Beginning New Portable and Phonograp
Standings in Gold Cup Contest; Tun

Radio

EVERY WEEK PROG

REG. U. S. PAT. OFF.

Vol. XIV SATURDAY,

SEE FRIENDS OVER RADIO

DOG SEEKS MASTER SPEAKING ON RADIO

HERE'S another version of "His Master's Voice." When Captain William H. Funston resigned from the New York police to become chief in Schenectady, he left his dog, "Joffre," at the home of his daughter, in White Plains. A few nights ago Funston gave a talk from WGY, here and his daughter tuned in to hear him. Chief Funston hadn't spoken half a dozen words when "Joffre" began frantic search for his master, racing from one end of the house to the other.

Opera Officials Refuse Broadcasting Permission

LONDON.—Keen disappointment has been felt by fans here that the number of transmissions of the present opera season from the Royal Opera house was limited to two. These were on the opening nights of the German and Italian seasons, the first being a broadcast of Act III of "Der Rosenkavalier." The British Broadcasting company was expecting and willing to give twelve transmissions of the opera, but the opera house authorities would not permit it.

To Broadcast at Capital Show

WASHINGTON, D. C.—A miniature up-to-the-minute broadcasting station will be installed by the Radio Corporation of America at the second annual Radio show to begin in this city on October 5, according to the Radio Merchants association of Washington, which is sponsoring the show.

TELEVISION IS HUGE SUCCESS DURING TESTS

View All Things Plainly

Demonstrate How Faces of People May Be Transmitted by Simple Process

By A. C. Blackall

LONDON.—Further details are now available of the wonderful new television apparatus briefly described in Radio Digest in May. It is the invention of John L. Baird, a young Scottish electrical engineer, who is continuing his experiments with it in a London laboratory.

"My invention has nothing whatever to do with transmitting pictures by Radio," Mr. Baird explained in an interview. "That has been done already. With television the object in front of the transmitter is instantly seen on the screen of the receiver."

See Image Plainly

He thrust his own face into the wooden frame at the transmitting end of the apparatus and requested a visitor to set his eye at the light-excluding funnel at the

(Continued on page 2)

Upper left, Ruth Leigh, formerly with "Apple Blossoms" and "Maytime," now with Loew's theaters, whose remarkable soprano voice is frequently heard from WEAR, Cleveland. In circle: Flo Kennedy of the Ziegfeld Follies. She appears weekly at WGCP, New York. Below, Byrdeatte Hoffman Evans, who is frequently heard from WGN, Chicago.

Kentucky Station to Observe Anniversary

Old Southern Station Has Enviable Reputation

LOUISVILLE, Ky.—WHAS, the Louisville Courier-Journal station here, is preparing for the celebration of it's third "birthday." On July 18 three years will have passed since the plant in the heart of Old Kentucky blue grass region first went on the air.

The station has one of the most remarkable records of any in this country. In three years of continuous broadcasting there has only been an involuntary silence of sixty minutes. This record is largely due to the work of J. Emmett Graft, the chief engineer.

An examination of government records has brought to light the fact that WHAS was the twelfth station of its kind installed in the world.

CONSENSUS OF OPINION VOTE

Send to Radio Digest, 510 N. Dearborn Street, Chicago

To be forwarded by Radio Digest to the Department of Commerce for the attention of members of Congress.

Scratch off whichever does not apply.

1. Do you want less class B (500 watts or more power) stations?.....Yes No
2. Shall B stations be reduced to 94 in number, so that they can be accommodated satisfactorily in the "ether roadways" now available for the use of broadcasting stations?.....Yes No
3. How far away, approximately, is the nearest class B station?.....mi.
4. Are you troubled by B stations heterodyning and interfering with one another? .....Yes No
5. Have you read a description of the Kintner plan?.....Yes No
6. Are you in favor of it or some similar plan which will help clear the air of the present "traffic" congestion?.....Yes No
7. Do you favor the appointment of an unbiased, non-partisan broadcasting control board for the settlement of all differences pertaining to broadcasting and the interpretation of present or future Radio legislation? .....Yes No
8. Include separately a list of five stations you like most and five you dislike most.

How many members in your family?.....

Are all of the same mind as yourself?.....

Name .....

Address .....

City, County, State.....

(Check here if more blanks are desired) 7-11-25

McNAMEE STAYS AT TOP IN CUP CONTEST

PUTS MORE DISTANCE BETWEEN SELF AND HAY

Race Grows Intense—Who Will Be World's Greatest Announcer for 1925? Fans Wonder!

The sage of the East, Graham McNamee, for the second consecutive week has kept his lead on George D. Hay in the 1925 Radio Digest Gold Cup Award, and last week gained considerable leeway between his vote and that of "The Solemn Old Judge" of WLS, who last year won the title of world's greatest Radio announcer.

With the contest approaching a spirited finish and but six more weeks to go, the keeness of the race is keeping everyone's interest high pitched.

McNamee now has 23,364 votes; Hay has 20,503.

Which one will win? Or will perhaps another contestant nose in at the finish? Wagers are rampant. The final vote will tell.

Few Other Changes

The feature race for top position seemed to be the main activity during the past week. Up to seventh place not one contestant changed his position. McNamee, Hay, Rouse, Field, The Hired Hand and Arlin kept the first six places in the order named, which was the same as the previous week.

Frank S. Lane, tenth last week, jumped to seventh this week, and displaced Leo Fitzpatrick, who had that place, throwing him down to tenth. Both Lane and Fitzpatrick are acting very erratic. One can never tell what position they will be in the next week.

Lambdin Kay, now eighth, was ninth last week. W. G. "Bill" Hay, of KFKX, now ninth, was eighth last week. Another trade.

Stanley Barnett took N. Dean Cole's place, eleventh, while Cole took Barnett's, twelfth. Charles Erbstein stayed on the unlucky number, thirteen. Robert Emery climbed one notch to fourteenth, while O. E. Becker slipped one notch to fifteenth.

Jerry Sullivan, who held sixteen for a long time, has dropped to oblivion, while "Uncle John" Daggett, director-announcer of KHJ, Los Angeles, has pulled into sixteenth from oblivion.

Standing of Sixteen Leaders

The standing of the sixteen leaders, with the total number of votes accredited to date, at the close of the week is as follows:

Position	Name and Station	Votes
1.	Graham McNamee, WEAF	23,364
2.	George D. Hay, WLS	20,503
3.	Gene Rouse, WOAW	13,716
4.	Henry Field, KFNF	11,691
5.	The Hired Hand, WBAP	10,989
6.	H. W. Arlin, KDKA	8,265
7.	Frank S. Lane, KFRU	5,220
8.	Lambdin Kay, WSB	4,567
9.	W. G. "Bill" Hay, KFKX	4,475
10.	Leo Fitzpatrick, WDAF	4,448
11.	Stanley W. Barnett, WOC	4,001
12.	N. Dean Cole, WHO	3,916
13.	Charles Erbstein, WTAS	3,483
14.	Robert Emery, WEEI	3,194
15.	O. E. Becker, WGR	3,110
16.	John Daggett, KHJ	2,759

Two new nominations were received during the week: Jack Gritton, WADC, and Mrs. B. G. Waters, WCTS. They are rather late, but still might win some recognition.

How to Vote and Get Bonus

Don't miss a single ballot, for when these are turned into Radio Digest in a group of CONSECUTIVE numbers, extra bonus votes are allowed the announcer for whom you are voting.

The ballots, top of page (wo, numbered consecutively, will appear in each issue of the Radio Digest until the close of the contest, with the August 22 number.

Each of these ballots will count for one vote when sent in separately. You can hold these ballots until you have 4 that are consecutively numbered, and when they are sent in a bonus of 8 votes will be allowed for your favorite announcer.

For each 8 consecutively numbered ballots your candidates will receive a bonus of 20 votes. For each 12 consecutively numbered ballots, 30 votes. For each 16 consecutively numbered ballots, 40 votes. For each 20 consecutively numbered ballots, 50 votes, and for each 22 consecutively numbered ballots, 60 votes bonus will be allowed.

Send nominations or ballots to the GOLD CUP AWARD EDITOR, Radio Digest, 510 N. Dearborn St., Chicago.

Oakland Station Starts Health Training Exercise

OAKLAND, Calif.—An important addition to the KGO schedule begins Monday, July 13, when free hand calisthenics, or health training exercises, will be broadcast, daily except Sunday, at 7:15 to 7:30 and 8:15 to 8:30 a. m., Pacific time.

Hugh Barrett Dobbs, an experienced director of physical education, will have charge and give most of the lessons. Included in the physical education schedule will be heard, from time to time, stars of the athletic world of football, swimming, baseball, tennis, polo, and golf, each telling his own story of health and personal efficiency. Physicians and specialists in hygiene will also speak as part of this program.

CONTENTS

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Looking Ahead

Next Week the Seventeenth Ballot in the Gold Cup Award will appear, and with it the standing of the top sixteen contestants. Will Graham McNamee continue to hold the lead he has so well held for the past two weeks? Will he, George D. Hay or some dark horse win the coveted, solid 14-carat gold cup as the world's most popular announcer for 1925? Only six more weeks to go.

Bridge Receivers Built by Milo Gurney will be shown with the next article of his surprise series. To show that all he has been telling us can be put into practice, he has constructed a receiver whose circuit is very similar to figure 36, shown last week, with compensator and cabling of battery leads.

Assembly of the Portable and Phonograph Super will come next week as the second article of this series of three articles. John G. Ryan covers it completely but concisely and there is plenty of detail in this series so that anyone may build this outfit.

KFRU, "The Voice of Oklahoma," where the Oklahoma Pepper Bird and Frank S. Lane hold forth, will be pictured and described in next week's issue. Although in a small city with thinly populated surrounding country, KFRU has succeeded in becoming very popular.

The Propagation of Radio Waves is accomplished by two means, one of which is electromagnetic radiation. Professor Moreton presents this phase of Radio communication as his next lesson in the A-B-C's of Radio. After reading this next installment our readers will understand why shielding is necessary.

CAN SEE OVER RADIO

(Continued from page 1)

receiving end. On the ground glass screen inside the visitor could plainly see Mr. Baird's face.

The image was crude, coarse and flickering, but it was recognizable, and much of the indistinctness was due, not to defects in the invention, but simply to the present roughness of the apparatus.

How It Works

In the present stage of the invention a strong electric light is thrown on the object to be transmitted. Behind the light is a disc containing a number of lenses set in a spiral formation.

Behind this disc is another revolving disc with serrated edges, very similar in appearance to the toy cinematograph, or the zoetrope of 50 years ago. On this disc the scene transmitted appears like a scene in the view-finder of an ordinary camera. The disc with the lens is made to revolve at a speed of about 600 revolutions a minute, and the serrated disc runs ten times as fast.

A cell sensitive to light is behind the serrated disc, and, thanks to the whirling spiral of lenses, the light reflected from every part of the object being transmitted is thrown in a very rapid succession upon the cell. This creates an electric current which is strong at the high lights, weak at half tones, and cut off altogether at darkness. The current controls an electric light.

Whole Image Appears

To another revolving disc, traveling at precisely the same speed as the one at the transmitting end, the light from this lamp passes with immense speed in the form of a small spot of light on a glass screen. The spot is bright at the high lights, dim at the half tones, and goes out altogether at black parts of the image.

Owing to the principle of persistence of vision (the principle employed in the ordinary motion picture projector), the rapidly moving spot causes the whole image to appear simultaneously.

Jack Albin, Whiteman Protege, Not so Hot

NEW YORK.—On the hot nights of summer, the Radio audience, usually enjoined to pity the poor musicians playing from a stuffy studio, need let no such thought mar their enjoyment of the new WEAF feature presented by Paul Whiteman—Jack Albin and his Hotel Bossert Marine Roof orchestra.

This combination, broadcasting from aboard their ship (the hotel roof is completely made over to resemble the decks of an ocean liner) and swept by the breezes from the picturesque New York harbor which it overlooks, is probably cooler than most of its listeners.

Broadcast in Public Parks

WINNIPEG.—Another one of CKY's dreams has come true. A year or more ago the Winnipeg station suggested to the Radio trade that it would be an excellent idea if arrangements could be made with the City Parks Board whereby loud speaker sets could be placed in the parks and special concerts broadcast by CKY. Now it is announced that Radio sets will be installed in the three principal parks. The first program so received was broadcast from CKY on Sunday evening, June 21.

Find Lost Boy by Radio

SALT LAKE CITY.—An 11-year-old boy of this city who had been missing for several days recently was located, 170 miles away from home, by Radio. It was but a short time after the station had broadcast the report that the youth was found although he was in a tiny country town.

NEWS BRIEFS FROM THE BROADCASTERS

EVEREADY LIGHTENS PROGRAMS FOR SUMMER

Marine Band on Four Stations—"Brewster's Million" at KGO—Tom Brown at WHT

Appreciating the difference between broadcast program interest in summer and in winter, the directors of the Eveready Hour have adopted a new summer program policy. Programs are being prepared for rendition during July and August consisting of light and cheerful music, particularly adapted to tuneful microphone presentation. Two orchestras will alternate on Tuesday nights through July and August, the Eveready Salon orchesta, Nathaniel Shilkret directing, and the Eveready Chamber Symphony orchestra, Max Jacobs directing. Solo voices will occasionally break the straight hour of instrumental music.

* *

Enlargements in KAO's schedules to accommodate dinner concerts from the Brown Palace hotel, Denver, and afternoon musicales from the Rialto theater, also of Denver, have met with sweeping favor. Both attractions have been billed daily except Saturday and Sunday.

* *

The Capitol theater orchestra of Springfield, Mass., under the direction of Fred A. Pullen, was secured recently by WBZ as a weekly feature of this station's programs. This organization will be heard every Monday night during the entire summer season. An hour's concert is given.

* *

After a long and strenuous winter, the popular U. S. Marine band has deserted the inner regions and come out into the open to play for WJZ and WRC on the steps of the Capitol in Washington. These concerts are given on Thursday evenings and broadcast by Stations WRC and WJZ, both of the Radio Corporation of America; by WGY, General Electric company, Schenectady, N. Y., and WBZ, Westinghouse company, in New England.

* *

Glen Rice has assumed the duties of program and studio manager for the Anthony studio of KFI, a position heretofore held by Paul Reese, who is returning to the vaudeville stage. Mr. Rice comes to his new position with a wide experience in matters of entertainment.

* *

Each Wednesday night while the MacMillan polar expedition is in the Arctic, Superstation WHT is broadcasting a special program to the explorer and his party. Each of the programs is furnished by one of the many organizations in Chicago before which Lieut. Commander MacMillan has spoken. WHT uses the experimental call letters 9XN while broadcasting to the expedition, so that direct communication can be done.

* *

"Brewster's Millions," the great stage success of a generation ago, will be broadcast Thursday evening, July 16, by the KGO players in Radio form. Wilda Wilson Church, assisted by Fred Thomas and Bert Horton, will direct the production.

* *

Tom Brown, the saxophone king, has been signed as a regular Monday night feature of WHT, Wrigley building, Chicago. He will broadcast with a 40-piece saxophone band. The term of the contract runs until October 1, when Mr. Brown and his five brothers leave for a tour of Europe.

ADOPT NEW TOURISTS' RADIO-TO-FRIEND PLAN

Milwaukee Amateur Club Starts Summer Correspondence

MILWAUKEE.—Members of the Milwaukee Amateurs Radio club, the local organization of the American Radio Relay league, have joined with the tour bureau of the Milwaukee Journal in creating machinery which will permit tourists visiting Milwaukee to transmit messages by Radio to their friends and relatives back home.

Blanks for Radiograms will be provided at the several auto camps in and adjacent to the city, at the headquarters of the tour bureau in the Journal building, and at the Milwaukee Municipal Tourists, Welcome bureau. These messages will be picked up at regular intervals by the Milwaukee ameteurs and relayed by them.

French Radio enthusiasts in Paris have elected a queen to reign over their social activities. At a recent dance by the Radio club of the 5th arrondissement of Paris, Mlle. Germaine Lemaire was chosen Queen of the Radio fans.

WILL SAVE $50,000 WITH SET SAYS FAN

SAN FRANCISCO.—Here's a prize story from Eric H. Palmer, world Radio tourist. He was talking to a man who had just purchased an elaborate set for use in China. When asked what he expected to hear there the man said, "Not much. But I've been passing time playing poker and losing continuously. I decided that listening in would keep me away from the game and probably save me $50,000 next year at the rate I'm going now."

BROADCAST 14 HOUR RELIGIOUS SERVICES

CHICAGO.—The National Radio chapel sponsered by superstation WHT here, is one of the longest non-stop programs broadcast from any station in North America. Commencing at nine o'clock every Sunday morning, the Radio chapel services are kept on the air without a single stop until 11:30 P. M. The service is under the direct supervision of Rev. Paul Rader, one of the most distinguished evangelists in America.

TELLS THE LADIES HOW TO DRESS

Helen Spring is the lady who gives the style talks regularly from General Electric Station WGY, at Schenectady. She is a member of the WGY staff.

Foreign Notes

The public school system of Mexico has hardly been a thing to boost of in the past, but soon every Mexican child will have the benefit of the best facilities the country can afford, by means of the wireless. Picked teachers will broadcast their lectures all over the land, from stations in the big cities; and receiving sets will be installed in the schools to bring their voice to the pupils.

For fifteen minutes recently the auction sale at Christie's world-famous rooms of the Earl of Carnarvon's art treasures, at which an almost priceless Gainsborough came under the hammer, were broadcast. The auctioneer described the bidding, which was very exciting, reaching an amount representing a substantial fortune.

Construction work has been finished on the new station at Seville. This is the second of the Radio stations which are being erected at important Spanish cities, to be completed. Its power is three times that of the first, at Bilboa, which has been heard on the air for some time past.

Radio is gaining in popularity in the Emerald Isle and approximately 3,000 receiving sets had been licensed up to April 1, although Ireland is still without a broadcasting station.

Broadcast Talks on Astronomy from CKY

Noted Astronomer to Deliver "Illustrated" Lectures Soon

WINNIPEG, Man.—The broadcasting of talks on astronomy "illustrated" by means of a system of numbers which the listener can plot on squared paper, is CKY's latest original feature.

The talks will commence at an early date and will be delivered by a member of the Royal Astronomical society of Canada. They will be made to appeal particularly to young people and prizes will be offered for the neatest representations of the various constellations, as plotted from the groups of figures transmitted.

Miss Mary Proctor, F.R.A.S., F.R. Met. S., known in the United States as "The Children's Astronomer," is coming to Winnipeg next year and will give a short talk over CKY.

Fights Rio de Janeiro Fires

WASHINGTON, D. C.—Reports received here state that the fire department at Rio de Janeiro is planning to erect two Radio stations. One will be installed at its main building at the Praca da Republica and the other at its Maritime station on the Ilha de Santa Barbara.

It is usually cheaper to buy a new condenser than to attempt to fix one which has become damaged.

WNAC TRIES TO END SARGENT NAME USE

WOULD ENJOIN WHT FROM EMPLOYING TITLE

"Jean Sargent" First Radio Name Case in Litigation—Battle in Court Looms

CHICAGO.—For the first time in the history of broadcasting a battle is now on between WNAC, Boston, and Superstation WHT here, over the use of a name—"Jean Sargent."

Jean Sargent, of whom mention has been made previously in Radio Digest, is probably the most conspicuous woman broadcaster in the world. She made WNAC famous for its women's features, all of which were arranged by Jean Sargent, who really is Bertha Mitchell. She made the name "Jean Sargent" mean something.

But she didn't originate it. It was suggested by the Shepard Stores, Boston, owners of WNAC.

And so, when Superstation WHT made an attractive offer to Miss Mitchell, and she accepted because, it has been said, working conditions were not altogether satisfactory in Boston, the Shepard Stores threatened to enjoin WHT and the lady in question from using the name of Jean Sargent.

Attorney Says Use Name

Attorneys for WHT and Miss Sargent have advised that she may use her Radio name as long as she desires, providing she announces, as she now does, "Jean Sargent, formerly of WNAC."

In the meantime WNAC may continue to use the name "Jean Sargent." The only question remaining is whether or not WNAC's successor to Miss Mitchell's post can keep the name as popular as it was.

Miss Sargent is now organizing a WHT Women's club. The drive she has inaugurated has already been eminently successful and members are still being listed. When she left Boston, her WNAC Women's club had a membership of 20,000.

Miss Sargent will have regular meetings of the club in the studios of WHT, in the Wrigley building, and in this way will become better acquainted with what Chicago women desire from the Radio.

New Stations

KLDS, Reorganized Church of Jesus Christ of Latter Day Saints, will now be on the air as a 1,000-watt station. WCBD, Zion, Ill., is another station to take advantage of the summer permit to use more power. This station is now operating on 2,000 watts.

Many stations are still changing locations and wave lengths. WABL, Storrs, Conn., now uses the call WCAC at Mansfield, Conn. KFVO, Kirksville, Mo., although a new station has been given the call KFKZ. WCBZ, Chicago Heights, is now WOK, Homewood, Ill. WGAQ, Shreveport, has the call KWKH. WSAP, New York, is WSDA. WWAE has moved to Plainfield, Ill.

New licenses have been issued this week to WKBG, C. L. Carrell, Chicago, Ill., 100 watts, 215.7 meters (portable); WIBP, First Presbyterian church, Meridian, Miss., 5 watts, 209.7 meters; KFVZ, Glad Tidings Tabernacle, Inc., San Francisco, Calif., 50 watts, 234 meters; WGMU, A. H. Grebe & Co., Inc., Richmond Hill, N. Y., 100 watts, 236 meters, (portable); WEHS, Robert E. Hughes, Evanston, Ill., 20 watts, 205.4 meters.

Twelve commercial class "A" station licenses were deleted last month. These were: WGBO, San Juan, P. R.; WRAN, Waterloo, Iowa; WABM, Saginaw, Mich.; WCBY, Buck Hills, Pa.; KFBE, San Luis Obispo, Calif.; WGBN, La Salle, Ill.; WSL, Utica, N. Y.; WCBL, Houlton, Maine; WRAL, St. Croix Falls, Wis.; WDBF, Youngstown, Ohio; KFQG, Los Angeles, Calif.; KFRP, Redlands, Calif.

Predicts Cost of Radio in Near Future Will Be Small

LONDON.—After making the most exhaustive and continuous tests for nearly a month aboard a transatlantic steamer in New York harbor, Major Secretan, one of the foremost British amateur Radio engineers, is absolutely convinced that really dependable communication can be made by the use of low power and short waves, both day and night. Major Secretan said, "The tests proved conclusively that an entirely new system will eventually have to be used for international Radio communication. Our present methods are obsolete and costly. Radio of the future will not cost more than one-twentieth part of what it does today. This applies both to telegraphy and telephony."

'CURB IS THE LIMIT' CLUB HUGE SUCCESS

YOUNGSTERS JOIN SAFETY ORGANIZATION AT KYW

More Than 57,000 Children Have Signed Pledges in Uncle Bob's Club at Chicago

CHICAGO.—Uncle Bob's safety campaign for children from KYW here has assumed a nation-wide interest, not only among children but by civic bodies as well. Principals of schools have adopted his "The Curb Is the Limit!" as a slogan, and have promoted the tenets of Uncle Bob's activities to the school children. The chamber of commerce in many large cities has taken to it with keen enthusiasm as have the Kiwanis clubs, the Elks, the Rotary clubs, the Boy Scouts, and various women's organizations, all of whom are joining in making the "Curb Is the Limit" a national issue.

"The Curb Is the Limit" was formed by Uncle Bob with the aid of the Chicago Evening American, which has sponsored Uncle Bob's idea and the issue has reached proportions beyond the fondest dreams. Insurance companies have printed large placards and posters for country-wide distribution, using Uncle Bob's slogan as the pivot of safety for children. Safety commissions of Chicago and other cities have written Uncle Bob, commending him for his Radio activity and telling of the immense good he has done along the lines of safety.

On June 1, Uncle Bob had received 57,600 pledges signed by children in all corners of the United States, not to cross the street without first counting to ten. To all who send in a pledge, Uncle Bob sends an attractive button signifying membership in his "The Curb Is the Limit" club.

ITCHING FEET GET N. Y. ANNOUNCERS

Metropolitan Radio Men Show Love of Change by Making Many Shifts

NEW YORK.—The past month has seen more changes in the family of Metropolitan announcers than any similar period since old WJZ started broadcasting canned music over in Newark years and years ago.

Eddies Squires has left WMCA and returned to Chicago from whence he came some time ago, while A. Llufrio, one-time WEAF announcer has travelled across Herald Square to WMCA.

Norman Brokenshire, of WJY-WJZ, has followed Omar Khayyams' advice and left for Washington, where he will announce for WRC.

Feland Gannon—who used to say "WRC" a year or so ago—is now introducing the artists from WOR. NTG is still on the job at WHN, and WAHG's turnover is also zero.

Gilson V. Willets, formerly of WOS and more lately of WOC, is now performing for a new station atop the Hotel Roosevelt.

WJR, Jewett Station, to Officially Open Aug. 15

The official opening date of WJR, to be operated by the Jewett Radio & Phonograph company, has been set for August 15. The transmitting equipment of WJR is housed in a splendid new building on the Jewett factory grounds at Pontiac, Mich. The main studios will be in the Book-Cadillac hotel in Detroit. Howard E. Campbell, widely known engineer of many years' Radio experience, will be in complete charge of all the station's activities. C. W. Kirby will officiate at the studio. Both are familiar personalities to the Radio public.

WBBM Adds Samovar Cafe Orchestra to Entertainers

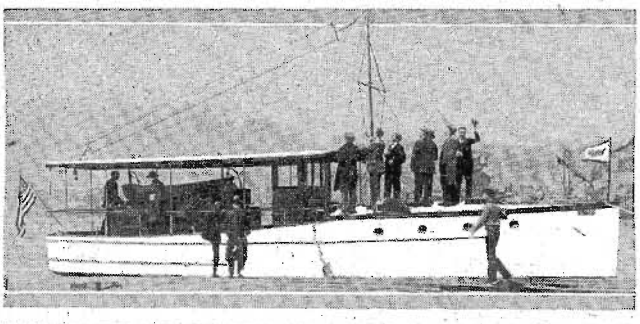
CHICAGO.—The new maximum power station, WBBM here, has further increased it's popularity by hooking up Samovar orchestra, playing at the Samover cafe.

WBBM now has two orchestras. With the addition of the Samover orchestra, arrangements of which have just been completed, WBBM is one of the foremost stations in the Chicago territory as regards orchestral entertainment.

Antenna Technical Treatise

URBANA, Ill.—"Investigation of Antennae by Means of Models," is the title of a recent bulletin, No. 147, of the engineering experiment station of the University of Illinois. It is a technical discussion of various types of antennae, and may be obtained for thirty-five cents a copy.

"ELCO" IS FLOATING WJZ PICK-UP



The "Elco," with a five-watt transmitter, is the floating pick-up used by Stations WJZ and WGY to broadcast aquatic events. WJZ and WGY rebroadcast the "Elco."

Twenty-Nine Stations in Defense Day's Link

WASHINGTON, D. C.—Twenty-nine broadcasting stations of the country linked together by the long-distance lines of the telephone system, were a part of the program of the National Defense Test Day exercises held on the Fourth of July.

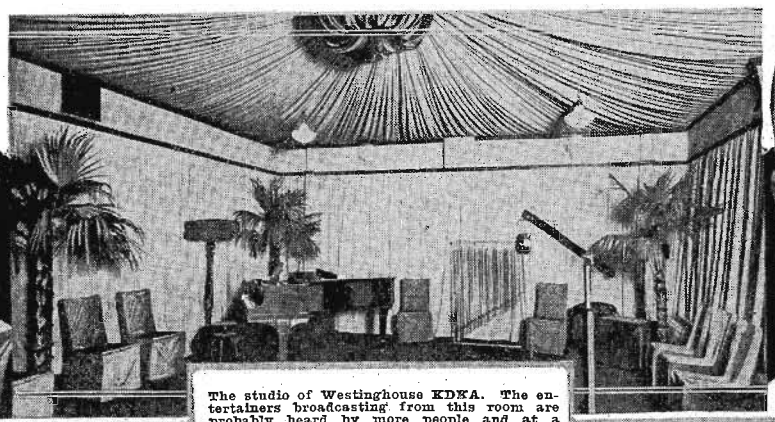
Distinguished officials in Washington, New York, Chicago and other cities held two-way conversations, and these were put on the air by the different stations in the network arrangement.

New Form of Applause

DAVENPORT, Iowa.—One member of WOC's audience has a unique way of sending in his applause. This fan in Clinton, Iowa, placed his loud speaker in front of a dictaphone and recorded a whole program, and then sent the record in to the chiropractic station at Davenport. The WOC staff got a bigger kick listening to that reproduction on their dictaphone machines than had they just got one of the usual stereotyped forms of applause.

KDKA, the World's Pioneer Broadcaster

One of the brightest luminaries at KDKA—Christine Clemson.



The studio of Westinghouse KDKA. The entertainers broadcasting from this room are probably heard by more people and at a greater distance than any other station.

Above, H. P. Davis, vice-president of the Westinghouse company and "Father of Broadcasting." Below, Miss Alice King, soprano. Miss King is one of the best liked regulars.

THE ancient war lord who had conquered the then known world and sighed for more to conquer might be called a prototype of Station KDKA: for though this world's pioneer broadcasting station is being heard consistently in the furthermost parts of the world, its engineers are still developing and improving its powerful transmitting set to reach still further distances—and thus increase the ease with which its programs can be heard by those who now get them daily in all parts of the globe.

Programs of this pioneer broadcasting station of the world are heard consistently in the British Isles, Germany, France, Belgium, Portugal, South Africa, Turkey, Australia, Tasmania, New Zealand, the Arctic Circle, and the South American countries, letters received by the station show, and the number of places in the world that are hearing the programs is constantly increasing. Australia is almost exactly on the opposite side of the world from the station at Pittsburgh.

These far-away lands are enabled to hear the KDKA programs through the station's international short wave relay system, by which many of the musical programs of the station are relayed, on the short wave length, at the same time they broadcast for the station's American audience on its standard wave length. The listeners in the more distant countries pick up the programs from their local or nearest station which is relaying KDKA short wave signals.

While the station is heard consistently on its long wave length in most every part of the North American continent, the better carrying power of the short wave is needed to bring the programs to the other continent.

This station, although it is the pioneer one of the world, would be but five years old on election day next November, if there were an election then. The station started its regular daily broadcasting on election night in 1920.

From an improvised studio on the roof of the nine story building at the East Pittsburgh works of the Westinghouse Electric and Manufacturing company, with the broadcasting set and antenna nearby, the station has grown until today it has a building especially constructed of non-metallic material to house the powerful standard and short wave transmitting sets, a studio at the works, another at the plant of the Pittsburgh Post, in the center of the Pittsburgh downtown district, and another at the University of Pittsburgh and the National Stockman and Farmer, with special pickup lines from every large church and auditorium in the city.

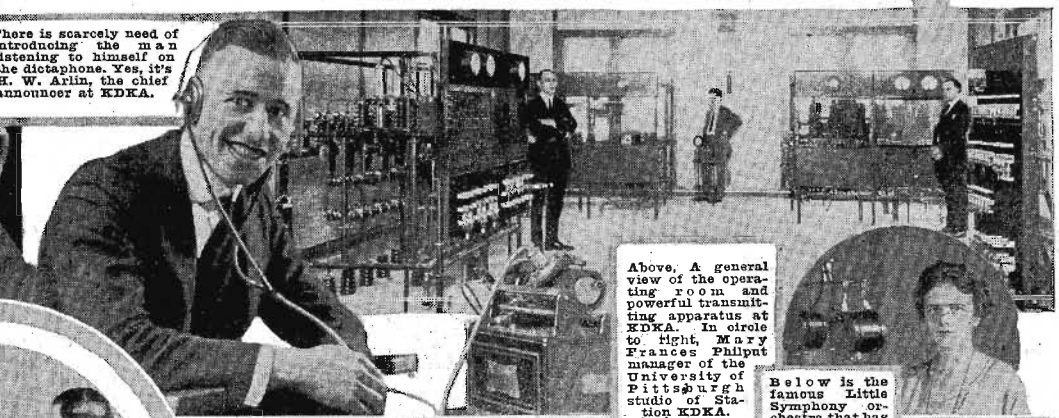
The station has grown too large for its original staff, as it has for its original location and equipment. The original staff was the "Radio triumvirate" who established the station, vice president H. P. Davis, manager of publicity J. C. McQuiston, and assistant chief engineer Frank Conrad.

C. W. Horn, as superintendent of Radio operations for the company, now has supervision of all the Westinghouse stations, KDKA, WBZ, in New England, KYW in Chicago, and KFKX in Hastings, Neb. He is located at Pittsburgh and his pet is KDKA, chief development station of the four operated by the company. Mr. Horn served as a Radio officer in the navy during the war.

The program director of the station is G. Dare Fleck, who was connected with the Westinghouse department of publicity before the establishment of the station. Victor Saudek is musical director of the Westinghouse stations and conductor of the famous KDKA Symphony and KDKA Little Symphony orchestras. He was a fluist in America's large symphony orchestras and a instructor at the Carnegie Institute of Technology before he became connected with the station. T. J. Vastine is director of the famous Westinghouse Employes' Band.

H. W. Arlin, the world's pioneer announcer, is the chief announcer of the station at which he (Continued on page 6)

There is scarcely need of introdnoing the man listening to himself on the dictaphone. Yes, it's H. W. Arlin, the chief announcer at KDKA.

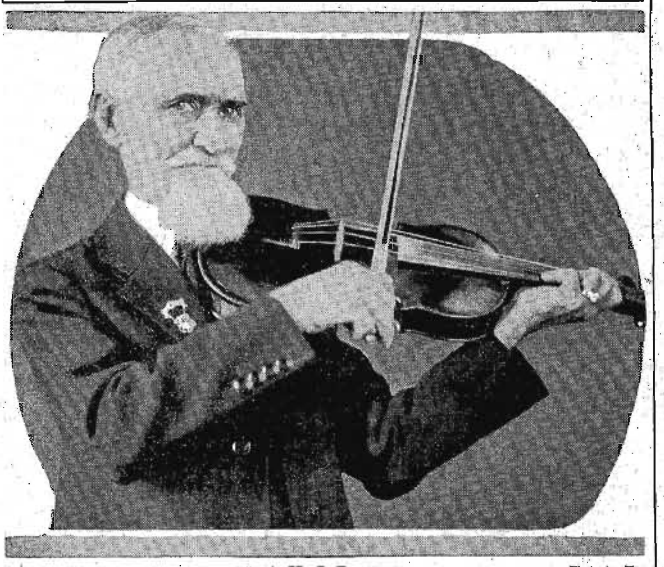


Above, A general view of the operating room and powerful transmitting apparatus at KDKA. In circle to right, Mary Frances Philput manager of the University of Pittsburgh studio of Station KDKA.

Upper left, J. C. McQuiston, manager of the department of publicity and one of those who established KDKA. Below is Frank E. Mullen, director of the stockman-farmer journal studio.

Below is the famous Little Symphony orchestra that has added greatly to the fame of KDKA.

VETERAN FIDDLER KING TELLS LIFE



Capt. M. J. Bonner Photo by Kerr

"Chicken in the bread tray
Shoo, fly, shoo,
Swing that pretty girl
An' I'll swing you."
"Now you're right and now you're wrong,
Swing that pretty girl all day long."

By Susan Haymes

THE sunshine of a summer afternoon cast golden beams along our path as we wended our way to the spacious Texas home of the world's champion fiddler, Captain M. J. Bonner. With true hospitality, the great oak door was opened by the Captain himself. Further greetings were extended by his estimable wife and mother of their two daughters and five sons.

Captain Bonner, seventy-eight, yet not appearing a day over fifty: here, indeed, is no senile dodderer striken with relentless years. Emphatically the opposite, his frame shows plainly that time has only seasoned him. His eyes are as bright as when they first sighted along his gleaming rifle barrel. And his back is as straight as the arrows shot after him by the Indians. Hair and goatee—grey, yes; but one, somehow, feels that always this has been their color. Trim, snugly shod feet, in a size that milady might covet.

Our talk drifted back to the stirring days of '63 when Bonner was a courier in the Twelfth Texas cavalry in "Buckskin" Parson's regiment; back to the days of buffalo hunts, cattle stampedes, hostile Indians and the long, long drives up the trail. He was younger then, and if life was cheap, living was sweet.

Talked, also, of the old fiddlers' contests, when this veteran met all comers and was declared the winner. The Captain's pride is his fiddle and it is this sweet-toned instrument which has assisted in introducing him to the Radio public. "You will call it a violin, I reckon," he said. "No, we shall not," we retorted, remembering that a rose by any other name would be as sweet. The captain looked pleased.

"I've fiddled ever since I can remember," the aged fiddle king continued, "learned from the negroes, playing 'round the cabin doors. The fiddle I play now is 387 years old and I've had it since I was eight years old, and that's seventy years back. It was pawned by its original owner, and brought over to this country by an old German, and through him it came into my possession."

Captain M. J. Bonner is frequently heard over WBAP, the Fort Worth Star-Telegram station. Here it was that he introduced, played and had called the first Radio square-dance program. So popular was this program that between four and five thousand telegrams and letters were received. On a later occasion, congratulatory telegrams came in every twenty seconds for an hour. Doesn't sound much like a jazz-mad world, does it?

"Requests come in every time I play," the fiddle champion said, "but it's best to try and go by your selected program. The favorites are "Figure Eight," "Three Little Sisters," "Sally Goodin," "Turkey in the Straw," "Arkansaw Traveler" and "Leather Britches"—and I don't like that last un either, rather take a lickin' than play it," the Captain's eyes twinkled. "Do you know it?" he asked and he hummed it and patted his foot:

"Leather britches, full of stitches,
Mammy sewed the buttons on,
Daddy whipped me out of bed,
'Cause I had my britches on."

But Captain Bonner does not live and think only in retrospect—indeed, no! He is actively engaged in business and his plans are laid far into the future. Before the ink on this page is dry, he will have made records for one of the leading concerns of the country, and will be crossing the continent to fill other engagements.

Records of the old songs, "lonesome tunes" and square dances—which generations yet unborn will cherish; tunes that were prime favorites in this country when your grandmother and ours were young. Truly American folk songs are these.

KDKA, WORLD PIONEER

(Continued from page 5)

established the new profession of Radio announcing, and now there are several co-announcers for announcing the programs from the various studios. His exceedingly clear enunciation and clear, middle register voice, the "quiet American voice," as one Australian admirer calls it, have been great factors in making the station so popular to people in distant lands, especially the English speaking countries.

Fran. E. Mullen, whose "good evening," everybody; how are you all tonight?" is known from the trading posts of the Arctic coast to the equator, is director of the Stockman-Farmer studio. His summary of the day's news, given every week day at the closing livestock and produce market report period, has been the means by which isolated people such as the lonely sheep herders in the Rockies, and traders and trappers in the north country, have been able to keep in touch with daily events in the world.

Miss Mary Frances Philput, director of the University of Pittsburgh studio, is responsible for the courses of educational addressed given from that studio by members of the university faculty.

P. A. Boyd is director of the Post studio, the downtown studio, where most of the musical programs are broadcast, and he arranges the popular musical and theatrical programs broadcast twice a week after the theater closing time.

Vets' Hospital Completely Equipped with Radio Sets

FORT BAYARD, N. M.—The Radio installation in the U. S. Veterans Hospital No. 65, Fort Bayard, New Mexico, is unique, allowing as it does over 500 patients to listen, individually or collectively, to Radio programs broadcast from all parts of the nation. At the heads of 256 beds are installations for telephone head sets, this circuit being left open from 7:00 p. m. to midnight. Sixteen loud speakers throughout the assembly rooms and general wards are discontinued at 10:00 p. m.

Head Sets Replace Loud Speaker in Train Coach

CINCINNATI.—While it is no longer a novelty for trains to be equipped with Radio receiving equipment, a number of cars of the Louisville and Nashville railroad here are equipped in an unusual manner. Instead of having a loud speaker in the coach, individual headphones are attached to plugs in the sides of the car walls, just above the seats.

GIVE FAREWELL TO POLAR NAVIGATORS

WHT HOLDS PROGRAM FOR BIG ARCTIC EXPEDITION

Broadcast for Adventurers as "Bowdoin" and "Peary" Prepare for Long Journey

CHICAGO.—A special farewell program dedicated to Lieut. Commander Donald B. MacMillan's polar expedition was broadcast from Superstation WHT, Wrigley building, Chicago, on Wednesday night, June 17, between the hours of midnight and 1 a. m.

Rev. Gardner MacWhorter was in charge of the program arrangement and arranged farewell speeches by Capt. Waldo Evans, commandant of the Great Lakes Naval Training station, former mayor William Hale Thompson, Frederick Clerk, superintendent of New Trier high school and life long friend of Lieut. Commander MacMillan.

The WHT program consisted of Revolutionary war songs, classical and popular music, vocal solos and Husk O'Hara's Red Dragon orchestra in an appropriate selection of melodies.

The two ships in the MacMillan expedition left Boston harbor at noon June 17 as the main feature of the Bunker Hill Day celebration.

Thirty-Three to Sail

Among those aboard the S. S. Peary and S. S. Bowdoin, and to whom the program was dedicated, are: U. J. (Sport) Hermann, manager of the Cort theater; Lieut. Commander Donald B. MacMillan, Lieut. Com. Byrd, U. S. N., who will be official observer for the Navy department and will be in charge of the three amphibian planes carried by the expedition; Lieut. Com. Eugene F. MacDonald, U. S. N. R., who will command the Peary; Capt. John Steele, an experienced polar navigator, who will command the Bowdoin; Ralph Robinson, first assistant to Commander MacMillan; John M. Jaynes, chief engineer, and a crew of twenty-four.

John L. Reinartz, short wave expert, was appointed way last January as first operator in charge of Radio on the MacMillan arctic expedition. Since this appointment, Commander MacDonald combed the entire United States in an endeavor to find a second operator who would be in charge of Radio on board the S. S. Peary and who would also be in charge of the advance airplane base.

Paul J. McGee, a Radio engineer in Zenith's own organization, was discovered to possess exactly the qualifications needed and was appointed to the position.

Amateur Hears Bowdoin

BIRMINGHAM, Ala.—John H. Newman, Radio amateur of Mobile, Ala., is believed to be the first amateur in Alabama to pick up Lieut. Commander MacMillan's ship, the Bowdoin, as it was preparing to enter the Arctic ocean. He kept in communication with the vessel for some time.

Mr. Newman heard the Bowdoin's signals shortly after midnight on a 40-meter wave length.

U. S. AND CANADIAN RADIO BOSSES

In these men's hands is placed the responsibility of regulating Radio of all kinds in the United States and Canada. Below, left, is Commissioner of Navigation D. B. Carson, of the U. S. department of commerce, and below, right, is C. P. Edwards, director of Radio service of the Canadian department of marine and fisheries. Above, right, is Chief Supervisor W. D. Terrell, of the Radio section of the U. S. department of commerce.

Largest Organization of Fans Is in London

League Has Free Insurance for Sets of Members

LONDON, England.—Little doubt now remains that the wireless league recently formed here will soon be the largest association of Radio fans in Europe, if not in the world.

The primary object of the league is to obtain for the listener a voice in the management of broadcasting and to protect him against any interest or authority which tries to impose upon him. The second object of the league is to provide practical, technical and legal assistance for members by means of expert advice.

The league has arranged for its members a free insurance covering damage by fire or lightning of Radio sets, aerials, and accessories up to a value of $125, and third party risks (persons and property) in connection with Radio sets and aerials up to $500 in respect of any one accident.

NEW ETHER LAWS BEING PREPARED?

Department of Commerce Has Judge Davis Busy on Bill, Is Report

WASHINGTON, D. C.—By the time the next session of congress convenes it is expected that the department of commerce will have some interesting suggestions to make.

It is understood that even at this early date Judge Davis, solicitor of the department, has commenced the draft of a Radio bill. He refuses to discuss at this time any of the provisions of the proposed bill.

Czechoslovakian Station

WASHINGTON, D. C.—An American firm has been awarded the contract for erecting a new broadcasting station at Prague by the government of Czechoslovakia. The new station will cost about $90,000 and take six months to complete.

BROADCAST AT WGY ON 4 WAVE LENGTHS

1660 TO 38 METER RANGE IS USED FOR EXPERIMENT

Ask Fans to Report Reception Obtained on Different Waves for Research Work

SCHENECTADY, N. Y.—All programs of WGY here may now be found on four wave lengths. Experimenters in the field of Radio are thus afforded an opportunity to compare the same program under similar conditions, but with differences in power and frequency.

Evening programs of the General Electric company's eastern station, are going out on four channels as follows: WGY, 379.5 meters; 2XAF, 38 meters; 2XK, 109 meters; 2XAH 1,660 meters. The last three groups of call letters are special experimental licenses of the company.

Continue Research

In broadcasting on higher and lower wave lengths than those provided in the band assigned by the government to broadcasting stations the General Electric Radio engineers are pursuing an exhaustive research into the problem of transmission under all conditions of services, daylight and dark, summer and winter, under various degrees of power and with a variety of antenna arrangements.

Radio fans who are equipped to receive the higher and lower wave lengths are asked to report to the engineers on their reception with particular reference to quality, fading, and strength of signal on different wave lengths. For example, if the signal on the 38 meter wave length rides through clearly while the 379.5 signal of WGY is blasted by static or smothered by fading, the engineers will be very much interested in knowing about it. Your report may become an important factor to them in solving some of the many perplexing problems of Radio transmission.

TIGHT PURSE STRINGS DELAY FARM CENSUS

Congress Allows No Money to Tabulate Radio Data

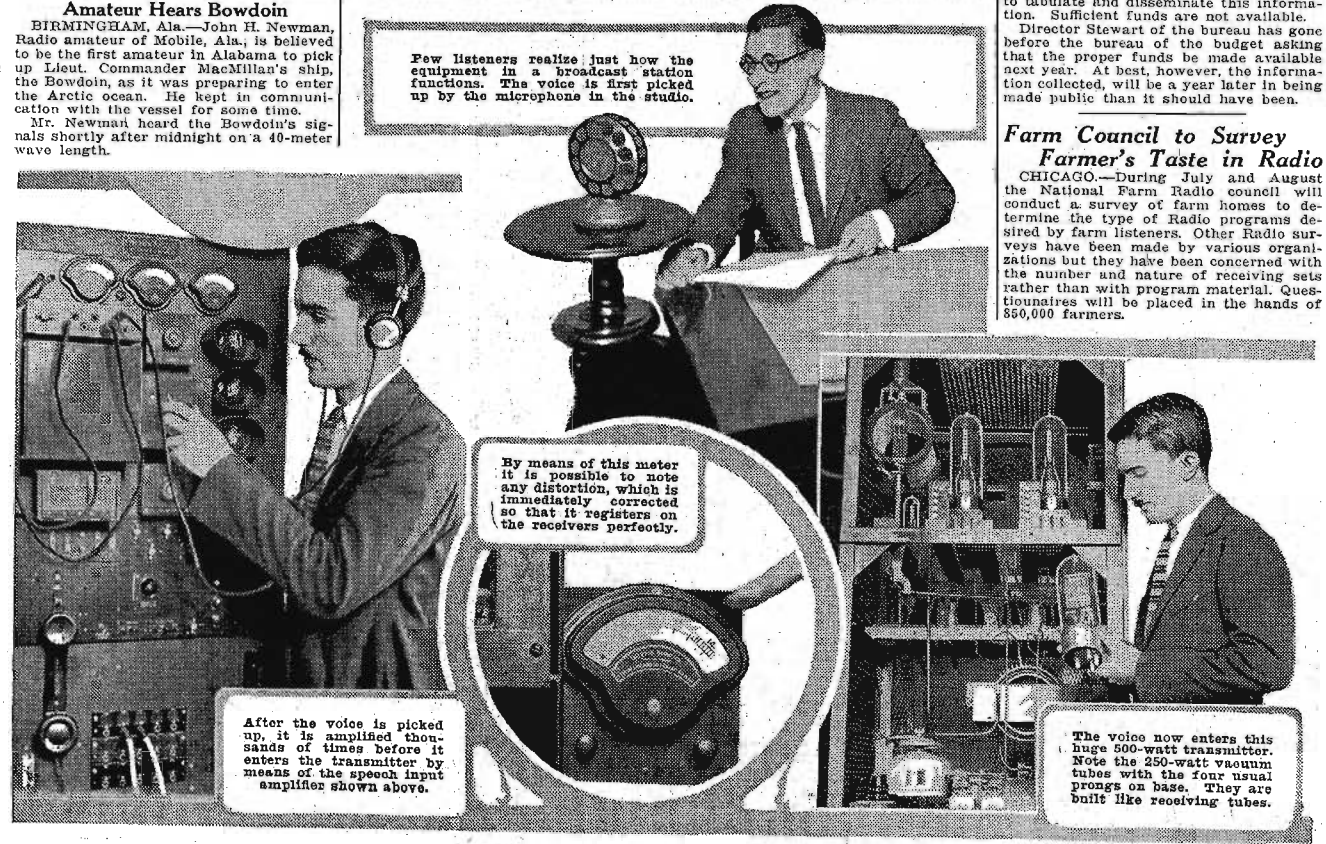
WASHINGTON, D. C.—Because of lack of sufficient money from congress, the farm Radio census which was recently taken by the bureau of the census for the first time, cannot be tabulated and made public.

All of the data has been collected but it will cost several thousands of dollars to tabulate and disseminate this information. Sufficient funds are not available.

Director Stewart of the bureau has gone before the bureau of the budget asking that the proper funds be made available next year. At best, however, the information collected, will be a year later in being made public than it should have been.

Farm Council to Survey Farmer's Taste in Radio

CHICAGO.—During July and August the National Farm Radio council will conduct a survey of farm homes to determine the type of Radio programs desired by farm listeners. Other Radio surveys have been made by various organizations but they have been concerned with the number and nature of receiving sets rather than with program material. Questiounaires will be placed in the hands of 850,000 farmers.



Few listeners realize just how the equipment in a broadcast station functions. The voice is first picked up by the microphone in the studio.

By means of this meter it is possible to note any distortion, which is immediately corrected so that it registers on the receivers perfectly.

After the voice is picked up, it is amplified thousands of times before it enters the transmitter by means of the speech input amplifier shown above.

The voice now enters this huge 500-watt transmitter. Note the 250-watt vacuum tubes with the four usual prongs on base. They are built like receiving tubes.

TECUMSEH, INDIAN TENOR, AT KJR

Saturday, July 11

Saturday, silent night for: CNRT, KFAE, KFDM, KFUO, KFWA, KLDS, KLX, KOA, WBAP, WBAV, WBZ, WCAU, WCBO, WCX, WDWF, WEAO, WEBJ, WEEI, WFI, WHAD, WHAZ, WHN, WHO, WJY, WKAQ, WLIT, WMAK, WDAN, WOO, WSUI, WTIC, WWJ.

Atlantic or Eastern Daylight Saving Time Stations

CKAC, Montreal, Can. (410), 7 p. m., "Hygiene," in French and English; 7:30, Harry Salter and his Windsor hotel concert orchestra; 8:30, studio program; Quebec Attractions for Tourists"; 10:30, Windsor hotel dance orchestra.

CNRO, Ottawa, Can. (435), 8 p. m., Chateau Laurier concert orchestra; Ronald Fortune, tenor; V. Snowdon, cornetist; Mrs. Charles Kavanagh, soprano; W. H. Martin, reader; Jock McDonald, Scotch comedian; Sam Scott, bagpipe soloist; Chateau Laurier dance orchestra.

WBBR, New Nork, N. Y. (272.6), 8 p. m., musical saw, Fred Ehrenberg; 8:10, L. Marion Brown, soprano; 8:20, Bible questions and answers, Judge Rutherford; 8:40, L. Marion Brown, soprano; 8:50 musical saw, Fred Ehrenberg.

WCAE, Pittsburgh, Pa. (461.3), 6:30 p. m., dinner concert, William Penn hotel; 8:30, St. Clair entertainers.

WEAF, New York, N. Y. (491.5), 4-5 p. m., E. J. Dantzig and his Brooklyn Elks club orchestra; 6-7, dinner music, Waldorf-Astoria; 7-7:15, Ethel J. Light, pianist; 7:15-7:30, Queen Trofford, soprano; 7:30-7:40, Matilda Zimbler, cellist; 7:40-7:50, George Dale, tenor; 7:50-8, Matilda Zimbler; 8-8:15, George Dale; 8:15-8:45, Huyler's Foremost Four; 8:45-10:15, concert, U. S. Army band, direction of Captain William J. Stannard; 10:15-10:30, William J. Sweeney, baritone; 10:30-11, humorous half hour; 11-12, Vincent Lopez' Hotel Pennsylvania orchestra.

WGBS, New York, N. Y. (315.6), 3-4 p. m., Y. M. C. A. program; 6-6:30, Uncle Geebee; 6:30-7, Bensonians orchestra; 7-7:10, sports talk, John Regan; 7:30-8, Bensonians orchestra; 8:30-8:40, Smyrna quartet; 8:40-8:50, Lillian Jessee, soprano; 9-9:10, Smyrna quartet; 9:10-9:20, Virginia Lefevre, contralto; 9:20-9:30, Gustav L. Becker, pianist; 9:30-9:40, Helen Herman, contralto; 9:40-9:50, Myrtle Wagner Whitt, soprano; 9:50-10, Deborah Frank, Swiss violinist; 10:20-10:30, Myrtle Wagner Whitt; 10:50-11, Deborah Frank.

WGR, Buffalo, N. Y. (319), 2:30-4:30 p. m., WGR's afternoon program; 8:45-10:15, jointly with WEAF, U. S. Army band, Washington, D. C.

WHAR, Atlantic City, N. J. (275), 7:30 p. m., 8, Seaside hotel trio; 9, Breakers hotel-Vincent Lopez' dance orchestra.

WHN, New York, N. Y. (360), 7:30-10 p. m., musical program.

WIP, Philadelphia, Pa. (508.2), 1 p. m., luncheon music from Steel Pier; 3, song of the surf; 3:30, Comfort's Philharmonic orchestra; 6:05, Benjamin Franklin concert orchestra; 7, Uncle Wip's bedtime stories; 8, Comfort's Philharmonic orchestra; 8:45, song of the surf; 8:50, Veselli's band; 10:05, Howard Lanin's dance orchestra.

WJAR, Providence, R. I. (305.9), 7:05 p. m., studio program.

WJZ, New York, N. Y. (454.3), 4-4:02 p. m., baseball scores; 5:32-6, daily reports; 6-6:02, baseball scores; 7-8, Nathan Abas' Hotel Pennsylvania concert orchestra; 8-8:02, baseball scores; 8:02-8:25, "The Night Air Mail," Paul Henderson; 8:25-10:30, concert from Lewisohn stadium; 10:30-11:30, Joseph Knecht's Waldorf-Astoria roof orchestra.

WMCA, New York, N. Y. (340.7), 4-4:15 p. m., ukulele songs, Frank Sixt; 4:30-4:45, Frank Sixt; 6:30-7:30, Amphions orchestra; 7:30-7:45, Leonard Hoenninger, baritone; 7:45-8, Phyliss De Rosa, soprano; 8-8:15, Leonard Hoenninger; 8:15-8:30, Phyliss De Rosa; 9:15-9:45, Gene Cirina's orchestra; 11-12, Ernie Golden and his Hotel McAlpin orchestra.

WNYC, New York, N. Y. (526), 7-7:25 p. m., dance program; 7:25-7:30, baseball results; 7:30-7:35, police alarms; 7:35-8, dance program; 8-8:15, talk; 8:15-10:15, concert from the Mall, Central Park; 10:15-10:30, popular songs.

WOR, Newark, N. J. (405.2), 7:15-7:30 p. m., sports talk, Bill Wathey; 7:30-8, the Commanders.

Eastern Standard or Central Daylight Saving Time Stations

KDKA, Pittsburgh, Pa. (309.1), 2:30-5 p. m., baseball scores; 7, baseball; 8:45, Westinghouse Employees band; 9:55, baseball.

PWX, Havanna, Cuba (400), 8:30 p. m., concert orchestra, Prof. Manuel Barba, director.

WBBM, Chicago, Ill. (226), 8-12, Sunset male quartet; Samovar orchestra; Dave Nudelman; Crillon orchestra; Cort Banks, ukulele soloist; Leo Matiso, Hawaiian gutarist; Albert Blaha, concertina soloist; Ned Santry; Charlie Garland, pianist.

WCEE, Elgin, Ill. (275), 10:30-12 midnight, Charlene dance program, Joe Rudolph and the Boss' Own orchestra; Frank Morris, Polly Willis, John Peat, Eddie Cavanaugh.

WCX, Detroit, Mich. (516.9), 2:30 p. m., Municipal band concert broadcast from Belle Isle; 6, dinner concert, Book-Cadillac hotel.

WEAR, Cleveland Ohio (389.4), 7-8 p. m., novelty dinner concert.

WGES, Oak Park, Ill. (250), 5-7 p. m., John MacFarlane, bass; Frank Greif, tenor; Birdie Gordon, soprano; McDevitt Sisters; Herman Silverman, violinist; 10:30-1 a. m., Ralph Olson, Andrea Scarlatti, tenor; Coyne Electrical School serenaders.

WGN, Chicago, Ill. (370.2), 5:30 p. m., Skeezix time; 6:30-7:30, Drake concert ensemble, Blackstone string quintet; 8:30-9:30, studio program, organ recital; 10:30-11:30, Drake Hotel Terrace Garden program.

WGY, Schenectady, N. Y. (379.5), 7:10 p. m., "The Living Age," William F. Jacob; 7:25, New York Philharmonic orchestra; 9:30, John Fink Jr.'s orchestra.

WHT, Chicago, Ill. (399.8), 7-7:30 p. m., Wilkens and Martens; Eleanor Kaplin, violinist; Frank A. Rumatz, baritone; Lottie Friedman, soprano; Heather and Stevenson; 8:45-10:15, Riverview Park ballroom orchestra; Al Carney, organist; 10:30-11:30, Langdon Brothers; Fred Agard, tenor; Marie Kelly, reader; Marie Wright, soprano; Joan Zafara, soprano; Maurine Marseilles, contralto; Pat Barnes, tenor; 12:30-1, Al Carney, organist.

WIBO, Chicago, Ill. (226), 2-4 p. m., popular program for Shut-ins, Dan Russo, Ted Fiorito, Harry Geise, Kay Ronayne, and others; 6-8, Jack Sprat concert trio; "Skim Milk"; playlet; Cuni Corwin, soprano; Carl Linner, pianist; Earl Raymond Bigel, pianist.

WJJD, Mooseheart, Ill. (302.8), 4:30-5:30 p. m., music, Mooseheart children; Mooseheart assembly; 6:45-7:15, Belmont hotel ***o; 7:15-8, Garod studio, Charley

WKRC, Cincinnati, Ohio (326), *0 p. m., popular songs, Bert Lindsay, Norrine Gibbons, Abe Farb, Lelia LeMarr; 11, Marion McKay's Bond Hill ..*e orchestra.

WLS, Chicago, Ill. (344.6), 7:45 p. m., lullaby time, Aunt Martha, Uncle George; 8-1 a. m., national barn dance program; Rex's Cornhuskers; Walter Peterson, Kentucky Wonderbean; Simmons and Clifford; Tony Corcoran, Irish baritone; Perry Lee Hutfaker, tenor; Eleanor Hedlund, pianist; WLS Harmony trio; Grace Wilson, contralto; Nubs Allan, contralto.

WLW, Cincinnati, Ohio (422.3), 7 p. m., instrumental trio; Johanna Grosse, organist.

WMAQ, Chicago, Ill. (447.5), 6 p. m., announced; 6:30, Jack Chapman's orchestra; 8, Fred Daw, Russell Pratt; 8:30, photologue, "Head Hunters of the Philippines," S. C. Sims; 9, Chicago theater revue.

WMBB, Chicago, Ill. (250), 7-8:30 p. m., semi-classical program, J. Bodewalt Lampe, director; Trianon ensemble; Hazel O'Neil, soprano; Andrew DuParry, tenor; Wayne King, saxophonist; Lindsey McPhail, pianist; 8:30-10:30, Gala Syncopation program; Dell Lampe and Trianon orchestra; Armin F. Hand and Woodlawn theater orchestra; Fisher and Smith, harmony clowns; Cecil and Esther Ward, Hawaiian guitarists; Geraldine Doyle, soprano; Clyde Hager, delineator; Charles Agne, marimba soloist; Trianon syncopators.

WMBF, Miami Beach, Fla. (384.4), 6:30-7 p. m., Fleetwood Radio orchestra; 7-7:30, Fleetwood Radio orchestra; 10-12, dance music, Fleetwood Radio orchestra, specialties.

Headliners of the Week

SATURDAY is the time for another exhilarating meeting of the Lost Angels at KHJ. Freeman Lang, chief angel, has gathered together a group of congenial spirits all guaranteed to be thoroughly lost. Esther White, blues singer, and Harold Hynes, reader, will be the chief entertainers. The Lost Angel orchestra will play.

These summer Sunday evenings are a real pleasure to the fan with the Radio set when he can sit out on his cool screened-in porch and listen to concerts as fine as those sponsored by WGN. The Drake concert ensemble is always worth listening to and this station has a happy faculty for picking out the right artists to entertain together.

The Grand Lodge convention of the B. P. O. E. at Portland, Ore., begins Monday. The entire opening session from 8 to 11 p. m., will be broadcast by KGW. Various programs during the week will be influenced by this influx of Elks. WHAZ has enlisted the help of Mrs. John Vaughn, reader and Elva C. Vincent, violinist, Monday evening, to give the fans an unusually fine program. A quartet will also sing at Troy.

"Sweet and Twenty," a delightful little skit produced by the Theater Workshop will be the Tuesday feature at WRC. The Aeolian Duo is this evening's feature at WBZ. This Duo was so well received upon their last appearance that they have been invited to broadcast again.

Wednesday offers many special features this week. The Serenaders' Plectrum quintet, a famous old mandolin orchestra, well known and liked in New York, makes its Radio debut at WAHG. The Iowa State Ladies' Radio quartet composed of four singers chosen from among the best in the state of Iowa, will appear at WHO. Kiutus Tecumseh, an Indian tenor, who is fast working his way into the grand opera class will be heard this week with his talented Eskimo accompanist, Simeon Oliver, at KJR and KFOA, Seattle. These two musicians are sponsored by WLS.

WJZ will entertain the children Thursday, with music especially adapted and interesting to the little folks. Harriet Ayer Seymour is in charge of this attractive 5 o'clock program. Finish off the evening at WSMB, New Orleans with the New Orleans Harmony Kings and the Sunshine Twins.

"How to Dress for Mountain Needs," is the talk scheduled by the Colorado Mountain club Friday, at KOA. This will be pertinent to the camper and climber, who does not wish to carry extra luggage. The Princess Anne Academy male quartet is the Friday feature at WOO, Philadelphia.

WORD, Batavia, Ill. (275), 8 p. m.; Webster hotel orchestra and concert.

WQJ, Chicago, Ill. (447.5), 7-8 p. m., Ralph Williams and his Rainbo Gardens concert orchestra; Helen Leon, violinist; Edward Young, baritone; Adeline Keller, contralto; 10-1 a. m., Ralph Williams and his Rainbo Garden Skylarks; Jerry Sullivan; Rose Vanderbosh, soprano, pianist; Melodians; Joe Termini, Williamson Brothers, guitarists; Everett George Opie, character reader; Clarence Theders, tenor; harmony singers; 1-2, Ginger hour, Little Skylarks.

WRC, Washington, D. C. (468.5), 3:55 p. m., Washington-St Louis baseball game; 6:55, baseball; 7, Hotel Washington orchestra; 7:30, Philharmonic concert, WJZ, WGY; 10, Hotel Mayflower orchestra; 10:30, Crandall's Saturday nighters.

WSAI, Cincinnati, Ohio (326), 7:40 p. m., children's stories, Mrs. Ethel Knapp Behrman; 8, Radio chime concert, Robert Bagley; 8:15, Bicycle playing card sextet; 9, U. S. playing card weekly news review, Allison F. Stanley; 9:15, Bicycle playing card sextet; 12, popular program.

WTAM, Cleveland, Ohio (389.4), 6-7 p. m., Hotel Statler concert orchestra; 8-9, studio program; 9-12, Ev Jones and the Coo-Coo club.

WTAS, Elgin, Ill. (302.8), 8-10:30 p. m., Joe Rudolph and the Boss' Own orchestra; Herbie Mintz; Bee Lehman, Phil Wilcox.

WWJ, Detroit, Mich. (352.7), 3 p. m., Detroit News orchestra; 3:55, baseball.

Central Standard Time Stations

KFAB, Lincoln, Nebr. (240), 11-12:30 a. m., midnight rounders.

KFNF, Shenandoah, Iowa (266), 7:30 p. m., concert from Oregon, James H. Pettijohn, director.

KFRU, Bristow, Okla. (394.5), 7:30-8 p. m., Sunday school lesson; 9-12, music.

KFVE, University City, Mo. (240), 10 p. m., jazz and comedy.

KSD, St. Louis, Mo. (545.1), 7 p. m., program and stake specialties, Grand Central theater; 8:30, dance music, City club.

KTHS, Hot Springs National Park, Ark. (374.8), 9:15-9:25 p. m., baseball results; 9:25-10:15, dance selections, Ray Mullins Whittington Park orchestra.

KYW, Chicago, Ill. (536), 6-6:30 p. m., Congress hotel dinner concert; 7-8, Emily Arnold Trier, soprano; W. J. Mills, tenor; Fay Forsythe, pianist.

WCCO, Minneapolis-St. Paul, Minn. (416.4), 6 p. m., baseball scores; 6:30, Original George Osborn's Nocollet hotel orchestra; 8, musicale; 9, baseball; 10, Dick Long's Nankin cafe orchestra.

WDAF, Kansas City, Mo. (365.6), 6-7 p. m., address, Roger W. Babson; Tell-Me-a-Story lady; Earl Coleman's orchestra; 11:45-1 a. m., Merry Old Chief; Plantation players; Johnnie Campbell's Kansas City club orchestra; Charles Dornberger's Kansas City Athletic club orchestra; Earl Coleman's orchestra.

WFAA, Dallas, Texas (475.9), 6:30-7:30 p. m., Cook Family Street Railway orchestra; 8:30-9:30, varied program, Rosemont Christian church; 11-12, Adolphus hotel orchestra.

WHAD, Milwaukee, Wis. (275), 6-7 p. m., Arthur Richter, organist.

WHAS, Louisville, Ky. (399.8), 7:30-9 p. m., Scottsburgh, Ind., night, Frances Sellers, director; baseball.

WMC, Memphis, Tenn. (499.7), 12:30 p. m., musical program, O. K. Houck Piano company; 8:30, concert, Memphis Plectrum orchestra, R. L. Sharp, director.

WOAW, Omaha, Nebr. (526), 6 p. m., George Haupt, organist; 6:20, Rialto orchestra; 7, Gilbert Jaffy and his orchestra; 7:30, speakers' hour; 9, program auspices Omaha Printing company; 11, Arthur Hays, organist.

WOC, Davenport, Iowa (483.6), 5:45-6 p. m., chimes concert; 6, baseball scores; 6:30-6:50, Sandman's visit, Val McLaughlin; 9-10, John Cavilla and J. S. Evans, old-time fiddlers; Ted Sloat, baritone; Walter K. Voss, bass; 11-12, Louis Connor and his LeClaire hotel orchestra; Peter MacArthur, baritone.

WSMB, New Orleans, La. (319), 6:30-7:30 p. m., dinner musical; 8:30-10:30, Saturday night frolic.

Mountain Standard Time Stations

KOA, Denver, Colo. (322.4), 12:15 p. m., Clarence Reynolds, organist.

Pacific Standard Time Stations

KFOA, Seattle, Wash. (454.3), 6-6:45 p. m., baseball results; Olympic hotel concert orchestra; 6:45-8:15, Rhodes Department store program; 8:30-10, Times dance music; 10:05-11, Olympic hotel dance music.

KFWB, Hollywood, Calif. (252), 6-7 p. m., children's hour, Big Brother of KFWB; 8-9, program, Monte Mar Vista Subdividers, Warner Bros. syncopators; Great Western male quartet; Dorothy Dodd, Peggy Mathews, popular songs, Miller's International Hawaiian trio; 9-10, Silver Moon dance orchestra and entertainers; 10-11, Warner Bros. frolic, direction Charlie Wellman.

KGO, Oakland, Calif. (361.2), 8 p. m., weekly sports review, Al Santoro; 8:10, San Francisco Opera company; Dorothy Scholz, pianist; Opal Hayes, violinist; Studio trio; Donald Neal, baritone; Winston Petty, cellist; stories, J. Frank McDonald; Dorothy Dunyon, violinist; 10-1 a. m., Henry Halstead's orchestra.

KGW, Portland, Ore. (491.5), 6-8 p. m., Jackie Souder's orchestra; 10-12, Jackie Souder's orchestra.

KHJ, Los Angeles, Calif. (405.2), 5:30-6 p. m., Leighton's Arcade cafeteria orchestra, Jack Cronshaw, leader; 6-6:30, Art Hickman's Biltmore hotel concert orchestra, Edward Fitzpatrick, director; 6:30-7:30, KHJ's kiddies' hour, Dolly of Radioland and Uncle John; 8-10, program, Pacific Ready Cut Homes, Inc.; 10-11:30, Art Hickman's Biltmore hotel dance orchestra, Earl Burtnett, leader; 11:30-2 a. m., Lost Angels of KHJ, Freeman Lang, chief angel; Esther White, blues singer; Harold Hynes, monologuist; Lost Angels orchestra.

KNX, Hollywood, Calif. (336.9), 5:30-6:15 p. m., Wurlitzer pipe organ studio; 6:15, travel talk, W. F. Alder; 6:30-7, Atwater Kent Radio orchestra, Paul Finstein, leader; 7-7:30, dinner hour music; 7:30-8, Wurlitzer pipe organ studio; 8-10, KNX feature program; 10-11, Abe Lyman's Coconut Grove dance orchestra from Ambassador hotel; 11-2 a. m., Hollywood night, presenting screen and stage stars.

KPO, San Francisco, Calif. (428.3), 3:30-5:30 p. m., Palace hotel dance and concert orchestra; 5:30-6:15, Loew's Warfield theater program; 6:15, baseball scores; 6:35-7:30, Waldemar Lind and his orchestra; 9-12, Johnny Buick's Cabirians.

Kitus Teoumseh, noted Indian tenor and Simeon Oliver, Eskimo pianist, exclusive artists of WLS are visiting western stations this summer. They will be heard from KJR and KFOA, Seattle, July 15 through 22.

Sunday, July 12

Sunday, silent night for: CKAC, CNRT, KFAB, KFAE, KFOA, KSD, KYW, PWX, WAHG, WBAV, WCAE, WCAU, WCEE, WCX, WDAF, WDWF, WEAO, WEBJ, WFI, WGBS, WGR, WHAD, WHAS, WHAZ, WIP, WLIT, WMAK, WMAQ, WMC, WDO, WDR, WRC, WREO, WSAI, WSMB, WTAM.

Atlantic or Eastern Daylight Saving Time Stations

WBBR, New York, N. Y. (272.6), 10 a. m., Watchtower orchestra; 10:20, L. Marion Brown, soprano; 10:30, Bible lecture, Judge Rutherford; 11, L. Marion Brown, soprano; Watchtower orchestra; 9 p. m., instrumental selection; choral singers; 9:20, Fred Twaroschk, tenor; 9:30, Bible lecture, Judge Rutherford; 10, choral singers; 10:10, instrumental selections; 10:20, choral singers.

WCAE, Pittsburgh, Pa. (461.3), 3 p. m., People's Radio Church services; 6:30, dinner concert, William Penn hotel.

WDWF, Providence, R. I. (440.9), 10 a. m., chimes; 5 p. m., Venetian serenaders; pipe organ recital.

WEAF, New York, N. Y. (491.5), 3-5 p. m., "Sunday Hymn Sing," Federation of Churches; 7:20-9:15, Roxy and his Gang, Capitol theater; 9:15-10:15, Goldman band concert, Edwin Franko Goldman, conductor.

WEEI, Boston, Mass. (476), 7:20 p. m., Roxy and his gang; 8:30, Goldman band.

WFI, Philadelphia, Pa. (394.5), 10:20 a. m., services, Arch street Methodist Episcopal church.

WGBS, New York, N. Y. (315.6), 3:30-4:30 p. m., Piccadilly theater program.

WGR, Buffalo, N. Y. (319), 10:30 a. m., Central Presbyterian church service, William Wall Whiddit, organist, and Dr. Robert J. MacAlpine, speaker; 3-4 p. m., vesper service, Rev. Frank Cali.

WHAR, Atlantic City, N. J. (275), 2:30 p. m., short sacred recital, Seaside hotel trio; 2:45, sermon, Rev. G. P. Atwater; 9, concert, Seaside hotel and soloists; 11, Strand theater, organ recital.

WHN, New York, N. Y. (360), 1-1:30 p. m., organ recital, Loew's Lexington theater; 5-5:30, Roseland dance orchestra; 5:30-6, Olcott Vail's string trio; 10:45-11:15, Janssen's Hofbrau orchestra.

WIP, Philadelphia, Pa. (508.2), 10:45 a. m., services, Holy Trinity church.

WJAR, Providence, R. I. (305.9), 7:20-9:15 p. m., Roxy and his Gang; 9:15-10:15, piano recital.

WJY, New York, N. Y. (405.2), 9:30-9:45 p. m., "Reminiscences of a Reporter," William H. Crawford.

WJZ, New York, N. Y. (454.3), 8:30-8:45 p. m., George O'Brien, tenor; Raymond Randall, pianist.

WKAQ, San Juan, P. R. (340.7), 8-10 p. m., Municipal band concert.

WMCA, New York, N. Y. (340.7), 11-12 p. m., services, First Church of Christ, Scientist; 3-4, Duke Yellman's Irene Castle orchestra; 7-7:35, Ernie Golden and his Hotel McAlpin orchestra.

WNYC, New York, N. Y. (526), 9-11 p. m., Brooklyn Mark Strand theater program, direction of Edward L. Hyman.

WOO, Philadelphia, Pa. (508.2), 3:30 p. m., Sunday school exercises, Bethany Temple; 6, organ recital, Clarence K. Bawden; 7:30, services, Bethany Temple.

Eastern Standard or Central Daylight Saving Time Stations

KDKA, Pittsburgh, Pa. (309.1), 9:45 a. m., First Baptist church p. m., baseball; 7, First Church of Christ Scientist.

WBBM, Chicago, Ill. (226), 4-6 p. m., tea dance program; Bill Nolan's orchestra; Ray Hibbler, Dave Nudelman, Rose Gray Wysacker; Charlie Garland, pianist; 8-10, Sheppard Levine, tenor; Maridean Borreson, baritone; Samovar orchestra; William Molnaire, tenor; Madame Galatin, soprano; Emma de Szathmary, pianist; 12-2 a. m., Ralph Atlass, Nut club frolic; Samovar orchestra; Dave Nudelman; Charlie Garland, pianist.

WBZ, Springfield, Mass. (333.3), 8 p. m., "Atarlore and Religion," George Leo Patterson in a series of talks; 8:45, program, J. Reginald Kelsey, baritone; William R. Russell, accompanist; 9, Grace Possolt, violinist; Marjorie Possolt, accompanist.

WCX, Detroit, Mich. (516.9), 10:30 a. m., services, Central Methodist Episcopal church; 3:30 p. m., municipal band concert, Belle Isle; 6, dinner concert, Book-Cadillac hotel; 7:30, band concert, Belle Isle.

WEAR, Cleveland, Ohio (389.4), 3:30-5 p. m., Hotel Cleveland orchestra, Ivan Francisci, conducting; 7-8, Stillman theater orchestra; 9-10, "Evening Hour" studio.

WGES, Oak Park, Ill. (250), 5-7 p. m., Lucille Matthews, violinist; Edwin Kemp, tenor; Bryce Talbot, baritone; 10:30-1 a. m., Fred Workman, baritone; Ralph Olson, pianist; Coyne Electrical School serenaders.

WGN, Chicago, Ill. (370), 11 a. m., Uncle Walt reads the comics; 11:45, Chicago theater program; 3:30 p. m., Chicago Musical college program; 9-10, Drake concert ensemble.

WGY, Schenectady, N. Y. (379.5), 10 a. m., St. George's Episcopal church; 7 p. m., studio program, WJZ; 7:45, Lakewood farm ensemble.

WHT, Deerfield, Ill. (399.8), 12 m.-10:30 p. m., Paul Rader.

WJJD, Mooseheart, Ill. (302.8), 8:45-9:45 a. m., Catholic services; 10:45-11:30, Protestant services; 12, concert, Charley Straight's orchestra.

WKRC, Cincinnati, Ohio (326), 6:45 p. m., Walnut Hills Christian church, Rev. J. J. Castleberry; 10, classical program.

WLS, Chicago, Ill. (344.6), 7:30 p. m., Ralph Emerson, organist; 8-8:55, WLS Little Brown church; Little Brown church choir.

WLW, Cincinnati, Ohio (422.3), 8:30 a. m., school, conducted by Editorial staff of Sunday school publications, Methodist Book Concern; 11, services, Church of the Covenant, Dr. Frank Stevenson, minister; 8:30 p. m., concert, Pogue orchestra, Walter Esberger, director.

WMBB, Chicago, Ill. (250), 7-8:30 p. m., Trianon ensemble; Lindsay McPhail, pianist; Phyllis Harries, Mezzo-soprano; John S. Everett, baritone; Woodlawn theater orchestra; Charles Agne, trumpeter; Hazel O'Neil, soprano; 8:30-10:30, Trianon orchestra; Woodlawn theater orchestra; Clyde Hager; Florence Tenney; Fisher and Wayne; Harmony Clowns; Little Orphan Annie, Radio presentation; Morey Alswang, banjoist; Harold Stokes, accordionist.

WMBF, Miami Beach, Fla. (384.4), 6:30-7 p. m., Fleetwood Radio orchestra; 7-7:30, Fleetwood Radio orchestra; 10-12, dance music, Fleetwood Radio orchestra, specialties.

WQJ, Chicago, Ill. (447.5), 3-4 p. m., concert; 8-10, Ralph Williams and his Rainbo Gardens orchestra; Helen Leon, violinist; Everett Mitchell, baritone; E. J. Heckel, tenor; Jeanette Van Lennep, mezzo-soprano; Mary Van Lennen, accompanist; Ira Hamilton, pianist; C. B. Roe, baritone.

WSAI, Cincinnati, Ohio (325.9), 3 p. m., Radio sermonette; 3:10, Radio chime concert, Robert Badgley.

WWJ, Detroit, Mich. (352.7), 11 a. m., St. Paul's Episcopal cathedral; 6:20, Roxy and his Gang.

Central Standard Time Stations

KFAB, Lincoln, Nebr. (240), 5-6 p. m., German Congregational, Rev. G. J. Schmidt.

KFDM, Beaumont, Texas (315.6), 11-12 m., 8-9 p. m., sacred programs.

KFNF, Shenandoah, Iowa (266), 10:45 a. m., First M. E. church; 2:30 p. m., Rev. and Mrs. Hanley, Radio chaplains; 3, Dunn's chapel, S. S. Nebraska City, Mrs. E. T. Overton, director; 6:30, Golden Rule circle; 8, Christian church.

KFRU, Bristow, Okla. (394.5), 9:30 a. m., Sunday school; 11, sermon; 5, vesper.

KFUO, St. Louis, Mo. (545.1), 8:15 p. m., "Who Was Conceived—Rose Again from the Dead."

KFVE, University City, Mo. (240), 7-8 p. m., Radiocast review, Romaine Fielding; 10, sacred concert, choir, organ selections.

KLDS, Independence, Mo. (441), 11 a. m., Robert Miller, organist; Harry J. Kaufman, violinist; George Anway, tenor; sermon, C. E. Wight; 6:30 p. m., vesper service; Mrs. R. D. Weaver, soprano; Mrs. Minnie Scott Dobson, contralto; Mrs. W. C. Norman, contralto; Orland Nace, violinist; sermonette, Amnon

(Continued on page 9)

ELKS MEETING BROADCAST BY KGW

Sunday, July 12

(Continued from page 8)

White; 9, Amy E. Winton, organist; Nora LaMar Moss, contralto; Torleis Young, tenor; 9:15, sermon, Ralph W. Farrell.

KTHS, Hot Springs National Park, Ark. (374.8). 11 a. m., to 12 p. m., services, First Presbyterian church, Rev. Chauncey Hickok, pastor; Frances Hardin, organist; 9:15-9:35, baseball; 9:25-10, classical concert, New Arlington-Myor Davis ensemble, Lon Chassy, conductor.

KYW, Chicago, Ill. (536), 10-11:30 a. m., Second Presbyterian church; 3-4 p. m., Evening American studio.

WCBD, Zion, Ill. (344.6), 8 p. m., Zion orchestra, celestial bell quartet; George Dyer, marimba soloist; Mark Whiteside, baritone; H. E. Mayfield, soprano; Dorothy and Ralph Bull, soprano and tenor.

WCCO, Minneapolis-St. Paul, Minn. (416.4), 11 a. m., Westminster Presbyterian church; 4:10 p. m., House of Hope Presbyterian church; 7:20, Second Church of Christ, Scientist; 9, baseball; 9:15, classical concert.

WDAF, Kansas City, Mo. (365.6), 4-5 p. m., classical music; 5-6:30, Sunday school lesson, Dr. Walter L. Wilson.

Robert H. Prutting, organist and choirmaster of the First Methodist church and professor of theory at the Hartford Theological seminary is giving the organ concerts Tuesdays at WTIC, Hartford.

Dorothy Dunyon, violinist, will broadcast from KGO, Saturday, July 11. Albertine Schmidtke, soprano, is as vivacious and pretty as she sounds over the microphone of WWJ, Detroit.

WFAA, Dallas, Texas (475.9), 6:30-7:30 p. m., Radio Bible class, Dr. William Anderson; Bible study, gospel song; 8-9, City temple service; 9:30-11, Pantoriers, popular music orchestra.

WHAS, Louisville, Ky. (399.8), 9:57 a. m., organ music; 10, services, Broadway Baptist church, Rev. Russell Pirkey, pastor; H. U. Goodwin, organist, choir; Teresa Trant, soprano; Angelino McCracklin, contralto; Charles Barnes, tenor; William Cornwall, baritone.

WHO, Des Moines, Iowa (526), 11 a. m., University church services; 7:30-9, musicale.

WMC, Memphis, Tenn. (499.7), 11 a. m., services, St. Mary's Episcopal cathedral.

WOAN, Lawrenceburg, Tenn. (202.8), 9 p. m., Vaughan Radio orchestra.

WOAW, Omaha, Nebr. (526), 9 a. m., chapel service, Rev. R. R. Brown; 9, chapel service, Hope Mission church.

WOC, Davenport, Iowa (483.6), 8-8:30 p. m., Methodist Episcopal church, Rev. Walter F. Day.

WORD, Batavia, Ill. (275), 10 a. m., service to 11 a. m., hymns, sacred songs, Mr. and Mrs. B. F. Hollister, Burt Rice; Bible lecture, D. J. Morehouse; 3:45, p. m., service; S. I. B. S. A., choral singers; Eva Polokoff, violinist; address, J. F. Rutherford.

WOS, Jefferson City, Mo. (440.9), 3 p. m., Union religious services from Capitol Steps.

WTAS, Elgin, Ill. (302.8), 2-5 p. m., Sunday afternoon popular concert; 8-12, Joe Rudolph and the Boss' Own orchestra; Herbie Mintz, Ned Becker, Gail Bandell.

Mountain Standard Time Stations

KFWA, Ogden, Utah (261), 8-11 p. m., musical program, Chamber of Commerce.

KOA, Denver, Colo. (322.4), 11:30 a. m., Augustana Lutheran church; 4 p. m., organ recital, Augustana Lutheran church; 8, Augustana Lutheran church.

Pacific Standard Time Stations

KFWB, Hollywood, Calif. (252), 9-11 p. m., late news and Warner Bros.' movie frolic, presenting some Warner Bros.' screen celebrities.

KGO, Oakland, Calif. (361.2), 11 a. m., First Presbyterian church; 3:30 p. m., Cliff hotel concert orchestra; 8, First Presbyterian church.

KGW, Portland, Ore. (491.8), 10:30-12 m., First Presbyterian church services, Dr. Harold Leonard Bowman; 7:45-9, First Church of Christ, Scientist.

KHJ, Los Angeles, Calif. (405.2), 6-6:30 p. m., Leighton's Arcade cafeteria orchestra, Jack Cronshaw, leader; 6:30-7, Art Hickman's Biltmore hotel concert orchestra, Edward Fitzpatrick, director; 7-7:30, Arthur Blakely, organist; 8-10, program, Martin Music company, arranged by J. Howard Johnson.

KNX, Hollywood, Calif. (336.9), 7-8 p. m., First Presbyterian church of Hollywood, by remote control, Stewart P. MacLennan, pastor; 8-9, Ambassador hotel concert orchestra, Josef Rosenfeld, director; 9-10:30, program, Beverly Hills Nurseries, the Lubowski string trio.

KPO, San Francisco, Calif. (428.3), 6-6:30 p. m., States restaurant orchestra; 6:30, baseball scores; 6:35-7:30, Palace hotel concert orchestra, Cyrus Trobbe, director; 8-8:30, Palace hotel concert orchestra; 8:30-10, Rudy Seiger's Fairmont hotel orchestra.

Monday, July 13

Monday, silent night for: CKAC, CNRT, KFAE, KFDM, KGW, KHJ, KLDS, KYW, PWX, WBAV, WBBM, WBCN, WCAU, WDWF, WEAO, WEBH, WEBJ, WFI, WGN, WGBS, WGES, WHAS, WIBO, WIP, WJY, WKAQ, WLS, WMAQ, WMBB, WOC, WOAI, WQJ, WRC, WREO.

Atlantic or Eastern Daylight Saving Time Stations

CHNC, Toronto, Can. (356.7), 8 p. m., CHNC orchestra; Gerrard J. Kelly, tenor; Dwight Wilson, baritone.

WAHG, Richmond Hill, N. Y. (315.6), 7:30-7:35 p. m., sports talk, Thornton Fisher; 7:35-8, Mrs. Amy Mitchell, soprano; 8-8:15, Horace J. Taylor, reader; 8:15-9, Synchrophase string trio; 9-9:15, Norman Grayson, pianist; 9:15-9:30, Mrs. Amy Mitchell; 9:30-10, Synchrophase string trio; 10-10:55, dance music; 11:00-11:30, dance music.

WBBR, New York, N. Y. (272.6), 8 p. m., Syrian Oriental selections, Tonic Moubaid and Elizabeth Awad; 8:10, vocal selections; 8:20, World News Digest; 8:30, vocal selections; 8:40, "The Harp of God," Bible instruction; 8:50, Syrian Oriental music.

WCAE, Pittsburgh, Pa. (461.3), 6:30 p. m., dinner concert, William Penn hotel; 8:30, concert; 9, concert, Sanders Inn; 10, dance music, Sanders Inn.

WEAF, New York, N. Y. (491.5), 4-4:15 p. m., Moonlight instrumental trio; 4:15-4:30, "Indian Legends," Marie Collins Rooney; 4:30-5, Moonlight instrumental trio; 6-7, dinner music, Waldorf-Astoria; 7-7:15, William Benner, baritone; 7:15-8:30, program, Mark Strand theater, staged under direction of Joseph Plunkett; 8:30-8:45, Vera Curtis, soprano; 8:45-9, health talk, Metropolitan Life Insurance company; 9-10:15, Goldman band concert; 10:15-10:30, Guiseppe di Benedetto, tenor; 10:30-11:30, Hotel Bossert Marine roof orchestra.

WFI, Philadelphia, Pa. (394.5), 1 p. m., Bellevue Stratford concert trio; 3, Loretta Kerk, pianist; 6:45, Bellevue Stratford roof garden trio.

WGBS, New York, N. Y. (315.6), 3-3:10 p. m., tennis talk, Frank Beal; 3:10-3:20, Sam Diamond, blind pianist; 3:20-3:30, "Close-up of John Barrymore," Arthur William Row; 3:30-3:40, Sam Diamond; 3:40-3:50, recitations, Beatrice Miesler; 3:50-4, Sam Diamond; 6-6:30, Uncle Geebee; 7-7:10, Captain Archibald's viewpoint of Major General Rockenback of General Pershing's staff.

WGR, Buffalo, N. Y. (319), 2:30-4:30 p. m., WGR's afternoon program; 6:30-7:30, Olympic dance orchestra; 9-9:30, piano recital, Mrs. Carl J. Dickerman; 9:30-10, John Dodsworth, reader; 10-11, popular program, Royal Arcanum; 11-1 a. m., supper-dance music, Vincent Lopez' Hotel Statler dance orchestra, Harold Gieser, director.

WHAR, Atlantic City, N. J. (275), 7:30 p. m., address; 8, Seaside hotel trio.

WHN, New York, N. Y. (360), 7:30-9 p. m., Alja and his WHN orchestra; 8-8:05, "Storage Batteries," H. B. Shontz; 8:05-8:35, Roseland dance orchestra; 8:35-8:50, talk, H. W. Carlough, Terminal Barber Shops; 11-11:30, organ recital, Loew's Lexington theater; 12-12:30 a. m., Harry Richmand and his Club Richmand entertainers.

WIP, Philadelphia, Pa. (508.2), 1 p. m., luncheon music from Steel Pier; 3, song of the surf; 9:30, Comfort's Philharmonic orchestra; 6:05, Benjamin Franklin concert orchestra; 7, Uncle Wip's bedtime stories.

WJAR, Providence, R. I. (305.9), 8 p. m., Berry Spring dance team; 9, A. & P. Gypsy string ensemble.

WJZ, New York, N. Y. (454.3), 4:30-5:30 p. m., Fred Hall's Royal Terrace orchestra; 5:30-6, daily reports; 6-7, U. S. Navy band; 8:30-9:30, program, Landay Hall; 10:45-11:45, Jacques Green and his Club Deauville orchestra.

WLIT, Philadelphia, Pa. (394.5), 12:02 p. m., daily almanac; Stanley theater organ recital; Arcadia cafe concert orchestra; 2, Arcadia cafe concert orchestra; 4:30, Marcella North, pianist; 7:30, Dream Daddy's bedtime stories; 9, Stanley theater hour; moving picture review, James A. Nassau; 10, Arcadia cafe dance orchestra.

WMCA, New York, N. Y. (340.7), 3-3:15 p. m., Ben Bernard, tenor; 6:30-7:30, Ernie Golden and his Hotel McAlpin orchestra; 8-9, lecture, First Church of Christ Scientist; 9-9:30, Lafayette male quartet; 10-10:30, Hotel McAlpin Radio forum.

WNYC, New York, N. Y. (526), 6:50-7 p. m., market high spots; 7-7:25, Original Charleston Five; 7:25-7:30, baseball results; 7:30-7:35, police alarms; 7:35-8, Original Charleston Five; 8-8:15, "Knotty Problems in Baseball," John B. Foster; 8:15-10:15, concert, Martin's band; 10:15-10:30, "Trend of the Times," Dr. Sydney N. Ussher.

WOO, Philadelphia, Pa. (508.2), 11 a. m., organ recital, Mary E. Vogt; 12:02 p. m., Golden's crystal tea room orchestra; 4:45, organ recital; 7:30, A. Candoloro's concert orchestra; 8, Mark Strand theater concert; 9, Goldman band concert, Walno Kaupp, cornetist; 10:15, Guiseppe di Bondetto, tenor; 10:30, Hotel Bossert Marine roof orchestra.

WOR, Newark, N. J. (405.2), 6:15-7:15 p. m., Ernie Krickett's Cinderella orchestra; 7:15-7:30, sports talk, Bill Wathey; 8-9, Newark Philharmonic band; 9-10, Al Reid's hour; 10:45-11:30, the Commanders.

Eastern Standard or Central Daylight Saving Time Stations

KDKA, Pittsburgh, Pa. (309.1), 2:30-5 p. m., baseball; 7, baseball; 8:45, concert.

WBZ, Springfield, Mass. (333.3), 6 p. m., program, Capitol theater orchestra; 6:30, baseball; 6:32, Capitol theater orchestra; 8, concert, Alcppo drum corps; 8:30, concert, Acolian Duo; Gertrude Anderson Wood, contralto; Rio Anderson, tenor; William Burbank, accompanist; 9, Ebbna Hansen, soprano; Marjorie Stephens, accompanist; 9:20, Lena G. Krans, pianist; 9:40, book review, Bennett B. Schneider; 9:50, baseball.

WCEE, Elgin, Ill., (275), 10:30-12 midnight, Joe Rudolph and the Boss' Own orchestra; Frank Morris, Polly Willis, John Post, Eddie and Fannie Cavanaugh.

WCX, Detroit, Mich. (516.9), 2 p. m., news and markets; 4:15, concert; 6, dinner concert, Book-Cadillac hotel; 7:30, municipal band concert, Belle Isle; 8:30, musical program.

WEAR, Cleveland, Ohio (389.4), 7-8 p. m., musical program, Loew's State theater.

WEES, Oak Park, Ill. (280), 5-7 p. m., Mrs. Bernard McDevitt, lecturer; John McFarlane, bass; Elsie Barge, pianist; Andrea Scarlatti, tenor; Coyne Electrical School serenaders.

WGY, Schenectady, N. Y. (379.5), 5:30 p. m., John Fink's Hotel Ten Eyck orchestra; 6:15, "Increasing Poultry Profits and Improved Methods," R. C. Ogle; 6:35, WGY orchestra; Leslia Joel Hulse, contralto.

WHAZ, Troy, N. Y. (379.5), 8:15 p. m., vocal quartet; Isabelle Vere, soprano; Ada B. Webster, contralto; William L. Van Arnum, tenor; Isaac G. Fleck, bass; Frank Wills, accompanist; Mrs. John Vaughn, reader; Etta C. Vincent, violinist.

WHT, Deerfield, Ill. (399.8), 7 p. m., classical program; Al Carney, organist; Kitchen Klenzer Klassics; Lillian Knowles, contralto; Northland trio; 7:30, Leola Aikman, soprano; John Clark, baritone; 8:15, Elmer Kaiser's Riverview Park ballroom orchestra; 10:15, numbers from WHT; 10:30, Chicago Roosters; Al Carney, organist; Davida Boyd, whistler; Geisle Brothers; 11, Walter Donovan, tenor; Carl Stockenberg, harmonica soloist; 11:30, harmony ballads; Milton Grossman, saxophonist; Hook O'Hare's Red Dragons orchestra; 12, Pat Barnes, Irish melodies; Chicago specialties; Johnny Black; 12:30 a. m., Al Carney, organist; 1, Al Carney, bugle and taps.

WJJD, Mooseheart, Ill. (302.8), 6:45-7:15 p. m., dinner concert; 7:15-8, Mooseheart Novelty orchestra; Belmont hotel trio; 10:30-1 a. m., Charley Straight and his orchestra; Albert F. Brown, organist.

WKRC, Cincinnati, Ohio (326), 8 p. m., musical program, members Robert E. Bently Post, American Legion; 9, Caldwell and Taylor Original Benzol boys.

WLW, Cincinnati, Ohio (422.3), 7 p. m., dinner hour concert, Hotel Gibson orchestra, Robert Visconti, director; soloist, Helen Hemley, accompaniments by Beulah Barrett; 8, popular program, Laggett Coal Hearers; Larsch Ferguson, baritone; median pianologues, Margaret Genter; organ solos, Cyril Buschle.

WMAK, Lockport, N. Y. (265.5), 8:30-10:15 p. m., musicale, Max Freedman.

WMBF, Miami Beach, Fla. (384.4), 6:30-7 p. m., Fleetwood Radio orchestra; 7-7:30, Fleetwood Radio orchestra; 10-12, dance music, Fleetwood Radio orchestra, specialties.

WRC, Washington, D. C. (468.5), 5-6:25 p. m., United States Navy band.

WSAI, Cincinnati, Ohio (325.9), 10 p. m., Arthur Kuhlman, baritone; Norma Richter, soprano; Herman Boardman, violinist.

WTAM, Cleveland, Ohio (389.4), 6-7 p. m., Golden Pheasant orchestra; 8-9, instrumental hour, Willard symphony; 9-10, studio program; 10-11, symphony program; 11-12, Euclid Beach dance orchestra.

WTAS, Elgin, Ill. (302.8), 8-10:30 p. m., Joe Rudolph and the Boss' Own orchestra; Herbie Mintz; Bee Lehman; Phil Wilcox.

WTIC, Hartford, Conn. (348.6), 6 p. m., Emil Heimberger's Hotel Bond trio; Mrs. Alice Evans Wagner, contralto; 6:50, baseball; 6:55, dinner music.

WWJ, Detroit, Mich. (352.7), 6 p. m., dinner music.

Central Standard Time Stations

KFAB, Lincoln, Nebr. (240), 7:30-9:30 p. m., Budd Hass, reader; Clyde Davis, violinist; Otto Kumpf, baritone; Seward entertainers.

KFNF, Shenandoah, Iowa (266), 7:30 p. m., concert, Henry Field Seed company.

KFRU, Bristow, Okla. (394.5), 7-8 p. m., Oklahoma educational hour; 8-10:30, music.

KFUO, St. Louis, Mo. (545.1), 8 p. m., "A Life of Prayer."

KFVE, University City, Mo. (240), 7-8 p. m., Radiocast review, Romaine Fielding; 10, song recital, Geo. McGrail, tenor.

KSD, St. Louis, Mo. (545.1), 9 p. m., concert, Azzolina's band.

KTHS, Hot Springs National Park, Ark. (374.8), 9:15-9:25 p. m., baseball; 9:25, dance concert, Ray Mullins Como hotel roof garden orchestra.

WCBD, Zion, Ill. (344.6), 8 p. m., mandolin and guitar band; chorus, mixed quartet; John D. Thomas, baritone; Erma Reynolds, soprano; Misses Sweeney and Nafziger, Mrs. Crowe, vocal trio; Erwin Randall, flutist; piano trio; Theodore Fothy, reader.

WCCO, Minneapolis-St. Paul, Minn. (416.4), 6 p. m., baseball; 6:45, F. & N. family; 9, weather, baseball; 10, All Star Melody boys.

WDAF, Kansas City, Mo. (365.6), 3:30-4:30 p. m., Newman and Royal theaters; 6-7, piano tuning-in number on the Duo-Art; Cecile Burton, reader; children's information period; Plantation players; 11:45-1 a. m., Merry Old Chief and Plantation players; Charles Dornberger's Kansas City Athletic club orchestra; Kansas City Athletic club orchestra.

WFAA, Dallas, Texas (475.9), 6:30-7:30 p. m., Artie Collins and his Jolly Pirates; 8:30-9:30, Lilia Griffin, pianist.

(Continued on page 10)

AEOLIAN DUO VISITS WBZ TUESDAY

Monday, July 13

(Continued from page 9)

WHA, Madison, Wis. (535.4), 7:45 p. m., community celebration and pageantry, Mario Dicore; "Wisconsin Highways and Recreation Grounds," Frank A. Cannon.
WHAD, Milwaukee, Wis. (275), 6-7 p. m., Arthur Richter, organist; 8-10, Marquette university studio program.
WHO, Des Moines, Iowa (526), 7:30-8 p. m., Stewart Watson, baritone; Helen Birmingham, pianist; 8-9,

Marion Henke, teacher of violin is one of the musicians who is entertaining the invisible audience of WHAD, Milwaukee. Miss Henke is always accompanied by Florence Henke Stepnes who is also a well known Milwaukee artist.

artists, Dean Holmes Cowper, director; 11-12; organ recital.
WMC, Memphis, Tenn. (499.7), 12:30 p. m., musical program, O. K. Houck Piano company; 8:30, concert, Hotel Gayoso orchestra.
WOAN, Lawrenceburg, Tenn. (282.8), 9 p. m., Vaughan Radio orchestra; Vaughan male quartet.
WOAW, Omaha, Nebr. (526), 6 p. m., Phyllis Griswold, organist; 6:30, McCrory's popular period; 6:45, orchestra; 9, Skeen trio; Thelma Skeen Swauger, harpist; Lorenda and Allan Skeen, violinists; 10, Gilbert Jaffy, violinist; Herman Riley, saxophonist; Jess Sutton, pianist.
WORD, Batavia, Ill. (275), 8:30 p. m., Bible questions and answers; 8:45, musical program.
WOS, Jefferson City, Mo. (440.9), 8 p. m., musical program, Mary Armstrong.
WSMB, New Orleans, La. (319), 6:30-7:30 p. m., dinner program; 8:30-10:30, Leslie George's Patio Royal orchestra; Fuzzy Wuzzy Twins; Boswell Sisters trio.

Mountain Standard Time Stations

KFWA, Ogden, Utah (261), 9-11 p. m., studio program.
KOA, Denver, Colo. (322.4), 6:30 p. m., Herbert White and his Silver State orchestra; 7:30, Sandman's hour; 8, Hawaiian presentation, Keystone banjo trio; Alice A. Riley and Domingo Manzon, guitar duets; KOA orchestra; "Microphone Excursion through Hawaii," Rev. A. G. A. Buxton; Helen Freeman Beckwith, soprano; George Gavin, yodel numbers; talk for nature lovers, F. A. Small.

Pacific Standard Time Stations

KFOA, Seattle, Wash. (454.3), 6-6:45 p. m., Olympic hotel concert orchestra; 6:45-8:15, Sherman, Clay and company program; 8:30-10, Times dance music.
KFWB, Hollywood, Calif. (252), 6-7 p. m., children's hour, Big Brother of KFWB; 8-9, program, Check-Neal Coffee company, Maxwell House Coffee string quartet, Harry Jackson, leader; Frank Stever, tenor; Verna Kloess, concert pianist; Don McNamee and George Green, accordian and banjo soloists; 9-10, program, E. P. Janes, builder of Altadena; Bill Hatch's orchestra, Sol Hoopii's Hawaiian trio, Dan Gridley, tenor; 10-11, Warner Bros. frolic, direction Charlie Wellman.
KGO, Oakland, Calif. (361.2), 6-7 p. m., dinner concert, Wiley B. Allen company studio; 8, Amphion trio; "How to Disinfect Small Quantities of Water," Hugh Barrett Dobbs; "Symposium on the New Education," Williams institute; "From a Composer's Workshop," Arthur S. Garbett; "Collection Letters," W. J. Marra; "Inside Dope on Curing Automobile Ills," Louis P. Signer.
KGW, Portland, Ore. (491.5), 6-7 p. m., Forrest Taylor Stock company orchestra; 8-11, B. P. O. E. Grand Lodge convention.
KNX, Hollywood, Calif. (336.9), 5:30-6:15 p. m., Wurlitzer pipe organ studio; 6:15, travel talk, W. F. Alder; 6:30-7, Atwater Kent Radio orchestra, Paul Finstein, director; 7-7:30, dinner hour music; 7:30-8, program, Columbia Outfitting company; 8-9, program, L. W. Stockwell company; 9-10, program, Listenwalter and Gough; 10-11, Goodrich Silvertown Cord orchestra, Lilyan May Challenger, contra-contralto; 11-12, Abe Lyman's Cocoanut Grove dance orchestra.
KPO, San Francisco, Calif. (428.3), 6:15 p. m., baseball scores; 6:40-7, States restaurant orchestra; 7-7:30, Rudy Seiger's Fairmont hotel orchestra; 8-9, program; 9-10, program, Sue Hill, director; 10-11, States restaurant orchestra.

Tuesday, July 14

Tuesday, silent night for: CNRT, KFAE, KFNF, KFUO, KFWA, KOA, PWX, WAHG, WBAV, WBBR, WCBO, WEAO, WHAD, WHAZ, WKAQ, WLIT, WMAK, WTAM.

Atlantic or Eastern Daylight Saving Time Stations

CKAC, Montreal, Can. (410), 7 p. m., talks; 7:30, classical concert, Windsor hotel orchestra; 8:30, S. S. Metagama orchestra; 10:30, Windsor hotel dance orchestra.
CNRA, Moncton, Can. (313), 9 p. m., Scottish evening, pipers' band of Truro, A. Victor MacCallum; Moncton male quartet; CNRA dance orchestra.
WCAE, Pittsburgh, Pa. (461.3), 6:30 p. m., dinner concert, William Penn hotel; 8, program New York; 8:30, Gold Dust Twins; 9, Eveready hour; 10, Grand Opera.
WCAU, Philadelphia, Pa. (278), 6:30 p. m., Billy Hayes Cathaty Tea Garden dance orchestra; 7:30, recital, N. Snellenburg and Co.; 8, talk, Clara Zillessen; 10:30, Billy Hayes and his Cathay Tea Garden dance orchestra.
WDWF, Providence, R. I. (440.9), 8:30 p. m., Arcadia orchestra.
WEAF, New York, N. Y. (491.5), 4-4:15 p. m., Harold F. Noble, tenor; 4:15-4:30, Cameron Emslie, pianist; 4:30-5, women's program; 6-7, dinner music, Waldorf-Astoria; 7-7:10, saxophone and flute; Louis Biamonte; 7:10-7:30, Columbia university lecture; 7:30-8, Knickerbocker quartet; 8-8:30, Abbas trio; 8:30-9, Gold Dust Twins; 9-10, Eveready hour; 10-11, grand opera, "Martha," WEAF Grand Opera company; 11-12, Vincent Lopez' Pennsylvania orchestra.
WEBJ, New York, N. Y. (233), 7-7:30 p. m., Dan Barnett's orchestra; 7:45-8, Joe Urich, tenor, accompanied by Lou Nedle; 8-8:15, railroad talk, G. T. Gerr; 8:15-8:30, Rudolph Joskowitz, violinist; Norman Hennefeld, pianist; 8:45-9, Viola Verdon, soprano.
WFI, Philadelphia, Pa. (394.5), 1 p. m., Bellevue Stratford, concert trio; 3, Caroline Hoffman, pianist; 6:45, Bellevue Stratford Roof Garden trio; 8, Abbas trio from WEAF; 8:30, Gold Dust Twins; 9, Eveready hour; 10, Grand Opera, "Martha," WEAF Grand Opera company.
WGBS, New York, N. Y. (315.6), 3-3:10 p. m., new series of graphology talks, Louis Rice; 3:10-3:20, Henry Rogers, pianist; 3:20-3:30, talk by A. Louise Filebrown, household economist; 3:30-3:40, Henry Rogers; 3:40-3:50, piano lessons, Dr. Alfred G. Robyn; 3:50-4, piano lessons; 6-6:30, Uncle Geebee; 6:30-7, Metro dance orchestra; 7-7:10, Captain Archibald's viewpoint of Surgeon General Ireland of U. S. Army; 7:10-8, Metro dance orchestra; 8-8:30, vocal duets, Belle Mayer and Anna Wiener; 8:30-9, dance instruction, Mikhail Mordekin; Rachael Bodenstein, pianist; 9-9:15, Terese Todaro, soprano; 9:20-9:45, Clarence Williams trio; 10-10:15, Australian stock whip demonstration over Radio, Colonel Fred Lindsay; 10:30-10:45, Fauna Gressier, Australian soprano.
WGR, Buffalo, N. Y. (319), 2:30-4:30 p. m., WGR's afternoon program; 6:30-7:30, dinner music, Vincent Lopez' Hotel Statler dance orchestra, Harold Gleser, director; 8-11, jointly with WEAF, including Abbas trio, Gold Dust Twins, Eveready hour and grand opera, "Martha."
WHAR, Atlantic City, N. J. (275), 7:30 p. m., book review, Mrs. James Lord; 8, Seaside hotel trio; 9, Breakers Hotel Vincent Lopez's dance orchestra; 11, Strand theater organ recital.
WHN, New York, N. Y. (360), 6:30-7 p. m., Olcott Vail's string trio; 7:15-7:30, "Colonial Aces"; 7:30-8, Will Oakland's Chatheau Shanley; 9:30-10, Palisades Amusement Park orchestra; 11:30-12, Club Alabam orchestra.
WIP, Philadelphia, Pa. (508.2), 1 p. m., luncheon music from Steel Pier; 8, Song of the Surf; 3:30, Comfort's Philharmonic orchestra; 6:05, Benjamin Franklin concert orchestra; 7, Uncle Wip's bedtime stories; 8, Comfort's Philharmonic orchestra; 8:45, Song of the Surf; 8:50, Veselli's band; 10:05, weekly movie talk, Eli M. Orowitz; 10:30, Howard Lanin's dance orchestra.
WJAR, Providence, R. I. (305.9), 8:30 p. m. Gold Dust Twins; 9, Eveready hour.
WJY, New York, N. Y. (405.2), 7:30-8:30 p. m., Hotel Ambassador ensemble.
WJZ, New York, N. Y. (454.3), 4:30-5:30 p. m., Bernhard Levitow's Hotel Commodore tea orchestra; 5:30-6, daily reports; 7-7:15, Frank Dole's talk on dogs; 7:15-8, Joseph Strissof's Hotel Vanderbilt orchestra; 8-8:10, Wall Street Journal review; 8:10-8:25, NYU Air college; 8:25-10, concert from Lewisohn Stadium.
WLIT, Philadelphia, Pa. (394.5), 11 a. m., organ recital, Stanley theater; 12:02 p. m., daily almanac; Stanley theater organ recital; Arcadia cafe concert orchestra; 2, Arcadia cafe concert orchestra; 4:30, talk, "The Normal Child," H. Brooker Mills, M. D.
WMCA, New York, N. Y. (340.7), 3-5 p. m., musical program; 6:30-7, Carolinian's orchestra; 7-8, "Jack Wilbur's Personalities;" 8-8:15, Minnie Weil, pianist; 8:15-8:30, Frederick Gerrald, baritone; 8:30-8:45, Minnie Weil; 8:45-9, Frederick Gerrald; 9-10, Rainbow society orchestra; 10-11, Chiropractic hour of music; 11-12, Ernie Golden and his Hotel McAlpin orchestra.
WNYC, New York, N. Y. (526), 6:50-7 p. m., market high spots; 7-7:25, song recitals; 7:25-7:30, baseball results; 7:30-7:35, police alarms; 7:35-8, municipal talk; 8-10:30, concert program.
WOO, Philadelphia, Pa. (508.2), 11 a. m., organ recital, Mary E. Vogt; 12:02 p. m., Golden's Crystal Tea Room orchestra; 4:45, organ recital, Mary E. Vogt; 7:30, A. Candelori's concert orchestra.
WOR, Newark, N. J. (405.2), 6:30-7 p. m., man in moon; 7:15-7:30, sports, talk, Bill Wathey.

Eastern Standard or Central Daylight Saving Time Stations

KDKA, Pittsburgh, Pa. (309.1), 2:30-5 p. m., baseball; 8:45, concert; 9:55, baseball; 10:30, Grand theater.
WBBM, Chicago, Ill. (226), 8-12 p. m., Sandy Meek, Scotch tenor; Lester Kelsey; Harry Sosnik, pianist; Crillon orchestra; Sylvia Galnic, soprano; Harold Anderson, piano-accordionist; fashion talk; Sunset quartet; Al Furry, harmonica; Honky Tonk Gloom chasers; Dave Nudelman; Leo Matise, Hawaiian guitarist; Cort Banks, ukulelist; Harry Brailsford, mandolin soloist.
WBZ, Springfield, Mass. (333.3), 6 p. m., Leo Reisman Hotel Lenox ensemble; 6:30, baseball; 8, George E. Port, Hawaiian guitar; 8:15, concert, Robert Underwood, baritone; Dr. L. O. Whitman, accompanist; 8:30, saxophone solos, Lewis K. Harlow, Aleppo drum corps; 8:45, tenor recital, Joseph Killfoyle; 9, Hotel Brunswick orchestra; 9:50, baseball.
WCEE, Elgin, Ill. (275), 10:30-12 midnight, Charlene Star midnight dance program, Joe Rudolph and the Boss' Own orchestra.
WCX, Detroit, Mich. (516.9), 4:15 p. m., concert; 6, dinner concert, Book-Cadillac hotel 7:30, municipal band concert, Belle Isle; 8:30, musical program; 10, the Red Apple club.
WEAR, Cleveland, Ohio (389.4), 7-8 p. m., Metcalf Memorial organ recital, Vincent H. Percy.
WEBH, Chicago, Ill. (370.2), 7:30-8:30 p. m., Hotel Oriole orchestra; Dorothy H. Blum, soprano; Riviera theater; Frank Bordner, baritone; 9:30-10:30, Oriole orchestra; Lydia Lochner, contralto; Jack Penewell, twin guitar soloist; Frank Bordner, baritone; South American Troubadours; 11:30-1, Oriole orchestra; Frank Bordner, baritone; Sandy Meek, tenor; Jack Penewell, twin guitar soloist.
WGES, Oak Park, Ill. (250), 5-7 p. m., Viola Kreeland, pianist; Katherine Forbes, soprano; Dorothy Tatman, violinist; Frances Morrison, contralto; 10:30-1 a. m., Paramount orchestra; Melody girls; Lois DeWitt, Virginia Shaffer; Sandy McTavish, Rudolph Hess; Coyne Electrical School serenaders.
WGN, Chicago, Ill. (370.2), 5:30 p. m., Skeezix time; 6:30-7:30, Drake concert ensemble; Blackstone string quintet; 8:30-9:30, studio program, organ recital; "The Triumph of David," Grand Avenue Congregational church choir, WGN trio; 10:30-11:30, Drake Hotel Terrace Garden program.
WGY, Schenectady, N. Y. (379.5), 5:30 p. m., dinner music, Hotel Van Curler orchestra; 6:35, bee talk, L. A. Huguemont; 6:40, Noel Rivenburg, soprano; Raymond Willey, tenor; Ethel Osterhout, accompanist; 6:55, "Over the Seven Seas," WJZ; 7:25, New York Philharmonic orchestra, William Von Hoogstraten, conductor; 10, Meyer Davis orchestra.
WHT, Deerfield, Ill. (399.8), 7 p. m., Borden Birthday party; Al Carney, organist; Dorothy Herman Blum, soprano; Edwin Kemp, tenor; Wilkens and Martens; Agatha Karlen, reader; 8:45-10:15, Riverview Park ballroom orchestra; 10:30-11, Chicago Boosters; Al Carney, organist; Husk O'Hare's Red Dragon orchestra; Ned Becker, comedian; Eleanor Gilmour, soprano; Jane McConnell, contralto; 11:30-12, Chicago specialties; Johnny Black, pianist; 12-1, Al Carney, organist.
WJJD, Mooseheart, Ill. (302.8), 6:45-7:15 p. m., Belmont hotel trio; 7:15-8, Mooseheart concert band; "Child Care," M. P. Adams; 10:30-1, Charley Straight and his orchestra; Albert F. Brown, organist.
WKRC, Cincinnati, Ohio (326), 10 p. m., Marion McKay's Bond Hill House orchestra; 10:50, safety talk, Cincinnati Automobile club, J. J. Arnold; 11, classical program.
WLS, Chicago, Ill. (344.6), 6:30 p. m., Ralph Emerson, organist; 7:15, Rex's Cornhuskers; 7:45, lullaby time; 8, Henry Sopkin, violinist; Dorothy Craigmile, soprano; John Sloan, tenor; 9, R. F. D. program; old time songs, Chubby Parker; 10, Fanny and Eddie Cavanaugh; Ann Williams, contralto; Nubs Allan, contralto; Rex's Cornhuskers; 10:30, WLS Harmony trio; 10:45, Grace Wilson, contralto; 11; Rex's Cornhuskers; 11:20, Solemn Old Judge's program; Joe Bren's minstrels; 12-1, Ralph Emerson, organist.
WLW, Cincinnati, Ohio (422.3), 4 p. m., students in recital from classes of Leo Stoffregen and William Kyle; 6:30 p. m., dinner hour concert; organist, Gene Johnson, novelty feature, overture, Light Cavalry arranged for organ, piano and violin; 7, the story lady, Mrs. Bertha W. Edmonds; 8, twenty minutes of the World's Popular Marches; 8:20 songs, Mary Gretchen Walsh, Lucille White, accompanist; 9, concert program, Formica Concert orchestra, William Stoess, director.
WMAQ, Chicago, Ill. (447.5), 6 p. m., Chicago theater organ; 6:30, Jack Chapman's orchestra; 8, Jack Chapman's orchestra; 8:30, "Outlying Banks," John Carroll; 8:50, Freda Burns, contralto; Mrs. Elizabeth Schwitzner, soprano; Bess Murray, pianist; 9:30, Jack Chapman's orchestra.
WMBB, Chicago, Ill. (250), 7-8:30 p. m., Trianon ensemble; Wayne King, saxophonist; Marie Caruso, soprano; Bernard Senescu, violinist; Lindsay McPhail, pianist; Hazel O'Neil, soprano; 8:30-10:30, Trianon orchestra; Woodlawn theater orchestra; Geraldine Doyle, soprano; Clyde Hager; Florence Tenney; Fisher and Wayne; Charles Agne, Marimba soloist; Cecil and Esther Ward, Hawaiian guitarists.
WMBF, Miami Beach, Fla. (384.4), 6:30-7 p. m., Fleetwood Radio orchestra; 7-7:30, Fleetwood Radio orchestra; 10-12, dance music, Fleetwood Radio orchestra.
WQJ, Chicago, Ill. (447.5), 7-8 p. m., concert, Ralph Williams and his Rainbo Gardens orchestra; Laura Patterson, dramatic reader; Madeline Ruff, pianist; Mary Towbin, violinist; Gertrude Towbin, accompanist; 10-1 a. m., Rainbo Skylarks; Frank Blasco, boy tenor; Will Rossiter; Ila Shanabrook, soprano; Mack Sisters; Everett George Opie, character reader; 1-2, Ginger hour, Little Skylarks.
WRC, Washington, D. C. (468.5), 5:55 p. m., Washington-St. Louis baseball game; 6:50, baseball; 6:55, "Over the Seven Seas;" 7:30, Philharmonic concert, WJZ, WGY; 9:30, "Sweet and Twenty," theater workshop; 10, Meyer Davis society orchestra, WJZ, WGY; 11:05, organ recital, Crandall's Tivoli theater.
WSAI, Cincinnati, Ohio (325.9), 6:45 p. m., chimes, Robert Badgley; 7, Hotel Sinton trio; 8, Eveready hour of music; 9, Russian composers; Ida Blackburn, soprano; Elizabeth Langebrake, contralto; Cincinnati male quartet; Waldene Johnston, violinist.

(Continued on page 11)

Baseball Scores

TABULATED below is a time table of the stations giving baseball scores this week. Stations are divided into the different standard times in use. The hours are given in the kind of time in use at each listed station:

Atlantic or Eastern Daylight Saving Time Stations

Saturday, July 11: 4:30, WJZ; 5:30, WJZ; 6:40, WPG; 7:15, WOR; 7:25, WNYC; 8, WJZ.
Monday, July 13: 4, WJZ; 4:30, WJZ, WCAE; 5, 5:30, 6, WJZ; 7:15, WEEI, WOR; 7:25, WNYC; 8, WJZ.
Tuesday, July 14: 4, 4:30, 5, 5:30, 6, WJZ; 7:15, WOR; 7:25, WNYC; 7:45, WEEI; 8, WJZ.
Wednesday, July 15: 4, 4:30, 5, 5:30, 6, WJZ; 7:15, WOR; 7:25, WNYC; 7:45, WEEI; 8, WJZ.
Thursday, July 16: 4, 4:30, 5, 5:30, 6, WJZ; 7:15, WOR; 7:25 WNYC; 7:45, WEEI; 8, WJZ.
Friday, July 17: 4, 4:30, 5, 5:30, 6, WJZ; 7:15, WOR, WEEI; 7:25, WNYC; 8, WJZ.

Eastern Standard or Central Daylight Saving Time Stations

Saturday, July 11: 2, WGY; 2:30, KDKA; 2:45, KDKA, WMAQ; 3, KDKA, KYW; 3:15, KDKA; 3:30, KDKA, KYW; 3:55, WWJ; 4, WMAQ, KYW; 4:15, 4:30, KYW; 4:45, 5, KDKA, KYW; 5:55, WTIC; 6, WGN, WLS; 6:50, WTIC; 7, KDKA, WTIC; 7:30, WEBH, WLW; 9:55, KDKA; 10, WREO.
Sunday, July 12: 6:30, WBZ; 6:55 WTIC; 9:50, WBZ.
Monday, July 13: 2, WRC; 2:45, WMAQ; 3:30, KDKA, KYW; 3:45, WEAR; 3:55, WWJ; 4, KDKA, KYW, WMAQ; 4:30, KYW; 5, KDKA, KYW; 5:55, WTIC; 6, WGN, WLS; 6:30, WBZ; 6:50, WTIC; 7:30, WEBH, WLW; 9:50, WBZ; 9:55, KDKA; 10, WREO.
Tuesday, July 14: 2, WRC; 2:45; WMAQ; 3, 3:30, KDKA, KYW; 3:45, WEAR; 3:55, WWJ; 4, KYW WMAQ; 4:30, KYW; 5, KDKA, KYW; 6, WGN, WLS; 6:30, WBZ; 7, KDKA; 7:30, WEBH, WLW; 9:50, WBZ; 9:55, KDKA; 10, WREO.
Wednesday, July 15: 2, WRC; 2:45, WMAQ; 3, 3:30, KDKA, KYW; 3:45, WEAR; 3:55, WWJ; 4, KYW; 4:30, KYW; 5, KYW, WWJ; 6, WGN, WLS; 6:30, WBZ; 6:50, WTIC; 7, KDKA; 7:30, WEBH, WLW; 9:50, WBZ; 9:55, KDKA; 10, WREO.
Thursday July 16: 2, WRC; 2:45, WMAQ; 3, KDKA, KYW; 3:30, KDKA, KYW; 3:45, WEAR; 3:55, WWJ; 4, KYW; 4:30, KYW; 5, KDKA, KYW; 6, WGN, WLS; 6:30, WBZ; 6:50, WTIC; 7:30, WEBH, WLW; 9:50, WBZ; 9:55, KDKA; 10, WREO.
Friday, July 17: 2:30, KDKA, 2:45, WMAQ; 3, KDKA KYW; 3:30, KDKA, KYW; 3:45, WEAR; 3:55, WWJ; 4, KYW, WMAQ; 4:30, KYW; 5, KDKA, KYW; 6, WGN WLS; 6:30, WBZ; 6:50, WTIC; 7:30, WEBH, WLW; 9:50, WBZ, 9:55, KDKA; 10, WREO.

Central Standard Time Stations

Saturday, July 11: 3:15, WHAS; 3:30, WDAF; 4:30, WDAF, WFAA; 5, WDAF; 6, WCCO, WDAF, WOC; 6:20, WOAW; 6:30, WSMB; 9, WCCO; 9:15, KTHS.
Sunday, July 12: 3:30, 4, WDAF; 4:30, WFAA; 5, WDAF; 5:05, WOS; 6:45, WOC; 9, WCCO; 9:15, KTHS.
Monday, July 13: 3:15, WHAS; 3:30, WDAF; 4, WCCO, WDAF; 4:30, WFAA; 5, WDAF; 5:05, WOS; 6, WCCO, WDAF, WOC; 6:30, WOAW, WSMB; 9:15, KTHS; 9, WCCO.
Tuesday, July 14: 3:15, WHAS; 3:30, WDAF; 4, WCCO, WDAF; 4:30, WFAA; 5, WDAF; 6, WCCO, WOC; 6:20, WOAW; 6:30, WSMB; 9:15, KTHS; 9, WCCO.
Wednesday, July 15: 3:15, WHAS; 3:30, WDAF; 4, WCCO; 4:30, WDAF, WFAA; 5, WDAF; 5:05, WOS; 6, WCCO, WDAF, WOC; 6:30, WSMB; 9:15, KTHS; 9, WCCO.
Thursday, July 16: 3, WDAF; 3:15, WHAS; 4, WCCO, WDAF; 4:30, WFAA; 5, WDAF; 6, WCCO, WDAF, WOC; 6:20, WOAW; 6:30, WSMB; 9, WCCO; 9:15, KTHS.
Friday, July 17: 3, WDAF; 3:15, WHAS; 4, WCCO, WDAF; 4:30, WFAA; 6, WCCO, WDAF, WOC; 6:20, WOAW; 6:30, WSMB; 9:15, KTHS; 9, WCCO.

Mountain Standard Time Stations

Monday, July 13: 6, KOA.
Tuesday, July 14: 6:30, KOA.
Wednesday, July 15: 6, KOA.
Thursday, July 16: 6:30, KOA.
Friday, July 17: 6, KOA.

Pacific Standard Time Stations

Saturday, July 11: 2-5, KNX; 6, KFOA; 6:15, KPO; 8, KFWB, KHJ.
Sunday, July 12: 6:30, KPO; 8, KHJ; 9, KFWB.
Monday, July 13: 6, KFOA; 6:15, KPO; 6:45, KGO; 7:30, KGW; 8, KFWB.
Tuesday, July 14: 6, KFOA; 6:15, KPO; 6:45, KGO; 7:30, KGW; 8, KFWB, KHJ.
Wednesday, July 15: 2, 3, 4, KNX; 6, KFOA; 6:15, KPO; 6:45, KGO; 7:30, KGW; 8, KFWB, KHJ.
Thursday, July 16: 5:30, KFOA; 6:45, KGO; 7:30, KGW; 8, KFWB, KHJ.
Friday, July 17: 2, 3, 4, KNX; 6, KFOA, KPO; 6:45, KGO; 7:30, KGW; 8, KFWB, KHJ.

Warner's Seven Aces, one of Dixie's premiere orchestras, are seen here looking over their first phonograph record. The Aces play regularly Monday nights at 10:45 p. m., from WSB, the Atlanta Journal station. They are always in demand for prominent club and social affairs.

Left to right they are: "Shucks" Parks, drummer; C. J. Buckner, saxophonist; El Pritchett, saxophonist; Ralph Bennett, violinist; Byron Warner, director-pianist; Bob Pittman, banjoist; Tom Brannon, trumpeter-manager; Don McElvain, trombonist; Captain Jimmie O'Neal, bass.

JAZZ PROGRAM THURSDAY AT WSMB

Tuesday, July 14

(Continued from page 10)

WTAM, Cleveland, Ohio (389.4), 0-7 p. m., Hotel Statler concert orchestra.
WTAS, Elgin, Ill. (302.8), 8-10:30 p. m., WTAS orchestra; Brock Sisters; Herbie Mintz; Violet Eaton.
WTIC, Hartford, Conn. (348.6), 6 p. m., Travelers Jongleurs; 6:30, baseball; 6:55, Travels Jongleurs; 7:30, Austin Organ company; 8:20, "Fire Hazards." Chief John C. Moran; 8:45, Colt Park Municipal orchestra.
WWJ, Detroit, Mich. (352.7), 6 p. m., dinner concert; 7, concert from WEAF.

Central Standard Time Stations

KFAB, Lincoln, Nebr. (240), 5-6 p. m., Schmoller & Mueller program; 11-12:30 a. m., midnight rounders.
KFDM, Beaumont, Tex. (315.6), 7-7:30 p. m., children's program; 8-10:30, musical program.
KFMQ, Fayetteville, Ark. (299.8), 9 p. m., musical program, H. E. Shultz.
KFRU, Bristow, Okla. (394.5), 10:30-12 midnight, fishing trip.
KFVE, University City, Mo. (240), 7-8 p. m., Radiocast review, Romaine Fielding; 10, popular request numbers, "Jack," "Billie," entertainers.
KLDS, Independence, Mo. (441), 8 p. m., Mrs. Arthur Riddols, soprano; Mrs. W. C. Norman, contralto; Mr. W. C. Norman, tenor; Wesley Breeze, saxophone; Mrs. Clarence Koenig, soprano.
KSD, St. Louis, Mo. (545.1), 8 p. m., Sophocles' "Electra," Margaret Anglin.
KTHS, Hot Springs National Park, Ark. (374.8), 9:25 p. m., organ recital, Lawson Reid, Princess theater.
KYW, Chicago, Ill. (536), 6 p. m., children's bedtime story; 6-8:30, dinner music, Congress hotel; 7-7:20, Georgia McCord, soprano; Frances Kaufman, contralto; Mrs. Alice Wolcott, soprano; 7:20-7:45, American Farm Bureau Federation; "Ideal American Farm Homes in the Making," Frank B. White; 7:45-8:30, musical program; 9-10:30, evening at home.
WCCO, Minneapolis-St. Paul, Minn. (416.4), 6:05 p. m., Riley's St. Paul hotel orchestra; 7, program from WEAF; 9, baseball.

Catherine Jackson, left, is one of the west coast's premier harpists. She is a popular guest at KHJ, Los Angeles. William Anderson, Hawaiian steel guitarist, will be heard at WGES, Friday and Saturday. Alice King, right, is one of the charming sopranos who may be heard at KDKA.

WDAF, Kansas City, Mo. (365.6), 6-7 p. m., piano tuning-in number on the Duo-Art; Plantation players; 11:45-1 a. m., Merry Old Chief; Carl Nordberg's Plantation players; Charles Dornberger's Kansas City Athletic club orchestra.
WFAA, Dallas, Texas (475.9), 6:30-7:30 p. m., vesper recital, Baumlea School of Hawaiian music; 8:30-9:30, recital, Mrs. Belle Blard Geber; 11-12, recital, Earle D. Behrends.
WHAD, Milwaukee, Wis. (275), 6-7 p. m., Arthur Richter, organist.
WHAS, Louisville, Ky. (399.8), 7:30-9 p. m., concert, Wayne W. Lowd and his orchestra; thrift talk; Mrs. Palmer Miller, soprano; Susie Williams, accompanist; baseball scores.
WHO, Des Moines, Iowa (526), 6 p. m., advice to lovelorn, Cynthia, Grey; 6:20, baseball; 6:25, May Seed & Nursery company; 9, orchestra; 10, Carl Sibbert, tenor; Will Rethmington, violinist; Harry Brentwell, pianist; 10:30, Francis Potter's banjo orchestra; 12, Rialto midnite alarm.
WMC, Memphis, Tenn. (499.7), 12:30 p. m., musical program, O. K. Houck Piano company; 8:30, musical program, Hugh Sandidge, director; 11, organ recital, Scottish Rite cathedral, Harry O. Nichols.
WOAN, Lawrenceburg, Tenn. (282.8), 9 p. m., Vaughan Radio orchestra.
WOC, Davenport, Iowa (483.6), 8-8 p. m., Crescent orchestra.
WORD, Batavia, Ill. (275), 8:30 p. m., William Hoke, tenor.
WSMB, New Orleans, La. (319), 6:30-7:30 p. m., dinner musicale.

Mountain Standard Time Stations

CNRR, Regina, Can. (356), 8 p. m., Jingle kiddies; Rose Bauermeister concert party.
KOA, Denver, Colo. (322.4), 9:30 p. m., Herbert White and his Silver State orchestra.

Pacific Standard Time Stations

KFOA, Seattle, Wash. (454.3), 6-6:45 p. m., Olympic hotel concert orchestra; 6:45-8:15, Rhodes Department store program; 8:30-10, Times studio program.
KFWB, Hollywood, Calif. (252), 6-7 p. m., children's hour, Big Brother of KFWB; 8-9, program, Western's Superservice garage; 9-10, program, Union Oil company of California, Non-Detonating orchestra, Aristo trio, Charles Beauchamp, tenor, Ina Mitchell Butler, soprano; 10-11, Warner Bros. frolic, direction Charlie Wellman.
KGO, Oakland, Calif. (361.2), 6-7 p. m., dinner concert, Wiley B. Allen company; 8, Magnavox company; Janet Maloon, soprano; Irene Polzin, pianist; Florence Ruth Brown, contralto; Glen Chamberlain, tenor; Mary Pasmore, violinist; Rourke trio; Radio male chorus; Bernard O'Brien, baritone; 10-1 a. m., Clarke Wilson's Hotel St. Francis dance orchestra.
KGW, Portland, Ore. (491.5), 8-10 p. m., Detroit Elks band; 10-11, Weolach & Powell; 11-12, Herman Kenin's Multnomah hotel dance orchestra.
KHJ, Los Angeles, Calif. (405.2), 5:30-6 p. m., Leighton's Arcade cafeteria orchestra, Jack Cronshaw, leader; 6-6:30, Art Hickman's Biltmore hotel concert orchestra, Edward Fitzpatrick, director; 6:30-7:30, weekly visit of Queen Titania and Sandman from Fairyland, Uncle John, Chas. Hill, readings, Floryane Thoursen, soprano; 8-10, program, Radio dealers, members Music Trades association; 10-11, Art Hickman's Biltmore hotel dance orchestra, Earl Burtnett, leader.
KNX, Hollywood, Calif. (336.9), 5:30-6:15 p. m., Wurlitzer pipe organ studio; 6:15, travel talk, W. F. Alder; 6:30-7, Atwater Kent Radio orchestra, Paul Pinsteln, leader; 7-7:30, dinner hour music; 7:30, style talk, Myer Siegel, Jr.; 8-10, KNX feature program; 10-12, movie night at the Ambassador, Abe Lyman's Cocoanut Grove dance orchestra.
KPO, San Francisco, Calif. (428.3), 6:15 p. m., baseball scores; 6:40-7, States restaurant orchestra; 7-7:30, Rudy Seiger's Fairmont hotel orchestra; 8-9, glee club program, Jack Thomas, director; 9-9:15, golf instructions, Harold Sampson; 9:15-10, organ recital, Theodore J. Irwin; 10-11, Johnny Buick's Cabirians.

Wednesday, July 15

Wednesday, silent night for: CKAC, CNRT, KFDM, KGO, KLDS, WBAY, WBBR, WCBD, WDWF, WFAA, WFI, WGBS, WGY, WHAR, WHAZ, WIP, WMAK, WMC, WDAW, WORD, WPG, WRBC, WRC, WRED, WTIC.

Atlantic or Eastern Daylight Saving Time Stations

CNRO, Ottawa, Can. (435), 8 p. m., Chateau Laurier concert orchestra; 9, regimental band, Governor General's foot guards; Chateau Laurier dance orchestra.
WAHG, Richmond Hill, N. Y. (315.6), 7:30-7:45 p. m., sports talk, Thornton Fisher; 7:45-8, songs, Bob Schafer and Fred Fisher; 8-8:15, Frederick Weldenbaritone; 8:15-8:45, Plectrum quintet; 8:45-9, Frederick Weldetter; 9-9:15, Zeb V. Hamilton, novelty pianist; 9:15-9:30, Plectrum quintet; 10-10:55, dance music; 11:05-11:30, dance music.
WCAE, Pittsburgh, Pa. (461.3), 6:30 p. m., dinner concert, William Penn hotel; 8, recital, Prof. Kaltels; 9:30, studio concert; 11, program, Loew's Aldine theater.
WCAU, Philadelphia, Pa. (278), 8:05 p. m., Hotel Pennsylvania concert orchestra; 8, recital; 10:30, Jack Myers' Musical Architects.
WEAF, New York, N. Y. (491.5), 4-4:45 p. m., Jandau's Blossom Heath serenaders; 4:45-5, "Life Saving and Swimming," Captain Charles Scully; 5-7, dinner music, Waldorf-Astoria; 7-7:30, services, United Synagogue of America; 7:30-9, concert, United States Army band, direction of Captain William J. Stannard; 9-10, Ipana Troubadours; 10-11, Royal Little symphony; 11-12, Hotel Bossert Marine roof orchestra.
WEBJ, New York, N. Y. (233), 8-8:30 p. m., dance orchestra; 8:30-9, Hotsy-Totsy boys; 9-9:30, Marseilles serenaders; 9:45-10, Doris Sheldon, contralto.
WFI, Philadelphia, Pa. (394.5), 1 p. m., Bellevue Stratford concert trio; 3, "Horses," Dr. William H. Johns; Loretta Kerk, pianist; 6:45, Bellevue Stratford roof garden trio.
WGBS, New York, N. Y. (315.6), 3-3:10 p. m., "How to Place a Manuscript," Hugh Herbert; 3:10-3:20, Frank Ludwig, pianist; 3:20-3:30, talk on industrial art, Lillian Moran; 3:30-3:40, Frank Ludwig; 3:40-3:50, "How to Grow Thin," Georgia Heffner; 6-6:30, Uncle Geebee; 6:30-7, Palisadians orchestra; 7-7:10, Fred Meyer, tenor; 7:10-8, Palisadians orchestra.
WGR, Buffalo, N. Y. (319), 2:30-4:30 p. m., WGR's afternoon program; 6:30-7:30, dinner music, two piano recital, Gospel melodists; 9-10, musical program, Vincent Throne and assisting artists; 10-10:30, program, Ethel Mullane, pianist; 10:30-11, vocal program, Mrs. Robert Schaefer, Mrs. Gilvert Weimar; 11-1 a. m., accordionist; Marie Winders, pianist; Charlie Garland, pianist.
WBZ, Springfield, Mass. (333.3), 6 p. m., dinner concert, Hotel Kimball trio, Jan Geerts, director; 6:50, baseball; 6:52, Radio nature story, Thornton W. Burgess; 8, program, Lionel P. Spencer; 8:30, program, trio selections; 9, Hotel Brunswick, orchestra; 9:30, baseball.
WCEE, Elgin, Ill. (275), 10:30-12, midnight, Joe Rudolph and the Bosa's Own orchestra; Frank Morris, Polly Willis, John Poat, Eddie Cavanaugh.
WCX, Detroit, Mich. (516.9), 2:30 p. m., municipal band concert, Belle Isle; 4:15, concert; 6, dinner concert, the Book-Cadillac hotel; 7:30, municipal band concert, Belle Isle; 8:30, musical program.
WEAO, Columbus, Ohio (293.9), 8 p. m., "The Wheat Market," D. M. Cash; Allensworth string quartet.
WEAR, Cleveland, Ohio (389.4), 7-8 p. m., dinner concert, Hotel Cleveland orchestra, Ivan Francisci, conducting.
WEBH, Chicago, Ill. (370.2), 7:30-8:30 p. m., Oriole orchestra; books of the day, Llewellyn Jones; Florence Behrend, soprano; baseball; 9:30-10:30, Oriole orchestra; Robert York, tenor; Correll and Gosden, songs; South American Troubadours; 11:30-1 a. m., Oriole orchestra; Robert York, tenor; Correll and Gosden; Ray Ronayne; Oriole orchestra.
WGES, Oak Park, Ill. (250), 5-7 p. m., Jean Bernstein, pianist; Margaret Grey, reader; Marie Wright, soprano; John Stamford, tenor; Louise Wyse, soprano; 10:30-1 a. m., Canaliers' orchestra; Andrea Scarlatti, tenor; Ralph Olson, moonlight serenaders; Coyne Electrical School serenaders.
WGN, Chicago, Ill. (370.2), 5:30 p. m., Skeezix time; 6:30-7:30, Drake concert ensemble; Blackstone string quintet; 8:30-9:30, studio program, organ recital; 10:30-11:30, Drake Hotel Terrace Garden program.
WGY, Schenectady, N. Y. (379.5), 2:45 p. m., Albany Strand theater orchestra; 7, "The Relation of the Church and the Stage," Rev. W. E. Bentley.
WHT, Deerfield, Ill. (399.8), 7-10:15 p. m., Kitchen Klenzer Klassics; Oscar Heather, tenor; Herman Bing, baritone; Pat Barnes, tenor; Jelke musical moments; Pauline Sachs, soprano; Riverview Park ballroom orchestra; 10:30-1 a. m., Chicago Bonsters; Al Carney, organist; Husk O'Hare's Red Dragon orchestra; Myrtle Lansing, soprano; Fred Agard; Al Carney, organist.
WJJD, Mooseheart, Ill. (302.8), 6:45-7:15 p. m., dinner hour concert, Belmont hotel trio; 7:15-8, Mooseheart Philharmonic orchestra; Mooseheart Junior band; "Child Care," M. P. Adams; 10:30-1 a. m., Charley Straight and his orchestra; Albert F. Brown, organist.
WKRC, Cincinnati, Ohio (326), 8 p. m., book review, Alice B. Coy; 8:15, Lelia LeMarr, pianist; 8:45, popular songs and features; 9, Marion McKay's Down Hill House orchestra.
WLS, Chicago, Ill. (344.6), 6:30 p. m., Ralph Emerson, organist; Martha Meier, contralto; 7:15, Rex's Cornhuskers; 7:45, lullaby time; 8, Rex's Cornhuskers; 8:15, WLS Lone Scout program; 8:45, Perry Huffaker, tenor; 9, R. F. D. program; Cornhusters' Brass quartet; 10, Frank Wilson, tenor; Gladys Weyforth, contralto; 10:45, Brooks Colby, violinist; 11-11:30, Rex's Cornhuskers.
WLW, Cincinnati, Ohio (422.3), program, Irene Downing and Marjory Rebestreit; 4, Shut ins' program, Mr. Dunlap, director; 7 p. m., dinner hour concert, Hotel Gibson orchestra, Robert Visconti, director; 7:20, talk, "Business-Like Farming," C. F. Bublein; 10, Famous Lyric male quartet; 10:30, Orpheus instrumental trio; 11:10, organ recital, Johanna Grosse; 12-15 a. m., midnight frolic, Helvey's Symphonic Troubadours; 12:45, midnight strains, Gene Johnson, organist.
WMAQ, Chicago, Ill. (447.5), 8 p. m., Chicago theater orchestra; 8:30, Jack Chapman's orchestra; 8, Jack Chapman's orchestra; 8:30, lecture, Northwestern university; Mrs. Helen C. Eddy, soprano; Oscar Heather, tenor; 9:15, WMAQ players.
WMBB, Chicago, Ill. (250), 7-8:30 p. m., Trianon ensemble; Phyllis Harries, soprano; Rebecca Aguinick, pianist; Albert Caestecker, cellist; Charles Arnn, trumpeter; Bandeleno; 8:30-10:30, Trianon orchestra; Woodlawn theater orchestra; Morey Alswang, banjoist; Fisher and Wayne; Harold Stokes; Jack Minnano; Florence Tenney; Geraldine Doyle, soprano.
WMBF, Miami Beach, Fla. (384.4), 6:30-7 p. m., Fleetwood Radio orchestra; 7-7:30, Fleetwood Radio orchestra; 10-12, dance music, Fleetwood Radio orchestra.
WQJ, Chicago, Ill. (447.5), 7-8 p. m., concert, Ralph Williams and his Rainbo Garden orchestra; Blanche Robinson, pianist; Shephard Leviton, tenor; Gertrude Quentin, soprano; 10-1 a. m., Ralph Williams and his Rainbo Garden Skylarks; Melodians; Paul Small, tenor; Gail Bandell, contralto; Joe Ternind, Williamson Brothers, guitarists; Fox Jackson, monologist; Clarence Theders, tenor; harmony singers; Esther Trostrud, mezzo-soprano; Alice Hesner, pianist; Fontella trio; 1-2, Ginger Snap Lillie Skylarks.
WRC, Washington, D. C. (468.5), 2:55 p. m., Washington-Detroit baseball game; 5-6:25, United States Navy band.
WSAI, Cincinnati, Ohio (325.9), 10 p. m., golf talk; Catherine Hoch, soprano; Herbert Schatz, baritone; Ronald McFarlan, flutist; 11, Congress playing card string quartet.
WTAM, Cleveland, Ohio (389.4), 6-7 p. m., Music Box orchestra; 8-10, organ recital; 10-11, Hollenden hour, Carl Rupp and his Hotel Hollenden orchestra; 11-1 a. m., Euclid Beach dance orchestra.
WTAS, Elgin, Ill. (302.8), 8-10:30 p. m., Joe Rudolph and the orchestra; Herbie Mintz; Gail Bandell; Phil Wilson.
WWJ, Detroit, Mich. (352.7), 6 p. m., dinner concert.

Central Standard Time Stations

KFAB, Lincoln, Nebr. (240), 7:30-9:30 p. m., Harry Snodgrass, pianist; Waikiki trio, Hawaiian enter-

(Continued on page 12)

Eastern Standard or Central Daylight Saving Time Stations

KDKA, Pittsburgh, Pa. (309.1), 2:30-5 p. m., baseball; 7, baseball; 8:45, Dry Shitz hour of music; 9:55, baseball.
PWX, Havana, Cuba (400), 8:30 p. m., Cuban navy band.
WBBM, Chicago, Ill. (226), 8-10 p. m., Maurice Silverman, tenor; Samovar orchestra; Harold Anderson, pianosupper-dance music, Vincent Lopez' Hotel Statler dance orchestra, Harold Gieser, director.
WHN, New York, N. Y. (360), 7-7:30 p. m., Harry Richman and his Club Richman entertainers; 7:30-8, E. J. Dangig's Versatile society orchestra; 8:15-8:30, program, Orthodox Jewish Congregation of America; 9:30-10, Palisades Amusement Park orchestra; 10:30-11, Roseland dance orchestra.
WIP, Philadelphia, Pa. (508.2), 1 p. m., luncheon music from Steel Pier; 3, song of the surf; 3:30, Comfort's Philharmonic orchestra; 6:05, Benjamin Franklin concert orchestra; 7, Uncle Wip's bedtime stories.
WJAR, Providence, R. I. (305.9), 7:30 p. m., program from New York.
WJZ, New York, N. Y. (454.3), 4:30-5 p. m., Metropolitan string trio; 5:30-6, daily reports; 7-8, Cafe Boulevard orchestra; 8-8:30, the Royal trio; 8:30-9:30, New York Edison hour; 10:30-11:30, Billy Wyme's Greenwich Village Inn orchestra.
WKAQ, San Juan, P. R. (340.7), 8-10 p. m., Municipal band concert.
WLIT, Philadelphia, Pa. (394.5), 12:02 p. m., daily almanac; Stanley theater organ recital; Arcadia cafe concert orchestra; 2, Arcadia cafe concert orchestra; 7:30, Dream Daddy's bedtime stories; 8, sports talk; 9, auto talk; 10, Arcadia cafe dance orchestra.
WMCA, New York, N. Y. (340.7), 3-5 p. m., musical program; 6:30-7:30, Ernie Golden and his Hotel McAlpin orchestra; 7:30-7:45, "Along Broadway with George Lottman"; 7:45-8:15, Arline Felker, soprano, and Eleanor Nelson, pianist; 9-9:30, Leon Kristel, baritone; 9:30-10:30, Thermidyne hour; 10:30-11:30, Lew Krueger's Aladdin orchestra; 12-1 a. m., Broadway Bright Lights under direction of Leo Friedman.
WNYC, New York, N. Y. (526), 5-5:30 p. m., elementary lessons in Spanish, Y. Harrison Beritz; 5:30-6, advanced lessons in Spanish; 6-6:50, musical program; 6:30-7, market high spots; 7-7:25, dance program; 7:25-7:30, baseball results; 7:30-7:35, police alarms; 7:35-8, municipal talk; 8-8:15, song recital; 8:15-10:15, concert, Martin's band; 10:15-10:30, popular songs.
WOO, Philadelphia, Pa. (508.2), 11 a. m., organ recital, Mary E. Vogt; 12:02 p. m., Golden's crystal tea room orchestra; 4:15, organ recital, Mary E. Vogt; 7:30, U. S. Army band; 9, Ipana Troubadours; 10, organ recital, Mary E. Vogt; 10:30, Hotel Sylvania dance orchestra.
WOR, Newark, N. J. (405.2), 6:15-7:15 p. m., Tivoli theater orchestra; 7:15-7:30, sports talk, Bill Slocum; 8-8:15, "Topics of the Day," Spencer Armstrong; 10:15-11, Jascha Gurewich saxophone ensemble.

SERENADER'S PLECTRUM QUINTET, OLD

Index to Popular Concerts

TABULATED below is a time table of the stations giving popular concerts this week. Stations are divided into the four different standard times in use. The hours are given in the kind of time in use at each listed station. By using this table as an index and referring to the complete programs below, full information will be obtained.

Popular

Atlantic or Eastern Daylight Saving Time Stations

Saturday, July 11: 7:30, WHAR; 8:15, WEAF; 8:45, WIP.

Sunday, July 12: 7:20, WCAE, WEAF, WEEI; 9, WNYC; 10, WHN, WNYC.

Monday, July 13: 6:45, WFI; 7:30, WEEI, WHN; 7:45, WAHG; 8:15, WAHG, 9, WEAF, WMCA, WOR; 9:15, WAHG, 10, WMCA; 10:30, WMCA; 11, WOR; 12, WHN.

Tuesday, July 14: 6:45, WFI; 7:15, WHN; 7:30, WCAU, WHN; 7:45, WEAF; 8, WHAR; 8:10, WEAF; 8:15, WEBJ; 8:30, WCAE, WEEI, WFI; 8:45, WIP; 9, WGBS; 10, WGBS; 10:30, WGBS.

Wednesday, July 15: 6:45, WFI; 7, WHN; 8, WAHG; 8:45, WEBJ; 9:15, WEBJ; 10:15, WNYC; 11, WCAE; 12, WMCA.

Thursday, July 16: 6:30, WHN; 6:45, WFI; 7:30, WEAF, WHAR; 8, WHAR, WHN; 8:45, WIP; 10:15, WHN; 10:30, WJZ.

Friday, July 17: 6:30, WGBS; 6:45, WFI; 7, WGR; 7:45, WAHG; 8, WEAF, WEEI, WLIT; 8:30, WEBJ; 8:45, WAHG, WLIT; 9, WOO; 9:30, WHN; 10, WLIT; 10:30, WEAF.

Eastern Standard or Central Daylight Saving Time Stations

Saturday, July 11: 8, WBBM, WHT, WLS, WTAS; 8:30, WMBB; 9, WBBM, WLS; 9:30, WMBB, WTAS; 10, WBBM WKRC, WQJ; 10:30, WCEE, WGES, WHT, WJJD; 11, WBBM, WGES, WQJ; 11:30, WCEE, WJJD; 12, WHT, WQJ, WREO, WSAI; 1, WQJ.

Sunday, July 12: 6:20, WWJ; 8, WBBM, WTAS; 8:30, WBZ, WMBB; 9, WBBM, WTAS; 9:15, WHT; 9:30, WMBB; 10, WTAS; 10:30, WGES; 11, WGES, WTAS; 12, WBBM, WJJD; 1, WJJD.

Monday, July 13: 6, WBBM; 8, WLW, WTAS; 9, WTAS; 9:30, WHAZ; 10:15, WHT; 10:30, WCEE, WJJD; 11, WHT; 11:30, WCEE, WHT, WJJD; 12, WHT, WJJD.

Tuesday, July 14: 8, WBBM, WTAS; 8:30, WMBB; 9, WBBM, WHT, WTAS; 9:30, WEBH, WMBB; 10, WBBM, WLS, WQJ, WTAS; 10:30, WCEE, WEBH, WGES, WGN, WHT, WJJD, WLS, WQJ; 11, WBBM, WHT, WLS; 11:30, WCEE, WEBH, WGES, WHT, WJJD, WQJ; 12, WIBO, WLS; 12:30, WEBH, WJJD; 1, WIBO, WQJ; 2, WIBO.

Wednesday, July 15: 8, WEAO, WLS, WTAS; 8:30, WBBM, WMBB; 9, WBBM, WTAS; 9:30, WEBH, WMBB; 10, KYW, WHT, WIBO, WQJ, WSAI; 10:30, WCEE, WEBH, WGN, WHT, WJJD; 11, KYW, WGES, WHT, WIBO, WLS, WQJ, WSAI; 11:30, WCEE, WEBH, WJJD; 12, WGES, WQJ; 12:30, WEBH, WJJD; 1, WQJ.

Thursday, July 16: 8, WBBM, WTAS; 8:30, WMBB; 9, WBBM, WTAS; 9:30, WEBH, WMBB; 10, WQJ, WTAS; 10:30, KYW, WEBH, WGN, WHT; 11, WHT, WQJ, WTAS; 11:15, WLW; 11:30, WEBH; 12, WIBO, WQJ; 12:30, WEBH; 1, WIBO, WQJ; 2, WIBO.

Friday, July 17: 8, WBBM, WTAS; 8:30, WBZ, WEBH, WMBB; 9, WEBM WTAS; 9:30, WMBB; 10, KYW, WEBH, WIBO, WLS, WMBB, WTAS; 10:15, WHT; 10:30, WCEE, WGN, WJJD, WQJ; 11, KYW, WEBH, WHT, WIBO, WLS; 11:30, WCEE, WJJD, WQJ; 12, WEBH, WIBO, WQJ; 12:30, WJJD; 1, WQJ.

Central Standard Time Stations

Saturday, July 11: 7, KSD; 8:30, WSWB; 9, KFRU, WOAW; 9:30, WSMB; 10, KFRU, KFVE; 10:45, WSB; 11, KFAB, KFRU, KFVE, WOAW; 11:45, WDAF.

Sunday, July 12: 9:30, WFAA.

Monday, July 13: 6:45, WCCO; 7:30, KFAB; 8, KFRU; 8:30, KFAB, WSMB; 9, KFRU; 9:30, WSMB; 10, WOAW; 10:45, WSB; 11:45, WDAF.

Tuesday, July 14: 6:30, WFAA, WOC; 8, WCCO, WSB; 10:30, KFRU, WOAW; 10:45, WSB; 11, KFAB, WFAA; 11:30, KFRU; 11:45, WDAF.

Wednesday, July 15: 7:30, KFAB, WHO; 8, KFRU; 8:30, KFAB, WSMB; 9, KFRU, WOAW; 9:30, WSMB; 10, KFRU; 10:45, WSB; 11:45, WDAF.

Thursday, July 16: 8, WCCO; 9, WFAA; 11:45, WDAF.

Friday, July 17: 6:30, WFAA; 7:30, KFAB; 8, WDAF; 8:30, KFAB; 9, WOAW; 10:45 WSB; 11, KFRU; 11:45, WDAF; 12, KFRU.

Mountain Standard Time Stations

Saturday, July 11: 8, KOA.

Sunday, July 12: 8-11, KFWA.

Monday, July 13: 8, KOA; 9, KFWA.

Tuesday, July 14: 6, KOA; 8, CNRR; 9, CNRR.

Wednesday, July 15: 8, KOA; 9, KFWA.

Thursday, July 16: 9, CNRC; 10, CNRC.

Friday, July 17: 8, KOA; 8:30, CNRC.

Pacific Standard Time Stations

Saturday, July 11: 6, KFOA, KHJ; 6:30, KNX; 6:45, KFOA; 7:30, KHJ, KNX; 8, KGO; 8:15, KHJ.

Sunday, July 12: 6:30, KHJ; 6:35, KPO; 7, KHJ, KNX; 8, KNX, KPO; 9, KGW, KNX.

Monday, July 13: 6, KFOA, KGW; 6:45, KFOA; 7:30, KFAE, KNX; 8:30, KFAE; 9, KPO.

Tuesday, July 14: 6, KFOA, KHJ; 6:30, KNX; 6:40, KPO; 6:45, KFOA; 7:45, KFWB; 8, KGO, KPO; 8:30, KFOA; 9, KGW; 9:15, KPO; 10, KGW.

Wednesday, July 15: 6, KFOA, KHJ; 6:45, KFOA; 7, KNX; 7:30, KFAE; 8, KNX, KPO; 8:30, KFAE, KFOA, KHJ; 9, KNX, KPO.

Thursday, July 16: 6, KFOA, KHJ; 6:30, KNX; 8, KGW, KPO; 9, KNX, KPO.

Friday, July 17: 6, KFOA, KHJ; 6:15, KPO; 6:45, KFOA; 7:30, KFAE, KNX; 8, KHJ, KNX; 8:30, KFAE; 9, KGW, KNX.

William VanHoogstraten is the conductor of the New York P
concerts will be tri-weekly features from WJZ, WGY, WBZ
Boswell (below), are three attractive entertainers at WSM
of their own skits Monday, June 13. Norma Ruth Hetsch,
Dixie contest, recently returned from the national contest
at both WLW and WSAI this

Wednesday, July 15

(Continued from page 11)

tainers; Mrs. Hazel Miller and Frank Carroll; Colonians orchestra.

KFMQ, Fayetteville, Ark. (299.8), 7:30 p. m., "Farm Filosofy," Cy Adams; "Grapes," O. L. McMurray; "Timely Tips on Poultry," Prof. S. R. Stout; "Cool Clothing for Hot Weather," Carrie Plunkett Taylor.

KFNF, Shenandoah, Iowa (266), 7:30 p. m., concert, Henry Field Seed company.

KFRU, Bristow, Okla. (394.5), 8-10:30 p. m., music.

KFUO, St. Louis, Mo. (545.1), 9:15 p. m., "The Bible's March of Progress."

KFVE, University City, Mo. (240), 7-8 p. m., Radiocast review, Romaine Fielding; 10, "Orchestra Romaine."

KSD, St. Louis, Mo. (545.1), 7 p. m., Silverman's orchestra.

KTHS, Hot Springs National Park, Ark. (374.8), 9:25 p. m., classical recital, New Arlington-Meyer Davis, instrumental quartet.

KYW, Chicago, Ill. (536), 5 p. m., children's hour; 6-6:30, Congress hotel; 6:33-6:45, "Entertaining Plans," Vivette Gorman; 7-8, Carol Rickert, soprano; Thomas B. Stephenson; 9-11:30, midnight revue; Albert Hay Malotte, organist.

WCCO, Minneapolis-St. Paul, Minn. (416.4), 6 p. m., baseball; 7, midweek church service; 8, musicale; 9, baseball; 10, Wally Erickson's Coliseum orchestra; 11:30, Eddie Dunstedter, organist.

WDAF, Kansas City, Mo. (365.6), 6-7 p. m., address, speaker, auspices Health Conservation association; address, speaker, Meat Council of Greater Kansas City; children's information period; Plantation players; 8-9:15, Star's Radio orchestra; 11:45-1 a. m., Merry Old Chief; Carl Nordberg's Plantation players; Charles Dornberger's Kansas City Athletic club orchestra.

WHA, Madison, Wis. (535.4), 8 p. m., "The Camera in Your Vacation," Dr. M. E. Diemer; Madison quartet.

WHAD, Milwaukee, Wis. (275), 6-7 p. m., Arthur Richter, organist; 8-10, Wisconsin roof garden; 11:30-12:30 a. m., Edmund Fitch, organist.

WHAS, Louisville, Ky. (399.8), 7:30-9 p. m., concert, Keith Kannard and his Kentucky Ramblers; baseball scores.

WHO, Des Moines, Iowa (526), 6:30-7:30 p. m., Bankers Life Radio orchestra; 7:30-9, Iowa State Fair Ladies' quartet; Myrtle Williams, soprano; Helen Birmingham, pianist; Edward Biggs, violinist; Helen Dawson, accompanist; 10:20-11:30, Barrett-Philbreck orchestra.

WOAN, Lawrenceburg, Tenn. (282.8), 9 p. m., Vaughan Radio orchestra; male quartet.

WOC, Davenport, Iowa (483.6), 9-10 p. m., Erwin Swindell, organist; May Chambers, soprano.

WORD, Batavia, Ill. (275), service to 9:30 p. m., hymns and sacred songs, I. B. S. A., choral singers; address, W. E. Page.

WOS, Jefferson City, Mo. (440.9), 8 p. m., address, George A. Pickens; Dr. Recker's saxophone band.

WSMB, New Orleans, La. (319), 6:30-7:30 p. m., dinner musicale; Oriole male quartet; 8-10:30, talks, entertainment.

Mountain Standard Time Stations

KFWA, Ogden, Utah (261), 9-11 p. m., old time music, KFWA trio; 11-12, Whoopus club.

KOA, Denver, Colo. (322.4), 6:30 p. m., Herbert White and his Silver State orchestra; 7:30, Sandman's hour; 8, Edward Millstone, violinist; Grace Mass, pianist; June King, contralto; Juanita Prewitt, reader; one play, KOA players; "Rocky Mountain Wild Flowers," Mrs. Henry F. Brooks.

Pacific Standard Time Stations

KFAE, Pullman, Wash. (348.6), 7:30-9 p. m., Doris McReynolds, violinist; Kenneth Bell, reader; Percy Severance, saxophonist; songs and melody with banjo, Dye Boys, Donald, age 11, Ellis, age 16, Bernard, age 17; Pauline Williams, pianist; "Heavenly Bathtubs," Lila Naider; book chat, Alice Lindsey Webb; "Choosing the College Course," N. J. Aiken; "Preparation of Honey for the Market," B. A. Slocum.

KFOA, Seattle, Wash. (454.3), 6-6:45 p. m., Olympic hotel concert orchestra; 6:45-8:15, Hopper-Kelly company studio program; 8:30-10, Times studio program.

KFWB, Hollywood, Calif. (252), 6-7 p. m., children's hour, Big Brother of KFWB; 7-8, program, Beverlyridge company, Beverlyridge collegians; 8-9, Warner Bros. syncopators and entertainers; 9-10, program, Independent Furniture Manufacturing company; 10-11, Warner Bros. frolic, direction Charlie Wellman.

KGO, Oakland, Calif. (361.2), 6-7 p. m., Ben Black's orchestra.

KGW, Portland, Ore. (491.5), 6-7 p. m., Jackie Souders' orchestra; 8-10, Elks' bands; 10-11, Sherman, Clay & company studio.

KHJ, Los Angeles, Calif. (405.2), 5:30-6 p. m., Leighton's Arcade cafeteria orchestra, Jack Cronshaw, leader; 6-6:30, Art Hickman's Biltmore hotel concert orchestra, Edward Fitzpatrick, director; 6:30-7:30, KHJ's Radio kiddies, Dick Winslow, juvenile reporter; Uncle John; 8, Dr. Mars Bumgardt, scientific lecturer; 8:30-9:30, program Alva Radio company; 9:30-10, Piggly Wiggly girls string trio; 10-11, Art Hickman's Biltmore hotel dance orchestra, Earl Burtnett, leader.

KNX, Hollywood, Calif. (336.9), 5:30-6:15 p. m., Wurlitzer pipe organ studio; 6:15, travel talk, W. F. Alder; 6:30-7, Atwater Kent Radio orchestra, Paul Finstein, leader; 7-8, Ambassador hotel concert orchestra, Josef Rosenfeld, director; 8-9, program, Security Trust and Savings bank; 9-11, KNX feature program.

KPO, San Francisco, Cal. (428.3), 6:15 p. m., baseball scores; 6:40-7, States restaurant orchestra; 7-7:30, Rudy Seiger's Fairmont hotel orchestra; 8-9, studio program; 9-10, Silvertown orchestra dance music; 10-11, States restaurant orchestra.

Thursday, July 16

Thursday, silent night for: CKAC, CNRT, KFAB, KFAE, KFDM, KFOA, KFUO, KFVE, KFWA, KOA, KSD, PWX, WAHG, WBAV, WCEE, WEAO, WEBI, WHAD, WHAZ, WJJD, WKRC, WLIT, WOR, WRBC, WTAM.

Atlantic or Eastern Daylight Saving Time Stations

CKAC, Montreal, Can. (410), 9 p. m., Canadian National Railways concert.

CNRM, Montreal, Can. (411), 9 p. m., orchestra, White Star-Dominion line; Viola Benoit, soprano.

WCAE, Pittsburgh, Pa. (461.3), 6:30 p. m., dinner concert, William Penn hotel; 9, Atwater-Kent Radio artists; 10, Goodrich Silvertown Cord orchestra.

WCAU, Philadelphia, Pa. (278), 6:05 p. m., Hotel Pennsylvania concert orchestra; 6:30, Billy Hayes and his Cathay Tea Garden dance orchestra; 7:30, N. Snellenburg & Co., symphony orchestra; 8, electrical talk, Clara Zillessen; 10:30, Billy Hayes and his Cathay Tea Garden dance orchestra.

WEAF, New York, N. Y. (491.5), 4-4:15 p. m., Lawren's Bradham, pianist; 4:15-4:30, children's stories, Mrs. Beatrice Semmell Waltz; 4:30-4:45, William C. Ramer, mandolinist; 4:45-5, "Character Sketches," Ruth Thane; 6-7, dinner music, Waldorf-Astoria; 7-7:30, services, Greater New York Federation of Churches; 7:30-8, Cushman's serenaders; 8-9, Mozart Instrumental ensemble; 9-10, Atwater-Kent Radio artists; 10-11, Silvertown Cord orchestra; 11-12, Vincent Lopez' Hotel Pennsylvania orchestra.

WFI, Philadelphia, Pa. (394.5), 1 p. m., Bellevue Stratford concert trio; 3, Loretta Kerk, pianist; talk, auspices Philadelphia Child Health society; Housewives' Radio exchange and Gardens talk, Mabel Swint Ewer; 6:45, Bellevue Stratford Roof Garden trio; 8, concert from WEAF; 9, Atwater-Kent Radio artists; 10, Goodrich Silvertown Cord orchestra.

WGBS, New York, N. Y. (315.6), 3-3:10 p. m., talk on opera, J. Walker McSpadden; 3:20-3:30, beauty talk, Maybelle A. Burbridge; 3:40-3:50, "Style in Furniture," Arthur Wilcox; 6-6:30, Uncle Geebee; 7-7:10, talk, Independent magazine; 7:30-7:40, Captain Archibald's viewpoint on Colonel Paul Henderson, Deputy Postmaster General; 8:10-8:20, Miska Ivany, baritone; 8:20-8:30, two pianos, Ballin and Race; 9-9:15, Edwin Morris, pianist; 9:15-9:30, Erva Giles, soprano; 9:30-9:40, Tommy Lyman, International midnight lark.

WGR, Buffalo, N. Y. (319), 2:30-4:30 p. m., WGR's afternoon program; 6:30-7:30, dinner music, Vincent Lopez' Hotel Statler dance orchestra, Harold Gieser, director; 8-11, jointly with WEAF, including Mozart instrumental ensemble, Nadine mixed quartet, Atwater-Kent program, Goodrich Silvertown Cord orchestra.

WHAR, Atlantic City, N. J. (275), 7:30 p. m., address, Prof. Kenneth L. Williams, physiognomist; 8, Seaside hotel trio; 9, Breakers hotel, Vincent Lopez's dance orchestra.

WHN, New York, N. Y. (360), 6:30-7 p. m., Olcott Vail's string trio; 8-8:30, Will Oakland's Chateau Shanley; 8:30-8:45, Ethel West, soprano; 9:30-10, Palisades Amusement Park orchestra; 10:15-10:30, Loew's vaudeville headliner.

WIP, Philadelphia, Pa. (508.2), 1 p. m., luncheon music from Steel Pier; 3, Song of the Surf; 3:30, Comfort's Philharmonic orchestra; 6:05, Benjamin Franklin concert orchestra; 7, Uncle Wip's bedtime stories; 8, Comfort's Philharmonic orchestra; 8:45, Song of the Surf; 8:50, Veselli's band; 11, Howard Lanin's dance orchestra.

WJAR, Providence, R. I. (305.9), 8 p. m., program from New York studio; 9, Victor presentation; 10, Goodrich Silvertown Cord orchestra.

WJY, New York, N. Y. (405.2), 10-11 p. m., Harold Stern's Hotel Belleclaire Tower orchestra.

WJZ, New York, N. Y. (454.3), 4:30-5 p. m., Bernhard Levitow's Hotel Commodore orchestra; 5-5:30, "Music for Children," Harriet Ayer Seymour; 5:30-6, daily reports; 7-8, Bernhard Levitow's Hotel Commodore orchestra; 8-8:30, artist of Mabelanna Corby; 10-11, "The Romanys," Royal Hour of Music.

WMCA, New York, N. Y. (340.7), 3-5 p. m., musical program; 7:45-8, legal forum; 8-9, George Kohlmeier's orchestra; 9:30-10, Snedden Weir, baritone; 10-10:15, negro spirituals, Leila Trowbridge Gardner; 10:15-10:30, Anthony Esposito; 10:30-10:45, Leila Trowbridge Gardner; 10:45-11, Anthony Esposito; 11-12, Ernie Golden and his Hotel McAlpin orchestra.

WNYC, New York, N. Y. (526), 6:50-7 p. m., market high spots; 7-7:25, dance program; 7:25-7:30, baseball results; 7:30-7:35, police alarms; 7:35-8, "Timely Topics," F. P. Bent; 8-8:45, studio features; 8:45-9, health talk; 9-10:30, studio features.

WOO, Philadelphia, Pa. (508.2), 11 a. m., organ recital, Mary E. Vogt; 12:02 p. m., Golden's Crystal Tea Room orchestra; 4:45, organ recital, Mary E. Vogt 7:30, A. Candelori's concert orchestra.

WOR, Newark, N. J. (405.2), 6:15-7:15 p. m., Tom Cooper's Country club orchestra; 7:15-7:30, sports talk, Bill Wathey.

Eastern Standard or Central Daylight Saving Time Stations

KDKA, Pittsburgh, Pa. (309.1), 2:30-5 p. m., baseball; 7, baseball; 8, farm program, National Stockman and Farmer studio; 9:55, baseball; 10:15, concert from Willow.

WBBM, Chicago, Ill. (226), 8-12 p. m., Samovar orchestra; Sandy Meek, Scotch tenor; Harry Sosnik; Crillon orchestra; Sunset quartet; Leo Matise, Hawaiian guitarist; Marie Winters, pianist; Honky Tonk gloom chasers; Charlie Garland, pianist; Albert Blaha, concertinist.

WBZ, Springfield, Mass. (333.3), 6 p. m., Leo Reisman's Hotel Lenox ensemble; 6:30, baseball, 7:30, United States Marine band, WRC, WJZ, WGY; 9, mixed quartet, William Ellis Weston; 9:50, baseball.

WCBD, Zion, Ill. (344.6), 8 p. m., saxophone quintet, celestial bell quartet, ladies' chorus; John McElroy, saxophonist; vocal duet, Carey Sisters; Edith Carey, contralto; Ida Peterson, soprano; Sydney Stewart, violinist; Wesley Carey, reader; Richard F. Hire, pianist.

WCX, Detroit, Mich. (516.9), 4:15 p. m., concert; 6, dinner concert, Book-Cadillac hotel; 7:30, band concert, Bell Isle; 8:30, musical program.

WEAR, Cleveland, Ohio (389.4), 7-7:30 p. m., talk, Pertinent topics; 7:30-8, lecture recital; 8-10, program, selected artists; 10-11, Metcalf Memorial organ recital, Vincent H. Percy.

WEBH, Chicago, Ill. (370.2), 7:30-8:30 p. m., Oriole orchestra; Herman L. Baer, baritone; Kenneth Cummings, pianist; baseball; Riviera theater; 9:30-10:30, Oriole orchestra; Katherine Forbes, soprano; Beulah Ladon, violinist; 11:30-1, Oriole orchestra; Paul Small, soloist; Katherine Forbes, soprano.

WGES, Oak Park, Ill. (250), 5-7 p. m., Edgar Scott, tenor; Katherine O'Brien, reader; Elsie Barge, pianist; McDevitt Sisters; Lucille Matthews, violinist; Gertrude Matthews, pianist; 10:30-1, Erwin Plecity; Sandy McTavish; Clarence Parrish; Pat Ward; Coyne Electrical school orchestra.

WGN, Chicago, Ill. (370.2), 5:30 p. m., Skeezix time; 6:30-7:30, Drake concert ensemble; Blackstone string quintet; 8:30-9:30, studio program, organ recital; 10:30-11:30, Drake hotel Terrace Garden program.

WGY, Schenectady, N. Y. (379.5), 5:30 p. m., John Fink's Hotel Ten Eyck orchestra; 6:35, WGY book chat, William F. Jacob; 6:50, Violet Brooks Auer, soprano; Grace Leonard Walrath, pianist; Frank Benford; 7:30, U. S. Marine band; 9, WGY orchestra; Arthur N. Yauney, baritone.

WHT, Deerfield, Ill. (399.8), 7-8 p. m., Tony Corcoran, tenor; Borden Varieties; Margaret Garrity, pianist; Wilkens and Martens; Marilla Walsworth, soprano; Pat Barnes, tenor; Al Carney, organist; Jelke Musical moments; 8:45-10:15, Riverview Park ballroom orchestra; Al Carney, organist; 10:30-1 a. m., Pat Barnes' Pals; Al Carney, organist; Sandy Meek, tenor; Agatha Karlen, reader; Husk O'Hare's Red Dragon orchestra; Ned Becker, comedian; Si Berg, ukulele soloist; Walter Donovan, tenor; Jule Reveltas, contralto; Harry Sosnick, pianist; Al Carney, organist.

WLS, Chicago, Ill. (344.6), 6:30 p. m., Ralph Emerson, organist; Martha Meier, contralto; 7:15, Rex's Cornhuskers; 7:45, lullaby time; 8-8:55, E. Warren K. Howe's classical program; William Hayden, tenor; Jessie Robertson, soprano.

WLW, Cincinnati, Ohio (422.3), 4 p. m., piano solos, Adelaide Apfel; 7, dinner hour concert, Hotel Gibson orchestra, Robert Visconti, director; 7:20, talk, Dr. C. N. Kaufman, optometrist; 7:50, Seckatary Hawkins; 10, three minute message from the United States Civil Service department; 10:03, WLW orchestra; 10:45 p. m., Cino male quartet; Novelty "Annie Laurie" (as you like it); organ solos, Rosemary Ellerbrock.

WMAK, Lockport, N. Y. (265.5), 11 p. m., Murray Whiteman, Buffalo, N. Y.

WMAQ, Chicago, Ill. (447.5), 6 p. m., Chicago theater organ recital; 6:30, Jack Chapman's orchestra; 8, Jack Chapman's orchestra; 8:30, Boy Scout program;

DANCING

(Central Time)

(Central Standard Time)

Saturday, July 11: 8, Kgw, Wmbb, Wpg, Wtas; 8:05, Wip; 8:30, Ksd, Webh, Whaz, Wjz; 9, Wmbf Wmca, Wor, Wpg, Wqj, Wtas; 9:25, Kths; 9:30, Wcee, Weaf, Wges, Wgn, Wjjd; 10, Kpo, Wahg, Wcco; 10:30, Webh, Wges; 11, Kfab, Wcee, Wfaa, Wjjd, Wmbf, Wcc; 11:30, Wges; 12, Kgo, Kgw, Khj, Knx; 11:45, Wdaf; 1, Kgo; 1:30, Khj.

Monday, July 13: 8, Wahg, Wcae, Wlit, Wmbb, Wtas; 8:30, Weaf, Woo, Wsmb; 8:45, Wjz; 9, Wgr, Wmbf, Wtas; 9:05, Wahg; 9:30, Wcea, Whn, Wjjd, Wmca; 9:35, Kths; 10, Wgr, Whn, Wmbf; 10:30, Wceo, Wjjd; 11:45, Wdaf; 12, Kfi, Knx, Kpo; 1, 12, Knx, Kpo; 1, Knx.

Tuesday, July 14: 8, Wmbb, Wtas; 8:30, Weau, Webh; 9, Wcx, Weaf, Wip, Wmbf, Wmca, Wqj, Wtas; 9:25, Kths; 9:30, Wcee, Wges, Wgn, Whn, Wjjd; 10, Wmbf; 10:30, Wcee, Webh, Wges, Wjjd; 11, Kfab, Wfaa; 11:30, Wjjd; 11:45, Wdaf; 12, Kgo, Kgw, Khj, Knx, Kpo, Wqj; 1, Khj.

Wednesday, July 15: 8, Wlit, Wmbb, Wtas; 8:15, Wjz; 8:30, Kyw, Webh, Whn, Wjz, Woo; 9, Kfwb, Kyw, Weaf, Wgr, Wmbf, Wqj; 9:05, Wjz; 9:15, Wor; 9:30, Kfi, Wcee, Webh, Wges, Wgn, Whn, Wjjd, Wtas; 10, Kyw, Wceo, Wgr; 10:20, Who; 10:30, Wcee, Wges; 11, Who, Wjjd, Wmbf; 11:30, Wges; 11:45, Wdaf; 12, Kpo, Wqj; 12:30, Khj.

Thursday, July 16: 8, Wjar, Wjy, Wmbb, Wtas; 8:30, Weau, Webh, Wsmb; 9, Weaf, Wmbf, Wmca, Wqj, Wtas; 9:30, Wgn; 10:30, Webh; 11, Kfwb, Who; 11:45, Wdaf; 12, Kgo, Kgw, Khj, Knx, Kpo, Wqj; 1, Kgo.

Friday, July 17: 8, Kyw, Wcae, Wear, Whn, Wlit, Wmbb, Wtas, Wwj; 8:15, Wahg; 8:30, Kyw, Weau, Webh, Whn, Wjz, Woo; 9, Kyw, Wcx, Weaf, Wear, Wgr, Wip, Wmbf, Wqj; 9:05, Wahg; 9:30, Wcee, Wgn, Whn, Wjjd, Wtas; 10, Kfwb, Kpo, Wgr; 10:30, Wcee, Webh, Wjjd; 11, Who; 11:30, Wjjd; 11:45, Wdaf; 12, Khj, Wqj; 1, Knx.

OLD MANDOLIN ORCHESTRA, AT WAHG

…uctor of the New York Philharmonic orchestra whose stadium … from WJZ, WGY, WBZ and WRC. Martha, Connie and Vet … re entertainers at WSMB, New Orleans. They will give one … Norma Ruth Hetsch, contralto (right), prize winner of the …m the national contest at Los Angeles. She may be heard …h WLW and WSAI this week.

Index to Classical Concerts

TABULATED below is a time table of the stations giving classical concerts this week. Stations are divided into the four different standard times in use. The hours are given in the kind of time in use at each listed station. By using this table as an index and referring to the complete programs below, full information will be obtained.

Classical

Atlantic or Eastern Daylight Saving Time Stations

Saturday, July 11: 6, WEAF; 6:05, WIP; 6:45, WJZ; 7, WEAF; 7:30, CKAC, WEAF; 8, CNRO, WBBR, WEAF, WIP; 8:15, WCAE, WNYC; 8:30, CKAC, WCAE, WGBS, WPG; 8:45, WBBR, WGR; 8:50, WIP; 9, WGBS, WHAR; 10, WEAF.

Sunday, July 12: 6, WCAU; 6:30, WCAE; 8, WJZ; 9, WBBR, WHAR; 9:15, WCAE, WEAF; 9:20, WEEI; 10, WBBR; 11, WHAR.

Monday, July 13: 6, WEAF, WIP, WJZ; 6:30, WCAE, WGBS; 7:15, WEAF; 7:45, WEEI; 8, WBBR, WHAR, WLIT, WOO, WOR; 8:15, WNYC; 8:25, WJZ; 8:30, WBBR, WCAE, WEAF, WOO; 8:50, WBBR; 9, WCAE, WGR, WHAR, WOO; 9:30, WLIT; 10, WEAF, WGR; 11, WHN.

Tuesday, July 14: 6, WEAF; 6:05, WIP; 6:30, WCAE; 7, WEAF; 7:30, CKAC, WGBS; 7:45, WEBJ, WEEI; 7:50, WNYC; 8, WCAE, WCAU, WEEI, WFI, WGBS, WGR, WIP; 8:30, CKAC, WJZ; 8:45, WEBJ; 8:50, WIP; 9, CNRA, WCAE, WEAF, WEEI, WFI, WHAR; 9:10, WCAU; 9:30, WGR; 10, WCAE, WEAF, WEEI, WGR, WMCA; 11, WHAR.

Wednesday, July 15: 6, WEAF, WIP; 6:30, WCAE; 7, WEBJ; 7:30, WEAF; 7:45, WAHG; 8, CNRO, WEAF, WEEI, WLIT, WOO; 8:15, WNYC; 8:30, WAHG, WCAE, WEEI, WJZ; 9, WEAF, WEBJ, WEEI, WGR; 9:30, WAHG; 10, WEAF, WGR; 10:15, WOR.

Thursday, July 16: 6, WEAF; 6:05, WIP; 6:30, WCAE, WGBS, WGR; 7:30, WCAU, WGBS; 8, WBBR, WCAE, WCAU, WEAF, WEEI, WFI, WGR, WIP; 8:15, WNYC; 8:30, WHN; 8:40, WBBR; 8:50, WIP; 9, CNRM, WEEI, WFI, WGBS, WGR, WHAR; 9:15, WNYC; 9:30, WMCA; 10, WCAE, WEEI, WGR, WHN.

Friday, July 17: 6, WEAF; 6:05, WIP; 6:30, WCAE; 7, WEEI, WJY; 7:45, WEAF, WEBJ; 8, CNRA, WAHG, WCAU, WHAR, WHN, WOO; 8:15, WNYC; 8:25, WJZ, WCAE, WEAF, WHN; 9, WEAF, WGR, WHAR, WMCA; 9:15, WAHG, WHN, WJY, WNYC; 10, WGR, WJY, WMCA, WOO; 10:15, WEAF, WMCA, WNYC; 10:40, WEAF; 10:45, WMCA; 11, WHAR.

Eastern Standard or Central Daylight Saving Time Stations

Saturday, July 11: 6, KYW, WIBO; 6:30, WGN; 6:45, WJJD; 7, WHT, WIBO, WMBB, WQJ; 7:15, WJJD; 7:30, WCX; 7:35, KYW; 8, WORD, WSAI; 8:15 WSAI; 8:30, KYW, WGN; 8:45, KDKA; 9:15, WSAI; 11, WKRC; 1, WHT.

Sunday, July 12: 6:30, WHT; 6:45, WORD; 7, WEAR, WEBH, WMBB; 7:30, WCX, WLS; 8, WLS, WQJ; 8:30, WEBH, WLW; 9, WEAR, WGN, WQJ.

Monday, July 13: 6, WBZ, WCX, WMAQ, WWJ; 6:30, WGN; 7, WEAR, WHT, WLW; 7:15, WJJD; 7:30, WCX, WHT; 8, WBZ, WWJ; 8:15, WHAZ; 8:30, WCX; 8:45, WBZ, WLW; 9, WBZ, WORD; 9:15, WBZ; 9:30, WLW; 10, WSAI; 12:30, WHT.

Tuesday, July 14: 6, WBZ, WCX, WIBO, WMAQ, WWJ; 6:30, WGN, WLS, WLW; 6:45, WJJD, WSAI; 7, KYW, WEAR, WHT, WIBO, WMBB, WQJ, WSAI, WWJ; 7:15, WJJD; 7:30, WCX, WEBH; 8, KYW, WBZ, WEAR, WLW, WSAI; 8:30, WBZ, WCX, WGN, WMAQ; 8:45, KYW, WBZ; 9, WLW, WORD, WSAI; 10, KYW, WLW; 10:30, WHT.

Wednesday, July 15: 6, WBZ, WCX, WIBO, WMAQ, WWJ; 6:15, WJJD; 6:30, WGN, WLS; 7, KYW, WEAR, WHT, WIBO, WLW, WMBB, WQJ; 7:15, WJJD; 7:30, WCX, WEBH, WHT; 8, KYW, WBZ, WLS, WWJ; 8:30, WBZ, WCX, WGN, WORD; 8:45, WLS; 9, WBZ; 10, WLS, WLW; 11, WLW; 12:30, WHT.

Thursday, July 16: 6, WBZ, WCX, WIBO, WMAQ, WWJ; 6:30, WGN, WLS, WSAI; 7, KYW, WHT, WIBO, WLW, WMBB, WQJ, WSAI, WWJ; 7:30, WBZ, WCX, WBZ, WEBH, WHT; 8, WEAR, WLS, WSAI; 8:20, KYW; 8:30, WCX, WGN, WMAQ; 9, WORD; 9:15, WBZ; 10, KYW, WEAR; 10:03, WLW; 12:30, WHT.

Friday, July 17: 6, WBZ, WCX, WIBO, WLS, WWJ; 6:30, WGN; 6:45, WJJD; 7, KYW, WEAR, WHT, WIBO, WMBB, WQJ; 7:15, WJJD; 7:30, WCX, WEBH; 8, KYW, WBAV, WBZ, WLS, WWJ; 8:30, CNRT, WCX, WGN; 8:45, WMAQ; 9, WBAV, WBZ, WORD; 10:15, WLS; 10:30, WHT; 12:30, WHT.

Central Standard Time Stations

Saturday, July 11: 6, WOAW; 6:30, WFAA, WSMB; 7:30, KFNF, WHAS; 8, WSB; 8:30, WFAA, WHAS; 8:35, KYW; 9, WCCO, WOC.

Sunday July 12: 6:30, KLDS; 7:30, WHO; 8, KFDM, WCBD; 9, WOAN; 9:15, KLDS, WCCO; 9:25, KTHS; 9:30, WOC.

Monday, July 13: 6, WOAW; 6:30, WFAA, WSMB; 7:30, KFNF, WHO; 8, WCBD, WHO, WSB; 8:30, WFAA; 9, KSD, WOAN, WOAW; 11:15, WHO.

Tuesday, July 14: 6:05, WCCO; 6:25, WOAW; 6:30, WSMB; 7, WCCO, WOC; 7:30, WHAS, WHO; 8, KFDM, KLDS, KSD, WOC; 8:30, WFAA, WHAS, 9, WOAN, WOAW.

Wednesday, July 15: 6:30, WHO, WOAW, WSMB; 7:30, KFNF, KSD, WHAS; 8, WCCO, WDAF; 8:30, CNRW, WHAS; 9, WOAN, WOC; 9:25, KTHS; 11:30, WCCO.

Thursday, July 16: 6:30, WFAA, WSMB; 7, WCCO, WOC; 7:30, KFNF, WHAS, WHO; 8, KLDS, WCBD, WOC; 8:30, WFAA, WHAS; 9, WOAN; 9:25, KTHS; 10:30, KFRU; 10:45, WSB.

Friday, July 17: 6:15, WCCO; 6:30, WSMB; 7, KSD; 7:30, KFNF, WHAS, WHO; 8, KFDM, WCCO, WOC, WSB; 8:30, WFAA, WHAS, WHO; 9, KFDM, WOAN; 9:25, KTHS.

Mountain Standard Time Stations

Monday, July 13: 8, KOA.
Tuesday, July 14: 8, CNRR.
Wednesday, July 15: 8, KOA.
Thursday, July 16: 8, CNRC.
Friday, July 17: 8, KOA.

Pacific Standard Time Stations

Saturday, July 11: 8, KFWB, KNX; 9, KFWB, KNX; 10, KFI, KFWB; 11, KNX; 11:30, KHJ; 12, KNX; 12:30, KHJ; 1, KNX.

Sunday, July 12: 8, KHJ; 9, KFWB, 10, KFWB.

Monday, July 13: 8, KFWB, KNX; 9, KNX; 10, KFWB, KNX.

Tuesday, July 14: 8, KHJ, KNX; 9, KFWB, KHJ, KNX, KPO; 10, KFWB, KNX; 11, KGW, KNX.

Wednesday, July 15: 8, KFWB, KGW; 9, KFWB; 10, KFWB, KHJ; 11, KNX.

Thursday, July 16: 8, KGO, KHJ, KNX; 9, KFMB, KHJ; 10, KFWB, KHJ; 11, KNX.

Friday, July 17: 8, KFWB; 9, KFWB, KHJ; 10, KFWB, KNX; 10:30, KGW; 11:30, KGW.

DANCING

(Central Time)
(Central Standard Time)

Saturday, July 11: 8, Kgw, Wmbb, Wpg, Wtas; 8:05, Wip; 8:30, Ksd, Webh, Whaz, Wjz; 9, Wmbf Wmca, Wor, Wpg, Wqj, Wtas; 9:25, Kths; 9:30, Wcee, Weaf, Wges, Wgn, Wjjd; 10, Kpo, Wahg, Wcco; 10:30, Webh, Wges; 11, Kfab, Wcee, Wfaa, Wjjd, Wmbf, Woc; 11:30, Wges; 12, Kgo, Kgw, Khj, Knx; 11:45, Wdaf; 1, Kgo; 1:30, Khj.

Monday, July 13: 8, Wahg, Wcae, Wlit, Wmbb, Wtas; 8:30, Weaf, Woo, Wsmb; 8:45, Wjz; 9, Wgr, Wmbf, Wtas; 9:05, Wahg; 9:30, Wcee, Whn, Wjjd, Wmca; 9:35, Kths; 10, Wgr, Whn, Wmbf; 10:30, Wcee, Wjjd; 11:45, Wdaf; 12, Kfi, Knx, Kpo; 1, 12, Knx, Kpo; 1, Knx.

Tuesday, July 14: 8, Wmbb, Wtas; 8:30, Wcau, Webh; 9, Wcx, Weaf, Wip, Wmbf, Wmca, Wqj, Wtas; 9:25, Kths; 9:30, Wcee, Wges, Wgn, Whn, Wjjd; 10, Wmbf; 10:30, Wcee, Webh, Wges, Wjjd; 11, Kfab, Wfaa; 11:30, Wjjd; 11:45, Wdaf; 12, Kgo, Kgw, Khj, Knx, Kpo, Wqj; 1, Knx.

Wednesday, July 15: 8, Wlit, Wmbb, Wtas; 8:15, Wjz; 8:30, Kyw, Webh, Whn, Wjz, Woo; 9, Kfwb, Kyw, Weaf, Wgr, Wmbf, Wqj; 9:05, Wjz; 9:15, Wor; 9:30, Kfi, Wcee, Webh, Wges, Wgn, Whn, Wjjd, Wtas; 10, Kyw, Wcco, Wgr; 10:20, Who; 10:30, Wcee, Wges; 11, Who, Wjjd, Wmbf; 11:30, Wges; 11:45, Wdaf; 12, Kpo, Wqj; 12:30, Khj.

Thursday, July 16: 8, Wjar, Wjy, Wmbb, Wtas; 8:30, Wcau, Webh, Wsmb; 9, Weaf, Wmbf, Wmca, Wqj, Wtas; 9:30, Wgn; 10:30, Webh; 11, Kfwb, Who; 11:45, Wdaf; 12, Kgo, Kgw, Khj, Knx, Kpo, Wqj; 1, Kgo.

Friday, July 17: 8, Kyw, Wcae, Wear, Whn, Wlit, Wmbb, Wtas, Wwj; 8:15, Wahg; 8:30, Kyw, Wcau, Webh, Whn, Wjz, Woo; 9, Kyw, Wcx, Weaf, Wear, Wgr, Wip, Wmbf, Wqj; 9:05, Wahg; 9:30, Wcee, Wgn, Whn, Wjjd, Wtas; 10, Kfwb, Kpo, Wgr; 10:30, Wcee, Webb, Wjjd; 11, Who; 11:30, Wjjd; 11:45, Wdaf; 12, Khj, Wqj; 1, Knx.

8:40, financial talk; 9, Verdi trio; 9:30, Jack Chapman's orchestra.

WMBB, Chicago, Ill. (250), 7-8:30 p. m., Trianon ensemble; Hazel O'Neil, soprano; Bernard Senescu, violinist; Marie Caruso, soprano; Clarence Jacobs, pianist; Wayne King, saxophonist; Lindsay McPhail, pianist; Woodlawn theater program; 8:30-10:30, Trianon orchestra; Woodlawn theater orchestra; Florence Tenney; Fisher and Wayne; Charles Agne, marimba soloist; Cecil and Esther Ward.

WQJ, Chicago, Ill. (447.5), 7-8 p. m., Ralph Williams and his orchestra, concert; Everett G. Mitchell, baritone; Kenneth Sterling, tenor; Kane McDuffee, whistler; 10-1 a. m., Ralph Williams and his Rainbo Gardens orchestra; Ralph Keim, pianologist; Anne Keim, mezzo-soprano; Marie Wright, soprano; Lew Butler; Mary Jane; 1-2, Ginger hour, Little Skylarks.

WRC, Washington, D. C. (468.5), 2:55 p. m., Washington-Detroit baseball game; 6:55, baseball; 7, dinner music; 7:30, United States Marine band; 9, Romany orchestra; 10, Hotel Mayflower orchestra.

WSAI, Cincinnati, Ohio (325.9), 6:30 p. m., Hotel Sinton instrumental trio; 7, Mozart instrumental ensemble; Nadina mixed vocal quartet; 8, Atwater-Kent Radio artists; 9, Silvertown Cord orchestra.

WTAM, Cleveland, Ohio (389.4), 6-7 p. m., Hotel Statler concert orchestra.

WTAS, Elgin, Ill. (302.8), 8-12, midnight, Joe Rudolph and his Boss's Own orchestra; Herbie Mintz; Violet Eaton; Breck Sisters.

WTIC, Hartford, Conn. (348.6), 6 p. m., Emil Heimberger's Hotel Bond trio.

WWJ, Detroit, Mich. (352.7), 6 p. m., dinner concert; 7, concert from WEAF.

Central Standard Time Stations

CNRW, Winnipeg, Can. (384.4), 8:30 p. m., bedtime stories; 9, Fort Garry hotel trio; Emilo Mignacca, violinist; Orean Hogan, soprano; Frank Redlich, cellist.

KFNF, Shenandoah, Ia. (266), 7:30 p. m., Science Ridge orchestra.

KFRU, Bristow, Okla. (394.5), 10:30-11:30 p. m., pipe organ.

KFVE, University City, Mo. (240), 7-8 p. m., Radiocast review, Romaine Fielding.

KTHS, Hot Springs National Park, Ark. (374.8), 9:25 p. m., dance concert, the Whittington Park orchestra.

KYW, Chicago, Ill. (536), 6-6:30 p. m., Congress hotel; 6:33-6:53, American Farm Bureau federation; 7-7:20, "Twenty Minutes of Good Reading," Rev. C. J. Pernin; 7:20-8:15, Lucy D. Long, contralto; Katherine Johnson, soprano; 8:15, "Summer Cold Cuts," John C. Cutting; 9-10:30, evening at home program.

WCCO, Minneapolis-St. Paul, Minn. (416.4), 6 p. m., baseball; 7-9, program from WEAF; 9, baseball.

WDAF, Kansas City, Mo. (365.6), 6-7 p. m., book talk, Louis Meeker; children's information period; Plantation players; 11:45-1, Merry Old Chief; Plantation players; Ted Meyn, organist; Johnnie Campbell's Kansas City club orchestra.

WFAA, Dallas, Tex. (475.9), 6:30-7:30 p. m., Western Electric Four; 8:30-9:30, Normand DeArmond and his fiddlers; 11-12, Sarah Hapkinson, mezzo-soprano.

WHAD, Milwaukee, Wis. (275), 6-7 p. m., Arthur Richter, organist.

WHAS, Louisville, Ky. (399.8), 7:30-9 p. m., Kentucky Kardinals of Bowling Green, concert; baseball scores.

WHO, Des Moines, Ia. (526), 7:30-9 p. m., music; 11-12, dance program.

WMC, Memphis, Tenn. (499.7), 12:30 p. m., musical program, O. K. Houck Piano company; 8:30, musical program.

WOAW, Omaha, Nebr. (526), 6 p. m., every child's story hour, Grace Sorenson; 6:20, baseball; 6:30, to be announced; 6:45, Randall's Royal Fontenelle orchestra; 9, DeLuxe orchestra.

WOC, Davenport, Iowa (483.6), 7-8 p. m., Atwater Kent Radio artists; 8-9 Silvertown Cord orchestra; 11-12, Louis Connor and his LeClaire hotel orchestra; Peter MacArthur, baritone.

WSMB, New Orleans, La. (319), 6:30-7:30 p. m., twilight tales; 8:30-10:30, Johnny Tobin's serenaders; orchestra.

Mountain Standard Time Stations

CNRC, Calgary, Can. (435.8), 9 p. m., Orpheus quartet; B. A. Choppen, tenor; Mrs. B. A. Choppen, accompanist.

KOA, Denver, Colo. (322.4), 6:30 p. m., Herbert White and his Silver State orchestra.

Pacific Standard Time Stations

KFWB, Hollywood, Calif. (252), 6-7 p. m., children's hour, Big Brother of KFWB; 7:40, Jack Boaz, fishing scout, talks of California trout streams; 7:45, plastic surgery, Dr. T. Floyd Brown; 8-9, program, Starr Piano company, Gennett record favorites; 9-10, program, Don P. Smith, Inc., Moon Six orchestra, Sol Hoopii's Hawaiian trio; 10-11, Warner Bros. movie frolic, Charlie Wellman, master of ceremonies.

KGO, Oakland, Calif. (361.2), 8 p. m., "Brewster's Millions," KGO players; 10-1, Clarke Wilson's Hotel St. Francis dance orchestra.

KGW, Portland, Ore. (491.5), 8-9 p. m., Oregonian concert orchestra; 9-10, Fields Motor Car company; 10-12, Herman Kenin's Multnomah hotel orchestra.

KHJ, Los Angeles, Calif. (405.2), 5:30-6 p. m., Leighton's Arcade cafeteria orchestra, Jack Cronshaw, leader; 6-6:30, Art Hickman's Biltmore hotel concert orchestra, Edward Fitzpatrick, director; 6:30-7:30, KHJ's Radio kiddies featuring Jack Searle, screen starlet; Uncle John; 7:45, talk on health, Dr. Philip M. Lovell; 8-9, program, Fitzgerald Music company, Claire Mellonino, concert pianist; Vera Barstow, concert violinist; 9-10, program, De Lite Products company; 10-11, Art Hickman's Biltmore hotel dance orchestra, Earl Burtnett, leader.

KNX, Hollywood, Calif. (336.9), 5:30-6:15 p. m., Wurlitzer pipe organ studio; 6:15, travel talk, W. F. Alder; 6:30-7, Atwater Kent Radio orchestra, Paul Finstein, leader; 7-7:30, dinner hour music; 7:30-8, one-act play, KNX players, Edward Murphy, director; 8-9, program, L. A. County Assn. Optometrists; 9-10, KNX feature program; 10-11, Abe Lyman's Cocoanut Grove dance orchestra from Ambassador hotel; 11-12, campus night, students University of California, Southern branch.

KPO, San Francisco, Calif. (428.3), 6:15 p. m., baseball scores; 6:40-7, States restaurant orchestra; 7-7:30, Rudy Seigler's Fairmont hotel orchestra; 8-9, semi-classical program; 9-10, organ recital, Theodore J. Irwin; 10-11, Johnny Buick's Cabirians.

Friday, July 17

Friday, silent night for: KFAE, KFUO, KGO, KLDS, PWX, WBBR, WCBO, WEAO, WFI, WGBS, WHAZ, WIP, WKAQ, WKRC, WLW, WMAK, WOR, WRC, WREO, WSAI, WTAM.

Atlantic or Eastern Daylight Saving Time Stations

CNRA, Moncton, Can. (313), 9 p. m., Caledonia male quartet; J. Ed Matheson, tenor; J. S. Allen, baritone; R. McL. Fraser, pianist; male quartet; CNRA dance orchestra; Walter Neal.

WAHG, Richmond Hill, N. Y. (315.6), 7:30-7:45 p. m., sports talk, Thornton Fisher; 7:45-8, songs, Jack Noel and Fred Burton; 8-8:30, violin and piano, Emery Deutch and E. Everett Hemleb; 8:30-8:45, "Speech in the Home," Prof. Richard E. Mayne; 8:45-9, Mrs. Paul Vallen, soprano; 9-9:15, Jack Noel and Fred Burton; 9:15-9:45, Emery Deutch; 9:45-10, Mrs. Paul Vallen; 10-10:15, Radio talk, William F. Diehl; 10:15-10:55, dance music; 11:05-11:30, dance music.

WCAE, Pittsburgh, Pa. (461.3), 6:30 p. m., dinner concert, William Penn hotel; 8, address, Current Motor topics; 8:30, concert; 10, dance music, Sander's Inn.

WCAU, Philadelphia, Pa. (278), 6:30 p. m., Billy Hayes and his Cathay Tea Garden dance orchestra; 10:30, Jack Myers Musical Architects' dance orchestra.

WEAF, New York, N. Y. (491.5), 4-4:10 p. m., piano duets, Mary and Victoria Regalbuto; 4:10-4:25, Edith Latimer, soprano; 4:25-4:35, Mary and Victoria Regalbuto; 4:35-4:45, Edith Latimer; 4:45-5, "Noisy Fishes," Ida M. Mellen; 6-7, dinner music, Waldorf-Astoria; 7-7:15, Edgar M. Gruen, baritone; 7:15-7:30, Sol Deutsch, violinist; 7:30-7:45, children's story, Blanche Elizabeth Wade; 7:45-8, May Singhi Breen, banjoist; 8-8:30, Happiness Candy Boys; 8:30-9, Eagle Neutrodyne trio; 9-10:15, Goldman band concert, direction of Edwin Franko Goldman; 10:15-10:30, Carlowe mixed quartet; 10:30-10:45, Cameron Emslie, pianist; 10:45-11, Carlowe mixed quartet; 11-12, Hotel Bossert Marine Roof orchestra.

WEBJ, New York, N. Y. (233), 7-7:30 p. m., Walter Walsh's orchestra; 7:45-8, Edith Law, soprano; 8:15-9, Jean Moresco, tenor, accompanied by Norman Hennefeld.

WFI, Philadelphia, Pa. (394.5), 1 p. m., Bellevue Stratford concert trio; 3, Caroline Hoffman, pianist; 6:45, Bellevue Stratford roof garden trio.

WGBS, New York, N. Y. (315.6), 3:10-3:20 p. m., Pauline Fierstein, soprano; 3:20-3:30, recitations, C. L. Odetz; 3:30-3:40, Pauline Fierstein; 3:40-3:50, theory lessons, Dr. Alfred G. Robyn; 3:50-4, Pauline Fierstein; 6-6:30, Uncle Geebee; 6:30-7, Win Unger and his Lynbrook Serenaders; 7-7:10, Radio talk, Herman Bernard; 7:10-8, Win Unger and his Lynbrook Serenaders.

WGR, Buffalo, N. Y. (319), 2:30-4:30 p. m., WGR's afternoon program; 7-7:30, Winger's Crescent Park entertainers; 9-10, George Bagnell, violin; 10-10:30, John York, one finger accordion player; 11-1 a. m., supper-dance music, Vincent Lopez Hotel Statler dance orchestra, Harold Gleser, director.

WHAR, Atlantic City, N. J. (275), 7:30 p. m., fashion review, Gladys Stoudte; 8, Seaside hotel trio; 11, Strand theater, organ recital.

WHN, New York, N. Y. (360), 7-7:30 p. m., Harry Richman and his Club Richman entertainers; 7:30-8, Ida and his WHN orchestra; 8-8:15, Matty Levine, pianist; 9-9:15, Estelle Crossman, pianist; 10-10:30, Billy Butler's orchestra; 10:30-11, Roseland dance orchestra; 11:30-12, Club Alabam orchestra.

WJAR, Providence, R. I. (305.9), 8 p. m., musicale; 9, Maine Creamery hour; 11, Providence Biltmore hotel orchestra.

WJY, New York, N. Y. (405.2), 7:30-8 p. m., "Her Husband's Wife," WGY players.

WJZ, New York, N. Y. (454.3), 5:30-8 p. m., daily reports; 7-8, Hotel Lafayette dinner concert; 8-8:20, "The Night Air Mail," Paul Henderson; 10:30-11:30, Duke Yellman and his Irene Castle orchestra.

WLIT, Philadelphia, Pa. (394.5), 12:02 p. m., daily almanac; Stanley theater organ recital; Arcadia cafe concert orchestra; 2, Arcadia cafe concert orchestra; 2:30, playlet, students National School of Elocution and Oratory; 7:30, Dream Daddy's bedtime stories; 8:45, Emmett Welch's Minstrels; Charles Frey's Million Dollar Pier orchestra; 10, Arcadia cafe dance orchestra; Carl Seville, Hawaiian guitar; songs by Rufus and Rastus; Morning Glory Club concert; Charles Frey's Million Dollar Pier orchestra.

WMCA, New York, N. Y. (340.7), 3-5 p. m., musical program; 6:30-7:30, Ernie Golden and his Hotel McAlpin orchestra; 9-10, Hardman hour of music; 11-11:15, talk, Donald Flamm, dramatic critic.

WNYC, New York, N. Y. (526), 5-5:30 p. m., elementary lessons in French, V. Harrison Berlitz; 5:30-6, advanced lessons in French; 6:50-7, market high spots; 7-7:25, song recital; 7:25-7:30, baseball results; 7:30-7:35, police alarms; 7:35-8, municipal talk; 8-8:15, song recital; 8:15-10:15, Nahan Franko and his orchestra from Central Park; 10:15-10:30, popular songs.

WOO, Philadelphia, Pa. (508.2), 11 a. m., organ recital, Mary E. Vogt; 12:02 p. m., Golden's crystal tea room orchestra; 4:45, organ recital, Mary E. Vogt; 7:30, A. Candelori's concert orchestra; 8, R. S. O. band; 8:30, Princess Anne Academy male quartet; 10, organ recital, Mary E. Vogt; 10:30, Sylvania dance orchestra.

WOR, Newark, N. J. (405.2), 6:15-6:30 p. m., sports talk, Bill Wathey; 6:30-7, Man in Moon.

Eastern Standard or Central Daylight Saving Time Stations

CNRT, Toronto, Can. (357), 5:30 p. m., Luigi Romanelli and his King Edward hotel concert orchestra; 8:30, CNRT instrumental trio; W. Bennett Archer, tenor; 10:30, Luigi Romanelli and his King Edward hotel dance orchestra.

KDKA, Pittsburgh, Pa. (309.1), 2:30 p. m., baseball; 8:45, concert; 9:55, baseball.

WBAV, Columbus, Ohio (293.9), 8 p. m., Methodist Home for Girls orchestra.

WBBM, Chicago, Ill. (226), 8-10 p. m., Sheppard Levine, tenor; Crillon orchestra; Marie Winters, pianist; Harold Anderson, piano-accordianist; Charlie Garland, pianist.

WBZ, Springfield, Mass. (333.3), 6 p. m., dinner concert, Hotel Kimball trio, Jan Geerts; 6:30, baseball; 8, Francis Gerrior, violinist; 8:30, Bill Boyle's entertainers broadcast, Copey Plaza hotel; 9, concert, Edith Hemsworth, pianist; 9:15, to be announced; 9:50, baseball.

WCX, Detroit, Mich. (516.9), 4:15 p. m., concert; 6,

(Continued on page 14)

An Evening at Home with the Listener In

STATIONS IN ORDER OF WAVE LENGTHS USED

Meters	Call	Meters	Call	Meters	Call	Meters	Call	Meters	Call	Meters	Call
226	WBBM	275.3	WJAS	315.6	KFDM	365.6	WDAF	405.2	WOR	468.5	WCAP
226	WIBO	278	KWWG	315.6	WAHG	365.6	WHB	406	WBAR	468.5	WRC
233	WEBJ	278	WCAU	315.6	WGBS	370	CYB	410.7	CKAC	475.9	WBAP
240	KFAB	278	WLBL	319	WGR	370.2	WEBH	416.4	WCCO	475.9	WEEI
240	KFVE	278	WRBC	319	WSMB	370.2	WGN	421	KIAF	475.9	WFAA
243.8	WAMD	280.2	WNAC	322.4	KOA	374.8	KTHS	422.3	WLW	480	CYL
250	WGES	282.8	WOAN	325.9	WSAI	379.5	WGY	428.3	WSB	483.6	WOC
250	WMBB	285.5	WKAR	330	CYX	379.5	WHAZ	428.3	KPO	483.6	WSUI
252	KFWB	285.5	WREO	333.3	WBZ	384.4	CKY	434.5	CNRO	491.5	KGW
252	WGCP	293.9	KJS	336.9	KNX	384.4	KJR	434.5	NAA	491.5	WEAF
261	KFWA	293.9	WBAV	340.7	WKAQ	384.4	WMBF	435	AT9	499.7	WMC
265.5	WMAK	293.9	WEAO	340.7	WMCA	389.4	WEAR	434.5	CFCN	508.2	KLX
266	KFNF	296.9	KPRC	344.6	WCBD	389.4	WTAM	440.9	KLDS	508.2	WIP
266	WBCN	299.8	KFMQ	344.6	WLS	394.5	KFRU	440.9	WDWF	508.2	WOO
272.6	WBBR	299.8	KSL	348.6	KFAE	394.5	WFI	440.9	WOS	516.9	CJCA
272.6	WFBH	299.8	WPG	348.6	WTIC	394.5	WLIT	447.5	WMAQ	516.9	WCX
273	WRW	302.8	WJJD	352.7	WWJ	394.5	WOAI	447.5	WQJ	526	WHO
275	KFAU	302.8	WTAS	356.9	CFCA	399.8	WHAS	454.3	KFOA	526	WNYC
275	WABL	305.9	KTCL	356.9	CHNC	399.8	WHT	454.3	WJZ	526	WOAW
275	WHAD	305.9	WJAR	360	WHN	400	PWX	455	KTW	535.4	KYW
275	WHAR	309.1	KDKA	361.2	KGO	405.2	KHJ	461.3	WCAE	545.1	KFUO
275	WORD	313	CNRA			405.2	WJY	467	KFI	545.1	KSD

INSTRUCTIONS FOR USE OF TABLES

THE "Evening at Home with the Listener In" table is not difficult to understand and use. It is this fact that makes it so popular with the readers of Radio Digest. It is presented here in three different standard times; Eastern, Central and Pacific. Listeners using one of the three kinds of time named, should utilize the table printed in that time and so designated by its headline.

For listeners whose standard of time is not shown here, the following instructions should be remembered:

Listeners using **Mountain time:** Use table for Pacific time but add one hour to every figure given. Can also use Central time table by subtracting one hour from every figure given.

Listeners using **Eastern daylight saving,** or **Atlantic time:** Use Eastern time table by adding one hour to every figure given.

Listeners using **Central daylight saving time:** Use Eastern time table. No changes are necessary.

The periods given in the "Evening at Home" tables are only representative of each station's evening sign-on and sign-off hours, and on Sunday, the late afternoon sign-on and sign-off. If a station has an intermittent rather than continuous program, the table cannot show this.

Above is given a list of all stations in the "Evening at Home" tables, arranged in order of the wave lengths used (or supposed to be used) by the stations. This arrangement provides a handy index for the other tables.

The "Evening at Home" tables are **corrected every week.** The number of changes often run as high as thirty per cent of the whole. Keep the "Evening at Home" tables **from the current issue** at the side of your receiver.

Friday, July 17

(Continued from page 13)

dinner concert, Book-Cadillac hotel; 7:30, Municipal band concert, Belle Isle; 8:30, musical program.

WEAR, Cleveland, Ohio (389.4), 7-8, "Children's Hour," Alice McCullough, Norma Harrison Thrower; 8-11, program, dance music, studio.

WEBH, Chicago, Ill. (370.2), 7:30-8:30 p. m., Oriole orchestra; Howard Neumiller, pianist; Dan Russo and Ted Fiorito; Riviera theater; 9:30-10:30, Oriole orchestra; Correll and Gosden; Jack Penewell, twin guitarist; 11:30-1, Oriole orchestra; Three Musketeers; Jack Penewell, guitarist; Correll & Gosden.

WGES, Oak Park, Ill. (250), 5-6:45 p. m., Madeline Reed, contralto; John Rankel, baritone; Charlotte Boyken, soprano; Herman Silverman; Ann Paterson, pianist; 6:45-7, electrical talk for Radio and automobile fans, E. L. Richards; 10:30-1, East Side Community orchestra; Ralph Olson and Hal Cowles; Casey and Gervais; Coyne Electrical school serenaders.

WGN, Chicago, Ill. (370.2), 5:30 p. m., Skeezix time; 6:30-7:30, Drake concert ensemble; Blackstone string quintet; 8:30-9:30, studio program, organ recital; 10:30-11:30, Drake hotel Terrace Garden program.

WGY, Schenectady, N. Y. (379.5), 5:30 p. m., Sunday school lesson; 6, Albany Strand theater orchestra; Floyd N. Walters, organist; 6:35, "Her Husband's Wife." WGY players; 8:15, New York Philharmonic orchestra; 9:30, WGY orchestra; Mrs. John E. Faulkner, contralto.

WHT, Deerfield, Ill. (399.8), 7-8:30 p. m., Bryce Talbot, baritone; Genevieve Barry Burnham, soprano; Dean Remick, pianist; Kitchen Klenzer Klassics; Al Carney, organist; Jelke Musical moments; 8:45-1, Riverview Park Ballroom orchestra; Loftis half hour of music; Syncopation review; Al Carney, organist.

WLS, Chicago, Ill. (344.6), 6:30 p. m., Ralph Emerson, organist; Martha Meier, contralto; 7:15, Rex's Cornhuskers; 7:45, lullaby time, Aunt Martha, Uncle George; 8, child-prodigy program, Arthur Kropiuski, violinist; Billy Yeo, reader; Vernon Schuman, singers; Erma Friedl, John Hodgson, piano duets; Robert Sayler, pianist; 8:45, Ann Williams, contralto; 9, Brooks Colby, violinist; Harold Smith, saxophonist; 10, Margaret Anderson, pianist; Koby Sirinsky, violinist; Gladys Weyforth, contralto; 11-11:30, Rex's Cornhuskers.

WMAQ, Chicago, Ill. (447.5), 6 p. m., Chicago theater organ recital; 6:25, Family Altar league; 6:35, Jack Chapman's orchestra; 8, Jack Chapman's orchestra; 8:30, St. Angela's church choir; 9:30, Jack Chapman's orchestra.

WMBB, Chicago, Ill. (250), 7-8:30 p. m., Trianon ensemble; Albert Caestecker, cellist; Lindsay McPhail, pianist; Hazel O'Neil, soprano; Uncle Tom's Cabin; John S. Everett, baritone; Charles Agne, trumpeter; Phyllis Harries, mezzo-soprano; 8:30-10:30, Trianon orchestra; Woodlawn theater orchestra; Fisher and Wayne; Harold Stokes, accordianist; Morey Alswang; Florence Tenney; Jack Murnane, baritone.

WMBF, Miami Beach, Fla. (384.4), 6:30-7 p. m., Fleetwood Radio orchestra; 7-7:30, Fleetwood Radio orchestra; 10-12, Fleetwood dance orchestra.

WQJ, Chicago, Ill. (447.5), 7-8 p. m., concert, Ralph Williams and his orchestra; Maude Shanton Cruse, lyric soprano; Everett George Opie, character reader; 10-1 a. m., Ralph Williams and his Rainbo Gardens Skylarks; West Brothers, Hawaiian guitarists; William Richardson, baritone; Paul Small, tenor; Fontella trio; Jack Lavin, tenor; Irene Finucan, soprano; 1-2, Ginger hour, Little Skylarks.

WRC, Washington, D. C. (468.5), 2:55 p. m., Washington-Detroit baseball game.

WTAM, Cleveland, Ohio (389.4), 6-7 p. m., Golden Pheasant orchestra.

WTAS, Elgin, Ill. (302.8), 8-10:30 p. m., Joe Rudolph and the Boss's own orchestra; Herbie Mintz; Brock Sisters.

WTIC, Hartford, Conn. (348.6), 6 p. m., Travelers Jongleurs; 6:50, baseball; 7, Travelers Jongleurs; 8:05, talk; 8:30, Emil Heimberger's Hotel Bond orchestra.

WWJ, Detroit, Mich. (352.7), 6 p. m., dinner concert; 9, Orange Blossom's orchestra.

Central Standard Time Stations

KFDM, Beaumont, Tex. (315.6), 8-10:30 p. m., Refinery band.

KFNF, Shenandoah, Ia. (266), 7:30 p. m., program.

KFRU, Bristow, Okla. (394.5), 11-1 a. m., Brown Derby club.

KFVE, University City, Mo. (240), 7-8 p. m., Radiocast review, Romaine Fielding; 10, "Orchestra Romaine."

KSD, St. Louis, Mo. (545.1), 7 p. m., Hotel Statler concert orchestra.

KTHS, Hot Springs National Park, Ark. (374.8), 9:25 p. m., concert, New Arlington hotel orchestra, classical and ballad selections.

KYW, Chicago, Ill. (536), 6-6:30 p. m., Congress hotel; 6:30-7:30, program; 9-10:30, midnight revue, Paul Whiteman's Collegians.

WCCO, Minneapolis-St. Paul, Minn. (416.4), 6 p. m., baseball; 8, Gordon Cooke ensemble; 9, baseball.

WDAF, Kansas City, Mo. (365.6), 6-7 p. m., address, speaker Kansas City children's bureau; children's information period; Plantation players; 8-9:30, popular musical program; 11:45-1, Merry Old Chief; Plantation players; Charles Dornberger's Kansas City Athletic club orchestra.

WFAA, Dallas, Tex. (475.9), 6:30-7:30 p. m., Satisfied Five; 8:30-9:30, George Ashley Brewster, baritone.

WHA, Madison, Wis. (535.4), 7:45 p. m., "Manual Arts and Vacation," Prof. A. H. Edgerton.

WHAD, Milwaukee, Wis. (275), 6-7 p. m., Arthur Richter, organist; 8:30-10, Wisconsin theater revue, Rudolph G. Kopp, director; Dexter's Wisconsin roof orchestra.

WHAS, Louisville, Ky. (399.8), 7:30-9 p. m., orchestra; concert, glee club; address; Kentucky Wesleyan college quartet; baseball scores.

WHO, Des Moines, Ia. (526), 7:30-9 p. m., Solota MacAdow Herndon, soprano; Margaret French, accompanist; Abraham Tolchinsky, violinist; Helen Birmingham, accompanist; "The Citizens' Military Training Camp," Capt. Phillips; 11-12, Bankers' Life Radio orchestra.

WMC, Memphis, Tenn. (499.7), 12:30 p. m., musical program, O. K. Houck Piano company; 8:30, concert, Britling's Novelty orchestra; 11, midnight frolic.

WOAW, Omaha, Nebr. (526), 6 p. m., music review, Hester Bronson; 6:20, baseball; 6:30, orchestra; 7:10, sport events, Ivan L. Gaddis; 9, program, auspices Chicago, Burlington & Quincy Railroad company.

WOC, Davenport, Ia. (483.6), 8-9 p. m., musical program, Grace Ames, director, Edna Mitchell.

WORD, Batavia, Ill. (275), 8:30 p. m., Uncle Dan's half hour with WORD Radio study club; 9, Donald Rice, trombonist; 9:45, address, J. A. Bohnet.

WOS, Jefferson City, Mo. (440.9), 8 p. m., musical program, State Fair orchestra.

WSMB, New Orleans, La. (319), 6:30-7:30 p. m., dinner program, baseball.

Mountain Standard Time Stations

CNRE, Edmonton, Can. (516.9), 7:30 p. m., kiddies' bedtime travel story; 8:30, Edmonton Hawaiian orchestra.

KFWA, Ogden, Utah (261), 9-11 p. m., KFWA Radio Boys' dance orchestra.

KOA, Denver, Colo. (322.4), 6:30 p. m., Herbert White and his Silver State orchestra; 8, First Presbyterian church choir; KOA orchestra; "Proper Clothing on a Camping Trip."

Pacific Standard Time Stations

KFWB, Hollywood, Calif. (252), 6-7 p. m., children's hour, Big Brother of KFWB; 8-9, program, Frazier Mountain Park and Fisheries, Frazier Instrumental trio, Verna Kloess, concert pianist, Kathryn Martin, soprano; 9-10, KFWB feature program; 10-11, Warner Bros. frolic, direction Charlie Wellman.

KGO, Oakland, Calif. (361.2), 3-4 p. m., Baldwin Piano company; 4-5:30, Hotel St. Francis concert orchestra; 6-7, Ben Black's orchestra.

KGW, Portland, Ore. (491.5), 9-10:30 p. m., Sherman, Clay and company; 10:30-12, Hoot Owls.

KHJ, Los Angeles, Calif. (405.2), 5:30-6 p. m., Leighton's Arcade cafeteria orchestra, Jack Cronshaw, leader; 6-6:30, Art Hickman's Biltmore hotel concert orchestra, Edward Fitzpatrick, director; 6:30-7:30, KHJ's Radio kiddies featuring Vyola Von of the Silversheet, Uncle John; 8-10, program, Broadway Department Store; 10-11, Art Hickman's Biltmore hotel dance orchestra, Earl Burtnett, leader.

KNX, Hollywood, Calif. (336.9), 5:30-6:15 p. m., Wurlitzer pipe organ studio; 6:15, travel talk, W. F. Alder; 6:30-7, Atwater Kent Radio orchestra, Paul Finstein, leader; 7-7:30, program, Beverlyridge; 7:30-8, program, Eastern Outfitting company; 8-9, West Coast theaters; 9-10, Order of the Optomistic Donut, Davis Perfection Bread company; 10-11, KNX feature hour; 11-12, Abe Lyman's Cocoanut Grove dance orchestra from Ambassador hotel; 12-2 a. m., Wurlitzer Nighthawks from Wurlitzer studio.

KPO, San Francisco, Calif. (428.3), 6-6:15 p. m., baseball scores; 6:15-7, Loew's Warfield theater program; 7-7:30, Palace hotel concert orchestra; 8-11, Palace hotel concert orchestra, Cyrus Trobbe, director; dance music, Gene James, director.

(FOR PACIFIC TIME)

Call	Met.	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Met.	Call
AT9	435	Silent	3:00- 4:00	Silent	Silent	Silent	5:00- 7:55	Silent	435	AT9
CFCA	356.9	Silent	4:00- 5:00	Silent	5:15- 6:15	5:15- 6:15	5:15- 6:15	Silent	356.9	CFCA
CFCN	434.5	9:00-11:00	Silent	Silent	Silent	Silent	7:00- 8:00	Silent	434.5	CFCN
CHNC	356.9	Silent	Silent	4:30- 5:30	Silent	Silent	Silent	Silent	356.9	CHCN
CJCA	516.9	8:00-10:00	6:30- 7:30	6:30- 8:30	6:30- 7:00	5:00- 7:00	8:00-10:00	7:00-11:00	516.9	CJCA
CKAC	410.7	4:30- 9:30	1:30- 2:30	Silent	4:30- 9:30	Silent	4:30- 9:30	Silent	410.7	CKAC
CKY	384.4	Silent	5:00- 7:45	Silent	6:30- 8:45	Silent	6:00- 7:00	6:30- 7:45	384.4	CKY
CNRA	313	Silent	Silent	Silent	4:30- 5:30	Silent	Silent	4:30- 5:30	313	CNRA
CNRO	434.5	4:30- 9:30	Silent	Silent	Silent	4:30- 9:30	Silent	Silent	434.5	CNRO
CYB	370	8:15- 9:45	Silent	Silent	7:15- 8:15	Silent	Silent	Silent	370	CYB
CYL	480	Silent	Silent	Silent	8:00- 9:30	Silent	Silent	8:00- 9:30	480	CYL
CYX	330	Silent	Silent	7:15- 8:30	Silent	Silent	Silent	7:15- 8:45	330	CYX
KDKA	309.1	5:45- 6:55	12:00- 4:30	5:45- 6:55	5:45- 8:30	5:45- 6:55	5:00- 8:30	5:45- 6:55	309.1	KDKA
KFAB	240	9:00-10:30	2:00- 3:00	5:30- 8:00	Silent	5:30- 8:00	Silent	5:30- 8:00	240	KFAB
KFAE	348.6	Silent	Silent	Silent	Silent	7:30- 9:00	Silent	Silent	348.6	KFAE
KFAU	275	Silent	Silent	7:00- 8:00	Silent	Silent	Silent	7:00- 8:00	275	KFAU
KFDM	315.6	Silent	6:00- 7:00	Silent	6:00- 8:30	Silent	Silent	6:00- 8:30	315.6	KFDM
KFI	467	6:45-12:00	4:00-11:00	6:45-11:00	6:45-11:00	6:45-11:00	6:45-11:00	6:45-11:00	467	KFI
KFMQ	299.8	Silent	Silent	Silent	7:00- 8:00	Silent	Silent	Silent	299.8	KFMQ
KFNF	266	5:30- 6:30	4:30- 8:00	5:30- 6:30	Silent	5:30- 6:30	5:30- 6:30	5:30- 6:30	266	KFNF
KFOA	454.3	6:00-11:30	Silent	6:00-10:00	6:00-11:30	6:00-10:00	Silent	6:00-11:30	454.3	KFOA
KFRU	394.5	5:30-10:00	3:00- 5:00	5:00- 8:30	8:30-10:00	6:00- 8:30	8:30- 9:30	9:00-11:00	394.5	KFRU
KFUO	545.1	Silent	6:15- 7:15	6:00- 7:00	Silent	7:15- 8:15	Silent	Silent	545.1	KFUO
KFVE	240	8:00-10:00	Silent	8:00-10:00	8:00-10:00	8:00-10:00	Silent	8:00-10:00	240	KFVE
KFWA	261	Silent	7:00-10:00	8:00-10:00	8:00- 9:00	8:00-11:00	Silent	8:00-10:00	261	KFWA
KFWB	252	7:00-11:00	9:00-11:00	6:30-11:00	7:45-11:00	7:00-11:00	7:00-11:00	7:00-11:00	252	KFWB
KGO	361.2	8:00- 1:00	3:30- 9:00	8:00- 1:00	8:00- 1:00	Silent	8:00- 1:00	Silent	361.2	KGO
KGW	491.5	6:00-12:00	7:30-10:00	6:00- 7:00	9:00-12:00	8:00-11:00	8:00-12:00	9:00-12:00	491.5	KGW
KHJ	405.2	5:30-11:00	6:00-11:00	7:00- 1:30	5:30-11:00	5:30-11:00	5:30-11:00	5:30-11:00	405.2	KHJ
KIAF	421	Silent	2:00- 3:00	7:00- 8:00	Silent	7:00- 8:00	Silent	7:00- 8:00	421	KIAF
KJR	384.4	Silent	7:00- 8:00	6:00-10:00	Silent	8:30-10:00	10:30-12:00	8:30-10:00	384.4	KJR
KJS	293.9	Silent	7:15- 9:30	Silent	8:00- 9:00	Silent	8:00- 0:00	Silent	293.9	KJS
KLDS	440.9	Silent	4:30- 8:00	Silent	6:00- 7:00	Silent	6:00- 7:00	Silent	440.9	KLDS
KLX	508.2	Silent	Silent	6:00-11:00	Silent	6:00-11:30	Silent	6:00-10:30	508.2	KLX
KNX	336.9	8:00- 2:00	5:00-11:00	6:30-12:00	6:30-12:00	7:00-10:00	6:30-12:00	6:30-12:00	336.9	KNX
KOA	322.4	8:00-11:00	3:30- 7:30	7:00- 8:00	Silent	7:00-11:00	Silent	7:00- 8:00	322.4	KOA
KPO	428.3	6:25-12:00	6:30-10:00	6:30-11:00	6:30-11:00	6:30-11:00	6:30-11:00	7:00-11:00	428.3	KPO
KPRC	269.9	6:30- 7:30	6:00- 7:00	6:30- 7:30	6:30- 7:30	6:30- 7:30	6:30- 7:30	Silent	269.9	KPRC
KSD	545.1	5:00- 7:30	Silent	7:00- 9:00	4:30- 6:30	5:30- 6:30	Silent	5:30- 7:00	545.1	KSD
KSL	299.8	7:00-10:00	8:00-10:00	7:00-10:00	8:00-10:00	7:00-10:00	7:00-10:00	8:00-10:00	299.8	KSL
KTCL	305.9	Silent	7:50- 9:15	8:00-10:00	7:00- 8:00	7:00-10:00	6:30- 7:30	7:00-12:00	305.9	KTCL
KTHS	374.8	6:30- 8:00	6:30- 9:30	6:30- 8:00	6:30- 8:00	6:30- 8:00	6:30- 8:00	6:30- 8:15	374.8	KTHS
KTW	455	Silent	7:00- 9:30	Silent	Silent	Silent	Silent	Silent	455	KTW
KWWG	278	6:30- 7:30	Silent	Silent	6:30- 7:30	Silent	6:30- 7:30	Silent	278	KWWG
KYW	535.4	4:00-10:30	1:00- 6:00	Silent	4:00- 8:30	4:00-10:30	4:00- 8:30	4:00-10:30	535.4	KYW
NAA	434.5	Silent	Silent	4:45- 5:00	4:45- 5:00	4:25- 5:40	4:45- 5:00	4:45- 5:00	434.5	NAA
PWX	400	5:30- 8:00	Silent	Silent	Silent	5:30- 8:00	Silent	Silent	400	PWX
WABL	275	Silent	Silent	4:00- 6:00	Silent	4:00- 6:00	Silent	4:00- 6:00	275	WABL
WAHG	315.6	9:00-11:00	Silent	4:00-10:00	Silent	3:30- 8:00	Silent	4:00- 7:30	315.6	WAHG
WAMD	243.8	3:00- 9:00	12:00- 3:00	Silent	8:00- 9:00	8:00- 9:30	8:00- 9:30	8:00- 0:00	243.8	WAMD
WBAP	475.9	5:00- 6:00	9:00-10:00	5:30-10:00	5:30- 8:45	5:30- 8:45	5:30- 8:45	5:30- 8:45	475.9	WBAP
WBAR	406	Silent	8:00- 0:00	7:00- 8:00	Silent	6:00- 7:00	5:30- 6:30	Silent	406	WBAR
WBAV	293.9	Silent	Silent	5:00- 7:00	Silent	Silent	Silent	5:00- 6:00	293.9	WBAV
WBBM	226	5:00- 9:00	1:00- 7:00	Silent	5:00- 9:00	5:00- 7:00	5:00- 9:00	5:00- 7:00	226	WBBM
WBBR	272.6	4:00- 5:00	4:00- 5:30	4:00- 5:00	Silent	Silent	4:00- 5:00	Silent	272.6	WBBR
WBCN	266	6:00-10:00	2:00- 0:00	Silent	6:00-12:00	5:00- 9:00	6:00-11:00	6:00-10:00	266	WBCN
WBZ	333.3	3:30- 5:55	4:00- 5:30	4:00- 5:55	5:15- 5:55	4:00- 5:55	3:30- 5:55	3:45- 5:55	333.3	WBZ
WCAE	461.3	4:00- 5:30	12:00- 4:30	4:00- 8:00	4:00- 7:00	4:30- 7:00	4:00- 7:00	4:30- 5:30	461.3	WCAE
WCAP	468.5	Silent	1:00- 6:15	4:20- 7:00	Silent	3:45- 7:00	Silent	4:30- 5:20	468.5	WCAP
WCAU	278	Silent	1:00- 4:00	Silent	2:30- 8:00	2:30- 7:45	2:30- 7:30	2:30- 7:30	278	WCAU
WCBD	344.6	Silent	6:00- 7:00	5:00- 7:30	Silent	Silent	5:00- 7:30	Silent	344.6	WCBD
WCCO	416.4	4:05- 9:00	5:20- 8:15	4:00- 7:00	4:00- 7:00	4:00-10:30	4:00- 7:00	4:00-11:00	416.4	WCCO
WCX	516.9	3:00- 4:00	4:15- 5:15	3:00- 6:30	3:00- 8:00	3:00- 5:00	3:00- 5:00	8:00- 8:00	516.9	WCX
WDAF	365.6	4:00-11:00	2:00- 3:30	4:00-11:00	4:00-11:00	4:00-11:00	4:00-11:00	4:00-11:00	365.6	WDAF
WDWF	440.9	Silent	1:00- 2:45	Silent	4:30- 5:30	Silent	Silent	2:00- 8:30	440.9	WDWF
WEAF	491.5	2:00- 8:00	3:20- 6:15	2:00- 7:30	2:00- 8:00	2:00- 8:00	2:00- 8:00	2:00- 8:00	491.5	WEAF
WEAO	293.9	Silent	Silent	Silent	Silent	5:00- 6:00	5:00- 6:00	Silent	293.9	WEAO
WEAR	389.4	4:00- 5:00	12:30- 7:00	4:00- 5:00	4:00- 8:00	4:00- 5:00	4:00- 8:00	4:00- 8:00	389.4	WEAR
WEBH	370.2	4:30- 9:30	4:00- 0:00	Silent	4:30- 9:30	4:30- 9:30	4:30- 9:30	4:30- 9:30	370.2	WEBH
WEBJ	233	Silent	Silent	Silent	4:00- 5:00	3:00- 5:00	Silent	4:00- 5:00	233	WEBJ
WEEI	475.9	Silent	3:20- 6:20	4:00- 7:00	4:00- 7:00	4:00- 7:00	4:00- 7:00	4:00- 7:00	475.9	WEEI
WFAA	475.9	6:30-10:00	4:30- 9:00	4:30- 7:30	4:30-10:00	Silent	4:30-10:00	4:30- 7:30	475.9	WFAA
WFBH	272.6	7:30-10:00	1:00- 4:00	7:30-10:00	7:30-10:00	7:30-10:00	7:30-10:00	7:30-10:00	272.6	WFBH
WFI	394.5	2:00- 3:45	12:30- 4:30	Silent	4:00- 6:00	2:45- 3:45	3:45- 7:00	2:45- 3:45	394.5	WFI
WGCP	252	Silent	3:30- 8:00	3:30- 8:00	Silent	3:30- 8:00	Silent	3:30- 8:00	252	WGCP
WGBS	315.6	2:00- 8:00	5:30- 0:30	Silent	2:00- 8:00	Silent	2:00- 9:00	Silent	315.6	WGBS
WGES	250	7:30-11:00	7:30-11:00	Silent	7:30-11:00	7:30-11:00	7:30-11:00	7:30-11:00	250	WGES
WGN	370.2	3:30- 8:30	6:00- 7:00	Silent	3:30- 8:30	3:30- 8:30	3:30- 8:30	3:30- 8:30	370.2	WGN
WGR	319	Silent	2:45- 3:45	3:00- 8:00	3:00- 6:00	3:00- 6:00	3:00- 6:00	2:00- 3:00	319	WGR
WGY	379.5	6:00- 9:00	3:30- 8:00	3:30- 5:30	4:10- 8:00	Silent	3:45- 8:30	4:15- 7:30	379.5	WGY
WHAD	275	4:00- 5:00	Silent	4:00- 8:00	4:00- 5:00	4:00-10:30	4:00- 5:00	4:00- 6:30	275	WHAD
WHAR	275	3:30- 6:00	5:00- 8:00	3:30- 6:30	3:30- 8:00	Silent	3:30- 6:00	3:30- 8:00	275	WHAR
WHAS	399.8	5:30- 7:00	2:00- 3:00	Silent	5:30- 7:30	5:30- 7:00	5:30- 7:00	5:30- 7:00	399.8	WHAS
WHAZ	379.5	Silent	Silent	6:00- 8:00	Silent	Silent	Silent	Silent	379.5	WHAZ
WHB	365.6	Silent	6:00-11:00	5:00- 6:00	Silent	5:00- 6:00	6:00- 8:30	5:00- 6:00	365.6	WHB
WHN	360	3:30- 6:00	3:30- 8:00	3:30- 8:00	3:30- 8:00	3:30- 7:00	3:30- 8:00	3:30- 8:00	360	WHN
WHO	526	Silent	5:30- 6:30	5:30-10:00	5:30- 7:00	4:30- 9:20	5:30-10:00	5:30-10:00	526	WHD
WHT	399.4	4:00-10:00	9:00- 7:30	4:00-10:00	4:00-10:00	4:00-10:00	4:00-10:00	4:00-10:00	399.4	WHT
WIBO	226	3:00- 5:00	3:00- 9:00	Silent	3:00-12:00	3:00- 9:00	3:00-12:00	8:00-11:00	228	WIBO
WIP	508.2	4:00- 8:05	Silent	Silent	4:00- 9:00	Silent	4:00- 9:00	Silent	508.2	WIP
WJAR	305.9	Silent	3:20- 6:15	4:00- 6:00	4:30- 7:00	3:30- 4:30	4:00- 7:00	4:00- 8:00	305.9	WJAR
WJAS	275.3	Silent	Silent	5:30- 8:00	5:30- 8:00	5:30- 8:00	4:30- 7:00	4:30- 7:00	275.3	WJAS
WJJD	302.8	3:45-10:00	5:45- 7:00	3:45-10:00	8:45-10:00	3:45- 7:00	Silent	3:30- 7:00	302.6	WJJD
WJY	405.2	Silent	4:15- 5:15	Silent	4:30- 7:15	Silent	4:30- 6:00	4:45- 5:45	405.2	WJY
WJZ	454.3	3:00- 7:30	4:00- 7:00	4:15- 5:15	4:10- 7:30	5:30- 7:30	4:30- 7:30	4:15- 6:45	454.3	WJZ
WKAQ	340.7	Silent	4:00- 6:00	Silent	Silent	4:00- 6:00	Silent	Silent	340.7	WKAQ
WKAR	285.5	9:30-11:00	Silent	Silent	Silent	5:00- 6:15	Silent	Silent	285.5	WKAR
WKRC	422.3	7:00- 9:00	3:45- 8:00	7:00- 9:00	7:00-10:00	5:00- 9:00	Silent	Silent	422.3	WKRC
WLBL	278	9:59-10:59	Silent	Silent	6:00- 7:00	Silent	6:00- 7:00	Silent	276	WLBL
WLIT	394.5	3:30- 4:30	Silent	3:30- 7:00	Silent	3:30- 7:00	Silent	3:30- 7:00	394.5	WLIT
WLS	344.6	4:45-10:00	4:30- 5:55	Silent	4:00-10:00	4:00- 8:30	4:00- 5:55	4:00- 8:30	344.6	WLS
WLW	422.3	3:00- 5:00	3:30- 5:30	6:00- 7:30	4:00- 7:00	4:00- 8:00	4:00- 0:15	Silent	422.3	WLW
WMAK	265.5	Silent	Silent	5:30- 7:15	Silent	Silent	8:00- 9:00	Silent	265.5	WMAK
WMAQ	447.5	5:00- 7:00	Silent	Silent	5:00- 7:15	5:00- 6:45	5:00- 7:15	5:00- 7:15	447.5	WMAQ
WMBB	250	4:00- 7:30	4:00- 7:30	Silent	4:00- 7:30	4:00- 7:30	4:00- 7:30	4:00- 7:30	250	WMBB
WMBF	384.4	3:30- 9:00	3:30- 9:00	8:30- 0:00	3:30- 9:00	3:30- 9:00	3:30- 9:00	3:30- 9:00	384.4	WMBF
WMC	499.7	5:30- 7:30	Silent	5:30- 7:30	5:30-10:00	Silent	5:30- 7:30	5:30-10:00	499.7	WMC
WMCA	340.7	5:00- 8:00	2:30- 4:00	6:30- 7:30	5:00- 8:00	5:00- 8:00	5:00- 8:00	5:00- 8:00	340.7	WMCA
WNAC	280.2	4:00- 6:00	11:00- 5:30	4:00- 6:00	4:00- 6:00	4:00- 6:00	4:00- 6:00	4:00- 6:00	280.2	WNAC
WNYC	526	2:30- 6:20	5:00- 7:00	3:00- 7:00	3:20- 6:20	3:30- 6:30	Silent	3:30- 6:20	526	WNYC
WOAI	394.5	Silent	5:30- 8:30	3:00- 6:20	6:30- 8:30	Silent	7:30- 8:30	Silent	394.5	WOAI
WOAN	282.8	Silent	7:00- 8:00	7:00- 8:00	7:00- 8:00	7:00- 8:00	7:00- 8:00	7:00- 8:00	282.8	WOAN
WOAW	526	4:00-10:00	7:00- 8:00	4:00- 9:00	4:00-11:00	Silent	4:00- 8:00	4:00- 8:00	526	WOAW
WOC	483.6	4:30-10:00	6:00- 9:30	Silent	4:30- 6:00	4:30- 8:00	4:30-10:00	4:30- 8:00	483.6	WOC
WOO	508.2	3:30- 4:30	12:45- 3:00	3:30- 7:30	3:30- 4:30	3:30- 7:30	3:30- 4:30	3:30- 7:30	508.2	WOO
WOR	405.2	2:15- 8:00	Silent	2:15- 8:00	2:15- 3:30	2:15- 8:00	2:15- 3:30	2:15- 3:30	405.2	WOR
WORD	275	5:30- 7:30	3:45- 5:00	5:30- 6:45	5:30- 7:00	5:30- 7:00	5:30- 7:00	5:30- 7:30	275	WORD
WOS	440.9	Silent	5:30- 6:30	6:00- 8:00	Silent	6:00- 8:00	Silent	6:00- 8:00	440.9	WOS
WPG	299.8	3:00- 8:00	5:00- 7:00	3:00- 7:30	4:00- 7:00	Silent	3:00- 8:15	3:00- 7:00	299.8	WPG
WQJ	447.5	4:00-12:00	4:00- 7:00	Silent	4:00-11:00	4:00-11:00	4:00-11:00	4:00-11:00	447.5	WQJ
WRBC	278	Silent	5:30- 6:30	5:30- 6:30	Silent	Silent	Silent	Silent	278	WRBC
WRC	468.5	4:00- 8:30	Silent	Silent	4:00- 9:00	Silent	4:00- 8:00	Silent	468.5	WRC
WREO	285.5	7:00- 8:00	4:30- 5:30	Silent	5:15- 6:45	Silent	5:15- 6:45	Silent	285.5	WREO
WRW	273	6:00- 8:30	5:00- 8:30	6:00- 8:30	6:00- 8:30	6:00- 8:30	6:00- 8:30	6:00- 8:30	273	WRW
WSAI	325.9	5:00-10:30	Silent	7:00- 9:00	4:00- 7:00	4:00- 9:00	4:00- 7:00	Silent	325.9	WSAI
WSB	428.3	6:00-10:00	5:30- 7:15	6:00-10:00	0:00-10:00	8:45-10:00	6:00-10:00	6:00-10:00	428.3	WSB
WSMB	319	4:30- 8:30	Silent	4:30- 8:30	4:30- 5:30	4:30- 8:30	4:30- 8:30	4:30- 5:30	319	WSMB
WSUI	483.6	Silent	7:00- 8:00	6:00- 7:00	Silent	Silent	Silent	Silent	483.6	WSUI
WTAM	889.4	3:00- 9:00	Silent	3:00- 9:00	Silent	3:00-10:00	Silent	Silent	389.4	WTAM
WTAS	302.6	5:00- 7:30	5:00- 9:00	5:00- 7:30	5:00- 7:30	5:00- 7:30	5:00-10:00	5:00- 7:30	302.8	WTAS
WTIC	348.6	Silent	Silent	3:00- 4:00	3:30- 6:30	Silent	Silent	3:50- 6:30	348.6	WTIC
WWJ	352.7	Silent	3:20- 7:00	3:00- 6:00	3:00- 8:00	Silent	8:00- 9:30	3:00- 7:00	352.7	WWJ

An Evening at Home with the Listener In

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(FOR CENTRAL TIME) Call	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Call	Location	Met.	(FOR EASTERN TIME Or Cities Using Central Daylight Saving Time) Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Call
AT9	Silent	5:00- 6:00	Silent	Silent	Silent	7:00- 8:55	Silent	AT9	Fort Bragg, N. C.	435	Silent	6:00- 7:00	Silent	Silent	Silent	8:00- 9:55	Silent	AT9
CFCA	Silent	6:00- 7:00	Silent	7:15- 8:15	7:15- 8:15	7:15- 8:15	Silent	CFCA	Toronto, Ont.	356.9	Silent	7:00- 8:00	Silent	8:15- 9:15	8:15- 9:15	8:15- 9:15	Silent	CFCA
CFCN	11:00- 1:00	Silent	Silent	Silent	Silent	9:00-10:00	Silent	CFCN	Calgary, Alta.	434.5	12:00- 2:00	Silent	Silent	Silent	Silent	10:00-11:00	Silent	CFCN
CHNC	Silent	Silent	6:30- 7:30	Silent	Silent	Silent	Silent	CHNC	Toronto, Ont.	356.9	Silent	Silent	7:30- 8:30	Silent	Silent	Silent	Silent	CHNC
CJCA	10:00-12:00	8:30- 9:30	8:30-10:30	8:30- 9:00	7:00- 9:00	10:00-12:00	9:30-12:00	CJCA	Edmonton, Can.	516.9	11:00- 1:00	9:30-10:30	9:30-11:30	9:30-10:00	8:00-10:00	11:00- 1:00	10:30- 1:00	CJCA
CKAC	5:30- 9:30	Silent	Silent	6:30- 9:30	Silent	6:30- 7:30	Silent	CKAC	Montreal, Que.	410.7	6:30-10:30	Silent	Silent	6:30-10:30	Silent	7:30- 8:30	Silent	CKAC
CKY	Silent	7:00- 9:45	Silent	8:30-10:45	Silent	8:00- 9:00	8:30- 9:45	CKY	Winnipeg, Man.	384.4	Silent	8:00-10:45	Silent	9:30-11:45	Silent	9:00-10:00	9:30-10:45	CKY
CNRA	Silent	Silent	Silent	6:30- 7:30	Silent	Silent	6:30- 7:30	CNRA	Moncton, Can.	313	Silent	Silent	Silent	7:30- 8:30	Silent	Silent	7:30- 8:30	CNRA
CNRO	6:30-11:30	Silent	Silent	Silent	6:30-11:30	Silent	Silent	CNRO	Ottawa, Ont.	434.5	7:30-12:30	Silent	Silent	Silent	7:30-12:30	Silent	Silent	CNRO
CYB	10:30-11:45	Silent	Silent	9:15- 10:15	Silent	Silent	Silent	CYB	Mexico City, Mex.	370	11:30-12:45	Silent	Silent	10:15-11:15	Silent	Silent	Silent	CYB
CYL	Silent	Silent	Silent	10:00-11:30	Silent	Silent	10:00-11:30	CYL	Mexico City, Mex.	480	Silent	Silent	Silent	11:00-12:30	Silent	Silent	11:00-12:30	CYL
CYX	Silent	Silent	9:15-10:30	Silent	Silent	Silent	9:15-10:45	CYX	Mexico City, Mex.	330	Silent	Silent	10:15-11:30	Silent	Silent	Silent	10:15-11:45	CYX
KDKA	7:45- 8:55	2:00- 6:30	7:45- 8:55	7:45-10:30	7:45- 8:55	7:00-10:30	7:45- 8:55	KDKA	Pittsburgh, Pa.	309.1	8:45- 9:55	3:00- 7:30	8:45- 9:55	8:45- 9:30	8:45- 9:55	8:00-11:30	8:45- 9:55	KDKA
KFAB	11:00-12:30	4:00- 5:00	7:30-10:00	Silent	7:30-10:00	Silent	7:30- 9:30	KFAB	Lincoln, Nebr.	240	12:00- 1:30	5:00- 6:00	8:30-11:00	Silent	8:30-11:00	Silent	8:30-10:30	KFAB
KFAE	Silent	Silent	Silent	Silent	9:30-11:00	Silent	Silent	KFAE	Pullman, Wash.	348.6	Silent	Silent	Silent	Silent	10:30-12:00	Silent	Silent	KFAE
KFAU	Silent	Silent	9:00-10:00	Silent	Silent	Silent	9:00-10:00	KFAU	Boise, Idaho	275	Silent	Silent	10:00-11:00	Silent	Silent	Silent	10:00-11:00	KFAU
KFDM	Silent	8:00- 9:00	Silent	8:00-10:30	Silent	Silent	8:00-10:30	KFDM	Beaumont, Texas	315.6	Silent	9:00-10:00	Silent	9:00-11:30	Silent	Silent	9:00-11:30	KFDM
KFI	8:45- 2:00	6:00- 1:00	8:45- 1:00	8:45- 1:00	8:45- 1:00	8:45- 1:00	8:45- 1:00	KFI	Los Angeles, Calif.	467	9:45- 3:00	7:00- 2:00	9:45- 2:00	9:45- 2:00	9:45- 2:00	9:45- 2:00	9:45- 2:00	KFI
KFMQ	Silent	Silent	Silent	9:00-10:00	Silent	Silent	Silent	KFMQ	Fayetteville, Ark.	299.8	Silent	Silent	Silent	10:00-11:00	Silent	Silent	Silent	KFMQ
KFNF	7:30- 8:30	6:30-10:00	7:30- 8:30	Silent	7:30- 8:30	7:30- 8:30	7:30- 8:30	KFNF	Shenandoah, Ia.	266	8:30- 9:30	7:30-11:00	8:30- 9:30	Silent	8:30- 9:30	8:30- 9:30	8:30- 9:30	KFNF
KFOA	8:00- 1:30	Silent	8:00-12:00	8:00- 1:30	8:00-12:00	Silent	8:30- 1:30	KFOA	Seattle, Wash.	454.3	9:00- 2:30	Silent	9:00- 2:00	9:00- 2:30	9:00- 2:00	Silent	9:00- 2:30	KFOA
KFRU	7:30-12:00	5:00- 7:00	7:00-10:30	10:30-12:00	8:00-10:30	10:30-11:30	11:00- 1:00	KFRU	Bristow, Okla.	394.5	8:30- 1:00	6:00- 8:00	8:00-11:30	11:30-1:00	9:00-11:30	11:30-12:30	12:00- 2:00	KFRU
KFUO	Silent	8:15- 9:15	8:00- 9:00	Silent	9:15-10:15	Silent	Silent	KFUO	St. Louis, Mo.	545.1	Silent	9:15-10:15	9:00-10:00	Silent	10:15-11:15	Silent	Silent	KFUO
KFVE	10:00-12:00	Silent	10:00-12:00	10:00-12:00	10:00-12:00	Silent	10:00-12:00	KFVE	University City, Mo.	240	11:00- 1:00	Silent	11:00- 1:00	11:00- 1:00	11:00- 1:00	Silent	11:00- 1:00	KFVE
KFWA	Silent	9:00-12:00	10:00-12:00	10:00-11:00	10:00- 1:00	Silent	10:00-12:00	KFWA	Ogden, Utah	261	Silent	10:00- 1:00	11:00- 1:00	11:00-12:00	11:00- 2:00	Silent	11:00- 1:00	KFWA
KFWB	9:00- 1:00	11:00- 1:00	8:30- 1:00	9:45- 1:00	9:00- 1:00	9:00- 1:00	9:00- 1:00	KFWB	Hollywood, Calif.	252	10:00- 2:00	12:00- 2:00	9:30- 2:00	10:45- 2:00	10:00- 2:00	10:00- 2:00	10:00- 2:00	KFWB
KGO	10:00- 3:00	5:30-11:00	10:00- 3:00	10:00- 3:00	Silent	10:00- 3:00	Silent	KGO	Oakland, Calif.	361.2	11:00- 4:00	6:30-12:00	11:00- 4:00	11:00- 4:00	Silent	11:00- 4:00	Silent	KGO
KGW	8:00- 2:00	9:30-12:00	8:00- 9:00	11:00- 2:00	10:00- 1:00	10:00- 2:00	11:00- 2:00	KGW	Portland, Ore.	491.5	9:00- 3:00	10:30- 1:00	9:00-10:00	12:00- 3:00	11:00- 2:00	11:00- 3:00	12:00- 3:00	KGW
KHJ	7:30- 1:00	8:00- 1:00	9:00- 3:30	7:30- 1:00	7:30- 1:00	7:30- 1:00	7:30- 1:00	KHJ	Los Angeles, Calif.	405.2	8:30- 2:00	9:00- 2:00	10:00- 4:30	8:30- 2:00	8:30- 2:00	8:30- 2:00	8:30- 2:00	KHJ
KIAF	Silent	4:00- 5:00	9:00-10:00	Silent	9:00-10:00	Silent	9:00-10:00	KIAF	Sihtipok, Minn.	421	Silent	3:00- 4:00	8:00- 9:00	Silent	8:00- 9:00	Silent	8:00- 9:00	KIAF
KJR	Silent	9:00-10:00	8:00-12:00	Silent	10:30-12:00	12:30- 2:00	10:30-12:00	KJR	Seattle, Wash.	384.4	Silent	10:00-11:00	9:00- 1:00	Silent	11:30- 1:00	1:30- 3:00	11:30- 1:00	KJR
KJS	Silent	9:15-11:30	Silent	10:00-11:00	Silent	10:00-11:00	Silent	KJS	Los Angeles, Calif.	293.9	Silent	10:15-12:30	Silent	11:00-12:00	Silent	11:00-12:00	Silent	KJS
KLDS	Silent	6:30-10:00	Silent	8:00- 9:00	Silent	8:00- 9:00	Silent	KLDS	Independence, Mo.	440.9	Silent	7:30-11:00	Silent	9:00-10:00	Silent	9:00-10:00	Silent	KLDS
KLX	Silent	Silent	8:00- 1:00	Silent	8:00- 1:30	Silent	8:00-12:30	KLX	Oakland, Calif.	508.2	Silent	Silent	9:00- 2:00	Silent	9:00- 2:30	Silent	9:00- 1:30	KLX
KNX	10:00- 4:00	7:00- 1:00	8:30- 2:00	8:30- 2:00	9:00-12:00	8:30- 2:00	8:30- 2:00	KNX	Hollywood, Calif.	336.9	11:00- 5:00	8:00- 2:00	9:30- 3:00	9:30- 3:00	10:00- 1:00	9:30- 3:00	9:30- 3:00	KNX
KOA	10:00- 1:00	5:30- 9:30	9:00-10:00	Silent	9:00- 1:00	Silent	9:00-10:00	KOA	Denver, Colo.	322.4	11:00- 2:00	6:30-10:30	10:00-11:00	Silent	10:00- 2:00	Silent	10:00-11:00	KOA
KPO	8:25- 2:00	8:30-12:00	8:30- 1:00	8:30- 1:00	8:30- 1:00	8:30- 1:00	9:00- 1:00	KPO	San Francisco, Calif.	428.3	9:25- 3:00	9:30- 1:00	9:30- 2:00	9:30- 2:00	9:30- 2:00	9:30- 2:00	10:00- 2:00	KPO
KPRC	8:30- 9:30	8:00- 9:00	8:30- 9:30	8:30- 9:30	8:30- 9:30	8:30- 9:30	Silent	KPRC	Houston, Texas	296.9	9:30-10:30	9:00-10:00	9:30-10:30	9:30-10:30	9:30-10:30	9:30-10:30	Silent	KPRC
KSD	7:00- 9:30	Silent	9:00-11:00	6:30- 8:30	7:30- 8:30	Silent	7:30- 9:00	KSD	St. Louis, Mo.	545.1	8:00-10:30	Silent	10:00-12:00	7:30- 9:30	8:30- 9:30	Silent	8:30-10:00	KSD
KSL	9:00-12:00	10:00-12:00	9:00-12:00	10:00-12:00	9:00-12:00	9:00-12:00	10:00-12:00	KSL	Salt Lake City, Utah	299.8	10:00- 1:00	11:00- 1:00	10:00- 1:00	11:00- 1:00	10:00- 1:00	10:00- 1:00	11:00- 1:00	KSL
KTCL	Silent	9:50-11:15	10:00-12:00	9:00-10:00	9:00-12:00	8:30- 9:30	9:00- 2:00	KTCL	Seattle, Wash.	305.9	Silent	10:50-12:15	11:00- 1:00	10:00-11:00	10:00- 1:00	9:30-10:30	10:00- 3:00	KTCL
KTHS	8:30-10:00	3:30-11:30	8:30-10:00	8:30-10:00	8:30-10:00	8:30-10:00	8:30-10:15	KTHS	Hot Springs, Ark.	374.8	9:30-11:00	9:30-12:30	9:30-11:00	9:30-11:00	9:30-11:00	9:30-11:00	9:30-11:15	KTHS
KWWG	8:30- 9:30	Silent	Silent	8:30- 9:30	Silent	8:30- 9:30	Silent	KWWG	Brownsville, Texas	278	9:30-10:30	Silent	Silent	9:30-10:30	Silent	9:30-10:30	Silent	KWWG
KTW	Silent	9:00-11:30	Silent	Silent	Silent	Silent	Silent	KTW	Seattle, Wash.	455	Silent	10:00-12:30	Silent	Silent	Silent	Silent	Silent	KTW
KYW	6:00-12:30	3:00- 7:00	Silent	6:00-10:30	6:00-12:30	6:00-10:30	6:00-12:30	KYW	Chicago, Ill.	535.4	7:00- 1:30	4:00- 8:30	Silent	7:00- 11:30	7:00- 1:30	7:00- 11:30	7:00- 1:30	KYW
NAA	Silent	Silent	6:45- 7:00	6:45- 7:00	6:25- 7:40	6:45- 7:00	6:45- 7:00	NAA	Radio, Va.	434.5	Silent	Silent	7:45- 8:00	7:45- 8:00	7:25- 8:40	7:45- 8:00	7:45- 8:00	NAA
PWX	7:30-10:00	Silent	Silent	Silent	7:30-10:00	Silent	Silent	PWX	Havana, Cuba	400	8:30-11:00	Silent	Silent	Silent	8:30-11:00	Silent	Silent	PWX
WABL	Silent	Silent	6:00- 8:00	Silent	6:00- 8:00	Silent	6:00- 8:00	WABL	Storrs, Conn.	275	Silent	Silent	7:00- 9:00	Silent	7:00- 9:00	Silent	7:00- 9:00	WABL
WAHG	11:00- 1:00	Silent	6:00-12:00	Silent	5:30-10:00	Silent	6:00- 9:30	WAHG	Richmond, N. Y.	315.6	12:00- 2:00	Silent	7:00- 1:00	Silent	6:30-11:00	Silent	7:00-10:30	WAHG
WAMD	10:00-11:00	2:00-10:00	Silent	10:00-11:00	10:00-11:30	10:00-11:30	10:00-11:00	WAMD	Minneapolis, Minn.	243.8	11:00-12:00	3:00-11:00	Silent	11:00-12:00	11:00-12:30	11:00-12:30	11:00-12:00	WAMD
WBAP	7:00- 8:00	11:00-12:00	7:30-12:00	7:30-10:45	7:30-10:45	7:30-10:45	7:30-10:45	WBAP	Fort Worth, Tex.	475.9	8:00- 9:00	12:00- 1:00	8:30- 2:00	8:30-11:45	8:30-11:45	8:30-11:45	8:30-11:45	WBAP
WBAR	Silent	10:00-11:00	9:00-10:00	Silent	8:00- 9:00	7:30- 8:30	Silent	WBAR	Sisiht, Wis.	406	Silent	11:00-12:00	10:00-11:00	Silent	9:00-10:00	8:30- 9:30	Silent	WBAR
WBAV	Silent	Silent	7:00- 9:00	Silent	Silent	Silent	7:00- 8:00	WBAV	Columbus, O.	293.9	Silent	Silent	8:00-10:00	Silent	Silent	Silent	8:00- 9:00	WBAV
WBBM	7:00-11:00	3:00- 9:00	Silent	7:00-11:00	7:00- 9:00	7:00-11:00	7:00- 9:00	WBBM	Chicago, Ill.	226	8:00-12:00	4:00-10:00	Silent	8:00-12:00	8:00-10:00	8:00-12:00	8:00-10:00	WBBM
WBBR	6:00- 7:00	6:00- 7:30	6:00- 7:00	Silent	Silent	6:00- 7:00	Silent	WBBR	Staten Island, N. Y.	272.8	7:00- 8:00	8:00- 9:30	7:00- 8:00	Silent	Silent	7:00- 8:00	Silent	WBBR
WBCN	8:00-12:00	4:00-11:00	Silent	8:00- 2:00	7:00-11:00	8:00- 1:00	8:00-12:00	WBCN	Chicago, Ill.	286	9:00- 1:00	5:00-12:00	Silent	9:00- 3:00	8:00-12:00	9:00- 2:00	9:00- 1:00	WBCN
WBZ	5:30- 7:55	6:00- 7:30	6:00- 7:55	7:15- 7:55	6:00- 7:55	5:30- 7:55	5:45- 7:55	WBZ	Springfield, Mass.	333.3	6:30- 8:55	7:00- 8:30	7:00- 8:55	8:15- 8:55	7:00- 8:55	6:30- 8:55	6:45- 8:55	WBZ
WCAE	6:00- 7:30	2:00- 6:30	6:00-10:00	6:00- 9:00	6:30- 9:00	6:00- 9:00	6:30- 7:30	WCAE	Pittsburgh, Pa.	461.3	7:00- 8:30	3:00- 7:30	7:00-11:00	7:00-10:00	7:30-10:00	7:00-10:00	7:30- 8:30	WCAE
WCAP	Silent	3:00- 8:15	6:20- 9:00	Silent	5:45- 9:00	Silent	6:20- 7:20	WCAP	Washington, D. C.	468.5	Silent	4:00- 9:15	7:20-10:00	Silent	6:45-10:00	Silent	7:20- 8:20	WCAP
WCAU	Silent	3:00- 6:00	Silent	4:30-10:00	4:30- 9:45	4:30- 9:30	4:30- 9:30	WCAU	Philadelphia, Pa.	278	Silent	4:00- 7:00	Silent	5:30-11:00	5:30-10:45	5:30-10:30	5:30-10:30	WCAU
WCBD	Silent	1:30- 9:00	7:00- 9:30	Silent	Silent	7:00- 9:30	Silent	WCBD	Zion, Ill.	344.6	Silent	2:30-10:00	8:00- 10:30	Silent	Silent	8:00-10:30	Silent	WCBD
WCCO	6:05-11:00	4:10-10:15	6:00-11:00	6:00- 9:00	6:00-12:30	6:00-10:00	6:00-11:00	WCCO	Minn.-St. P., Minn.	416.4	7:05-12:00	5:10-11:15	7:00-12:00	7:00-10:00	7:00- 1:30	7:00-11:00	7:00-12:00	WCCO
WCX	5:00- 6:00	6:15- 7:15	5:00- 8:30	5:00-10:00	5:00- 7:00	5:00- 7:00	5:00-10:00	WCX	Detroit, Mich.	516.9	6:00- 7:00	7:15- 8:15	6:00- 9:30	6:00-11:00	6:00- 8:00	6:00- 7:00	6:00-11:00	WCX
WDAF	6:00- 1:00	4:00- 5:30	6:00- 1:00	6:00- 1:00	6:00- 1:00	6:00- 1:00	6:00- 1:00	WDAF	Kansas City, Mo.	365.6	7:00- 2:00	5:00- 6:30	7:00- 2:00	7:00- 2:00	7:00- 2:00	7:00- 2:00	7:00- 2:00	WDAF
WDWF	Silent	3:00- 4:45	Silent	6:30- 7:30	Silent	Silent	4:00-10:30	WDWF	Providence, R. I.	440.9	Silent	4:00- 5:45	Silent	7:30- 8:30	Silent	Silent	5:00-11:30	WDWF
WEAF	4:00-10:00	5:20- 8:15	4:00- 9:30	4:00-10:00	4:00-10:00	4:00-10:00	4:00-10:00	WEAF	New York, N. Y.	491.5	5:00-11:00	6:20- 9:15	5:00-10:30	5:00-11:00	5:00-11:00	5:00-11:00	5:00-11:00	WEAF
WEAO	Silent	Silent	Silent	Silent	7:00- 8:00	7:00- 8:00	Silent	WEAO	Columbus, Ohio	293.9	Silent	Silent	Silent	Silent	8:00- 9:00	8:00- 9:00	Silent	WEAO
WEAR	6:00- 7:00	2:30- 9:00	6:00- 7:00	6:00-10:00	6:00- 7:00	6:00-10:00	6:00-10:00	WEAR	Cleveland, Ohio	389.4	7:00- 8:00	3:30-10:00	7:00- 8:00	7:00-11:00	7:00- 8:00	7:00-11:00	7:00-11:00	WEAR
WEBH	6:30-11:30	6:00- 8:00	Silent	6:30-11:30	6:30-11:30	6:30-11:30	6:30-11:30	WEBH	Chicago, Ill.	370.2	7:30-12:30	7:00- 9:00	Silent	7:30-12:30	7:30-12:30	7:30-12:30	7:30-12:30	WEBH
WEBJ	Silent	Silent	Silent	6:00- 7:00	5:00- 7:00	Silent	6:00- 7:00	WEBJ	New York, N. Y.	233	Silent	Silent	Silent	7:00- 8:00	6:00- 8:00	Silent	7:00- 8:00	WEBJ
WEEI	Silent	5:20- 8:20	6:00- 9:00	6:00- 9:00	6:00- 9:00	6:00- 9:00	6:00- 9:00	WEEI	Boston, Mass.	475.9	Silent	6:20- 9:20	7:30-10:00	6:30-10:00	7:00- 9:00	7:00-10:00	7:30-10:00	WEEI
WFAA	8:30-12:00	6:30-11:00	6:30- 9:30	6:30-12:00	Silent	6:30-12:00	6:30- 9:30	WFAA	Dallas, Tex.	475.0	9:30- 1:00	7:30-12:00	7:30-10:30	7:30- 1:00	Silent	7:30- 1:00	7:30-10:30	WFAA
WFBH	9:30-12:00	3:00- 6:00	9:30-12:00	9:30-12:00	9:30-12:00	9:30-12:00	9:30-12:00	WFBH	New York, N. Y.	272.6	10:30- 1:00	4:00- 7:00	10:30- 1:00	10:30- 1:00	10:30- 1:00	10:30- 1:00	10:30- 1:00	WFBH
WFI	4:00- 5:15	2:30- 6:30	Silent	6:00- 8:00	4:45- 5:45	5:45- 9:00	4:45- 5:45	WFI	Philadelphia, Pa.	394.5	5:00- 6:45	3:30- 7:30	Silent	7:00- 9:00	5:45- 6:45	5:45-10:00	5:45- 6:45	WFI
WGBS	4:00-10:00	1:30- 8:30	Silent	4:00-10:00	Silent	4:00-11:00	Silent	WGBS	New York, N. Y.	315.6	5:00-11:00	2:30- 9:30	Silent	5:00-11:00	Silent	5:00-12:00	Silent	WGBS
WGCP	Silent	5:30-10:00	5:30-10:00	Silent	5:30-10:00	Silent	5:30-10:00	WGCP	New York, N. Y.	252	Silent	6:30-11:00	6:30-11:00	Silent	6:30-11:00	Silent	6:30-11:00	WGCP
WGES	9:30- 1:00	9:30- 1:00	Silent	9:30- 1:00	9:30- 1:00	9:30- 1:00	9:30- 1:00	WGES	Oak Park, Ill.	250	10:30- 2:00	10:30- 2:00	Silent	10:30- 2:00	10:30- 2:00	10:30- 2:00	10:30- 2:00	WGES
WGN	5:30-10:30	1:30- 9:00	Silent	5:30-10:30	5:30-10:30	5:30-10:30	5:30-10:30	WGN	Chicago, Ill.	370.2	6:30-11:30	2:30-10:00	Silent	6:30-11:30	6:30-11:30	6:30-11:30	6:30-11:30	WGN
WGR	Silent	4:45- 5:45	5:00-10:00	5:00- 8:00	5:00- 8:00	5:00- 8:00	4:00-10:00	WGR	Buffalo, N. Y.	319	Silent	5:45- 6:45	6:00-11:00	6:00- 9:00	7:00- 9:00	5:00- 9:00	5:00-11:00	WGR
WGY	8:00-11:00	5:30-10:00	5:30- 7:30	6:10-10:00	Silent	5:45-10:30	6:15- 9:30	WGY	Schenectady, N. Y.	379.5	9:00-12:00	6:30-11:00	6:30- 8:30	7:10-11:00	Silent	6:45-11:30	7:15-10:30	WGY
WHAD	6:00- 7:00	Silent	6:00-10:00	6:00- 7:00	6:00-12:30	6:00- 7:00	6:00- 9:30	WHAD	Milwaukee, Wis.	275	7:00- 8:00	Silent	7:00-11:00	7:00- 8:00	7:00- 1:30	7:00- 8:00	7:00-10:30	WHAD
WHAR	5:30- 8:00	7:00-10:00	5:30- 8:00	5:30-10:00	Silent	5:30- 8:00	5:30-10:00	WHAR	Atlantic City, N. J.	275	6:30- 9:00	8:00-11:00	6:30- 9:00	6:30- 9:00	Silent	6:30- 9:00	6:30-11:00	WHAR
WHAS	7:30- 9:00	4:00- 5:00	Silent	7:30- 9:30	7:30- 9:00	7:30- 9:00	7:30- 9:00	WHAS	Louisville, Ky.	399.8	8:30-10:00	5:00- 6:00	Silent	8:30-10:30	8:30-10:00	8:30-10:00	8:30-10:00	WHAS
WHAZ	Silent	Silent	8:00-10:00	Silent	Silent	Silent	Silent	WHAZ	Troy, N. Y.	379.5	Silent	Silent	9:00-11:00	Silent	Silent	Silent	Silent	WHAZ
WHB	Silent	8:00- 1:00	7:00- 8:00	Silent	7:00- 8:00	8:00-10:30	7:00- 8:00	WHB	Kansas City, Mo.	365.6	Silent	9:00- 2:00	8:00- 9:00	Silent	8:00- 9:00	9:00-11:30	8:00- 9:00	WHB
WHN	5:30- 8:00	5:30-10:00	5:30-10:00	5:30-10:00	5:30- 9:00	5:30-10:00	5:30-10:00	WHN	New York, N. Y.	360	8:30- 9:00	6:30-11:00	6:30-11:00	6:30-11:00	6:30-10:00	6:30-11:00	6:30-11:00	WHN
WHO	Silent	7:30- 8:30	7:30-12:00	7:30- 9:00	6:30-11:20	7:30-12:00	7:30-12:00	WHO	Des Moines, Ia.	526	Silent	8:30- 9:30	8:30- 1:00	8:30-10:00	7:30-12:20	8:30- 1:00	8:30- 1:00	WHO
WHT	6:00-12:00	11:00- 9:30	6:00-12:00	6:00-12:00	6:00-12:00	6:00-12:00	6:00-12:00	WHT	Deerfield, Ill.	399.8	7:00- 1:00	12:00-10:30	7:00- 1:00	7:00- 1:00	7:00- 1:00	7:00- 1:00	7:00- 1:00	WHT
WIBO	5:00- 7:00	5:00-11:00	Silent	5:00- 2:00	5:00-11:00	5:00- 2:00	5:00- 1:00	WIBO	Chicago, Ill.	226	6:00- 8:00	6:00-12:00	Silent	6:00- 3:00	6:00- 3:00	6:00- 3:00	6:00- 2:00	WIBO
WIP	6:00-10:05	2:15- 3:15	Silent	6:00-11:00	Silent	6:00-11:00	Silent	WIP	Philadelphia, Pa.	508.2	7:00-11:05	3:15- 4:15	Silent	7:00-12:00	Silent	7:00-12:00	Silent	WIP
WJAR	Silent	5:20- 8:15	6:00- 8:00	6:30- 9:00	5:30- 6:30	6:00- 9:00	6:00-10:00	WJAR	Providence, R. I.	305.9	Silent	6:20- 9:15	7:00- 9:00	7:30-10:00	6:30- 7:30	7:00-10:00	7:00-11:00	WJAR
WJAS	Silent	Silent	7:30-10:00	7:30-10:00	7:30-10:00	6:30- 9:00	6:30- 9:00	WJAS	Pittsburgh, Pa.	275.3	Silent	Silent	8:30-11:00	8:30-11:00	8:30-11:00	8:30-10:00	7:30-10:00	WJAS
WJJD	5:45-12:00	7:45- 9:00	5:45-12:00	5:45-12:00	5:45-12:00	Silent	5:45-12:00	WJJD	Mooseheart, Ill.	302.8	6:45- 1:00	8:45-10:00	6:45- 1:00	6:45- 1:00	6:45- 1:00	Silent	6:45- 1:00	WJJD
WJY	Silent	6:15- 7:15	Silent	6:30- 9:15	Silent	6:30- 8:00	6:45- 7:45	WJY	New York, N. Y.	405.2	Silent	7:15- 8:15	Silent	7:30-10:15	Silent	7:30- 9:00	7:45- 8:45	WJY
WJZ	5:00- 9:30	5:00- 9:00	6:15- 7:15	6:10- 9:30	7:30- 9:30	6:30- 9:30	6:15- 8:45	WJZ	New York, N. Y.	454.3	6:00-10:30	7:00-10:00	7:15- 8:15	7:10-10:30	8:30-10:30	7:30-10:00	7:15- 9:45	WJZ
WKAQ	Silent	6:00- 8:00	Silent	Silent	6:00- 8:00	Silent	Silent	WKAQ	San Juan, P. R.	340.7	Silent	7:00- 9:00	Silent	Silent	7:00- 9:00	Silent	Silent	WKAQ
WKAR	11:30- 1:00	Silent	6:00- 7:00	Silent	7:00- 8:15	Silent	6:00- 7:00	WKAR	Lansing, Mich.	285.5	12:30- 2:00	Silent	7:00- 8:00	Silent	8:00- 9:15	Silent	7:00- 8:00	WKAR
WKRC	9:00-11:00	5:45-10:00	9:00-11:00	9:00-12:00	7:00-11:00	Silent	Silent	WKRC	Cincinnati, O.	422.3	10:00-12:00	6:45-11:00	10:00-12:00	10:00- 1:00	8:00-12:00	Silent	Silent	WKRC
WLBL	11:59-12:59	Silent	Silent	8:00- 9:00	Silent	8:00- 9:00	Silent	WLBL	Stevens Point, Wis.	278	12:59- 1:59	Silent	Silent	9:00-10:00	Silent	9:00-10:00	Silent	WLBL
WLIT	5:30- 6:30	Silent	5:30- 9:00	Silent	5:30- 9:00	Silent	5:30- 9:00	WLIT	Philadelphia, Pa.	394.5	6:30- 7:30	Silent	6:30-10:00	Silent	6:30-10:00	Silent	6:30-10:00	WLIT
WLS	6:45-12:00	6:30- 7:55	Silent	6:00-12:00	6:00-10:30	6:00- 7:55	6:00-10:30	WLS	Chicago, Ill.	344.6	7:45- 1:00	7:30- 8:55	Silent	7:00- 1:00	7:00-11:30	7:00- 8:55	7:00-11:30	WLS
WLW	5:00- 7:00	5:30- 7:30	7:15- 9:30	6:00- 9:00	6:00-10:00	6:00-11:15	Silent	WLW	Harrison, O.	422.3	6:00- 8:00	6:30- 8:30	8:15-10:30	7:00-10:00	7:00-11:00	7:00-12:15	Silent	WLW
WMAK	Silent	Silent	7:30- 9:15	Silent	Silent	10:00-11:00	Silent	WMAK	Lockport, N. Y.	265.5	Silent	Silent	8:30-10:15	Silent	Silent	11:00-12:00	Silent	WMAK
WMAQ	7:00- 9:00	Silent	Silent	7:00- 9:15	7:00- 8:45	7:00- 9:15	7:00- 9:15	WMAQ	Chicago, Ill.	447.5	8:00-10:00	Silent	Silent	8:00-10:15	8:00- 9:45	8:00-10:15	8:00-10:15	WMAQ
WMBB	6:00- 9:30	6:00- 9:30	Silent	6:00- 9:30	6:00- 9:30	6:00- 9:30	6:00- 9:30	WMBB	Chicago, Ill.	250	7:00-10:30	7:00-10:30	Silent	7:00-10:30	7:00-10:30	7:00-10:30	7:00-10:30	WMBB
WMBF	5:30-11:00	5:30-11:00	5:30-11:00	5:30-11:00	5:30-11:00	5:30-11:00	5:30-11:00	WMBF	Miami Beach, Fla.	384.4	6:30-12:00	6:30-12:00	6:30-12:00	6:30-12:00	6:30-12:00	6:30-12:00	6:30-12:00	WMBF
WMC	7:30- 9:30	Silent	7:30- 9:30	7:30-12:00	Silent	7:30- 9:30	7:30-12:00	WMC	Memphis, Tenn.	499.7	8:30-10:30	Silent	8:30-10:30	8:30- 1:00	Silent	8:30-10:30	8:30- 1:00	WMC
WMCA	7:00-10:00	1:00- 5:00	7:00-10:00	7:00-10:00	7:00-10:00	7:00-10:00	7:00-10:00	WMCA	New York, N. Y.	340.7	8:00-11:00	2:00- 6:00	8:00-11:00	8:00-11:00	8:00-11:00	8:00-11:00	8:00-11:00	WMCA
WNAC	6:00- 8:00	1:00- 7:30	6:00- 8:00	6:00- 8:00	6:00- 8:00	6:00- 8:00	6:00- 8:00	WNAC	Boston, Mass.	280.2	7:00- 9:00	2:00- 8:30	7:00- 9:00	7:00- 9:00	7:00- 9:00	7:00- 9:00	7:00- 9:00	WNAC
WNYC	4:30- 8:20	7:00- 9:00	5:00- 8:20	5:20- 8:20	5:30- 8:30	5:20- 7:30	5:30- 8:20	WNYC	New York, N. Y.	528	5:30- 9:20	8:00-10:00	6:00- 9:20	6:20- 9:20	6:30- 9:30	6:20- 8:30	6:30- 9:20	WNYC
WOAI	Silent	7:30-10:30	Silent	8:30-10:30	Silent	9:30-10:30	Silent	WOAI	San Antonio, Texas	394.5	Silent	8:30-11:30	Silent	9:30-11:30	Silent	10:30-11:30	Silent	WOAI
WOAN	Silent	9:00-10:00	9:00-10:00	9:00-10:00	9:00-10:00	9:00-10:00	9:00-10:00	WOAN	Lawrenceburg, Tenn.	282.8	Silent	10:00-11:00	10:00-11:00	10:00-11:00	10:00-11:00	10:00-11:00	10:00-11:00	WOAN
WOAW	6:00-12:00	9:00-10:00	6:00-11:00	6:00- 1:00	Silent	6:00-10:00	6:00-10:00	WOAW	Omaha, Nebr.	526	7:00- 1:00	10:00-11:00	7:00-12:00	7:00- 2:00	Silent	7:00-11:00	7:00-11:00	WOAW
WOC	6:30-12:00	8:00-11:30	Silent	6:30- 8:00	6:30-10:00	6:30-12:00	6:30-10:00	WOC	Davenport, Ia.	483.6	7:30- 1:00	9:00-12:30	Silent	7:30- 9:00	7:30-11:00	7:30- 1:00	7:30-11:00	WOC
WOO	5:30- 9:30	2:45- 5:00	5:30- 9:30	5:30- 6:30	5:30- 9:30	5:30- 6:30	5:30- 9:30	WOO	Philadelphia, Pa.	508.2	6:30- 7:30	3:45- 6:00	6:30-10:30	6:30- 7:30	6:30-10:30	6:30- 7:30	6:30-10:30	WOO
WOR	4:15-10:00	Silent	4:15-10:00	4:15- 5:30	4:15-10:00	4:15- 5:30	4:15- 5:30	WOR	Newark, N. J.	405.2	5:15- 9:00	Silent	5:15- 9:00	5:15- 6:30	5:15- 9:00	5:15- 6:30	5:15- 6:30	WOR
WORD	7:30- 9:30	5:45- 7:00	7:30- 8:45	7:30- 9:00	7:30- 9:00	7:30- 9:00	7:30- 9:30	WORD	Batavia, Ill.	275	8:30-10:30	6:45- 8:00	8:30- 9:45	8:30-10:00	8:30-10:00	8:30-10:00	8:30-10:30	WORD
WOS	Silent	7:30- 8:30	8:00-10:00	Silent	8:00-10:00	Silent	8:00-10:00	WOS	Jefferson City, Mo.	440.9	Silent	8:30- 9:30	9:00-11:00	Silent	9:00-11:00	Silent	9:00-11:00	WOS
WPG	5:00-10:00	1:15- 9:00	5:00- 9:30	6:00- 9:00	Silent	5:00-10:15	5:00- 9:00	WPG	Atlantic City, N. J.	299.8	6:00-11:00	2:15-10:00	6:00-10:30	7:00-10:00	Silent	6:00-11:15	6:00-10:00	WPG
WQJ	6:00- 2:00	6:00- 9:00	Silent	6:00- 1:00	6:00- 1:00	6:00- 1:00	6:00- 1:00	WQJ	Chicago, Ill.	447.5	7:00- 3:00	7:00-10:00	Silent	7:00- 2:00	7:00- 2:00	7:00- 2:00	7:00- 2:00	WQJ
WRBC	Silent	7:30- 8:30	7:30- 8:30	Silent	Silent	Silent	Silent	WRBC	Valparaiso, Ind.	278	Silent	8:30- 9:30	8:30- 9:30	Silent	Silent	Silent	Silent	WRBC
WRC	6:00-10:30	Silent	Silent	6:00-11:00	Silent	6:00-10:00	Silent	WRC	Washington, D. C.	468.5	7:00-11:30	Silent	Silent	7:00-12:00	Silent	7:00-11:00	Silent	WRC
WREO	9:00-10:00	6:30- 7:30	Silent	7:15- 8:45	Silent	7:15- 8:45	Silent	WREO	Lansing, Mich.	285.5	10:00-11:00	7:30- 8:30	Silent	8:15- 9:45	Silent	8:15- 9:45	Silent	WREO
WRW	8:00-10:30	7:00-10:30	8:00-10:30	8:00-10:30	8:00-10:30	8:00-10:30	8:00-10:30	WRW	Tarrytown, N. Y.	273	9:00-11:30	8:00-11:30	9:00-11:30	9:00-11:30	9:00-11:30	9:00-11:30	9:00-11:30	WRW
WSAI	7:00-12:30	2:00- 3:00	9:00-11:00	6:00- 9:00	6:00-11:00	6:00- 9:00	Silent	WSAI	Mason, O.	325.9	8:00- 1:30	3:00- 4:00	10:00-12:00	7:00-10:00	7:00-12:00	7:00-10:00	Silent	WSAI
WSB	8:00-12:00	7:30- 9:15	8:00-12:00	8:00-12:00	10:45-12:00	8:00-12:00	8:00-12:00	WSB	Atlanta, Ga.	428.3	9:00- 1:00	8:30-10:15	9:00- 1:00	9:00- 1:00	11:45- 1:00	9:00- 1:00	9:00- 1:00	WSB
WSMB	6:30-10:30	Silent	6:30-10:30	6:30- 7:30	6:30-10:30	6:30-10:30	6:30- 7:30	WSMB	New Orleans, La.	319	7:30-11:30	Silent	7:30-11:30	7:30- 8:30	7:30-11:30	7:30-11:30	7:30- 8:30	WSMB
WSUI	Silent	9:00-10:00	8:00- 9:00	Silent	Silent	Silent	Silent	WSUI	Iowa City, Ia.	483.6	Silent	8:00-11:00	8:30-10:00	Silent	Silent	Silent	Silent	WSUI
WTAM	5:00-11:00	Silent	5:00-11:00	5:00- 6:00	5:00-12:00	5:00- 6:00	5:00- 6:00	WTAM	Cleveland, O.	389.4	6:00-12:00	Silent	6:00-12:00	6:00- 7:00	6:00- 1:00	6:00- 7:00	6:00- 7:00	WTAM
WTAS	7:00- 9:30	7:00-11:00	7:00- 9:30	7:00- 9:30	7:00- 9:30	7:00-11:00	7:00- 9:30	WTAS	Elgin, Ill.	302.8	8:00-10:30	8:00-12:00	8:00-10:30	8:00-10:30	8:00-10:30	8:00-12:00	8:00-10:30	WTAS
WTIC	Silent	Silent	5:00- 6:00	5:50- 8:30	Silent	5:00- 6:00	5:50- 8:30	WTIC	Hartford, Conn.	348.6	Silent	Silent	6:00- 7:00	6:50- 7:30	Silent	6:00- 7:00	6:50- 9:30	WTIC
WWJ	Silent	5:20- 9:00	5:00- 8:00	5:00- 8:00	5:00-10:00	5:00-11:30	5:00- 9:00	WWJ	Detroit, Mich.	352.7	Silent	6:20-10:00	6:00- 9:00	6:00- 9:00	6:00-11:00	6:00-12:30	6:00-10:00	WWJ

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Now to Scold Stations

WHEN the great artist, the vaudeville star, the actor has finished his or her performance and applause is given, it remains a tradition of the stage that a bow at least shall be given to the audience. Not to do so would be a violation of common courtesy.

Yet broadcasting stations, the MAJORITY OF THEM, are very lax in the way they make their bows. The applause, of course, is a little different. The invisible audience uses the mail or telegraph. In reply it expects the courtesy of a reply. It expects this reply within ten days after the applause has been sent. The public is not exacting too much. It does not expect a personal letter. All that is wanted is some form of acknowledgment card or letter.

Going further, some of the members of the audience are collecting station reception verification stamps. When these members send excerpt notes of a station's program for verification, and ten cents for the stamp, there is all the more reason for that station's showing haste to either return the ten cents, if stamps are not supplied, or send the verification stamp at once. Not a week should elapse.

But do the stations handle their correspondence in accordance with common courtesy? No, absolutely, no! Instead, the applause mail and telegrams are often filed or even thrown away without a thought of a postal card acknowledgment.

What happens? The station, which undoubtedly expects to carry good will for the purpose of indirect advertisement, loses ardent supporters and listeners by the score. The people feel that if correspondence is handled so, how must the newspapers, Radio apparatus, or other manufactured products sold by the broadcasting company be handled? If a hotel, how are the guests treated? In the same way as the applause correspondence?

It pays to be courteous at all times in all branches of business.

We are in receipt of a detailed letter from a listener who has made a research on how poorly applause mail is treated by the broadcasters. This man took pains to list and time each station to which he sent mail. He was collecting station stamps. He sent dimes with each letter.

Six stations out of twenty-eight addressed were written FIVE times before the courtesy of a reply was extended.

This is outrageous. Stations who are unable to handle their applause decently, that is to at least send a form acknowledgment postcard reply, should refrain from broadcasting. They do not deserve to have applause.

Upon Meeting a Station Director

HE WAS a most pleasant fellow to meet, this director-announcer. He had never seen the editors or offices of Radio Digest, and, while visiting the city, made a call to get acquainted. We, as representatives of the listening public, were agreeably surprised at his youth, strong personality and good judgment.

After we had taken him about the city and shown him the various studios, we spent an enjoyable evening with him discussing broadcasting. His observations were not what one would expect from a young man. They were keen and showed careful analysis.

He was amazed at the number of different ways in which the city's stations were conducted.

"To the listener, the broadcasters probably appear to be very much the same," he said, "but to me the procedures are unique in almost every case. But that is what is improving the art. Studio practice is being perfected by such innovations, and some day, when perfection is reached, if it is ever, will be time enough for standardization of methods."

At the present time it is a matter for the individual announcer to figure out the procedure that fits his individual case. Fans in one part of the country like one thing while in another part something else is wanted.

We like to get acquainted with the directors and other members of the station personnel. It gives one an insight on conditions from a different set of eyes than one is liable to acquire by sitting in the editor's chair.

RADIO INDI-GEST

Why They Took the Electric Wires Down

A RADIO station has been installed in Linton that deserves special mention by reason of the fact that it is more or less a county affair and evidences the courteous treatment that is accorded our guests at the county boarding house. From the flag pole on the belfry tower over our jail or blind-pig correction house, floats a Radio aerial and below in the lounging room in front of the cells is an up-to-date Radio receiving machine for the use of the inmates. We think that Linton can boast of having the most modern correction house in the state. Shortly after the three gentlemen who were so unlucky as to get caught with booze in their possession were compelled to accept the invitation of Judge McKenna to be jail guests of this county, the leading mechanic of the trio brought down his Radio from his home and installed it in jail and now they pass the evening hours away listening to lectures and concerts far away until it is time to go to bed or home for the night. On Sundays as a matter of convenience they will have their Sunday sermon by the Rev. Splurgeon from Sprugtown brought to them over the Radio. It has been suggested to us that this Radio station should be given the name of Jail-De Luxe, and call by the initials J-L-D Luxe. Reports say that the inmates are very much perturbed over the fact that the electric wires in that vicinity interfere with the action of their Radio, and it is possible that the electric wires will have to be removed that our guests may not be inconvenienced. Reclining chairs will be installed next week. (News clip from Doc. W.E.W.)

Our jail ain't the same as when I was a boy;
They've even removed all the moss,
And taken the roof from off of the top
To cut down the dielectric loss.

When They Moved

When they were planning to make a move
From one town to another,
They wanted one thing specially—
A den for the Radio brother.

So they searched the places all around
For a house that was just a fit
For the family, and would still have room
For all of the Radio kit.

They wanted a place on a quiet street
Far away from the noisy crowd
With lots and lots of open space
Where they could think out loud.

Well, at last they found an eight room house
With neighbors they liked right well,
And they thought at last they were in heav'n,
But—it is sad to tell.

The numerous wires were all strung up
And ev'rything else in place
Then the brother took a look around
And you should have seen his face!

A Heterodyne right next to them
A super behind, in a flat,
And a ten tube set at the corner,
Now what do you think of that!

They now got what they have time to get
Before the others begin,
The house soon will be "To Let," again,
With the Radio set thrown in!

L. G.

LONDON BOBBY writes to tell us that he overheard two men talking about how to get to a certain house. "Well," says the one, "How'll I find it when I get on that street?" "You can't help it," replied the other," it's the only house in that block that hasn't got an aerial on it."

Now, that's a real distinction!

Lit-tle Rol-lo at the Ra-di-o Store

In Words of One Syllable

What does the pic-ture show? It shows lit-tle Rol-lo in a Ra-di-o store. He is buy-ing a Ra-di-o. The sales-man is say-ing, "for vol-ume, dis-tance and se-lec-tiv-i-ty you can't beat this out-fit. Ten dol-lars down and ya can drag it home."

"Be-fore we en-ter pe-cu-ni-a-ry dis-cus-sions," re-plied lit-tle Rol-lo, "let us ex-a-mine the tech-ni-cal fea-tures. Is the cir-cuit a-per-i-o-di-cal-ly bal-anced on the ne-ga-tive po-ten-ti-o-me-ter?"

"Oh, yah. Just one knob, push the but-ton, a twist of the wrist and in comes the beau-ti-ful mu-sic. Shall I wrap it up?"

"And what of the sche-ma-tic pic-tur-i-za-tion of os-cil-lat-ing in-duc-tion?" con-tin-ued lit-tle Rol-lo.

"Use pea-nut tubes and get coast to coast," re-plied the sales-man. "You can't lose. She's a world beat-er. It's the last one in stock. Shall I wrap it up?"

"Is su-per-he-ter-o-dyn-ing ob-vi-a-ted by con-den-sers?——"

"Rol-lo," cried a voice. It was mother. "You have been read-ing a-gain. And as for you, sir, we do not want a Ra-di-o in the home as it would keep Rol-lo from his bas-soon les-sons. Come, Rol-lo, we will see if fa-ther is back from work at the cus-pi-dor fac-tory."

THE THIRD TROMBONE PLAYER.

What with youthful wizards in chess, mathematics, music, astronomy and everything else we are rather surprised none has appeared in Radio as yet.

Funny Joke

While 2LO in London was broadcasting a program someone in the studio dropped a penny. A Scotchman in Aberdeen picked it up on the Radio.

Nothing looks so well at the bottom of a column as a funny joke.

The Swap

Condensed

BY DIELECTRIC

I seldom step beyond the borders of the United States to find material for comment in these columns, yet many of you readers are tuned nightly to Canadian and other outside stations. There is a lesson to draw from the manner of announcing at Station CFCF, Montreal, Canada, applicable to some of our broadcasting stations, but not all. While Smith's orchestra played dance numbers the announcer wasted not a second between selections in giving his station call, nor did he omit the call. That is where so many of our best stations make a serious error.

At least for this season, we may expect no more college glee club concerts, a form of entertainment that has a pretty general appeal, so long as the rah-rah-rah stuff is kept in the background. Most of the clubs are trained by men of considerable musical talent and present uniformly good work, as for instance that of Yale university which rendered songs and banjo numbers in a concert in New Haven, Conn., and broadcast through Station WJZ. It was very pleasing entertainment.

Station WCCO, the Gold Medal station at St. Paul-Minneapolis, has a fairly wide reception radius with audiences mostly in favor of their programs. The Gold Medal trio is establishing a name for itself among broadcast features purely on its merit and successfully chooses numbers most likely to meet the varied tastes of the Radio public. Perhaps the Silver Lake band is not deserving of extraordinary praise, yet it is the equal of many good bands being heard from broadcasting studios.

While mention is made from time to time of those stations indulging in useless time-consuming performances, such as reading telegrams, etc., it is only fair to point to other stations whose evident purpose is to meet the wishes of listeners in. So I call attention to WRC, Washington, where the announcer interrupts only so long as is required to give the call letters between orchestra numbers. Listening to the Paradise band from that station was enjoyable for that reason.

I believe "Stars and Stripes Forever" has seldom been played with the snap put into it by a band appearing in the studio of WTAS, Elgin, not long ago. In fact, every number was rendered in a manner to indicate enthusiasm of all the players. The announcer was kept rather busy announcing various quantities of cartons of cigarettes, which were either presented to, or by, a large male audience ranging in age from one year upward. What was the brand name? N. B. tobacco interests.

One of the best talk features heard during these warm evenings was that of a reporter discussing bootlegging in somewhat of a humorous vein from Station KYW. Songs were heard during the same evening, some of them good and others—songs, that's all. And yet, there is more of paradise in ANY song than in Monday night advertising from Chicago's suburban agencies. Silence, or no ads; there's a motto!

Those of us who were tuned to WGY, Schenectady, during the broadcasting of a Scotch program were well paid for twisting the dials. There is a station with uniformly excellent transmission, even though certain sections suffer fading from this station, and much care and thought is given to every feature before it is put on the air.

Recent Advances in Tuned R.F. Amplification

Part VII—Shielding and Compensating Condensers

By Milo Gurney

THE letter response to the series of articles upon Wheatstone bridge circuits, which were to have been concluded with my last installment, has been so large I now regret that I did not bring up for discussion additional features pertinent to the subject. These would border, in part, upon structural details, particularly as they apply to shielding and the type and location of capacitive balances used.

No doubt the reader has realized that in circuits of this character every tendeney toward interstage coupling whether of the inductive or capacitive order, should be under control. Note, in particular, that I use the term "under control" as against zero relationship in interstage influence, and I so employ the term in order that one may not attempt the impossible. Obviously, progressive result is desired up to the point of allowing a coupled regenerative booster just below the point of oscillation. Uncontrolled progression would, in all essentials, be as disastrous as total elimination of capacitive coupling. As such portions of the circuit as inductances, wiring, etc., are uncontrolled factors, while the variable capacities are controllable, it is then apparent that individual stage shielding is all important. Each stage, in effect, is an individual isolated receiving unit with no repeater action, other than forward, being possible.

Good as Super-Het for DX

The capacitive factors being variable, in a large measure, furnish us the total control desired. There can be no question but that a well constructed bridge circuit is superior in all around performance to the popular super-heterodyne, although I am quite ready to admit that, not unlike the super, experience will count most toward success. One cannot build them on a board with hay wire and expect other than the pleasure of tearing them down. To the contrary, after viewing some of the factory types which will be presented this fall and learning from them the average method used for shielding, one may then accomplish very ingenious and most acceptable receivers which should, and no doubt will prove a revelation to the constructor.

Shielding, to be effective, should employ either copper, brass or aluminum for the housing, aluminum being preferred with copper second and brass a poor third.

Shielding Details

Of such completed models of receivers employing bridge circuits that I have seen, each seems to favor mounting the tuning condensers in a metal compartment just below or above the inductances, such a compartment not to have any subdivisions, but following an oblong whose depth and height are equal. If mounted below, then the top of the housing is of sufficiently heavy stock to act as a support for the mounting of the inductance units or, as one might term it, a sub panel for the inductance members. Each inductance stage should, however, be also totally shielded, metal partitions between stages serving the purpose nicely. The total shield may then follow the general lines shown in figure 38 which is nothing more than an oblong metal cabinet divided with a horizontal metal sub panel, the top portion divided into stalls which are omitted in the lower portion. No attempt should be made to make any portion of the face of the shielding the operating or face panel. However, if one does not desire to use bakelite as a face panel, metal may be used, or, if convenient, a three-ply veneer wood panel may be designed.

I believe many of the factory made sets which will be offered this fall will show the use of metal or wood as face panels. One only needs to be careful relative to establishing shorts or unintentional grounds if metal is used.

While, for efficient shielding, a totality is desired, it is obviously impossible to accomplish this result so long as it is essential that leads pass, not only to the condensers, but also to the succeeding stages. However, if such openings as are necessary to pass the wires are made as small as possible, little reaction from this source will be had, while as such openings concern only six wires, one can readily so space them as to eliminate loop coupling in the high frequency wiring, and in the low potential as well.

Neutralizing Condensers

We now come to the most important part of our balancing system, viz., that which we can control, the variable balancing capacities. As possibly most constructors would use the standard, vernier, low maximum capacity condensers, let me assure you that they will only serve your purpose experimentally. Understand that in these circuits the balancing condensers are only used to equalize either the grid to plate capacity or the grid to filament capacity or both, and at no time will their maximum value be greater than possibly 15 micro-microfarads. Hence it is equally essential that they be located as close to where these capacities exist as is practical

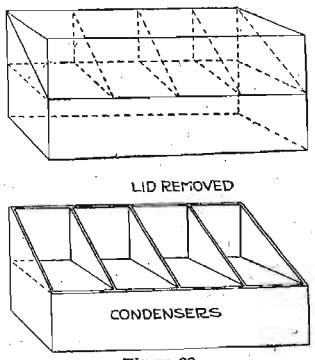


Figure 38

and that their adjustment entails an insulating medium. The standard old time book type condenser of very small size is, to date, the most practical to use and is easily made, although one's cleverness in design has, at this point, an opportunity for expression in a rare manner.

One of the greatest minds in Radio construction and design has often said, "If it is true that one profits most by his mistakes, then why not make a lot of mistakes and thus profit most?" which, in the abstract, is good advice so long as we do not make the same error twice. I am hoping each of you make a lot of mistakes in designing these low capacity condensers, as surely the Radio market sadly needs a good one that can be mounted where it will do the most good. Every time I look at the neutralizing condensers used in neutrodyne circuits I cannot resist mentally saying, "Another mistake!"

Compensating Condenser Location

As we are attempting to neutralize the plate-grid lumped capacities or, as before stated, the grid-filament capacities or both, isn't the sensible and logical position for our condensers on, or as close to, the socket as possible—just at the terminus of our lumped capacities? I wish also to give you this added thought, that, as the bottom of sockets seem to have no use other than as a supporting

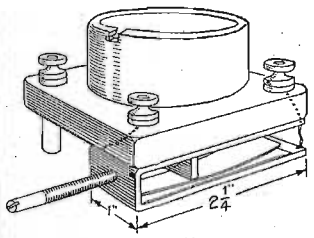


Figure 39

medium, then why not mount the socket base on pillars and place our condensers immediately beneath it. Surely the socket will not object, while it is my thought that at this location the condensers would be well out of the way, at the same time admitting of extremely short connecting leads.

Figure 39 shows such an arrangement while figure 40 indicates a suggested de-

(Continued on page 20)

A. B. C. Course in Radio Fundamentals

Chapter XVI—Transmission of Electromagnetic Waves

By David Penn Moreton

THE transmission of intelligence by Radio is brought about by sending out from the transmitting point what are called electromagnetic waves, which produce an effect upon receiving equipment at the receiving stations within the zone in which these waves may be transmitted. Special equipment is required at the transmitting station for the production of these waves, and other special equipment is required at the receiving station for their reception. Since the transmission of electromagnetic waves is somewhat similar to that of other kinds of waves, such as light, sound, heat, water, etc., we will just discuss wave motion in a simple and general manner and then apply this discussion to electromagnetic waves.

In wave motion, a stress is transmitted from one point to another point in an elastic medium without any permanent displacement of the medium itself in the

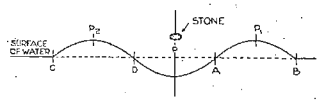


Figure 66

direction in which the stress is transmitted. For example, if a stone be dropped in a still pond at the point P, figure 66, an up and down motion of the water will be set up at P, which will be transmitted to a point at P_1 without any motion of the water from P to P_1, which can be proven by observing the behavior of a small float placed between the points P and P_1. When the stone was dropped at the point P, the water directly under it was displaced in all directions away from P toward the points P_1 and P_2, and will produce the bulges at these points which are called crests. These bulges or crests are due to the fact that the water which is displaced from the point P tends to raise the level all around P, but, on account of inertia, this cannot be done in a short time, which results in the level being raised at the points P_1 and P_2.

Analysis of Wave Motion

Now let us consider the action of the particles of water in the spaces AB and CD which correspond to a ring surrounding the point P, in which the water has been raised above the normal level. Due to the force of gravity acting on the water in this space, it will tend to seek the average or normal level, and, in doing this, the crest AP_1B to the right of P and the crest CP_2D to the left of P, will disappear, and on account of inertia, the particles of water will move beyond the average or normal level and a depression or trough will be created. The movement of the particles of water in this first ring, from a crest to a trough will cause the particles of water outside this ring to rise, and form a crest which, in turn, under the action of the gravitational forces, drop and form a trough, and cause the particles outside to rise and form a crest. The result is that the trough and the rest of a wave will appear to move in all directions away from the center of disturbance at the point P, and with a definite velocity.

The motion of the particles of water is limited to a small region around their position of rest, and the wave is transmitted by imparting this motion from one particle to another, and each particle, after the disturbance has passed, remains in practically the same position that it occupied. The motion of the particles is very complex and a complete analysis cannot be given here, but certain fundamental facts regarding it will be of interest because of the analogy between water waves and electromagnetic waves.

According to theory, which has been checked by experiment, the particles of water which are in the path of a wave, execute motions which are, in the simplest case, circular. Applying this idea of circular motion to the particles of water in figure 67, we find that a particle at the point A will be moving downward with a velocity which we may represent by V_1, at the point B the particles will be moving to the right in the direction of wave travel with a velocity V_2 and, at the point C, the particles are moving to the left or the opposite direction to the wave travel, with a velocity V_3. Every particle of water involved in the transmission of the wave will be executing a circular motion in a clockwise direction. The formation of the crests or troughs is the result of the various particles being at any particular time at different stages of their circular motions. For example, where the particles are moving horizontally in the direction of the wave travel a crest will appear, since a large number of particles are then at or near the top of the circular path in which they travel. On the other hand when the particles are moving horizontally, but in the opposite direction to the direction in which the wave is being transmitted a trough will appear, since a large number of particles are then at, or near, the bottom of the circular path in which they travel.

Let us now consider the energy possessed by the particles of water in the various positions they have in their travel around their circular path. The energy possessed by these particles may be either

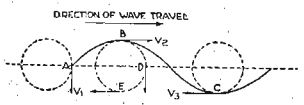


Figure 67

or both of two kinds: namely, potential and kinetic.

Potential energy is stored energy and is due to condition or position. The potential energy is stored in a clock or victrola spring when this spring is wound up, and potential energy is stored in the weights of a grandfather clock when these weights are raised by winding the clock. Kinetic energy is the energy possessed by an object due to its motion. For example, a baseball thrown from one player to another possesses a certain amount of kinetic energy while it is speeding through the air.

Energy Transfer

Each of these forms of energy may be transformed into the other kind. When a baseball is thrown high into the air by a player, the ball possesses kinetic energy due to its velocity when it leaves the hand of the player and no potential energy with respect to the hand of the player because it is on exactly the same level as the hand of the player. Now as the ball travels upward it is losing kinetic energy, since its velocity is decreasing, and at the same time it is gaining potential energy, since its elevation above the hand of the player is increasing.

The ball will continue to travel upward until it has lost all of its kinetic energy and, at this time, it will possess the maximum amount of potential energy. If there were no losses, due to friction of the air, the potential energy of the ball, in its uppermost position, with respect to the hand of the player, would be exactly equal to the kinetic energy possessed by the ball when it left the hand of the player. Now as the ball falls, it looses potential energy and gains kinetic energy, and the potential energy will be zero when it returns to the mitt of the player and the kinetic energy will be a maximum but not equal to the kinetic energy it had when it left the hand of the player due to losses such as the friction of the air.

Hair Spring Example

Another good example of the transformation of energy from one form to another is the hair spring and balance wheel of your watch. When the balance wheel comes to rest, it possesses no kinetic energy and there is potential energy stored in the hair spring. Now as the balance which rotates it gains in kinetic energy and the spring loses potential energy until the wheel reaches its mid position of travel when the kinetic energy is a maximum and the potential energy on the spring is zero. As the wheel travels to its next position of rest, it loses kinetic energy and the spring gains in potential energy until the kinetic energy of the wheel is zero and the potential energy of the spring is a maximum. If there were no losses in this operation the wheel would oscillate back and forth

(Continued on page 21)

Portable and Phonograph Super-Heterodyne

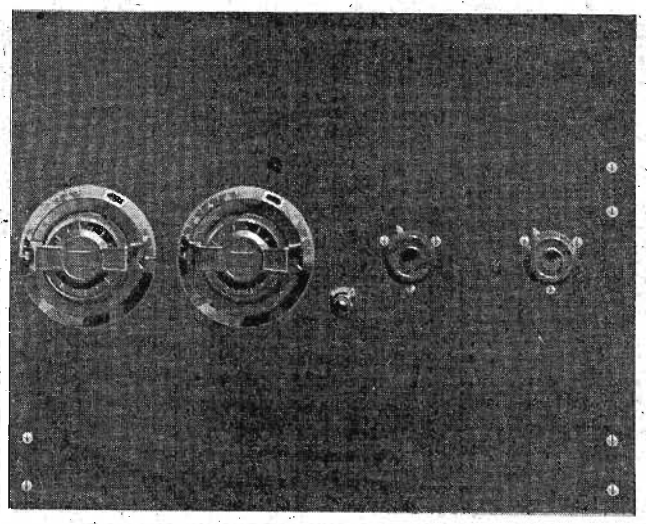
Part I—Analysis of Design

By John G. Ryan

IN PREVIOUS years, portable sets have always consisted of one, two or three tubes, with an occasional four tuber, which was to be operated from an antenna of some sort which usually consisted of a wire thrown over a tree branch or hastily strung between the summer bungalow and a tall tree. Although the five tube set, in the form of a neutrodyne or tuned R.F. receiver, was popular in 1924, it did not lend itself readily to portable use since these circuits were found to be very satisfactory on storage battery tubes, but not very efficient with the dry cell filament tubes. The broadcast situation which came about last fall made necessary the use of a receiver with a selectivity far in advance of the average five tube set, or the reflex, and as a consequence the super-heterodyne attained great popularity because of its remarkable ability to separate stations, even though within a few meters of each other. The Radio public has by now become more or less used to the principle of the super-heterodyne and to its construction and operation. So the writer in presenting a portable, which makes use of a super-heterodyne kit, does not feel that he is presenting something for Radio Digest readers which is beyond the ability of the average fan.

Why Super Is Preferable

Due to its tremendous sensitivity and long range the super-heterodyne can be operated from a loop antenna of small dimensions which makes it even more desirable for portable use. True, a neutrodyne or tuned R.F. set could be operated from a loop but it would be necessary to entirely enclose such a receiver within shielding so that there would be no interaction between the air core transformers and the loop antenna. Super-heterodyne transformers are not subject to this difficulty because they are usually encased in small metal containers, or have an iron core which limits the field around the coil, and greatly hinders the tendency to interact with other units. Because of the above mentioned facts a seven tube super-heterodyne can be built to occupy less actual space than a five tube receiver which is still another point in its favor for use in portable sets. The super-heterodyne is much to be preferred because of the fact that only two tuning controls are necessary and these can be accurately logged so that stations will always be found at the same points on the dials.



Front view of set showing arrangement of controls on panel.

When planning this set for portable use it occurred to the writer that if the set were designed only for such use that its useful period during a year would be limited to the time that people were on vacation which may vary between three weeks and three months. There seems to be a demand from the public for a combination which will include the phonograph and the Radio. With the phonograph the user can have what he wants when he wants it, while, with the Radio, the entertainment is always changing and includes the very latest in both talks and music. Both of these home entertainment devices have much of merit and neither can be said to make the other unnecessary.

No one panel could be designed that would fit all makes and types of phonographs, so the writer has made the panel of this set of a size that will fit two or three of the more popular upright models. A different type of construction would be desirable if the receiver were to be used in a horizontal position in a console model. As the set stands, it will contain its own batteries and its loud speaker while the loop antenna may be one of the folding type of which there are so many on the market, or it may be fitted into the rear cover of this set on which it can swing to secure the desired directional effect.

There are some who may feel that a single stage of audio frequency amplifica-

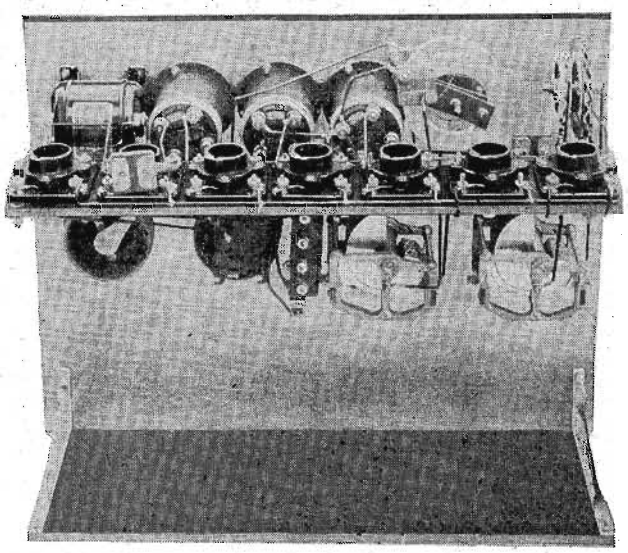
(Continued on page 20)

LIST OF PARTS

2 Variable condensers .0005 mfd.	$ 10.00
1 Super-heterodyne kit	25.00
7 Cushion base 199 sockets	7.00
1 Potentiometer, 400 ohm	2.25
1 Rheostat, 2 ohm	2.00
1 Audio frequency transformer	7.00
2 Grid Condensers with clips	.90
2 Grid leak cartridges, seven megohms	1.00
1 By-pass condenser .5 mfd.	.90
1 Fixed mica condenser .006 mfd	.75
1 Fixed mica condenser .002 mfd	.40
1 Panel 18"x14"x 3/16"	5.50
1 Shelf 17"x3"x 3/4"	1.50
1 Shelf 17"x6"x 3/4"	3.00
4 Brackets with 6" depth	.60
2 Brackets 2" (if necessary for kit)	.20
1 Cabinet to suit	15.00
1 Small speaker	3.00
2 Vernier dials	7.00
Miscellaneous	2.00
Total cost	$100.00

Accessories

1 Loop Antenna, folding	$ 10.00
6 Dry cells No. 6 (A battery)	3.00
7 Tubes UV-199 or C-299 type	21.00
4 Intermediate size B batteries	7.00
1 C battery 7½-volt	.85
Total cost	$ 41.85



Rear view of set, showing sub panel and space for batteries and loud speaker.

PORTABLE SUPER-HET

(Continued from page 19)

tion, using the UV-199 or C-299 vacuum tubes, does not give sufficient volume, but the writer has found that when a single stage of this type follows a super-heterodyne receiver, the volume is plenty for nearly any use or location in which the receiver may be. The volume is not sufficient for dancing, but is of a round smooth quality that is most pleasing and there is practically no distortion. A group of 8 or 10 people may sit on the veranda or around a camp fire in the quiet of a summer evening and hear distinctly every word that is said, and enjoy the music, without any effort to strain the sense of hearing.

After studying the front and rear views shown with this first article, the reader will note that the layout is subject to considerable variation to suit the individual needs or whims, and that the width of 18" is made necessary only because of the size of the super-heterodyne kit used. This kit was chosen because it is the largest of all those available, and takes up the greatest space, so the writer felt that no matter what kit Radio Digest readers might use there would be ample space for the various parts necessary. If you know of a kit which occupies less space, that you feel is efficient, it can be used with perfect confidence and the width of the panel can be reduced, if that is necessary so the panel will go into your talking machine. All of the upright models have the sound chamber at the top and space in the bottom for records in which the partitions may be either horizontal or vertical. The width of this lower compartment should be carefully measured and, if found to be less than 18 inches, the various units can be put somewhat closer together because the various parts are somewhat smaller. This is presuming that a smaller kit has been chosen.

Parts Used

Super-heterodyne kits are largely a matter of personal preference, as they are all alike in principle, and it is only the small refinements here and there which make any difference between them. The writer prefers the kit used simply because the filter circuit consists of two tuned air core inductances, the coupling of which may be varied. The condensers should be of a good low loss type, in which pigtails furnish the connection to the rotor plates, and preferably there should be adjustable bearings so that the ease of tuning can be varied for smoothness and therefore delicacy of operation. The audio transformer should be one of the improved types which made their appearance on the market this past season and which contain large cores with sufficient wire to guarantee an impedance more than the tube impedance to which they are coupled. Variable grid leaks were not found to be necessary as the 199 tube used as a detector in the super-heterodyne does not appear to be particularly critical with regard to grid bias. The writer's set seems to work equally well without grid leaks of any kind, but a barely perceptible improvement in tone quality could be noticed when cartridges of from five to eight megohms were inserted.

There are some who will criticise this

(Continued on page 22)

TUNED R.F. ADVANCES

(Continued from page 17)

sign which would permit of using an insulated adjustment screw and it is of the utmost importance that this adjustment be thoroughly insulated, in order that no capacity effect may be transferred from a screw driver or other media used when seeking a balance. In any design of such

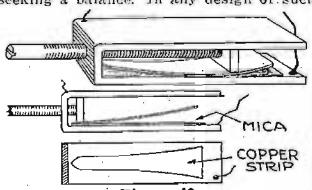


Figure 40

minimum condenser, wherein a fixed plate is used, so taper it as to permit a graduated minimum. Figure 40 pictures my thought, in which you will note that, while a portion of the fixed plate is of the width of the mounting, at one end its taper, at its apex, has followed close to a 45° angle. This permits the securing of values most minute if required.

There is no reason apparent why such condensers could not be made in a very substantial manner and I would be grateful to those of you who care to submit constructional designs for condensers which will mount on or underneath a socket. Don't try spending a lot of money in attempting to secure a patent on such a device; patents are expensive air castles as a rule, and lead to many disappointments. If you must have a patent, secure it in some field other than in Radio as Radio now has about eight thousand too many.

Patent a scheme to add six inches onto a ditch digger's shovel at about half an hour before quitting time and make heaps of money, but in Radio, never! There must be over a hundred low loss variable condensers, most of them patented or living in hopes, each designed by Radio men and my thought is that most of them were treated shamefully in not letting the mechanical engineer design at least the mounting screws.

Looking Ahead

Next week I shall summarize the general picture story, not only of the Wheatstone Bridge circuits, but also have something to say about aerials and grounds. Every Radio set needs both of them and, while the press keeps harping upon the subject, still, but mighty few seem to realize the importance of the subject.

As I glance out over the roofs in my neighborhood I have counted sixty-two aerials. Of these, two appear to have been installed for Radio reception, while the others would make terribly poor clothes lines and, thank goodness, it is these chaps who refuse to listen to other than California stations, except when company comes.

Before closing, I want to answer a question, so often asked in my mail, and that is—"Is it possible to use a stage of radio frequency ahead of a three tube regenerator using tickler feedback without neutralizing it?" The answer is, that in most of such circuits, you can if you will use a UV-199 or C-299 in the radio frequency stage, and a separate filament control for it. The constants of the circuit and its arrangement have much to do with its use, but, in general, this scheme works very satisfactorily.

(TO BE CONTINUED)

Instead of the twisted loop method, tap a coil by slipping an "O. K." paper fastener over the bared wire and soldering it. Mica put under the wire temporarily will keep the iron from burning it.

Unicontrol Regenerative Receiver

Dial Device Controls Tickler Regeneration

So much trouble has been encountered by the use of regenerative receivers in an oscillating condition, that I designed a one dial regenerative receiver which will not oscillate if handled properly and yet brings in all wave lengths with maximum regeneration and this by tuning only one dial.

The circuit is one generally used in regenerative receivers and uses a three-circuit tuner. My tuner was homemade, basket type winding and the tickler shaft is a celluloid knitting needle. The diagram shows how regeneration was obtained with the one dial. The guide for the tickler control plunger is a short piece of knitting needle driven tightly into the panel and a hole drilled through it to allow the plunger to slide easily.

A rubber band was hooked over a pin in the ticker shaft and given a turn around the shaft and the end fastened to the baseboard so as to give a twisting motion to the tickler shaft and cause the plunger to ride firmly but lightly on the edge of the dial.

The builder must use great care in cutting the regeneration curve on the dial; use a small file and penknife and try the dial often to see that you are not cutting too deep in spots.

When the curve is properly cut there will be a light hissing sound as the dial is turned over the entire scale but no clicks, as these denote oscillation of the tube. Be sure the filament rheostat is turned on far enough when cutting the curve or you may not get it exactly right.

If by mistake you cut the dial too deeply in places and cause the tube to oscillate at these points, slip the tickler back slightly on the shaft so the tube does not oscillate at these points and work the high points down slowly until the tube is on the verge of oscillation over the whole scale. When cutting the curve on the dial have aerial and ground connected as for receiving, and be very careful to get the dial on the shaft in the same position each time when putting it on for trial.

This receiver will not oscillate when in use unless the filament is turned on brighter than when the regeneration curve was cut.

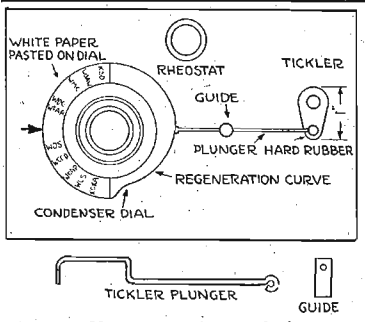
The tickler plunger is made from No. 14 copper wire and is flattened on the end which rests on the dial. A little vaseline on the edge of the dial makes it run smoother.—Byrl Stoll, Buffalo, Kansas.

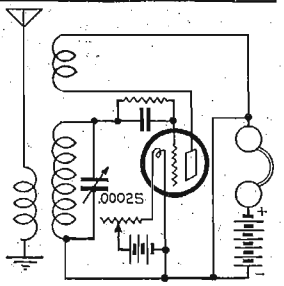
WORKSHOP KINKS EARN A DOLLAR—

THERE are many little kinks worked out at home that would aid your fellow Radio worker if only he knew about them. There are new hook-ups, new ways of making parts and various unique ways of operating sets that are discovered every day. Radio Digest is very much interested in obtaining such material. Send them in with full details, including stamped envelope, so rejected copy may be returned. The work must be entirely original, not copied.

RADIO KINKS DEPARTMENT
Radio Digest,
510 North Dearborn St., Chicago

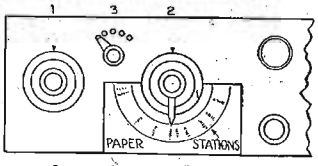
DETAILS OF UNICONTROL DEVICE





Dial Charts

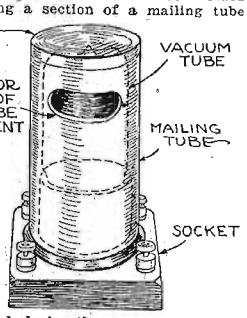
Here is an easy way to have a less informed member of the family tune in any station desired. Instead of lengthy charts I do not tune to numbers and meters but to the station direct. It may not work so good on other sets but it could not work better on my Cockaday set.



Take a partly stiff paper and cut it to fit below dial 2 so it will slip under the dial, as most dials are a little away from the panel. Cut a tin or cardboard pointer and glue it exactly in the center of the blank space opposite the graduations on the dial. The pointer should project one inch over the dial forming quite a circle on the paper. Draw a line along the paper forming an arc along which the tip of the pointer moves. This dial should be the wave length dial and it will be found very accurate and stations will always be located at the same place. When each new station is brought in mark down the call letters of the station opposite the pointer setting. If your receiver also has a tap switch cutting in more or less turns mark the number of the tap used after the call letters. Thus if an inexperienced member of the family wishes to tune in it is only necessary to set the pointer and the tap switch and pull out the battery switch.—Max Mueller, Thiensville, Wis.

Tube Covers Protect Against Dropped Tool

Many a tube has been broken by something falling on it. This can be avoided by slipping a section of a mailing tube over it and closing the upper end. A hole is cut in the side for a clear view of the filament.—Bernard H. Porter, Houlton, Maine.



When attaching an aerial to a tree, have the wire insulated about 15 feet from the tree to avoid loss.

A. B. C. RADIO COURSE

(Continued from page 18)

indefinitely after it was set in motion. The losses are overcome by the main spring of the watch, whose potential energy is available after the watch is wound.

Considering now the particles of water involved in the transmission of a wave as shown in figure 67. A particle of water at the point E, possesses potential energy due to its elevation above the average or normal surface of the water and also some kinetic energy in the direction of the wave travel since it has a velocity in that direction. Now as the particle continues to rotate, its displacement from the average or normal level grows less and less and so does the component of its velocity in the direction of the wave travel and, in the position D, its potential energy is zero and also its kinetic energy in the direction of wave travel is zero. As the particle rotates still further, its potential energy becomes negative as it is below the average or normal level of the water and its kinetic energy increases and reaches its maximum value at the point E, but in the opposite direction to the direction of the wave travel. At the point E, the kinetic and potential energy of the particle are exactly equal to the value they had at the point B, but opposite in sign.

Kinetic Plus Potential Energy

The potential energy of a particle at any point is exactly equal to the kinetic energy in the direction of wave travel, provided there is no change in the shape of the wave taking place. Due to this relation of potential and kinetic energy, there must be a fixed relation between the displacement of a particle above or below the average or normal level of the water and the component of the velocity of the same particle parallel to the direction of wave travel.

The total energy of a particle of water, potential and kinetic, in the direction of wave travel, is continually changing as the wave progresses, the particle in question passing its energy along to the particle adjacent to it in the direction of wave travel, and this transfer of energy from one particle to another is the underlying principle of all wave motion in water.

Electromagnetic waves are due to a disturbance of an electromagnetic nature and are such that they produce at points all around the center of disturbance a varying magnetic and a varying electric field. For example, if a wire, in space, has an alternating current established in it for a short interval of time it will set up an alternating magnetic field and an alternating electric field all around itself; and these fields starting from the vicinity of the conductor will travel away from it with the velocity of light. To set up these fields requires energy, which means that a certain amount of energy must be drawn from that available in the conductor in order that the electromagnetic disturbance be created at all. This transfer of energy from the wire to the field is known as "electromagnetic radiation" or simply "radiation."

(An explanation of electromagnetic radiation and how it is caused and controlled, will form the basis of Professor Moreton's article next week.—Editor's Note.)

Questions and Answers

Fournier Super; B Eliminator

(13882) RLD, Memphis, Tenn.

Can you give me a little more information on the four filter Fournier super?

How about using some readymade coil for an antenna coil? Couldn't I use a Bremer Tully tuner or something of the kind? Which make would you advise? Do you think the homemade one would be superior? I haven't very much room for a large coil of any kind.

What do you think of using a B battery eliminator with the same voltage on all plates, e.g. 100 volts, instead of varying the plate voltages?

A.—The low loss coupler mentioned can be purchased from the Davenport Radio Laboratory of Davenport, Iowa., but you can use any other type of coupler providing it is so made that you can tap in on the secondary at the center point. Uncle Sam Electric company of Plainfield, N. J., make a very good coupler which occupies but little space and which they call their "baby tuner."

The four filter super can be run on a B eliminator. The writer is doing that now. The set seems to work equally well whether the detectors have 45 volts or the same voltage as the amplifiers.

Masterpiece Kit Troubles

(13951) RB, Bridgeport, Ohio.

I am having built a five tube low loss neutrodyne, using Freshman low loss coils and would like to know what is wrong. If you fix the coils the way the Freshman Masterpiece coils are mounted on the condensers, the set will squeal, but if you turn the coils straight out from the condensers it does not squeal but distance suffers.

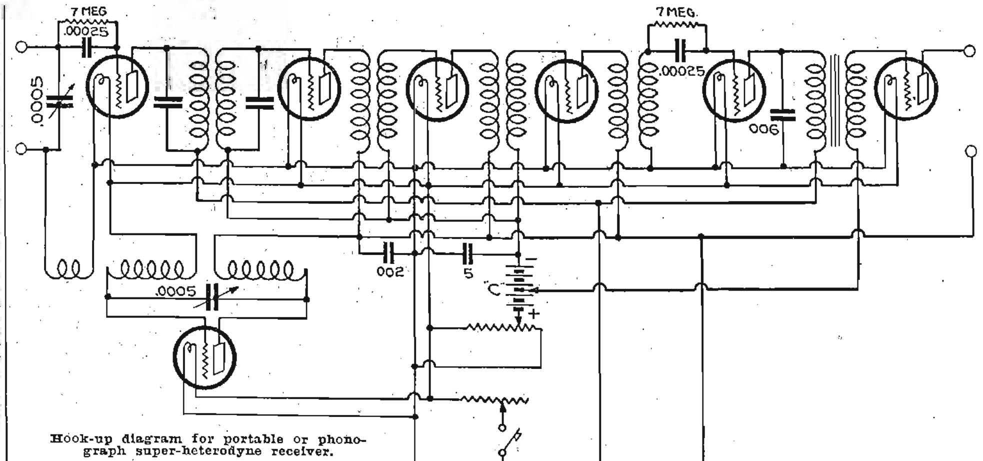
A.—When the coils are mounted flat against the rear of the condenser as Freshman does in his receivers, you are evidently getting the benefits of regeneration and therefore you get the distances. When you mount the coils at right angles to that position you evidently lose the regeneration and cut down your range.

It should not prove difficult to mount the coils at some angle between these two positions so that regeneration is secured to a controllable degree, and that you have range without squeal. It will be impossible to find any position at which you can have regeneration over the entire wave length range, but by turning the coils at different angles you will find a position at which you will have maximum possible regeneration at about 225 meters with less regeneration and less range as you reach the higher wave lengths.

Your range at 526 meters will be only about one-half that at 275 meters. This is a condition which cannot be avoided with the apparatus which you have.

Locating Trouble

When a set fails to produce a signal the trouble may be caused by incorrect connection of A or B batteries, defective tubes, short circuits in the set or aerial, broken or loose connections, fraying of the loud speaker or phone cord, or failure of the spring tension in the sockets or phone jacks.



Hook-up diagram for portable or phonograph super-heterodyne receiver.

PORTABLE SUPER-HET

(Continued from page 20)

design because it has only one filament rheostat, but no improvement could be noticed when four rheostats were used so it was decided to cut out all but one. This leaves the panel with a pleasant scarcity of controls and those shown are as follows: Looking at the front view, the large dial at the left is the oscillator dial, while the other large dial controls the wave length of the loop tuning circuit. The filament switch is next, and the first knob is the potentiometer which controls the bias on the grids of the intermediate amplifiers and thus the regeneration. The other knob controls the rheostat and the filament brilliancy.

There is one odd thing about this receiver for which the writer has no explanation, but is quite pleased with the result. The potentiometer was not sufficient in itself to produce enough grid bias for maximum possible range and volume. It was found necessary to insert 7½ volts of C battery between the center connection of the potentiometer and the three grid returns. The result was a very pleasing surprise, as a milliameter in the minus B lead from the batteries now showed that the set was drawing only 17 milliamperes instead of 29 as it had at first. Since most of the super-heterodynes which have been designed in the last few months draw anywhere from 25 to 40 milliamperes, this was felt to be a decided improvement of particular value in a portable where the B batteries could be of only the intermediate size. There is not a great deal of difference between this receiver and the set which the writer built and described last fall under the title of "The Simplest Possible Super," and, as a matter of fact, the wiring diagram of the Simplest Super could be used for this receiver providing the proper kit were employed.

Battery Location

The phonograph shown with this first article does not make clear the installation of either batteries or loud speaker, but the photograph will be published later which will do so. Looking at the second photo which accompanies this article, and which has been taken from the rear, six No. 6 dry cells can be placed on the bottom shelf in the lower right corner just below the variable condensers while four upright intermediate size B batteries can be placed at the left, below the rheostat and potentiometer. The loud speaker may occupy a space between the rheostat and potentiometer and the back of the cabinet, and may also extend across behind the condensers if a long narrow speaker is more readily obtainable. Another variation that was found possible consists of placing a baby speaker of the dragonfly size on the lower shelf at the left and there was plenty of room for it to come up behind the rheostat. The A batteries were placed as before beneath the condensers, three cells as a bottom layer and three cells on top of them, lying flat, while the B batteries were stood upright on top of the dry cells and extending up behind the variable condensers. The batteries can be held together in any position desired by means of heavy friction tape.

(The actual construction is withheld until the next issue to give our readers time to procure the various parts necessary for this set. Those living in smaller town[illegible] ay have to send away for some of th[illegible] ts.—Editor's Note.)

Radiophone Broadcasting Stations

Corrected Every Week—Part IV

FIND MISTAKES AND YOU'LL GET DOLLAR

ONE DOLLAR will be paid to the Radio fan reader of Radio Digest submitting the most errors in any one station's listing in the Directory of Radiophone Stations, which appears in five parts, serially continuously on the next to last page. Letters must reach Radio Digest's office not later than one week from date of issue corrected. Readers are not limited to correcting one station, but such corrections must be verified by the stations themselves, and NOT by comparison to other so-called accurate Radio directories or lists. Verifications must accompany corrections. Turn in corrections for as many stations as you can find—if you can find errors! Use separate sheet of paper for each station submitted and place name and address on each sheet. In case of tie, duplicate awards will be made.

United States (Cont'd)

NOTE.—The fourth part of the schedule list appears below. Part five appears next week.

WLBL, Stevens Point, Wis. 278 meters. 500 watts. Wisconsin Dept. of Markets. Slogan, "Wisconsin, Land of Beautiful Lakes." Daily ex Sun, 8:45 am, 9:15, 10:45, 11:45, 12:30 pm, 1:45, markets. Tues, Thurs, 8 pm, Sat, 11:59 pm. "Enemies of Sleep." Central.

WLIT, Philadelphia, Pa. 394.5 meters. 500 watts. *Lit Bros. Announcer, Harry E. Ehrhart. Club, "Morning Glory." Daily ex Sun, 12:02 pm, music; 2, music. Mon, 4:30 pm, 7:30, 8, 10. Tues, 11 am. Wed, Thurs, 4:30 pm. Wed, 7:30 pm, 8, 10, 11. Fri, 7:30 pm, 8:45, 10. Eastern daylight.

WLS, Chicago, Ill. 344.6 meters. 500 watts. Sears, Roebuck & Co. Announcer, George D. Hay. Slogan, "World's Largest Store." Daily ex Sun, 9 am, 10, 11, 12, 1-2, 4:45-5:45. Tues, 6:30-12:30 am. Wed, Fri, 6:30-11:55. Thurs, 6:30-8:55. Sat, 12-12:15 pm, Junior R. F. D. program; 7:45-1. Sun, 7:30-8:55. Central daylight.

WLW, Cincinnati, O. 422.3 meters. 5000 watts. The *Crosley Radio Corp. Announcer, Fred Smith. Daily ex Sun, 10:45 am, 11:55, time, 1:30 pm. Daily ex Sun, Fri, 7, dinner hour; 7:30, baseball; 6:55, markets. Daily ex Sat, Sun, 12:15, program; 3, 4, reports. Mon, Tues, 8-10 pm. Wed, Thurs, 10-12 mid. Sun, 9:30 am, 11, 7:30 pm, 8:30. Central daylight.

WMAC, Cazenovia, N. Y. 275 meters. 100 watts. C. B. Meredith. No definite schedule.

WMAF, South Dartmouth, Mass. 360 meters. 500 watts. Round Hills Radio Corp. Closed down until July 1.

WMAK, Lockport, N. Y. 266 meters. 500 watts. Norton Laboratories. Announcer, I. R. Lounsberry. Daily ex Sun, 11 am, weather. Mon, 8-12 pm. Thurs. 12 midnight, Midnight Serenaders. Sun, 10:25 am, service. Eastern.

WMAN, Columbus, Ohio. 278 meters. 50 watts. First Baptist church. Announcer, Dr. D. F. Rittenhouse. Sun, 10:30-12 m, 7:30-9 pm, church services. Eastern.

WMAQ, Chicago, Ill. 447.5 meters. 500 watts. The Chi*cago Daily News. Announcer, Roberty Whitney. Daily ex Sun, Mon, 12-1:45 pm, 2:45-7. Daily ex Sun, Mon, 8-10 pm. Central Daylight.

WMAY, St. Louis, Mo. 247 meters. 100 watts. Kings*highway Presbyterian church. Slogan, "May Every By-Way Hear Kingshighway." Sun, 11 am, 8 pm. Central.

WMAZ, Macon Ga. 261 meters. 100 watts. Mercer university. Announcer, Carey O. Pickard. Mon, Thurs, Fri, 10-11 pm. Mon, Fri, 9-10 pm. Tues, Thurs, 8-9 pm. Wed, 11-12. Eastern.

WMBB, Chicago, Ill. 250 meters. 500 watts. American *Bond & Mortgage Co.-Trianon. Announcer, Clyde Hager. Slogan, "World's Most Beautiful Ballroom." Daily ex Sun, Mon, 7:30-10:30 pm. Sun, 3-5 pm. Central daylight.

WMBF, Miami Beach, Fla. 384.4 meters. 500 watts. *Fleetwood hotel. Daily ex Sun, 7-7:30, 7:30-8, dance; 8, baseball, weather. 10-12. Eastern.

WMC, Memphis, Tenn. 499.7 meters. 500 watts. The Commercial Appeal. Announcer, G. L. Dearing. Slogan, "Station WMC, Memphis." "Down in Dixie." Club, Midnight Frolic." Daily ex Sun, 9:45 am, 12:30 pm, weather, markets, music. Daily ex Sun, Wed, 8:30 pm, program; Tues, Fri, 11 pm, Midnight frolic. Sun, 11 am, church service. Central.

WMCA, New York, N. Y. 340.7 meters. 500 watts. *Greeley Square Hotel Co. Announcer, A. V. Llufrin. Slogan, "Where the White Way Begins." Daily ex Sun, 3-5 pm; 9-12. Eastern Daylight.

WNAB, Boston, Mass. 250 meters. 100 watts. The *Shepard Stores. Announcer, John J. Fanning.

WNAC, Boston, Mass. 280.2 meters. 500 watts. Shepard *Stores. Announcer, John J. Fanning. Daily ex Sun, 10:30-11:30 am, 12:53-2 pm, 4-5, 6-7:30, 8-10. Sun, 11 am, 1:30-3 pm, 3-4, 6-6:45, 6:45-9:30. Eastern daylight.

WNAD, Norman, Okla. 254 meters. 250 watts. Univ. of Okla. Announcer, C. E. Bathe. Slogans, "Oklahoma," "Voice of Sooner Land." Daily 9:15 pm, weather, news. Wed, 8:30-9:30 pm, music. Central.

WNAL, Omaha, Nebr. 258 meters. 50 watts. Central *H. S. Announcer, Ronald J. Rockwell. Slogan, "Pioneer Broadcast of Omaha." Fri, Sat, 7:30-9 pm. Central.

WNAR, Butler, Mo. 231 meters. 20 watts. First Christian church. Announcer, Perry V. Riley. Sun, 11 am, 8 pm. Central.

WNAT, Philadelphia, Pa. 250 meters. 100 watts. Len*nig Bros. Co. Announcer, Jess Brinton Young. Slogan, "We Never are Tired." Wed, 6:30 pm. Eastern daylight.

WNAV, Knoxville, Tenn. 233 meters. 500 watts. Peoples Telephone & Telegraph Co.

WNAX, Yankton, S. D. 244 meters. 100 watts. Dakota Radio Apparatus Co. Daily ex Sun, 11:30-11:45 am, markets, weather; 5-6 pm, music. Central.

WNJ, Newark, N. J. 252 meters. 500 watts. Radio Shop of Newark, Inc. Announcer, W. A. Bingenheimer. Slogan, "The Voice of Newark." Tues, Wed, Fri, Sat, Sun, 6-6:30 pm, 8:30-12, dance music. Eastern Daylight.

WNYC, New York, N. Y. 526 meters. 1000 watts. New *York Municipal Radio Station. Announcer, Christie Bohnsach. Slogan, "Municipal Broadcasting Station of the City of New York." Daily 2-5 pm; 7:30 pm, 10:30, police; 7:35, entertainment; 10:30, weather. Sun, 9-11 pm, Mark Strand theater. Eastern Daylight.

WOAC, Lima, O. 261 meters. 50 watts. Page Organ Co. (H. P. Maus). Tues, Thurs, Sat, 7:30-8:30 pm. Central.

WOAI, San Antonio, Tex. 394.5 meters. 1000 watts. Southern Equip. Co. (Evening News-Express). Announcer, J. G. Cummings. Slogan, "The Winter Playground of America, Where the Sunshine Spends the Winter." Daily ex Sun, 10:30 am, 12:15 pm, 3, markets; 7:00, sports, markets. Tues, 8:30-10:30 pm. Thurs, 9:30-10:30 pm, music. Sun, 11 am, church service; 7:45 pm, church services; 9:30-10:30, music Central.

WOAN, Lawrenceburg, Tenn. 282.8 meters. 500 watts. *James D. Vaughan. Announcer, James D. Vaughan. Daily ex Sun, 12:15-12:45 pm, concert. Daily ex Sat, 9-10 pm, concert. Central.

WOAW, Omaha, Neb. 526 meters. 1000 watts. Wood*men of the World. Announcer, "GR," Gene Rouse. Slogan, "The City Surrounded by the United States." Daily ex Sun, Wed, 12:30-1 pm; 5:45-7:30, 9-11, Sat, 11-12 midnight, dance. Sun, 9-10:45 am; 9-11 pm. Central.

WOAX, Trenton, N. J. 240 meters. 500 watts. F. J. *Wolff. Slogan, "The Voice from Trenton." Daily, 12:15 pm, 1:15, weather, mid-weekly crop report. Eastern Daylight.

WOC, Davenport, Iowa. 483.6 meters. 2000 watts. The *Palmer School of Chiropractic. Announcer, Stanley W. Barnett. Slogan, "Where the West Begins and in the State Where the Tall Corn Grows." Daily ex Sat, Sun, 12:57 pm, time; 1, weather, 1:05, closing markets, 3 home hour; 6, bulletin, baseball. Daily ex Sun, Mon, 5:45-6 pm, Tues, 6:30-7 pm, New York program; 8-9. Wed, 4-4:45 pm; 6:30-6:50, 9-10. Thurs, 6:30-6:50 pm; 7-8; 8-9; 9; 11-12. Fri, 6:30-6:50 pm; 8-9; 9. Sat, 9-10 pm; 11-12. Sun, 1-2 pm; 6:45, baseball; 8-8:30, church; 9:30-11:30. Central.

WOCL, Jamestown, N. Y. 275.2 meters. 15 watts. Hotel *Jamestown, Inc. Announcer, William A. McCutcheon. Slogan, "We're on Chautauqua Lake." Wed, Sat, 9:30 pm. Sun, 10:30 am, 7:30-0. Eastern.

WODA, Patterson, N. J. 202.6 meters. 100 watts. O'Dea *Temple of Music.

WOI, Ames, Ia. 270 meters. 500 watts. Iowa State Col*lege. Announcer, H. B. Deal. Daily ex Sun, 9:30 am, weather reports; 12:30 pm, chimes, market, weather, educational talks; 9:30, weather. Central.

WOK, Homewood, Ill. 217.3 meters. 50 watts. Neutro*wound Radio Mfg. Co.

WOO, Philadelphia, Pa. 508.2 meters. 500 watts. John *Wanamaker. Announcer, Jos. N. Nassau. Daily ex Sun 11 am, organ recital; weather: 11:55, time; 12-1 pm, concert; 4:45 pm, organ recital; 7:30, sports, police reports; 9:55; time; 10:02, weather. Mon, Wed, Fri, 7:30-11 pm, music, concert. Sun, 2:30 pm, Sunday school; 6, organ; alternate am and pm services. Eastern daylight.

WOQ, Kansas City, Mo. 278 meters. 500 watts. Unity School of Christianity.

WOR, Newark, N. J. 405.2 meters. 500 watts. L. Bamberger & Co. Announcer, J. M. Barnett. Daily ex Sun, 7 am, 2:30-4 pm; 6:15-7:30. Mon, Wed, Sat, 8-12 midnight, Wed, 6:15-7 pm. Eastern daylight.

WORD, Batavia, Ill. 275 meters. 2000 watts. Peoples *Pulpit association. Announcer, B. M. Rice. Slogan, "Watchtower Station WORD." Daily ex Sat, Sun, 8:30-10 pm. Sat, 8 pm. Sun, 10 am, 6:45 pm, 7:30, talk. Central Daylight.

WOS, Jefferson City, Mo. 440.9 meters. 500 watts. Missouri State Marketing Bureau. Slogan, "Watch Our State." Daily ex Sun, first 15 min. of every hour from 9 am-2 pm, markets; 8, N. Y. stocks and markets. Daily ex Sat, Sun, 5 pm, markets. Mon, Wed, Fri, 8-10 pm, concert. Sun, 7:30-8:30 pm, church service. Tues, Fri, 5 pm, children's story hour. Central.

WOWL, New Orleans, La. 270 meters. 100 watts. Owl Battery company.

WOWO, Fort Wayne, Ind. 227 meters. 500 watts. Main *Auto Supply Co.

WPAK, Fargo, N. D. 275 meters. 100 watts. N. D. *Agricultural College. Announcer, Gordon Laing. Off the air until October 5.

WPAZ, Charleston, W. Va. 208 meters. 20 watts. West Virginia Radio Sales Corp. Tues, Fri, 7:30-8:30 pm. Eastern.

WPG, Atlantic City, N. J. 299.8 meters. 500 watts. Municipality of Atlantic City. Slogan, "World's Playgrounds." Mon, Tues, Fri, 7 pm. Tues, Thurs, Fri, Sat, 9 pm; 10, classics. Mon, 8 pm, Thurs, 11 pm. Sat, 6:30 pm, concert; 10. Sun, 3:15 pm, organ; 4:15, service; 10, service. Eastern daylight.

WPSC, State College, Pa. 261 meters. 500 watts. Pa. State College. Slogan: "The Voice of the Nittany Lion."

WQAA, Parkesburg, Pa. 220 meters. 500 watts. Horace A. Beale, Jr. Temporarily discontinued.

WQAC, Amarillo, Tex. 234 meters. 100 watts. Gish Radio Service. Irregular schedule.

WQAE, Springfield, Vt. 246 meters. 50 watts. Moore *Radio News Station. Announcer, Ernest S. Newell. Slogan, "Boost Springfield." Sat, 11-1 am. Sun, 10:30 am, church service; 7 pm, service. Eastern.

WQAM, Miami, Fla. 268 meters. 100 watts. Electrical *Equip. Co. Announcer, Frederick W. Mizer. Slogan, "It Is Alway June in Miami." The Most Southern Radiocasting Station in U. S. Daily ex Sun, 8:15-9:30 pm. Sun, 7:30-9 pm. Eastern.

WQAN, Scranton, Pa. 250 meters. 100 watts. Scranton *Times. Announcer, T. V. Nealon. Slogan, "The Voice of the Anthracite." Daily ex Sun, 12:30-1 pm, 4:30-5, news, reports, baseball, music. Tues, Fri, 8 pm, entertainment. Eastern.

WQAO, New York City, N. Y. 360 meters. 100 watts. Calvary Baptist Church. Announcer, R. E. Bogardus. Slogan: "The First Church Owned and Operated Broadcasting Station in the World." Sun, 11:30 am, 7:30 pm, church services. Eastern daylight.

WQAS, Lowell, Mass. 252 meters. 100 watts. Prince-Walter Co.

WQJ, Chicago, Ill. 447.5 meters. 500 watts. Calumet *Baking Powder company—Rainbo Gardens. Announcer, Jerry Sullivan. Daily ex Sun, 1:45-2:45 pm, woman's hour; 10-1, 1-2, ginger hour. Sat, 10-3. Daily ex Sun, Mon, 7-8 pm. Mon, 3-4 pm; 8-10. Central Daylight.

WRAA, Houston, Tex. 256 meters. 100 watts. The Rice Institute.

WRAF, La Porte, Ind. 224 meters. 100 watts. Radio *Club, Inc. Announcer, Charles Middleton. Slogan, "The Voice of the Maple City." Mon, 8:30 pm. Central.

WRAK, Escanaba, Mich. 256 meters. 100 watts. Economy Light Company. Announcer, Ken Voght. Slogan, "The Gateway to Cloverland." Mon, Fri, 8:30 pm. Eastern.

WRAM, Galesburg, Ill. 244 meters. 100 watts. Lombard *College. Special program.

WRAV, Yellow Springs, O. 263 meters. 100 watts. Antioch College. Announcer, Charles Hoffman. Wed, 8 pm, music; 9, educational. Sun, 7 pm. Central.

WRAW, Reading, Pa. 238 meters. 10 watts. Avenue *Radio & Elec. Shop. Slogan, "The Schuylkill Valley Echo." Announcer, C. M. Chafey. Daily ex Sun, 7 pm, baseball. Thurs, 7:10, sport talk. 10-11:30 pm. Eastern.

WRAX, Gloucester City, N. J. 250 meters. 500 watts. *Flexon's Garage. Announcer, Anna D. Flexon. Mon, Thurs, Fri, evenings, program. Eastern.

WRBC, Valparaiso, Ind. 278 meters. 500 watts. Immanuel Lutheran church. Announcer, Forrest Jones. Slogan, "World Redeemed by Christ." Mon, 7:30 pm, Sun, 7:30, church service. Eastern.

WRC, Washington, D. C. 468.5 meters. 1000 watts. Radio *Corp'n. of America. Announcer, Norman Brokenshire. Slogan, "The Voice of the Capitol." Mon, Wed, Fri, 1-0:30 pm. Tues, Thurs, Sat, 1-12 midnight. Eastern.

WREC, Coldwater, Miss. 254 meters. 10 watts. Wooten's Radio & Elec. Co. Announcer, S. D. Wooten. Slogan, "The Most Powerful 10 Watt Station in the World."

WREO, Lansing, Mich. 285.5 meters. 500 watts. Reo *Motor Car Co. Announcer, Roy E. Davis. Slogan, "Watch Reo." Daily ex Sun, 10 pm, weather. Tues, Thurs, 8:15 pm, music. Sat, 10-12 midnight, orchestra. Sun, 10 am, 7 pm, services. Eastern.

WRHF, Washington, D. C. 256 meters, 50 watts Wash*ington Radio Hospital. Daily ex Sun, 11 am, police reports, news. Eastern.

WRK, Hamilton, O. 270 meters. 200 watts. Doron Bros. Elec. Co. Slogan, "The Oldest Station in Existence." Fri, 8:15 pm, music, lecture. Sun, 10:15 am, 7:30 pm, church services. Central.

WRM, Urbana, Ill. 273 meters. 500 watts. Univ. of Ill. *Irregular schedule.

WRNY, New York, N. Y. 258.5 meters. 500 watts. Ex*perimenter Pub. Co. Daily ex Sun, 11:59 am, 12-1 pm; 1-2. Mon, 7:59-9 pm; 9. Tues, Thurs, 7:59-10 pm, 10. Wed, 7:59-10:30 pm, 10:30. Fri, 7:59-11 pm. Tues, Fri, 4:30 pm. Fri, 4:29 pm. Eastern Daylight.

WRR, Dallas, Tex. 272.6 meters 350 watts. City of Dallas. *Announcer, C. H. Garrett.

WRW, Tarrytown, N. Y. 272.6 meters. 500 watts. Tarrytown Radio Research Laboratory. Announcer, Frederick Koenig. Slogan, "Everything in Radio." Daily ex Sun, Wed, 9-11:30 pm. Mon, 7-8 pm. Wed, 10-11:30 pm. Sun, 8-9 pm, 10:30-11:30. Eastern daylight.

WSAB, Cape Girardeau, Mo. 275 meters. 100 watts. Southeast Mo. State Teachers College. Mon, Wed, 3:30 pm, lecture; 9, concerts. Central.

WSAC, Clemson College, S. C. 336.9 meters. 500 watts. *Clemson Agri. College. Announcer, H. E. Gaffney. Off the air until Sept. 1.

WSAD, Providence, R. I. 256 meters. 100 watts. Fosters-Jewelers.

WSAG, St. Petersburg, Fla. 266 meters. 250 watts. *Gospel tabernacle.

WSAI, Mason, O. 325.9 meters. 5000 watts. United States Playing Card Co. Announcer, P. A. Greene. Mon, 10-12 m. Tues, 7-10 pm. Wed, 10-12 midnight. Thurs, 8-10 pm. Sat, 8-10; 12-1:45 am. Sun, 3-4 pm, 8-10. Central daylight.

WSAJ, Grove City, Pa. 229 meters. 250 watts. Grove City College. Announcer, Wm. L. Harmon. College activities. Wed, 7:30-9 pm, music, irregular programs. Eastern.

WSAN, Allentown, Pa. 229 meters. 50 watts. Allentown Call Pub. Co. Announcer, C. Fred Ritter. Tues, Thurs, 8 pm. Eastern.

WSAR, Fall River, Mass. 254 meters. 100 watts. *Doughty & Welch Elec. Co., Inc. Announcer, Charles McCarthy. Daily ex Sun, 12-1 pm. Sun, 10:30-12 m. Eastern.

WSAU, Chesham, N. H. 229 meters. 10 watts. Camp Marienfeld.

WSAX, Chicago, Ill. 268 meters. 20 watts. Chicago Radio Lab.

WSAZ, Pomeroy, Ohio. 244 meters. 50 watts. Chase Elec. Shop. Announcer, Glenn E. Chase. Wed, 9:30 pm, music. Sun, 10:30 am, 2:30 pm. Eastern.

WSB, Atlanta, Ga. 428.8 meters. 500 watts. Atlanta Journal. Announcer, Lambdin Kay. Slogan, "The Voice of the South." Daily ex Sun, 12-1 pm, music, weather; 2:30, reports; 5, orchestra, time story; 8-9, concert (ex Wed) 10:45-12, concert. Sun, 5-6, 7:30-9:15, church services. Central.

WSDA, New York, N. Y. 263 meters. 250 watts. City *Temple. Thurs, 8-9:30 pm, Sat, 10:45-12 m. Sun, 7:30-9:30 pm. Eastern daylight.

WSKC, Bay City, Mich. 261 meters. 100 watts. World's Star Knitting Co.

WSMB, New Orleans, La. 319 meters. 500 watts. Saenger Amusement Co. and The Maison Blanche Co., Daily ex Sun, 12:30-1:30 pm, 6:30-7:30. Mon, Wed, Thurs, Sat, 8:30-10:30 pm. Central.

WSMH, Owosso, Mich. 240 meters. 10 watts. Shattuck *Music House. Announcer, Don Shattuck. Wed, 8 pm. Sat, 10:30. Sun, 10 am, services. Central.

WSMK, Dayton, Ohio. 275 meters. 150 watts. S. M. K. Radio Corp. Announcer, S. M. Krohn, Jr. Slogan, "Watch Dayton's Broadcasting Station." Tues, Thurs, Sat, 8-10 pm. Sat, 11:45-12:30 am, dance music. Central.

WSOE, Milwaukee, Wis. 246 meters. 500 watts. School of Engineering of Milwaukee. Announcer, O. W. Meissner. Slogan, "In the Land of the Sky-blue Waters." Daily ex Sat, Sun, 9-10 am, lecture; 1-3 pm, talk; 5-6:30, concert; 6-6:30, markets. Mon, Fri, 9-12 mid, music. Tues, Thurs, Sat, 7:30-9 pm, music. Sun, 9:30 am, service; 10:30-11:30; 1-3 pm; 7:30-8:30, services. Central.

WSRF, Broadlands, Ill. 233 meters. 10 watts. Dick's and Harden Radio Station. Announcer, "Red" Harden.

WSRO, Hamilton, Ohio. 252 meters. 100 watts. Radio *Co. Announcer, Harry W. Fahlander. Slogan, "We Sell Radio Only." Wed, Fri, Sun, 10-12 midnight. Central.

WSUI, Iowa City, Ia. 483.6 meters. 500 watts. Univ. of *Iowa. Announcer, Carl Menzer. Mon, Tues, Wed, Thurs, Fri, 12:30-1 pm. Mon, 8, music, talks. Sun, 9-9:30, music. Central.

WSY, Auburn, Ala. 250 meters. 500 watts. Alabama Polytechnic Institute.

WTAB, Fall River, Mass. 260 meters. 100 watts. Fall River Daily Herald. Daily and Sun, 0 pm, organ. Tues, Thurs, 8-10 pm. Wed, Sat, 5 pm. Eastern standard.

WTAC, Johnstown, Pa. 267.8 meters. 100 watts. Penn. Traffic Co. Announcer, D. B. Cole. Mon, Fri, 7:30-10 pm. Eastern.

WTAL, Toledo, Ohio. 252 meters. 10 watts. Toledo Radio & Elec. Co. Announcer, E. R. Frank. Slogan: "The Gateway to the Sea." Daily ex Sun, 8:30 pm. Eastern.

WTAM, Cleveland, Ohio. 389.4 meters. 1,500 watts. Willard Storage Battery Co. Announcer, A. R. Herske. Slogan: "The Voice from the Storage Battery." Daily ex Sun, 6-7 pm, dinner program. Mon, 8-12 pm, concert. Wed, 8-1 am. Sat, 8-12 midnight, dance. Eastern.

WTAP, Cambridge, Ill. 242 meters. 100 watts. Cam*bridge Radio & Elec. Co. Announcer, B. Talbot.

WTAQ, Osseo, Wis. 254 meters. 100 watts. S. H. Van *Gorden & Son. Announcer, Mrs. C. S. Van Gorden. Slogan: "The Voice of the Wilderness." Daily ex Sun, 10:30 am, 12:15 pm, 6:15, weather, markets; 6:30, code. Fri, Sun, 7:30 pm. Central.

WTAR, Norfolk, Va. 261 meters. 100 watts. Reliance *Electric Co. Announcer, J. K. Bohannon. Slogan, "Down in Old Virginia." Daily ex Sun, 5:55 pm, weather, tide reports; 6:45, baseball. Eastern.

WTAS, Elgin, Ill. 302.8 meters. 1,000 watts. Charles E. Erbstein. Slogan, "Willie, Tommie, Annie and Sammie." Daily ex Sun, Thurs, 8-11 pm. Thurs, Sun, 7-12, music. Central daylight.

WTAT, Boston, Mass. 244 meters. 100 watts. Edison Elec. Illuminating Co. (portable). Announcer, Leon B. Hentz.

WTAU, Tecumseh, Neb. 242 meters. 10 watts. Ruegg Battery & Elec. Co. Tues, 8:30 pm. Central.

WTAW, College Station, Tex. 270 meters. 250 watts. Agricultural and Mechanical College of Texas. Silent during the summer.

WTAX, Streator, Ill. 231 meters. 50 watts. Williams Hardware Co., Radio Division. Announcer, N. R. Williams. Slogan: "Tappa Kegga Nails." Mon, 6:30-8 pm. Central.

WTAZ, Lambertville, N. J. 261 meters. 15 watts. Thomas J. McGuire. Mon, 8-10 pm, music. Eastern.

WTG, Manhattan, Kan. 273 meters. 50 watts. Kan. State Agri. College. Daily, 9:55 am, 4 pm, weather. Central.

WTHS, Flint, Mich. 218.8 meters. 250 watts. Flint Senior H. S.

WTIC, Hartford, Conn. 348.6 meters. 500 watts. The *Travelers Insurance Company. Slogan, "The Insurance City." Mon, Thurs, 6-7:30 pm; Tues, Fri, 6:50-10:30; Wed, 6:50 pm, baseball. Eastern.

WWAD, Philadelphia, Pa. 250 meters. 100 watts. Wright & Wright, Inc. Announcer, H. W. Feyhl. Slogan, "Penn City Station." Mon, 7:45 pm. Thurs, 7:45 pm. Eastern daylight.

WWAE, Plainfield, Ill. 242 meters, 500 watts. Electric *Park. Announcer, James J. Whalen.

WWAO, Houghton, Mich. 263 meters. 250 watts. Michi*gan College of Mines. Announcer, M. G. Satoren. Off the air until September.

WWI, Dearborn, Mich. 266 meters. 500 watts. Ford Motor Co. Wed, 8-10 pm, music, lectures. Eastern.

WWJ, Detroit, Mich. 352.7 meters. 500 watts. The Detroit News. Announcer, E. L. Tyson. Daily ex Sun, 8-8:30 am, setting-up exercises; 9:30-9:45, household hints; 10:25-10:30, weather; 11:55-12, time; 12:05-12:45 pm, music; 3-3:55, music; 3:55, 4-6, baseball scores, markets. Daily ex Sat, Sun, 6-7, dinner concert; 8, music. Mon, Wed, Fri, 9 pm, orchestra. Wed, 10 pm, orchestra. Sun, 11 am, church service; 2-3 pm, concert; 6:20, Roxy and his Gang. Eastern.

WWL, New Orleans, La. 275 meters. 100 watts. Loyola Univ. Announcer, O. L. Abell. Sat, 8-9 pm. Central.

Argentina

B-1, Buenos Aires, Argentina. Francisco J. Brusa.

LOR, Buenos Aires, Argentina. 350-410 meters. 500 watts. Cia Radio Argentina.

LOV, Buenos Aires, Argentina. 350 meters. 1,000 watts. Francisco J. Brusa.

LOW, Buenos Aires, Argentina. 325 meters. 500 watts. Grand Splendid Theater. Announcer, Luis Diaz.

LOX, Buenos Aires, Argentina. 375 meters. Radio Cultura.

LOY, Buenos Aires, Argentina. Radio Nacional. Announcer, Osvaldo P. Valla.

TCR, Buenos Aires, Argentina. 325-300 meters. 100 watts. Francisco J. Brusa.

Australia

2BL, Sydney, Australia. 350 meters. 5,000 watts. Broadcasters Limited.

2FC, Sydney, Australia. 1,100 meters. 5,000 watts. Farmer & Co., Ltd.

3AR, Melbourne, Australia. 480 meters. 1,600 watts. Associated Radio Co., Ltd.

5CL, Adelaide, South Australia. 375 meters. 5,000 watts. Central Broadcasters, Ltd.

6WF, Perth, Australia. 1,250 meters. 5,000 watts. *Westralia Farmers, Ltd.

Austria

*Graz, Austria. 404 meters. 1,500.

*Vienna, Austria. 530 meters. 500. Radio Wien.

Brazil

SPE, Rio de Janeiro, Brazil. 250 meters. 500 watts. Dept of National Telegraphs.

Bahia, Brazil. Radio Sociedade do Bahia.

Bello Horizontes, Brazil. 50 watts. National Tele*graph Service.

Rio de Janeiro, Brazil. 6,000 watts. Marconi (Radio Sociedade do Rio de Janeiro.

Sao Paulo, Brazil. 320 meters. 20 watts. Radio Bon*deirantes.

Belgium

BAV, Haeren, Belgium. 1,800 meters. 1,000 watts. Daily, 1 pm, 2, 4:50, 6:50, weather.

SRB, Brussels, Belgium. 265 meters. 1,500 watts.

Canada

(The power ratings of the following Canadian stations are given in "oscillating" watts, rather than watts output—the method in which American stations are rated in this directory.)

CFAC, Calgary, Alta, Can. 434.5 meters. 500 watts. *Calgary Herald. Announcer, Fred Carleton. Daily ex Sun, 1 pm, news, markets, music. Wed, 7:45-8:45 pm; Thurs, 9-11 pm. (CNRC) Mountain.

CFCA, Toronto, Ont., Can. 356.9 meters. 500 watts. Toronto Star. Announcer, E. J. Bowers. Daily ex Sun, 12 m., weather, news, stocks; 5:30-6 pm, news, bedtime story. Daily ex Sun, Fri, 8-9 pm. Thurs, 10-11:30 pm, popular program. Fri, 8-9 pm, (CNRT) Sun, 11 am, 7 pm, church services. Eastern.

CFCF, Montreal, P. Q., Can. 410.7 meters. 1500 watts. *Marconi Wireless Telg. Co., Ltd. Announcer, C. Walter Darling. Daily ex Sun, 12:45-1:40 pm, stocks, music. Mon, Fri, 7-7:30 pm, bedtime stories; 7:30-8:30, music; 9-10; 10:30-11:30, orchestra. Wed, 7-8 pm, orchestra. Eastern.

CFCH, Iroquois Falls, Ont., Can. 499.7 meters. 250 watts. Abitibi Power & Paper Co., Ltd. Slogan, "The Call of the North." Experimental station for forest protection.

CFCK, Edmonton, Alta., Can. 510.9 meters. 100 watts. Radio Supply Co., Ltd. Daily ex Sun, 4-5 pm. Wed, 9-10:30 pm. Sun, 4-5:30 pm. Mountain.

CFCN, Calgary, Alta., Can. 434.5 meters. 750 watts. W. W. Grant, Ltd. Slogan: "Voice of the Prairies." Tues, 11:30 pm, Bronco Busters; Wed, 9 pm, Fri, Sat, 10 pm, Sun, (alternate) 11 am, 7:30 pm, service. Mountain.

CFCR, Sudbury, Ont., Can. 410 meters. 200 watts. Laurentide Air Service, Ltd. Off the air.

CFCT, Victoria, B. C., Can. 329.5 meters. 250 watts. Victoria City Temple. Slogans, "Follow the Birds to Victoria," "Canada's First." Tues, Thurs, 7-8 pm, music. Wed, Fri, 8-9:30 pm, concert. Sun, 11 am, 7:30 pm, church services. Pacific.

CFCU, Hamilton, Ont., Can. 340.7 meters. 500 watts. *Jack V. Elliot, Ltd.

CFHC, Calgary, Alta., Can. 434.5 meters. 750 watts. Henry Birks & Sons, Ltd.

CFKC, Thorold, Ont., Can. 248 meters. 75 watts. Thorold Radio Supply. Daily ex Sun, 12-12:30 pm; 5-6. Tues, Thurs, Sat, 8:30-10:30 pm. Sun, 11 am, church service; 2-4 pm, 9 pm, sacred concert, music.

CFQC, Saskatoon, Sask., Can. 329.5 meters. 250 watts. *The Electric Shop, Ltd. Announcer, D. F. Streb. Slogan, "The Hub City of the West Where No. 1 Northern Hard Wheat Grows." Daily ex Sun, 12:15-1 pm, markets, reports, music. Tues, 9-11 pm. Thurs, 9-11 pm, address, music. Fri, 9-11:30 pm, dance program. Sun, 11 am, church service. Mountain.

CFRC, Kingston, Ont., Can. 450 meters. 500 watts. Queen's University. Discontinued temporarily.

CFXC, New Westminster, B. C. 291.1 meters. 20 watts. Westminster Trust Co. and Hume & Rumble, Ltd. Announcer, F. Sterling. Slogan: "Voice of the Fraser River." Mon, Wed, Fri, 7:30-8:30 pm. Pacific.

CFYC, Vancouver, B. C. 410.7 meters. 100 watts. Commercial Radio, Ltd. Slogan, "Canada's Flourishing Young City."

CHBC, Calgary, Alta., Can. 434.5 meters. 750 watts. The Calgary Albertan. Daily ex Sun, Sat, 0-6:30 pm, news, stock quotations, music. Mountain.

CHCM, Calgary, Alta., Can. 434.5 meters. 750 watts. Riley & McCormick, Ltd. Slogan, "Western Canada's Leading Leather Goods Store." Thurs, 8-9 pm. Mountain.

CHCS, Hamilton, Ont., Can. 340.7 meters. 100 watts. Hamilton Spectator. Announcer, H. Earnshaw. Daily ex Sun, 6:45 pm, news, markets, baseball. Sat, 10-12 midnight, dance. Sun, 11 am, 7 pm. Eastern.

CHIC, Toronto, Can. 350.9 meters. 500 watts. Northern *Electric Company. Announcer, R. W. Lowman. Alternate Sat, 9-11:30 pm. Alternate Mon, 10-11:30 pm. Eastern.

CHNC, Toronto. Can. 356.9 meters. 500 watts. Toronto Radio Research society. Announcer, R. H. Combs. Mon, 8:30 pm, concert. Programs CHIC CKNC through this station. Eastern daylight.

CHUC, Saskatoon, Sask., Can. 329.5 meters. 250 watts. International Bible Students' association. Announcer, E. G. Esson. Mon, Wed, 8-10 pm, Sun, 1-2 pm, 7:30-9.

CHXC, Ottawa, Ont., Can. 434.5 meters. 250 watts. J. R. Booth, Jr.

CHYC, Montreal, Que., Can. 410.96 meters. 500 watts. Northern Elec. Co. Announcer, N. S. Richards. Wed, 8:30 pm. Sun, 7 pm. CNRM programs occasionally. Eastern daylight.

CJCA, Edmonton, Alta., Can. 516.9 meters. 500 watts. *Edmonton Journal, Ltd. Announcer, R. A. Rice. Slogan: "The Sunniest Spot in Sunny Alberta." Club, "Igloo Hut." Daily ex Sun, 12:30-1:30 pm, weather, markets. Mon, 7:30-8 pm; 8:30-9:30. Wed, 6-8 pm. Sat, 7:30-8 pm; 9:45-12. Tues, Thurs, 7:30-8 pm, news. Fri, 6-8 pm; 8:30, CNRE. Sun, 7:30-9 pm. Mountain.

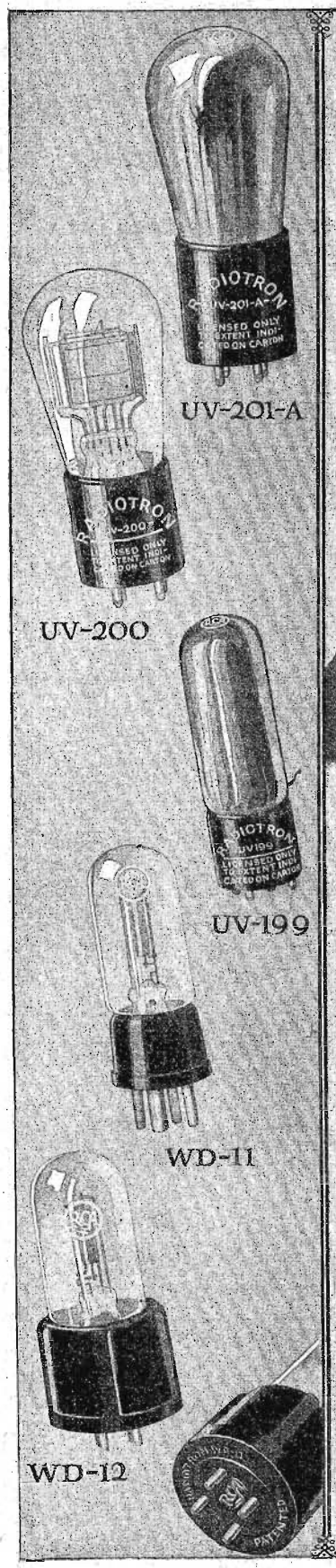
CJCL, Montreal, Can. 270 meters. 10 watts. A. Couture.

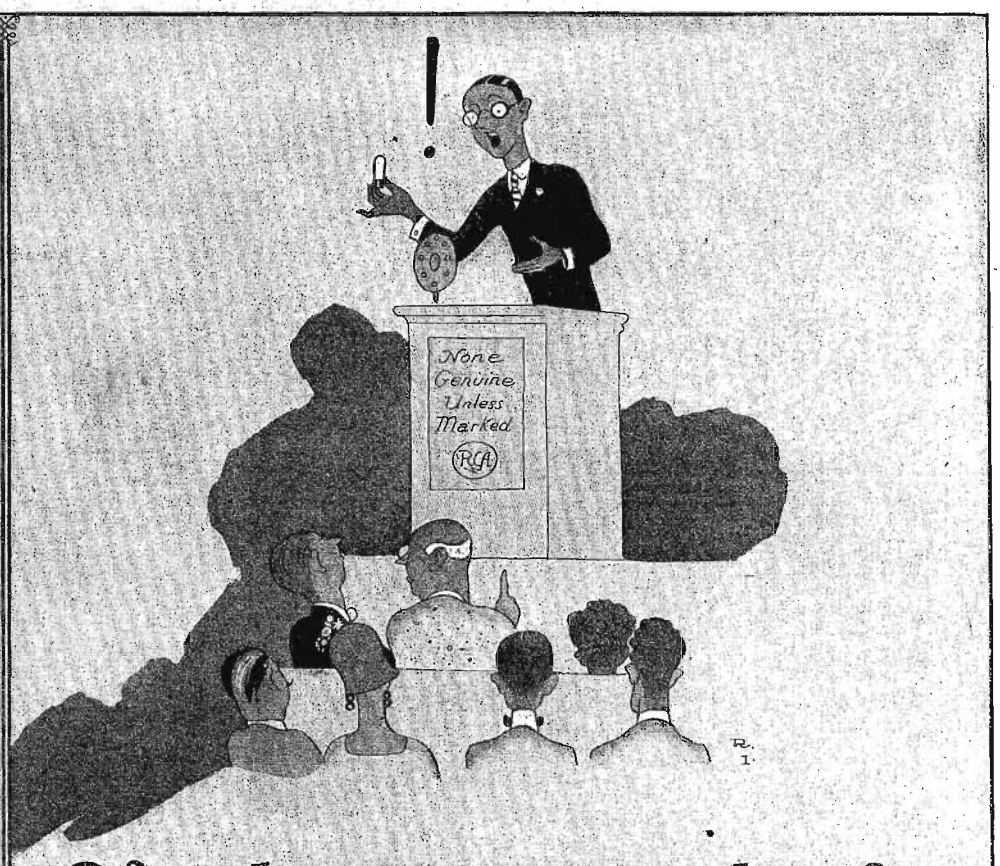
CJGC, London, Ont., Can. 329.5 meters. 50 watts. London Free Press. Daily ex Sun, 1-2 pm, news, stocks, music. Tues, Thurs, Fri, 7:15-8:40 pm. Fri, 11-12 midnight. Eastern.

CKAC, Montreal, Que., Can. 410.7 meters. 1,500 watts. *La Presse. Announcer, Jacques Cartier. Mon, Wed, Fri, Mon. 1:45 pm, orchestra. Daily ex Sat, 4 pm, weather, markets, stocks, road reports. Tues, Thurs, Sat, 7 pm, children's hour; 7:30, concert; 8:30 pm, studio concert; 10:30, dance. Sun, 4:30 pm, sacred concert. Midnight frolics first and third Wednesdays of month. CNRM programs 3 first days of each month. Eastern daylight.

CKCD, Vancouver, B. C., Can. 397 meters. 500 watts. Vancouver Daily Province. Announcer, William Rose. Slogan, "Canada's Western Gateway." Daily ex Sun, 8:30-9:30 pm, music, news, entertainment. Pacific.

(The above listings complete the stations in the United States and part of the foreign broadcasters. Part V consists of a complete location index of stations and the remainder of the foreign list. This appears next week.)





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