Redd, soprano; 8-9, Willys-Overland dealers of southern California; 9-10, KNX feature program.

**KPO, San Francisco, Calif. (428.3m-700kc), 7-7:30 a. m.**, daily dozen; 10:30, "Ye Towne Cryer"; 12 m., Scripture reading; 1-2, Rudy Seiger's Fairmont hotel orchestra; 2:30-3:30, matinee program; 3:40-4:30, Cyrus Trotter's Palace hotel concert orchestra; 5:15-6:15, children's hour; 6:30, "Ye Towne Cryer"; 6:40-7, Waldemar Lind and the States Restaurant orchestra; 7-7:30, Rudy Seiger's Fairmont hotel orchestra; 8-9, program; 9-10, James Todd, violinist; Edna Walbert, mezzo soprano; Amerigo Prediani, tenor; 10-11, Jack Coakley's Cabrians.

## Friday, February 19

### Headliners Today

Eastern 8 p. m.	Central 7 p. m.	Mountain 6 p. m.	Pacific 5 p. m.
KSD (545.1m-550kc) Hungarian music.	8:15	7:15	6:15
WGY (379.5m-790kc) "Take a Chance," comedy.	8:30	7:30	6:30
WCAE (461.3m-650kc) Choir.	9	8	7
KDKA (309.1m-970kc) War songs.	9	8	7
WBZ (333.1m-900kc) Opening of Radio ball.	9:20	8:20	7:20
WMA (340.7m-880kc) Hardman hour of music.	9:20	8:20	7:20
WOS (440.9m-680kc) Old fiddlin' contest.	9:30	8:30	7:30
KPAB (340.7m-880kc) Dwight community orchestra.	10	9	8
KFI (468.5m-640kc) Forty piece high school band.	10	9	8
WGR (319m-940kc) Two piano recital.	11	10	9
KYW (535.4m-560kc) Paul Ash and his orchestra.	11:30	10:30	9:30
WLIT (394.5m-760kc) Morning Glory club.	12	11	10
KTHS (374.8m-800kc) Special request selections.	12	11	10
KNX (336.9m-890kc) Optimistic Order of Donuts.			

Friday, silent night for: CFAC, CHIC, CKNC, CKY, CNRM, CNRD, CNRR, CNRW, KFAU, KFEQ, KFKU, KFMQ, KFWA, KFXF, KGO, KFAU, KLD, KPRC, KUOM, PWX, WBRR, WCAD, WCBD, WEAO, WEBW, WGBS, WGST, WHAZ, WIP, WJAZ, WKRC, WLV, WLWL, WNAD, WRC, WREO, WRVA, WSAI, WSUI, WSMB, WTAM.

### Eastern Time Stations

**CKAC, Montreal, Can. (410.7m-730kc), 1:45 p. m.**, luncheon concert.

**KDKA, Pittsburgh, Pa. (309.1m-970kc), 7:15-8 a. m.**, exercises, O. Shannon; 12:20 p. m., Sunday school lesson, James Mace; 5:45, Auntie Jim's letter from across the sea; 9, Colonial and Civil War songs; Marjory Stewart, director; 10:10, Teaberry time.

**WABQ, Haverford, Pa. (261m-1150kc), 11 p. m.**, Horace Hustler, organist; William Stewart, pianist.

**WAHG, Richmond Hill, N. Y. (315.6m-950kc), 12:03 p. m.**, Sidney Raphael, pianist; 7:30, Prof. R. E. Mayne; 8-8:45, "Great Artist" organ recital, Skinner Organ company, John Priest, soloist; 9-9:15, Frank Gerrold, baritone; 9:20, Shell Beach trio; 10:03, Ulrich and Schmidt; 10:20, Bernie Fletcher's orchestra.

**WBAL, Baltimore, Md. (246m-1220kc), 6:30-7:30 p. m.**, dinner program, WBAL dinner orchestra; 7:30-9, musical scenario; vocal and instrumental soloists; 9-10, musical program, WBAL string trio, John Wilbourn, tenor.

**WBZ, Boston, Mass. (333.1m-900kc), 6:30 p. m.**, Little symphony orchestra, KDKA; 7, Music story hour, Helen S. Leavitt; 8, concert, Edwin McEnelly and his orchestra; 8:30, Hotel Vendome concert, Samuel Seimiger, director; 9, opening of Radio ball; 9:30, "Whatdyoucallit club"; Copley Plaza orchestra; 9:45, Ray Stewartson and his symphonic jazz band; 11:15, Wittstein's orchestra; 12, Bill Tasilo and his orchestra; 12:30, Edwin J. McEnelly and his orchestra.

**WCAU, Philadelphia, Pa. (278m-1080kc), 7:30, recital.** M. Snellenburg and company; 8:15, chironpractic talk; 8:30, Singing Groundhog; 8:45, The Bryan Girl; 9, novelty songs; 9:15, Willie Strickland, "poetianist"; 9:30, Sea Gulls; 10, Dwight Horowitz, songs and jests; 10:30, Jack Myers' Musical Architects.

**WEAF, New York, N. Y. (491.5m-610kc), 6:45-7:20 a. m.**, health exercises; 7:45-8, prayer service; 4-5, Mrs. William Nolan, soprano; 6-12, dinner music; Edward Morris, pianist; Irma Giles, coloratura soprano; Blanche Elizabeth Wade, story teller; Eagle Neutrodyne trio; Hohner Harmony hour; Shakespearean hour with music; Chamber musicale, Genia Zielińska, soprano; Giuseppe di Benedetto, tenor; Ben Bernie and his orchestra.

**WEAR, Cleveland, Ohio (389.4m-770kc), 7 p. m.**, Wornack's singing synopsors; 7:30, children's program, WEAF; 8:15, founders' day, Case school; 9:30, Cities Service program, WEAF; 10, Dutch Master artists.

**WEEL, Boston, Mass. (348.6m-860kc), 6:45 a. m.**, health exercises; 3:15 p. m., popular songs, George Joy and Hell Cantor; 5:20, Frankie Ward and his orchestra; 6:30, Joe Rines and his Hunters' Cabin orchestra; 7, Big Brother club; 7:30, Whiting Milk company program; 8, Sager's half-hour of hospitality; 8:30, Neapolitan Ice Cream company program; 9, Hohner Harmony hour; 9:30, Carter's Incas; 10, Scotty Holmes and his orchestra, Imperial marimba band.

**WFI, Philadelphia, Pa. (394.5m-760kc), 1 p. m.**, Tea Room ensemble; 3, recital; 6:30, Bellevue Stratford concert orchestra; 7, Bellevue Stratford dance orchestra.

**WGBS, New York, N. Y. (315.6m-950kc), 1:45 p. m.**, school children's program; 3, Ernest Eahn, violinist; 6:30, Anzell's orchestra.

**WGCP, New York, N. Y. (252m-1190kc), 3 p. m.**, Carmel Weber, pianist; 3:30, Sherman and Neal; 4:15, studio program; 4:45, Ruby Cowan; 5:10, Clarence Profit, pianist; 7, orchestra.

**WGR, Buffalo, N. Y. (319m-940kc), 2:30 p. m.**, WGR's afternoon program; 6:30, Cleft trio; 7:30, jointly with WEAF, Blanche Elizabeth Wade, story teller for G. R. Kinney Co.; 9, Winger's Crescent Park entertainers; 9:30, George W. Houck, reader, with Leonard Adams at the piano in Longfellow's "King Robert of Sicily"; 10, two-piano recital, Marion Healy and Grace Jolley; 10:30, Hewitt Humorists; 11, Vincent

# PAUL ASH'S MERRY-MAD GANG AT KYW

## Friday, February 19

Lopez Hotel Stafler dance orchestra, Harold Gleser, director, John F. Gunderman, Jr., at the organ.

WGY, Schenectady, N. Y. (379.5m-790ke), 2 p. m., Asia Restaurant orchestra; 6:30, International Sunday school lesson; 7, dinner program, Eastman theater; 8:15, comedy, "Take a Chance," WGY players, Ten Eyck Clay; 10:30, WGY orchestra; George Chute, banjoist.

WHAR, Atlantic City, N. J. (275m-1090ke), 2 p. m., Seaside hotel trio; 8, Seaside hotel trio; 11:15, Strand theater organ recital.

WHN, New York, N. Y. (361.2m-830ke), 6 p. m., Littman's dinner music; 7, Harry Richman and his entertainers; 7:30, Lew Brown and Sidney Clair; 10, Roseland dance orchestra; 10:30, Anatol Friedland; 11, Twin Oaks orchestra; 11:30, Bert Dagmar and his 33 club orchestra; 12, Silver Slipper orchestra; 12:30, Bob Murphy's orchestra.

WIP, Philadelphia, Pa. (508.2m-590ke), 6:45 a. m., setting-up exercises; 7, setting-up exercises; 1 p. m., Gimbel tea room orchestra; 6:05, Benjamin Franklin concert orchestra; 7, Uncle Wags' bedtime stories; Harry Feingold, 10-year-old violinist.

WIAR, Providence, R. I. (305.9m-980ke), 1:05 p. m., Howard and Harris; 7:45, musicale; 8:30, Gorman's Jolly Bakers; 11, Providence-Biltmore dance orchestra.

WKAQ, San Juan, P. R. (340.7m-880ke), 6-8 p. m., talks, Porto Rican Athenaeum.

WLIT, Philadelphia, Pa. (394.5m-760ke), 12:02 p. m., daily almanac; Stanley theater organ recital; Arcadia cafe concert orchestra; 2, Arcadia cafe concert orchestra; 4:30, dance orchestra; 7:30, Dream Daddy's bedtime stories; Kiddles' party; 8:30, recital; 10, Morning Glory club concert; Arcadia cafe dance orchestra; 10:30, Rufus and Rastus; 11, Morning Glory club concert.

WMBF, Miami Beach, Fla. (384.4m-780ke), 7-9 p. m., Fleetwood Radio orchestra; Al Wohlman and Dave Bernale.

WMCA, New York, N. Y. (340.7m-880ke), 6 p. m., Hotel McAlpin string ensemble; 6:30, Hotel McAlpin orchestra; 7:30, Sach's Musical Monarchs; 8:50, Broadway association; 9, Hardman hour of music; 10, Donald Flamm and Mr. Zoro; 11:30, Jack Denny's orchestra.

WNYC, New York, N. Y. (526m-570ke), 6:20 p. m., piano selections; 8, concert; 9, stringed trio; 9:30, novelty entertainers.

WOO, Philadelphia, Pa. (508.2m-590ke), 11 a. m., organ recital; 12:02 p. m., Golden's crystal tea room orchestra; 4:45, organ recital; 7:30, Ritz-Carlton dance orchestra; 9, WOO orchestra; 9:25, Fox theater symphony orchestra; features from Fox theater; 10, organ recital; 10:30, Ritz-Carlton dance orchestra.

WOR, Newark, N. J. (405.2m-740ke), 6:17 p. m., Jacques Jacobs' Hotel Shelton ensemble.

WRC, Washington, D. C. (468.5m-640ke), 12 noon, organ; 1 p. m., Meyer Davis' New Willard hotel orchestra; 3:30, U. S. Marine band orchestra; 5, W. Spencer Tupman's Hotel Mayflower orchestra.

WREO, Lansing, Mich. (285.5m-1050ke), 6-7 p. m., dinner concert; Speed-Wagon serenaders; Gold Standard ensemble.

WRVA, Richmond, Va. (256m-1170ke), 7 p. m., Hotel Richmond orchestra; 8:10, choral club; 9:30, Hotel Richmond Winter Garden orchestra.

WTAG, Worcester, Mass. (268m-120ke), 12:05-2 p. m., WTAG orchestra; 3-5, WTAG orchestra; 8:15, concert program.

WTAM, Cleveland, Ohio (389.4m-760ke), 6-7 p. m., Austin Wylie's Vocalion Recording orchestra.

WTIC, Hartford, Conn. (475.9m-630ke), 11:25 a. m., Laura Gaudet, pianist; 12:05 p. m., luncheon music, Travelers' club orchestra; 6:30, Hub trio; 8:15, program, A. Y. Cornell and pupils; 9, Salvation Army band, Manchester, Conn.; 11, Le Bal Tabarin orchestra.

WWJ, Detroit, Mich. (352.7m-850ke), 7:30-8 a. m., setting-up exercises; 9:30, "Tonight's Dinner"; 12:05, p. m., Jules Klein's Hotel Stafler orchestra; 3, Detroit News orchestra; 8, dinner concert; 8, News orchestra and soloists; 9, WEAF; 9:30, dance program.

### Central Time Stations

KFAB, Lincoln, Nebr. (340.7m-880ke), 5:30-6:30 p. m., dinner concert; 8:30-10:30, Dwight Community orchestra.

KFDM, Beaumont, Tex. (315.6m-950ke), 12:30-1 p. m., Refinery band concert; 7-7:30, children's program; 8-10, Refinery band concert.

KFEQ, Oak, Nebr. (267.7m-1120ke), 2-3 p. m., Oak talent; 8:30-10, Hebron College and Academy.

KFKX, Hastings, Nebr. (268.3m-1040ke), 5:30 p. m., dinner concert, KDKA; 9, varied musical program.

KFNF, Shenandoah, Iowa (263m-1140ke), 7:30 p. m., concert, Widney Sisters.

KFRH, Columbia, Mo. (499.7m-600ke), 4:30-5:30 p. m., Bella Vista Quadrangle orchestra; 6:15, dinner music; 12-2 a. m., music, Stephens college musical faculty and Bella Vista quadrangle.

KFVE, University City, Mo. (240m-1250ke), 9:15 p. m., Solan Nealy, organist; Mae Miller, soprano; Mrs. Gertrude Watson, accompanist.

KLDS, Independence, Mo. (441m-680ke), 6:30 a. m., morning devotional program.

KMA, Shenandoah, Iowa (252m-1190ke), 11:30-12:30 p. m., Walter Nixon, popular pianist; 9-11, Maryville program.

KPRC, Houston, Texas (296.9m-1010ke), 12 m., Frank Tilton, totally blind wonder boy pianist.

KSD, St. Louis, Mo. (545.1m-550ke), 7 p. m., Hungarian music, Kotana Brothers; 7:30, commerce hour, Dr. Charles Schumacher, tenor.

KSO, Clarinda, Iowa (242m-1240ke), 7-7:30 p. m., music; 7:30-9, B. P. Mayhew entertainers; 9-9:30, Baker and Anderson.

KTHS, Hot Springs National Park, Ark. (374.8m-800ke), 9-9:30 p. m., Meyer Davis' New Arlington ensemble; vocal numbers, Toni Cochard; 9:30-10:30, Phil Baxter and his Jack-o-Lantern Knight club orchestra; 10:30-11, special requests, Elmer Menard, pianist.

KWVG, Brownsville, Texas (278m-1080ke), 6 p. m., dinner music.

KYW, Chicago, Ill. (535.4m-560ke), 12:05-1 p. m., noon-day concert; 1-2, Joska De Babary and his orchestra; 6-7, KDKA symphony; 9, an hour of music; 10-12:30 a. m., Paul Ash and his orchestra; Coon-Sanders' orchestra; 1, Insomnia club.

WAMD, Minneapolis, Minn. (244m-1230ke), 12 m., classical program; 6:15, dinner concert; 7:10, public school hour, T. P. Giddings, supervisor of music, assisted by Ruth Anderson; 8, Reception Five program; 11, Skyrocket frolic, George Osborn and his orchestra.

WBAP, Fort Worth, Tex. (475.9m-630ke), 7:30 p. m., Texas Christian university; 9:30, Arlington Heights high school orchestra; 11, Panther Hawaiian trio.

WBBM, Chicago, Ill. (226m-1330ke), 4-6 p. m., Harry and Sandy; Valentino Inn orchestra; Harold Morava, lyric tenor; William Dalton, baritone; Joe McManus; Ralph Bottorff; 8-10, Moulton House orchestra; Two Jays; Brewers; Zig Zag trio; Verdi trio; Dave Handler, violinist; Floyd Falch.

WCCO, Minneapolis-St. Paul, Minn. (416.4m-720ke), 12 m., Dick Long's Dayton trio; 2:30 p. m., Dick Long's Nankin cafe orchestra; 6:15, Dick Long's Nankin cafe orchestra; 8:15, Husky Gardner's dance band supreme; 10:05, Marigold Garden orchestras.

WDAF, Kansas City, Mo. (365.6m-820ke), 6-7 p. m., Trianon ensemble; 8-9:30, program, Missouri Pacific Boosters' club; 11:45-1 a. m., Ted Weem's Victor Recording orchestra; Eddie Kuhn's orchestra.

WDDO, Chattanooga, Tenn. (256m-1170ke), 6:30-7 p. m., organ music, Tivoli theater; 7-8, Hotel Patten orchestra; 8:15, special features and program; 11, popular request.

WEBB, Chicago, Ill. (370.2m-810ke), 7 p. m., Oriole orchestra; 8, Pauline Sachs, soprano; Eleanor Kaplan, violinist; 9-9:45, WEBB Light Opera company; 11,

Oriole orchestra; 12:30, Irene Beasley, Jack Penewell, Fred Palmeter.

WENR, Chicago, Ill. (206m-1130ke), 6-7 p. m., dinner concert; Rauland-Lyric trio; violin and vocal solos; 8:10, popular program; Frank Westphal and his All-American Pioneers; harmony four; George Moran and Bill Alt, Hawaiian guitars; Jack Todd, baritone; 12-2 a. m., frolics; All-American Pioneers; G. W. Voss, basso; James Beaumont, banjo.

WFAA, Dallas, Texas (475.9m-630ke), 12:30-1 p. m., Sunday school lesson, Dr. Horace M. Whaling; 3:30-4, Sears-Roebuck Agricultural Foundation, home-makers' program; 4:30-5, piano recital, Gertrude Day; 6:30-7:30, Haualea School of Hawaiian Music; 8:30-9:30, Mrs. Robert H. Morton, singer; musicians.

WGES, Oak Park, Ill. (250m-1200ke), 5-7 p. m., duo; mezzo-soprano; quartet; organ; 8-9, orchestra; pipe organ; soprano; tenor; pianist; 11-1 a. m., banjo fiends; organ; Coyne orchestra; comedian; "Uke Girl."

WGN, Chicago, Ill. (302.8m-990ke), 10-10:15 a. m., good health period; 10:15-11, entertainment for shut-ins; 11-11:30, morning organ concert, Chicago theater, Dean Fessler; 12:01-12:30 p. m., noon-hour entertainment for children; 12:40-2:30, luncheon concert music; 2:30-4, Lyon and Healy artists' recital; 3:25, Port of Missing Men; 3:30-4:15, tea time music; 4:30-5, organ recital, Edward Benedict; 5:30-5:57, Skeezix time for children; 6:30-6:45, dinner concert music; 6:45-7, old-time favorite songs; 8-8:30, Cities Service quartet; 10-10:10, "Sam 'n' Henry," Radio comic strip; 10:10-10:15, old-time favorite songs; 10:15-11, dance music; Correll and Gosden, Freda Leonard and Jewell Barnett; Hawaiian guitar music, Langdon brothers.

WHAD, Milwaukee, Wis. (275m-1090ke), 11 a. m., pianologue, Andy Hertel; 4 p. m., Ira Schnell, baritone; 6-7, Arthur Richter, organist; 7, Bill Juhre's Radio cartoon game; 8:30-10, Wisconsin theater revue; 35-piece Wisconsin theater concert orchestra; Dexter's Wisconsin roof orchestra.

WHAS, Louisville, Ky. (399.8m-750ke), 1-2 p. m., concert, Royal Peacock orchestra; 3-3:30, Mrs. Myrtle Fuls Zahn, Jr., organist; 4-5, concert, Harry S. Currie's music box; readings; 7:30-9, concert, glee club, Grace Deppe, director.

WHB, Kansas City, Mo. (365.6m-820ke), 2-3 p. m., Sweeney request string trio; 7-8, selections, Milo Finley string trio; popular songs, Harry Kessel, Lola Cook, pianist; dance music, Sweeney Radio orchestra.

WHO, Des Moines, Iowa (526m-570ke), 7:30-8 p. m., colored ladies' quartet; 8-9, Hapac Groto band; 11-12, Bankers Life "Corn Sugar" orchestra.

ing Palace orchestra; Husk O'Hare's Coconut Grove orchestra; Capitol theater program; program.

WORD, Batavia, Ill. (275m-1090ke), 7 p. m., program, North Shore line; 7:45, Uncle Dan and WORD study club; 9-9:45, recital, Glenn Dillard Gunn School of Music; 9:45, readings; 11-11:45, program, W. A. Sheaffer Pen company; 11:45, readings, "The Golden Age."

WSJ, Jefferson City, Mo. (440.9m-680ke), 8:20 p. m., old-time fiddling contest.

WQJ, Chicago, Ill. (447.5m-670ke), 7-8 p. m., dinner concert, Ralph Williams and his Rainbo Gardens orchestra; Henrietta Nolan, violinist; H. W. Bundy, song biography; Margaret Cade, soprano; Madeline Cade, soprano; Madeline Ruff, accompanist; 10-1 a. m., Ralph Williams and his Rainbo Skylarks; Dr. E. Lucille Long, harmonica; Eleanor Terry; Laurie, Eddie, Bonnie, melodians; Dean Terrill, baritone; Romo Vincent, boy baritone; Merrill Carder, baritone; 1-2 a. m., Ralph Williams, Glinger Man; Little Skylarks.

WSB, Atlanta, Ga. (428.3m-700ke), 8 p. m., program, Susie Reese Kennedy, director; 10:45, entertainment.

WSM, Nashville, Tenn. (282.6m-1060ke), 6:30 p. m., Francis Craig's orchestra; 7, WSM bedtime story interlude; 8, program, Mrs. Thomas Pinkerton; 10, Ward-Belmont college program; Florence Boyer, vocalist; Louise Betts, pianist.

### Mountain Time Stations

KOA, Denver, Colo. (322.4m-930ke), 12:15 p. m., Rialto theater musicale; 6:30, Brown Palace string orchestra; 8, Scheuerman's Colorado orchestra; 8:15, Risola Arnold, soprano; Continental Oil Company's Girls' glee club.

KOB, State College, N. M. (348.6m-800ke), 7:30-8:30 p. m., music, college band.

### Pacific Time Stations

KFI, Los Angeles, Calif. (467m-642ke), 5:30-6 p. m., program arranged by Under-Sheriff Eugene Biscalluz; 6, nightly doings; 6:15, KFI's Seeing California; 6:30, vest pocket program; 6:45, Radiator period; 7-8, Sweetwater high school band of 40 pieces; 8-9, Aeolian residence pipe organ, Dan L. McFarland, organist; 9-10, Frank Barry, tenor; Ysabel Bowen, soprano; Mutual Motors mirth concert; 10-11, Al Wesson's dance orchestra.

KFOA, Seattle, Wash. (454.3m-660ke), 6-6:30 p. m., Atwater Kent boys; 7-8:15, Sherman Clay and company; 8:30-10, Times studio program; 10-11, Jack Souder's Club Lido serenaders.

KFON, Long Beach, Calif. (232.4m-1290ke), 6:30-7

## Taps of Gong Are from Spanish Bell

### Station WJZ, Mexico City, Sounds Relic of Seventeenth Century Design

THREE taps of the gong and talks in a foreign language have set Radio fans in the United States to wondering whether they were hearing the Far East or Europe. The old gong whose mellow tones have entered so many homes through loud speakers is an ancient Spanish bell of the seventeenth century imported by earlier colonizers in Mexico and now has its resting place in the studio of the 500-watt Westinghouse equipped station CZE at Mexico City, where it begins and ends each program.

What will probably interest the fans more than anything else is that this powerful station which has been heard in more than one distant part of the United States is a government station, owned and operated for but one reason—education.

The possibilities of Radio are regarded in this neighboring republic not chiefly for amusement but for the serious purpose of extending education. Dr. Jose Manuel Puig Casauranc, secretary of education, includes in his progressive program the installation of Radio receivers in every public school in the Mexican republic so that eventually broadcasting will play an important part in every classroom, no matter how remote.

The talks which fans have been hearing on a 350-meter wave length are educational lectures given in Spanish.

## Christian Science Radio Service Cures Headache

### Although Not Believing in Faith Lady Receives Relief

AUSTIN, Minn.—One of the strangest happenings accredited to Radio was experienced here recently when a case of cure was reported to a local paper.

A well-known lady of the city was suffering from a severe headache, which was most inconvenient, as she was entertaining guests. None of the simpler methods brought relief, but during the evening the Radio was tuned in to the Christian Science service being broadcast from the Gold Medal Station, WCCO, Minneapolis-St. Paul. Before the end of the service, her headache had entirely disappeared. The lady is not a Christian Scientist, but the relief of her headache being coincident with the service made a deep impression on her mind and was reported.

## TO BASE ARTISTS' PAY ON REQUESTS

### Popularity of Radio Stars Will Determine Entertainers' Remuneration at Station WSBC

CHICAGO.—Paying the artist in a record of his popularity, by means of a bulletin board of requests, is the novel idea of "Dynamo" Dave Edelson, director-announcer of the World Battery station here, WSBC, located in the New Southern hotel.

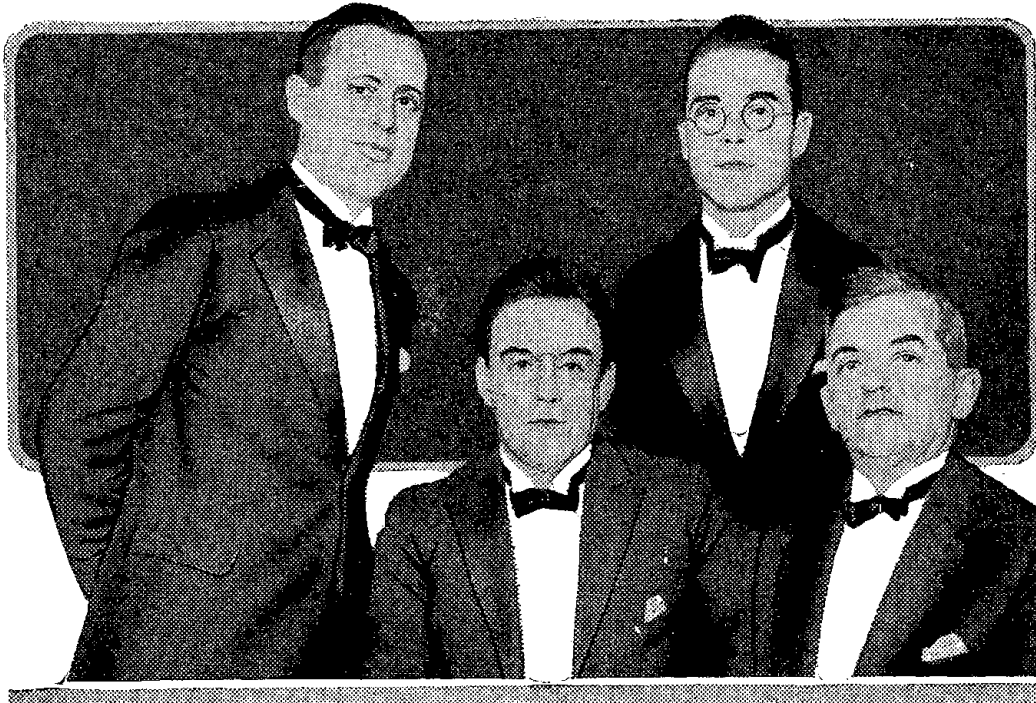
Mr. Edelson has been a favorer of the artist himself, throughout his Radio career, from his pioneer days in Radio advertising to his present position as director of his own station. He feels the inadequacy, in most cases the absence, of remuneration to the entertainers that give the station its name, and seeks to pay them in some equitable way.

A record of popularity is the only way to show the appreciation felt by the invisible audience.

## Licence New Cuban Station But State No Wave Length

WASHINGTON.—A new Cuban station, 7SR, at Elia, is now broadcasting every Tuesday and Thursday night at 8:30 p. m., according to a report to the department of commerce. The station is licensed in the name of Salvador C. Rionda and uses 500 watts power. No definite wave length has been assigned, but the station has the authority to use any wave length between 200 and 360 meters.

Listeners are requested to suggest a wave length that will not interfere with their local stations. Those hearing the station may cooperate by writing direct to Mr. Rionda.



"Around the World with the Apollo Quartet" is the monthly feature at KYW, Chicago. The four gentlemen above are visiting with the listeners many distant places in the world.

WIBO, Chicago, Ill. (226m-1330ke), 2-4 p. m., Shut-in program; 1, Dan Russo, violinist; Ted Florito, pianist; Marie Tully, soprano; Wayne Meyers, reader; Connie Corwin, soprano; Irene Beasley; 6-8, dinner concert; Walter Preston, singer; Evelyn Nelson, pianist; string trio; Elsie Orr, soprano; Florence Osterman, contralto; Joe North, baritone; 10-2 a. m., special feature, Walter Preston, director.

WJAD, Waco, Texas (352.7m-850ke), 8:30-10 p. m., program, Temple Chamber of Commerce.

WJJD, Mooseheart, Ill. (370.2m-810ke), 12-1 p. m., Palmer House symphonic players; trio; 2-3, organ hour, Howard L. Peterson; child artists; assembly of 1,250 children; 5:30-7, instrumental hour; Palmer House symphonic players; Jack Nelson; Victorians; 8-9, children's hour; 10-11, feature hour; Senator Harold C. Kessinger; Palmer House Victorians; 12:30 a. m., Knights of the Burning Candle.

WKAF, Milwaukee, Wis. (261m-1150ke), 10-11 p. m., studio program; S. D. A. quartet.

WLIB, Chicago, Ill. (302.8m-990ke), 7-8 p. m., musical program; 11-1 a. m., dance music; songs, Correll and Gosden; Freda Leonard and Jewell Barnett.

WLS, Chicago, Ill. (344.6m-870ke), 12 noon R. F. D. noon program; Ford and Glenn; 6 p. m., R. F. D. school program; Ford and Glenn; 6:40, Ralph Emerson's organ recital; 7, Ford and Glenn, lullaby time; 7:20, WLS studio trio, presenting "Musical Pictures of F. Stanton's Poems"; 7:50, Wallace Bruce Ambar, "Poems of Edgar A. Guest"; 8:05, Westminster quartet; 8:35, Ford and Glenn; 9, Nash brass band; 9:40, Jimmy Westbrook, tenor; 10, Metropolitan choir, Prof. J. Wesley Jones, director; 11, Ralph Emerson, surprise program.

WMAQ, Chicago, Ill. (447.5m-670ke), 2 p. m., program for shut-ins; 4:45, child-life stories; 5:15, Topsy-Turvy time; 6, organ; 6:20, Family Altar league; 6:30, Wide-Awake club.

WMAZ, Macon, Ga. (261m-1150ke), 8-9 p. m., A. L. Glasco's colored choir; 9-10, Lions' club; 10-11, Ethel West, soprano.

WMBB, Chicago, Ill. (250m-1200ke), 7-8 p. m., Trianon duo; Frank Borderer, baritone; Frank Chaplin, tenor; Edith Stonehouse, soprano; old home songs; 9-11, Trianon orchestra; Woodlawn theater orchestra; Nina Smiley, soprano; Eddie Matts, Billie Donovan; Jack Goodwin.

WOAN, Lawrenceburg, Tenn. (282.8m-1060ke), 9-10 p. m., quartet, orchestra.

WOAW, Omaha, Nebr. (526m-570ke), 1 p. m., Randall's Royal Fontanelle orchestra; 6:30, Francis Potter's banjo orchestra, soloists; 6:50, Gilbert Jaffy and his Little Symphony; 9, classical program; 10:15, Frank Hodek and his Nightingale orchestra.

WOC, Davenport, Iowa (483.6m-620ke), 8-9 p. m., Rathjen's orchestra.

WOK, Chicago, Ill. (217.3m-1380ke), 4:30-7 p. m., Capitol theater organ; Pat Hostler, tenor; 10-1:30 a. m., Tearney's town club orchestra; Carl Lorraine's Persh-

p. m., Brayton's theater organ; 6:30-7, amusement information; 7-7:30, courtesy program; 7:30-8, inventors' hour; 8-9, Press-Telegram program; 9-10, studio program; 10-12, Long Beach Elks No. 888 frolic.

KFWA, Ogden, Utah (261m-1150ke), 4-5 p. m., organ recital, Paramount theater; 5-6, Ogden Radio dealers' program.

KFWB, Hollywood, Calif. (252m-1190ke), 7:20 p. m., Jack Boaz, hunting and fishing scout; 7:30, eye-ology, Dr. Marshutz; 7:45, microphone brevities; 8-9, program, John Wright, the right tailor; John Wright orchestra, Dan Gridley, tenor, Sol Hoopii's Hawaiians; 9-10, Warner Brothers syncopators, Jean Johnson, pianist; George Wilson, popular songs; Mrs. Vivian Kidson, soprano; 10-11, Warner Brothers frolic, direction Charlie Wellman.

KGO, Oakland, Calif. (361.2m-830ke), 3-4 p. m., Rose Florence, director; Emily Beal, soprano; Mrs. Arthur Ford, mezzo-soprano; Irma Harris Vogt, accompanist; Duke Kamoki's Royal Hawaiians; Ruth Linrud, soprano; Joseph George Jacobson, pianist; 4:50, concert orchestra, Hotel St. Francis; 6-6:55, Knickerbocker trio.

KGW, Portland, Ore. (491.5m-610ke), 7:15 a. m., physical culture exercises; 6-7 p. m., dinner concert; 8-9, concert; 9-10:30, concert; 10:30-12, Hoot Owl frolic.

KHJ, Los Angeles, Calif. (405.2m-740ke), 6-6:30 p. m., Leighton's Arcade cafeteria orchestra, Jack Cronshaw, leader; 6:30-7:30, history story, Prof. Hertzog; Richard Headrick, screen juvenile and Uncle John; 8-10, program, Western Auto Supply company.

KLX, Oakland, Calif. (508.2m-590ke), 4-5 p. m., women's hour; 5-5:30, Aunt Elsie's sunset matinee; 8-9:45, studio program; 9:45-10:30, Athens Athletic club orchestra.

KMTR, Hollywood, Calif. (238m-1260ke), 8-10 p. m., Turner orchestra in classical selections, Loren Powell, director.

KNX, Hollywood, Calif. (336.9m-890ke), 5-5:30 p. m., Sunny Jim's studio; 5:30, First Presbyterian church organ; 5:55, Town Tattler; 6:15, travel talk, W. F. Alder; 6:30-7, Atwater Kent concert orchestra; 7-8, program, Jell-X-Cell company; 8-9, studio program; 9-10, Order of Optimistic Donuts; 10-11, dance music program.

KOAC, Corvallis, Ore. (280.2m-1070ke), 8:15-9:15 p. m., program of music.

KPO, San Francisco, Calif. (428.3m-700ke), 7, 7:30, 8 a. m., daily dozen; 10:30, "Ye Towne Cryer"; 1:30-2 p. m., Rudy Seiger's Fairmont hotel orchestra; 5:30-6, Big Brother; 6:30-7, Waldemar Lind and the States Restaurant orchestra; 8-9, program; 9-10, Palace hotel dance orchestra, Gene James, director; 10-11, Waldemar Lind and the States Restaurant orchestra.

KTAB, Oakland, Calif. (240m-1250ke), 12-1 p. m., luncheon concert; 8-10, program, Bremer's.

KWSC, Pullman, Wash. (348.6m-860ke), 7:30-9 p. m., Ingvald Henneberg, Eric Danielson, banjoists; Helen Dunlap, pianist.

# Radio Digest Illustrated

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## Join the "I Won't Bloop Club"

LAST week marked the beginning by Radio Digest of a country-wide organization that will mean much to the future of Radio broadcast reception. It has been named the "I Won't Bloop Club" and its purpose is just what its name implies. There are no fees—it is absolutely free.

Have you joined? Do it today, and get your neighbor to do it likewise. Sign his name on the dotted line of the pledge card—either one clipped from page three of Radio Digest or obtained direct from your favorite broadcasting station.

Broadcasting stations are helping the club's campaign along by telling their respective audiences of the club and asking for memberships. Sign a pledge card, send it to Radio Digest, and receive a membership card. Simple as this arrangement may seem, many people may doubt the ability of this campaign to clarify the air of a few hundred thousand radiating receivers that are unnecessarily punctuating perfectly good broadcast programs with bothersome bleeps and squeals.

But it will be effective, however, simple it seems. All we ask is that every listener sign the pledge and abide by the rules. After that the air will be better for broadcasting. You can depend on a man's word, and we are willing to wager that many an "I Won't Bloop Club" member will take steps to stop his radiation. He will either learn how to make his present set non-radiating or will buy a non-radiating receiver.

SIGN THAT PLEDGE NOW!

## World Court Debate Makes Epoch

THE Chicago Tribune deserves credit for its enterprise in bringing the World Court controversy directly before the people through Radio. A debate on the question was staged in Washington by the leaders of the opposing factions before a microphone not far from the capitol itself.

People were enabled to hear both sides of the controversy by their respective strongest adherents. Afterward they were assisted in making a decision of their own by writing their vote on blanks printed in the Tribune.

It was a distinct step in advance both for newspaper enterprise and Radio service. It opens a new field of endeavor on the part of all newspapers. It was the logical sequence of Radio reports of the football games and other sports.

Why shouldn't the more momentous games that concern our national life be presented as directly and vividly?

It brought our statesmen who are on the firing line of our national front clearly and distinctly before their constituents. They became real. Their voices were physical and not third person reports in cold type. There was no opportunity of intentional or unintentional reportorial bias. They presented their own minds with their own voices directly into the ears of the voters.

This fine stroke on the part of the Tribune was a good thing for Radio. It cultivated a new class of listeners. Business leaders, too busy to take time to listen to the average Radio musical program, take keenly to this sort of service.

Internal problems such as the farmers' financial crisis could be placed vividly and directly before the people by the keenest thinkers and speakers. This, of course, has been done and is becoming more and more common but usually as an incidental talk to some public gathering infinitesimally small compared with the Radio audience.

The Tribune has seized the Radio possibilities with both hands—and strong hands they are. Col. R. R. McCormick, associate publisher, himself assisted in making this Washington enterprise a success. He even visited the president in the White House and the success of his mission there was manifest by the ensuing results.

This event of a direct personal debate between the strongest men in the United States senate specifically (not incidentally) into a microphone for the benefit of hundreds of thousands of listeners, might truthfully be said to mark an epoch—a new troth between the Radio broadcast and the daily press.

## RADIO INDI-GEST

### Consternations

Last week when all the nations  
Were exchanging oscillations,  
I sat beside this superset of mine.  
All I got was radiations  
Instead of foreign stations,  
While the bloopers played the opera "Heterodyne."

There have often been occasions  
When our European relations  
Were muddled up and in a manner strained.  
But ethereal gyrations,  
Caused by DX animations,  
Made the greatest foreign rumpus ever gained.

THE NIGHT HERD

### Get Out the Gold Award

Dear Indy: A dear friend o' mine said you was checking up on them there International Radio tests. I got a one and ½ tube (the ½ is a Radiotron) receiver what can't be beat, and the tests proved I was right. Please confirm the following what I tuned in:

A—10:00 to 10:25 p. m. Central time, Sunday. Nothing. I didn't have the set turned on. Please confirm.

B—10:25 to 10:26 p. m. Still nothing. Aerial disconnected. Please confirm.

E—10:26 to 10:30 p. m. Whizzz—wheee, s-s-cr-eeetch. Wave length variable. Believed to be Canary Islands. Please confirm.

G—10:30 to 10:45 p. m. More howls, shrieks, bleeps, blams, zowies, bings, biffs and crashes. Believed to be static. Didn't have to tune set. Any wave worked. Please confirm.

O—10:45 to 10:50 p. m. 233 meters. Sermon, faint, but if you talked to yourself fast enough you could convince yourself it was loud. Finally worked up courage to tell wife. Please confirm.

R—10:50 to 10:55 p. m. Went to tell wife and get her back to the phones so she could hear Europe "over the loud speaker." Please confirm.

X—10:55 to denouement. Wife shrieks with laughter; "Hah, hah, you poor sap," says she, "This is KFON, the First Church of Christ, Scientist, at Long Beach, California. They haven't learned yet that the tests are on, acct. of being kinda slow out there." Please confirm.

GUM SHOE

Such an easy way to make money! If you don't get the Gold Award we'll sign a bill of complaint. We've been asked to confirm so many things we are beginning to feel like a bishop. Anyway, here's what you got: A-sia; B-muddled; E-gypt; G-whizz; O-he-ll; R-mentia; X-cited.

### Lost, Strayed or Stolen

Oh, Indi, I'm unhappy,  
My eyes with tears are wet—  
Tell me what has happened to  
That Red-Head Gal, Bobette.

SHOBIE

Well, Shobie, we're sorry but just last week a letter mailed through Indi-Gest to Bobette was returned. Hope she comes back some day.

### Or Put House on a Turn-Table

I have changed the direction of my aerial and now cannot tune in several of my old stations, although I have received many new ones. As I cannot change back to the old direction on account of lack of space, what would you suggest as a remedy? D. X. HUNTER

As the technical department couldn't solve that one, it was turned over to us. Our correspondence course, that made us wealthy, didn't think that an important question, but you might try to have the stations moved.

(In next week's issue, Indi will describe and explain his first hook-up since becoming a member of the technical staff. It will show how to connect a player piano to a set with more or less tubes.—Editor's Note.)

### There Is Blood in the Moon

It looks too bad for pesty announcers. Last week Bloop got three lines of a poem and couldn't get the last one, so asked Indi to get the gang to help him. Here are the first three lines:

I Know of An Announcer  
Who's a Pest Upon the Air—  
If I Can Get a Bouncer

And here are some of the suggestions that have come into the office. Have you any? You know the prize is an autographed heterodyne squeal.

"I think murder would be fair."

J. A. C.

"He'll want to say a prayer."

PETE

"He'll be minus hide and hair."

HANK

### Be a Cake-Eater

Dear Indi: Please send some Radio Digests to me. My wife has been trying out recipes until, I'm sorry to confess, I have the Radio Indigest. So hurry please before I die from eating her pesky old Radio pie.

A. MICHIGANDER

### Englishman Loses Control?!

Hump: "Jones carries his loyalty a bit too far."  
Bump: "How's that?"  
Hump: "He smashed his new five-valve set by jumping to his feet when, at the end of the program, the band played 'God Save the King.'" LONDON BOBBY

## Two Kinds of Radio Bills



## Condensed BY DIELECTRIC

Radio dramas may still require touching up, or toning down, here and there to meet the requirements of unseen action, yet there have been examples of such entertainment quite complete. The latest of these came through Station WJZ, New York, with the "screenless Radio drama" called "Just Suppose." It was not difficult to follow the action of the plot as seasoned artists spoke their parts with good diction and histrionic ability; however, this could have been done more easily had the male voices sounded less alike. Listeners were confused at times to know if Prince Ruppert or Tony spoke.

In some of the correspondence addressed to the editor of Radio Digest, there have been decided preferences for jazz and dance music generally. It doesn't seem to me that programs are overbalanced with classical music, although the trend is toward more of the classics. Most stations devote a part of each evening to dance music alone. Improvement in broadcasting ballroom music is noticeable in that less time is consumed than formerly with announcements between numbers. Many stations have received comment to that effect in these columns and I wish to add another: WHT, Chicago, which seldom interjects more than the station call and possibly title of the succeeding selection.

Station WSM, Nashville, Tenn., conducted a special test night with evident success. Smith's dance orchestra furnished the main attraction with a full portfolio of popular hits rendered in an approved fashion. Such announcements as were made were given with pep, terse and interesting. It should be remarked, in fairness to both listener and broadcaster, that the call letters of this station should receive less speedy dispatch in order that one may be sure of the station to which he is tuned. This is an easy matter to correct and ranks as one of the most important items to receive attention.

Splendid organ recitals are heard now and then from the high school auditorium in Atlantic City, N. J., broadcast through Station WPG. A number of complaints have reached me from devotees of this instrument who were tuned to the World's Playground during a recent recital, stating their exasperation over a thirty-minute broadcast with no reference to the station's location. This is not habitual, I wish to say, and probably will not occur again. In the course of groups of musical numbers, it sometimes happens that no announcement is heard between selections in a group, but only at the beginning and end. In classical programs, the continuity of a symphony may be seriously interrupted by applause between movements; call letters can hardly be classed with that, and they should be announced slowly and often.

If you were tuned to Station KSD, St. Louis, while the Bankers Choral club was broadcasting, no need of my mentioning how profitable was the time spent listening to their harmonies. Choral singing should entertain as many people as any other feature broadcast and no one can truthfully deny the presence of exceptionally well trained choruses in the country. More of them should be on the air than are now heard.

These community concerts grow on one and cause wonder that we had to wait so long for them to join Radio entertainment. Another such program through Station WSAI, Cincinnati, gave opportunity for music lovers to rejoice in the artistic work of Miss Vreeland, Mr. Beddoe and the Cincinnati symphony orchestra.

# ABC Radio Fundamentals for Everybody

## Chapter VI—How Grid Functions

By Milo Gurney

**B**EFORE explaining the action of the third or grid element of a vacuum tube, and its associated essentials, the grid leak, grid condenser and C battery, it appears important that both the mechanical construction and electrical details of the Radio head phone or loud speaker be first explained. This is to enable one to more fully realize the commanding part which the grid element assumes within the vacuum tube.

Without attempting to picture a particular make of apparatus, figure 17 is shown as typical of the interior and exterior mechanism of a head telephone. It is of interest to know that in general the head phones used in Radio resemble in every detail (but one), the receiver common to those used in wire telephony as a part of the universally used telephone. Electrically, Radio phones use much smaller magnets, while the turns of wire upon the pole pieces of the magnets are vastly greater in number.

### Construction of Ear Phones

A-A in figure 18 is a bi-polar magnet, having both a positive and a negative pole. These poles represent the terminals of the magnet and are designated as B-B in the drawing. C-C pictures insulated spools which are slipped over the pole pieces B-B and upon which the wire used within the head phone is wound. D-D usually comprises a stamped, non-magnetic, metal cup which serves as a mounting support for the magnets A-A and their associated parts. E-E is a soft iron metal disk or diaphragm which is supported around its outer edge by the metal cup D-D, with its center directly above, but not in contact with the pole pieces B-B. Entrance openings are pierced through the metal cup D-D, to admit passage of the battery wires from the B battery to the coil windings upon the spools at B-B.

As the head phones are a part of the circuit through which battery current passes over the space charge, or electron flow within the tube. It is then obvious that as it flows through the wires upon

the magnet spools, it will energize the magnets and direct a steady magnetic pull upon the receiver diaphragm. Unless the value of this current flow can be automatically varied vibration of the diaphragm cannot occur and sound cannot be produced.

### Importance of Grid

By this slow process of reasoning, we arrive at the importance of the grid, whose function is to vary the value of the current flow, through automatically varying the volume of the electron flow from the filament to the plate.

This valve-like action of the grid is little understood, and only about five per cent of those constructing Radio re-

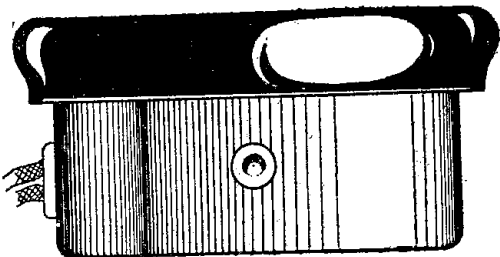


Figure 17

ceivers, outside of the engineering fraternity, have the slightest conception of what it is all about. Surely Radio suffers through having too many cooks to spoil the broth. Radio reception suffers, while the B battery manufacturers are doing quite well thank you, because of the heavy drain upon B batteries, although they are spending a lot of money trying to get designers to cut this uncalled for drain down, through the insertion of C batteries.

Getting back to our subject, you will recall, earlier in the articles, that the current which reaches the tube is alternating, or two-way in character, and is guided on one side to the grid terminal of the tube socket, and on the other to the filament terminal. In action, it is then evident that in each cycle or period the grid is alternately charged negative

and positive. Thus, as the grid receives its negative charge, the flow of electrons which would normally be attracted to the plate are in part arrested, or interrupted in this travel and attach themselves to the grid. This effect reduces the plate space charge, and offers a resistance to the normal flow of current, or in effect, varies its value. This varying value, in turn, creates a varying pull upon the phone diaphragm, and it is this varying pull which causes the sound to be reproduced in unison with the modulated received signal.

### The Grid Leak

The electrons thus stored upon the grid are, in part, neutralized when the current swings to positive, while the surplus are returned home to the filament through passing over the grid leak. The grid leak is, as the name implies, but a resistance of a sufficient value to admit a predetermined volume of negative electrons to pass through it to filament. Were it not of a correct value, the grid would not retain the electrons, but would permit them to flow uninterruptedly to the filament and thus destroy the automatic grid control or valve action so important for successful operation.

It is apparent that the grid valve action is created through the alternate positive and negative value of the current reaching it. However, these alternate charges are not sufficient to furnish the nicety of control which is desired. Therefore, a negative booster, or C battery is placed in series with the grid circuit, and just ahead of the grid leak. This is usually of a 4-volt value, with the negative pole of the battery connecting to the grid leak. The purpose of this applied voltage is to counteract the effect of the positive alternating signal voltage, in order that the grid may be maintained at a predetermined negative bias, consistent with securing the best operating point on the curve of the tube. As a discussion of this point involves much that is foreign to an article of this type, it will not

be gone into for fear of adding complications.

### A Simpler Explanation

The above then is how the grid functions, and I quite realize that it is as meaningless to you as it was to me when first explained in a similar manner—so I won't let it go at that. I will give you, in a very few words, my boy Jack's explanation, as all fathers of boys have "very bright" boys. One evening, after drawing numerous diagrams picturing grid action, and exhausting every known means for the conveyance of intelligence to him, with side remarks which included "dumb," "no brains" etc., etc., he piped up with "Oh, yes, I've got it, and under-

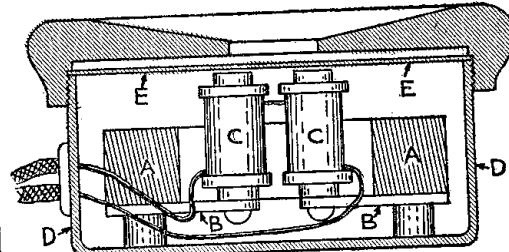


Figure 18

stand it better than you do. Now, listen, here is the way a grid works. The little electrons which leave the filament can't jump as far as the big ones, so they make just half a jump and land on the grid. Then old man positive sees a bunch of them on there, and cracking his whip says: 'Get outta here,' and they being scared almost stiff, take another jump to the plate. So you see, daddy, part of the time the little and the big ones are jumping and part of the time they ain't, and that's why the current varies." Which explanation after all is pretty close to the truth and surely utterly devoid of technical verbage. So I take it back—Jack's explanation is the one to believe.

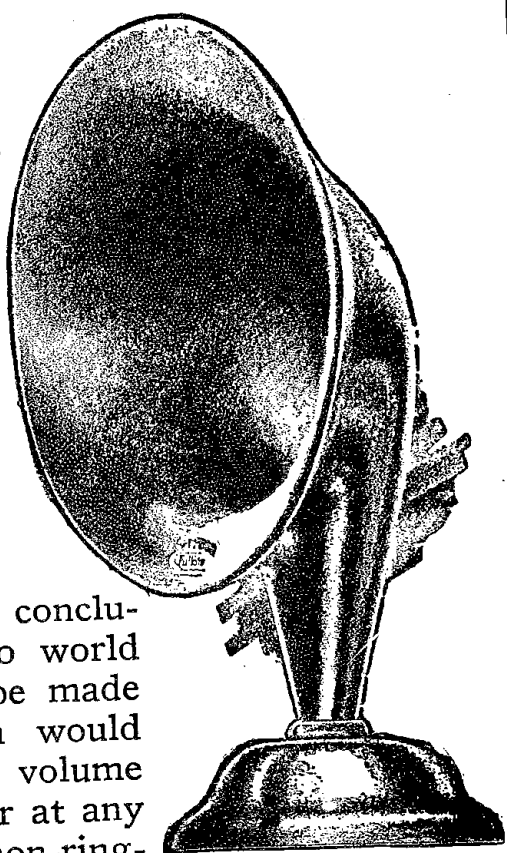
Without doubt, any attempt to explain the action of the grid must of necessity (Continued on page 24)

## BIG PRICE REDUCTION

**Fultone**  
Trade Mark

THE FORD of LOUD SPEAKERS

**\$6.50**



Fultone Loud Speaker has conclusively proven to the radio world that a reproducer could be made and sold at \$6.50 which would handle music or speech in volume as perfectly as any speaker at any price. The horn is solid, non-ringing and wide-throated enough to handle the powerful reproduction from super-heterodyne or reflex. The adjustable diaphragm permits matching Fultone to any receiver and "B" battery voltage.

Tear Off, Fill in, Mail Now

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Enclosed is \$.....for which ship me ( )  
Fultone Speaker.....( ) Fultone Unit at once, my money to be refunded if I am not satisfied and return this merchandise within 5 days.  
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The Fultone speaker will be shipped on a satisfaction or money back basis on receipt of price in money order or currency. The coupon is provided for your convenience in ordering if your dealer cannot supply you.

**HALL & WELLS, Inc.**  
4600 Lincoln Ave. Chicago, Ill.

The New **S.L.F. Bradleydenser**

High Efficiency One Hole Mounting

## A Compact Straight-Line-Frequency Condenser

**T**HE new S. L. F. Bradleydenser is the outcome of long, careful research in condenser design. It provides straight-line-frequency tuning over the entire circumference of a 360-degree dial. Stations are widely and evenly spaced over twice the dial-spacing of ordinary condensers. This unique control is obtained by using a special cam on the condenser shaft which provides the straight-line-frequency tuning now demanded by all set builders.

**A**NOTHER feature of the new S. L. F. Bradleydenser is the compact design which eliminates the long eccentric rotor plates. The Bradleydenser can be substituted for any condenser on a set without interfering with other parts on the panel. The one-hole mounting also simplifies installation. Be sure to bring your set up-to-date by getting a set of S. L. F. Bradleydensers from your nearest dealer.



Use Allen-Bradley Radio Devices in your radio sets

### Mail the Coupon

Allen-Bradley Company, 290 Greenfield Ave., Milwaukee, Wisconsin

Please send us your latest literature on the new S.L.F. Bradleydenser and other items of the Allen-Bradley line.

Name.....  
Address.....

### WAS BOY SCOUT FIRST? ORGAN WEAR FAVORITE

(Continued from page 6)

station. After letting Armstrong in for the record, he acknowledged receiving signals from others.

Mr. Godley reported that he had interviewed Benzie and Miller about their record and that they had taken the matter in a sportsmanlike manner, but I have been unable to find that either he or they ever stated that they contradicted the reports sent to the Robinsons.

I have investigated the Robinsons and the Scotchmen. They all have excellent reputations for truthfulness and honesty, as I can prove by letters from unprejudiced persons. Benzie's father states that the Robinson station was heard as reported. I have investigated Armstrong and Godley. They are, and were at the time of the 1921 A. R. R. L. tests, professional Radio men. They made good use of the publicity gained by their "record," for their own benefit.

Armstrong was engaged in litigation against Dr. Lee DeForest, who manufactured the transmitter used by the Robinsons. Armstrong won, and some years later, after it was reported that he had received a million dollars for his regenerative circuit patent, another court decided in favor of Dr. DeForest. I wrote to Armstrong, telling him what the Robinsons said about the way in which he obtained the letter from them. I received no reply.

I have asked all the members of the investigating committee that discredited the Robinson record, including Mr. Armstrong, A. A. Hebert and L. G. Pacent, where the evidence might be seen on which their decision was based. I also asked President Burghardt (presiding at that time) of the Radio Club of America.

The evidence has not been made available. President Maxim of the American Radio Relay league says he never saw it. Mr. Armstrong said that Benzie and Miller made a mistake in reporting the time the Robinson station was heard.

The evidence in my possession has been submitted to the editor of Radio Digest and he states that it appears to be conclusive in establishing the Robinson record. Their station succeeded in getting across again in later A. R. R. L. tests. Benzie, now in India, where he became an engineer on a tea plantation, has verified the reception of broadcasts from the British Isles, and his reception has been confirmed.

Did Armstrong and Godley steal the Robinson record?

Has the Radio Club of America the evidence that Armstrong promised to show the Robinsons? Is it conclusive? Will it be made public?

If not? You say it!

### "BLOOPER" WAR OPENS

(Continued from page 10)

of terrific annoyance and interference to myself and many other listeners. I tuned my set to the station the other fellow was trying to receive that night, and then I shut off my set and went calling. At a neighbor's house a square away, I found him sitting there toying with the dials while his highly oscillating set with brightly lighted tubes, was squealing all over 'Kingdom Come.' He was trying to get the station for which I had left my set tuned, and I said to him: 'Let your dials remain as they are, don't turn off your set, and come up to my house.' My friend did as I suggested and when I turned on my set in his presence, in came his squealing interference. Then I said: 'Now call your wife on the telephone and tell her to move the dials back and forth, and let's see what happens.' Every time she turned the dials past the point of resonance for the station we both had tuned in, you can imagine the terrific howls, yelps, whistles, squawks and squeals that surged in through my loud-speaker, since my set has enough volume to fill an auditorium.

"My friend was convinced that he was a 'Radio disturber,' and promised to get a non-radiating receiver, but he still uses that interfering 'blooper' although the occurrence happened some time ago, and he goes on disturbing other listeners within a radius of many miles. He is not a member of the Broadcast Listeners association of our city, but should be for his own good as well as that of other listeners whose enjoyment he spoils."

Such situations as this are retarding the use of Radio. The sooner a compulsory remedy is found to prevent "radiated regenerative interferences" of this character from interfering with broadcast reception, the sooner will the art of Radio come into general favor for all around usefulness as an indispensable scientific utility for social and economic advancement, in furtherance of private and public education, entertainment and human progress.

(Having shown where the blame lies for this unfortunate condition of the atmosphere and the extent to which a few can spoil the pleasure of hundreds of others, this discussion will be continued next week and for several issues to come and will take in preventive measures on various types of receivers.—Editor's Note.)

take you back to the trumpets of King Tut and can do it just as easily as he can to the Oriental fantasias of modern Arabia. At present he is on the air with a tour into the historical past. He has organized an historical society for those who accompany him—membership cards are issued to those who write for them. They travel each Thursday evening back to music of past generations.

\* \* \*

AT WEAR it seems that sincere effort has been made to plan programs which will, in their general course, please all classes of listeners. The regular weekly features include classical, semi-classical, jazz and talks by prominent speakers. New York relays, including the Atwater Kent hour on Sunday evenings, also are broadcast from WEAR.

The Goodyear concert orchestra entertains during Sunday afternoons, under the direction of Ivan Francis.

Sunday evenings from 7:50 to 8:30, the WEAR quartet, which is composed of Leona Brown Woodcock, soprano and accompanist; Edith McArt, contralto; Albert Downing, tenor and director, and Gay Donaldson, baritone, offer songs and song cycles particularly suited to this Fireside hour.

The dinner concerts from 7 to 8 every evening are furnished by the well-known orchestras from the Hotel Cleveland and Hotel Statler, under the direction of Friederick Jansen and Maurice Spitalny, respectively.

The jazz music of the station is furnished by Warmack's singing syncopators. This orchestra offers a program late each Tuesday and Friday, along with a half hour dinner concert from 7:00 to 7:30, on this latter evening. They also offer a program on the first and third Saturdays of the month from midnight to 1:30 a. m.

The WEAR studio instrumental ensemble, which just recently made its debut before the Radio audience, is composed of Leona Brown Woodcock, staff pianist and director; Howard DeGant, violin; F. E. Sommer, cello; Bruce McAdoo, viola, and Herman Walter, flute. This ensemble is to be one of the regular features on the WEAR programs.

### A B C'S OF RADIO SETS

(Continued from page 23)

be clouded as it involves so much of the technical in order to treat the subject fairly. I trust that those of you who are sufficiently interested seek out the public library. A most fruitful evening can be spent in learning more about this wonder of Radio.

(In the article on A B C fundamentals next week Mr. Gurney will explain the different types of audio frequency amplification, which when added to the detector serve the loud speaker.—Editor's Note.)

### OLD DANCES WIN FAVOR

(Continued from page 5)

Henry Ford produced Mellie Dunham of Maine, and Mellie, at the foot of the flivver king's throne in Detroit, challenged the world to take away his claim as the grand champion fiddler. Uncle Jimmy heard about it and was shocked.

"You tell that up-Maine feller," said Uncle Jimmy to Hizzoner the S. O. J. "that any time he wants to meet a real fiddlin' champeen I'll be listenin' to proposals. But it ain't fair for a youngster like him to hope for to beat a real ol' timer like me whose been fiddlin' at the dances since he was a baby on his mother's knee. Why he's only seventy-two. I was plowin' a field 'fore he was born."

Latest advices from the front fail to state whether Mellie and Uncle Jimmy have signed up for a match with Mike as the referee.

\* \* \*

WHEN the honors have been decided between Mellie and Uncle Jimmy the winner will doubtless be confronted by a score of new challengers. For instance there will be Mr. John Baltzell who, according to a letter signed by Wm. L. Baltzell, 502 E. Ohio avenue, Mt. Vernon, O., is the "champion old-time fiddler of Ohio, Indiana and Kentucky; also Edison and Okeh artist and very well-known as a Radio entertainer. He plays every Friday, 1 p. m., at WEAO, Ohio State University, Columbus, and has played at WBAM, WLW, WTAM and WHR."

It is probable the winner will have to settle with the champion of Connecticut, declared at the finals of a state contest for old-timers, over fifty years old, at Hartford, January 28, sponsored by the Hartford Courant and the Capitol theater.

And Michigan will have to be reckoned with, according to a letter from the Michigan State college at East Lansing. It says: "One hundred letters in one day as the result of a single program is the record made at WKAR, the college Radio station. An old-time dance program played by an

(Continued on page 26)



## The Eveready Hour

LIKE the fabled ship in which Jason brought home the enchanted fleece of gold, the Eveready Hour brings a rich treasure of entertainment to charm the harbor-homes of its hearers.

Inaugurated two years ago, the Eveready Hour was an adventure in broadcasting—an hour of connected entertainment, uninterrupted by the frequent injection of the name of the broadcaster.

Many of these programs have become famous. Thousands of letters voice the appreciation of our audience and ask for repetition of favorites. We make no requests for these letters, but they mean much to our artists and to us, and are of great value in helping us in our efforts to arrange programs of a distinctive nature and pleasing to the vast audience.

Radio has already become a highly specialized art worthy of the most scrupulous code of ethics, and the Eveready Hour represents a sincere effort to pioneer in providing the most acceptable form of radio entertainment.

Eveready programs cover a wide range of entertainment and human interest, transporting us to periods of wholesome simplicity; to barren islands where marooned sailors meet adventure, starvation and death; to battle-scarred France with singing dough-boys; to emotional heights by telling with music the stories of the seasons; and to memories of yesteryear aroused by old ballad and musical comedy favorites.

Eveready Hour begins at 9 p. m. each Tuesday night, Eastern Standard Time.

NATIONAL CARBON Co., Inc., New York — San Francisco  
Canadian National Carbon Co., Limited, Toronto, Ontario

Tuesday night means Eveready Hour—  
9 p. m., Eastern Standard Time, through  
the following stations:

- WEAF—New York
- WJAR—Providence
- WEEL—Boston
- WTAG—Worcester
- WFI—Philadelphia
- WGR—Buffalo
- WCAE—Pittsburgh
- WSAI—Cincinnati
- WWJ—Detroit
- WOC—Davenport
- WEAR—Cleveland
- WCCO—Minneapolis
- WGN—St. Paul
- WGN—Chicago
- KSD—St. Louis

# EVEREADY

## Radio Batteries

—they last longer



# OPERATING AND TROUBLE SHOOTING

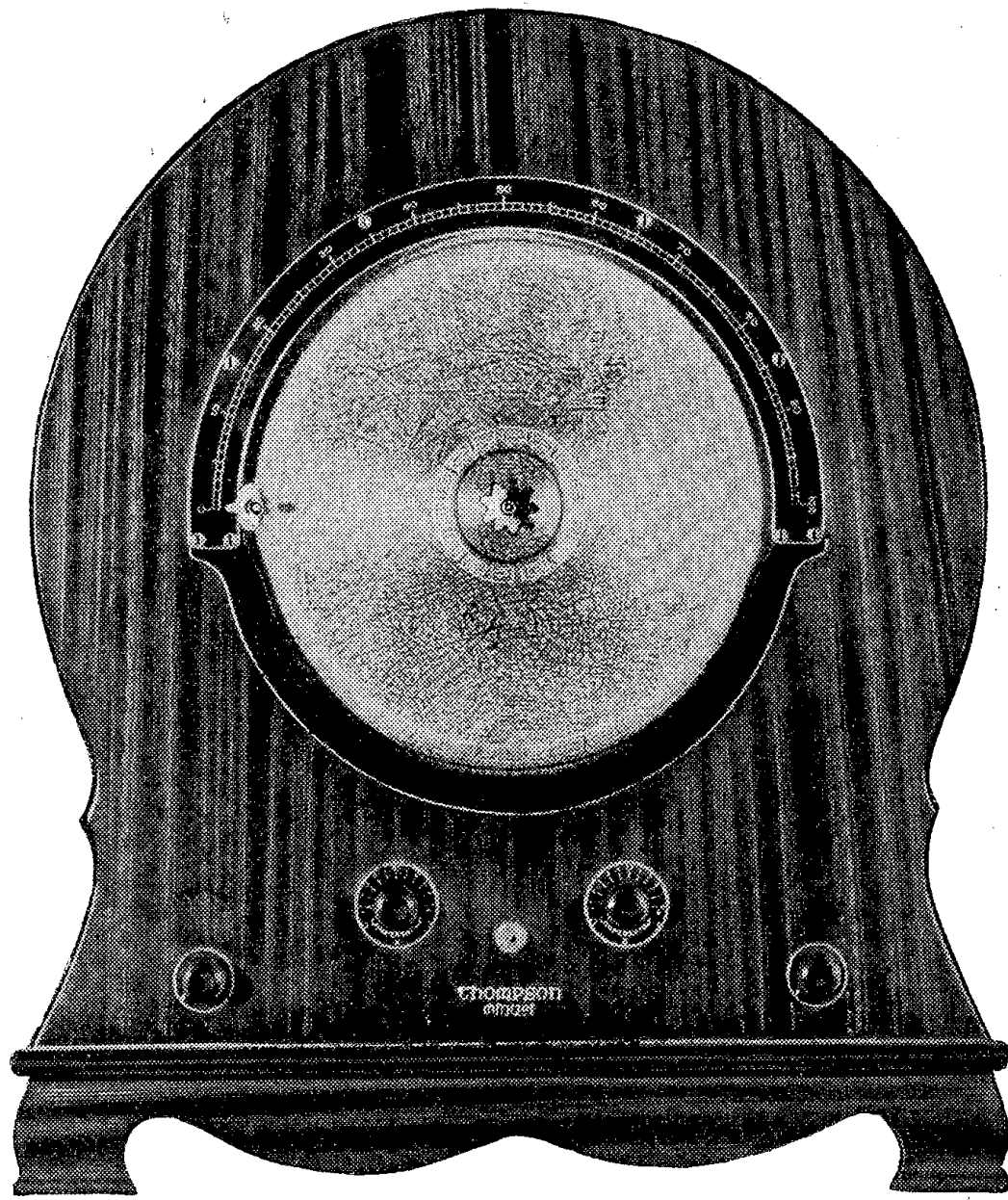
**OPERATING and Trouble Shooting**, is a Radio Digest feature, the purpose of which is to give practical information on the operation, care and cure of simple troubles in every kind of receiver. Standard Radio receivers of wide distribution and use are studied from the standpoint of instructions for installing and connecting, tuning and operating, and remedying little difficulties. The suggestions below, if executed faithfully, will make winter broadcast listening yield all there is to yield to the reader and give your set a fair chance to show its worth.

## For the Owner of a Thompson Minuet Receiver

**T**HIS is a five tube tuned radio frequency receiver of unique design both as to external appearance and internal mechanical assembly. It employs a straight circuit (non-reflex) which includes two tubes operated as radio frequency amplifiers, a detector and two stages of audio frequency amplification. In appearance, the Minuet is distinctly unlike any other receiver and its compact construction and simple operation represent a most successful combination of two goals long sought for by engineers. A cone type speaker is built into the front of the cabinet and internal compartments are provided for the necessary batteries. The tuning arrangement is about as close to single control as one can get at this stage of Radio's development and the major tuning is accomplished with the Station Selector Pointer which travels around the upper edge of the speaker diaphragm.

### Uses New Power Tubes

This is one of the first sets on the market to use tubes of the UX type and the new power tubes. The user has two choices as to tubes and batteries although in either case dry cells furnish the filament power. When this receiver is operated at what the manufacturers choose to call "Regular Volume," five UX-199 tubes are to be used and this combination will provide ample volume for all practical purposes. To meet special conditions, a combination of tubes is possible which gives "Extra Volume" and here the user inserts four UX-199s and one UX-120. As we tried out the set in the laboratory, the "Extra Volume" combination was used which makes necessary the following batteries: 6 Columbia Ignitor dry cells, 3 Eveready No. 772 B battery units and 1



Eveready No. 766 B battery used as a C battery.

To connect the Eveready Ignitor dry cells use the short wires provided with the set. The center terminal of one is connected to the edge terminal of a second and the center terminal of this second one is connected to the edge terminal of a third. This makes up one series group. The other three cells are connected this way to form another series group. Place the two rows of three close together so that the open edge terminals of each group are at the same end and the open center terminals at the other. Now connect the center terminal of one group to the center terminal of the other and likewise the edge terminals. With a heavy cord or tape tie the six cells together and place them in the bottom compartment at the right side (looking at the set from the rear).

### Connecting Batteries

Wires are provided coming down from the set into the battery compartment and the wire with black and yellow covering

connects to one of the center terminals at the other end of the series. The three number 772 B units are placed flat one on top of the other at the left side of the compartment with negative terminals to the left and plus terminals to the right. The bright red wire from the set goes to the bottom plus post, a short connector goes from the bottom negative post to the center battery's plus post and to this same plus post connect the maroon and red lead. The center negative post must be connected with a short connector to the top plus and to this top plus post we also connect the maroon lead. This leaves only the minus of the top battery open and the lead which is black and red connects to that.

The C battery, which in this case is an Eveready B unit, is placed on the shelf in the very top of the set with minus to the left. Three leads come up through from the set to this shelf and the solid black one goes to the negative battery terminal. The black and green goes to the plus 18 post and the pure green lead is connected to the plus 22½ post of the battery.

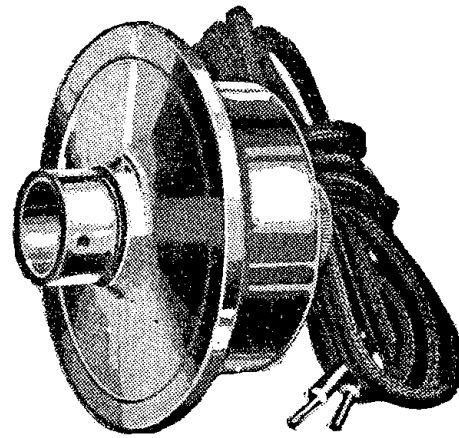
### Rigging the Aerial

Binding posts for the connection of aerial and ground are directly behind the set proper. The ground connection is made as usual, to a water pipe and with a ground clamp. About two inches of the pipe are to be scraped shiny and the ground clamp secured at this point with a wire from the set, run to it as directly as possible, fastened to the clamp. The antenna can be erected either indoors or outdoors but the latter is preferable. The total length of the ground wire, the lead-in and the antenna proper should not exceed 125 feet. A single wire stretched between two chimneys, two trees or the house and the garage, and insulated from the supports at each end by a small Pyrex or porcelain insulator will give the best results. If, for example, the ground wire is 10 feet long and the lead-in from aerial to set will be 35 feet long, the wire between insulators should be about 65 feet long. Should the supports be further apart than this, the remainder of the distance can be filled in with rope or wire between the insulator and the further support.

(Continued on page 26)

# Big Price Reduction

## FULTONE LOUD SPEAKER FOR YOUR PHONOGRAPH



**Fultone**  
TRADE MARK  
LOUD SPEAKER UNIT  
**\$3.00**

*Fits Any Make*

*Now Only*  
**\$3.00**

The unit will be shipped on a satisfaction or money back basis on receipt of price in money order or currency.

This unit is the secret behind the unparalleled success of Fultone Speaker. Its large diaphragm and bobbins of fine wire are protected from injury by a heavy nickel-plated case through the back of which adjustment is made by means of a special key. The pole pieces are not made from a solid piece of iron, but are assembled from 15 laminations of carefully chosen steel.

### Use on Your Phonograph

- Edison Adapter.....25c
- Columbia or Pathe.....20c
- Brunswick .....30c

**HALL & WELLS, Inc.**  
4600 Lincoln Ave. Chicago, Ill.

### Tear Off, Fill in, Mail Now

HALL & WELLS, Inc., 4600 Lincoln Avenue, CHICAGO, ILL.  
Enclosed is \$..... for which ship me.....  
( ) Fultone Unit at once, my money to be refunded if I am not satisfied and return this merchandise within 5 days.  
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CITY AND STATE .....



Fred W. Stein.

# Steinite

Low Loss  
**Interference Eliminator**  
No Radio Set Complete Without It

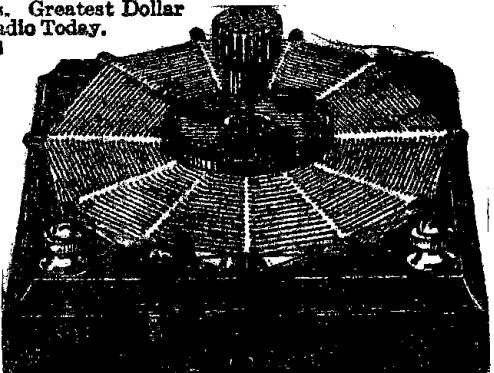
Select stations at will. With music and voices crowding the air the average set fails to bring in the desired stations properly. The *Steinite Interference Eliminator* shuts out local and other interference. You get one station at a time, the one you want, and tune in loud and clear. Operates on any set—attach to aerial wire and to set—no changes—no extra tubes or batteries. Greatest Dollar Value in Radio Today.

Over 150,000 Sold

### Improved Results with Tube or Crystal

Try entirely at my risk the wonderful improvement this inexpensive little device will make in the reception of your set. Improves results on both crystal and tube sets that use any kind of aerial except loop antenna. Clears up reception wonderfully, increases volume, and partially absorbs static. Money-Back Guarantee.

Mrs. Famous 1,500 MI. Steinite 1-Tube Set, \$8; Long Distance Crystal Set, \$8; Steinite Crystal Set—Three for \$1.  
**Steinite 5-Tube \$29.75**  
Set.....  
FREE Descriptive Literature on request.



**\$1 Postpaid** If you are not delighted with results you get your dollar back

Put this interference eliminator on your set and note amazing improvement. No tools needed—install in a moments time. Connect with set and follow simple instructions. Money back promptly if not delighted. \$1.00 postpaid anywhere in U. S. when cash with order.

References: Exchange National Bank, Atchison Savings Bank. Order today—a dollar bill will do.

**STEINITE LABORATORIES, 161 Radio Bldg., ATCHISON, KANSAS**

**REAL NEWSBOY ADDS REALISM TO DRAMAS**



Mrs. Wilda Wilson Church wanted a real newsboy to take the part of "Puffy" in "Just Boys," which was broadcast over Radio Station KGO, San Francisco, so she picked Reginald Wood (above), who was selling papers on the corner near the studio. All Reggie had to do before the microphone was be himself and act natural.

**KGO AND RADIO DRAMA**  
(Continued from page 4)

ambulance whizzed past the house where the family was gathered. The mother ran to the door crying—"My! That ambulance certainly got here quick!"

"The KGO players have given a drama each week for almost two years. Our repertoire has included almost all kinds of plays, but mostly those written for the stage—farce, comedy, melodrama, and the more serious heavy dramas.

"Every time we broadcast we are sure to get letters from entirely opposite reactions. Some will say, 'This is the best play you have put on yet!' Others will say, 'It was all bunk!' Between these two extremes range the variety of opinions and appreciations of this multiple-minded ear, into which we pour our audio dramas every Thursday night. Letters have come from hospitals, shut-ins, ninety-year-olders, from San Quentin penitentiary, from men working on the roads in the mountains of the west, and from children just learning to write.

"IN time, I believe, dramas will be written just for the Radio. In fact, it is being done to a certain extent today; although no one, to my knowledge, has been able to establish a veritable Radio technique.

"The person who cannot enunciate clearly, phrase correctly, make the printed word come ALIVE—who cannot make stories LIVE by the spoken word—will soon have no public voice. I believe the Radio audience wants sincerity and naturalness. In other words, the Radio drama must seem like life itself, coming out of ear-phones and loud-speakers. For all the listeners know, it may be real life itself, instead of a spoken play in a studio before a microphone."

A newsboy on the streets of San Francisco, yelling out his wares, was recently selected by Mrs. Church to take the star part in the Radio drama. The boy made good, created a sensation among listeners for his newsboy talk and realism, and is now one of the regular members of the cast of KGO players.

The boy's name is Reginald Wood, and he took the part of "Puffy" in the drama, "The Delinquents," written by Catherine Browning Miller, was produced on the New York stage under the name "Just Boys." In the stage production of the

play the part of "Puffy" was taken by Ernest Truex.

According to Mrs. Church, listeners are becoming more and more insistent on realism in the play over the air. Her experience with Reginald Wood has convinced her that the way to get realism is to go out and select people in real life to take the parts in plays produced before the microphone.

**OPERATING THE MINUET**  
(Continued from page 25)

One can now install the tubes and care should be taken to see that the UX-120 is placed in the proper socket. Being in a hurry, the writer did not watch this point carefully and looked for the resulting distortion for half an hour before finding that the UX-120 was in a radio frequency socket. Looking at the set from the rear and reading from left to right, the first three tubes are UX-199, the fourth is the UX-120 and the last is another UX-199. It will be found that two of the holes in the sockets are larger than the other two and that two of the pins in the bottoms of the tubes are somewhat larger. Turn the tube until the proper pins are just above the proper holes and then a firm, steady push downward will set the tube firmly.

Behind the fifth socket mentioned above, there is a coil with three binding posts marked 1, 2 and 3 with a flexible lead coming up to them which may be secured to any one. If your antenna and ground system is close to 125 feet overall, slip this lead on post number 1; if the length is about 75 to 90 feet use post number 2 and, if an indoor aerial or very short outdoor aerial is employed, use post 3. The back can now be replaced on the cabinet and we are ready to put the set into operation.

**Operating the Minuet**

Below the speaker on the front of the set are four small knobs; the two in the center are called "Compensators," while that at the extreme left is a volume control and that at the right is the filament control. Turn the two end knobs toward the right so the small pointers are about horizontal and to the right. Set the Compensator knobs at 0 position. Insert the small key provided in the battery switch (between the Compensator knobs) and push it inward until it stops, then lock in position with a slight turn either left or right. This operation lights the filaments of the tubes and must be done each time the set is put into operation.

Slowly move the Station Selector Pointer over the tuning scale from 0 to 100 and back, until a broadcast station is heard. Adjust position of this pointer as closely as possible for maximum volume. The small Compensator knobs are then adjusted separately for maximum strength—and that's all there is to tuning in a station. On this first trial, however, it will be necessary to adjust the Volume and Filament Controls for best results. If these knobs are turned unnecessarily far to the right, the life of both the batteries and tubes will be considerably shortened. With a distant station tuned in with Station Selector and Compensators, turn the Volume and Filament knobs back to the left until a diminution of volume is noticed, then back to the right just a bit. At this adjustment the tubes are giving maximum possible results and increase in filament brilliancy resulting from turning the knobs to right would do no good.

**To Shift Antenna Lead**

While presumably the Compensator knobs would have to be readjusted slightly for each station we did not find this the case. With the left Compensator at 0 and that at the right at 2 to the left, all stations were brought in at maximum and no adjusting of the Compensators from these positions did any good. If excessive interference is encountered from powerful locals and no amount of fine tuning will completely separate them, open the back of the set and shift the antenna lead, on the coil, from post 3 to post 2 or from post 2 to 1 as the case may be. More range and volume may be secured on 3 but the selectivity will be increased, making reception more pleasant and tuning easier with this wire on post 1. The set is turned off by turning key to point where it springs out and it can either be left partly out or entirely withdrawn as you prefer.

**OLD DANCES WIN FAVOR**  
(Continued from page 24)

orchestra composed of employes at the college brought forth this deluge.

"With the beginning of Henry Ford's old-time dance music fad, the "Power House Gang" at the college decided to form an orchestra. Fred Sherman, sixty-eight years old, claims the local championship, which he has held for the past forty years. He has been challenged by Jep Bisbee. Ten states were represented in the letters received."

Station KFMQ of the University of Arkansas considers its program incomplete without an occasional contest between old-time fiddlers.

So it seems that Mr. Ford is in a fair way to claim immortal fame for reasons  
(Continued on page 28)

# Tower

REG. U.S. PAT. OFF.

**Wherever There Are Ears to Hear—**

There's a Tower Speaker or Headset to fit every taste, every pocketbook.

The Meistersinger Speakers, the Scientific Speaker and the famous Tower Phonograph Attachment are equipped with the wonderful new double diaphragm—the greatest single contribution to sound reproduction since Bell invented the telephone receiver. These Tower Units re-create *all* the instruments of the orchestra—as well as choral singing and the spoken word—in their original, living vividness with full resonance, color and shading. Before you buy—Hear a Tower Speaker.

**On Sale by Good Dealers From Coast to Coast**

**TOWER MFG. CORP.**  
BOSTON, MASS.

\* \$8.50  
**Scientific**

\* \$15.29  
**Meistersinger**

\* \$4.95  
**Little Spitzfire**

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**Phonograph Attachment**

\* \$2.95  
**Tower Scientific**

HARD METAL FOR HIGH TONES  
SOFT MATERIAL FOR LOW TONES

\* Only Tower Products are equipped with this new Diaphragm

WORLD'S GREATEST SPEAKER VALUES



# New and better Uses No tube

Ends "B" battery  
troubles

# Andrew White "B" Radio Power Supply

After 15 years in radio I offer this power supply device as the best that can be produced. It has had the most rigorous laboratory tests and months of hard usage under difficult working conditions. I look upon it as a complete solution of the nuisance of replacing "B" batteries in your radio set.

*J. Andrew White*

Major J. Andrew White, America's famous sports broadcaster, pioneer radio editor, the country's first broadcast director and veteran radio dealer and manufacturer.

Shipped on a satisfaction or money-back basis on receipt of price in money order or currency.

For Alternating Current only  
110 Volts 60 Cycle



Ready for use at all times, 135 volts of "B" battery current, all you need, now or in the future. It delivers steady supply, operating perfectly at all times all sets using up to 9 tubes. The new tubes and modern sets require 135 volts—don't buy less!

**No Hum** There is no hum. No noise at all. The current is delivered from EIGHT electrolytic cells. NO TUBES TO FLUCTUATE OR TO REPLACE.

**Economical** Takes so little current you will notice no difference on your electric light bill.

**Durable** Will deliver the full voltages you require for detector, radio frequency and amplifier tubes, strong and steady year after year, just as if you had brand new batteries all the time.

**Convenient** Plugs into electric light socket—nothing to get out of order at any time.

### Improves Broadcast Reception

Large size condensers and steady current supply improve the performance of your radio set. You will have better quality of speech and music and greater volume.

### No Parts Requiring Replacement or Renewal

A few territories now open for established dealers.

**J. ANDREW WHITE, 37 West 43rd Street, New York**

**135  
Volts!!  
Only  
\$38**

There is a great demand  
Your dealer may not be able to supply you

## MAIL THIS COUPON TODAY

J. Andrew White, 37 West 43rd Street, New York.

Enclosed is \$38, for which ship me your new and better "B" Radio Power Supply at once, my money to be refunded if I am not satisfied and return the unit in 10 days.

Name .....

Street, RFD or Box No.....

Shipping Point.....

Post Office..... State.....

# Construction of B Current Power Supplies

## Part III—Thordarson UX-213 Tube Type

By George Walters

**I**N PRESENTING this series of B power supply units the writer presented the most popular but the largest in size first, then the next most widely used type constructed along more compact lines, and we have saved for the last a type of which very few have as yet been made, but having the advantage of extremely small size and absolutely no hum. This combination about to be described measures but 6 inches from the tip of its UX-213 tube to underside of baseboard, 8 inches in depth and 10 1/4 inches in width. Not much bigger than a large capacity B battery. Tested

### Price Correction

**I**N THE list of parts presented in the last issue with the Molliformer B Power Unit, the price of the kit from C. E. Jacobs was given as \$17. This is the price of FW4 kit, a four jar assembly, while the kit used was the FW8, containing eight jars and listing at \$22.50. The total cost of parts is therefore \$27.70.

on the Unitrola receiver, recently described in Radio Digest, not a trace of hum could be found, even with the head receivers connected after the second stage.

### The Special Transformer

This type has not been widely constructed chiefly because few transformer makers have brought out suitable transformers for use with this new RCA tube. There are plenty of transformers for the Raytheon tube, but this one was ignored. Requests began to come in to Thordarson, however, so the transformer and chokes used in this third unit were designed and are now available. The transformer is known as type R197 and comes complete with twisted cord and light plug as input and six binding posts for output. There are two secondaries needed, one to light the filament and one to supply the high voltage. The filament secondary develops 5 volts between the outer terminals and has a center tap which is the positive output point. The large secondary develops 200 volts between each outer terminal and the center point, this last point being the negative output connection.

The chokes are both compact and neat in appearance with an inductance value each of 30 Henries. They are known as type R196 and two are necessary. The filter used in this layout is the same as that provided for the Raytheon-Acme combination, which was the first type described. Again we use some of the most excellent high voltage condensers marketed by Tobe Deutschmann, neatly encased, easily mounted and available in the desired sizes. Allen-Bradley's line is called upon for a number 10 Bradley-ohm and a 10,000 ohm Bradleyunit. Daven at Newark supplies the mounting, available everywhere now, for mounting the Bradleyunit. The socket is Benjamin's justly well-known spring-cushioned Clera-tone, while the binding posts can be either Walnut or Eby Ensign.

The front panel size will depend largely upon whether you intend placing this equipment in a cabinet. If you are going to, use a 7x12x3/16 piece of Formica, but if it will be left in the open you can do as the writer did and use a 6x7 scrap. It should be remembered that this tube is going to get pretty warm in operation, so, if the unit is enclosed, provide plenty of holes around top and bottom for circulation of air.

Getting down to actual construction, the layout of the apparatus can be seen

clearly from study of the top view photograph. No matter what size front panel is used, the hole for the Bradleyohm is 4 1/2 inches from the bottom and centered, while the binding posts are 3 1/4 inches from the bottom and 1 1/2 inches apart. The writer's baseboard is 5/8 inch thick, so the holes for the three screws holding panel to baseboard are 5/16 inch from bottom. It is advisable to carefully place all parts on baseboard, mark where each wood screw is going, then drill a fine hole at each point but do not screw down each part as yet. For the transformer, the left rear and front right mounting holes are used, for the first choke to right, the rear right and front left holes are used and for second choke the rear left and front right holes take screws.

For the rear 4 mfd. condenser use the rear right and front left lugs and for the front 4 mfd. condenser use the rear left and front right lugs. The reason for all this will be seen when you get to grounding cases. The wiring of the trans-

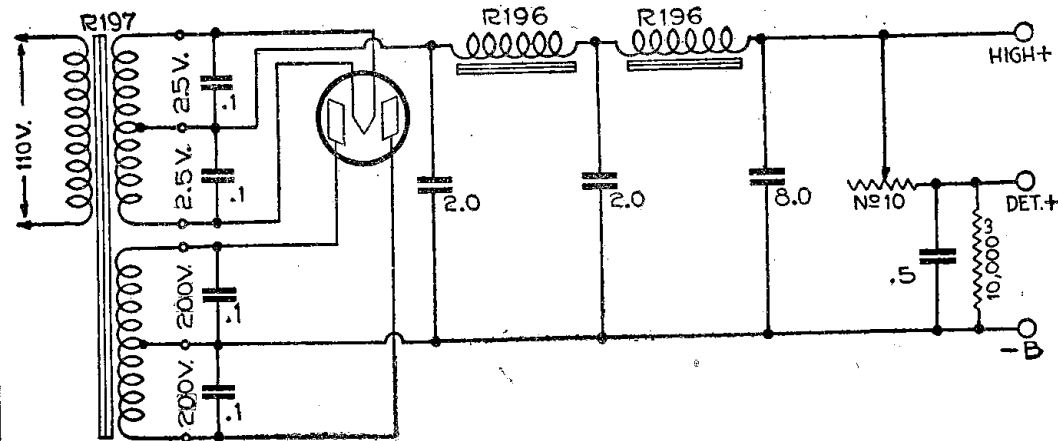


Figure 3. Wiring diagram of Thordarson UX-213 B unit.

former and this wire will touch the soldering lug on center rear row post of transformer.

The same connection scheme is followed between the upper pair of con-

choke coils placing a soldering lug on rear right screw of the first, and rear left screw of second, adjusted so they touch.

The socket is screwed down with P and G terminals to the front. The extra soldering lug on each outer front transformer binding post is now turned to front and nut tightened. Connect front row outer left post to rear left post of socket and front row outer right post to rear right post on socket. The second soldering lug on each outer rear transformer binding post is now turned outward and nut tightened. A wire is put in from rear outer left post to front left post on socket and another from rear outer right post on transformer to front right post on socket.

The soldering lug on left terminal of first choke is to point upward and is connected, by wire going up and over, to front center post on transformer. The lower 2 mfd. condenser is now screwed down in center of board with terminals to right. A soldering lug is placed on the front mounting lug pointing toward transformer. Put in a wire from the rear connecting lug to the left post on second choke. The second 2 mfd. condenser is then placed on the first and a wire is put in from front lug of one down to front connecting lug of the other. The rear connecting lug of the upper one is then connected back to the left terminal of first choke. Connect the right terminal of first choke to left terminal of second. Now put in a wire, passing between the chokes, from the mounting screw soldering lugs at rear of chokes to the front terminal of the lower 2 mfd. condenser.

Then place the two 4 mfd. condensers in position with a soldering lug on the front left screw of the rear one and the rear left screw of the front one. These should touch. Run a wire up from right terminal of second choke to rear connection lug of rear condenser, then up and forward to front connection lug on front 4 mfd. condenser. The Daven mounting goes in next with two soldering lugs on the rear terminal. One should point to right and touch the two on the mounting screws of the 4 mfd. condensers while the other points to left to make contact with the front terminal on the lower 2 mfd. condenser. The .5 mfd. condenser is then set in place with terminals to the right and a soldering lug on the rear mounting screw pointing toward transformer. The mounting

(Continued on page 28)

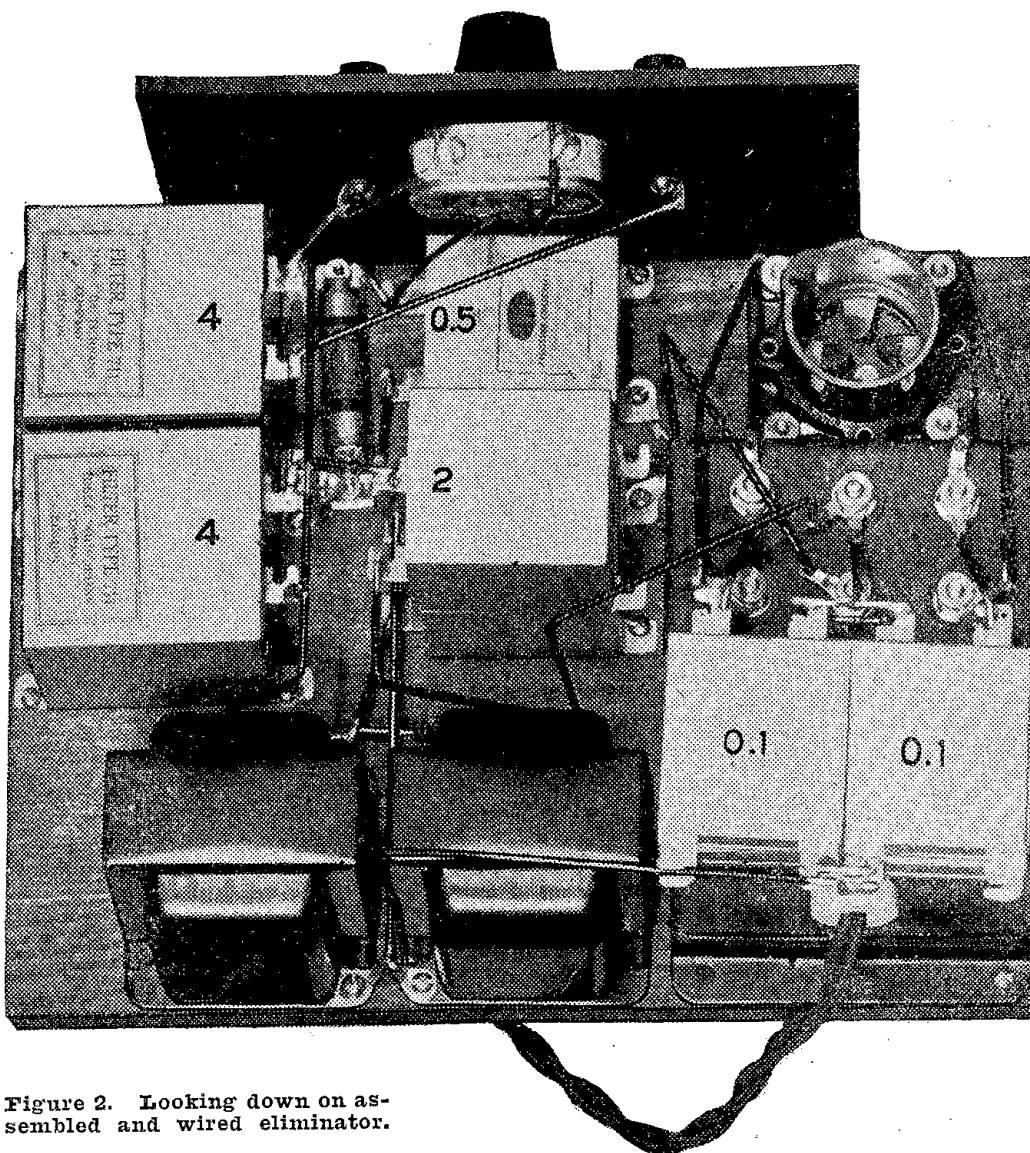


Figure 2. Looking down on assembled and wired eliminator.

former and the four .1 mfd. condensers is handled before securing transformer. Place two .1 units face down and side by side on transformer, then two more face down squarely on top of them. For the time being hold them in place with a large rubber band or string. Two soldering lugs are placed on each of the six transformer posts. In the rear row of three posts turn one lug on each toward the rear, which will bring the lug on each outer post against the outer lug on each of the lower condensers; solder to these. A short piece of wire can connect the inner lug on each lower .1 con-

densers and the front three binding posts, except that short leads will be necessary to reach from lugs on posts to lugs on condensers. Transformer can now be screwed down and the band or string removed. A soldering lug should be slipped on the screw holding front right corner of transformer. Now screw down the

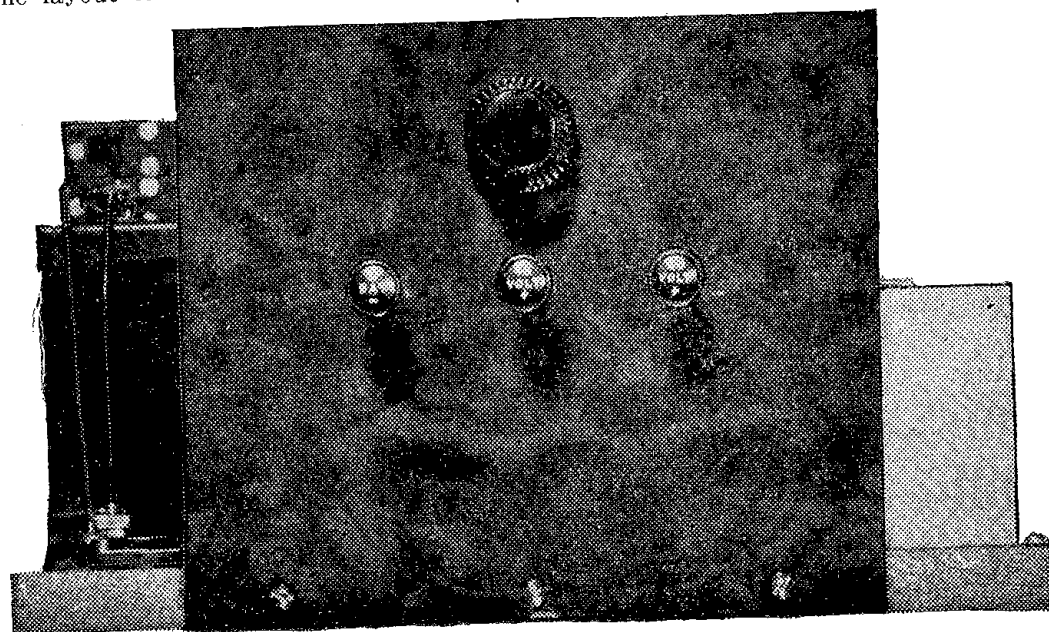


Figure 1. Front view of completed Thordarson UX-213 B eliminator.

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# CROSLEY RADIO

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**THORDARSON—UX-213 TUBE B UNIT**

List of Parts	
1 Thordarson Transformer R197	Thordarson Elec. Mfg. Co., Chicago \$ 7.00
2 Thordarson Choke Coils R196	Thordarson Elec. Mfg. Co., Chicago 10.00
2 Tobe 4 mfd. Condensers	Tobe Deutschmann Co., Boston, Mass. 7.50
2 Tobe 2 mfd. Condensers	Tobe Deutschmann Co., Boston, Mass. 3.50
4 Tobe .1 mfd. Condensers	Tobe Deutschmann Co., Boston, Mass. 2.80
1 Tobe .5 mfd. Condenser	Tobe Deutschmann Co., Boston, Mass. .90
1 Cler-a-tone Tube Socket	Benjamin Elec. Mfg. Co., Chicago 1.00
1 Bradleyohm No. 10	Allen-Bradley Co., Milwaukee, Wis. 2.00
1 Bradleyunit 10,000 ohms	Allen-Bradley Co., Milwaukee, Wis. .75
1 Daven Mounting No. 50	Daven Radio Corp., Newark, N. J. .35
3 Ensign Binding Posts	H. H. Eby Mfg. Co., Philadelphia .45
1 Baseboard 7 1/2" by 10 1/2"	Local lumber yard .35
1 Piece bakelite 7" by 6" min.	Formica Insulation Co., Indianapolis .75
1 Radiotron UX-213 tube	Radio Corp. of America, New York City 7.00
Miscellaneous, such as screws, wire, etc.	1.50
<b>Total cost</b>	<b>\$45.95</b>

**THORDARSON B POWER**

(Continued from page 27)

screw soldering lug on the lower 2 mfd. condenser, on the .5 mfd. condenser and on the transformer can now all three be connected together.

A short wire is then put in connecting the rear connection lug on the .5 mfd. condenser with the rear terminal of the Daven mounting and the front terminal of the 2 mfd. condensers. Another wire connects from front terminal of the lower 2 mfd. condenser, across to left to the three soldering lugs on the case of the 2 mfd., the case of the .5 mfd. and the case of the transformer. From these three grouped soldering lugs run a wire straight up, and then back, to the center rear terminal of the transformer.

Connect the rear connection lug of front 4 mfd. condenser with the front connection lug of the rear 4 mfd. condenser and connect this last named point to the front lug on the upper 2 mfd. condenser. We now go to the back of the four .1 mfd. condensers on the transformer. The inner mounting lugs on the two upper condensers are connected together with a short piece of wire. Now put in a long piece from the grouped soldering lugs on the adjacent mounting screws of the chokes, up to, and soldered to, the inner mounting lugs on the two lower .1 mfd. condensers. A very short piece can now connect these two inner lugs of the lower two with the connected inner lugs of the upper two.

**Connections to Panel**

A wire is now bent to touch, at its lower end, the front connection lug on the .5 mfd. condenser and the front terminal on the Daven mounting touch the center panel binding post soldering lug, then around to upper side of the Bradleyohm to the left terminal. Now bend a wire so it will connect from the right terminal of the Bradleyohm down to the soldering lug on the right panel binding post, then across to the front connection lug on the front 4 mfd. condenser. The last wire to be put in goes from the rear connection lug of the front 4 mfd. condenser

**OLD DANCES WIN FAVOR**

(Continued from page 26)

other than the manufacture of a universal gadster. With the collegians themselves joining in the movement, "back to normalcy with the dance," jazz seems to have received a severe kick in the corns.

Perhaps the next step will be a national contest for an Old-Time Fiddler's championship. Would the readers of Radio Digest like to see such a contest organized between leading broadcast stations? Let's have a vote on it.

over to the left binding post in the row of three on panel. If the above connections have been carefully followed the posts are negative B, plus detector and plus amplifiers, reading from left to right. The Bradleyohm adjusts the detector voltage smoothly and evenly over a wide range.

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**Photogravures of Your Favorite Artists GALLERY of RADIO STARS**

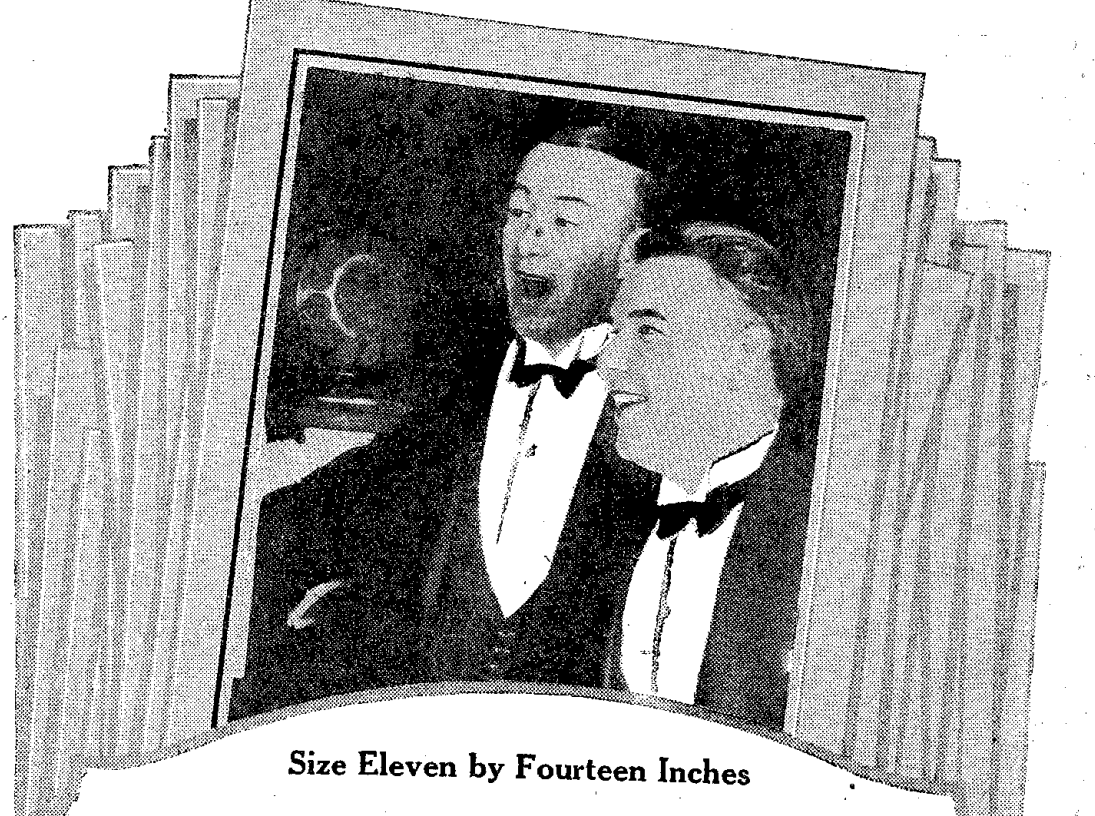
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BY SPECIAL arrangement, Radio Digest is able to offer its readers a great opportunity to secure fine photogravures of their favorite Radio stars at practically no cost.

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|--|--|
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| 2 Graham McNamee, 1925 Gold Cup announcer                | 27 Norman Brokenshire, popular at WRC, WJZ                                     |
| 3 Jack Little, popular wandering balladist               | 28 Indiana Male Quartet, popular at WEBH                                       |
| 4 Paul Small, who won fame through Radio                 | 29 Jane Novak, Blues Singer of Twin Cities, WCCO                               |
| 5 Coon-Sanders' "Nighthawks" at KYW                      | 30 Jean Sargent, the original, now at WHT                                      |
| 6 George Hay, 1924 Gold Cup announcer                    | 31 Ralph Emerson, popular organist at WLS                                      |
| 7 Harmony Girls, Edith Carpenter, Grace Ingram           | 32 Edna Adams, "Sweetheart of the Air" at KPRC                                 |
| 8 Ford and Glenn, Lullaby Boys of WLS                    | 33 Pat Barnes, vaudeville announcer at WHT                                     |
| 9 "Roxy" Rothafel of WEA chain fame                      | 34 R. V. Haller of KGW Hoot Owls fame  |
| 10 The Hired Hand, famous "Substitute Announcer" of WBAP | 35 Henry L. Dixon, ukulele wizard of KYW                                       |
| 11 Britt and Finch, popular songsters                    | 36 Quin Ryan, WGN's Uncle Wait and sports announcer                            |
| 12 Bob Emery, Big Brother of WEEI                        | 37 "Willie the Weeper," Ernest Rogers, WSB                                     |
| 13 "Bill" W. G. Hay, ex-KFKX, now of WLIB                | 38 Walter Wilson, "Uncle Bob" of KYW   |
| 14 Happiness Boys, jovial singers of WEA                 | 39 Jack Chapman of Drake hotel repute  |
| 15 Lambdin Kay, "Little Colonel" of WSB                  | 40 Ray-O-Vac Twins, known country-wide   |
| 16 Leo Fitzpatrick, "Merry Old Chief," WJR               | 41 Art Linick, KYW's Mrs. Schlagenhauer  |
| 17 Henry Field, 1925 Gold Cup runner-up                  | 42 Fred Hamm of WTAS, now WLIB, fame   |
| 18 Al Carney, organ favorite at WHT                      | 43 Meyer Davis' Le Paradis orchestra of WRC                                    |
| 19 Aunt Jane, ladies' adviser at WOC                     | 44 "Senator Schultz, WLW's illiterate comic                                    |
| 20 Vincent Lopez, No. 1 Pennsylvania orchestra           | 45 "Uncle John" Daggett of KHJ   |
| 21 E. L. Tyson, pleasing voice at WWJ                    | 46 D. R. P. Coats, 1925 Silver Cup announcer                                   |
| 22 S. W. Barnett, ex-WOC, now WBAL                       | 47 Gene Rouse, WOAW's popular announcer  |
| 23 Art Gillham, "The Whispering Pianist"                 | 48 Freda Sanker, WKRC jazz orchestra director                                  |
| 24 Paul Greene, announcer at WSAI, "bridge voice"        | 49 Irish Ruth Pavey, KOA's invisible stage beauty                              |
| 25 Harry Ehrhart, "Dream Daddy" of WLIT                  | 50 Queen Titania, star of KHJ Fairyland  |
|  | 51 Ipana Troubadours, on the WEA Chain.  |

If your favorites are not in this list, send in a request to have them included in the Gallery of Radio Stars.

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# Two-Tube Short Wave 15-130 Meter Receiver

## Part I—The Parts Required

By John G. Ryan

SHORT WAVE RECEIVER		
List of Parts		
1 Short Wave Coil System	Aero Products, Inc., Chicago	\$12.50
1 Karas Variable Condenser, .00014	Karas Electric Co., Chicago	6.50
1 Karas Variable Condenser, .00025	Karas Electric Co., Chicago	6.50
1 Karas Audio Transformer	Karas Electric Co., Chicago	7.00
2 Eby Cushion Sockets	H. H. Eby Mfg. Co., Philadelphia	1.20
4 Ensign Binding Posts	H. H. Eby Mfg. Co., Philadelphia	.60
1 Bradleystat	Allen-Bradley Co., Milwaukee	1.85
1 Leakandenser, 7 megohms	Daven Radio Corp., Newark, N. J.	1.00
1 Pair Brackets	Benjamin Elec. Mfg. Co., Chicago	.70
1 Amperite Unit, 1-A	The Radial Co., New York City	1.10
2 Mar-co Dials, Nickel Plated	Martin-Copeland Co., Providence, R. I.	5.00
1 Formica Panel 7"x18"x3/16"	Formica Insulation Co., Indianapolis	3.15
1 Formica Panel 5 3/4"x17"x3/16"	Formica Insulation Co., Indianapolis	2.05
Miscellaneous, such as screws, bus bar, solder lugs, etc.		2.00
<b>Total cost</b>		<b>\$51.15</b>

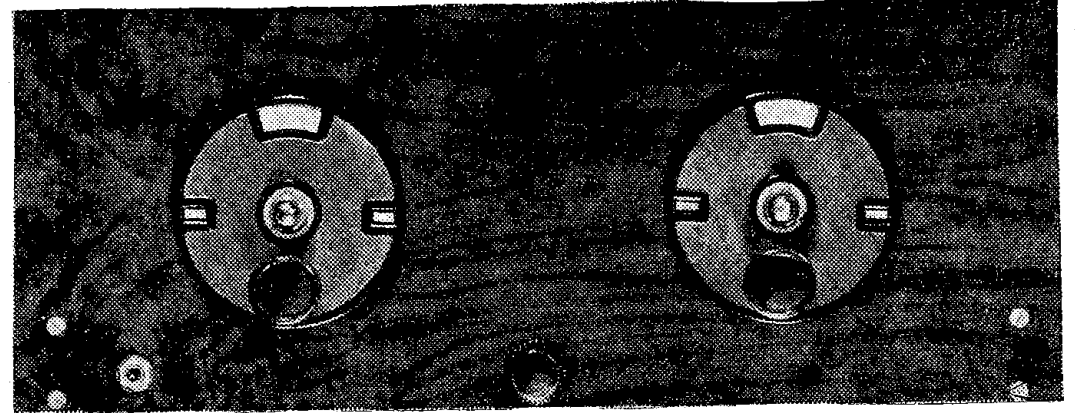


Figure 1

TO THE average broadcast listener, the voices of the air are confined to that territory bounded, at one end, by 200 meters, and at the other, by 550 meters. There we find the efforts at entertainment of over 600 broadcasters, some of them clear and sharp, others blurred and fuzzy with the overlap in carrier wave from other stations. Did it ever occur to you that in other wave length ranges below or above this band there might be other voices spreading out without interference and with far better carrying power than those you hear?

and 105 meters. There is 2YT at Poldhu, Ireland, G2NM at London and LPZ at Buenos Aires. Receiving these short wave stations is not quite the simple act that one might first think of, namely, putting different coils in your present set or different condensers. Smaller coils must be used, of course, and smaller capacity condensers, but, in addition, there must be a different circuit and a different arrangement of parts. The Radio amateurs, who are really responsible for most of Radio's progress, and who have been confined to these shorter waves for years, long since

For those who do not care to wind their own, or do not know how, it was necessary for some manufacturer to develop an efficient inductance that could be made commercially, yet be sold at a reasonable price. Mr. F. J. Marco has developed for Aero Products a most excellent set of coils for use in the Weagant hook-up that are now available in all territories. This is really an interchangeable coil system which, with a variable condenser of .00014 mfd. capacity, will cover the range between 15 and 130 meters. A small base is provided on one end of which there is an adjustable primary. Into this base, by means of a clever plug-in arrangement, three different sets of secondaries and feedback coils are plugged.

The result would be very disappointing. It was decided to use plug-in coils so designed that there would be slight overlap in the ranges each would cover. As the set of coils is now made, there are 19 turns on the largest grid coil and, with the Karas .00014 mfd. condenser, it covers 57 to 133 meters. On the intermediate coil there are 8 turns to cover 31.5 to 68 meters and, on the smallest coil, there are 3 turns covering 15 to 33.5 meters. The plate coils have 6, 4 and 2 turns, respectively.

In order that the tuning sensitivity would be equally critical from end to end of the dial, no matter which coil was used, a straight line frequency condenser is to be used with this system and, naturally, it must be of rugged mechanical strength, with electrical losses as low as possible. The Karas construction meets all these requirements perfectly and the .00014 mfd. size is made especially for this work. In addition, there is required one of Karas standard .00025 mfd. condensers. The writer advises the use of

(Continued on page 30)

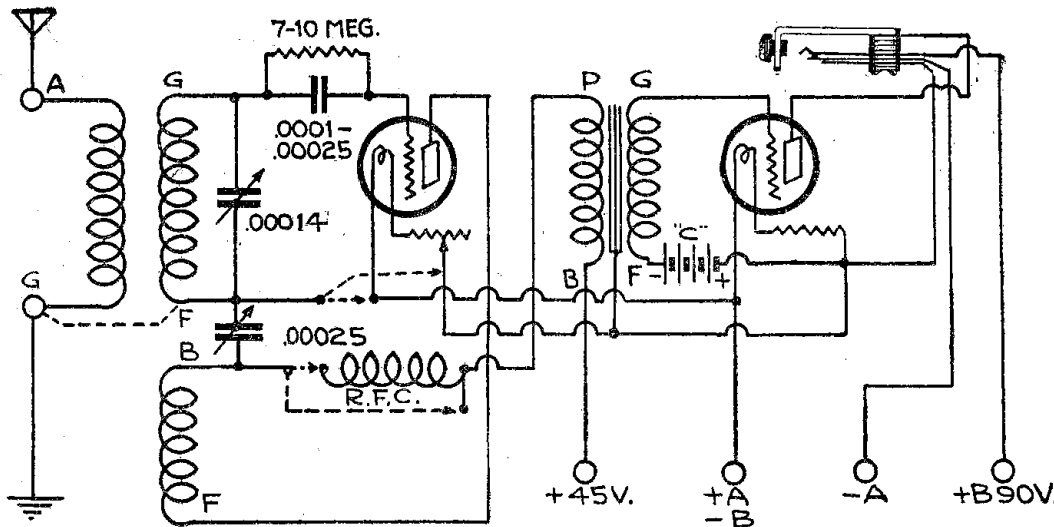


Figure 2

Below 200 meters there is an interesting land well worth exploring, full of voices in several languages including French, Spanish, code and "ham amateur." The harmonics of scores of broadcasters wander in this short wave territory, frequently coming through in much better shape than the fundamental it is intended one should receive. The mighty KDKA that one usually finds on 309.1 meters has an equally mighty twin brother on 64 meters that spreads out over the country in great shape. The well-known WGY that talks on 379.5 meters for your broadcast receiver has a whole family of brothers that are found on half a dozen waves between 15 meters

found that a regenerative circuit devised by Roy Weagant, now engineer for De Forest, best fitted their needs. The "hams," to use their own name for themselves, developed coils of their own, using all the forms of winding known such as Lorenze, spiderweb, honeycomb, diamond-weave, banked turns and spaced turns.

### Three Channels Bunched

It would be possible to design and construct a single coil that could be used with a variable condenser of correct size, which would operate over the range mentioned above but the tuning would be so critical and the three most popular channels would be so bunched together that

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Read this convincing letter from a man who has "listened and marvelled":

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Kane Antennae Co., Gentlemen:

Received the Kane Antennae Saturday and by Sunday noon had it installed. Was pleasantly surprised at results obtained. Much more volume and selectivity. During European tests, the night of January 24, I had 3 foreign stations. When I omitted the Kane Aerial, I could not get a sound.

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MURDOCK  
MU-RAD  
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Economy and performance unheard of before! Recharged at a negligible cost. Delivers unflinching power that is clear, pure and quiet. Tube plate (B) voltage is best served by storage battery power. It is, above all, constant, unvarying, dependable and efficient. Radio tubes are far too critical to subject them to power less efficient than that coming from a good storage "B" battery. Your set demands the best!

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The following qualified institutions of merit have tested and approved World Storage "B" Batteries: Radio News Laboratories, Popular Science Institute of Standards, Popular Radio Laboratories, Radio Broadcast Laboratories, Radio Age Laboratories, Lefax, Inc., and others equally important. You can depend on a tried and proven article when you decide on a World Storage "B" Battery. Thousands in use. Order yours today!

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Set your Radio Dials at 210 meters for the new 1000 watt World Storage Battery Station, WSPC, Chicago. Watch for announcements!

### NO ANSWER TO YOUR LETTER? READ WHY

OVER sixteen thousand readers of Radio Digest responded to our request to send in evidence of international Radio reception. To be exact, during the course of the week we received 15,332 letters and 1,462 telegrams asking verification of reception. All telegrams were promptly answered and we endeavored to reply to letters as quickly as possible. In many instances, however, readers did not give us sufficient information to enable our International Test department to determine definitely the stations received.

All communications are being acknowledged, and a staff of experts have been at work during the past ten days verifying reports of reception and preparing official verifications of international reception.

If your communication was not handled as promptly as you might expect, please be lenient with us and bear in mind that nearly seventeen thousand other readers responded to our request. If your evidence of reception justifies, an Official Certificate of International Reception will be mailed in due course.

### SHORT WAVE RECEIVER

(Continued from page 29)

these, even though you may have others on hand, since the kit was designed by Marco especially for them and those you have may not meet the minimum and maximum capacity requirements. The audio transformer is a Karas also; it was one of the very first to come out with large primary and large iron core giving the improved, and now accepted standard, reproduction.

#### Spring Type Sockets

The sockets chosen are the new spring type made by H. H. Eby company and they are picked for three very good reasons. First, they have a three point wiping contact that gives a positive contact regardless of the prong diameter or amount of solder on the prong. Second, the tube floats, reducing microphonic noises in much the same way as the Benjamin socket. Third, you have a choice of three types of tubes possible since the UV-201A, the UX-201A or the UX-199 can be used in this socket. The UV-199 cannot be employed in these sockets. The binding posts also are Eby's, and a Minus A, Plus 45 and Plus 90 are used. The fourth is lettered Plus A and Minus B.

Detector filament voltage is regulated by a Bradleystat on the front panel, while the single stage amplifier voltage is governed by an Amperite. If your dealer has

no Amperites, see if he hasn't Daven ballast resistors, which are similar. The grid leak and condenser specified are the Daven Leakandenser, the condenser being .00025 mfd. and the resistor part, 7 megohms. On this set the matter of grid leak and condenser values is very critical. To quote Marco, "The smallest capacity possible on the highest resistance leak should be used, providing howling can be avoided. The writer has used 20 micro-microfarads and 12 megohms to good advantage with an ordinary 201A tube, but such values usually cause the tube to snap into oscillation with a long drawn howl. . . . You will usually end up with a positive grid return, about .0001 to .0002 mfd. grid condenser and a 7 to 10 megohm leak."

#### Try Different Resistances

The Daven Leakandensers come in several sizes, with 7 megohms as the likely size. If you wish to experiment further on this, however, connect a .0001 or .00015 mfd. fixed condenser across the clips under sub base and try different cartridges of straight resistance in the clips.

The choke coil may or may not prove necessary. The receiver pictured here works very well without a choke as the impedance of the primary of the Karas transformer seems sufficient to force the radio frequency current into the feedback coil, rather than permit it to pass through the transformer. If you find that such a choke is desirable it can be readily made. A wooden rod or cardboard tube from 3/4 inch to 1 inch in diameter is wound with 200 turns of fine wire, preferably double silk covered of any size such as numbers 36, 38 or 40. On this model the choke was number 38.

(In this article, Mr. Ryan has covered the circuit and his choice of parts. Next week, the assembly and drilling will be covered as is usual with the Digest system of presentation.—Editor's Note.)

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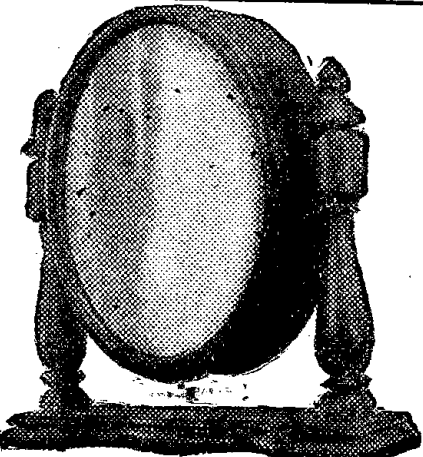
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THE Technical Editor wishes the present addresses of the following readers: Mr. Charles Ackerman of Philadelphia, Mr. Fred Bradley of Ann Arbor, Mich., Mr. Robert Harrington of Dayton, Ohio, and Mr. Jack Lenox, somewhere on the Orpheum circuit. If you know any of the above please call this to their attention, or write the Technical Editor giving the information.

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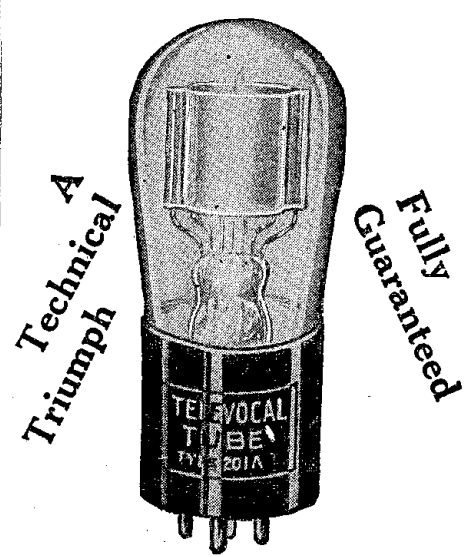
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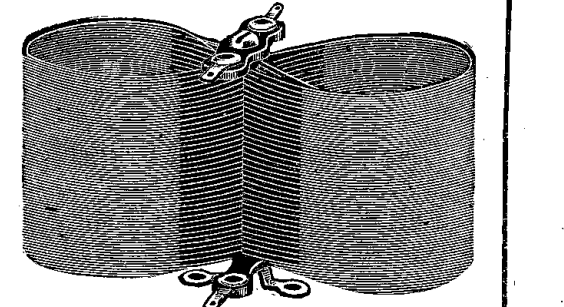
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