RADIO PHOTO 5,000 MILES

PUBLIC SERVICE KEY TO CLARIFIED ETHER

MILLIONS OF VOTES NEEDED TO SPUR CONGRESS

Broadcasting Stations and Readers Aid Radio Digest in Campaign for Less Congestion

CHICAGO.—"I am with you on your proposal to force some legislation to clarify the air." "Best thing Radio Digest has started out to accomplish." "Your campaign will be enthusiastically supported by our Radio club, which boasts two hundred members," etc., until the editor's desk has been completely swamped with letters.

Communications from every section of the United States bear mute witness to the popularity of the "Consensus of Opinion" voting plan and the campaign to lessen the present undesirable congestion of the air.

Last week the Kintner plan was reprinted. It was given to readers so that they could see what some sort of plan would do for Radio. It has at last become evident to listeners that the present unorganized scheme of things cannot long endure.

Radio Is Public Utility

Radio has become too much of a necessary service to the public to be lightly cast aside. It has become a public utility, and all of this without an effective law to guide it. The good judgment of Secretary Herbert Hoover, acting as best he can, has been Radio's only saviour.

The ultimate solution of the congestion problem, Radio Digest believes, will be in

(Continued on page 2)

Miss Dorothy Trombley, cellist of the Trombley Trio, who broadcast from KDKA.

Claire Windsor, blonde movie star, listening during a lull in the filming of one of her pictures. She is an ardent listener.

HONOLULU TO NEW YORK IN 20 MINUTES

Photos Show Navy Game

Record-Breaking Photo Transmission Beats Fastest Transportation by Ten Days

(See Photographs on Page 6)

NEW YORK.—Pictures flashed by Radio traversed the hitherto undreamed of distance of 5,000 miles in the short span of twenty minutes time, when photographs of the war department's manoeuvres at Hawaii were recently sent from Honolulu to New York.

The revolutionary feat of Radio photo transmission beat by ten days the fastest known means of transportation, airplane mail and fast mail ship. If the fastest mail boat leaving Honolulu were to carry the pictures to San Francisco, eight days would be required for the trip, and if an air mail plane at San Francisco carried the photographs to New York, another two days would be consumed.

How Feat Was Accomplished

The pictures transmitted were taken near Honolulu during the recent American army manoeuvres and naval games there. They were developed, converted into electrical impulses of varying intensity, and then transmitted by land wire to the

(Continued on page 6)

Lorraine Allen, "Queen of the Ivories," at Station KFMQ.

BROKENSHIRE GIVES GOLD CUP SURPRISE

SPRINGS FROM OBSCURITY TO 14TH POSITION

Battle Continues for 1925 Title as World's Greatest Announcer—Hay Keeps Lead

Well! Surprises are beginning to show in the announcing ranks. According to Shakespeare, Hoyle or some other person, you can't keep a good man down. To prove this, Norman Brokenshire, one of WJZ's staff announcers came from obscurity and jumped into fourteenth place.

Last week we told you to look for surprises and we meant it. It seemed about time that some dark horse would step into the limelight and try to steal the plaudits of the fans. Norman Brokenshire jumped considerable, but not quite enough, to get into the "fortunate seven."

The "Solemn Old Judge"—George D. Hay, announcer at Station WLS, and winner of last year's Gold Cup—is still in the lead. Six announcers behind him are still in the same respective positions that they were last week. Of course, they have improved their standing by getting additional votes, but the position is still the same.

The Radio Digest Second Annual Gold Cup Award is creating considerable interest throughout the country, as evinced by the large number of votes now being received by the editor of the contest. From every state in the Union, Canada and Mexico, announcers are being nominated by numerous fans, as their choice for the Gold Cup.

Standing of the Leaders

Each week the standing of the sixteen leaders is changing. No one knows who will be favored next week. It is up to the fans. They are the ones who say whether or not an announcer should be up among the leaders. Every week brings a new thrill, a new name, a new favorite. The standing at the close of last week showed the following names as the "first sixteen":

Position	Name and Station	Votes
1.	George D. Hay, WLS	3,599
2.	Graham McNamee, WEAF	2,738
3.	The Hired Hand, WBAP	2,400
4.	Henry Field, KFNF	2,091
5.	H. W. Arlin, KDKA	2,013
6.	N. Dean Cole, WHO	1,692
7.	W. G. "Bill" Hay, KFKX	1,685
8.	Lambdin Kay, WSB	1,[illegible]
9.	Gene Rouse, WOAW	1,[illegible]
10.	Stanley W. Barnett, WOC	1,592
11.	Robert Emery, WEEI	1,534
12.	Adams Colhoun, WFAA	1,510
13.	Charles Erbstein, WTAS	1,4[illegible]
14.	Norman Brokenshire, WJZ	1,353
15.	Leo Fitzpatrick, WDAF	1,346
16.	Jerry Sullivan, WQJ	1,340

Nine new announcers have been nominated for the contest during the past week. Every one of them has as much chance of winning the Gold Cup as the first sixteen men. It will be a little while yet before the winner is picked.

The new announcers are as follows:

CNRA, A. E. Plant; WCBR, Chas. H. Messter; KFTT, Christian Sherrin; WCK, Helen G. Hatfield; KOP, H. O. Raunds; WGY, Ten Eyck Clay; WBAO, Prof. Fred Tounsley; WIBO, Harry Geise; WOAW, Eugene M. Konecky

American Stations Reach Australia on Recent Test

NEW YORK.—First prize for the best broadcasting station to reach Australia was presented to Station WAHG recently. The test was to determine what effect the equinox might have upon Radio waves crossing the equator.

Among the other stations heard in Australia were, WOR, Newark, N. J.; WLW, Cincinnati, Ohio; WCCO, Minneapolis, Minn.; WMAQ, Chicago, Ill.; WOC, Davenport, Iowa, and KFI, Los Angeles.

CONGESTION PROBLEM

(Continued from page 1)

the survival of the fittest. The stations broadcasting the best programs—programs that the public want—in the best way possible, will continue to exist, while those who presist in crowding the air with mediocre material with generator hums and "asides" thrown in for good measure, will be asked to cease operation—by the public.

Service, then, is to be the deciding factor.

Printing Firms and Stations Help

Millions of "Consensus of Opinion" votes (top of page two) are needed. Thousands of these have been sent to Radio Digest already, but hundreds of thousands must be filled in and tabulated into a gigantic appeal to congress. Broadcasting stations are lending their aid and calling the attention of their listeners to the popular campaign.

Five readers owning printing establishments have printed duplicates of the "Consensus of Opinion" voting blank at their own expense and are distributing them by the thousands to their friends.

The less congestion campaign continues. Get every one of your friends to help make broadcasting a pleasure instead of a nuisance. A logical plan for giving first privileges to stations serving the public best, must be presented to congress and made a part of the nation's laws.

The new broadcasting station of the National German Broadcasting industry has just been completed. It will be put into operation as soon as tests have been completed.

CONTENTS

Radio Digest, Illustrated, Volume XIII, Number 7, published Chicago, Illinois, May 23, 1925. Published weekly by Radio Digest Publishing Company, 510 N. Dearborn Street, Chicago, Illinois. Subscription rates, yearly, Five Dollars; Foreign Postage One Dollar additional; single copies Ten Cents. Entered as second class matter at the post office at Chicago, Illinois, under the Act of March 3, 1879.

Looking Ahead

The Year's Most Important Advance in Radio, control of tuned radio frequency so that amplification per tube can be brought up to eight, will be the subject of the new series beginning next week by Milo Gurney. Six articles are scheduled and, to understand the new princple involved, it is necessary that the reader follow them through slowly and carefully. The sets you will either build or buy next fall will utilize this new circuit.

KFAB, the Nebraska Buick Automobile Company Station, will grace page five next week. A number of photographs and the story of this popular broadcaster directed by Gayle Grubb, will be given. WAHG, Richmond Hill, N. Y., and CKY, Winnipeg, are soon to be featured.

Are You Saving Ballots for Your Favorite Announcer? If so, you will be interested in watching the changing standings of the leading—and other—candidates. The Gold Cup Award has a long time to run. Many surprises may be sprung before the competition has ended. Stand by.

Voltmeters, Ammeters and Wavemeters, the instruments by which the Radio man learns what is going on in his circuits, will be taken up next week by Professor Moreton in his A. B. C. course. By the flickering of the pointers, the action of the unseen and very minute forces are unmistakably followed.

FANS WILL SELECT WMBF'S NEW VOICE

PUBLIC TO VOTE ON SUCCESSOR TO J. H. JAY

Applicants Go Before Mike on June 1—Jay to Be Director of the Superstation

MIAMI, Fla.—The whole nation will participate in selecting the new announcer for WMBF, Fleetwood hotel at Miami Beach, when Jesse H. Jay, present announcer, leaves WMBF to direct and announce the new superpower broadcaster soon to be erected here. The announcement has just been made by Com. A. Perry Stolz, owner of the Fleetwood, that starting June 1, several applicants for the position of announcer at WMBF will be permitted to take charge of the microphone.

Jesse H. Jay

Votes from listeners will be requested and the announcer receiving the most votes will be given the position. In case of the vote running close, Radio fans will be given the opportunity of selecting the best man in an elimination contest.

Jesse H. Jay, announcer for WMBF since it took the air, who is famous for his, "It's June down here, folks," will take over the reins at the new 2,500-watt superstation recently announced as in the process of construction at Miami Beach.

The Carl G. Fisher interests, who built and made the Indianapolis Motor Speedway famous, are promoting and supporting the new superpower broadcaster.

Amateur Boxing Tournament Re-broadcast to Argentina

BOSTON, Mass.—Fans in South America recently heard a ringside account of the international amateur boxing tournament held here. The blow-by-blow description was picked up by KDKA from Station WBZ, and then rebroadcast to the broadcasting station "La Nacion," located in Buenos Aires, on short wave lengths.

A number of embryo fistic celebrities from South America attended the fights, and it was for the benefit of their countrymen that the bouts were broadcast.

American Legion Gets Roxy Radio Fund as Endowment

WASHINGTON, D. C.—The American Legion has just had turned over to it as a permanent endowment $85,000 which is what remains of the $200,000 collected by the Roxy Radio fund. This endowment will be administered on behalf of the veterans by the Legion to provide all public and private hospitals and other institutions which are for world war veterans with Radio equipment and maintain that equipment indefinitely.

The historic London broadcasting station on the top floor of the Marconi house has finally closed down. The new station is on the roof of the Selfridge store, operating under the old call letters of 2LO.

STATION GLEANINGS AND NEWSY BRIEFS

SUNDAY MORNING CHIMES FROM STATION WJZ

American Legion Night at KOA May 29—Operatic Numbers May 28 From Station CNRW

Sunday morning does not seem complete somehow without the sound of church bells wafting through the morning air, and with this in mind, Station WJZ is going to supply the Radio audience with such an atmosphere every Sunday morning at 10:40.

* *

Friday, May 29, will be American Legion night over KOA, Rocky Mountain broadcasting station. The entire program, beginning at 9:10 p. m., Central time, will be given under the auspices of Post No. 10 at Boulder, Colo.

* *

A program of operatic numbers in which several of Winnipeg's prominent operatic singers will take part, is announced by Station CNRW on the night of Thursday, May 28.

* *

Every Tuesday evening, Station WEBJ, New York, will broadcast one and one-half hours of dance music. It will begin at 7 o'clock, when Dan Barnett's orchestra will take the air. At their conclusion, McLean's dance orchestra will follow.

* *

Daylight saving time means an extra hour of work for Arthur Bagley, director of the Tower health exercises. The reason is that while WEAF and WEEI have switched to the new time, the Washington crowd get their exercises from WCAP, faithful to standard time.

* *

Mary Lawton, former actress, now devoting herself to literary pursuits, will continue her series of talks from Station WJZ. Her talks are on the life of the Clemens family, particularly Mark Twain, as told to her by an old servant of the family, one Katie Leary.

* *

The Neapolitan trio, consisting of two dark-skinned natives of Italy and a white cockatoo, recently gave an afternoon concert from WGY, officially announcing the presence of spring.

* *

The WEAF grand opera company was recently heard giving Verdi's opera "Rigoletto." This is an opera in three acts and the text is by Piave adapted from Hugo's drama, "Le Roi S'Amuse. The scene is laid in Mantua and vicinity in the sixteenth century.

* *

One of the most unusual gatherings of stage and screen folk was held in the Gimbel brothers store in Philadelphia May 12. Station WIP, the official station of the store, broadcast the event, which was one of the largest ever handled.

* *

"Lucia di Lamnermoor," was recently broadcast from Station WGY, Schenectady, N. Y. This is one of a series of grand operas presented by WGBS and it is the first time that the General Electric company station has been linked with WGBS.

* *

The Eveready hour broadcast Tuesday evening, May 12, gave the play, "A Pair of Shoes," through Stations WEAF, New York; WFI, Philadelphia; WEEI, Boston; WEAR, Cleveland; WCCO, Minneapolis-St. Paul; WOC, Davenport and WSAI, Cincinnati.

* *

Brooke Johns, banjoist and entertainer, recently entertained fans from Station WOR, Newark, N. J. His banjo has been autographed by President Coolidge and the Prince of Wales.

* *

Station KSD recently broadcast the music and dialogue of a special pageant given by the Catholic Students' Mission crusade, a national organization, from the stage of the Municipal theater in Forest park, St. Louis.

More Stations for Chicago Are Now Ready to Operate

CHICAGO, Ill.—This city continues to add to her already large number of stations. The two latest additions are WFKB and WIBO. Station WFKB is on 217.3 meters using 300 watts. WIBO is at the present time enlarging their station, and will operate on 226 meters using 500 watts.

Station WCBZ, located at Chicago Heights, Ill., is now on the air using 217.3 meters wave length and 50 watts.

Desirlug a new antenna, a youth in England cut down a heavy ash tree thirty-one feet long and dragged it for more than a quarter of a mile to his home. The judge did not sympathize with him, but fined him $5.

YACHT ZENITH WILL REPORT YACHT RACE

CHICAGO.—"Blow-by-blow" details of the Chicago Yacht club Mackinac race will be broadcast "direct from the waves," according to Commander E. F. McDonald, Jr., whose 96-foot yacht "Zenith" will follow and broadcast the race, with the call WSAX. The yacht is equipped with a 1000-watt transmitter and will broadcast simultaneously on 268 and 51 meters.

MYSTERIOUS ARTIST REMAINS UNKNOWN

CINCINNATI.—The unknown artist who recently presented child dialect readings of James Whitcomb Riley's poems from Crosley station WLW still remains a mystery. She will return to WLW Wednesday, May 27, when listeners will be invited again to guess by phone, mail or telegraph who the reader is and her age. She has created a sensation with her child readings.

MADGE THINKS RADIO'S THE THING

Scintillating, sparkling Madge Kennedy, star of stage and silversheet, is one of the more broadminded members of the acting profession who thinks that Radio will never be a detriment to motion pictures or the legitimate stage, but that when properly used can be of real aid in stimulating the interest in and attendance at the shows. Miss Kennedy has been heard over nearly a score of broadcasting stations and so can add "broadcast artist" to her long list of accomplishments.

ABE LYMAN HOLDS BIG PARTY FOR KNX FANS

Never Realized His Large Acquaintanship Among Devotees

LOS ANGELES, Calif.—Abe Lyman, leader of the famous Los Angeles Ambassador hotel Cocoanut Grove dance orchestra, did not know how many friends he had until he breadcast an invitation for all his Radio friends to attend an all day picnic and dance to be held at La Joya Lodge, a hill and canyon estate about forty miles from Los Angeles.

La Joya can accommodate about 40,000 people nicely and although it was impossible to obtain an accurate estimate of the number who accepted Abe's kind invitation due to the rugged nature of the canyon country, still it was some big party as traffic officers stations on the roads leading to La Joya will readily admit.

Mystery of WEAF Singer Is Causing Plenty of Comment

NEW YORK.—With the receipt of 2,000 letters by WEAF inquiring as to the name of "The Man in the Silver Mask," who is heard with the Silvertown Cord orchestra, the whole thing still remains a deep-dyed mystery.

DERBY MAKES RADIO BOW ON TWO MIKES

WGN TO HANDLE 500-MILE SPEEDWAY RACE NEXT

WHAS and WGN Make First Broadcast of Classic Horse Race at Churchill Downs

LOUISVILLE, Ky.—Broadcast by Station WHAS here, and WGN, Chicago, by remote control, the famous Kentucky Derby on May 16, for the first time in history was heard by all Radio fans within the range of these two stations.

WHAS, owned by the Courier-Journal, the famous newspaper of the south, made famous by the late Colonel Henry Waterson, began its program at noon with talks and readings by world-famous authors and writers who vividly portrayed the locale of the classic horse race. Credo Harris, novelist and director of WHAS, was responsible for the program which included readiug of the famous news story of 1889, "How the Derby Was Won," by Gen. Harrison Carter.

At the track WHAS had microphones in the cupola, on the grandstand, the bandstand and on the track. Even the musical rytbm of the horses hoofs pounding the turf could be distinguished by listeners.

WGN's Part in Derby

WGN with its corps of announcers headed by Quin Ryan, made the Derby extremely interesting for everyone. The Chicago station was connected by telephone wires with the Churchill Downs track at Louisville, where microphones were located in the cupola, the dinfog hall, and just above the heads of the enthused spectators in the grandstand.

A fourth WGN microphone was used in the press box by Jack Dempsey, the world's best known racetrack "clocker," who called every race as it was run, following with a summary. And even the ever-changing odds were reported to the Radio audience as fast as they were posted on the rear board—faster than even the fleetest "bookie's telephone system" could carry them.

500-Mile Races Next Week

The Indianapolis Speedway 500-mile race on Decoration Day, May 30, will be the next sport classic to be broadcast by the ever vigilant WGN, of Chicago, with Quin Ryan playing the leading part.

From 9 a. m. to 4 in the afternoon, Central standard time, this gripping speetacle will be on the air. Microphones in the "pits," the grandstand, bandstand and the announcer's private tower studio, will capture everything and bring it to the homes of the listeners.

The music of the Speedway massed band of 1,075 pieces, the shouts of the crowd and the purring roar of the speeding cars —all will be there, right in your loud speaker.

Station Changes

Station WEBR, owned by the Howell Electric company, Buffalo, N. Y., moves up a bit. It recently held the formal opening of its new studio in the Bramson building with a big program. This station now operates on 244 meters with 250 watts. WEBR made its bow to the Radio fans six months ago with only five watts capacity.

* *

Preparation for the opening of Station CNRV, the latest of the Canadian National Railway's chain across Canada, are proceeding rapidly. The new station will come on the air early in June, it is expected, and will be one of the most powerful in the Dominion.

* *

A change in the wave length of Station CNRR at Regina, Saskatchewan, is announced as a result of the conflict between the wave length of 312.3 meters recently allotted with those of Minneapolis and Denver. The Regina station of the Canadian National chain is now on a wave length of 356 meters.

Woman Wants Radio Divorce

LONDON, Eng.—English law courts were startled recently when a woman asked that the divorce decree be sent to her by Radio. She intended sailing for America to remarry, when she found that the decree would not be made absoluto until after she had sailed. The request was refused, but she was told her lawyers could Radio the "good news" to her.

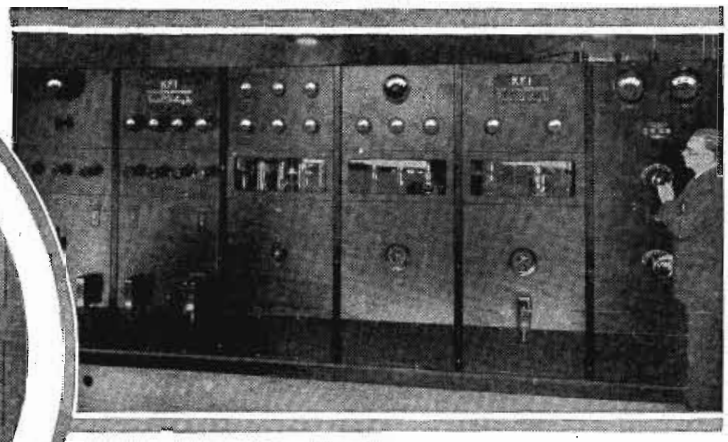
Coolidge Protograph for KFI

LOS ANGELES, Calif.—KFI is in receipt of an autographed photograph of President Coolidge, which is framed and displayed in the reception room with one of Herbert Hoover, also dedieated to the station. The broadcasting activities of botb men have been peculiarly bound up with KFI.

KFI—The "Radio Central Superstation"

Control room, showing operator sitting at desk. He has a clear view of the transmitting panel through a plate glass partition.

Earle C. Anthony, owner of KFI, telling the fans what he thinks of the Packard automobile. He distributes them!



Control panels for KFI's 5,000-watt transmitter which is behind.

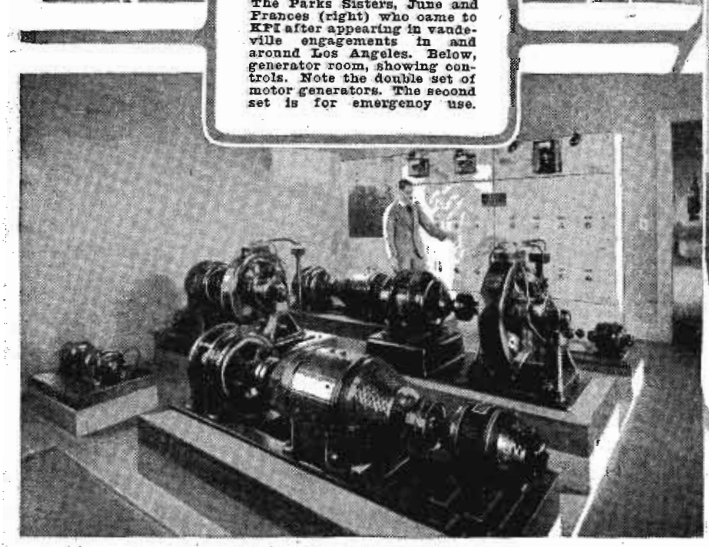
A HIGH degree of foresight and vision, and several times that much financial courage is necessary for an individual or company, in no way connected with Radio in the commercial sense of the word, to spend around $200,000 in three years in an endeavor to foster a new means of entertainment and put it on a high plane, when there is no assurance of any kind that the venture will turn out to be more than a steady drain on the pocketbook. Earle C. Anthony, motor car distributor of Los Angeles, Is such a man, and his station, KFI, is just such a station as one would expect him to operate.

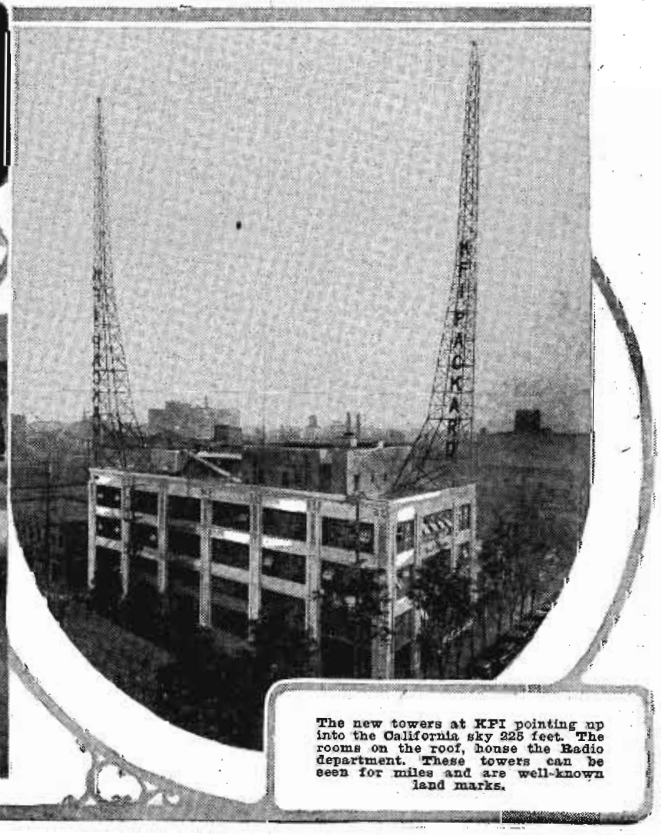
In the fall and winter of 1921, when the first big Radio craze was sweeping the United States, Mr. Anthony became deeply interested in the broadcasting side of Radio and realizing its future and possibilities, in the spring of 1922 he put the first KFI call on the air. Since that time, Easter Sunday, 1922, KFI has been on the air daily without exception and has grown with remarkable speed from the puny 50-watter that put phonograph selections on the air to the immense plant that it now takes to house and operate the 5,000-watt superstation. There are several sound fundamental ideas back of KFI's growth—ideas backed by a lot of money that business associates have pointed out as merely thrown away.

The ultimate will never be reached, but KFI has gone a long way toward the goal set. The first 50-watt set did not serve long before it was decided that 100 watts was the minimum a broadcast station should use, and accordingly a station of that size was erected. It is still a pleasant memory to those who remember it.

But soon after the 100-watt station was in operation the 500-watt Western Electric sets showed their worth and one was purchased for KFI, going on the air January, 1923. Although the 500-watt set gave yeoman service for two years without missing a program, Mr. Anthony realized it was far from perfection, and in the spring of 1924, hearing that the Westeru Electric company would soon market a new Type D 5-K.W. set, far superior to anything on the market, a trip to New York was made, the outcome of which was the signing of a contract for the first 5,000-watt station of the new type. According to contract the new transmitter was the first of its type to be erected and the first to go on the air, making its initial bow to Radioland on December 30, 1924. A feature at the time was the switching over to the new set from the old in less than two minutes. Mechanically and electrically, the new KFI set is as near perfection as science can produce at this time. It is a beauty of design and finish. To grasp an idea of its size realize that the control room only for the new set is the exact size required for the 500-watt type of Western Electric set and the new set, in addition to the control room, occupies two other rooms of at least double that space each.

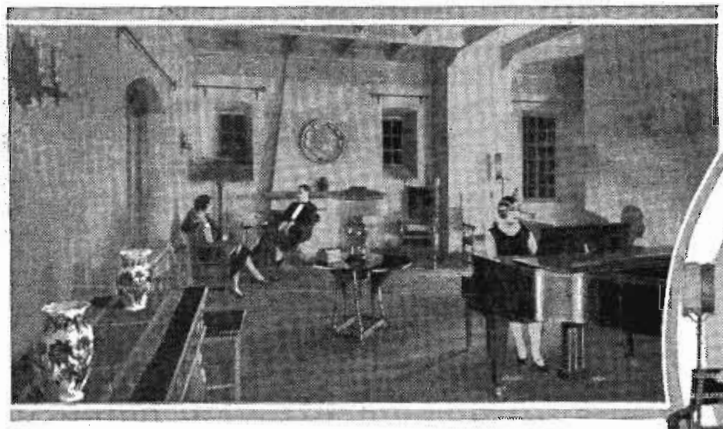
The Parks Sisters, June and Frances (right) who came to KFI after appearing in vaudeville engagements in and around Los Angeles. Below, generator room, showing controls. Note the double set of motor generators. The second set is for emergency use.





The new towers at KFI pointing up into the California sky 225 feet. The rooms on the roof, house the Radio department. These towers can be seen for miles and are well-known land marks.

A Dream of Earle C. Anthony, Los Angeles



Another view of the supplementary studio. The window on the left is the one through which the activities in the main studio may be viewed.

A feature of the superset are the four 10,000-volt rectifying tubes. These tubes have a special aluminum jacket through which cooled water flows continuously while they are lighted. Should the temperature of the water rise much above normal of 100 degrees, or the water pressure vary, a thermostat automatically shuts the set down to prevent damage. Likewise, it is impossible to start the set until the water is circulating around the tubes.

On a desk near the main panels sits the finest super-heterodyne receiver made with which it is hoped to do some experimental rebroadcasting of eastern stations. The control room is next to the transmitter room and the operator handling the remote control board can watch through a plate glass window and signal to the engineer handling the main panels. The switchboard and generator room flank the transmitter at the other end. To insure continuous programs under any condition the generators and pumps are in duplicate. In case of breakdown of a unit it is merely the matter of a split second to put another into operation.

A step from the control room is the office where a good-sized force is kept busy sorting, classifying and answering the mail, which amounts to over 1,000 letters daily. It is the nerve center of the station, but to say that Mr. Kales and Carl Haverlin, the able publicity and advertising men of the Anthony organization, are nervy would be unkind. At a desk in one corner Paul Reese, the studio directer, holds forth, and close by F. N., Fred Norton, is spending his spare time in patching up a program that caught the heebie-jeebies at the last minute.

As you go along there is a realization that all this equipment has meant a lot of painstaking work and detail, but it is not until the studio doors are opened that one begins to realize the time, expense and care it has taken to make the present KFI from the humble start of only three years ago. For it is the studio, after all, that makes the impression upon the artist and it is this vague thing called "atmosphere" that so vitally effects the brilliance of a song or solo as it is sung or played before the lifeless microphone.

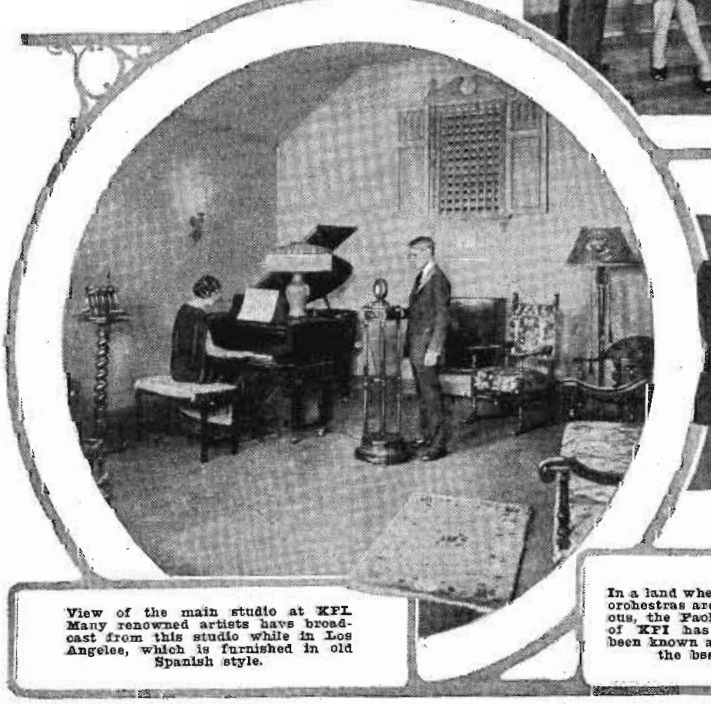
Like a breath from the past is KFI's studio. In keeping with the traditions of old California, the decorations and furnishings are reminiscent of the time when the padres founded their tiny settlements on the brown California hillsides and builded their adobe missions that still stand well-pre-

(*Turn to page 6*)

Supplementary studio at KFI. Two loud speakers are hidden in the walls to furnish music to waiting artists.

Paul Reess, popular announcer and program director of KFI. He is the author of many popular songs.

Doors leading from reception room to the studios. A doorman keeps visitors out while artists are broadcasting.



View of the main studio at KFI. Many renowned artists have broadcast from this studio while in Los Angeles, which is furnished in old Spanish style.

In a land where dance orchestras are numerous, the Packard Six of KFI has always been known as one of the best.

Sensational Circuit Disclosure!

DURING the past few weeks imporant advances in Radio have been developed that will effect the ENTIRE RADIO INDUSTRY — will increase range and volume to a degree heretofore not even approached. Working independently, three well-known authorities have been experimenting with Tuned Radio Frequency and have reached the same logical solution.

Radio Digest "scooped" the world by securing first and exclusive information on the work of all three—the work which will be embodied in next season's receiving sets. Manufacturers have paid unbelievable sums just to look at the circuits before contracting for a license. Many have tied up with these engineers and are planning their 1925-26 production on this revolutionary advance in circuits.

To present this development that all our readers may understand it, we have arranged with M. A. Gurney, known to all in the industry as "Milo," and famous for the Miloplex group of sets, to write a series of articles taking our readers clearly and logically through the history of Radio frequency amplification into this new stage. Working constants and data for experimentation will be given and, later, a series of articles on the construction of a set.

Be sure to get the issne of May 30! Save it. Then get the following issues. You will then have the complete advance story on one of Radio's greatest forward strides —yon will know what is in the sets that lead the field next fall. Better results on fewer tubes.

RADIO PHOTO RECORD

(Continued from page 1)

trans-Pacific Radio-telegraph station at Honolulu. Here the electrical impulses were converted to Radio signals and transmitted across the Pacific ocean to a receiving station in San Francisco. From this point the impulses were sent by land wire to the transcontinental Radio-telegraph station at Bolinas, near San Francisco bay, which station sent the picture impulses across the continent to Riverhead, L. I., receiving station of the Radio Corporation of America. At this point the impulses were again put on land wires to New York city, where the pictures were transcribed on the special device which turned the tiny electrical impulses into light rays to which a photographic plate was exposed.

In the three land wire and two Radio jumps, the apparatus was untouched by human hands, the receivers and transmitters relaying the pictures automatically.

At the Broad street office of the Radio Corporation, a score of newspaper men and scientists breathlessly awaited the test. At its conclusion their awe will be long remembered. The longest Radio photo transmission had been successfully accomplished. The Pacific ocean and the United States had been bridged by the new invention.

The spectators were enthusiastic over the accomplishment.

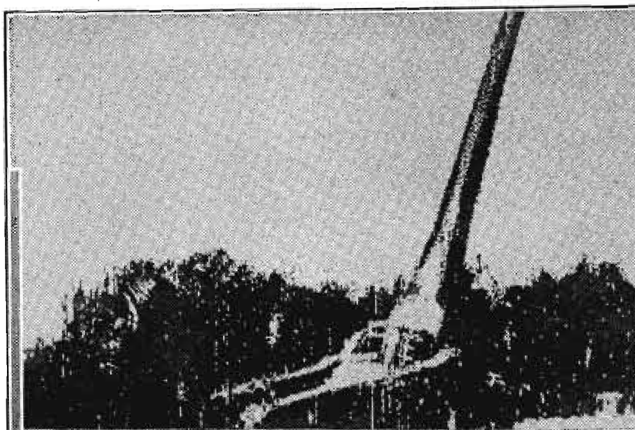
This is the severest test to which any picture transmission system has ever been snbjected. A year ago the Radio Corporatiou of America sent pictures with success over a loop from New York to London and return. That was a shorter distance and it was practically all over water. The Honolulu to New York feat included a 2,650-mile overland lap.

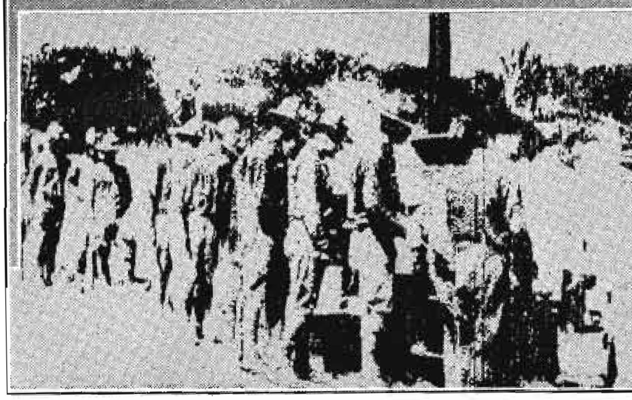
KFI—LOS ANGELES

(Continued from page 5)

served in that beautiful land. The sombreness is broken somewhat by flashes of Chinese carved work aud screens, but the main motif is that of California at the time of the Spanish conquistadors.

A novel type of receiver has been made by a fan in Glasgow, Scotland. It consists of a crystal set disguised as a barometer.

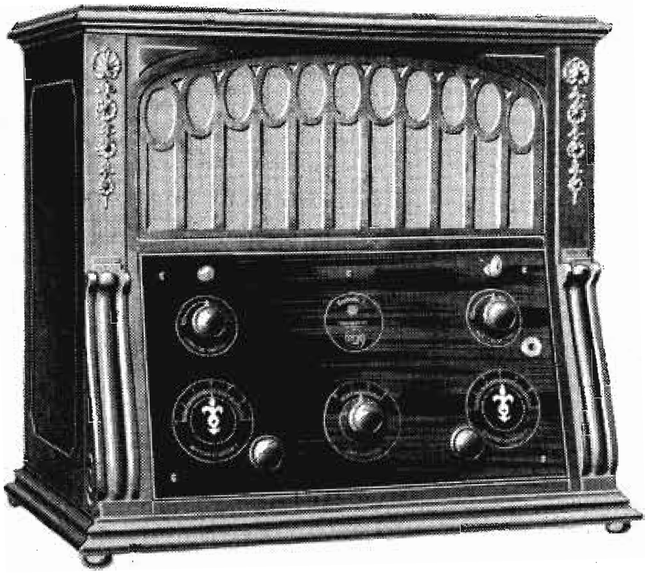




Above are two of a series of photographs flashed by Radio in twenty minutes each from Honolulu, Hawaii, to New York city. The record-breaking feat spanned a distance greater than 5,000 miles. Fast boats combined with air mail plans would have required ten days at the best to bring the pictures from Hawaii to New York. The top picture is of one of the large Hawaiian defense guns, and the lower is—can you guess?—a line of doughboys taking mess at the field kitchen. The photographs are reproduced here exactly as received. No retouching was permitted!

Operating and Trouble Shooting

For the Owner of Radiola X



THE Radiola X Receiver using four WD-11 tubes is a complete Radio receiving set with self-contained loud speaker and provision for internal batteries, mounted in an attractive mahogany cabinet. It contains everything necessary for operation, except the antenna and ground connections and the necessary batteries. Its design permits one to cover the entire broadcast band and it will tune to all wave frequencies between 1400 and 540 kilocycles, 220 to 550 meters.

The circuit employed is the newly developed Regenoflex circuit, designed to eliminate radiation, and also to give selectivity to a degree unapproached by the usual antenna type of receiver.

Equipment

Radiola X is supplied completely equipped with tubes but it will be necessary to purchase batteries additional, besides the antenna and ground wiring. The A, B and C batteries obtained should be as follows: A battery, six 1½-volt dry cells, such as Burgess Radio A Dry Cell No. 6, Eveready Radio A Dry Cell No. 7111, Manhattan Red Seal Dry Cell No. 2445, Ray-O-Vac Radio A Dry Cell No. 1211, or any other make of good dry cell having a diameter of 2½ inches and a height not exceeding 6½ inches and having screw and thumb nut terminals.

The B battery should consists of four 22½-volt units connected in series of any of the following: Burgess No. 5156 B P Plate battery, Eveready No. 768 Plate battery, Ray-O-Vac No. 5151 B P Plate battery, or any other good make of Radio B battery whose base dimensions do not exceed 4¼ by 2¾ inches. Leads are arranged for intermediate size batteries with lead and binding post as listed above. Other intermediate size batteries may be used or some of the new vertical types such as Eveready No. 764 and Burgess No. 5158.

Only one C battery unit is necessary and should be Eveready No. 771 Grid battery, Ray-O-Vac No. 231-R Grid battery, Burgess No. 2370 Grid battery, or any other good make of three cell battery, whose dimensions do not exceed 4 by 1⅜ inches.

Antenna

Outdoor Type.—In general, best results will be obtained with an outdoor antenna, from 75 to 150 feet long, including the lead-in wire, and from 20 to 35 feet above the ground. If the suggested length and height cannot be secured, approach them as nearly as possible. So far as it is possible, the antenna should be located in a space above the tops of surrounding buildings and trees. It should not be touched by any object except the antenna insulators. The same precautions apply to the lead-in wire which should be a continuation of the antenna wire without any joints, and should run as directly as possible to the receiver. The antenna should be at right angles to electric light, traction, power and other wires which may cause objectionable noises. If practicable, the antenna should be at least 15 feet distant from such wire lines and other aerials.

Outdoor aerials having a length up to 150 feet should be used since louder signals and greater distances can thus be secured. Proper volume control and selectivity will be obtained by adjustment of the "Volume Control" knob, regardless of the size of the antenna, provided the length does not exceed 150 feet approximately.

Indoor Type.—For local reception, satisfactory results may be secured by using only 20 to 30 feet of ordinary double cotton covered bell wire, No. 18 B. & S., strung around the picture moulding. It may also be run the length of an attic. Such an antenna will not be satisfactory in a building with a metal lath under the plaster. A loop aerial can be used for nearby local reception.

Ground

A good ground is as necessary as a good antenna. Perhaps the best ground is a good electrical connection to a water pipe. If this is not convenient, a connection to the steam or hot water heating system will serve unless there is a bad joint in the piping. Connections to gas pipes should not be used. If nothing of this nature is available a pipe or metal rod may be driven into the ground to a depth of several feet, preferably where the soil is moist. The ground connection should be made with a ground clamp, the wire being soldered or held by clamping under a screw or nut. Be sure to scrape and clean the pipe thoroughly before attaching the ground clamp. Usually, connecting to more that one ground, for instance, to both water and steam pipes, will improve reception.

Operation

Volume Control.—The control so marked serves to regulate the transfer of energy between the two tuning circuits. Thus it regulates the strength of the signal. It also governs the selectivity of the set, that is, the further the "Volume Control" is turned toward the left, the more easily can various stations be separated.

Battery Setting.—The control so marked serves to turn on and regulate the current to the filaments of the tubes. When the set is not in use, either the lock directly above this control should be in the locked position with the key vertical or else the pointer of the "Battery Setting" should be turned as far to the left as possible. When it is desired to operate the set, unlock it and then turn the "Battery Setting" pointer until it rests on the mark diagonally upward to the right. With new dry cells in the A battery, this adjustment will give the proper current through the filaments. As the cells become old, it will be necessary to turn the "Battery Setting"

(Continued on page 20)

COO COO CLUB TO ORGANIZE AT WTAM

Saturday, May 23

Saturday, silent night for: CFAC, CHNC, CHYC, CNRT, CKY, KFAE, KFDM, KFKU, KFKX, KFMQ, KFMX, KFRU, KFUR, KLX, KOB, WBAP, WBAV, WCAU, WCBD, WCX, WDWF, WEAO, WEAR, WEBJ, WEEI, WEMC, WGR, WGST, WHA, WHAD, WHAZ, WHB, WHO, WIP, WJAX, WJAQ, WMAK, WOAI, WOI, WOO, WOS, WSAC, WSUI, WTIC, WWJ.

Atlantic or Eastern Daylight Saving Time Stations

CKAC, Montreal, Can. (410.7), 7 p. m., kiddies stories; 7:30, Windsor hotel dinner concert; 8:30, studio program; talk on Quebec, Hon. J. A. D. Caron; 10:30, Windsor hotel dance orchestra.

WAHG, Richmond Hill, N. Y. (315.6), 12-2 a. m., dance music.

WBBR, New York, N. Y. (272.6), 8 p. m., Dr. Hans Haag, violinist; 8:10, Fred Tevarosch, tenor; 8:20, Bible questions and answers; 8:45, Dr. Hans Haag.

WCAE Pittsburgh, Pa. (461.3), 2:30 p. m., tea-dansant music; 4, orchestral program; 6:30, dinner concert, William Penn hotel; 8, address; 8:30, K of C. concert.

WEAF, New York, N. Y. (491.5), 6:45-7:45 a. m., Metropolitan tower health drill; 4-4:25 p. m., Gene Ingraham's Great Notch inn orchestra; 4:25-4:35, B. Lee Gilhain, baritone; 4:35-4:50, Gene Ingraham's orchestra; 4:50-5, Leila Troland-Gardner, singer of Negro spirituals; 6-7, dinner music, Waldorf-Astoria; 7-7:15, Nemo male quartet; 7:15-7:30, Joy Babcock, violinist; 7:30-7:50, "Trips and Adventures," Fred Turner; 7:50-8:05, Rosalia Chalia, soprano; 8:05-8:15, Nemo male quartet; 8:15-8:45, Huyler's Foremost Four; 8:45-8:55, Rosalia Chalia; 8:55-9:10, Kathleen Maloney, pianist; 9:10-9:25, Anderson quartet, Margaret Northrup, soprano; Rosa Hamilton, contralto; Stael Jamison, tenor; Maury Pearson, bass; 9:25-9:40, Rudolph Luks string ensemble; 9:40-9:55, Anderson quartet; 9:55-10:10, Rudolph Luks string ensemble; 10:10-10:25, George Dale, tenor; 10:25-10:35, Original Pierian Mandolin club, direction of W. J. Kitchener; 10:35-10:45, George Dale; 10:45-11, Original Pierian club; 11-12, Vincent Lopez's Hotel Pennsylvania orchestra.

WFI, Philadelphia, Pa. (394.5), 1 p. m., Meyer Davis Bellevue Stratford concert orchestra; 2, Henry Krack and his Collegians dance orchestra; 2:30, Harmony trumpeters; 4, George Hargas' Collegians; 6, Roy Elrae and his dance orchestra; 6:30, Bellevue Stratford concert orchestra; 7, bedtime stories; 8, Citizens' Military Training talk.

WGBS, New York, N. Y. (315.6), 10-10:10 a. m., "Timely Talks," "Terese;" 10:10-10:40, Eleanor Schorer's kiddie klub program; 10:40-10:50, Jeanne Metz, pianist; 1:30-1:35 p. m., Scripture reading; 1:35-2:30, Carolyn Munter, pianist, and program by Oscar Ehrgott studios; 3-3:10, interview with Frank G. Wadsworth of the Y. M. C. A., Terese Nagel; 3:10-3:20, guitar duos, Straub and Lambreth; 3:20-3:30, talk, Victor De Pauw; 3:30-3:40, Straub and Lambreth; 3:40-3:50, Jefferson Memorial talk; 3:50-4, Straub and Lambreth; 6-6:30, Uncle Geebee; 6:30-6:50, the Amphions; 6:50-7:10, Peggy Wynne, soprano; 7:30-8:30, Ritz-Carlton hotel orchestra; 8:30-8:40, "View Points," Captain Archibald; 9-9:15, Louise Baxter, contralto; 9:30-9:45, Warren Scofield, baritone;

Raymond Dettlaff will give piano duets with Victor Hamm, Monday at WHAD, Milwaukee. Mr. Dettlaff is one of Wisconsin's best known amateur musicians and but recently turned down an opportunity to go on a vaudevile tour.

10-10:30, Erma Riedo, soprano; 10:30-11:30, California Ramblers.

WGR, Buffalo, N. Y. (319), 2:30-4:30 p. m., WGR's afternoon musical, A. J. Erlsman, director.

WHAR, Atlantic City, N. J. (275), 7:30 p. m., Seaside hotel trio; 9, Shelburne hotel concert orchestra.

WHN, New York, N. Y. (360), 7:30-7:35 p. m., health talk, Dr. Landis; 8:30-9, Strand Roof orchestra.

WIP, Philadelphia, Pa. (508.2), 7 a. m., setting-up exercises; 10, special menu talk; 10:20, setting-up exercises; 10:50, beauty talk, Maude Deisell; 1 p. m., organ recital, Karl Bonawitz; 3, Plectrum orchestra; 5:04, songs, Charles Higgins; 6:15, Clarence Seamon's concert orchestra; 7, Uncle Wip's bedtime stories; 8, WIP annual revue from Metropolitan opera house; 10:04, Benjamin Franklin dance orchestra; 11:05, organ recital, Karl Bonawitz.

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

WIZ, New York, N. Y. (454.3), 1-2 p. m., Erdody's Park Lane orchestra; 2-4:30, Child's Cup Race—Harlem River; 4:30-4:32, baseball scores; 4:32-5:30, tea music; 5:30-5:32, baseball scores; 5:32-6, daily reports; 7-7:02, baseball scores; 7:02-8, Hotel Astor concert orchestra; 8-8:30, guitar and songs, Mark Lucas; 10:30-11:30, Joseph Knecht's Waldorf-Astoria orchestra.

WLIT, Philadelphia, Pa. (394.5), 12:02 p. m., daily almanac; Stanley theater organ recital, Arcadia cafe concert orchestra; 2, Arcadia concert orchestra; 2:30, Maybelle Glantz, contralto; Emil Fritz, flutist; Marcella North, accompanist; 3:30, dance music; 7:30, Arcadia cafe concert orchestra.

WMCA, New York, N. Y. (341), 3-5 p. m., popular program; 8:15-8:25, talk, House of Health; 11-12 Ernie Golden and his Hotel McAlpin orchestra; 12-1 a. m., Broadway Bright Lights.

WNYC, New York, N. Y. (526), 7-7:25 p. m., dance music, Chateau Four; 7:25-7:30, baseball results; 7:35-7:50, talk, "The Theatres of the City of New York," Mayor John F. Hylan; 7:50-8:15, piano recital; 8:15-9:30, annual concert of the Kriens Symphony club.

WOO, Philadelphia, Pa. (508.2), 11 a. m., organ recital, Mary E. Vogt; 12:02 p. m., Golden's tea room orchestra; 4:45, organ recital, Mary E. Vogt.

WOR, Newark, N. J. (405.2), 6:15-7:30 p. m., "Music While You Dine;" 11-12, Ciro's orchestra.

WPG, Atlantic City, N. J. (299.8), 6:45 p. m., Arthur Scott Brook, organist; 7, Hotel Knickerbocker dinner music; 9, Hotel Ambassador concert orchestra; 10, Hotel Traymore dance orchestra; 11, Hotel Knickerbocker dance orchestra.

Eastern Standard or Central Daylight Saving Time Stations

CHIC, Toronto, Can. (357), 9 p. m., Little Symphony orchestra; Grace Stewart Fydell, contralto; Norma Wilcox.

CNRO, Ottawa, Can. (435), 8 p. m., Chateau Laurier concert orchestra; program, Ottawa public school children; Chateau Laurier dance orchestra.

KDKA, Pittsburgh, Pa. (309.1), 2:30-7 p. m., baseball scores; 8:45, concert; 10:10, baseball scores.

KYW, Chicago, Ill. (536), 6:35-7 p. m., children's bedtime story; 7-7:30, Congress hotel; 8-9, Frances Hunter, soprano; Leon E. Therium, yodler; Frances Kaufman, zither soloist; Joseph Miller, zither soloist; 10:30, Congress classic; 11-12:30, Congress carnival.

PWX, Havana, Cuba (400), 8:30-11 p. m., concert at studio, Maria Gonzalez, soprano.

WBBM, Chicago, Ill. (226), 8-1 a.m., Jerry Cromack, Ned Sanitz, Jimmy Eggert, Moline Sisters, Crillon orchestra.

WBCN, Chicago, Ill. (266), 8-11:10 p. m., Marie Wright, soprano; Peggy O'Neil, pianist; Midway orchestra; "The Future of Chicago," Congressman Henry R. Rathbone; Dorothy Ferguson, xylophonist; Les Cameron, Walter Fetz; 11:10-12, Judge Stalle's court.

WCAP, Washington, D. C. (468.5), 11 a. m., memorial mass, Arlington National cemetery amphitheater; 4 p. m., services, Bethlehem chapel, Episcopal church; 6:20-8, Roxy and His Gang, Capitol theater; 8-10, Victor Herbert Memorial concert, American Society of Composers, Authors and Publishers.

WCEE, Elgin, Ill. (275), 10:30-12 midnight, Charlene Star dance program, Joe Rudolph and the Boss's own orchestra, Frank Morris, Eddie and Fannie Cavanaugh, Polly Willis.

The Arion trio has been with KGO, Oakland, from the beginning. It is composed of Josephine Holnb, violinist, Joycs Barthelson, pianist, and Margaret Avery, cellist, and may be heard this Monday.

WCX, Detroit, Mich. (516.9), 4:15 p. m., musical program; 6, dinner concert, Book-Cadillac hotel.

WEBH, Chicago, Ill. (370.2), 7:30-8:30 p. m., Oriole orchestra; Dr. Herbert W. Virgin; Miriam Herr, violinist; 9:30-10:30, Oriole orchestra; Marie Kelly, reader; Langdon Brothers; Kay Bonayne; Indiana male quartet; 11:30-2 a. m., Oriole orchestra; Loos Brothers; Frank Sylvano, Marie Kelly; Ned and Chas; Langdon Brothers; Charlie and Gos.

WGES, Oak Park, Ill. (250), 5-7 p. m., classical program, Frank Greff, tenor; Ruth Lyon, soprano; Arlo Thorpe, pianist; 10:30-2, popular program, A. Cavallo and his 11 master musicians; Fred Jacobson; Bobby Lee; Casey & Gerwals; Lester Kelsey; Parthenon theater organ, Coyne Electrical school minstrel show.

WGN, Chicago, Ill. (370.2), 12:40-2:30 p. m., Drake concert ensemble, Blackstone string quintet; 3, Noble Harmonica band; 5:30, Skeezix time for the children; 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), 8:30 p. m., Ben Bernie's orchestra.

WHT, Chicago, Ill. (238), 11:30-12 p. m., recipes, menus, health talk, musical program; 12-1, organ recital, farm talk; (399.8), 7-8:30, classical program; F. D. Stephenson, old time songs; John Beddington, harmonica; duets; Army and Navy program; 10:30-2 a. m., Husk O'Hare's orchestra; Al Carney, organist; June Lee, soprano; George J. Peters; Herbie Minns, pianist; ballads, John Clark.

WJJD, Mooscheart, Ill. (302.8), 10:30 p. m., P. M. Proteau, Sid Erdman, Edna Lindsey, Golden trio, Margaret and Katherine Devitt, Geneva organ, Charley Straight's orchestra.

WKRC, Cincinnati, Ohio (326), 10 p. m., Zumstein entertainers; 11, Murray Horton's Hotel Alms orchestra.

WLS, Chicago, Ill. (344.6), 7:45 p. m., Big Ford and Little Glenn; 8, Glenn's Cornhuskers; Sears-Roebuck 4 Aces of Harmony; Tony Corcoran; Margaret Ogrits, Williamson Brothers; Walter Peterson; WLS Harmony trio; Ralph Emerson, organist; Harmony Girls; Ford and Glenn; Grace Wilson, contralto; Nubs Allen, contralto.

WLW, Cincinnati, Ohio (422.3), 3 p. m., music features; 7, WLW dinner hour concert.

WMAQ, Chicago, Ill. (447.5), 6 p. m., Thornton Township high school; 8, Russell Pratt, Fred Daw; 8:30, Glacier National Park, Francis A. Marnell; 9, Chicago theater revue.

WMBB, Chicago, Ill. (250), 7-8:30 p. m., semi-classical program, J. Bodewalt Lampe; Beatrice Teller and Trianon ensemble; Carlos Martini, vocalist; Hazel O'Neil, Franklin Earl Hathaway; 8:30-10:30, Gala syncopated revue, Dell Lampe and Trianon orchestra; Harold Stokes, accordionist; Charles Agne, marimba soloist; Lindsay McPhail, pianist; Cecil Ward, guitarist; Vernon Buck, Frank Sylvano, Cameron and Pett, George Givot, Marey Aiswang, banjoist; Trianon syncopators; Clyde Hager.

WORD, Batavia, Ill. (275), 8:30 p. m., Golden Age readings; orchestra music.

WQJ, Chicago, Ill. (447.5), 11-12 m., "The Story of a Great Painting," Marjorie Curry; Rene C. DeSmet, authority on real laces; 3-4 p. m., Koffee Klatsch program; 7-8, Ralph Williams and his Rainbo Gardens orchestra; Jean Ballard, contralto; Gertrude Wolf Quentin, soprano; Everett George Opie, character reader; 10-3 a. m., Ralph Williams and his Rainbo Garden orchestra; Jerry Sullivan; Rose Vanderbosch, pianist; Melodines; Hickey and Johnson; Bert Davis; Galdys Gale; Henri Therien and Joe Vergos.

WREO, Lansing, Mich. (285.5), 10-12 m., Fiske O'Hara's San Francisco orchestra.

WSAI, Cincinnati, Ohio (325.9), 7:45 p. m., children's story, Mrs. Ethel Knapp Behrman; Bicycle sextet; 9:15, Bicycle mixed quartet; Bicycle male quartet; 12, entertainers; 12:30 a. m., Freda Sanders Toadstool orchestra.

WTAM, Cleveland, Ohio (389.4), 6-7 p. m., Hotel Statler orchestra; 8-9, studio program; 9-12, novelty program, Ev Jones, Coo Coo club; Dorothy Maskell, soprano.

WTAS, Elgin, Ill. (302.8), 8-10:30 p. m., Villa Olivia Radio concert; Joe Rudolph and the Boss's Own orchestra; Eddie and Fannie Cavanaugh; Frank Morris, Coleman Goetz, Polly Willis.

WTIC, Hartford, Conn. (348.6), 5:45 p. m., baseball scores.

WWJ, Detroit, Mich. (352.7), 12:05 p. m., Jules Klein's Hotel Statler orchestra; 3, Detroit News orchestra.

Central Standard Time Stations

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

KFNF, Shenandoah, Iowa (268), 7:30 p. m., Forest City Music Makers.

KFRU, Bristow, Okla. (384.5), 7:30-8 p. m., International Sunday school; 9-12, music.

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

KTHS, Hot Springs National Park, Ark. (374.8), 8:40-9 p. m., specialties; 9-10, New Arlington hotel orchestra.

WAMD, Minneapolis, Minn. (244), 9 p. m., Osborn's orchestra.

WCCO, Minneapolis, Minn. (416.4), 4 p. m., baseball scores; 6, baseball scores; 6:05, Dick Long's Nankin cafe orchestra; 8:15, talk, W. H. Finley; 8:30, musical program; 10, Original George Osborn's Nicollet hotel orchestra.

WDAF, Kansas City, Mo. (365.6), 3:30-4:30 p. m., popular songfest; 6-7, Tell-Me-a-Story Lady; Trianon ensemble; 11:45-1 a. m., Merry Old Chief, Plantation players.

WFAA, Dallas, Texas (475.9), 12:30-1 p. m., Alex Hughes, pianist; 4:30-5, musical program, Raymond Roy Harrison, pianist; 6:15-7, vesper recital, Henry Adler and his orchestra; 8:30-9:30, W. B. Chenoweth and other fiddlers; 10-12, Adolphus hotel orchestra.

WHAD, Milwaukee, Wis. (275), 6-7 p. m., Wisconsin theater organs.

WHAS, Louisville, Ky. (398.6), 4-5 p. m., Louisville Conservatory of Music; 7:30-9, concert, auspices Levy Brothers.

WMC, Memphis, Tenn. (499.7), 7:30 p. m., baseball results; 8:30, program, William Newton, director.

WOAW, Omaha, Nebr. (526), 5:45 p. m., public news period, Eugene Kuneckey; 6, dramatic hour, Davis Studio of Expression; 6:30, to be announced; 7, Art Landry and his Victor Recording orchestra; 7:30, movable address, auspices Omaha Printing company; 9, Ernest Bence; 11:15, Arthur Hays and his organ jubilee.

WOC, Davenport, Iowa (483.6), 9-10 p. m., trio, Darrel Doyle, Cosnan Doyle, Agnes Doyle; May Chanaber, soprano; Frances Armil, pianist; 11-12, Louis Connor and his LeClaire hotel orchestra; Peter MacArthur, baritone.

WOI, Ames, Iowa (270), 12:30 p. m., "Developing and Marketing Broilers," Prof. W. H. Lapp.

WSB, Atlanta, Ga. (428.3), 5-6 p. m., Criterion Harmony Four; Bonnie Barthardt, 8-9, orchestra; May Naylor, guitarist; 10:45, A. & W. P. dining car colored quartet.

Mountain Standard Time Stations

KOA, Denver, Colo. (322.4), 9-12 midnight, Joe Mann and his Rainbow-Lane orchestra.

Pacific Standard Time Stations

KFI, Los Angeles, Calif. (467), 5:30-6 p. m., Examiner's matinee hall hour; 6-6:15, McDaniels' nightly doings; 6:45-7, Radioral talk; 7-8, California Serenaders dance orchestra, George Cronk, leader; Sigmund Sachs, violin soloist; 8-9, Examiner: program, Chamber of Commerce and Lions' club of Corona, Calif.; 9-10, one-act play, Bohemian players, Ernest White, director; musical numbers, Eleanor Georgia Hunter, contralto; Grace Eaton Dow, pianist; 10-11, Packard Radio club, Way Watts, Dorothy Cleveland, Jack Kurtz, Barney Weber and others; 11-3 a. m., KFI midnight frolic.

KFOA, Seattle, Wash. (454.3), 4-5:15 p. m., Olympic hotel orchestra; recipe; 6-6:45, Olympic hotel concert orchestra; 6:45-8:15, Boys' program, Moran school; 8:30-10, Seattle Times dance music; 10:05-11:30, Olympic hotel dance music.

KFWB, Hollywood, Calif. (322), 7:45-9 p. m., program, Monte Mar Vista, Mildred Musser, female baritone; Pickford-Fairbanks studio string quartet; Charles Beauchamp, tenor; 9-10, Warner Brothers syncopators, Dean Bruce, popular singer with ukulele; Billie Dunn, syncopating pianist; 10-11, Warner Brothers hour of fun, direction Charlie Wellman.

KGO, Oakland, Calif. (361.2), 4-5:30 p. m., concert orchestra, Hotel St. Francis; 8, program, Rudolph Wurlitzer company; Margaret Josue, soprano; Armin Josue and pupil; Bernard Litten; Winifred Williams, pianist;

Victor Hamm, pianist, is the other half of the Monday feature at WHAD, Milwaukee. You may hear him play duets with Mr. Dettlaff at 9 p. m. Both are well-known Radio stars, although only students.

saxophonist; Clear Lake Beach company; Marino ladies' orchestra; Gleason male quartet; Elsa Behlow Trantman, soprano; Luda Durillion, saxophonist; 10-1 a. m., Henry Halstead's orchestra.

KGW, Portland, Ore. (491.5), 12:30 p. m., Rose City trio; 6, Portland hotel orchestra; 10, Multnomah hotel.

KHJ, Los Angeles, Calif. (405.2), 5:30 p. m., Leighton's Arcade cafeteria orchestra, Jack Crowshaw, leader; 6-6:30, Art Hickman's Biltmore hotel concert orchestra, Edward Fitzpatrick, director; 6:30-7:30, little stories American history, Prof. Walter Sylvester Hertzog; Henrietta Poland, Georgianne Di Marco, readings; Geo. Ezra Crane, screen juvenile; Pigsly Wiggly girls' trio; Uncle John; 8-10, program, Los Angeles Soap company, arranged by J. Howard Johnson; 10-12, Art Hickman's Biltmore hotel dance orchestra, Earl Burnett, leader; 11-2 a. m., Lost Angel frolic, Majestic Six orchestra.

KNX, Hollywood, Calif. (336.9), 5:30-6:15 p. m., Wurlitzer pipe organ studio, Sid Ziff's sports talk; 6:15-6:30, travelogue, W. F. Alder; 6:30-7:30, dinner hour music; 7:30-8, Wurlitzer pipe organ studio; 8-10, program, the May company; 10-11, Abe Lyman's Cocoanut Grove dance orchestra from Ambassador hotel; 11-2 a. m., Hollywood night, presenting a number of film folk.

KPO, San Francisco, Calif. (428.3), 1-2 p. m., Rudy Seiger's Fairmont hotel orchestra; 2:30-3:30, matinee; 5:30-6:30, concert and dance music, Palace hotel; 6:30-6:35, program, Loew's Warfield theater; 6:30-7:30, Johnny Butch's Cabirians; 7:30-12, Art Weidner's dance orchestra.

Sunday, May 24

Sunday, silent night for: CFAC, CFCA, CKAC, CHIC, CHNC, CNRT, KFAB, KFAE, KFDM, KFKU, KFKX, KFMQ, KFRU, KFOA, KLX, KOB, KSD, PWX, WAHG, WBAV, WCAE, WCEE, WCX, WDAF, WDWF, WEAR, WEBJ, WEBW, WFI, WGBS, WGST, WHA, WHAD, WHAS, WHAZ, WIP, WJAD, WJY, WLBL, WLIT, WMAK, WMC, WOI, WOO, WOR, WRC, WSAC, WSAI, WTAM.

Atlantic or Eastern Daylight Saving Time Stations

CHYC, Montreal, Can. (411), 7 p. m., Emmanuel church; 9, studio program.

WBBR, New York, N. Y. (272.6), 10 a. m., Watchtower orchestra; 10:15, Fred Tvarosch, tenor; 10:25, Watchtower orchestra; 10:35, "What Is the Kingdom of Heaven?" W. L. Pelle; 11:05, Fred Tvarosch, tenor; 11:15, violin duets, George Tvarosch, Carl Park; 11:25, Watchtower orchestra; 9 p. m., I. B. S. A. choral singers; 9:10, Theo. Pfannebecker, Gustav Rehn, Howard Geisgt; 9:25, I. S. B. A. choral singers; 9:35, "Is the Bible Inspired," W. L. Pelle; 10:05, I. B. S. A. choral singers; 10:15, instrumental selections; 10:25, I. B. S. A. choral singers.

WBZ, Springfield, Mass. (333.3), 9:55 a. m., services,

(Continued on page 9)

Headliners of the Week

WIP's annual revue is one of the big features Saturday. The staff has worked hard to make this year's revue bigger and better than last year's which was the talk of Philadelphia for months. An evening of nonsense may be had at WTAM, Cleveland. Art Herske and Ev Jones will usher in the Coo Coo club.

Sunday is Empire Day for all the British Empire. CHYC, Montreal, will celebrate with a fine program. This same evening WEAF will broadcast the memorial concert for Victor Herbert, one of the most popular composers of the United States.

The American Legion is in charge of the Monday program at KOA. One interesting feature of the evening will be an address by Eben G. Fine, discoverer of the famous Fine Glacier in 1900. This should appeal to mountain climbers who have investigated these icy fields. WSAI also has an unusually good program tonight. The cantata "Triumph of David" will be sung from this station.

"Capturing Animals for the Zoo," is the title of the talk to be given Tuesday by Dr. W. Reid Blair at WJY, Tuesday. Dr. Blair will have many thrilling adventures to relate about capturing dangerous and queer beasts from all corners of the earth. A Bohemian program is the special feature for WOAW.

Alumni of the University of Chicago will appreciate the college reunion program Wednesday at WGN. The glee club will sing and A. A. Stagg, football coach, will talk. KFVE is another new station in our midst. As this is owned by a film corporation, many interesting hints about motion picture production will be dropped now and then. "Motion Picture Set Designing and Construction," will interest the artist this week.

The Liederkranz society, famous in Louisville for its good music, will give the program Thursday at WHAS. This is an old-fashioned singing society and does splendid ensemble work.

WTIC announces the reappearance Friday of the New England trio. Willfriede Baracca Gehrman, violinist, is a graduate of the Vienna Conservatory of Music; Sara Zach, cellist, is the sister and star pupil of Arthur Zach, and Henri Tussenbrock, pianist, studied at the Royal Dutch conservatory. Although a new organization it is already well known and liked.

EMPIRE DAY CELEBRATED FROM CHYC

Sunday, May 24

(Continued from page 8)

Church of Unity; Rev. Charles Wing, pastor; Philharmonic quartet; 8 p. m., Ethel Paterson, coloratura soprano; Marian Peterson, accompanist; 8:15, Albert L. Walker, organist; Mrs. A. Walker, cellist; quartet; boy soprano.

WCAE, Pittsburgh, Pa. (461.3), 3 p. m., People's Radio church service; 4, concert; 6:30, dinner concert, William Penn hotel; Roxy and his gang.

WCAU, Philadelphia, Pa. (278), 5 p. m., recital; 5:15, undenominational church services, Rev. John W. Stockwell, pastor; Maude Hanson Pettit, musical director; 6 p. m., Hotel Pennsylvania concert orchestra; 7, Hotel Pennsylvania concert orchestra.

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, Roxy and his Gang, Capitol theater; 9-11, Victor Herbert Memorial concert, auspices of American Society of Composers, Authors and Publishers.

WEEI, Boston, Mass. (476), 7:20 p. m., Roxy and his gang; 9:20, Skinner organ recital.

WFI, Philadelphia, Pa. (394.5), 7:30 p. m., services, Arch Street Presbyterian church.

WGBS, New York, N. Y. (315.6), 3:30-4:30 p. m., program, Piccadilly theater; 9:30, Victor Herbert program, American Society of Composers.

WGR, Buffalo, N. Y. (319), 3-4 p. m., vesper service, W. W. Shannon and Charles Wieand, speakers; 4-5, John F. Gunderman, Jr., organist; 7:15, Central Presbyterian church service, William Wall Whiddit, organist; Dr. Robert J. McAlpine, speaker.

WHAR, Atlantic City, N. J. (275), 2:30 p. m., sacred recital, Seaside hotel trio; 2:45, sermon, Rev. George D. Jones; 9, Seaside hotel trio; 11, Strand theater.

WHN, New York, N. Y. (360), 1-1:30 p. m., organ recital, Loew's Lexington theater; 3-4, Queens County Christian Endeavor program; 4:30-5 Music Lovers' association; 5-5:30, Roseland dance orchestra; 5:30-6, Olcott Vail and his string trio; 10-10:45, Gem Razor entertainers; 10:45-11:15, Janssen's Hofbrau orchestra.

WIP, Philadelphia, Pa. (508.2), 3:30 p. m., memorial services; 7:15, services, Holy Trinity church.

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

WJY, New York, N. Y. (405.2), 10-10:15 p. m., Hazel Dudley, soprano.

WJZ, New York, N. Y. (454.3), 9-10 a. m., children's hour; 10:40-10:50, chimes from Grace church; 3:30-3:45 p. m., Edward Weber, pianist; 5:30-6, jubilee songs, Dextra male chorus; 8-8:15, Grace Belle Van Riper, soprano; 10-10:15, Godfrey Ludlow, violinist.

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

WLIT, Philadelphia, Pa. (394.5), 2:15 p. m., Arcadia cafe concert orchestra, Feri Sarkozi, director.

WMCA, New York, N. Y. (341), 11-12:15 p. m., services, Second Church of Christ; 3:30-4:30, Bergen Symphony string quartet; 7-7:30, Ernie Golden and his Hotel McAlpin orchestra.

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

WOO, Philadelphia, Pa. (508.2), 10:30 a. m., services, Bethany temple; organ recital, Caroline Quigg, sermon, Rev. Gordon A. MacLennon; 2:30, Sunday school musical exercises; Bethany temple; 6:05, organ recital of sacred hymns, Clarence K. Bawden.

Eastern Standard or Central Daylight Saving Time Stations

KDKA, Pittsburgh, Pa. (309.1), 9:45 a. m., Point Breeze Presbyterian church; 3 p. m., Dr. Charles Heinroth, organist; 3:45, Shadyside Presbyterian church; 6:30, East End Christian church.

KYW, Chicago, Ill. (536), 11 a. m., Central church services; 4-5 p. m., studio concert; 7, Chicago Sunday Evening club, Dr. W. L. Sperry, speaker.

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

WBBM, Chicago, Ill. (226), 4-6 p. m., Dixie Boys' orchestra; Dave Nudleman, Moline Sisters; 8-10, Seeling orchestra; Sandy Meek, Scotch tenor.

WBCN, Chicago, Ill. (266), 10:30-12 m., People's Liberal church; 4-5 p. m., Lain & Son classical concert; 7-8, classical program, Hamilton Park studio artists; 8-11, Henry Vooke, tenor; Midway orchestra; Borden Brothers.

WCAP, Washington, D. C. (468.5), 7:30-10 p. m., health talk; concert, A. and P. Gypsies; "Days and Nights in Washington," William Hard; talk, postmaster general; special concert; features.

WEAR, Cleveland, Ohio (389.4), 3:30-5 p. m., Ivan Francisci and his Hotel Cleveland orchestra; 7-8, Park theater orchestra; 9-10, evening hour.

WEBH, Chicago, Ill. (370.2), 7-9 p. m., artists program.

WGES, Oak Park, Ill. (250), 5-7 p. m., classical program; Rudolph Hess, pianist; Helen Golden, contralto; Dorothy Tatman, violinist; 10:30-2, A. Cavallo and his 11 Master Musicians; Bobby Lee, Alfred Tweed, Blue Ribbon harmonica and guitar player; Harold Morava, tenor; Coyne Electrical school minstrel show.

WGN, Chicago, Ill. (370.2), 11 a. m., Uncle Walt reads comics to the children; 11:45, program, Chicago theater; 8:30 p. m., Chicago Musical college; 9-10, Drake concert ensemble.

WGY, Schenectady, N. Y. (379.5), 9:30 a. m., First Presbyterian church services; Rev. Wm. Hopkins, pastor; 2:35 p. m., WGY Symphony orchestra; Leo Kliwen, conductor; Beatrice Zollinger, soprano; 6:30, Grace Episcopal church services; Dr. W. Russell Bowie, rector; chime program; 7:45, Hotel Commodore orchestra; Bernhard Levitow, conductor; 9, violin recital, Godfrey Ludlow.

WHT, Chicago, Ill. (238), 9-11:30 a.m., Paul Rader, evangelist.

WJJD, Mooseheart, Ill. (302.8), 12 midnight, popular concert, Rendezvous; Jimmie Travers, Charley Straight's orchestra; principals, Review of Rendezvous.

WKRC, Cincinnati, Ohio (326), 6:45 p. m., church services, Walnut Hills Christian church, Rev. J. J. Castleberry; 10, classic program; 11, King Jazz, Murray Horton's Hotel Alms orchestra.

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

WLW, Cincinnati, Ohio (422.3), 9:30 a. m., school, Editorial Staff of Sunday School Publications, Methodist Book concern; 11, services, Church of Covenant, Dr. Frank Stevenson; 7:30, p. m., serivces, First Presbyterian church of Walnut Hills, Dr. Frederick McMillan; 8:30, Western and Southern orchestra, William Kopp, director; Carl Wunderle, zither soloist.

WMAK, Lockport, N. Y. (265.5), 10:25 a. m., First Presbyterian church, Rev. Robinson.

WMBB, Chicago, Ill. (250), 3-5 p. m., Dell Lampe and the Trianon orchestra; soloists, Carlos Martini, Hazel O'Neil, Beatrice Otto; 7-8:30, semi-classical program, J. Bodewalt Lampe, director; Beatrice Teller; Trianon ensemble; Woodlawn theater orchestra, Armin F. Hand; 8:30-10:30, Dell Lampe and Trianon orchestra, Vernon Buck, Alvin Fry, singers; Popular Cecil Ward, guitarist; Lindsay McPhail, pianist; Clyde Hager, character reader; Woodlawn theater orchestra.

WOC, Davenport, Iowa (483.6), 8-8:30 p. m., Methodist Episcopal church service; Rev. Walter Day, pastor; 9:30-11:30, Palmer Little Symphony, Erwin Swindell, conductor.

WORD, Batavia, Ill. (275), 10 a. m., hymns and sacred songs; 6:45 p. m., Ethel Flentye, pianist; I. B. S. A. trio; I. B. S. A. choral singers; Bible lecture, W. H. Woodley.

WQJ, Chicago, Ill. (447.5), 3-4 p. m., Sunday afternoon concert, Ambrose Wyrick, director; 8-10, Ralph Williams and his Rainbo Garden orchestra; Robert Metzler, Parisian pianist; Alma Wilson McMahill, soprano; Edward Roeder, violinist; Olga Peters, pianist; Jeanette Van Lennep, mezzo-soprano; Mary Van Lennep, accompanist; Sheppard Levine, tenor.

WSAI, Cincinnati, Ohio (326), 3 p. m., sermonette, sacred chimes.

WTAS, Elgin, Ill. (302.8), 2:15-5 p. m., Joe Rudolph and the Boss's own orchestra; 8-12, Radio concert, Joe Rudolph and the Boss's Own orchestra; Frank Morris, Polly Willis, Fannie and Eddie Cavanaugh, Coleman Goetz.

WWJ, Detroit, Mich. (352.7), 11 a. m., St. Paul's Episcopal cathedral; 2 p. m., Detroit News orchestra; 6:20, Roxy and his Gang.

Central Standard Time Stations

KFAB, Lincoln, Nebr. (240), 4 p. m., Rev. E. L. Hobbs, Elm Park Methodist Episcopal church.

KFDM, Beaumont, Texas (315.6), 11-12 m., First Baptist church.

KFMX, Northfield, Minn. (336.9), 7 p. m., college vesper service.

KFNF, Shenandoah, Iowa (266), 10:45 a. m., First M. church; 2:30 p. m., Rev. and Mrs. Hanley Radio Chaplains; 3, Men's Gospel team; 6:30, Golden Rule circle; 8, Christian church.

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

KFUO, St. Louis, Mo. (545.1), 4 p. m., "Abide in Me," Prof. J. T. Mueller; choir, Grace Lutheran church.

KFVE, St. Louis, Mo. (240), 6-7 p. m., Radiocast review, Romaine Fielding; 10, sacred song recital; May Ella Miller; Orchestra Romaine; male quartet, C. G. Cosby, director.

KTHS, Hot Springs National Park, Ark. (374.8), 11-12:30 p. m., First Presbyterian church, Rev. Chauncey Hickok; Francis Hardin, organist; 8:30-8:40, baseball results; 8:40-10, Meyer Davis' orchestra; 10-11, Chuck Root's De Sota Garden orchestra.

WBAP, Fort Worth, Texas (475.9), 11 p. m., midnight frolic.

WBAR, Sisiht, Wis. (406), 10-11 p. m., dance music.

WCBD, Zion, Ill. (344.6), 8 p. m., mixed quartet, Fred Faassen, organist; Dorothy Bull, soprano; Ralph Bull, tenor; Mrs. Mayfield, soprano; Mrs. Faassen, contralto; Mrs. Evangeline Rendall, reader.

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; 9:15, classical program.

WDAF, Kansas City, Mo. (365.6), 4-5 p. m., University Methodist Protestant church; 5-5:30, Sunday school lesson, Dr. Walter L. Wilson.

WEBW, Beloit, Wis. (268), 4:25-5:30 p. m., Sundey vespers, Beloit college.

WFAA, Dallas, Texas (475.9), 6-7 p. m., Radio Bible class, Dr. William M. Anderson; 8-9, Westminster Presbyterian church; 9-9:45, Dr. Robert A. Hunt, pastor, sacred song recital; 9:45-11, Grace Methodist church orchestra.

WHAD, Milwaukee, Wis. (275), 2-3 p. m., Marquette studio program.

WHAS, Louisville, Ky. (399.8), 9:57 a. m., organ music; 10, Methodist Temple; 4:30, choral evensong service, Christ church cathedral.

WHO, Des Moines, Iowa (526), 11 a. m., University church service; 4 p. m., program, Dean Holmes Cowper, director; 7:30-9, Reese-Hughes orchestra; Art Gillham, "Whispering Pianist."

WOAW, Omaha, Nebr. (526), 9 a. m., Radio chapel service, Rev. R. R. Brown; 2:15 p. m., matinee program, J. B. Stevenson, director; 9, musical chapel service, English Lutheran church.

WOI, Ames, Iowa (270), 10:45 a. m., chimes; 11, chapel services, Prof. E. W. Beckman.

WOS, Jefferson City, Mo. (440.9), 7:45 p. m., Evangelical church, Rev. E. W. Berlekamp.

WSB, Atlanta, Ga. (428.3), 11 a. m., First Presbyterian church; 5-6, East Side Baptist church; 7:30, St. Philip cathedral services.

WSUI, Iowa City, Iowa (483.6), 9 p. m., familiar hymns, Mrs. Lottie Volkmer.

Mountain Standard Time Stations

KFWA, Ogden, Utah (261), 9 p. m., program, Chamber of Commerce of Logan.

KOA, Denver, Colo. (322.4), 11 a. m., Twenty-third Avenue Presbyterian church; Florence MacKay, organist; Lucile D. Bretney, soprano; Daniel Angevine, tenor; Clarence C. Moore, baritone; 4 p. m., Florence MacKay, organist; 7:30, Twenty-third Avenue Presbyterian church, Rev. George F. Sovler, pastor.

Pacific Standard Time Stations

KFI, Los Angeles, Calif. (467), 6:30 p. m., McDaniels' nightly doings; 6:45-7, musical appreciation talk; 7-8, from stage and studio of Metropolitan theater, Adlof Tandler's 45-piece orchestra; 8-9, hour of the classics with Myranna Richards, Welsh contralto and others; 9-10, Examiner: Anton Lada and his Louisiana Five dance orchestra; 10-11, Thereon Bennett's Los Angelenos dance orchestra.

KFWB, Hollywood, Calif. (252), 9-11 p. m., Warner Brothers' motion picture night, featuring number of prominent people of the screen.

KGO, Oakland, Calif. (361.2), 11 a. m., First Congregational church; 3:30 p. m., KGO Little Symphony orchestra; 7:30, First Congregational church.

KGW, Portland, Ore. (491.5), 10:30 a. m., First Presbyterian church; 6 p. m., church services, Portland Council of churches; 7, Colburn concert orchestra.

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

KNX, Hollywood, Calif. (336.9), 7-8 p. m., program, First Presbyterian church of Hollywood; 8-9, Ambassador hotel concert orchestra, Josef Rosenfeld, director; 9-11, KNX feature classical Sunday night program.

KPO, San Francisco, Calif. (428.3), 11-12 m., church services, Dr. J. S. Lurdgren, Mrs. May Clarke Burns, soprano; Theodore J. Irwin, organist; 2:30-3 p. m., Theodore J. Irwin, organist; 6-6:30, States restaurant orchestra; 6:30-7:30, Palace concert orchestra; 8-8:30, Palace hotel concert orchestra; 8:30-10, Rudy Seiger's Fairmont hotel orchestra.

Monday, May 25

Monday, silent night for: CHIC, CKAC, CKY, CNRT, KFDM, KFMQ, KFMX, KGW, KHJ, KYW, PWX, WAMD, WBBM, WBCN, WCAU, WDWF, WEAO, WEBH, WEBJ, WGN, WGBS, WHAS, WJY, WKAQ, WLBL, WLS, WMAQ, WMBB, WOC, WOAI, WQJ, WRC, WREO, WSAC.

Atlantic or Eastern Daylight Saving Time Stations

WAHG, Richmond Hill, N. Y. (315.6), 12:30-1:15 p. m., music, time signals and weather reports; 7:30-7:45, sport review, Thornton Fisher; 7:45-8, George Dale, tenor; 8-8:15, Fred Wandschneider, harmonica soloist, 8:15-8:30, Adelaide De Loca, contralto; 8:30-9, Synchrophrase string trio; 9-9:15, Ted Snyder, pianist; 9:15-9:30, George Dale; 9:30-10, Synchrophrase string trio; 10-10:15, Adelaide De Loca; 10:15-10:25, William Bellham, reader; 10:25-10:55, dance music, the Criterions; 11:05-11:30, the Criterions; 12-2 a. m., dance music.

WBBR, New York, N. Y. (272.6), 8 p. m., Irene Kleinpeter, soprano; 8:10, vocal duets, Irene Kleinpeter, Fred Twaroschk; 8:20, "Disease Treated and Health Gained by Radio," Dr. Mae J. Work; 8:40, Fred Twaroschk, tenor; 8:45, "The Harp of God;" 8:55 vocal duet, Irene Kleinpeter, Fred Twaroschk.

WBZ, Springfield, Mass. (333.3), 6 p. m., Hotel Kimball trio; Jan Geerts, director; 8, program; 9, Mildred L. Bryant, soprano; Katherine Gravelin, accompanist; 9:15, Ukulele program, Maxwell Fuchs; Marion Tracy, accompanist; 9:40, child welfare talk.

WCAE, Pittsburgh, Pa. (461.3), 6:30 p. m., dinner concert, William Penn hotel; 8, address, auspices Pittsburgh Personnel association; 8:30, concert; 9, A. & P. Gypsies; 11, Piccu-Kaybee, Blackstone theater orchestra.

WEAF, New York, N. Y. (491.5), 6:45-7:45 a. m., Metropolitan tower health drill; 4-4:15 p. m., musical program; 4:15-4:30, Zabelle Aram, soprano; 4:30-4:40, music; 4:40-5, children's story, Elsie Jean; 6-7, dinner music from Waldorf-Astoria; 7-7:15, "Woodcraft," Ernest Thompson Seton; 7:15-8:30, program, Mark Strand theater and studio, direction of Joseph Plunkett; 8:30-8:45, joint recital, Grace Northrup, soprano, Beatrice McCue, contralto, and Lionel Storr, baritone; 8:45-9, health talk, Metropolitan Life Insurance company; 9-10, A. and P. Gypsies; 10-10:30, Blue Ribbon quartet; 10:30-11:30, Ben Bernie and his Hotel Roosevelt orchestra.

WEEI, Boston, Mass. (475.9), 3 p. m., Sam Bittel and his Palm Garden Ramblers; 4, Delancy Cleveland; 6:15, Big Brother club; 7, Boston orchestral club; 8, Haverhill half hour; 8:30, Leonard Doersam; 8:45, health talk, Metropolitan Life Insurnace company; 9, A. & P. Gypsies; 11, Blue Ribbon quartet from New York.

WFI, Philadelphia, Pa. (394.5), 1 p. m., Bellevue Stratford concert orchestra; 3, talk, "Shanghai," James G. Rodgers; 4, Kinder Symphony orchestra; 6:30, Bellevue Stratford concert orchestra; 7, bedtime stories.

WGBS, New York, N. Y. (315.6), 10-10:10 a. m., "Timely Talks," "Terese;" 10:10-10:20, Rosalie Blanchard, soprano; 10:20-10:30, talk, Prudence Penny; 10:30-10:40, Rosalie Blanchard; 10:40-10:50, perfume talk, Rosario Duprez; 1:30-1:35 p. m., Scripture reading; 1:35-2:30, Baron Holliday, baritone; Herbert Spencer; Winona Ralph, soprano; 3-4, program, Society of American Women Painters and Sculptors; music, Olga Halsac studio; 6:30-7, Lew Kureger's orchestra.

WGR, Buffalo, N. Y. (319), 2:30-4:30 p. m., WGR's afternoon musicale, A. J. Erisman, director; 8:30-8:45, address, "Future Industrial Development of Buffalo Area," John A. Piquet, industrial expert, Industrial Management magazine; 8:45-9, "Eye Care," J. W. Jarvis; 9-9:30, piano recital, Hamilton Dakers; 9:30-10, musical program featuring violin, saxophone, and piano, Joseph Latosinski, director; 10-11, musical program, Mr. and Mrs. Vernon Curtis; 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., Seaside hotel trio; 9, Shelburne hotel concert.

WHN, New York, N. Y. (360), 6:30-7 p. m., Palais D'Or orchestra; 7:30-7:35, health talk, Dr. Landis; 8-8:05, talk, "Storage Batteries," H. B. Shontz, 8:05-8:35, Roseland dance orchestra; 8:35-8:40, talk, "Permanent Waving," H. W. Carlough of Terminal Barber Shops; 8:50-9:20, Lutmann's Employees' orchestra; 11-11:30, Loew's Lexington organ recital, 11:30-12, Silver Slipper revue and orchestra.

(Continued on page 10)

Audrey Cook, pretty society girl, plays her violin often from Station CKAC, Montreal. Jack Pennewall and his famous Twin Six guitar are regular features of the Friday programs at Station WEBH, Chicago.

Elsa Behlow Trautner, lyrice soprano, will sing P above high C at KGO, Oakland, Saturday, May 23. Her voice shows surprising range and great beauty of tone.

U. OF C. REUNION BROADCAST BY WGN

Monday, May 25

(Continued from page 9)

WIP, Philadelphia, Pa. (508.2), 7 a. m., setting-up exercises; 10, menu talk; 1 p. m., Gimbel tea room orchestra; 3, "The Two Great Salvations," W. D. Haenger; 3:15, recital, Mildred Bonawitz, pianist; Albert Greenberg, violinist; Vivian Nelson, soprano; 6:05, Clarence Seamon's concert orchestra; 7, Uncle Wip's bedtime stories.
WJAR, Providence, R. I. (305.9), 10 a. m., household hints, Mrs. Wood; 1:05 p. m., studio program; 8, musical program; 9, A. & P. Gypsy string ensemble.
WJZ, New York, N. Y. (454.3), 10-10:20 a. m., Housewives League menu, Mrs. Julian Heath; 10:20-10:30, shopper's guide, Mrs. Pauline Peck; 10:30-10:40, home beautiful, Dorothy Ethel Walsh; 10:40-10:50, talk, John C. Cutting; 10:50-11, fashion talk, Eleanor Gunn; 1-2 p. m., Henry Vander Zanden's Hotel Ambassador trio; 2-2:10, "Current Topics," Dr. William H. Allen; 4-4:15, Alma Neumann, soprano; 4:15-4:30, Armand H. Chaptron, baritone; 4:30-5:30, Fred Hall's Royal Terrace orchestra; 5:30-6, daily reports; 7-8, Bernhard Levitow's Hotel Commodore dinner concert; 8-8:10, Wall Street Journal review; 8:10-8:30, NYU Air College; 8:30-9:30, Landay Hall program; 9:30-10:30, Empress of France orchestra.
WLIT, Philadelphia, Pa. (394.5), 12:02 p. m., daily almanac; Arcadia cafe concert orchestra; Stanley theater organ recital; 2, Arcadia cafe concert orchestra; 4:30, Evelyn Gross Robinson, contralto; 7:30, Dream Daddy; 8:30, Lit Brothers' chorus; 9:30, Stanley theater concert and symphony orchestra; 10, Arcadia cafe dance orchestra; vaudeville features, Fay's Knickerbocker theater.

Adolph Hollander is one of the most promising of the younger violinists. Both music critics and Radio fans agree as to the excellence of his playing. He is now a regular feature of the Friday programs at WAHG.

WMCA, New York, N. Y. (341), 3-5 p. m., popular program; 6:30-7:30, Ernie Golden and his Hotel McAlpin orchestra; 8:15-8:25, talk, House of Health; 9:30-9:40, talk, W. A. Thompson, Radio Digest.
WNYC, New York, N. Y. (526), 7-7:25 p. m., dance program; 7:25-7:30, baseball results; 7:35-7:45, health talk; 7:50-8, piano recital; 8-10:30, "Williamsburg Night," professional and home talent from Williamsburg; 10:35-12, "Williamsburg Night."
WOO, Philadelphia, Pa. (508.2), 11 a. m., organ recital, Mary E. Vogt; 12:02 p. m., Golden's tea room orchestra; 4:45, organ recital, Mary E. Vogt; 7:30, A. Candelori's concert orchestra; 8, concert from WEAF; 8:30, A. and P. Gypsies; 10:30, organ recital, Mary E. Vogt; 10:30, Vincent Rizzo's dance orchestra.
WOR, Newark, N. J. (405.2), 6:45-7:45 a. m., gymnasium class; 6:15-7:15 p. m., Cottonpickers' orchestra; 7:15-7:30, radiocatures; 8:30-9:30, Al Reid's hour; 9:30-10:30, Dr. Sigmund Spaeth's party; 10:30-11, two-man singing orchestra, Perry and Russell; 11-12, the Commander's orchestra.

Eastern Standard or Central Daylight Saving Time Stations

CHNC, Toronto, Can. (356.9), 8:30 p. m., CHNC orchestra; Charles E. Bodley, director; A. Wellesley Chapman, baritone.
KDKA, Pittsburgh, Pa. (309.1), 2:30 p. m., baseball; 5:30-7:15, baseball scores; 8:15, address, University of Pittsburgh studio; 8:45, concert.
WBAV, Columbus, Ohio (293.7), 8 p. m., WBAV orchestra.
WBBM, Chicago, Ill. (226), 6-7 p. m., Crillon orchestra.
WCEE, Elgin, Ill. (275), 10:30-12 midnight, Joe Rudolph and the Hoss's Own orchestra; Frank Morris, Polly Willis, Eddie and Fannie Cavanaugh; Coleman Goetz.
WCX, Detroit, Mich. (516.9), 4:15 p. m., musical program; 6, dinner concert, Book-Cadillac hotel; 7, musical program.
WEAR, Cleveland, Ohio (389.4), 7-8 p. m., Loew's State theater.
WGN, Chicago, Ill. (370.2), 12:40-2:30 p. m., Drake concert ensemble, Blackstone string quintet; 2:30, artist series, Lyon & Healy; 6:30-7, Drake concert ensemble, Blackstone string quintet.
WGY, Schenectady, N. Y. (379.5), 5:30 p. m., address, Daniel Beard, famous scout; 6:15, "Financing the Farmer through the Federal Land Banks," E. H. Thomson; 6:35, Schenectady General Electric band, George Abbott, director; Viola Tuttle, soprano.
WHAZ, Troy, N. Y. (379.5), 8:15 p. m., Boy Scouts Council Fire; 8:35, Delaney Ellis; 8:45, Rosamond Burgess, pianist; 8:50, original farce comedy, "Masque of Troy;" 9:10, Ernest Schade, baritone; 9:20, "Protecting Public Against Short Weights," C. J. Reynolds; 9:30, E. H. Smith; 9:45, Ed. Paul, musical saw; George Milner, pianist.
WHT, Chicago, Ill. (238), 11:30-12 p. m., recipes, menus, health talk, musical program; (399.8), 7, Roberta Edwards, reader; T. D. Stephenson, old time songs; classical program; 10:30-2, Husk O'Hara's orchestra; Al Carney organist; Herbie Mintz, pianist; Pat Barnes, stories; Ransom Sherman, songster; ballads, John Clark.
WJJD, Mooseheart, Ill. (302.8), 10:30 p. m., Reneau Sisters, Clarence Harner, Dave Nuddleman, J. T. Shufflowski, G. O. LeFebre, William Horowitz, Geneva organ, Charley Straight's orchestra.
WKRC, Cincinnati, Ohio (326), 8 p. m., musical and novelty program; 9, Leo LeMarr and an hour of dance music.
WLW, Cincinnati, Ohio (422.3), 10:15 p. m., noonday services, Rev. Geo. H. Kase; 6, program, Christian Young People; 7, dinner hour concert, Hotel Gibson orchestra; director, Robert Visconti; 8:15, opening of entertainment season at Cincinnati Zoological Garden, the Famous Meyer Davis orchestra, Meyer Davis, director.
WMAK, Lockport, N. Y. (265.5), 8-9 p. m., musicale; 10:15-11, Max Freedman; 11:30-1 a. m., Loew's State theater midnight frolic.
WMAQ, Chicago, Ill. (447.5), 4:30 p. m., Chicago High School Teachers' council; 6, Chicago theater organ recital; 6:30, Hotel La Salle orchestra; 6:50, Family Altar league.
WORD, Batavia, Ill. (275), 8 p. m., half-hour with boys and girls, Uncle Dan; 8:30, Junior choir, Congregational church, I. Edwin Schneider, director; Bible lecture, G. A. Hall.
WQJ, Chicago, Ill. (447.5), 3-4 p. m., "Meat Substitute Dishes," Helen Harrington Downing; "The Care of Your Hair," Madame Huntingford.
WSAI, Cincinnati, Ohio (326), 7 p. m., "Triumph of David," cantata, Prof. David Davis; 10, musical program.
WTAM, Cleveland, Ohio (389.4), 12:15-1:15 p. m., lunch hour music; 6-7, Austin Wylie and his Golden Pheasant orchestra; 8-11, Victor Herbert night, Symphony orchestra; Florence Wasson, soprano; Alice Shaw Duggan, contralto; Harold Branch, tenor; Arthur Parry, baritone; 11-12, William Metcalf, organist.
WTAS, Elgin, Ill. (302.8), 8-10:30 p. m., Villa Olivia Radio concert, Joe Rudolph, orchestra; Eddie and Fannie Cavanaugh, Frank Morris, Polly Willis, Coleman Goetz.
WWJ, Detroit, Mich. (352.7), 12:05 p. m., Jules Klein's Hotel Statler orchestra; 6, dinner concert; 8, concert from New York; 9, Detroit News orchestra.

Central Standard Time Stations

KFAB, Lincoln, Nebr. (340), 7:30-9:30 p. m., Collegians orchestra; Orville Andrews, Buick warbler; Verne E. Powell, saxophone wizard; Waikiki trio.
KFKU, Lawrence, Kan. (275), 6:50 p. m., piano tuning-in number; 7, music; 7:15, "The Buried Treasures of Kansas, The Story of the Gypsum Beds," Prof. R. S. Knappen; 7:30, "Joseph Conrad, Some Spectacular Features of His Career," Esther Wilson; 7:45, elementary Spanish.
KFKX, Hastings, Nebr. (288.3), 12:30-1 p. m., "Hitting the Month of High Market for Hogs," Prof. John M. Evvard; 9:30-11:30, Kearney State Normal school, Prof. George H. Aller, director.
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, entertainment.
KFVE, St. Louis, Mo. (240), 6-7 p. m., Radiocast review, Romaine Fielding; 10, song recital, Minnie Gilberg; Mrs. S. Serkes, pianist; C. G. Cosby, tenor; "Mother's Relief Fund," Romaine Fielding; popular songs.
KSAC, Manhattan, Kan. (341), 12:35 p. m., "Reducing Losses From Lightning," W. G. Ward; "Thin the Apples," L. C. Williams.
KSD, St. Louis, Mo. (545.1), 9 p. m., Gardner Motor company Eight-in-Line entertainers; 10, Katharine Anderson, soprano.
KTHS, Hot Springs National Park, Ark. (374.8), 8:30-8:40 p. m., baseball; 8:40-9, New Arlington hotel orchestra; 9-9:20, novelty songs and negro dialect stories, Como Al; 9:20-10, New Arlington orchestra.
WBAP, Fort Worth, Texas (475.9), 12:05-12:30 p. m., Fred Wagner's Hawaiian trio; 7:30-8:30, Mrs. J. W. Griffin, pianist; 9:30-10:45, Ward's Trail Blazers; 11-12, George C. Crum's Palace theater orchestra.
WBAR, Sisiht, Wis. (406), 9-10 p. m., County band.
WCBD, Zion, Ill. (344.6), 8 p. m., exercises, Zion educational institutions; 9-9:45, Erma Reynolds, soprano; mixed quartet; Edith Carey, contralto; Carl Newcomer, marimba soloist; piano trio.
WCCO, Minneapolis-St. Paul, Minn. (416.4), 2:05 p. m., woman's hour; 2:30, concert; 4, baseball scores; 5:30, children's hour; 6, baseball scores; 8, "Making Alfalfa Hay," A. L. Shalley; 8:15, "Getting Rid of the Barberry," E. C. Stakeman; 8:30, musical program; 9, baseball; 10, Arnold Frank's St. Paul hotel orchestra; Emery White, A. E. McDonaugh, banjoists.
WDAF, Kansas City, Mo. (365.6), 3:30-4:30 p. m., program, Newman and Royal theaters; 6-7, Cecile Burton, reader; Trianon ensemble; 8-10, Ivanhoe band, Walter A. French, director; Ivanhoe glee club; 11:45-1, Merry Old Chief, Plantation players.
WEBW, Beloit, Wis. (268), 8:30-9:45 p. m., Beloit college program.
WFAA, Dallas, Texas (475.9), 12:30-1 p. m., Red Head Girl; 6:30-7:30, Buddy's Blue Melody Boys; 8:30-9:30, Dallas Woman's Forum, Mrs. W. A. Stumpp, director.
WGST, Atlanta, Ga. (270), 9-10 p. m., Carroll D. Edgar, pianist; Rose Cefalu, soprano; George Hoffman, pianist; Mrs. Hugh H. Leech, pianist; Clyde Myers, pianist.
WHA, Madison, Wis. (535.4), 7:45 p. m., musical program, Prof. L. A. Coon, pianist; Prof. E. W. Morphey, violinist; timely information on vitamins, Prof. H. A. Schuette.
WHAD, Milwaukee, Wis. (275), 6-7 p. m., Milwaukee Athletic club dinner hour program; 8-10, Marquette university studio program, Victor Hamm, Raymond Dettlaff, pianists; Kathryn Parsons, violinist; Mrs. Carla Jordans, contralto.
WHAS, Louisville, Ky. (399.8), 3:15 p. m., baseball; Louisville Conservatory of Music; concert, auspices George A. Fogel.
WHO, Des Moines, Iowa (526), 7:30-9 p. m., Art Gillham, "The Whispering Pianist;" 8-9 program, Dean Holmes Cowper, director; 11:15-12, organ recital.
WMC, Memphis, Tenn. (499.7), 7:30 p. m., weekly farm talk, C. W. Watson; 8:30, Hotel Gayoso orchestra.
WOAW, Omaha, Nebr. (526), 12:30 p. m., noonday program, Randall's Royal Fontenelle orchestra; 6, Arthur Hays, organist; 6:30, dance program; 9, Tangier Temple Shrine chanters; Lester Palmer, pianist.
WOI, Ames, Iowa (270), 12:30 p. m., "Engineering Economics as an Aid to General Business," Prof. H. F. Clark; 10, popular program.
WOS, Jefferson City, Mo. (440.9), 8 p. m., old time fiddlin', Louie, Bryan, George.
WSB, Atlanta, Ga. (428.3), 2:30 p. m., baseball; 5-6, Georgians orchestra; 8-9, concert; 10:45, Warners Seven Aces.
WSMB, New Orleans, La. (319), 6:30-7:30 p. m., organ solos, pianist; Twilight tales; 8:30-10:30, concert orchestra; Leslie George's Patio Royal orchestra; Fuzzy-Wuzzy twins; Irwin Leclare and Ed. McCarty, popular songsters.
WSUI, Iowa City, Iowa (483.6), 8 p. m., pipe organ recital, Mrs. Preston Coast.

Mountain Standard Time Stations

KFWA, Ogden, Utah (261), 4 p. m., Zenith Radio Dealers' hour musicale; 9, program, Fred M. Nye company.
KOA, Denver, Colo. (322.4), 8 p. m., Fred Schmitt and his Rialto theater orchestra; 8:16, studio program, Boulder Post No. 10, American Legion; "An Adventure on the Arapahoe Glacier," Eben G. Fine; "The American Legion, Its Disabled and Orphans," John C. Vivian; "How the American Legion Auxiliary Hopes to Aid the Disabled Men and Their Families," Marguerite Peyton Thompson.
KOB, State College, N. M. (348.6), 7:30-8:30 p. m., "The Prevention of Disease," Dr. E. S. McBride; Mrs. Thomas Branigan, soloist; New Mexico bird calls, Mrs. Oscar C. Snow; vocal numbers, Mrs. Jacob Sweet; stories, Emily A. Waterman; Fountain quartet; Henry Stoes.

Pacific Standard Time Stations

KFAE, Pullman, Wash. (348.6), 7:30-9 p. m., Gamma Nu Sorority; Margaret Baker, pianist; Clarice Shattuck, saxophonist; Marjorie McConahey, violinist; Edith Armann, reader; Margaret Baker, pianist; Fay Neyland, reader; Granville McGucken, violinist; "Scope of Business Administration of W. S. C." Prof. H. W. Cordell; "Agricultural Fertilizers," E. L. Green; "Dress Selection for Milady," E. Belle Alger; "A Visit to Genoa," Prof. Carl M. Brewster.
KFI, Los Angeles, Calif. (467), 5:30-6 p. m., Examiner's matinee program; 6-6:15, McDaniels' nightly doings; 6:45-7, radiotorial talk; 7-8, Evening Herald; California Serenader's dance orchestra, George Cronk, leader; 8-9, program, Coso Hot Springs company, Coso Indian orchestra, Chief Ashemawood, baritone; 9-10, program, Walter M. Murphy Motors company; Virginia Flohri, soprano; Tosca Tolces, concert pianist; Hollywood string quartet; 10-11, Examiner; Ray West and his Alexandria hotel dance orchestra.
KFOA, Seattle, Wash. (454.3), 4-5:15 p. m., studio music, recipe; 6-6:45, Olympic hotel concert orchestra; 6:45-8:15, Sherman, Clay & company program; 8:30-10, Times dance music.
KFWB, Hollywood, Calif. (252), 6:30-8 p. m., program, John A. Evans corporation, Hacienda Park orchestra, Henry Jackson, leader; 8-9, program, Cheek-Neal Coffee company, Maxwell House coffee string quartet, Marguerite Le Grand, concert pianist, Hawaiian Nighthawks; 9-10, program, M. Weinstein, "Gems of Music;" 10-11, Warner Brothers hour of fun, direction Charlie Wellman.
KGO, Oakland, Calif. (361.2), 11:30-1 p. m., luncheon concert; 4-5:30, Henry Halstead's dance orchestra; 8, educational program; Arion trio; "Trend of Agricultural Prices," Prof. L. W. Fluharty; "How to Get a Job," B. J. Williams; "Health Education," Guy S. Millberry; "Chats about New Books," Joseph Henry Jackson; 10-1 Henry Halstead's orchestra.
KGW, Portland, Ore. (491.5), 12:30 p. m., Rose City trio; 5, children's program; 8, Frederick W. Goodrich, organist.
KHJ, Los Angeles, Calif. (405.2), 6-7 p. m., Leighton's Arcade cafeteria orchestra, Jack Cronshaw, leader.
KLX, Oakland, Calif. (508.2), 6-7 p. m., organ recital; 8-9:30, educational program; 9:30-10, American theater orchestra; 10, Lake Merritt Ducks.
KNX, Hollywood, Calif. (336.9), 5:30-6:15 p. m., Wurlitzer pipe organ studio, Sid Ziff's sports talk; 6:15-6:30, travelogue, W. F. Alder; 6:30-7:30, program, Detmers Optical company; 8-9, program, L. W. Stockwell company, 9-10, KNX feature program; 10-11, Goodrich Silvertown Cord orchestra, June Pursell, soloist; 11-12, Abe Lyman's Cocoanut Grove dance orchestra from Ambassador hotel.
KPO, San Francisco, Calif. (428.3), 1-2 p. m., Rudy Seiger's Fairmont hotel orchestra; 2:30-3:30, Loew's Warfield theater; 4:30-5:30, Rudy Seiger's hotel orchestra; 6:30-7, States Restaurant orchestra; 7-7:30, Rudy Seiger's Fairmont hotel orchestra; 8-8:30, Conn band instrument company; 8:30-9, Theodore J. Irwin, organist; 9-10, San Francisco advertising club; 10-11, Johnny Buick's Cabirians.

Tuesday, May 26

Tuesday, silent night for: CFCA, CHNC, CHIC, CHYC, CNRT, KFAE, KFKU, KFKX, KFNF, KJR, KLX, KOA, KOB, PWX, WAHG, WBAV, WBBR, WCAL, WCBD, WEAO, WEMC, WGST, WHA, WHAD, WHAZ, WIAD, WKAQ, WMAK, WOI, WOO, WOS, WSAC, WSUI, WTAM.

Atlantic or Eastern Daylight Saving Time Stations

CKAC, Montreal, Can. (410.7), 7 p. m., kiddies stories; 7:30, Windsor hotel dinner concert; 8:30, variety concert, Montreal Press club; 9:30, "See Quebec," J. N. Dufresne; 10:30, Harold Leonard's Red Jackets orchestra.
CNRA, Moncton, Can. (313), 8:30 p. m., Mrs. J. W. MacKay, soprano; Mrs. R. L. Algie, mandolinist; Marjory Fitzpatrick, pianist; A. H. Lindsay, tenor; Horace Constable, bass; John Stultz, reader; CNRA orchestra.
WAHG, Richmond Hill, N. Y. (315.6), 12:30-1:15 p. m., Emory Deutsch and E. Everett Heioleb.
WBZ, Springfield, Mass. (333.3), 6 p. m., Leo Reisman Hotel Lenox ensemble; 7:30, program; 8, music club program; 8:45, cornet and musical saw selections, Clarence Fish; 9, Hotel Brunswick orchestra.
WCAE, Pittsburgh, Pa. (461.3), 6:30 p. m., dinner concert, William Penn hotel; 8, program from New York; 8:30, Gold Dust Twins; 9, Eveready hour; 10, grand opera.
WCAU, Philadelphia, Pa. (278), 6 p. m., Hotel Pennsylvania concert orchestra; 7:30, recital, Ne. Snellenburg and company; 8, electrical talk, Clara Zillessen; 8:10, recital; 8:30, "How to Paint," talk; 9:15, "What We See and Hear in Music," Maude Hanson Pettit; 9:25, recital; 10:30, Charles Verna's dance orchestra.
WDWF, Providence, R. I. (440.9), 8:30 p. m., Arcadia orchestra.
WEAF, New York, N. Y. (491.5), 6:45-7:45 a. m., Metropolitan tower health drill; 11-11:10, musical program; 11:10-11:25, "Life Saving," Captain Charles B. Scully; 11:25-11:30, music; 11:30-11:45, "Dramatic Reading," Miss Edna Eckert; 11:45-12, motion picture forecast, Adele Woodard; 4-4:15, Mabel Lee Stover, soprano; 4:15-4:30, Kathleen B. Fisher, pianist; 4:30-5, Women's program; 6-7, dinner music, Waldorf-Astoria; 7-7:15, Winifred Bauer, pianist; 7:15-7:30, art talk, "War Memorials;" 7:30-8, Eagle Neutrodyne trio; 8-8:10, talk, Bank of America; 8:10-8:30, Mr. and Mrs. Burton Piersol, baritone and soprano, accompanied by Miss Elizabeth Gest; 8:30-9, Gold Dust Twins; 9-10, Eveready hour; 10-11, grand opera, "Samson and Delilah; 11-13, dance music.
WEBJ, New York, N. Y. (233), 7-7:15 p. m., Leon H. Fox, violinist, accompanied by Norman Hennefield; 7:30-7:45, duets, Alfred Seeger and Peggy Wynne; 8-8:10 railroad talk Garrow T. Geer; 8:15-9, Siebert's Original Midnight Serenaders, direction of Walter Siebert.
WEEI, Boston, Mass. (475.9), 2 p. m., Napoli Four; 3, organ recital; 6:15, Big Brother club; 7:15, Dok-Eisenbourg and his Sinfonians; 7:35, timely topics, Joe Toye; 7:50, child welfare, Alfred Whitman; 8, New York musicale; 8:30, Gold Dust Twins; 9, Eveready hour; 10, American Opera ensemble.
WFI, Philadelphia, Pa. (394.5), 1 p. m., Bellevue Stratford concert orchestra; 3, Caroline Hoffman, pianist; 3, book chat, Ethel Kooker; 6:30, Meyer Davis Concert orchestra; 7, child welfare talk; bedtime stories; 8, concert from WEAF; 8:30, Gold Dust Twins; 9, Eveready hour.
WGBS, New York, N. Y. (315.6), 10-10:10 a. m., "Timely Talks," "Tereso;" 10:10-10:20, Jack Cohein, jazz pianist; 10:20-10:30, "Radio Grades and Fashion Fads," Sally Knickerbocker; 10:30-10:40, Jack Cohen; 10:40-10:50, etiquette talk, Lillian Eichler; 10:50-11, Jack Cohen; 1:30-1:35 p. m., Scripture reading; 1:35-2, Dorothy S. Lorenz, contralto; 2-2:30, Boys' club of New York, program; 3-3:10, interview with J. C. Elliott Nugent and Kendall Lee of "The Poor Nut" company by Terese Rose Nagel; 3:10-3:20, Florence Milligan, soprano; 3:20-3:30, talk, "History of the Pencil," Henry Berolzheimer; 3:30-3:40, Florence Milligan; 3:40-3:50, piano lesson, Dr. Alfred G. Robyn; 3:50-4, Florence Milligan; 6-6:30, Uncle Geebee; 6:30-7, Jersey Collegians; 7-7:10, Crete Carton, soprano; 7:30-7:40, talk, Charles Franklin Jones; 8-9, Florence Eckert, soprano; 9-10:30, opera, "Aida," WGY; 10:30-12, California Ramblers.

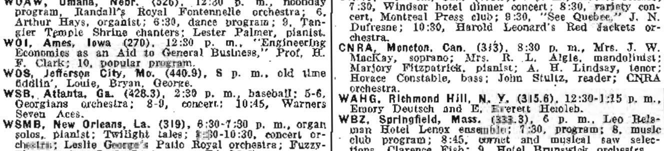
Mrs. Jack Clifford, soprano, has a high, sweet voice, well adapted to the microphone. KFDM, Beaumont, discovered this fact and she is now a regular feature of their programs.

WGR, Buffalo, N. Y. (319), 2:30-4:30 p. m., WGR's afternoon musicale, A. J. Erisman, director; 8-11, joint broadcasting with WEAF, including Knickerbocker trio, Gold Dust Twins, Eveready hour, grand opera, "Samson and Delilah."
WHAR, Atlantic City, N. J. (275), 7:30 p. m. Seaside hotel trio; 9, Shelburne hotel concert orchestra; 11, Strand theater organ recital.
WHN, New York, N. Y. (360), 12:30-1 p. m., Loew's Lexington organ recital; 2:15-3:15, overture and vaudeville from Loew's State theater; 7-7:30, Colonial Aces, steel guitar, Spanish guitar, mandolin and ukulele; 7:30-7:35, health talk, Dr. Landis; 7:35-8, Will Oakland's Chateau Shanley; 9:30-10, Palisades Park orchestra; 11:30-12, club Alabam orchestra; 12-12:30 a. m., Parody club revue and orchestra.
WIP, Philadelphia, Pa. (508.2), 7 a. m., setting-up exercises; 10, menu talk; 1 p. m., Karl Bonawitz, organist; 3, recital, Edith Ulmer, pianist; Sheyla Kestel, soprano; Lawrence Summers, violinist; 6:05, Benjamin Franklin concert orchestra; 7, Uncle Wip's bedtime stories; 8, "What Shall We Eat?" talk by Dr. Horatio Wood; 8:15, "Grand Opera Hour," "Martha" by Charlotte Loeben, soprano, Helen Weinholz, contralto, Herman Gatter, tenor, Dan Matthews, Jr., baritone, Herbert Heard, basso, Helen Wells Abbott, pianist; 9, Philadelphia public schools music appreciation lecture; Ben Strad string quartet; 10:05, movie talk, Eli M. Orowitz; 10:30, Howard Lanin's dance orchestra.
WJAR, Providence, R. I. (305.9), 8 p. m., studio program; 9, Eveready hour; 10, Goodrich Silvertown Cord orchestra.
WJY, New York, N. Y. (405.2), 8:15-8:30 p. m., talk, "Capturing Animals for the Zoo," Dr. W. Reid Blair; 9:30-9:40, Field and Stream talk.
WJZ, New York, N. Y. (454.3), 10-10:20 a. m., Housewives League menu, Mrs. Julian Heath; 10:20-10:30, "Vogues talks on etiquette; 10:30-10:40, "Art for a Dime," Grace P. Noxon; 10:50-11, fashion talk, Eleanor Gunn; 1-2 p. m., Nathan Abas' Hotel Pennsylvania orchestra; 2-2:10, "The Fun of Seeing Things," Dr. Edward F. Bigelow; 4-4:15, song-lore, H. F. Reeves; 4:15-4:30, Gladys Bell Owen, soprano; 4:30-4:30, Bernhard Levitow's Hotel Commodore tea orchestra; 5:30-6, daily reports; 7-7:15, Frank Dole's dog talk; 7:15-8, Joseph Strissof's Hotel Vanderbilt orchestra; 8-8:10, Wall Street Journal review; 8:10-8:30, NYU Air college; 8-9:15, sea songs, William Ballyn; 10:30-10:45, Darl Bethmann, baritone.
WLIT, Philadelphia, Pa. (394.5), 11 a. m., Stanley theater organ recital; 12:02, 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.
WMCA, New York, N. Y. (341), 3-5 p. m., popular program; 8:15-8:25, talk, House of Health; 10-11, musical program, auspices of American Chiropractic association; 11-12, Ernie Golden and his Hotel McAlpin orchestra.
WNYC, New York, N. Y. (526), 7-7:25 p. m., song recital; 7:25-7:30, baseball results; 7:30-7:35, police alarms; 7:35-7:50, talk, Mayor John F. Hylan; 7:50-8:10, song recital; 8:30-9, piano recital; 9-9:45, dance program; 9:45-10:30, 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.
WOR, Newark, N. J. (405.2), 6:45-7:45 a. m., gymnasium class; 6:15-6:30 p. m., Lorraine orchestra; 6:30-7, Man in the Moon stories; 7-7:30, Lorraine orchestra.

Eastern Standard or Central Daylight Saving Time Stations

KDKA, Pittsburgh, Pa. (309.1), 2:30 p. m., 3, 3:20, 3:30, 4, 4:30, 5, 7, baseball scores; 8:45, concert; 10:30, Grand theater.
KYW, Chicago, Ill. (536), 3 p. m., afternoon frolic; 6-6:30, Congress hotel dinner concert; 6:35-6:53, "Monthly Analysis of the Farm Markets," H. W. Moorhouse; "Get Ready—Picnic Ahead," Paul A. Potter; 7-8, Brunswick hour of music; 8-9, musical program; Chicago Musical College; 9-10:30, evening at home program; Applesauce club.
WBBM, Chicago, Ill. (226), 8-12 midnight, George Little, Larry Shay, Jerry Cromack, Crillon orchestra, Ned Santry, Moline Sisters.
WBCN, Chicago, Ill. (266), 8-9 p. m., Midway dance orchestra; Big Boy Yagle, planologist; Peggy O'Neil, soprano; Finney Briggs, humorist; 10-11, classical

(Continued on page 11)



John Reddington is the musical member of the Chicago Fire Department. He and his harmonica are well known to fans who tune for WHT, Deerfield. He will appear this Friday. Photo, Drake Studio.

WOAW TO GIVE BOHEMIAN PROGRAM

Tuesday, May 26

(Continued from page 10)

program; 11-12, Midway dancing orchestra; Peggy O'Neil, soprano; 12-2, Pirate Ship.

WCEE, Elgin, Ill. (275), 10:30-12 midnight, Joe Rudolph and the Boss's own orchestra.

WCX, Detroit, Mich. (516.9), 4:15 p. m., musical program; 6, dinner concert, Book-Cadillac hotel; 10, The Red Apple club.

WEAR, Cleveland, Ohio (389.4), 7-8 p. m., program from WEAF; 10-11, Vincent H. Percy, organist.

WEBH, Chicago, Ill. (370.2), 7:30-8:30 p. m., Oriole orchestra; Sheppard Levine, tenor; Riviera theater; 9:30-10:30, Oriole orchestra; songs, Frank Magini; Frank Bordner, baritone; Dennis Sisters; 11:30-1, Oriole orchestra; Jack Penewell, twin guitarist; songs, Banks Kennedy.

WGN, Chicago, Ill. (370.2), 12:40-2:30 p. m., Drake concert ensemble, Blackstone string quintet; 2:30, artist series, Lyon & Healy; 6:30-7:30, Drake concert ensemble, Blackstone string quintet; 8:30-9:30, studio program; 10:30-11:30, Drake Hotel Terrace Garden program.

WGY, Schenectady, N. Y. (379.5), 5:30 p. m., dinner program, Hotel VanCurler orchestra; 6:35, "English and American College Athletics," Prof. William Holbrook; 6:50, WGY orchestra; Celia A. McManus, soprano; William Totterdale, tenor; 9, travel talk; 10, Meyer Davis orchestra.

WHT, Chicago, Ill. (238), 11:30-12 p. m., recipes, menus, health talk, musical program; (399.8), 7-9:30, classical program; Dorothy Bloom, soprano; John Redington, harmonica player; Thomas Stephenson, old time songs; Al Carney organist; 10:30-2, June Lee, soprano; Ted Leary, tenor; Ned Becker, reader; Hugh O'Hara's orchestra; Herbie Mintz, pianist; Pat Barnes, stories; Ransome Sherman, songs; ballads, John Clark.

WJJD, Mooseheart, Ill. (302.8), 10:30 p. m., Peoples gas club, Jack Tracy, Augie Schaid, Ray Fenton; Jari Stavoe, tenor; Mohrmann Sisters; Verna Nowry, soprano; Della Baldosso, contralto; Russell Stoage, Walter Nevin, Maurice Edgeworth, Harry Sylvia; Emily Liepe, George Simpson, Beckman & Flynn, Geneva organ; Charley Straight's orchestra.

WKRC, Cincinnati, Ohio (326), 10 p. m., Cosmopolitan

Rosemary St. Louis (below), one of the leading members of the WGY players, may be heard this Friday in "Tweedles." Madame Frances Gabrille (right) is the mysterious operatic soprano of KHJ. She is known on the coast as the Tetrazzini of the microphone.

Margaret Andre (below), pretty soprano soloist, is heard every Saturday evening as the feature of Joe Mann's popular Rainbow-Lane orchestra.
Photo, Robert Bordeaux.

music hour; 11, Doc Howard's Original WKRC broadcasters.

WLW, Cincinnati, Ohio (422.3), 12:15 p. m., program, Delta Omicron sorority; 4, talk, "Auction Bridge," Lucy Blackburn, student recital, Cincinnati Federation of Mother clubs; 7, dinner hour concert; 8, concert program; The Famous Lyric male quartet; songs and harp selections, Eleanore Walter Mackay and Mary Bees Christian; 9, Formica concert orchestra.

WLS, Chicago, Ill. (344.6), 6:30 p. m., Ralph Emerson, organist; 7:15, Glenn's Cornhuskers' concert; 7:45, lullaby time; 8, E. Warren K. Howe's classical program; 8:15, WLS theater; 9, R. F. D. program; 10, Harmony trio, Grace Wilson; 10:15, Clef Club four, instrumental and vocal; 10:45, Nubs Allen; 11:55, Glenn's Cornhuskers; 11:20, Solemn Old Judge's program; 12, review.

WMAQ, Chicago, Ill. (447.5), 4:30 p. m., musical program, students Maurice Rosenfeld; 6, Chicago theater organ; 6:25, Hotel La Salle orchestra; 6:50, Daddy; 8, Harry Hansen; 8:20, Child Welfare society talk; 8:40, weekly talk, association of commerce; 8:50, lecture, University of Chicago; 9:15, Kindred Arts School.

WMBB, Chicago, Ill. (250), 7-8:30 p. m., semi-classical program, J. Bodewalt Lampe, director; Woodlawn theater orchestra, Armin F. Hand, director; Beatrice Teller and Trianon ensemble; solos, Carlos Martini, Rita McFawn, Frank Sylvano; 8:30-10:30, popular program, Dell Lampe and Trianon orchestra; Harold O'Neil, Cameron and Vetts, Cecil Ward; Beatrice Taylor Otto; Lindsay, pianist; Cylde Hager, reader; Armin F. Hand and Woodlawn theater orchestra.

WORD, Batavia, Ill. (275), 8:30 p. m., musical program, Prof. Herman J. Barnard; Bible lecture, H. E. Hazlett.

WQJ, Chicago, Ill. (447.5), 3-4 p. m., "The Spring Breakfast," Helen Harrington Downing; "The Woman of Forty," Dr. Clara Gottschalk; 7-8, Ralph Williams and his Rainbo Garden orchestra; lecture, Dr. Lee Alexander Stone; 10-1, Ralph Williams and his Rainbo Skylarks; Ned and Ches; Tommy Hancock, harmonica player; Mack Sisters; Will Rossiter; Nate Caldwell; 1-2, ginger hour.

WREO, Lansing, Mich. (285.5), 8:15-9:45 p. m., Reo Broadcasting band; Reo male glee club; Ernest H. Wildt, baritone; S. Ray Hamilton, tenor; 10, baseball reports.

WSAI, Cincinnati, Ohio (326), 7:45 p. m., chimes; 8, Eveready hour; 9, WSAI studio.

WTAM, Cleveland, Ohio (389.4), 12:15-1:15 p. m., Euclid music studio; 6-7, Hotel Statler concert orchestra.

WTAS, Elgin, Ill. (302.8), 8-10:30 p. m., Joe Rudolph and the Boss's own orchestra; Frank Morris, Polly Willis, Eddie and Fannie Cavanaugh, Coleman Goetz.

WTIC, Hartford, Conn. (348.6), 6:45 p. m., baseball scores, National, American, International, Eastern leagues; 7, Henry E. Bonander, organist; 7:20, Edith Ahl, contralto; 7:30, Henry E. Bonander, organist; 8, "Voyaging on the Caribbean," Jones; 8:15, Ada Mary Porter, soprano; 8:30, violinist; 9, dance music.

WWJ, Detroit, Mich. (352.7), 12:05 p. m., Jules Klein's Hotel Statler orchestra; 3, Detroit News orchestra; 6, dinner concert; 7, concert from New York.

Central Standard Time Stations

CKY, Winnipeg, Can. (384.4), 8:30-8:45 p. m., "Lightning Protection of Buildings and Aerials," Prof. S. C. Lee; 8:45, J. A. Banfield company's program.

KFAB, Lincoln, Nebr. (240), 5-6 p. m., Schmoller & Mueller Music company; 11-12, midnight rounders.

KFDM, Beaumont, Texas (315.6), 12:30-1 p. m., band concert; 7-7:30, children's program; 8-10, band concert.

KFKX, Hastings, Nebr. (288.3), 12:30-1 p. m., "Chick Diseases," Prof. A. G. Phillips.

KFMQ, Fayetteville, Ark. (299.8), 9 p. m., choir, First Presbyterian church, H. E. Shultz, director.

KFMX, Northfield, Minn. (336.9), 10 p. m., Dr. H. B. Young, lecturer.

KFRU, Bristow, Okla. (394.5), 10:30-12 midnight, entertainment.

KFVE, St. Louis, Mo. (240), 6-7 p. m., Radiocast review, Romaine Fielding; 10, recital, Viola and Irma Schira; Joan Arliss, soprano; Pathe News talk; orchestra Romaine.

KSD, St. Louis, Mo. (545.1), 6 p. m., Rader's orchestra.

KTHS, Hot Springs National Park, Ark. (374.8), 8:30-8:40 p. m., baseball; 8:40-9:30, Arthur Platz vocal studio; 9:30-10:30, dance selections.

WBAP, Fort Worth, Texas (475.9), 12:05-12:30 p. m., music; 7:30-8:30, music; 9:30-10:45, ballads, Mrs. W. S. Graham, vocalist.

WCCO, Minneapolis-St. Paul, Minn. (416.4), 4 p. m., baseball; 6, baseball; 6:05, Biley's St. Paul hotel concert orchestra; 7-8, program from New York; 8, concert; 9, "Military Training Camps," Mayor A. E. Nelson; 9:15, "Work of the Child Welfare Committee of America," Otto F. Bradley.

WDAF, Kansas City, Mo. (365.6), 3:30-4:30 p. m., Star's Radio trio; 6-7, Tell-Me-a-Story Lady; Maudellen Littlefield, pianist; Trianon ensemble; 11:45-1, Newman Nighthawk night.

WEBW, Beloit, Wis. (268), 8:30-9:45 p. m., Fairbanks, Morse company program.

WFAA, Dallas, Texas (475.9), 12:30-1 p. m., address, Charles E. Osborne, 6:30-7:30, Henry Adler's orchestra; 8:30-9:30, Southern Methodist university school of music; 11-12, Dwight Brown, organist.

WHAS, Louisville, Ky. (399.8), 3:15 p. m., baseball, Louisville Conservatory of Music; Alamo theater organ; 7:30-8:30, Eddie Rosson and his orchestra; 8:30-9:30, concert, auspices Myer Berman & Sons; baseball scores.

WHO, Des Moines, Iowa (526), 7:30-9 p. m., Pomeroy band.

WMC, Memphis, Tenn. (499.7), 7:30 p. m., weekly health talk, Dr. E. E. Francis; 8:30, program, Mrs. C. W. Whitaker, director; 11, weekly organ recital, Harry O. Nichols.

WOAW, Omaha, Nebr. (526), 6 p. m., advice to lovelorn, Cynthia Grey; 6:25, dinner program; 9, Bohemian program.

WOC, Davenport, Iowa (483.6), 3-3:30 p. m., home management schedule, Aunt Jane; 5:45-6, chimes concert; 6:30-8, musical program from WEAF.

WOI, Ames, Iowa (270), 12:30 p. m., chimes; "Some Current Problems in Applied Economics," Prof. H. F. Clark.

WSB, Atlanta, Ga. (428.3), 3 p. m., baseball; 5-6, Bonnie Barnhardt; 8-9, Vic Myers Melody artists; 10:45, concert.

WSMB, New Orleans, La. (319), 6:30-7:30 p. m., organ solos, instrumental program.

WSUI, Iowa City, Iowa (483.6), 12:30 p. m., "The Study of Italian," C. E. Young.

Mountain Standard Time Stations

CNRR, Regina, Can. (312.3), 8 p. m., bedtime travel tale; Regina Rover Scout band.

KFWA, Ogden, Utah (261), 9 p. m., Oscar C. Martin's Ambassadors.

KOA, Denver, Colo. (322.4), 3 p. m., matinee for housewives; 6, dinner music, News-Times.

Pacific Standard Time Stations

KFI, Los Angeles, Calif. (467), 5:30-6 p. m., Examiner's matinee program; 6-6:15, McDaniel's nightly doings; 6:45-7, radiotorial talk; 7-8, program, Hills Brothers, presenting Hills Brothers dinner dance orchestra, Starr Russell, blues singer, Way Watts, popular songs; 8-9, Examiner: Women's Press Club of Southern California; 9-10, Aeolian residence pipe organ studio, Dan McFarland, organist; 10-11, Packard ballad hour with Billy and Polly Hall, Ashley sisters, Bud Jamieson from movieland and others.

KFOA, Seattle, Wash. (454.3), 4-5:15 p. m., Olympic hotel orchestra; recipe; 6-6:45, Olympic hotel concert orchestra; 6:45-8:15, Rhodes' Department store program; 8:30-10, Times studio program; 10:05-11:30, Olympic hotel dance music.

KFWB, Hollywood, Calif. (252), 7:45-9 p. m., Joe Martin's studio six dance orchestra and entertainers; 9-10, program, Union Oil company of California; 10-11, Warner Brothers frolic, Charlie Wellman, director.

KGO, Oakland, Calif. (361.2), 4-5:30 p. m., Hotel St. Francis; 8, program, Committee on Americanism Lodge, No. 171, Order of Elks; Big Brotherhood band; Mrs. W. W. Williamson, soprano; accordian selections, Joseph Bobba, Al Catelli; Oakland Elks serenaders; Don Smith, tenor; "Humorous Dissertation on Music," Max Horwinski; Mrs. Clinton G. Dodge, soprano; Mildred Randolph, pianist; address, Clinton G. Dodge; stories from the Ghetto, Kenneth Willis; 10-1, Henry Halstead's orchestra.

KGW, Portland, Ore. (491.5), 12:30 p. m., Rose City trio; 5, children's program; 8, Oregon Agricultural college extension service lecture; 8:30, Monday Musical club sextet; 10, Multnomah hotel.

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, little stories American history, Prof. Walter Sylvester Hertzog, weekly visit of Sandman and Queen Titania of Fairyland, Louis F. Klein, auto-harp and harmonica, Chas. Leslie Hill, readings, Floryane Thompson, soprano; 7:30-8, Piggly Wiggly girls string trio; 8-10, program, Colyear Motor Sales 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, Sid Ziff's sports talk; 6:15-6:30, travelogue, W. F. Alder; 6:30-7:30, Don Clark's La Monica ballroom orchestra of Santa Monica; 7:30, style talk, Myer Siegel, Jr. of Myer Siegel and company; 7:45, health talk, Dr. Robert T. Williams; 8-9, program, Elite Catering company; 9-10, program, Independent Furniture Manufacturing company; 10-12, movie night at the Ambassador, Abe Lyman's Cocoanut Grove dance orchestra.

KPO, San Francisco, Calif. (428.3), 1-2 p. m., Rudy Seiger's Fairmont hotel orchestra; 6:35-7, States Restaurant orchestra; 7-7:30, Rudy Seiger's Fairmont hotel orchestra; 8-9, program, Bass-Hueter Paint company; 9-10, Harold Sampson, golf expert; 10-11, Johnny Buick's Cabirians.

Wednesday, May 27

Wednesday, silent night for: CFAC, CFCA, CHNC, CHIC, CNRT, CKAC, CKY, KFDM, KFKU, KFKX, KFMQ, KOO, KOB, WBAV, WBBR, WCAL, WCBD, WDWF, WEAO, WEBW, WFAA, WFI, WGBS, WGST, WGY, WHAR, WHAZ, WJAO, WJY, WLBL, WMAK, WMC, WOAI, WOAW, WOI, WORD, WRC, WREO.

Atlantic or Eastern Daylight Saving Time Stations

CHYC, Montreal, Can. (411), 8:30 p. m., C. N. R. program.

CKAC, Montreal, Can. (410.7), 1:45 p. m., luncheon concert.

WAHG, Richmond Hill, N. Y. (315.6), 12:30-1:15 p. m., special program, time signals and weather reports; 7:30-7:45, sport review, Thornton Fisher; 7:45-8, Harry Caffrey, tenor; 8-8:15, talk on camping, Henry Silverman; 8:15-8:45, Morningside string quartet; 8:45-9, Helen Marshall, soprano; 9-9:15, Evan Davies, Scotch baritone; 9:15-9:45, Morningside string quartet; 9:45-10, Harry Caffrey; 10-10:15, Evan Davies; 10:15-10:55, Glenn C. Smith's Paramount orchestra; 11:05-11:30, Glenn C. Smith's Paramount orchestra.

WBZ, Springfield, Mass. (333.3), 6 p. m., Hotel Kimball concert trio; Jan Geerts, director; 6:30, Nature league, Thornton W. Burgess; 8, Jacob Fracht, James F. Knox, violinists; Dorothy Burchard Mulroney, pianist; 9, announced; 9:40, "Recreation Attractions of New England," Denny B. Goode.

WCAE, Pittsburgh, Pa. (461.3), 6:30 p. m., William Penn hotel; 8:30, Mrs. E. C. Sheets, soprano; 10:30, concert.

WCAU, Philadelphia, Pa. (278), 6:30 p. m., Hotel Pennsylvania concert orchestra; 8, recital; 8:30, concert; 8:45, "N. B. T. Boys" concert; 9, concert; 10:10, Radio talk.

WEAF, New York, N. Y. (491.5), 6:45-7:45 a. m., Metropolitan tower health drill; 11-11:10, Edna Frandini, soprano; 11:10-11:25, health talk to mothers; 11:25-11:35, Edna Frandini; 11:35-11:50, talk, "Growing Up;" 11:50-12, Edna Frandini; 4-4:15 p. m., Camille Montaperto, pianist; 4:15-4:30, Arline Felker, soprano; 4:30-4:40, Camille Montaperto; 4:40-5, children's story; 6-7, dinner music, Waldorf-Astoria; 7-7:30, services, United Synagogue of America; 7:30-8:30, concert, United States Navy band; 8:30-9, concert, Invisible choir; 9-10, Ipana Troubadours; 10-11, Royal Little Symphony; 11-12, Ben Bernie's Hotel Roosevelt orchestra.

WEBJ, New York, N. Y. (233), 7-9 p. m., program, auspices of Harlem Board of Commerce.

WEEI, Boston, Mass. (475.9), 3 p. m., Frankie Ward and his orchestra; 5:30, Campbell's orchestra; 6:30, Big Brother club; 8, Travelers Shoe concert; 8:30, M. B. Cohen's half hour concert; 9, Broderick's orchestra; 10, Dok-Eisenbourg and his Sinfonians.

WFI, Philadelphia, Pa. (394.5), 1 p. m., Bellevue Stratford concert orchestra; 3, Loretta Kerk, pianist; 6:30, Meyer Davis concert orchestra; 7, Radio Scout meeting.

WGBS, New York, N. Y. (315.6), 10-10:10 a. m., "Timely Talks," "Terese;" 10:10-10:20, Mabel Montgomery, soprano; 10:20-10:30, reducing talk, Georgia Heffner; 10:30-10:40, Mabel Montgomery; 10:40-10:50, talk, "Cooking for Men," Mrs. Pebbles of the Y. M. C. A.; 10:50-11, Mabel Montgomery; 1:30-1:35 p. m., Scripture reading; 1:35-2:30, Janith Claire, soprano; Walter Gross, pianist; 3-3:10, interview with Nicholas Haz, photographer of celebrities, Terese Rose Nagel; 3:10-3:30, Anna Winner, contralto; 3:30-3:30, "Weight and Relaxation in Piano Playing," Jacob Eisenberg; 3:30-3:40, Anna Winner; 3:40-3:50, talk, Jefferson Memorial contest; 3:50-4, Anna Winner; 6-6:30, Uncle Geebee; 6:30-7, Elite orchestra.

WGR, Buffalo, N. Y. (319), 2:30-4:30 p. m., WGR's afternoon musicale, A. J. Erisman, director; 6:30-7:30, dinner music, Joe Stewart's orchestra; 9-9:30, E. J. Clare, Jewish comedian; 9:30-11, musical program, Buffalo Concert Lyceum bureau, J. P. Quinn, director; 11-1 a. m., supper-dance music, Vincent Lopez Hotel Statler dance orchestra, Harold Gleser, director.

WHN, New York, N. Y. (360), 2:15-2:45 p. m., Jimmy Clark and his White Way entertainers; 2:45-3:15, Charles Skeete and his orchestra; 7:30-7:35, health talk, Dr. Landis; 9-10, Consolidated Dairy orchestra; 10-10:30, Roseland dance orchestra; 10:30-11, Palisades Park orchestra; 11:30-12, Silver Slipper revue and orchestra; 12-12:30 a. m., Strand Roof orchestra.

WIP, Philadelphia, Pa. (508.2), 7 a. m., setting-up exercises; 10, menu talk; 10:20, setting-up exercises for women; 10:50, beauty talk, Maude Delzell; 1 p. m., Gimbel tea room orchestra; 3, recital, students, Montani vocal studios; 4:20, talk, "Fathers' Associations," Hubert E. Primel; 6:05, Benjamin Franklin concert orchestra; 7, Uncle Wip's bedtime stories.

WJAR, Providence, R. I. (305.9), 1:05 p. m., orchestra; 7:30, program from New York.

WJZ, New York, N. Y. (454.3), 10-10:20 a. m., Housewives league menu, Mrs. Julian Heath; 10:20-10:30, "The Sick Baby," Visiting Nurse service; 10:30-10:40, fall planting; 10:40-10:50, "Be Your Own Decorator," Amy Nall Hicks; 10:50-11, fashion talk, Eleanor Gunn; 1:15-2 p. m., luncheon music; 2-2:10, "Personality," Dr. Morris A. Brisco; 4-4:15, Frances Carey Hall, pianiste; 4:30-5:30, Hotel Belmont tea music; 5:30-6, daily reports; 7-8, Cafe Boulevard orchestra; 8-8:10, Wall Street Journal review; 8:10-8:45, Estey organ recital; 8:45-9, "Current Foreign Affairs—Italy," William C. Redfield; 10-10:30, Maurice Leest and his trio.

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

WLIT, Philadelphia, Pa. (394.5), 12:02 p. m., daily almanac; Stanley theater organ recital; Arcadia cafe concert orchestra; 2, Arcadia cafe conert orchestra; talk, "Care of Children," Mrs. Mabel Love; 2:30, Arthur Cromby, baritone; 7:30, Dream Daddy's bedtime stories; 8:30, Delco piano quintet; 10, Arcadia cafe dance orchestra.

WMCA, New York, N. Y. (341), 3:30-3:40 p. m., talk, Alvin Silver company; 6:30-7:30, Ernie Golden and his Hotel McAlpin orchestra; 8:15-8:25, talk, House of Health; 9:15-9:30, Madeleine Hulsizer, soprano; 9:45-10, Madeleine Hulsizer.

WNYC, New York, N. Y. (526), 7-7:30 p. m., song recitals; 7:35-7:50, talk, Mayor John F. Hylan; 7:50-8, piano recital; 8-8:30, song recital; 8:30-9:45, course in appreciation of music, Dr. Henry T. Fleck; 9:45-10:30, the Five Messner Brothers.

WOO, Philadelphia, Pa. (508.2), 11 a. m., organ recital, Mary E. Vogt; 12:02 p. m., Golden's tea room orchestra; 4:45, organ recital, Mary E. Vogt; 7:30, A. Candelori's concert orchestra; 8, concert from WEAF; 9, "Ipana" Troubadours; 10:03, organ recital, Mary E. Vogt; 10:30, Vincent Rizzo's dance orchestra.

WOR, Newark, N. J. (405.2), 6:45-7:45 a. m., gymnasium class; 3-4 p. m., Tivoli orchestra; 6:15-6:45, Harry Cox's Hotel Robert Treat orchestra; 7:30-7:45, Vincent Lopez's orchestra; 8-8:10, topics of the day, Spencer Armstrong; 10-10:30, Jascha Gurewich saxophone ensemble; 11-12, Ciro's orchestra.

Eastern Standard or Central Daylight Saving Time Stations

CNRM, Montreal, Can. (411), 8:30 p. m., Harold Morris, pianist; Harry Underwood, tenor; Isabel Starkman, contralto; Saul Brant, violinist; F. H. Rowe, baritone; Gladys Davis, soprano; duet, Harry Underwood, F. H. Rowe; Frederick H. Blair, accompanist.

CNRO, Ottawa, Can. (435), 8 p. m., Chateau Laurier concert orchestra; Elgar quartet; Mrs. John Johnstone, pianist; tenor and bass duet, John Barron, Frank Brown; Edythe Young, violinist; soprano, contralto

(Continued on page 12)

WIP ANNUAL REVUE SATURDAY; VI

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, May 23: 7:30 WHAR; 8:15, WEAF; 10, WJZ.

Sunday, May 24: 7:20, WEAF, WEEI, WJAR; 10, WHN.

Monday, May 25: 6:15, WOR; 7:30, WEEI, WHAR; 8, WEEI; 8:15, WAHG; 8:30, WAHG; 9, WEAF, WEEI, WJAR, WOO; 9:15, WAHG; 10, WEAF, WLIT; 10:45, WOR.

Tuesday, May 26: 6:15, WOR; 7:30, WEAF, WEEI, WHAR; 7:35, WHN; 8:15, WEBJ; 8:30, WCAE, WEAF, WEEI, WFI; 9, WEAF, WEEI, WFI; 9:15, WIP; 11:30, WGBS; 12, WHN.

Wednesday, May 27: 6:15, WOR; 7:45, WAHG; 9, WOR.

Thursday, May 28: 6:15, WOR; 7:15, WEEI; 7:30, WHAR; 8, WEAF, WHN; 9, WEAF, WFI, WGBS; 10, WHN; 10:30, WJZ.

Friday, May 29: 6:15, WOR; 6:30, WGBS; 7:30, WHAR; 7:45, WAHG; 8:15, WJY; 8:30, WEEI; 9, WEEI; 10, WEAF, WEEI, WHN, WLIT; 10:45, WEAF.

Central Standard Time Stations

Saturday, May 23: 6:15, WFAA; 8:40, KTHS; 9, KFRU; 11, KFAB; 11:45, WDAF; 12, WLBL.

Sunday, May 24: 9, WAMD; 11, WBAP.

Monday, May 25: 6:30, WFAA; 7:30, KFAB, WBAP; 8, KFRU, WOS; 8:30, KFAB; 9:30, WBAP; 10, WOI; 10:30, WOO; 11, WBAP; 11:45, WDAF.

Tuesday, May 26: 6:30, WFAA, 9:45, WOAW; 10:30, KFRU; 11, KFAB, WMC; 11:45, WDAF.

Wednesday, May 27: 7:30, KFAB; 8, KFRU; 8:30, KFAB, WSMB; 10, KFVE; 11:45, WDAF.

Thursday, May 28: 6:30, WFAA; 11, WFAA; 11:30, WFAA; 11:45, WDAF.

Friday, May 29: 6:30, WFAA; 7:30, KFAB; 8, WDAF, WOC; 8:30, WHAD, WHO, WSMB; 10, KFVE; 11, KFRU, WMC; 11:45, WDAF.

Eastern Standard or Central Daylight Saving Time Stations

Saturday, May 23: 8, WBBM, WBCN, WLS, WMAQ, WMBB; 8:30, WMBB; 9, WBBM, WBCN, WLS, WTAM; 9:30, WEBH, WMBB; 10, WBBM, WBCN, WKRC, WLS, WQJ; 10:30, WEBH, WGES, WJJD, WQJ, WRC; 11, KYW, WLS, WQJ, WTAM; 11:30, WBBM, WEBH, WJJD; 12, KYW, WLS, WQJ; 12:30, WBBM, WJJD; 1, WQJ.

Sunday, May 24: 7:20, WWJ; 8, WBCN; 8:30, WBBM, WMBB; 9, WBCN; 9:30, WBBM; 10, WBCN; 11, WKRC; 12, WJJD; 1, WJJD.

Monday, May 25: 8, WKRC, WTAM; 9, WGR; 10:30, WJJD; 11:15, WMAK; 11:30, WJJD; 12, WMAK; 12:30, WJJD.

Tuesday, May 26: 8, WBBM, WBCN, WMBB; 9, WBBM; 9:30, WEBH; 10, WBBM, WGR, WKRC, WQJ; 10:30, WEBH, WJJD; 11, WBBM, WBCN, WKRC, WQJ; 11:30, WEBH, WJJD, WQJ; 12, WBCN; 12:30, WJJD, WQJ; 1, WBCN, WQJ.

Wednesday, May 27: 6:30, WGR; 8, WBBM, WBCN, WMBB, WWJ; 9, KYW, WBBM; 9:15, WKRC; 9:30, WBBM, WEBH, WKRC; 10, KYW, WBCN, WQJ, WTAM; 10:30, WEBH, WJJD; 11, KYW, WQJ; 11:30, WEBH, WJJD, WQJ; 12, KYW; 12:30, WJJD, WQJ; 1, WQJ.

Thursday, May 28: 8, WBBM; WBBR, WBCN, WMBB; 8:50, WBBR; 9, CHNC, WBBM; 9:30, WBBM; 10, WBCN, WQJ; 11, WBBM, WBCN, WLW, WQJ; 12, WBCN, WQJ; 1, WQJ.

Friday May 29: 7, WGR; 7:15, WGY; 8, WBBM, WBCN, WEAR, WMBB; 9, KYW, WBBM, WEAR, WGR; 10, KYW, WBCN, WQJ; 10:30, WJJD; 11, KYW, WQJ; 11:30, WJJD; 12, KYW, WQJ; 12:30, WJJD; 1, WQJ.

Mountain Standard Time Stations

Monday, May 25: 8, KOA.

Tuesday, May 26: 8, CNRR; 9, CNRR.

Wednesday, May 27: 8, KOA.

Thursday, May 28: 9, CNRC; 10, CNRC.

Friday, May 29: 8, KOA.

Pacific Standard Time Stations

Saturday, May 23: 7:30, KHJ; 7:45, KFWB; 8, KFI, KHJ; 9, KFWB, KNX; 10, KFWB; 11, KHJ, KNX; 12, KNX.

Sunday, May 24: 9, KFWB; 10, KFI, KFWB.

Monday, May 25: 6:30, KFWB; 8, KFWB; 9, KFWB; 10, KFWB, KLX.

Tuesday, May 26: 7:45, KFWB; 8, KFI, KHJ; 9, KFWB; 10, KFI, KFWB, KNX; 11, KNX.

Wednesday, May 27: 7, KFWB; 7:45, KFWB; 8, KFWB; 8:30, KHJ; 9, KFI, KFWB, KNX; 9:30, KHJ; 10, KFI, KFWB.

Thursday, May 28: 7:45, KFWB; 8, KFI, KGO, KNX; 8:30, KFWB; 9, KFWB; 10, KFI, KFWB; 10:30, KJR; 11, KNX.

Friday, May 29: 7:45, KFWB, KHJ; 9, KFWB; 10, KFWB; 10:30, KGW; 12, KNX; 1, KNX.

Charles Harrison, tenor, is an Eveready artist and may be heard from 9-10 p. m. Tuesdays over WEAP and the link stations. Maxine Valentine and Charles Yale are features of the Pearl Calhoun Davis monthly programs at WBAP.

Wednesday, May 27

(Continued from page 11)

duet, Mrs. J. D. Robertson, Mrs. J. Russell Pontifex; Chateau Laurier dance orchestra.

KDKA, Pittsburgh, Pa. (309.1), 2:30 p. m., 3, 3:30, 4, 4:30, 5, 7, baseball scores; 8:15, address, University of Pittsburgh; 8:45, Dry Slitz hour of music; 9:55, baseball scores.

KYW, Chicago, Ill. (536), 6:[illegible]-6 p. m., Uncle Bob's bedtime story; 6-6:[illegible], concert, Congress hotel; 6:33, "Entertaining Plans," Vivette Gorman; 7-8, musical program, United Synagogue of America; 9-12 a. m., revue; Paul Whiteman's Collegians.

PWX, Havana, Cuba (400), 8:30-11 p. m., General staff band, Cuban army.

WBBM, Chicago, Ill. (226), 8-10 p. m., Maurice Silverman, tenor; Rosemary Hughes, Joey Stool, Crillon orchestra.

WBCN, Chicago, Ill. (266), 7-8 p. m., Paige's orchestra; Mrs. W. B. Pipher, soprano; 8-9, Amber Furniture company program; Berger Weber, tenor; Midway dancing orchestra; 10-11, popular program.

WCAP, Washington, D. C. (468.5), 6:30-10 p. m., U. S. Navy concert band; Charles Benter, leader; concert, invisible choir; features.

WCEE, Elgin, Ill. (275), 10:30-12 midnight, Joe Rudolph and the Boss' own orchestra; Frank Morris, Eddie and Fannie Cavanaugh, Colman Goetz.

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

WEAR, Cleveland, Ohio (389.4), 6:35-7:45 p. m., Ivan Francisci and his Hotel Cleveland orchestra.

WEBH, Chicago, Ill. (370.2), 7:30-8:30 p. m., Oriole orchestra; John Leonardi, tenor; "Books of the Day," Lewellyn Jones; Kay Ronayne; Robert York, tenor; brass quartet; 9:30-10:30, brass quartet; Oriole orchestra; 11:30-1 a. m., Oriole orchestra; songs, Kay Ronayne, Loos Brothers; Dan Russo, Ted Fiorito.

WGN, Chicago, Ill. (370.2), 12:40-1:30 p. m., Drake concert ensemble, Blackstone string quintet; 2:30, artist series, Lyon & Healy; 6:30-7:30, Drake concert ensemble, Blackstone string quintet; 8:30-9:30, college reunion, Chicago glee club; 10:30-11:30, Drake hotel Terrace Garden program.

WGY, Schenectady, N. Y. (379.5), 5:30 p. m., children's program; 6:45, Albany Strand theater orchestra; Julius Boxhorn, conductor; Floyd Walters, organist; 6:30, feature, Child's Book of Knowledge.

WHT, Chicago, Ill. (238), 11:30-12 p. m., recipes, menus, health talk, musical program; (399.8), 7-8:30, classical program; Thomas Stephenson, old time songs; Emmy Ohl, soprano; Adele Brandt, contralto; John Clark, baritone; Al Carney, organist; 10:30-2, Husk O'Hare's orchestra; Al Carney, organist; Pat Barnes, songs and stories; Herbie Mintz, pianist; songs, John Clark.

WJJD, Mooseheart, Ill. (302.8), 10:30 p. m., John Rankel, Elsa Ward, Bennie Ray and Rudie Patek, Arthur Lambrecht, Leslie Skow, Geneva organ, Charley Straight's orchestra.

WKRC, Cincinnati, Ohio (326), 8 p. m., vocal and instrumental concert; 9, Cincinnati Public library course; 9:15, Leila LeMarr, pianist; 9:30, Bob Groenke, Jim Mischler.

WLS, Chicago, Ill. (344.6), 6:30 p. m., Ralph Emerson, organist; 7:15, Glenn's Cornhuskers; 7:45, lullaby time, Ford and Glenn; 8, Glenn's Cornhuskers; 8:15, Lone Scouts; 8:45, WLS theater; 9, R.F.D. program; 10, Glenn's Cornhuskers; 10:15, Lucas sisters; 10:30, Hargrow review; 11, Ford and Glenn time.

WLW, Cincinnati, Ohio (422.3), 12:15 p. m., request program, Irene Downing and Marjory Weber Hebestreit; 4, program for Shut Ins; 7, dinner hour concert, Hotel Gibson orchestra, Robert Visconti, director; special feature, "The Voice," with the mysterious age; 10, program presented by Cincinnati Terminal Committee of Railway clerks; Walter Esberger, director.

WMAQ, Chicago, Ill. (447.5), 4:05 p. m., stories from Child Life; 4:30, Englewood glee club; 6, Chicago theater organ; 6:30, stories for children, Georgene Faulkner; 8, lecture, Northwestern university; 8:25, musical program; 9:15, WMAQ players.

WMBB, Chicago, Ill. (250), 7-8:30 p. m., concert, J. Bodwalt Lampe, director; Woodlawn theater orchestra; Beatrice Teller, Trianon ensemble; soloists, Hazel O'Neil, Carlos Martini, Vernon Buck; 8:30-10:30, Dell Lampe and Trianon orchestra; soloists, Frank Sylvano, George Clark, Alvin Fry, George Givot, Erwin Schmidt, Cecil Ward; Trianon syncopators; Woodlawn theater orchestra.

WORD, Batavia, Ill. (275), 8:30 p. m., hymns and sacred songs, prayer meeting comments, Oscar A. Olson.

WQJ, Chicago, Ill. (447.5), 3-4 p. m., "Ready to Serve Meats," Martha Logan; 7-8, Ralph Williams and his Rainbo Garden orchestra; Otis Pike Jester, soprano; Henrietta Nolan, violinist; Mary Thrash House, pianist; Ray McKay, baritone; 10-1 a. m., Ralph Williams and his Rainbo Skylarks; Bert Davis; Melodians; Fred A. Jacobsen, monologuist; Zeigler Sisters; Hickey and Johnson; Brundage and Kraemer; 1-2, Ginger hour.

WREO, Lansing, Mich. (285.5), 10 p. m., baseball reports.

WSAC, Clemson College, S. C. (336.9), 8 p. m., general farm news; animal husbandry; 10-minute talk, seasonal; 10-minute talk, entomology; jazz orchestra.

WSAI, Cincinnati, Ohio (326), 7 p. m., Freda Sanker's Toadstool orchestra; 10, Congress playing card string quartet.

WTAM, Cleveland, Ohio (389.4), 12:15-1:15 p. m., Euclid music studio; 6-7, Phil Spitalny's orchestra; 8-10, East high orchestra, girls' glee club; 10-11, Hollenden hour, Carl Rupp and his Hotel Hollenden entertainers; 11-1, Phil Spitalny's orchestra.

WTAS, Elgin, Ill. (302.8), 8-10:30 p. m., Villa Olivia Radio concert; Frank Morris, Polly Willis, Eddie and Fannie Cavanaugh, Coleman Goetz.

WTIC, Hartford, Conn. (348.6), 5:45 p. m., baseball scores.

WWJ, Detroit, Mich. (352.7), 12:05 p. m., Jules Klein's Hotel Statler orchestra; 3, Detroit News orchestra; 6, dinner concert; 8, Detroit News orchestra; Anne Campbell, Detroit News' poet; 9, Jean Goldkette's Victor Recording orchestra.

Central Standard Time Stations

KFAB, Lincoln, Nebr. (240), 7:30-8:15 p. m., Gladys Young's orchestra; 8:15-9:30, Harriet Cruise, Oriole of the Air; Olive Fletcher, Commander-in-Chief of the Ivories.

KFKX, Hastings, Nebr. (288.3), 12:30-1 p. m., "Breed."

KFMX, Northfield, Minn. (336.9), 9 p. m., James Robert Gillette, organist.

KFNF, Shenandoah, Iowa (266), 7:30 p. m., Mann children entertainers.

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

KFUO, St. Louis, Mo. (545.1), 9:15 p. m., "The Bible and Modernism," Dean Fritz.

KFVE, St. Louis, Mo. (240), 6-7 p. m., Radiocast review, Romaine Fielding; the Duke with the Uke, Marion Brown; "Motion Picture Set Designing and Construction," Harry S. Wylie; "Mother's Relief Fund," Romaine Fielding.

KSAC, Manhattan, Kan. (341), 12:35 p. m., timely crop talk, H. R. Sumner; "Lowering Harvest Cost with Machinery," Claude K. Shedd.

KSD, St. Louis, Mo. (545.1), 7 p. m., West End Lyric theater; Silverman's orchestra; Oscar S. Jost, organist.

KTHS, Hot Springs National Park, Ark. (374.8), 8:30-8:40 p. m., baseball; 8:40-9, Imogene Carpenter, pianist; 9-10, New Arlington hotel orchestra.

WBAP, Fort Worth, Texas (475.9), 12:05-12:30 p. m., musicale; 7:30-8:30, concert; 9:30-10:45, Texas hotel orchestra.

WBAR, Sisiht, Wis. (406), 8-9 p. m., high school glee club.

WCCO, Minneapolis-St. Paul, Minn. (416.4), 2:05 p. m., "Community Fund Fresh Air Camps," Paul S. Briggs; 2:30, afternoon concert; 4, playlet, the McPhail players; 6, baseball; 6:30, "Flour, Feed and Flax Markets."

WDAF, Kansas City, Mo. (365.6), 3:30-4:30 p. m., Star's Radio trio; 6-7, address, speaker, auspices Health Conservation association; address, speaker Meat Council of Greater Kansas City; Tell-Me-a-Story Lady; Trianon ensemble; 8-10, Star's Radio orchestra; 11:45-1, Merry Old Chief, Carl Nordberg's Plantation players.

WFAA, Dallas, Texas (475.9), 12:30-1 p. m., Alex Hughes, pianist.

WHA, Madison, Wis. (535.4), 8 p. m., mixed quartet, faculty of the School of Music.

WHAD, Milwaukee, Wis. (275), 4 p. m., Marquette university matinee program; 6-7, Wisconsin theater organs; 8-10, Wisconsin Roof; 11:30, Saxe's Wisconsin theater.

WHAS, Louisville, Ky. (399.8), 3:15 p. m., baseball; Louisville Conservatory of Music; Alamo theater organ; 7:30-9, string division, K. I. Terminal Railroad orchestra, W. O. Robertson, director; Wayne W. Lowd and his orchestra.

WHO, Des Moines, Iowa (526), 6:30-7:30 p. m., Reese-Hughes orchestra; 7:30-9, Cora Jayne Burberry, comedienne; Josephine Sikkema, soprano; Ellen Van Dellen, accompanist; Abraham Tolchinsky, violinist; 9-9:45, Des Moines theater symphonic orchestra; 9:45-12, dance program.

WOC, Davenport, Iowa (483.6), 4-5 p. m., Hawaiian numbers, Louis and Edward Crowder; 5:45-6, chimes concert; 6:30-6:50, Sandman's visit, Val McLaughlin; 9-10, program, Auxiliary of the American Legion.

WOS, Jefferson City, Mo. (440.9), 8 p. m., "Feeding the Milk Cow During the Summer Months," A. C. Ragsdale; sacred song service, J. O. Humphreys, director.

WSB, Atlanta, Ga. (428.3), 2:30 p. m., baseball; 5-6, Georgians orchestra; Bonnie Barnhardt; 10:45, orchestra.

WSMB, New Orleans, La. (319), 6:30-7:30 p. m., organist, piano solos; twilight tales; 8:30-10:30, program.

Capt. A. F. G. Raikes; 7, Plymouth Congregational church; 8, "Visiting Round," Dean Coffey; 8:30, University of Minnesota program; 10:30, Dick Long's Nankin cafe orchestra; Gold Medal Radio quartet.

WSUI, Iowa City, Iowa (483.6), 9 a. m., high school assembly program.

Mountain Time Stations

KFWA, Ogden, Utah (261), 4 p. m., Zenith Radio hour; 9, children's program; Knobob Six dance orchestra.

KOA, Denver, Colo. (322.4), 6:35 p. m., sandman's hour; 8, Fred Schmitt and his Rialto theater orchestra; 8:10, program, Baldwin Piano company; piano duet, Edith Kingsley Rinquest, Barbara Loomis; Frank Dinhaupt, baritone; Sophie Frumess, violinist; Clarence Reynolds, organist; KOA orchestra; Louise Wood Edwards, pianist; Agnes Clark Glaister, soprano; 10-12, Dave Ginsburg and his Argonaut orchestra.

Pacific Standard Time Stations

KFAE, Pullman, Wash. (348.6), 7:30-9 p. m., Treadwell orchestra; Donna Jean Trumbull, reader; Dorothelle Palmer, vocalist; "Our Protection Against Disease," Dean E. E. Wegner; "The State Grange Meeting," E. F. Gaines; "A Club Camp for Boys and Girls," Elmina White; "Water Power Development of the Northwest," E. A. Bryan.

KFI, Los Angeles, Calif. (467), 5:30-6 p. m., Examiner's matinee program; 6-6:15, McDaniel's nightly doings; 6:45-7, Raditorial talk; 7-7:30, detective story, Nick Harris; 7:30-8, Leona Wilson, mezzo-soprano, Anton Chris, steel guitar; 8-9, Evening Herald's hour of dance music; 9-10, Examiner: movie program by Wampas club of movie agents; 10-11, Patrick-Marsh dance orchestra, Betty Patrick, soloist.

KFOA, Seattle, Wash. (454.3), 4-5:15 p. m., Olympic hotel orchestra; recipe, 6-6:45, concert orchestra; 6:45-8:45, Hopper-Kelly company studio program; 8:30-10, Times studio program.

KFWB, Hollywood, Calif. (252), 7-8 p. m., program, Beverlyridge company; 8-9, program, Arrowhead Springs Water company, Co-Rose quartet; 9-10, Fritchey sisters, Louise Howatt, Billy Lynn, Warner Brothers syncopators; 10-11, Warner Brothers' frolic, director Charlie Wellman.

KGO, Oakland, Calif. (361.2), 3 p.m., musical program, speaker, Cora L. Williams institute; 4-5:30, concert orchestra, Hotel St. Francis.

KGW, Portland, Ore. (491.5), 12:30 p. m., Rose City trio; 6, children's program; 6, Hotel Portland dinner concert; 8-8:30, Seventh U. S. Infantry band; 9, 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, little stories American history, Prof. Walter Sylvester Hertzog; Dick Winslow, juvenile reporter; Mickey McBan, Baby Muriel MacCormac, screen starlets; Chas. D. McRoy, harmonica; Jenny Lind, Danish soprano; Uncle John; 8, Dr. Mars Bumgardt, scientific lecturer; 8:30-9:30, Boos Brothers' orchestra, Pryor Moore, leader; 9:30-10, Piggly Wiggly girls' string trio; 10-11, Art Hickman's Biltmore hotel dance orchestra, Earl Burtnett, leader.

KLX, Oakland, Calif. (508.2), 6-7 p. m., organ recital; 8-10, American theater orchestra; 10-11:30, Sweet's ballroom.

KNX, Hollywood, Calif. (336.9), 5:30-6:15 p. m., Wurlitzer pipe organ studio, Sid Ziff's sports talk; 6:15-6:30, travelogue, W. F. Alder; 6:45, talk on insect life, H. W. McSpadden; 7-8, Ambassador hotel concert orchestra, Josef Rosenfeld, director; 8-9, program, Brent Furniture company; 9-10, Clear Lake Beach company; 10-12, KNX late hour feature program.

KPO, San Francisco, Calif. (428.3), 1-2 p. m., Rudy Seiger's Fairmont hotel orchestra; 4:30-5:30, Rudy Seiger's Fairmont hotel orchestra; 6:30-7, States Restaurant orchestra; 7-7:30, Rudy Seiger's Fairmont hotel orchestra; 8-9, studio program; 9-10, Goodrich Silvertown Cord orchestra; 10-11, Johnny Buick's Cabirians.

Thursday, May 28

Thursday, silent night for: CHIC, CHYC, CNRT, KFAB, KFAE, KFDM, KFMX, KFOA, KLX, KOA, KOB, KSD, PWX, WAHG, WBAV, WCEE, WEBJ, WEBW, WEMC, WHA, WHAD, WHAZ, WJAO, WJJD, WKRC, WLBL, WOO, WOS, WSAC, WSUI, WTAM.

Atlantic or Eastern Daylight Saving Time Stations

CKAC, Montreal, Can. (410.7), 4:45 p. m., cabaret program, Windsor tea room; 8:30, special.

WAHG, Richmond Hill, N. Y. (315.6), 12:30-1:15 p. m., music.

WBBR, New York, N. Y. (272.6), 8 p. m., Carl Park, violinist; 8:10, instrumental selections, George Twaroschk, Carl Park, Frank Wood; 8:20, Sunday school lesson, S. M. Van Sipma; 8:50, Frank Wood, flutist.

WBZ, Springfield, Mass. (333.3), 6 p. m., Leo Reisman Hotel Lenox ensemble; 7:30, U. S. Marine band; 9, Holyoke "Y" glee club concert; Norman Dash, director; Charles Aspden, accompanist; 9:40, "Bringing the World to America."

WCAE, Pittsburgh, Pa. (461.3), 6:30 p. m., William Penn hotel; 8, recital; 9, Atwater-Kent Radio artists; 10, Goodrich Silvertown Cord orchestra.

WCAU, Philadelphia, Pa. (278), 6 p. m., Hotel Pennsylvania Intrafraternity orchestra; 7, Hotel Pennsylvania Interfraternity orchestra; 7:30, N. Snellenburg Symphony orchestra; 8, talk, Clara Zillessen; 9, con-

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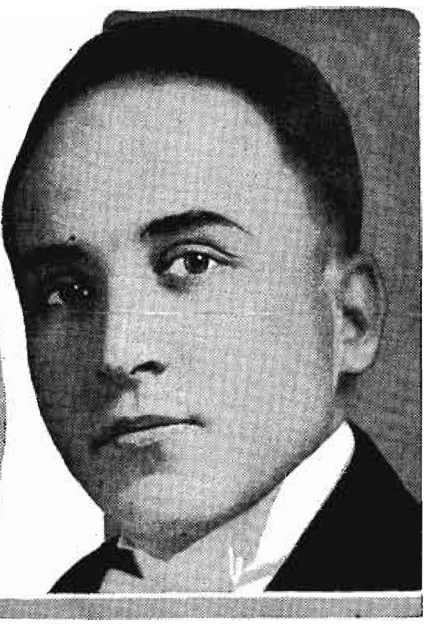
CTOR HERBERT MEMORIAL AT WEAF



Richard Kountz, composer-pianist, is one of this week's features at KDKA, Pittsburgh. He will play his own compositions.

CING
d Time)
May 23: 8:05,
Ksd, Kths,
9, Kfi, Weaf,
, Wrc; 9:30,
Koa, Kpo,
m.d, Weco,
; Kfoa, Webh;
v, 11, Kfab,
Woc, Wrc;
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May 25: 8,
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Weaf, Woo;
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, Wgr; 10:30,
Kfwb, Wjjd;
f; 12, Kfi,
Kpo; 1,

May 26: 8,
Weaa, Webh;
Weaf, Wjy,
Wrc; 9:15,
, Whn; 10,
, Woaw; 11,
Wjjd; 11:30,
, Wdaf; 12,
Khj, Kpo;
, 1, Kfwb.

May 27: 8,
, Whn, Wlit,
Webh, Whn,
9, Wabg,
Wqj, Wtam;
9:45, Who;
Vgr, Whn,
, Khj, Weco,
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f; 12, Kfi,
fnx, Kpo; 1,

May 28: 8,
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Wmca; 10,
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ak; 11:45,
Kgo, Kgw,
12:05, Kfoa;
x.

May 29: 8,
8:30, Weau,
, Wjz, Woo;
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9:30, Whn;
Wgr, Whn,
, Webh; 11,
Wjjd, Woc;
Wdaf; 12,
b.

cert; 10:45, Jack Myers' Musical Arhitects dance orchestra.

WDWF, Providence, R. I. (440.9), 6:30-8 p. m., Narragansett Hotel concert orchestra.

WEAF, New York, N. Y. (491.5), 6:45-7:45 a. m., Metropolitan tower health drill; 11-11:10, musical program; 11:10-11:20, "Tempting Party Menus," Miss Marjorie E. Pidgeon; 11:20-11:25, music; 11:25-11:40, "Hot Weather Cooking," Mrs. Arthur Griswold; 11:40-11:45, music; 11:45-11:55, talk to housewives, "Training Your Maid;" 4-4:10, Anthony Gorton, soprano; 4:10-4:20, Arthur Stone, blind pianist; 4:20-4:30, "Spanish and Italian Style House," Mr. Henry Humphreys; 4:35-4:45, Arthur Stone; 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; 8-8:30, Chalmers ensemble; 8:30-9, "Touring in a Packard Eight"; 9-10, Atwater Kent artists; 10-11, Silvertown Cord orchestra; 11-12, Vincent Lopez' hotel Pennsylvania orchestra.

WEEI, Boston, Mass. (475.9), 2:30 p. m., French poetry, Ernest Perrin; 3:15, Noah's Arkadians; 6:30, Big Brother club; 7:15, Sagers hall hour of hospitality; 7:45, C. B. Collins, tenor; 8, New York musicale; 9, Atwater-Kent musicale; 10, Goodrich Silvertown Cord orchestra.

WFI, Philadelphia, Pa. (394.5), 1 p. m., Bellevue Stratford concert orchestra; 3, Housewives' Radio exchange, Mabel Swint Ewer; 6, Sid Stratton's Serenaders; 6:30, Meyer Davis concert orchestra; 7, bedtime stories; 8, concert from WEAF; 9, Atwater Kent Radio artists; 10, Goodrich Silvertown cord orchestra.

WGBS, New York, N. Y. (315.6), 10-10:10 a. m., "Timely Talks," "Terese"; 10:10-10:20, Eleanor Miller, soprano; 10:20-10:30, beauty talk, Mrs. Mabelle A. Burbridge; 10:30-10:40, Eleanor Miller; 10:40-10:50, Jefferson Memorial talk; 10:50-11, Eleanor Miller; 1:30-1:35 p. m., Scripture reading; 1:35-2:30, Rita Breen and Edward Axt; 3-3:10, interview with Rosalind Fuller of "In Love with Love" company, Terese Rose Nagel; 3:10-3:20, Norman Cordon, baritone; 3:20-3:30, talk, Joseph S. Horn, secretary for the Society of the Adult Blind; 3:30-3:40, Norman Cordon; 3:40-3:50, review of May magazine articles, Alvin C. Busse; 3:50-4, Norman Cordon; 6-6:30, Uncle Geebee; 7:30-8:30, California Ramblers; 9-9:30, Alma Newman, soprano; 9:30-11, Piccadilly theatre program.

WGR, Buffalo, N. Y. (319), 2:30-4:30 p. m., WGR's afternoon musical, A. J. Erisman, director; 8-11, joint broadcasting with WEAF, including Variety hour, Atwater Kent musical program, Goodrich Silvertown Cord orchestra.

WHAR, Atlantic City, N. J. (275), 7 p. m., Seaside hotel trio; 8, vocal and instrumental concert; 9, Shelburne hotel concert orchestra.

WHN, New York, N. Y. (360), 12:30-1 p. m, organ recital, Loew's Lexington theatre; 7-7:30, Silver Slipper revue; 7:30-7:35, health talk, Dr. Landis; 8-8:30, Will Oakland's Chateau Shanley; 9:30-10, Palisades Park orchestra; 10-10:20, Loew's vaudeville headliner; 12-12:30 a. m., Parody club revue and orchestra.

WIP, Philadelphia, Pa. (508.2) 7 a. m., setting-up exercises; 10, menu talk; 1 p. m., Gimbel tea room orchestra; 6:05, Benjamin Franklin concert orchestra; 7, Uncle Wip's bedtime stories; 8, Radio Congress, Music Master corporation, talks, Maj.-Gen. George Squires, Secretary Hoover, Prince D'Niscemi of Italy, Dr. C. Francis Jenkins.

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

WJY, New York, N. Y. (405.2), 9-10 p. m., Pan-American program from WRC, Washington.

WJZ, New York, N. Y. (454.3), 10-10:20 a. m., Housewives League menu, Mrs. Julian Heath; 10:20-10:30, review of reviews; 10:30-10:40, household equipment, Ethel R. Peyser; 10:40-10:50, bride's household linen, Editor of Needle Art; 10:50-11, fashion talk, Eleanor Gunn; 1-2 p. m., Nathan Abas' Hotel Pennsylvania orchestra; 4-4:15, joint recital, Chester M. Hall, tenor; Pearl M. Kelly, soprano; 4:30-5:30, Bernhard Levitow's Hotel Commodore orchestra; 5:30-6, daily reports; 7-8, Bernhard Levitow's Hotel Commodore orchestra; 8-8:10, Wall Street Journal review; 8:10-8:30, popular songs, Sanchez and Milstead, the Texans; 10-10:30, Wurlitzer musicale; 10:30-11, **Radio Franks, Wright and** Bessinger; 11-11:30, Waldorf-Astroia dance orchestra.

WKAQ, San Juan, P. R. (340.7), 8:30-10 p. m., musical concert, La Cafetera.

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, Rose Marks, pianist; Joseph Shribman, pianist; Frances W. Hoover, pianist; 7:30, Dream Daddy's bedtime stories.

WMCA, New York, N. Y. (341), 3-5 p. m., popular program; 8:15-8:25, talk, House of Health; 11-12, Ernie Golden and his hotel McAlpin orchestra.

WNYC, New York, N. Y. (526), 6:20-6:50 p. m., Irving Bloom and his Tokio club orchestra; 7-7:25, Irving Bloom and his orchestra; 7:25-7:30, baseball results; 7:35-7:50, talk, Mayor John F. Hylan; 7:50-8, piano recital; 8-8:15, "Timely Topics" by Francis P. Bent; 8:15-9:30, concert program; 9:30-10, Municipal instrumental trio; 10-10:30, dance 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.

WOR, Newark, N. J. (405.2), 6:45-7:45 a. m., gymnasium class; 6:15-7:30 p. m., **"Music While You Dine."**

Eastern Standard or Central Daylight Saving Time Stations

KDKA, Pittsburgh, Pa. (309.1), 2:30 p. m., 3, 3:20, 3:30, 4, 4:30, 5, 7, baseball scores; 8, program, National Stockman and Farmer studio; 8:45, Teaberry time; 9:55, baseball scores; 10:30, Pittsburgh Post studio.

KYW, Chicago, Ill. (536), 5:35-6 p. m., Uncle Bob's bedtime story; 6-6:30, dinner concert, Congress hotel; 6:33-6:53, "Riding—from a Physician's Standpoint," Dr. T. A. Carter; "Review of the Live Stock Markets;" 7-7:20, reading, Rev. C. J. Pernin; 7:20-8:15, musical program, Whiting Community chorus; Morgan L. Eastman, director; 9-10:30, evening at home program; Hollywood headlines; "Two-Man Minstrel Show," Harold A. Fall and A. W. "Sen" Kaney.

WBBM, Chicago, Ill. (226), 8-12 midnight, Axel Christensen, pianist; Jimmy Eggert, Moline Sisters, Crillon orchestra.

WBCN, Chicago, Ill. (266), 8-9 p. m., Midway Dancing orchestra; Peggy O'Neil, soprano; 10-11, Elmer Jordan & company program; Alvina Becker, soprano; Walter Jariette, violinist; 11-1, Owl matinee.

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

WEAR, Cleveland, Ohio (389.4), 7-9 p.m., program from WEAF; 9-10, dance music.

WEBH, Chicago, Ill. (370.2), 7:30-8:30 p. m., Oriole orchestra; Ed Kemp, tenor; 9:30-10:30, Oriole orchestra; Belle Forbes Cutter, soprano; Beulah Ladon, violinist; 11:30-1, Oriole orchestra; Belle Forbes Cutter, soprano; Howard Numiller, accompanist; Beulah Ladon, violinist.

WGN, Chicago, Ill. (370.2), 12:40-2:30 p. m., Drake concert ensemble, Blackstone string quintet; 2:30, artist series, Lyon & Healy; 6:30-7:30, Drake concert ensemble, Blackstone string quintet; 8:30-9:30, studio program; 10:30-11:30, Drake hotel Terrace Garden program.

WGY, Schenectady, N. Y. (379.5), 5:30 p. m., dinner music; 6:35, "Fishing Rods;" 6:45, piano recital, Kathryn Hinkey; address, J. A. Hall; 7:30, Pan-American night, U. S. Marine band; 10:30, organ recital, Stephen E. Boisclair.

WHT, Chicago, Ill. (238), 11:30-12 p. m., recipes, menus, health talk, musical program; (399.8), 7-8:30, classical program; Al Carney, organist; Thomas Stephenson, old time songs; John Clark, baritone; John Beddington, harmonica; 10:30-2, Bud O'Hara's orchestra; Al Carney, organist; Herbie Mintz, pianist; Pat Barnes, stories; Ransome Sherman, songs; Al Berz, okulele.

WLS, Chicago, Ill. (344.6), 6:30 p. m., Ralph Emerson, organist; 7:15, Glenn's Cornhuskers; 7:45, lullaby time, 8, WLS theater, E. Warren K. Howe's classical program.

WLW, Cincinnati, Ohio (422.3), 12:15 p. m., program, Mu Phi Epsilon sorority; 4, French lesson, Madame Ida Tcimpidis; piano recital, Adelaide Apfel; 7, dinner hour concert; Hotel Gibson orchestra, Robert Visconti, director; Sekatary Hawkins; 10, three-minute message from the Civil Service Department of the United States; 10:03, orchestra concert; 11, one-half hour with the composer, Brahms; 10:30, novelty program, A. C. Todd, banjoist; C. E. Hodge, guitar-banjoist; C. L. Wells, whistler and imitator; organ selections.

WMAK, Lockport, N. Y. (265.5), 12 midnight, Murray Whiteman's midnight serenaders.

WMAQ, Chicago, Ill. (447.5), 4:05 p. m., household hour, Mrs. Elizabeth O. Hiller, director; 4:30, Illinois Federation of Women's clubs; 6, Chicago theater organ recital; 6:30, Hotel La Salle orchestra; 8, garden talk, James H. Burdett; 8:15, Boy Scout program; 8:50, lecture, University of Chicago; 9:15, Zanta orchestra.

WMBB, Chicago, Ill. (250), 7-8:30 p. m., program, J. Bodewalt Lampe, director; Beatrice Teller and Trianon ensemble; Woodlawn theater orchestra; solos; Carlos Martini, Rita McFawn, Frank Sylvano; 8:30-10:30, **popular program, Dell Lampe, Trianon orchestra; Hazel** O'Neil, Cameron and Fett; Cecil Ward, Beatrice Taylor Otto, Lindsay McPhail; Woodlawn theater orchestra; Clyde Hager, reader.

WORD, Batavia, Ill. (275), 8:30 p. m., Ruth Roddy Browne, soprano; Virginia Hill, pianist; Burdette Huen, violinist; Irene Johnson, accompanist; Sunday school lesson, D. J. Morehouse.

WQJ, Chicago, Ill. (447.5), 3-4 p. m., "Preparing Various Greens," Helen Harrington Downing; "Suggestions for June Weddings," Mildred Mack; 7-8, Ralph Williams and his Rainbo Garden orchestra; Alice Johnstone, violinist; Gloral Burch, accompanist; Fayette Miller, baritone; 10-1, Ralph Williams and his Rainbo Skylarks; Ila Shannabrook, soprano; Axel Christenson, pianist; Ned and Ches; Marie Wright, soprano; Lucas Sisters; Lew Butler, Giant of Radio; 1-2, Ginger hour.

WREO, Lansing, Mich. (285.5), 8:15-9:45 p. m., Reo Broadcasting orchestra; Reo male quartet; Rajoan trio; Thomas E. Metzger, flutist; 10, baseball reports.

WSAI, Cincinnati, Ohio (326), 7 p. m., Chalmers ensemble, Anderson mixed quartet from WEAF; 8, Atwater Kent Radio artists; 9, Silvertown Cord orchestra.

WTAM, Cleveland, Ohio (389.4), 12:15-1:15 p. m., Euclid music studio; 6-7, Hotel Statler concert orchestra.

WTAS, Elgin, Ill. (302.8), 8-12 midnight, WTAS orchestra; Frank Morris, Polly Willis, Eddie and Fannie Cavanaugh, Coleman Goetz.

WTIC, Hartford, Conn. (348.6), 5:45 p. m., baseball scores; 6, Emil Heimberger's Hotel Bond trio.

WWJ, Detroit, Mich. (352.7), 12:05 p. m., Hotel Statler orchestra; 3, Detroit News orchestra; 6, dinner concert; 7, concert from New York.

Central Standard Time Stations

CNRW, Winnipeg, Can. (384.4), 8:30 p. m., Alberta Manceau, Mrs. George Swan, sopranos; Yvonne Thibault, Mrs. Rene St. Marie, mezzo-soprano; George R. Trumbell, Eric Hulatt, tenor; George Beachemin, baritone; A. B. Pellenz, Oscar Noel, bassos; George Beachemin, accompanist.

KFAB, Lincoln, Nebr. (240), 3-4 p. m., Rialto Symphony orchestra.

KFKU, Lawrence, Kan. (275), 6:50 p. m., piano tuning-in number; 7, music; 7:15, "The Training of the Engineer R. O. T. C. Unit at Kansas University," Lieut. H. J. Casey; 7:30, "Diophantos and His Algebra," Prof. U. G. Mitchell; 7:45, educational psychology, Dean R. A. Schwegler.

KFKX, Hastings, Nebr. (288.3), 12:30-1 p. m., "Good Fighters, but They Must Have Help—Cultivate Them," soybean day; 9:30-11:30, Fred Shannon's orchestra.

KFMQ, Fayetteville, Ark. (299.8), 7:30 p. m., "Malaria," Dr. A. Gilbert; "Community Clubs in Arkansas," Connie Bonslagel; "The Electromagnate Spectrum," Prof. S. R. Parsons.

KFNF, Shenandoah, Iowa (266), 7:30 p. m., Griswold band.

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

KFVE, St. Louis, Mo. (240), 6-7 p. m., Radiocast review, Romaine Fielding.

KTHS, Hot Springs National Park, Ark. (374.8), 8:30-8:40 p. m., baseball; 8:40-9:30, Lawson Reid, organist; 9:30-10:30, dance music.

WBAP, Fort Worth, Texas (475.9), 12:05-12:30 p. m., musicale; 7:30-8:30, Euterpean club; 9:30-10:45, musical program.

WBAR, Sisiht, Wis. (406), 7:30-8:30 p. m., play.

WCBD, Zion, Ill. (344.6), 8 p. m., Zion Preparatory college; 9-10, J. D. Thomas, baritone; quartet on celestial bells; brass quartet; Gladys Taylor, pianist.

WCCO, Minneapolis-St. Paul, Minn. (416.4), 2:05 p. m., "Among the Musicians," H. A. Bellows; 4, baseball; 5:30, children's hour; 6, baseball; 7-9, program from New York; 9, baseball.

WDAF, Kansas City, Mo. (365.6), 3:30-4:30 p. m., Star's Radio orchestra; 6-7, book talk, Louis Mecker; Tell-Me-a-Story Lady; Trianon ensemble; 11:45-1, Merry Old Chief, Plantation players; Eddie Kuhn's Kansas City Athletic club orchestra; Johnnie Campbell's Kansas City club orchestra.

WEAO, Columbus, Ohio (293.9), 8 p. m., chimes; faculty lecture; May Furniture company ladies orchestra.

WFAA, Dallas, Texas (475.9), 12:30-1 p. m., address, DeWitt McMurray; Edmund F. Boettcher, soloist; William H. McRaven, pianist; 8:30-9:30, music, Prosper, Texas, Mrs. H. G. Harris, director; 11-12, Jefferson theater entertainers.

WGST, Atlanta, Ga. (270), 7-8 p. m., Agnes Scott glee club, Louis Johnson, director; "Music and Its Influence," Dr. M. L. Brittain.

WHAD, Milwaukee, Wis. (275), 6-7 p. m., Milwaukee Athletic club music.

WHAS, Louisville, Ky. (399.8), 3:15 p. m., baseball; Louisville Conservatory of Music; Alamo theater organ; 7:30-9, concert, Liederkranz society; baseball scores.

WHO, Des Moines, Iowa (526), 7:30-9 p. m., Hundling orchestra; 11-12, dance orchestra.

WMC, Memphis, Tenn. (499.7), 7:30 p. m., weekly science talk, Brother Joseph; 8:30, program, Memphis Display men's club.

WOAW, Omaha, Nebr. (526), 6 p. m., every child's story hour, Grace Sorenson; 6:30, to be announced; 6:45, Randall's Royal orchestra; 9, sunshine program, Loose-Wiles Biscuit company.

WOC, Davenport, Ia. (483.6), 3-3:30 p. m., home management schedule, Aunt Jane; 6:30-6:50, Sandman's visit, Val McLaughlin; 7-9, musical program from WEAF; 11-12, Lonis Connor and his LeClaire hotel orchestra; songs, Peter MacArthur.

WOI, Ames, Iowa (270), 12:30 p. m., "Engineering Economics as a Background for a Business Career," Prof. H. F. Clark; 8:15, musical program.

WSB, Atlanta, Ga. (428.3), 8-9, Gertrude L. Johnson, program; 10:45, Dr. Charles A. Sheldon, organist.

WSMB, New Orleans, La. (319), 6:30-7:30 p. m., organ, piano solos; Twilight tales; 8:30-10:30, program.

Mountain Time Stations

CNRC, Calgary, Can. (430), 9 p. m., Evelyn male quartet; Canadian National Railway Symphony trio; George Boothman, baritone; E. Hodgkinson, violinist; Albert Garner, tenor; E. Hodgkinson, violinist; George Boothman, baritone.

KFWA, Ogden, Utah (261), 4 p. m., Zenith musical review.

Pacific Standard Time Stations

KFI, Los Angeles, Calif. (467), 5:30-6 p. m., Examiner's matinee program; 6-6:15, McDaniel's nightly doings; 6:45-7, Radiotorial talk; 7-7:30, Kathlene Ogilvie, soprano, Catherine Ogilvie, readings, J. Ross McKenzie, comedian in Scotch numbers; 7:30-8, a half hour of old melodies, Ralph Reilly, tenor; 8-9, two short one-act plays, KFI players; 9-10, program from Chickering hall by remote control broadcast by Southern California music company; 10-11, Examiner program, vaudeville artists of Ida May Wall.

KFOA, Seattle, Wash. (454.3), 4-5:15 p. m., Olympic hotel orchestra; 6-7, Moran school program.

KFWB, Holleywood, Calif. (252), 7:45-9 p. m., program, Climax Air Phone company of Culver City; 9-10, program, Paulais, Inc.; 10-11, Warner Brothers frolic, direction Charlie Wellman.

KFQ, Oakland, Calif. (361.2), 4-5:30 p. m., concert orchestra, Hotel St. Francis; 5:30-6:30, "Friend to Boys," George W. Ludlow; 8, California State association of Optometrists; H. C. Endriss, president; Alice Davies Endriss, violinist; Joseph Varley, tenor; Winston Petty, cellist, Edgar Thorpe, pianist; selections from grand opera "Rigoletto," Claire Upshur, soprano; Albert W. Gillette, baritone; Wanda Krasof, pianist; Gwynfi Jones, tenor; Mary Groom Richards, contralto; mixed quartet; Claire Upshur, soprano; Homestead male quartet; Fred Gloy, zither soloist; Lyman H. North, tenor; Richard Lundgren, bass; Mary Groom Richards, contralto; Albert W. Gillette, baritone; 10-1, Henry Halstead's orchestra.

KGW, Portland, Ore. (491.5), 12:30 p. m., Rose City trio; 5, children's program; 8-9, program, Yale Laundry company; 9, old song program, J. P. Finley & Son; 10, dance music, Multnomah hotel.

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 Fitzpatrik, director; 6:30-7:30, little stories American history, Prof. Walter Sylvester Hertzog, Jeanne DeBard, five-year-old pianist, Piggly Wiggly girls' string trio, Jan Hughes, screen juvenile, Amanda Garden, readings, Mary Tirella, pianist; 7:30, recital, William Farrell, pianist; 8-10, program, John Wright, the right tailor, arranged by Uncle John; 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, Sid Ziff's sports talk; 6:15-6:30, travelogue, W. F. Alder; 6:30-7:30, program, L. A. County Ass'n of Optometrists, Ziegler's orchestra; 7:30-8, one act play, KNX players, Edward Murphey, director; 8-10, program, Radium Ore Revigator company, arranged by G. Allison Phelps; 10-11, Abe Lyman's Cocoanut Grove dance orchestra from Ambassador hotel; 11-12, collegiate night by students of University of California.

KPO, San Francisco, Calif. (428.3), 1-2 p. m., Rudy Seiger's Fairmont hotel orchestra; 2:30-3:30, Willard Ridings and his musicians; 3:30-4:30, Palace hotel concert; 4:30-5:30, Rudy Seiger's Fairmont hotel orchestra; 5:30-6:30, Aunt Dolly and her kiddies; 6:30-7, States Restaurant orchestra; 7-7:30, Rudy Seiger's Fairmont hotel orchestra; 8-9, Theodore J. Irwin, organist; Gladys Sarratt, soprano; 9-10, Johnny Buick's Cabirians.

Friday, May 29

Friday, silent night for: CHNC, CHIC, CHYC, CKAC, KFKU, KFKX, KFMQ, KFMX, KGO, PWX, WBBR, WBZ, WCBD, WEAO, WEBW, WFI, WGBS, WGST, WHAZ, WKAQ, WKRC, WLBL, WLW, WMAK, WOAI, WOI, WRC, WREO, WSAC, WSAI, WSUI, WTAM.

Atlantic or Eastern Daylight Saving Time Stations

CKAC, Montreal, Can. (410.7), 1:45 p. m., Windsor hotel trio; 4:30, Ilo lessons.

CNRA, Moncton, Can. (313), 8:30 p. m., program from St. John, J. H. Gillis, director; Marion Hogan, pianist; Josephine Lynch, violinist; Ellen Lynch, cellist; Bernice Mooney, soprano; Madeline Daley, contralto; W. J. Grannan, baritone; J. Harold Gillis, baritone; CNRA orchestra.

WAHG, Richmond Hill, N. Y. (315.6), 7:30-7:45 p. m., sport review, Thornton Fisher; 7:45-8, W. Norman Grayson, pianist; 8-8:30, Harry McIntosh, the cheerful philosopher; 8:30-8:45, the Ethical Culture Chamber Music society; 8:45-9, John Finnegan, tenor; 9-9:30, M. Lamberti, cellist; 9:30-9:45, John Finnegan; 9:45-10, the Ethical Culture Chamber Music society; 10-10:15, Radio question box, William F. Diehl; 10:15-10:30, W. Norman Grayson; 10:30-10:55, Nassau club orchestra; 11:05-11:30, Nassau club orchestra.

WBZ, Springfield, Mass. (333.3), 6 p. m., Hotel Kimball concert trio; Jan Geerts, director; 7:45, "Poultry Flock Management," Prof. Wm. C. Monahan; 9, Kismet entertainers; William J. Mack, tenor banjo; Iver Ross, tenor banjo; Frank May, guitarist; Andrew Jackson, bones; Edwin Esten, reader; Margaret Mack, accompanist; 9:40, U. S. Naval history sketches, E. Brandt.

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

WCAU, Philadelphia, Pa. (278), 6 p. m., Hotel Pennsylvania orchestra; 6:30, Charles Verna's dance orchestra; 8:25, recital; 9:40, Sunday school lessons, Rev. John W. Stockwell; 10:30, Charles Verna's dance orchestra.

WEAF, New York, N. Y. (491.5), 6:45-7:45 a. m., Metropolitan tower health drill; 11-12, musical program and health talk; 4-4:15, Jessie Slatis, soprano; 4:15-4:30, Leila Cannes, pianist; 4:30-4:45, American Museum talk to children; 6-7, dinner music, Waldorf-Astoria; 7-7:15, Genevieve Williams, soprano; 7:30-7:45, children's story, Blanche Elizabeth Wade; 7:45-8, Ernesto Valejo, Violinist; 8-8:30, Happiness Candy boys; 8:30-9, Spear and company home entertainers; 10-10:30, the Glorient girls; 10:30-11, Bergen male quartette; 11-12, dance orchestra.

WEBJ, New York, N. Y. (233), 7-7:30 p. m., Blenheim theater ensemble; 7:45-8, Edith Law, soprano; Alice Law, pianist; 8-8:15, Rudolph Juskowitz, violinist; 8:30-9, Marie Johnston and Lew Cobey, saxaphonist and pianist.

WEEI, Boston, Mass. (475.9), 3:15 p. m., program, Greater Boston Federation of churches; 4, Prof. George W. Scott, Civil War veteran; 4:30, Ray Whittaker; 6:30, Big Brother club; 7:30, program, Whiting Milk company; 8, Neapolitan Ice Cream program; 8:30, Breck's garden talk; 9, Howes Caleteria entertainers; 9:30, Hager trio; 10, patriotic program.

WFI, Philadelphia, Pa. (394.5), 1 p. m., Bellevue Stratford concert orchestra; 3, Caroline Hoffman, pianist; 6:30, Meyer Davis concert orchestra; 7, bedtime stories.

WGBS, New York, N. Y. (315.6), 10-10:10 a. m., "Timely Talks," "Terese;" 10:10-10:20 a. m., Schultz, soprano; 10:20-10:30, fashion talk, Lillian Regan; 10:30-10:40, Mary Schultz; 10:40-10:50, beauty talk, Kathleen M. Quinlan; 10:50-11, Mary Schultz; 1:30-1:35 p. m., Scripture reading; 3:10-3:20, Christine Kinsford, soprano; 3:20-3:30, talk, Dr. Mary A. Hays; 6-6:30, Uncle Geebee; 6:30-7, the Carolinians.

WGR, Buffalo, N. Y. (319), 2:30-4:30 p. m., WGR's afternoon musicale, A. J. Erisman, director; 7-7:30, Winger's Crescent Park entertainers; 8-9, educational opera entertainment, Victor Herbert's "Natoma," Connor D. Bakers, director; 9-11, Memorial Day program, in charge of United Spanish War Veterans, G. A. R., and the American Legion; 11-1 a. m., supper-dance music, Vincent Lopez Hotel Statler dance orchestra, Harold Gieser, director.

WHAR, Atlantic City, N. J. (275), 7 p. m., Seaside hotel trio; 9, Shelburne hotel concert orcrestra; 11, Strand theatre.

WHN, New York, N. Y. (360), 1:30-7:35 p. m., health talk, Dr. Landis; 9:15-9:30, Estelle Crossman, pianist; 10:30-11, Roseland dance orchestra; 11:30-12, Club Alabam orchestra; 12-12:30, Parody club orchestra.

WIP, Philadelphia, Pa. (508.2), 7 a. m., setting-up exercises; 10, menu talk; 1 p. m., Gimbel tea room orchestra; 3, recital, Florence Pizzani, pianist; Natalie Ruth, soprano, Joseph Croce, tenor; 4, "Sight and Insight," Prof. Arthur Holmes; 6:05, Harold Knight's singing orchestra; 7, Uncle Wip's bedtime stories; songs by Mary and Helen Leedom.

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

WJY, New York, N. Y. (405.2), 9:30-9:45 p. m., William Stakely Lynch, baritone, and Eva Mann, pianist.

WJZ, New York, N. Y. (454.3), 10-10:20 a. m., Housewives League menu, Mrs. Julian Heath; 10:20-10:40, "Books," Grace Isabel Colborn; 10:40-10:50, "Arts and Decorations," Mrs. Mary Roberts; 10:50-11, fashion talk, Eleanor Gunn; 1-2 p. m., Henry Vander Zanden's hotel Ambassador trio; 2-2:10, "Interpretation of Folk Songs," Robert A. Simon; 5:30-6, daily reports; 7-8, Savarin ensemble; 8-8:10, Wall Street Journal review; 8:10-8:20, WJZ Air college; 8:20-8:30, talk, "A Lifetime with Mark Twain," Mary Lawton; 9:15-10:15, United States navy program.

WLIT, Philadelphia, Pa. (394.5), 12:02 p. m., daily almanac; Stanley theater organ recital; Arcadia cafe concert orchestra; 2, Arcadia cafe conert orchestra; 4:30, Marcella North, pianist; 7:30, Dream Daddy's bedtime stories; 10, Arcadia cafe dance orchestra; Morning Glory club, concert; Ambrose McIntyre, baritone; 12, Johnny Jones' Elks club dance orchestra.

WMCA, New York, N. Y. (341), 6:30-7:30 p. m., Ernie Golden and his Hotel McAlpin orchestra; 8:15-8:25, talk, House of Health; 9-10, Hardman hour of music; 11-11:10, Donald C. Flamm, dramatic critic.

WNYC, New York, N. Y. (526), 7-7:25 p. m., violin solo; 7:25-7:30, baseball results; 7:35-7:50, resume of meeting of Board of Estimate; 7:50-8, piano recital; 8-9, dance program; 9-9:30, song recital; 9:30-10, instrumental trio; 10:10-10:30, book talk, Prof. J. G. Carter Troop.

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; 9, WOO concert orchestra; 10:02, organ recital, Mary E. Vogt; 10:30, Vincent Rizzo's dance orchestra.

WOR, Newark, N. J. (405.2), 6:45-7:45 a. m., gymnasium class; 6:15-6:30 p. m., Hotel Lorraine orchestra; 6:30-7, Man-in-the-Moon stories; 7-7:30, Hotel Lorraine orchestra.

(Continued on page 14)

An Evening at Home with the Listener In

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.

(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	5:30- 6:30	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- 6:45	Silent	5:30- 8:00	Silent	6:00- 7:00	5:30- 8:00	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	6:30- 7:00	Silent	Silent	6:30- 7:00	Silent	7:00- 9:00	Silent	370	CYB
CYL	480	Silent	Silent	Silent	8:00- 9:30	Silent	Silent	8:00- 9:30	480	CYL
CYX	330	Silent	Silent	7:00-10:00	Silent	Silent	Silent	6:00- 8:00	330	CYX
KDKA	309.1	4:45- 6:55	12:00- 4:30	4:45- 6:55	5:00- 9:30	4:45- 6:55	4:15- 9:00	4:45- 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	7:30- 9:00	Silent	7:30- 9:00	Silent	7:30- 9:00	348.6	KFAE
KFAU	275	Silent	Silent	7:00- 8:00	Silent	Silent	Silent	7:00- 8:00	275	KFAU
KFDM	315.6	Silent	Silent	Silent	6:00- 7:00	Silent	Silent	6:00- 7:00	315.6	KFDM
KFI	467	6:45-11:00	4:00-11:00	6:45-12:00	6:45-12:00	6:45-12:00	6:45-11:00	6:45-12:00	467	KFI
KFKU	275	Silent	Silent	4:50- 6:45	Silent	Silent	4:50- 6:45	Silent	275	KFKU
KFKX	288.3	Silent	Silent	7:30- 9:00	Silent	Silent	7:30- 9:00	Silent	288.3	KFKX
KFMQ	299.8	Silent	Silent	Silent	7:00- 8:00	Silent	5:30- 6:30	Silent	299.8	KFMQ
KFMX	336.9	Silent	5:00- 6:00	Silent	8:00- 9:00	7:00- 8:00	Silent	Silent	336.9	KFMX
KFNF	266	5:30- 6:30	4:30- 7:30	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	7:15- 8:15	Silent	Silent	7:15- 8:15	Silent	Silent	545.1	KFUO
KFWB	252	7:45-12:00	9:00-11:00	6:30- 1:00	7:45- 1:00	7:45- 1:00	7:45- 1:00	7:45- 1:00	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	6:00-10:00	6:00- 8:00	6:00- 7:00	8:00-12:00	8:00-12:00	8:00-12:00	9:00-12:30	491.5	KGW
KHJ	405.2	6:00- 2:00	6:30-10:00	8:00-10:00	6:00-11:00	6:00-11:00	6:00-11:00	6:00-11:00	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- 9:00	Silent	293.9	KJS
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	6:30- 2:00	5:00-11:00	6:30-12:00	6:30-12:00	7:00-12:00	6:30-12:00	6:30- 2:00	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
KOB	348.6	Silent	Silent	6:30- 7:30	Silent	Silent	Silent	6:30- 7:30	348.6	KOB
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
KSD	545.1	5:00- 7:30	Silent	5:30- 9:00	4:00- 9:00	5:00- 6:00	Silent	6:30- 8:00	545.1	KSD
KSL	261	7:00- 9:00	8:00- 9:00	7:00- 8:00	8:00- 9:00	7:00- 8:00	7:00- 8:00	8:00- 9:00	261	KSL
KTHS	374.8	6:30- 7:45	6:30- 9:30	6:30- 9:00	6:30- 8:45	6:30- 8:45	6:30- 8:45	6:30- 8:45	374.8	KTHS
KTW	455	Silent	7:00- 9:30	Silent	Silent	Silent	Silent	Silent	455	KTW
KYW	535.4	4:00-10:30	1:00- 5:00	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
WABN	244	Silent	Silent	7:00-10:00	Silent	Silent	7:00-10:00	Silent	244	WABN
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	8:00- 9:00	12:00- 8:00	Silent	8:00- 9:00	8:00- 9:30	8:00- 9:30	8:00- 9:00	243.8	WAMD
WBAP	475.9	5:00- 6:00	9:00-10:00	5:30-11:00	5:30- 8:45	5:30- 8:45	5:30- 8:45	5:30- 8:45	475.9	WBAP
WBAR	406	Silent	8:00- 9:00	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
WBBG	248	Silent	Silent	5:00- 7:00	Silent	5:00- 6:00	Silent	4:00-11:00	248	WBBG
WBBM	226	6:00-10:00	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- 4:45	5:00- 6:05	4:00- 4:50	Silent	Silent	4:00- 4:50	Silent	272.6	WBBR
WBCN	266	6:00-10:00	2:00- 9:00	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	3:00- 6:00	3:30- 5:55	3:30- 5:55	3:30- 7:05	3:30- 8:45	Silent	333.3	WBZ
WCAE	461.3	4:00- 5:30	Silent	4:30- 8:00	4:30- 7:00	4:30- 7:30	4:00- 7:00	4:30- 5:30	461.3	WCAE
WCAL	336.9	10:00-11:00	6:30- 8:00	9:00-10:00	Silent	Silent	7:00- 8:00	6:30- 7:00	336.9	WCAL
WCAP	468.5	Silent	1:00- 7:00	4:00- 8:30	Silent	3:00- 9:00	Silent	4:30- 9:00	468.5	WCAP
WCAU	278	Silent	1:00- 3:00	Silent	3:20- 7:30	3:00- 7:10	3:00- 7:45	3:30- 6:40	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	6:00- 9:00	5:45- 8:15	4:00- 9:00	4:00- 7:00	4:00- 9:30	4:00- 8:00	4:00-10:00	416.4	WCCO
WCX	516.9	Silent	Silent	3:00- 6:30	3:00- 8:00	3:00- 6:30	Silent	3:00- 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	Silent	6:00- 7:00	4:00- 5:00	4:00- 8:00	3:45- 4:45	4:00- 8:00	4:00- 8:00	389.4	WEAR
WEBH	370.2	4:30- 9:30	4:00- 6:00	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
WEBW	268	Silent	2:25- 3:30	6:30- 7:45	6:30- 7:45	Silent	Silent	Silent	268	WEBW
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
WEMC	285.5	Silent	6:15- 7:15	6:15- 7:15	Silent	6:15- 7:15	Silent	7:00- 8:00	285.5	WEMC
WFAA	475.9	6:30-10:00	4:00- 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	3:00- 9:00	1:00- 8:30	7:30- 9:30	7:30- 9:00	3:00- 9:30	8:00- 8:30	7:30- 9:30	272.6	WFBH
WFI	394.5	4:00- 7:00	Silent	Silent	4:00- 6:00	Silent	4:00- 7:00	Silent	394.5	WFI
WGBS	315.6	4:30- 8:00	Silent	Silent	5:00- 8:00	Silent	5:00- 7:45	Silent	315.6	WGBS
WGES	250	7:30-11:30	7:30- 9:00	Silent	7:30-11:30	7:30-11:30	7:30-11:30	7:30-11:30	250	WGES
WGN	370.2	3:30- 8:30	6:00- 7:00	Silent	3:30- 8:30	3:30- 8:30	9:30- 8:30	3:30- 8:30	370.2	WGN
WGR	319	Silent	3:15- 4:30	4:30- 7:30	4:00- 7:00	4:00- 7:00	4:00- 7:00	4:45- 7:00	319	WGR
WGST	270	Silent	Silent	7:00- 8:00	Silent	Silent	5:00- 6:00	Silent	270	WOST
WGY	379.5	6:30- 9:00	5:30- 8:00	3:30- 5:30	4:30- 9:30	Silent	4:30- 9:30	4:30- 8:30	379.5	WGY
WHA	535.4	Silent	Silent	5:45- 6:45	Silent	7:00- 8:00	Silent	5:45- 6:45	535.4	WHA
WHAD	275	Silent	Silent	4:00- 8:00	Silent	4:00-10:30	4:00- 8:00	4:00- 8:00	275	WHAD
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
WHK	273	3:00-10:30	4:30- 8:00	Silent	Silent	Silent	3:00- 8:30	3:00- 7:00	273	WHK
WHN	361.2	Silent	6:15- 7:15	3:00- 8:00	6:00- 8:30	4:45- 8:30	4:00- 9:00	5:30- 8:30	361.2	WHN
WHO	526	Silent	2:00- 7:00	5:30-10:00	5:30-10:00	4:30- 9:00	5:30-10:00	5:30-10:00	526	WHO
WHT	238	3:00- 9:00	12:00- 9:00	3:00- 9:00	3:00- 9:00	8:00- 9:00	3:00- 9:00	3:00- 9:00	238	WHT
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	3:30- 6:00	4:00- 7:00	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	4:15-10:00	10:00-12:00	4:15-10:00	4:15-10:00	4:15-10:00	Silent	4:15-10:00	302.8	WJJD
WJY	405.2	Silent	Silent	Silent	5:15- 6:45	Silent	4:30- 5:00	3:30- 5:30	405.2	WJY
WJZ	454.3	4:00- 7:30	4:45- 5:45	4:00- 7:45	4:00- 6:30	4:00- 7:30	4:00- 7:30	4:00- 7:30	454.3	WJZ
WKAQ	340.7	Silent	4:00- 6:00	Silent	Silent	4:00- 6:00	4:30- 6:00	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	7:00-11:00	3:45- 9:00	5:00- 7:00	7:00-11:00	5:00- 7:00	5:00- 7:00	Silent	422.3	WKRC
WLBL	278	9:59-10:59	Silent	Silent	6:00- 7:00	Silent	Silent	Silent	278	WLBL
WLIT	394.5	Silent	Silent	4:00- 7:00	Silent	3:30- 7:00	Silent	8:30- 9:00	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- 8:00	4:00- 6:00	3:00- 7:00	6:00- 8:00	Silent	422.3	WLW
WMAK	265.5	Silent	Silent	5:00- 6:00	Silent	Silent	7:00- 8:30	Silent	265.5	WMAK
WMAQ	447.5	4:00- 8:00	Silent	Silent	4:00- 8:00	4:00- 8:00	4:00- 8:00	4:00- 8:00	447.5	WMAQ
WMBB	250	4:30- 7:30	4:00- 7:30	Silent	4:30- 7:30	4:30- 7:30	4:30- 7:30	4:30- 7:30	250	WMBB
WMC	499.7	6:30- 7:30	Silent	6:30- 7:30	6:30-10:00	Silent	6:30- 7:30	6:30-10:00	499.7	WMC
WNAC	280.2	6:00- 7:00	4:30- 6:30	3:00- 7:00	5:00- 7:00	3:00- 7:00	5:00- 7:00	3:00- 7:00	280.2	WNAC
WNYC	526	2:30- 6:20	5:00- 7:00	3:00- 6:20	3:20- 6:20	3:30- 6:30	Silent	3:30- 6:20	526	WNYC
WOAI	394.5	Silent	5:30- 8:30	Silent	6:30- 8:30	Silent	7:30- 8:30	Silent	394.5	WOAI
WOAW	526	4:00-10:15	4:00- 8:00	4:00- 9:00	4:00- 9:00	Silent	4:00- 9:00	4:00- 9:00	526	WOAW
WOAX	240	Silent	Silent	Silent	6:15- 8:00	Silent	Silent	6:00- 8:00	240	WOAX
WOC	483.6	4:30-10:00	6:00- 9:30	Silent	4:30- 7:00	4:30- 8:00	4:00-10:00	4:30- 8:00	483.6	WOC
WOI	270	Silent	Silent	8:00-11:00	Silent	Silent	6:15- 7:15	Silent	270	WOI
WOO	508.2	Silent	2:05- 4:30	4:00- 7:30	Silent	4:00- 7:30	Silent	4:15- 7:30	508.2	WOO
WOR	405.2	Silent	Silent	2:15- 7:00	Silent	2:15- 6:45	Silent	Silent	405.2	WOR
WORD	275	5:00- 6:30	3:45- 5:00	4:00- 6:00	5:00- 7:00	5:00- 6:00	5:00- 7:00	5:00- 7:00	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	3:00- 7:00	Silent	3:00- 8:15	5:00- 6:00	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	3:45- 9:00	Silent	Silent	3:45- 9:00	Silent	3:45- 9:00	Silent	468.5	WRC
WREO	285.5	Silent	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
WSAC	336.9	Silent	Silent	Silent	Silent	5:00- 6:00	Silent	Silent	336.9	WSAC
WSAI	325.9	5:00-10:30	Silent	7:00- 9:00	4:00- 7:00	7:00- 9:00	4:00- 6:00	Silent	325.9	WSAI
WSB	428.3	6:00-10:00	5:30- 7:15	6:00-10:00	6:00-10:00	8:45-10:00	6:00-10:00	6:00-10:00	428.3	WSB
WSMB	319	4:30- 8:30	Silent	Silent	4:30- 8:30	4:30- 8:30	Silent	4:30- 8:30	319	WSMB
WSUI	483.6	Silent	5:00- 8:00	5:30- 7:00	Silent	5:30- 7:00	Silent	Silent	483.6	WSUI
WTAM	389.4	3:00- 9:00	Silent	3:00- 9:00	Silent	3:00-10:00	Silent	Silent	389.4	WTAM
WTAS	302.8	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	Silent	4:00- 6:00	Silent	Silent	4:00- 6:00	348.6	WTIC
WWJ	352.7	Silent	4:20- 7:15	3:00- 6:00	3:00- 8:00	Silent	3:00- 9:30	3:00- 7:00	352.7	WWJ

Friday, May 29

(Continued from page 13)

Eastern Standard or Central Daylight Saving Time Stations

KDKA, Pittsburgh, Pa. (309.1), 2:30 p. m., 3, 8:30, 4, 4:30, 5, 7, baseball scores; 8:15, University of Pittsburgh studio; 8:45, concert.

KYW, Chicago, Ill. (536), 5:35-6 p. m., Uncle Bob's bedtime story; 6-6:30, Congress hotel dinner concert; 6:30-7, program; 9-12:30 a. m., revue; Paul Whiteman's Collegians.

WBAV, Columbus, Ohio (293.7), 8 p. m., Memorial Day program, Dispatch quartet.

WBBM, Chicago, Ill. (226), 8-10 p. m., George Little, Larry Shay, Jimmy Eggert, Ned Santry, Cort Banks, Crillon orchestra.

WBCN, Chicago, Ill. (266), 8-9 p. m., fireside hour, George R. Cleveland; 10-12, Big Boy Yagle, pianist; Peggy O'Neil, soprano; Midway Dancing Gardens orchestra; Eddie Matts, Billy Donovan, tenor, pianist.

WCAP, Washington, D. C. (468.5), 7:30-11 p. m., talk; studio program; Wardman Park hotel dance music.

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

WCX, Detroit, Mich. (516.9), 4:15 p. m., musical program; 6, dinner concert, Book-Cadillac hotel; 7, musical program; 10, dance music, Arcadia ballroom.

WEAR, Cleveland, O. (389.4), 8-10 p. m., Philharmonic string quartet; Mrs. G. J. Steigerwald, contralto; Tonia Suskind, soprano; 10-11, jazz music.

WEBH, Chicago, Ill. (370.2), 7:30-8:30 p. m., Oriole orchestra; Rev. Claude J. Pernin; George Seaberg, pianist; Lewis Pearlman, violinist; Cambridge sisters; 9:30-10:30, Oriole orchestra; Jack Penewell, twin guitarist; illustrated musical lecture, Henry Purmort Eames; 11:30-1, Oriole orchestra; Jack Penewell, twin guitarist; Frank Papile, accordionist; Sandy Meek, tenor.

WGN, Chicago, Ill. (370.2), 12:40-2:30 p. m., Drake concert ensemble, Blackstone string quintet; 2:30, artist series, Lyon & Healy; 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., International Sunday School lesson; 6, Albany Strand theater symphony orchestra; Julius Boxhorn, conductor; Floyd Walters, organist; 6:35, health talk; 6:45, "Tweedles," Booth Tarkington comedy; WGY players; Ten Eyck Clay, director; 9:30, Radio debate, B. J. Rowan; 9:50, WGY orchestra; A. Roth Wall, violinist; Francis Ryder, pianist.

WHT, Chicago, Ill. (238), 11:30-12 p. m., recipes, menus, health talk, musical program; (399.8), 7-8:30, classical program; Al Carney, organist; Thomas Stephenson, old time songs; 10:30-2, Husk O'Hare's orchestra; John Clark, baritone; Herbie Mintz, pianist; Pat Barnes, songs and stories; Ransome Sherman, songs.

WJJD, Mooseheart, Ill. (302.8), 10:30 p. m., Tom Loftus, Senator Kessinger, Gladys Eschleman, Dave Nuddleman, Genev's organ; Charley Straight's orchestra.

WLS, Chicago, Ill. (344.6), 6:30 p. m., Ralph Emerson, organist; 7:15, Glenn's Cornhuskers'; 7:45, lullaby time, Ford and Glenn; 8, Cornhuskers; 8:15, Ida Chick, contralto; 8:30, Williamson Brothers; 8:45, drama; 9, R.F.D. program; 10, Cornhuskers; 10:15, Schuman quartet; 10:45, Nubs Allan; 11, Ford and Glen time.

WLW, Cincinnati, Ohio (422.3), 12:15 p. m., Ahaus Brunswick shop orchestra; William Koch, director.

WMAQ, Chicago, Ill. (447.5), 4:05 p. m., fashion talk, Jean Mowat; 4:30, pupils, Bush conservatory; 6, organ recital, Chicago theater; 6:30, Hotel LaSalle orchestra; 8, weekly wide-awake club; 8:30, musical geography, Mr. and Mrs. Marx E. Oberndorfer; 9:15, Central Trust company male chorus.

WMBB, Chicago, Ill. (250), 7-8:30 p. m., concert, J. Bodewalt Lampe, director; Beatrice Teller, Trianon ensemble; soloists, Hazel O'Neil, Carlus Martini, Vernon Buck; 8:30-10:30, popular program, Dell Lampe, Trianon orchestra; soloists, Frank Sylvano, George Clark, Alvin Fry, George Girot, Erwin Schmidt, Cecil Ward; Trianon syncopators; Woodlawn theater orchestra.

WORD, Batavia, Ill. (275), 8:30 p. m., William Benson, tenor; Lou T. McArthur, soprano; Mr. Moore, baritone; Dorris Anderson, reader; Bible questions and answers; B. M. Eine.

WQJ, Chicago, Ill. (447.5), 3-4 p. m., "Our First Picnic," Helen Harrington Downing; "The Land of Evangeline," Mrs. Harry T. Sanger; 7-8, Ralph Williams and his Rainbo Garden orchestra; Albert Otto, baritone; Ruth Otto, pianist; Helen Holman, soprano; 10-1, Ralph Williams and his Rainbo Skylarks; West Brothers; Zeigler Sisters; Lauretta Giles, soprano; Brundage and Kraemer; Nate Caldwell; Ila Shanabrook, soprano; 1-2, Ginger hour.

WREO, Lansing, Mich. (285.5), 10 p. m., baseball report.

WTAM, Cleveland, Ohio (389.4), 12:15-1:15 p. m., lunch hour music; 6-7, Austin Wylie and his Golden Pheasant orchestra.

WTAS, Elgin, Ill. (302.8), 8-10:30 p. m., Joe Rudolph and the Boss's own orchestra; Eddie and Fannie Cavanaugh, Frank Morris, Coleman Goetz, Polly Willis.

WTIC, Hartford, Conn. (348.6), 6:45 p. m., baseball scores; 7, Chopin music, Laura Gaudet; 7:30, Evelyn Marcil, contralto; 8, Mary Ann Williams, soprano; Myrtle Tanner, accompanist; 8:30, Emil Heimberger's Hotel Bond orchestra; Frank Oneto, harmonica soloist; 9:45, New England trio.

WWJ, Detroit, Mich. (352.7), 12:05 p. m., Jules Klein's Hotel Statler orchestra; 3, Detroit News orchestra; 6, dinner concert; 8, Detroit News orchestra; 9, Jean Goldkette's Victor Recording orchestra.

Central Standard Time Stations

CKY, Winnipeg, Can. (384.4), 8:30-8:45, "Conditions in Japan," Rev. W. O. Fryer.

KFAB, Lincoln, Nebr. (240), 7:30-9:30 p. m., Cosmopolitan club.

KFDM, Beaumont, Texas (315.8), 12:30-1 p. m., band concert; 8-10, band concert.

KFNF, Shenandoah, Iowa (266), 7:30 p. m., concert from Villisca, Mrs. Frances Statou, director.

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

KFVE, St. Louis, Mo. (240), 6-7 p. m., Radiocast review, Romaine Fielding; 10, Big Brothers minstrels; Steve and Lee from WDAF.

KSAC, Manhattan, Kan. (341), 12:35 p. m., "Seasonal Plant Diseases," D. R. Porter; "Harvest Hints," I. N. Chapman.

KSD, St. Louis, Mo. (545.1), 7:30 p. m., commerce hour program, Fannye Block, contralto; Eugene Eusinger, baritone; 8, to be announced; 9, Beckemeyer concert band; 10, Mrs. J. Reefe, soprano.

KTHS, Hot Springs National Park, Ark. (374.8), 8:30-8:40 p. m., baseball; 8:40-9:45, New Arlington Meyer Davis orchestra.

WBAP, Fort Worth, Texas (475.9), 12:05-12:30 p. m., Ward's Trail Blazers; 7:30-8:30, musical program; 9:30-10:45, East Broadway string band.

WCCO, Minneapolis-St. Paul, Minn. (416.4), 4 p. m., baseball; 5:30, children's hour; 6, baseball; 6:15, Original George Osborn's Nicollet hotel orchestra; 8:30, musicale from Alexandria; 9, baseball; 10, Original George Osborn's Nicollet hotel orchestra.

WDAF, Kansas City, Mo. (365.6), 3:30-4:30 p. m., Star's Radio trio; 6-7, address, Kansas City Children's bureau; Tell-Me-a-Story Lady; Trianon ensemble; 8-10, popular program; 11:45-1, Merry Old Chief; Plantation players.

WFAA, Dallas, Texas (475.9), 12:30-1 p. m., address, Dr. Robert Stewart Hyer; 4:30-5, woman's hour; 6:30-7:30, Roy Leffingwell's orchestra; 8:30-9:30, William DeBorde, baritone.

WHA, Madison, Wis. (535.4), 7:45 p. m., Dean H. Glicksman, reader.

WHAD, Milwaukee, Wis. (275), 6-7 p. m., Wisconsin theater organs; 8:30-10:30, Wisconsin theater weekly revue.

WHAS, Louisville, Ky. (399.8), 3:15 p. m., baseball; Louisville Conservatory of Music; Alamo theater organ; 7:30-9, Original Kentucky Night Owls; baseball.

WHO, Des Moines, Iowa (526), 7:30-9 p. m., Wilfred Fletcher, tenor; Helen Birmingham, accompanist; Miss Gaston, soprano; Jack Elliott, ukulele artist; 11-12, dance program.

WMC, Memphis, Tenn. (499.7), 7:30 p. m., Radio talk; 8:30, Britlings Cafeteria Novelty orchestra; 11, Bob Miller and his Steamer Idlewild orchestra.

WOAW, Omaha, Nebr. (526), 6 p. m., story hour; 6:30, Harry Brader, violinist; Frank Strawn, pianist; 7:10, sport events, Ivan L. Gaddis; 9, program, auspices Hannon-Van Brunt company.

WOC, Davenport, Ia. (483.6), 8-9 p. m., Woman's club orchestra, soloists.

WOI, Ames, Iowa (270), 12:30 p. m., "Costs, Goodwill and Profits," Prof. George M. Fuller.

WOS, Jefferson City, Mo. (440.9), 8 p. m., "Missouri's New TB Cattle Testing Law," Homer A. Wilson; address, George A. Pickens.

WSB, Atlanta, Ga. (428.3), 5-6 p. m., Bonnie Barnhardt; 8-9, Grant Park Baptist church quartet; 10:45, entertainment.

WSMB, New Orleans, La. (319), 6:30-7:30 p. m., organ, piano vocal solos.

WSUI, Iowa City, Iowa (483.6), 12:30 p. m., "The Old Stone Capitol," B. F. Shambaugh.

Mountain Time Stations

KFWA, Ogden, Utah (261), 4 p. m., book review; 9, Schocroft & Sons company; 10, Becker Products company.

KOA, Denver, Colo. (322.4), 8, Fred Schmitt and his Rialto theater orchestra; 8:10, "The Federal Constitution," Judge Henry J. Hersey; Franco-American musical society; "Internationalization of Music," Freeman H. Talbot; KOA orchestra.

KOB, State College, N. M. (348.6), 7:30-8:30 p. m., popular science course, Dr. D. S. Robbins; "Grazing Management on the National Forest Ranges," R. W. Hussey.

Pacific Standard Time Stations

KFAE, Pullman, Wash. (348.6), 7:30-9 p. m., Marguerite McLachlin, violinist; Constance Grace, soprano; Pauline Williams, pianist; "Gleanings from a Study of Successful Farms," Neil Johnson; "Farm Women Camp," Maud Wilson; new books, Alice Lindsey Webb; "Memories of Edinburgh," Janet Rae.

KFI, Los Angeles, Calif. (467), 5:30-6 p. m., Examiner's matinee program; 6-6:15, McDaniels' nightly doings; 6:45-7, Radiotorial talk; 7-8, Examiner; Sonny Clay's Rythmn Demons, Jean Jacques, pianist; 8-9, Aeolian residence pipe organ recital, Dan McFarland, organist; 9-10, Evening Herald's hour of popular song and dance music; 10-11, variety program of music, story and drama, arranged by George Frenger.

KFOA, Seattle, Wash. (454.3), 4-5:15 p. m., Olympic hotel orchestra; recipe; 6-6:45, Olympic hotel concert orchestra; 6:45-8:15, Sherman, Clay and company program; 8:30-10, Times studio program; 10:05-11:30, Olympic hotel dance music.

KFWB, Hollywood, Calif. (252), 7:45-9 p. m., program, Star Motor Car company of California; 9-10, program, Clear Lake Highlands; 10-11, Warner Brothers frolic, direction Charlie Wellman.

KGO, Oakland, Calif. (361.2), 3 p. m., studio musical program; 4-5:30, concert orchestra, Hotel St. Francis; 5:30-6, girls' half hour, Esther Wood Schneider.

KGW, Portland, Ore. (491.5), 12:30 p. m., Rose City trio; 5, children's program; 6, Civic Music club; 9, Sherman, Clay & company; 10:30, Hoot Owls.

KHJ, Los Angeles, Calif. (405.2), 5:30-6 p. m., Leighton's Arcade cafeteria orchestra, Jack Gronshaw, leader; 6-6:30, Art Hickman's Biltmore hotel concert orchestra, Edward Fitzpatrick, director; 6:30-7:30, little stories American history, Prof. Walter Sylvester Hertzog, Viola Von, Richard Headrick, screen starlets, Catherine Hyatt, pianist, Uncle John; 8-10, program, Newbery Electric corporation, arranged by J. Howard Johnson; 10-11, Art Hickman's Biltmore hotel dance orchestra, Earl Burtnett, leader.

KLX, Oakland, Calif. (508.2), 6-7 p. m., organ recital; 7:45-9:45, studio program; 9:45-10:30, Sweet's ballroom.

KNX, Hollywood, Calif. (336.9), 5:30-6:15 p. m., Wurlitzer pipe organ studio, Sid Ziff's sports talk; 6:15-6:30, travelogue, W. F. Alder; 6:30-7:30, program, Beverlyridge company; 7:30-8, program, Eastern Outfitting company; 8-9, West Coast theaters by remote control; 9-11, program, Beverly Hills nurseries; 11-12, Abe Lyman's Cocoanut Grove dance orchestra from Ambassador hotel; 12-2 a. m., Wurlitzer Night Hawks.

An Evening at Home with the Listener In

(FOR CENTRAL TIME) (Tabular form and listings copyrighted. Reproduction is forbidden.) (FOR EASTERN TIME Or Cities Using Central Daylight Saving Time)

Call	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Call	Location	Met.	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	7:30- 8:30	Silent	Silent	Silent	Silent	CHNC	Toronto, Ont.	356.9	Silent	Silent	8:30- 9:30	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	6:30-11:30	3:30- 4:30	Silent	6:30-11:30	Silent	6:30-11:30	Silent	CKAC	Montreal, Que.	410.7	7:30-12:30	4:30- 5:30	Silent	7:30-12:30	Silent	7:30-12:30	Silent	CKAC
CKY	Silent	7:00- 8:45	Silent	7:30-10:00	Silent	8:00- 9:00	7:30-10:00	CKY	Winnipeg, Man.	384.4	Silent	8:00- 9:45	Silent	8:30-11:00	Silent	9:00-10:00	8:30-11:00	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	8:30- 9:00	Silent	Silent	8:30- 9:00	Silent	9:00-11:00	Silent	CYB	Mexico City, Mex.	370	9:30-10:00	Silent	Silent	9:30-10:00	Silent	10:00-12:00	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	9:00-12:00	Silent	Silent	Silent	8:00-10:00	CYX	Mexico City, Mex.	330	Silent	Silent	10:00- 1:00	Silent	Silent	Silent	9:00-11:00	CYX
KDKA	6:45- 8:55	2:00- 6:30	6:45- 8:55	7:00-11:30	6:45- 8:55	6:15-11:00	6:45- 8:55	KDKA	Pittsburgh, Pa.	309.1	7:45- 9:55	3:00- 7:30	7:45- 9:55	8:00-12:30	7:45- 9:55	7:15-12:00	7:45- 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	9:30-11:00	Silent	9:30-11:00	Silent	9:30-10:30	KFAE	Pullman, Wash.	348.6	Silent	Silent	10:30-12:00	Silent	10:30-12:00	Silent	10:30-12:00	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	Silent	Silent	8:00- 9:00	Silent	Silent	8:00- 9:00	KFDM	Beaumont, Texas	315.6	Silent	Silent	Silent	9:00-10:00	Silent	Silent	9:00-10:00	KFDM
KFI	8:45- 1:00	6:00- 1:00	8:45- 2:00	8:45- 2:00	8:45- 2:00	8:45- 1:00	8:45- 2:00	KFI	Los Angeles, Calif.	467	9:45- 2:00	7:00- 2:00	9:45- 3:00	9:45- 3:00	9:45- 3:00	9:45- 2:00	9:45- 3:00	KFI
KFKU	Silent	Silent	6:50- 8:45	Silent	Silent	6:50- 8:45	Silent	KFKU	Lawrence, Kan.	275	Silent	Silent	7:50- 9:45	Silent	Silent	7:50- 9:45	Silent	KFKU
KFKX	Silent	Silent	9:30-11:00	Silent	Silent	9:30-11:00	Silent	KFKX	Hastings, Nebr.	288.3	Silent	Silent	10:30-12:00	Silent	Silent	10:30-12:00	Silent	KFKX
KFMQ	Silent	Silent	Silent	9:00-10:00	Silent	7:30- 8:30	Silent	KFMQ	Fayetteville, Ark.	299.8	Silent	Silent	Silent	10:00-11:00	Silent	8:30- 9:30	Silent	KFMQ
KFMX	Silent	7:00- 8:00	Silent	10:00-11:00	9:00-10:00	Silent	Silent	KFMX	Northfield, Minn.	336.9	Silent	8:00- 9:00	Silent	11:00-12:00	10:00-11:00	Silent	Silent	KFMX
KFNF	7:30- 8:30	6:30- 9:30	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	7:30-10:30	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	9:15-10:15	Silent	Silent	9:15-10:15	Silent	Silent	KFUO	St. Louis, Mo.	545.1	Silent	10:15-11:15	Silent	Silent	10:15-11:15	Silent	Silent	KFUO
KFWB	9:45- 2:00	11:00- 1:00	9:30- 3:00	9:45- 3:00	9:45- 3:00	9:45- 3:00	9:45- 3:00	KFWB	Hollywood, Calif.	252	10:45- 3:00	12:00- 2:00	10:30- 4:00	10:45- 4:00	10:45- 4:00	10:45- 4:00	10:45- 4:00	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	8:00-12:00	8:00-10:00	8:00- 9:00	10:00- 2:00	10:00- 2:00	10:00- 2:00	11:00- 2:30	KGW	Portland, Ore.	491.5	9:00- 1:00	9:00-11:00	9:00-10:00	11:00- 3:00	11:00- 3:00	11:00- 3:00	12:00- 3:30	KGW
KHJ	8:00- 4:00	8:30-12:00	10:00-12:00	8:00- 1:00	8:00- 1:00	8:00- 1:00	8:00- 1:00	KHJ	Los Angeles, Calif.	405.2	9:00- 5:00	9:30- 1:00	11:00- 1:00	9:00- 2:00	9:00- 2:00	9:00- 2:00	9:00- 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
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	8:30- 4:00	7:00- 1:00	8:30- 2:00	8:30- 2:00	9:00- 2:00	8:30- 2:00	8:30- 4:00	KNX	Hollywood, Calif.	336.9	9:30- 5:00	8:00- 2:00	9:30- 3:00	9:30- 3:00	10:00- 3:00	9:30- 3:00	9:30- 5:00	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
KOB	Silent	Silent	8:30- 9:30	Silent	Silent	Silent	8:30- 9:30	KOB	State College, N. M.	348.6	Silent	Silent	9:30-10:30	Silent	Silent	Silent	9:30-10:30	KOB
KPO	8:25- 2:00	8:30-12:00	8:30- 1:00	8:30- 1:00	8:50- 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
KSD	7:00- 9:30	Silent	7:30-11:00	6:00-11:00	7:00- 8:00	Silent	7:30-10:00	KSD	St. Louis, Mo.	545.1	8:00-10:30	Silent	8:30-12:00	7:00-12:00	8:00- 9:00	Silent	8:30-11:00	KSD
KSL	9:00-11:00	10:00-11:00	9:00-10:00	10:00-11:00	9:00-10:00	9:00-10:00	10:00-11:00	KSL	Salt Lake City, Utah	261	10:00-12:00	11:00-12:00	10:00-11:00	11:00-12:00	10:00-11:00	10:00-11:00	11:00-12:00	KSL
KTHS	8:30- 9:45	8:30-11:30	8:30-11:00	8:30-10:45	8:30-10:45	8:30-10:45	8:30-10:45	KTHS	Hot Springs, Ark.	374.8	9:30-10:45	9:30-12:30	9:30-12:00	9:30-11:45	9:30-11:45	9:30-11:45	9:30-11:45	KTHS
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- 8:00	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
WABN	Silent	Silent	9:00-12:00	Silent	Silent	9:00-12:00	Silent	WABN	La Crosse, Wis.	244	Silent	Silent	10:00- 1:00	Silent	Silent	10:00- 1:00	Silent	WASN
WAHO	11:00- 1:00	Silent	6:00-12:00	Silent	5:30-10:00	Silent	6:00- 9:30	WAHO	Richmond, N. Y.	315.6	12:00- 2:00	Silent	7:00- 1:00	Silent	6:30-11:00	Silent	7:00-10:30	WAHO
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- 1:00	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	WBAH
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
WBBG	Silent	Silent	7:00- 9:00	Silent	7:00- 8:00	Silent	6:00- 1:00	WBBG	Mattapoisett, Mass.	248	Silent	Silent	8:00-10:00	Silent	8:00- 9:00	Silent	7:00- 2:00	WBBG
WBBM	7:00-12:00	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- 1:00	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- 6:45	7:00- 8:05	6:00- 6:50	Silent	Silent	6:00- 6:50	Silent	WBBR	Staten Island, N. Y.	272.6	7:00- 7:45	8:00- 9:05	7:00- 7:50	Silent	Silent	7:00- 7:50	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.	266	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	5:00- 8:00	5:30- 7:55	5:30- 7:55	5:30- 9:05	5:30-10:45	Silent	WBZ	Springfield, Mass.	333.3	6:30- 8:55	6:00- 9:00	6:30- 8:55	6:30- 8:55	6:30-10:05	6:30-11:45	Silent	WBZ
WCAE	6:00- 7:30	2:00- 5:30	6:30-10:00	6:30- 9:00	6:30- 9:30	6:00- 9:00	6:30- 7:30	WCAE	Pittsburgh, Pa.	461.3	7:00- 8:30	3:00- 6:30	7:30-11:00	7:30-10:00	7:30-10:30	7:00-10:00	7:30- 8:30	WCAE
WCAL	12:00- 1:00	8:30-10:00	11:00-12:00	Silent	Silent	9:00-10:00	8:30- 9:00	WCAL	Northfield, Minn.	336.9	1:00- 2:00	9:30-11:00	12:00- 1:00	Silent	Silent	10:00-11:00	9:30-10:00	WCAL
WCAP	Silent	3:00- 9:00	6:00-10:30	Silent	5:00-11:00	Silent	6:30-11:00	WCAP	Washington, D. C.	468.5	Silent	4:00-10:00	7:00-11:30	Silent	6:00-12:00	Silent	7:30-12:00	WCAP
WCAU	Silent	3:00- 5:00	Silent	5:20- 9:30	5:00- 9:10	5:00- 9:45	5:30- 8:40	WCAU	Philadelphia, Pa.	278	Silent	4:00- 7:00	Silent	6:20-10:30	7:00-10:10	7:00-10:45	6:30- 9:40	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	8:00-11:00	7:45-10:15	6:00-11:00	6:00- 9:00	6:00-11:30	6:00-10:00	6:00-12:00	WCCO	Minn.-St. P., Minn.	416.4	9:00-12:00	8:45-11:15	7:00-12:00	7:00-10:00	7:00-12:30	7:00-11:00	7:00- 1:00	WCCO
WCX	Silent	Silent	5:00- 8:30	5:00-10:00	5:00- 8:30	Silent	5:00-10:00	WCX	Detroit, Mich.	516.9	Silent	Silent	6:00- 9:30	6:00-11:00	6:00- 9:30	Silent	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	WEAD
WEAR	Silent	2:00- 9:00	6:00- 7:00	6:00-10:00	5:45- 6:45	6:00-10:00	6:00-10:00	WEAR	Cleveland, Ohio	389.4	Silent	3:00-10:00	7:00- 8:00	7:00-11:00	6:45- 7:45	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.	238	Silent	Silent	Silent	7:00- 8:00	6:00- 8:00	Silent	7:00- 8:00	WEBJ
WEBW	Silent	4:25- 5:30	8:30- 9:45	8:30- 9:45	Silent	Silent	Silent	WEBW	Beloit, Wis.	268	Silent	5:25- 6:30	9:30-10:45	9:30-10:45	Silent	Silent	Silent	WERW
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	7:00-10:00	7:00-10:00	7:00-10:00	7:00-10:00	7:00-10:00	WEEI
WEMC	Silent	8:15- 9:15	8:15- 9:15	Silent	8:15- 9:15	Silent	9:00-10:00	WEMC	Berrien Spgs., Mich.	285.5	Silent	9:15-10:15	9:15-10:15	Silent	9:15-10:15	Silent	10:00-11:00	WEMC
WFAA	8:30-12:00	6:00-11:00	6:30- 9:30	6:30-12:00	Silent	6:30-12:00	6:30- 9:30	WFAA	Dallas, Tex.	475.9	9:30- 1:00	7:00-12:00	7:30-10:30	7:30- 1:00	Silent	7:30- 1:00	7:30-10:30	WFAA
WFBH	5:00-11:00	3:00-10:30	9:30-11:30	9:30-11:00	5:00-11:30	5:00-10:30	9:30-11:30	WFBH	New York, N. Y.	272.6	6:00-12:00	4:00-11:30	10:30-12:30	10:30-12:00	6:00-12:30	6:00-11:30	10:30-12:30	WFBH
WFI	6:00- 9:00	2:00- 3:00	Silent	6:00- 8:00	Silent	6:00- 9:00	Silent	WFI	Philadelphia, Pa.	394.5	7:00-10:00	3:00- 4:00	Silent	7:00- 9:00	Silent	7:00-10:00	Silent	WFI
WGBS	6:30-10:00	Silent	Silent	7:00-10:00	Silent	7:00- 9:45	Silent	WGBS	New York, N. Y.	315.6	7:30-11:00	Silent	Silent	8:00-11:00	Silent	8:00-10:45	Silent	WGBS
WGES	9:30- 1:30	9:30-11:00	Silent	9:30- 1:30	9:30- 1:30	9:30- 1:30	9:30- 1:30	WGES	Oak Park, Ill.	250	10:30- 2:30	10:30-12:00	Silent	10:30- 2:30	10:30- 2:30	10:30- 2:30	10:30- 2:30	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	2:00- 6:30	6:30- 9:30	6:00- 9:00	6:00- 9:00	6:00- 9:00	6:45- 9:00	WGR	Buffalo, N. Y.	319	Silent	3:00- 7:30	7:30-10:00	7:00-10:00	7:00-10:00	7:00-10:00	7:45-10:00	WGR
WGST	Silent	Silent	9:00-10:00	Silent	Silent	7:00- 8:00	Silent	WGST	Atlanta, Ga.	270	Silent	Silent	10:00-11:00	Silent	Silent	8:00- 9:00	Silent	WGST
WGY	8:30-11:00	2:35-10:00	5:30- 7:30	6:30-11:30	Silent	6:30-11:30	6:30-10:30	WGY	Schenectady, N. Y.	379.5	9:30-12:00	3:35-11:00	6:30- 8:30	7:30-12:30	Silent	7:30-12:30	7:30-11:30	WGY
WHA	Silent	Silent	7:45- 8:45	Silent	9:00-10:00	Silent	7:45- 8:45	WHA	Madison, Wis.	535.4	Silent	Silent	8:45- 9:45	Silent	10:00-11:00	Silent	8:45- 9:45	WHA
WHAD	6:00- 7:00	2:00- 3:00	6:00-10:00	6:00- 7:00	6:00-12:30	6:00-10:00	6:00-10:00	WHAD	Milwaukee, Wis.	275	7:00- 8:00	3:00- 4:00	7:00-11:00	7:00- 8:00	7:00- 1:30	7:00-11:00	7:00-11:00	WHAD
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
WHK	5:00-12:30	6:30-10:00	5:00- 6:30	5:30- 6:30	5:00- 6:30	5:00-10:30	5:00- 9:00	WHK	Cleveland, Ohio	273	6:00- 1:30	7:30-11:00	6:00- 7:30	6:30- 7:30	6:00- 7:30	6:00-11:30	6:00-10:00	WHK
WHN	5:30- 7:45	2:15- 9:15	5:00-10:00	8:00-10:30	6:45-10:30	6:00-11:00	7:30-10:30	WHN	New York, N. Y.	361.2	6:30- 8:45	3:15-10:15	6:00-11:00	9:00-11:30	7:45-11:30	7:00-12:00	8:30-11:30	WHN
WHO	Silent	4:00- 9:00	7:30-12:00	7:30-12:00	6:30-11:00	7:30-12:00	7:30-12:00	WHO	Des Moines, Ia.	526	Silent	5:00-10:00	8:30- 1:00	8:30- 1:00	7:30-12:00	8:30- 1:00	8:30- 1:00	WHO
WHT	5:00-11:00	2:00-11:00	5:00-11:00	5:00-11:00	5:00-11:00	5:00-11:00	5:00-11:00	WHT	Deerfield, Ill.	238	6:00-12:00	3:00-12:00	6:00-12:00	6:00-12:00	6:00-12:00	6:00-12:00	6:00-12:00	WHT
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	5:30- 8:00	6:00- 9:00	6:00- 9:00	6:00-10:00	WJAR	Providence, R. I.	305.9	Silent	6:20- 9:15	7:00- 9:00	6:30- 9:00	7:00-10:00	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	7:30-10:00	7:30-10:00	WJAS
WJJD	6:15-12:00	2:00- 1:00	6:15-12:00	6:15-12:00	6:15-12:00	Silent	6:15-12:00	WJJD	Mooseheart, Ill.	302.8	7:15- 1:00	3:00- 2:00	7:15- 1:00	7:15- 1:00	7:15- 1:00	Silent	7:15- 1:00	WJJD
WJY	Silent	Silent	Silent	7:15- 8:45	Silent	6:30- 7:00	5:30- 7:30	WJY	New York, N. Y.	405.2	Silent	Silent	Silent	8:15- 9:45	Silent	7:30- 8:00	6:30- 8:30	WJY
WJZ	6:00- 9:30	2:00- 7:45	6:00- 9:45	6:00- 8:30	6:00- 9:30	6:00- 9:30	6:00- 9:30	WJZ	New York, N. Y.	454.3	7:00-10:30	3:00- 8:45	7:00-10:45	7:00- 9:30	7:00-10:30	7:00-10:30	7:00-10:30	WJZ
WKAQ	Silent	6:00- 8:00	Silent	Silent	6:00- 8:00	6:30- 8:00	Silent	WKAQ	San Juan, P. R.	340.7	Silent	7:00- 9:00	Silent	Silent	7:00- 9:00	7:30- 9:00	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- 1:00	5:45-11:00	7:00- 9:00	9:00- 1:00	7:00- 9:00	7:00- 9:00	Silent	WKRC	Cincinnati, O.	422.3	10:00- 2:00	6:45-12:00	8:00-10:00	10:00- 2:00	8:00-10:00	8:00-10:00	Silent	WKRC
WLBL	11:59-12:59	Silent	Silent	8:00- 9:00	Silent	Silent	Silent	WLBL	Stevens Point, Wis.	278	12:59- 1:59	Silent	Silent	9:00-10:00	Silent	Silent	Silent	WLBL
WLIT	5:30- 6:30	Silent	6:00- 9:00	Silent	5:30- 9:00	Silent	5:30-11:00	WLIT	Philadelphia, Pa.	394.5	6:30- 7:30	Silent	7:00-10:00	Silent	6:30-10:00	Silent	6:30-12:00	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	8:00-10:00	6:00- 8:00	5:00- 9:00	8:00-10:00	Silent	WLW	Cincinnati, O.	422.3	6:00- 8:00	6:30- 8:30	9:00-11:00	7:00- 9:00	6:00-10:00	9:00-11:00	Silent	WLW
WMAK	Silent	Silent	7:00- 8:00	Silent	Silent	9:00-10:30	Silent	WMAK	Lockport, N. Y.	265.5	Silent	Silent	8:00- 9:00	Silent	Silent	10:00-11:30	Silent	WMAK
WMAQ	6:00-10:00	Silent	Silent	6:00-10:00	6:00-10:00	6:00-10:00	6:00-10:00	WMAQ	Chicago, Ill.	447.5	7:00-11:00	Silent	Silent	7:00-11:00	7:00-11:00	7:00-11:00	7:00-11:00	WMAQ
WMBB	6:30- 9:30	6:00- 9:30	Silent	6:30- 9:30	6:30- 9:30	6:30- 9:30	6:30- 9:30	WMBB	Chicago, Ill.	250	7:30-10:30	7:00-10:30	Silent	7:30-10:30	7:30-10:30	7:30-10:30	7:30-10:30	WMBB
WMC	8:30- 9:30	Silent	8:30- 9:30	8:30-12:00	Silent	8:30- 9:30	8:30-12:00	WMC	Memphis, Tenn.	499.7	9:30-10:30	Silent	9:30-10:30	9:30- 1:00	Silent	9:30-10:30	9:30- 1:00	WMC
WNAC	8:00- 9:00	6:30- 8:30	5:00- 9:00	7:00- 9:00	5:00- 9:00	7:00- 9:00	5:00- 9:00	WNAC	Boston, Mass.	280.2	9:00-10:00	7:30- 9:30	6:00-10:00	8:00-10:00	6:00-10:00	8:00-10:00	6:00-10:00	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.	526	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
WOAW	6:00-12:15	6:00-10:00	6:00-11:00	6:00-11:00	Silent	6:00-11:00	6:00-11:00	WOAW	Omaha, Nebr.	526	7:00- 1:15	7:00-11:00	7:00-12:00	7:00-12:00	Silent	7:00-12:00	7:00-12:00	WOAW
WOAX	Silent	Silent	Silent	8:15-10:00	Silent	Silent	8:00-10:00	WOAX	Trenton, N. J.	240	Silent	Silent	Silent	9:15-11:00	Silent	Silent	9:00-11:00	WOAX
WOC	6:30-12:00	8:00-11:30	Silent	6:30- 9:00	6:30-10:00	6:00-12:00	6:30-10:00	WOC	Davenport, Ia.	483.6	7:30- 1:00	9:00-12:30	Silent	7:30-10:00	7:30-11:00	7:00- 1:00	7:30-11:00	WOC
WOI	Silent	Silent	10:00- 1:00	Silent	Silent	8:15- 9:15	Silent	WOI	Ames, Ia.	270	Silent	Silent	11:00- 2:00	Silent	Silent	9:15-10:15	Silent	WOI
WOO	Silent	4:05- 6:30	6:00- 9:30	Silent	6:00- 9:30	Silent	6:15- 9:30	WOO	Philadelphia, Pa.	508.2	Silent	5:05- 7:30	7:00-10:30	Silent	7:00-10:30	Silent	7:15-10:30	WOO
WOR	5:15- 6:30	Silent	4:15- 9:00	Silent	4:15- 7:45	Silent	Silent	WOR	Newark, N. J.	405.2	6:15- 7:30	Silent	5:15-10:00	5:30- 5:45	5:15- 8:45	5:15- 6:45	5:15- 6:45	WOR
WORD	7:00- 8:30	5:45- 7:00	6:00- 8:00	7:00- 9:00	7:00- 8:00	7:00- 9:00	7:00- 9:00	WORD	Batavia, Ill.	275	8:00- 9:30	8:00- 9:30	7:00- 9:00	8:00-10:00	8:00- 9:00	8:00-10:00	8:00-10:00	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	5:00- 9:00	Silent	5:00-10:15	7:00- 8:00	WPG	Atlantic City, N. J.	299.8	6:00-11:00	2:15-10:00	6:00-10:30	6:00-10:00	Silent	6:00-11:15	8:00- 9:00	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	5:45-11:00	Silent	Silent	5:45-11:00	Silent	5:45-11:00	Silent	WRC	Washington, D. C.	468.5	6:45-12:00	Silent	Silent	6:45-12:00	Silent	6:45-12:00	Silent	WRC
WREO	Silent	6:30- 7:30	Silent	7:15- 8:45	Silent	7:15- 8:45	Silent	WREO	Lansing, Mich.	285.5	Silent	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
WSAC	Silent	Silent	Silent	Silent	7:00- 8:00	Silent	Silent	WSAC	Clemson Coll., S. C.	336.9	Silent	Silent	Silent	Silent	8:00- 9:00	Silent	Silent	WSAC
WSAI	7:00-12:30	2:00- 3:00	9:00-11:00	6:00- 9:00	9:00-11:00	6:00- 8:00	Silent	WSAI	Cincinnati, O.	325.9	8:00- 1:30	3:00- 4:00	10:00-12:00	7:00-10:00	10:00-12:00	7:00- 9:00	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	Silent	6:30-10:30	6:30-10:30	Silent	6:30-10:30	WSMB	New Orleans, La.	319	7:30-11:30	Silent	Silent	7:30-11:30	7:30-11:30	Silent	7:30-11:30	WSMB
WSUI	Silent	7:00-10:00	7:30- 9:00	Silent	7:30- 9:00	Silent	Silent	WSUI	Iowa City, Ia.	483.6	Silent	8:00-11:00	8:30-10:00	Silent	8:30-10:00	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- 9:00	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	6:00- 8:00	Silent	5:00- 6:00	6:00- 8:00	WTIC	Hartford, Conn.	348.6	Silent	Silent	6:00- 7:00	7:00- 9:00	Silent	6:00- 7:00	7:00- 9:00	WTIC
WWJ	Silent	6:20- 9:15	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	7:20-10:15	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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Give Us a Law and Funds

FLOODS of "Consensus of Opinion" voting blanks are being returned but it will take a cloudburst of them to float congress into immediate action for the relief of Radio broadcasting. Two things are needed badly—a modern set of laws for the administration of Radio and an appropriation about four times as large as has ever been passed for the use of the Radio section of the Department of Commerce.

Given some sort of law, and ample funds with which to enforce it, broadcasting cannot help but be improved at least somewhat. As it is now, Radio is aimlessly drifting about, wherever the current chooses to take it. Secretary Herbert Hoover and leaders of the industry are endeavoring to attach a few rudders ot the good ship Radio, and have succeeded, within their present limitations, in keeping the boat from going aground.

But shoals are ahead, and it is going to take congressional action to keep the boat afloat. Radio cannot go on indefinitely in its present fashion. Troubles of the worst kind have made themselves known, and are already a nuisance.

Let us have a law. Let us have funds to support the law. The law may be weak in some respects. It may not accomplish all that may be desired, but on the whole, a bad law is better than none at all.

R. P. Crawley accompanies his "Consensus of Opinion" vote with an admirable suggestion for remedying the situation. Mr. Crawley knows Radio, has travelled the country selling sets, and has made good use of his time observing conditions and what is needed. His plan will go to Washington. Like many other good ideas submitted, it may contain the germ of the future law.

Remember, Radio Digest is not entirely "sold" on the Kintner plan. All Radio Digest wants is SOME sort of "rudder" for the good ship Radio. Every idea is welcome, and will be considered from all angles. When the final plan is selected and endorsed by the fourth Radio conference, the result will be a combination of the best points offered by the most practical thinkers on the subject.

Urge your friends to fill in "Consensus of Opinion" votes. If your Radio club meets soon, get a supply of voting blanks from Radio Digest. A big task awaits all who are in favor of relieving the air of its present congestion.

The Ads Will Tell Us

TURNING over the pages of our morning daily paper our eyes were attracted to an advertisement of a certain brand of cigarette. "Stand By for a ——" the ad began. It was illustrated by the picture of a popular New York announcer and included the testimonial of that announcer for the brand of cigarette.

So begins the new era of Radio hero worship. The era has been going on for some time, but at last advertising copywriters are beginning to take heed of it.

For years we have been reading advertisements which tell us that various Ethel Barrymores of the stage and Mary Pickfords of the screen have used so-and so's beauty cream. Now we are to learn in what kind of suspenders our favorite male Radio stars place their faith. No longer shall we be in doubt as to the manufacture of the chewing gum our microphone favorites chew. No sirree! The ads will tell us.

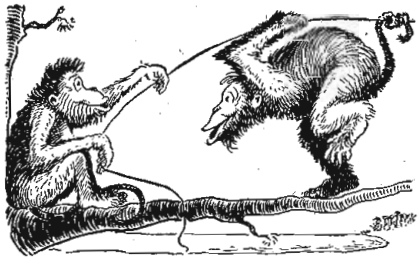
Keeping Youth on the Farm

BESIDES benefitting the farmer economically by supplying him with first hand market and weather reports, broadcasting is destined to solve another of the farmer's many problems, that of keeping young men and women on the farm. B. B. Jones, of the Wisconsin department of markets, recently observed the entertainment value of Radio as a strong attraction for youth on the farm. He went further to declare that the farmer is the greatest benefactor of Radio.

Mr. Jones is right. Radio, like the automobile, is doing much to entrench the farmer in the strong and contented position that he once occupied before the day of mass production, when so many of his sons and daughters left the farm to enjoy the diversions of metropolitan life.

RADIO INDI-GEST

Introducing Mike and Izzy



Friends and readers of Indi-Gest, meet Mike (left) and Izzy (right), trained antenna raiser chimpanzees, for the great Walla Walla Station BLAH. Inasmuch as our contributors failed to contribute enough printable and sad jokes to fill the column this week, we were asked by Mike and Izzy if we would give them a little free publicity. As was remarked in a previous issue, they are very intelligent, both having been fired from Harvard zoo on the same day, less than three feet apart.

After seeing the above picture, they said indignantly, in chorus: "Why, you've made monkeys outa us!"

Another cute thing that they do (see picture) is to hold onto the aerial wire with their tails. Asked why they did this, Izzy replied, "The matter has been called to my attention that you print your paper, Indi-Gest, on a rotary press and print over 200,000 copies, so I didn't want to fly off the roller." Mike had a much more simple explanation. (He is very simple.) He answered, "I just had a temporary ether wave put in my tail, and I didn't want to change the wave length."

To prove their excellent education, listen in on the following conversation:

Mike: "Who invented Radio, anyhow "

Izzy: "Macaroni, but not anybow. He just invented it."

Mike: "Why, oh why, did he do it?"

Izzy: "Because he had a corner on the spaghetti tubing market and wanted to round it off."

(Curtain)

All of which goes to prove they don't know anything.

Max: "Why are all Radio fans idealists?"

Climax: "'Cause they're always looking for a better earth!"

The Radio Dictionary

To keep in style, 'tis well these days
To be a shark at words.
With cross-word puzzles has evolved
These dictionary birds.
They sit cross-legged on a ebair,
With forehead in a knot,
Their horizontal, vertical,
A mess all polyglot.

A "biped:"—that is m-a-n,
Three letters,—'t must be right!
"Simian"? What on earth!
O, yes!
An a-p-e! How bright!
And so this dictionary bird
Learns "camel," "dromedary,"
And adds a learned hump or two
To his vocabulary.

But when triliteral words run out,
Long words you'll need to know;
When Webster's is all learned by heart,
They'll turn to Radio.
"Condenser," "variometer,"
"Transformer," "amplifier,"
"Potentiometer,"—that word
Should set a world on fire!

And "variocoupler." Look it up,
Or ask some Radio fan;
"Grid-leak,"—a capsule made of glass,
To tempt the heart of man.
Then "vacuum tube" and "rheostat,"
"Inductance coil" and "dial;"
"Regeneration," "binding post,"
Just take them single file.

If you would be a "Radio bug,"
From "aerial" to "ground,"
You'll learn to throw these Radio words
And phrases freely 'round.
Don't mix your definitions,
Lest static spoil your chat!
They'll say your station's N. G., for
You broadcast through your hat.

BERNICE CLANCY MARTIN.

Better Luck Next Time, Doctor!

Dear Indi: Following Sir Oliver Lodge's sensational statement that the human eye is in reality a Radio set comes the claim of Dr. Russ, a famous London surgeon, to have perfected a sensitive instrument which is influenced by the power of the "ray" from the human eye. Dr. Russ declares his instrument is so sensitive that not even a concentrated gaze is necessary for it to be stimulated into motion. Apparently one just hands it the glad eye, and round swings the indicator.

Unfortunately for the learned doctor, his discovery of this "I" ray and his invention of a sensitive instrument which responds to it are by no means new. A glance from the female human eye was known to cause a movement in the sensitive male heart even as long ago as the days of the Garden of Eden!

HEART DOCTOR.

Son: "What nationality is a child born in the U. S. A., whose father is French and mother Italian?"

Father: "American, of course, my boy."

Son: "Well, how about my family of kittens born on the roof. Are they aerials?"

A. C. B.

Call in the Doctor

Condensed

By DIELECTRIC

Not all the protests of listeners in go for nothing. Many of us were of those who tuued in church services after the station had announced its call and turned to the funny sheets, while we tried to guess the identity of preacher and congregation. I was a late attendant by Radio of a church service one Sunday where the pastor paused to state that we were hearing a Methodist service through Station KDKA. Other ministers would confer a favor on Radio listeners by emulating the example of the Pittsburgh preacher.

When the dials are set for Station KTHS, Hot Springs National Park, Ark., you are apt to find that station in the midst of a program given by the Arlington orchestra. If it is, then sit back for a joyous time. This is one of the really good orchestras rendering selections both classical and semi-classical and, at the appropriate honr, enticing dance numbers. Other features are also attractive.

There was some banjo playing in the studio of WLW Cincinnati, above the average of modern banjo work. Imitation of the style of other instruments robs the banjo of its characteristic effects, yet that is the popular thing at present. Solo and duet numbers were offered in the original, captivating style and merit our applause.

In the search for something new under the sun, program managers of many stations are presenting all kinds of novelties for the entertainment of the fan. The Hollywood movie station, KFWB, solved their problem very easily by inducing well-known stage and screen favorites to act as announeers. The station motto or slogan might well be "A different personality every evening." As a rule the acting fraternity seem to make good before the "mike," their training giving them the necessary poise, precise pronounciation and knowledge of showmanship that goes a long way toward making the successful announcer. Patsy Ruth Miller, however, did not go over so well. Taken as a whole the men do make better announcers.

Possibly many of you are familiar with the Ethiopian Rhapsody as a composition, but fewer perhaps with the piece as interprcted by the Reo orchestra, playing through Station WREO, Lansing, Mich. I was sorry when they had completed the number. Mr. Severn's violin playing was quite agreeable. In fact there is only commendation for WREO.

From WGBS, New York city, a unique feature was presented in the form of an entertainment from the steamship Leviathan—direct from the ballroom of this immense vessel. Among those taking part were a soprano and painist, gifted musicians both, and their immediate audience comprised many notable people of the two hundred present.

WNAC, Boston, gave a description of a prize fight one evening. There was nothing out of the ordinary in the serap itself; neither fighter had a reputation to excite awed interest. The most noticeable thing abont listening to this station's program was the nest of other stations all around the one wave length. Here is your evidence of overloaded air. Many stations should be given space in these columns not now receiving any, hut until the air is cleared it is unlikely they can be heard. Other stations buy the American Telephone's advertising specialties several nights a week, so if you turn north, south, east or west, it's the same old thing with a different mike, that's all.

Goodrich Four Tube Dry Cell Semi-Portable

Compact, Doubly Regenerative and Easy to Construct

By W. M. Goodrich

THE receiver about to be described is the result of an effort to approach super-heterodyne range with a limited outlay of money and a strong desire to get away from storage batteries with their attendant troubles and muss.

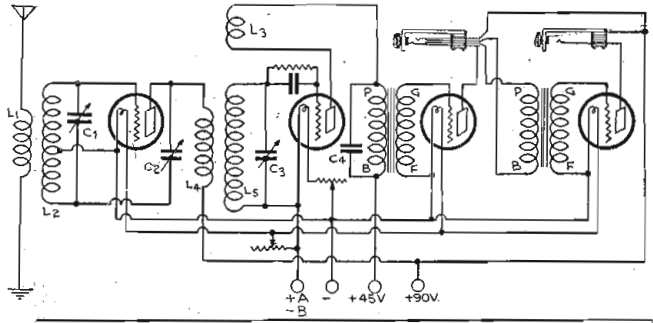
To get these results, the first effort was one stage of tuned radio frequency ahead of a regenerative detector. This was good and added both to volume and selectivity. This last characteristic is about the most desirous feature a Radio receiver can have these days. As a further step towards economy, reflexing at the first stage at audio frequency through the R.F. tube was tried. Results were erratic. So many factors seemed to enter into the successful operation of this arrangement that it was abandoned. Now, with good tubes as cheap as they are, it looks like false economy.

Regeneration Is Decided Upon

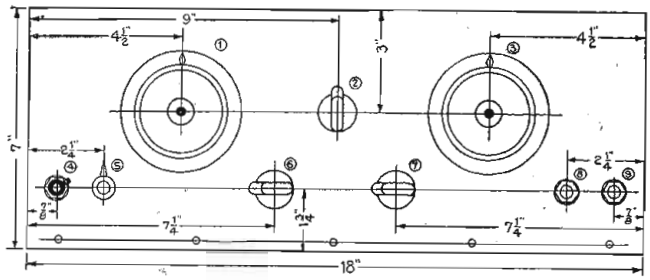
Further improvement was desired at this point, although four 199 tubes, used in one stage R.F., regenerative detector and two audio, gave wonderful results. Volume was good, but there was not "dancing intensity" from the coast stations by any means. More amplification was needed and it looked as if one more tube would have to be placed in the set, with the preference given to another stage at R.F. In any event, one more tube would place the set where three dry cells would not be economical, and that was a condition not wanted.

The decision to make the R.F. stage regenerative was made after watching a "super" working on a regenerative loop. The loop is in the grid circuit of the first tube (in the super), so why not make the grid circuit of the set in question regenerative and enjoy the same added selectivity and sensitivity? Right here, the most of you say, the set will be a bad offender with radiation.

It is, with improper handling. So will a super-heterodyne on an aerial, or any neutrodyne not entirely neutralized on all wave lengths. This set has a loose-coupled primary, and further, the greatest distance, volume and selectivity can be had without ever running close to the point of oscillation in the R.F. tube. Also, if the specified number of turns are used in the primary of the coupler, oscillations in the detector tube will not "show through" the R.F. amplifier.



C-1 is .0005 mfd.; C-2 is .000045 mfd.; C-3 is .0005 mfd.; C-4 is .002 mfd.
L-1 is 16 turns No. 20 dsc. on 2½" tube.
L-2 is 54 turns No. 20 dsc. on 3" tube.
L-3 is 12 turns No. 28 dsc. on 2" rotor.
L-4 is 8 turns No. 28 dsc. on special form.
L-5 is 54 turns No. 20 dsc. on 3" tube.



The shorter 3" tube is used for the secondary of the R.F. coil. Start the winding about one-half inch from one end, leave a tap at the center turn and the winding will finish about one-half inch from the other end. Locate the terminals and tap as shown on the "Baseboard Layout," when you wire up. "G" goes to the grid of the R.F. tube and the stator plates of the condenser. "F" goes to the negative A battery lead and to the rotor plates of the condenser. The same instructions apply to the coupler secondary winding terminals with this one exception: "F," which is the lower one, goes to the positive A battery instead of negative. This is important. The reason for this detail of the terminal layout is to permit the shortest possible grid leads.

Winding Primary of Coil

The 2½" tubing, 1¼" long is for the primary of this coil. This is mounted concentrically in the left end of the secondary form in any convenient manner. Bring the terminals out as shown; the inner end is the aerial side. When locating the primary in the secondary, the first wire of the primary should be directly under the first wire of the secondary. Provide mounting legs that will keep this coil about one inch above the baseboard.

When winding the second coupler keep in mind that all three windings, the primary, secondary and rotor are in the same direction. Start the secondary ½" from the bottom of the tube and it will finish up about ¾" from the top. The primary form can be made of bakelite, hard rubber or hardwood, preferably mahogany or walnut. If made of wood it should be dipped in boiling parrafin to exclude moisture, before winding.

The terminal screw for the lower end of the secondary should be flat head countersunk to allow free entrance of the primary form. The primary is wound, in any fashion in a groove about ⅛" square. This groove should lie under the first two turns of the secondary.

In winding the rotor, start the winding as close to the edge as possible, wind on six turns, and skip over to right spacing on opposite side, so as to finish close to the edge. The idea is to leave maximum clear space in center for placing two small brass screws used as terminals for this winding.

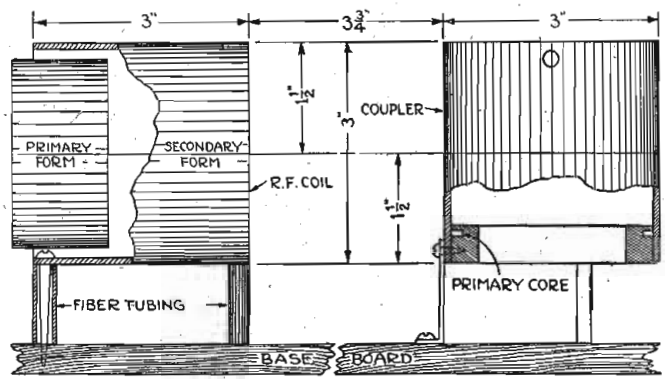
In wiring up use small flexible "pigtail" wire direct from these terminals to the

(Continued on page 18)

GOODRICH RECEIVER

(Continued from page 17)

tube and transformer. In making the supporting legs for the coupler, so proportion their length and so locate them on the base, that the coils are at right angles with each other and at distance from each other shown on the diagram.



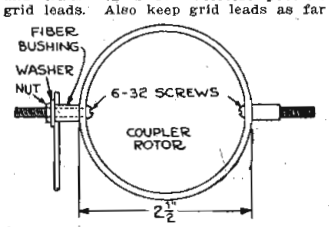
The center line, or axis, of the R.F. coil, if extended must pass through the exact center of the coupler on the middle turn of the secondary windings. If the coils are not so located, you probably will be bothered with uncontrollable "squeals."

Mounting Transformers

In preparing to mount your transformers notice that they are directly under the detector and audio tubes. See if your transformers are low enough in height to permit putting the set in a cabinet. If not, cut out a section of the base and support them on strips on "stirrups" to gain approximately the thickness of the baseboard in your overall height. Other arrangements will also be found feasible. Locate the second audio transformer as far to the right as possible, and locate the first one at right angles to it and at least one and one-half inches from the coupler.

Connect the shields to the negative "A" filament. This is in lieu of grounding them.

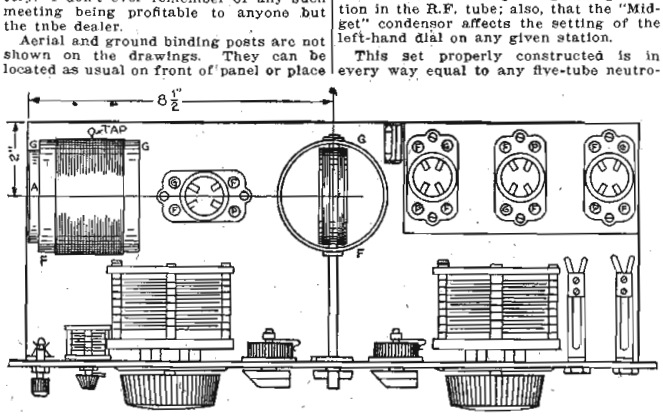
The last three tubes, detector and audio must be cushion mounted; the R.F. tube does not have to be cushion mounted. At the risk of being criticized for repeating, we will repeat, arrange your tube sockets and transformers for shortest possible grid leads. Also keep grid leads as far



from plate leads as you can, as nearly at right angles thereto as possible, and never parallel.

In mounting your instruments on the panel, take a good look at your "midget" condenser. A short circuit here will introduce your tube filament to the B battery. I don't ever remember of any such meeting being profitable to anyone but the tube dealer.

Aerial and ground binding posts are not shown on the drawings. They can be located as usual on front of panel or place



on a small strip of hard rubber or bakelite, supported from the back edge at the baseboard and bringing them up pretty well above the R.F. coil. If the binding posts are placed on the front of the panel, locate the "G" terminal on the front side of the primary form instead of the rear as shown, which was intended for rear mounting.

After winding up and giving it the usual double check-over, after getting ready to operate, make sure that the detector tube will oscillate. If not possible to try it on a fairly strong signal at the moment, rotate your condensers around about in step, a few degrees at a time, turning the rotor down in the coil at each stop. It should "peep" or "squeal" half way or parallel with the rotor. If not, reverse rotor leads and proceed as before. If not then, check over for an open circuit, poor tube contacts, defective grid condenser and leak.

Tuning of Finished Receiver

In tuning, handle as any regenerative receiver, the strongest signals and greatest selectivity with your regeneration just below the "spilling over point."

However, if you will leave you "midget" condenser at its lowest capacity you can locate your station by the "squeal" without any trouble or aerial radiation, then reduce "squeal" to voice or music and then strengthen and increase selectivity, if needed, with the "midget" condenser.

LIST OF PARTS

1 Panel, 7x18"	$ 3.15
2 Variable Condensers, .0005 mfd.	10.00
2 Vernier Dials	5.00
1 Midget Condenser, .000045 mfd.	1.50
1 Battery Switch	1.00
1 Rheostat, 30 ohms	1.00
1 Rheostat, 20 ohms	1.00
2 Audio Transformers, shielded, 3½ to 1	10.00
1 Jack, double circuit	1.00
1 Jack, single open circuit	.70
1 Grid Condenser, .00025 mfd.	.40
1 Grid Leak Cartridge, 3 to 5 mgs.	.50
1 Fixed Condenser, .002 mfd.	.60
4 Tube Sockets, 199 type	1.00
1 Piece 3" tubing, 2¾" long	.30
1 Piece 3" tubing, 3" long	.30
1 Piece 2½" tubing, ¾" long	.10
1 Piece 2½" tubing, 1¼" long	.20
1 Pound No. 20 dsc. wire	1.80
¼ Pound No. 28 dsc. wire	.90
Miscellaneous screws, wire, etc.	2.00
1 Cabinet, 7x18x7"	8.00
1 Baseboard, 8½x17"	.90
Total cost	$51.35

On a great many stations it will be left at about one-third of its capacity. The two condenser dials go around just about in step. The right hand is the more critical. The set logs the same on any station every time on any aerial. As you use the set you will notice the amplifier rheostat controls to a slight degree regeneration in the R.F. tube; also, that the "Midget" condensor affects the setting of the left-hand dial on any given station.

This set properly constructed is in every way equal to any five-tube neutrodyne provided quality of material used and quality of workmanship is the same. As a rule, it has better tone and selectivity. A long aerial gives more volume but less selectivity. If near a powerful local, use forty feet, and they won't bother you much.

The 500-watt stations, 500 miles away need only one stage of audio to give you good, "comfortable" loud speaker reception. On the second stage in Kansas City, both coasts, Canada, Mexico and Cuba are good on the horn.

A. B. C. Course in Radio Fundamentals

Chapter IX—Action of Inductance and Capacity in Circuits

By David Penn Moreton

A CIRCUIT composed of a resistance R, inductance L and a capacity C, all connected in series, is shown diagramatically in figure 45. In such a circuit, the current is exactly the same in every part of the circuit at the same time, and this current may be represented by a curve such as the one marked I in figure 46. The electrical preseure between the terminals of the resistance will be in phase with the current I through the resistance and it may be represented by a curve E_R as shown in figure 46. The electrical pressure between the terminals of the condenser will lag the current I,

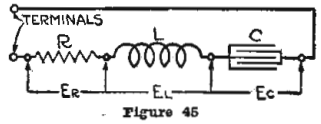


Figure 45

through the condenser, or the current I will lead the electrical pressure between the terminals by 90 degrees, and this electrical pressure may be represented by a curve Ec as shown in figure 46. The electrical pressure between the terminals of the inductance will lead the current I in phase by 90 degrees, or the current will lag the electrical pressure between the terminals of the inductance by 90 degrees and this electrical pressure may be represented by a curve E_L as shown in figure 46.

Determining Electrical Pressure

The effective electrical pressure between the terminals of the resistance, as indicated on an alternating-curreot voltmeter, will be equal to the product of the resistanee in ohms and the effective current through it in amperes. If the current I in figure 46 is a sine-wave current its effective value will be equal to 0.707 of its maximum value.

The effective value of the electrical pressure between the terminals of the condenser will be equal to the product of the effective current through tbe condenser and the reactance of the condenser in ohms. The reactance of the condenser in ohms is equal to one divided by 6.2832 times the frequency, times the capacity of the condenser in farads:

$$\text{Capacity reactance} = \frac{1}{6.2832 \times f \times C}$$

The electrical pressure between the terminals of the condenser is given by the following expression:

$$E_C = \frac{1}{6.2832 \times f \times C}$$

The effective valuc of the electrical pressure between the terminals of the inductance will be equal to the product of the effective current through the inductance and the reactance of the inductance in ohms. The reactance of the inductance in ohms is equal to 6.2832 times the frequency of the current times tbe inductance of the coil in henries:

$$\text{Inductance reactance} = 6.2832 \times f \times L$$

The electrical pressure between the terminals of the inductance is given by the following expression:

$$E_L = I \times 6.2832 \times f \times L$$

An inspection of the expression for the value of Ec shows that Ec increases with a decrease in the frequency and decreases with an increase in the frequency. An inspection of the expression for the value of E_L shows that E_L increases with an increase in the frequency and decreases with a decrease in the frequency. The value of the electrical pressure E_R between the terminals of the resistance is independent of the frequency of the current through the resistance.

The electrical pressures between the terminals of the inductance and the terminals of the condenser are displaced in phase with respect to each other by 180 degrees. If E_L and Ec are equal in value they will exactly neutralize each other and the combined drops across the inductance and condenser will be zero. The total electrical pressure between the terminals of the circuit will be equal to the value of E_R when E_L **and** Ec are equal.

When the values of Ec and E_L are not equal they may be made equal by changing the frequency of the current in the circuit. If E_L is greater than Ec, a decrease in frequency will decrease the value of E_L and also increase the value of Ec and for some particular frequency E_L will be equal to Ec. If Ec is greater than E_L, an increase in frequency will decrease the value of Ec and also increase the value of E_L and for some particular value of frequency Ec will be equal to E_L.

The values of E_L and Ec may be made equal to each other without a change in frequency by changing the values of the inductance L or the value of the capacity C. Increasing the value of L increases

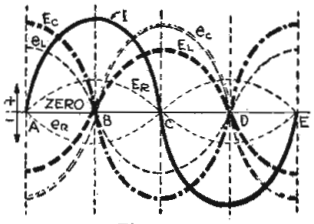


Figure 46

E_L and increasing the value C decreases Ec.

If E_L and Ec are not equal the current I will not be in phase with the electrical pressure impressed on the circuit. The current will lead the electrical pressure impressed on the circuit if the capacity reactance is greater than the inductive reactaoce, and the current will lag when inductive reactance exceeds in value the capacity reactance. The same relation exists between Ec and E_L as exists between the capacity and the inductive reactance.

When Ec and E_L are equal, there is said to be a resonance of electrical pressures and the circuit will have a minimum impedance and hence a given impressed electrical preasure will produce a maximum current. The electrical pressure between the terminals of the capacity and the inductance does not bear any definite relation te the electrical pressure impressed upon the circuit, but depends upon the current in the circuit and the value of the reactance of the inductance and the reactance of the capacity. When the inductive and capacity reactances are equal the current is equal to tbe impressed electrical pressure divided by the resistance of the circuit.

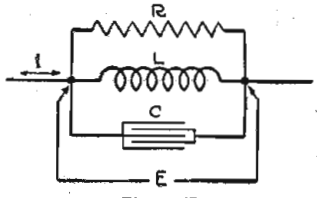


Figure 47

In a series circuit of the kind just described, tbe electrical pressure between the terminals of the inductanee and the terminals of the capacity may be much greater than the total applied electrical pressure.

Resistance, Inductance and Capacity in Parallel Circuit

A circuit composed of a resistance R, an inductance L. and a capacity C, con-

(Continued on page 20)

HOW TO OPERATE SET

(Continued from page 7)

still further to the right. The filaments should always glow at a dull red color, and should never be burned brighter than necessary to obtain volume. They may be examined at any time by tipping the panel forward.

Station Selector I— The control so marked serves to adjust the antenna tuning circuit so that it will rospond to the desired wave length.

Amplification—The control so marked adjusts the regeneration, and thereby regulates the sensitivity and the selectivity of the set.

Station Selector 11—The control so marked adjusts the secondary tuning circuit so it will respond to the desired wave length.

Turn the "Volume Control" until the pointer extends horizontally to the right. Turn the "Battery Setting" until the pointer rests on the mark, previously described, which shows proper position when batteries are new. Turn "Amplifieation" until a breathing sound is heard. This should occur when the pointer reaches "2.5" or a little before. If it does not, disconnect the lead marked "+20B" from the positive terminal of the first block of the B battery and eonneet it to the positive terminal of the second block.

Tuning In Station

Turn both "Station Selector I" and "Station Selector II" from one end of the scale to the other, keeping them at approximately the same readings all the time. Go slowly and listep carefully. A squeal or whistle will be heard when the set is tuned to a station that is operating. When the whistle is heard, turn "Station Selector 11" until the whistle assumes a very low pitch. Then turu "Station Seleetor I" until the whistle becomes londest. Finally turn "Amplification" to the left just enough to stop the whistle when the speech or music should be heard clearly. A slight readjustment of "Station Selector II" may be necessary for hest results.

Of course, it may happen that a station is found between numbers of its program. Therefore, if nothing is heard at the conclusion of above process, wait a minute or so. Do not wait too long before adjusting "Station Selector II." A whistle may also be produeed by an improperly operated receiving set nearby, but such a whistle seldom remains constant.

A little experience in making the adjustment will be necessary before stations can be found easily and quickly, but once this experience is had, the operation of picking up signals and tuning the receiver is very simple.

Relation Between "Station Selectors"

It will be found that there is a definite relation between the two "Station Selectors," for example, when "Station Selector II" is set on "3," "Station Selector I" should be nearly "3" when both are tuned to the same wave length. It may happen that this agreement will not he very close, in which case "Station Selector 1" will reach one end or the other of the scale before "Station Selector II," thus makiug it impossible to tune both seleetors accurately over the whole wave length range. To improve this condition, tip the panel forward. At the extreme left is a coil wound on a micarta tube. At the top of the coil are four terminals, to one of which is attached a lead from the antenna. Remove this lead and attach it to one of the other terminals. With any ordinary antenna a terminal can be found where the agreement between the "Station Selectors" will be close.

When reeeiving from nearby stations, it may happen that the volume will be greater than is desired. Do not attempt to decrease the volume by turning back the "Battery Setting" as that will spoil the quality. Turn back the "Volume Control" until the signal strength has been reduced as mucb as desired. Selectivity, or the ability to pick a desired station out of interference, depends upon the setting of "Volume Control." The receiver is mucb more seleetivo when this control is turned to the left so that it is often desirable to operate with this control almost to the left limit. This weakeus the signals somewhat, but they can be brought up to desired loudness by further adjustment of the "Amplification Control."

Storage Battery Charger

A storage battery can be charged only hy a direet current, and when eharging, the positive wire of the charging current must be conneeted to the positive of the battery, and the negative to the negative. The voltage of the eharging current should be somewhat greater than that of the hattery, while the amperage should not be above one-tenth of the capacity. When a battery is charged or discharged very quickly it will overheat and the paste will fall out of the grids. Not only will this prevent the battery from taking a charge, but it will short circuit the plates at the bottom. For this reason the battery must be charged slowly.

A. B. C. RADIO COURSE

(Continued from page 19)

nected in parallel is shown in figure 47. In a circuit of this kind the current I in the main line is composed of the three currents in the resistance, inductive and capacity branches respectively. If the three currents were in phase they could be added as in the case of a direct-current circuit, to get the total current; but in the case of an alternating-current circuit the phase relation of the current must be taken into account in obtaining the resultant current.

Since the same electrical pressure acts upon all three branches of the circuit shown in figure 47, we can use the wave of this electrical pressure as our reference curve. In the case of the series circuit we used the current wave as the reference wave since the various parts of the circuit were all in series and carrying the same current.

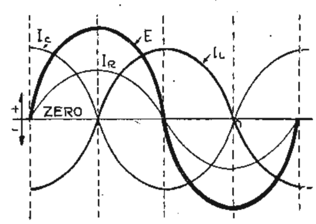


Figure 48

Let the electrical pressure acting on the parallel circuit be represented by the curve marked E in figure 48. Now the current in the branch of the divided circuit composed of the resistance will be in phase with the electrical pressure E and may be represeuted by the curve I_R. The effective value of this current will be equal to the effective electrical pressure divided by the resistance of the branch.

Current Lags 90 Degrees

The current in the branch composed of the induelance L will lag the electrical pressure E by 90 degrees and may be represented by the curve I_L. The effective value of the current will be equal to the effectivo value of E divided by the reaetance of the eircuit in ohms.

The current in the braneh eomposed of the capacity C will lead the electrical pressure E by 90 degrees and may be represented by the curve I_C. The effective value of the current will be equal to the effective value of E divided by the reactance of the circuit in ohms.

The three currents I_R, I_L, and I_C combine to give the curreut I in the main part of the circuit. An inspectiou of figure 48 shows that the current in the branch composed of the inductance is displaced in phase by 180 degrees from the current in the branch composed of the capacity. If these two currents are equal in value they will combine to give zero value and the current I in the main part of the circuit will be equal to I_R. When the currents I_C and I_L are not equal they will give, when combined, a resultant current which is displaced in phase from E by 90 degrees and this resultant current will lead E if I_C is greater than I_L and it will lag E if I_L is greater than I_C. This resultant current combines with I_R and gives the value of I in the main circuit, which may lead or lag E, depending upon the relative value of I_C and I_L.

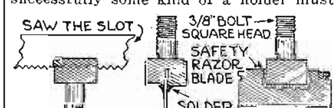
The values of the current I_C and I_L may be made equal to each other by changing the frequency of the applied electrical pressure E, or by changing the value of the inductance L or the capacity C.

The application of these relations and their importance in Radio work will be appreciated wheu the subject of tuning is discussed.

(Editor's Note.—The next installment of Professor Moreton's series will be devoted to electrical measuring instruments, such as ammeters, voltmeters, wavemeters, etc.)

Cutter for Spider Web Forms

It is quite difficult to cut forms for spider web coils from celluloid or thin cardboard. The work can be more easily done if a shap-edged tool is used. I find the discarded safety razor blades to be quite appropriate. To use these blades sneeessfully some kind of a holder must



be applied. I mado use of an ordinary ⅜-inch bolt having a square head. A slot was sawed in the head to hold the razor blade. The blade is soldered in the slot. The tool is used with a hammer for a driver. The slots can be cut square up to the edges of the form with this cutter.
H. H. Yeager, Salina, Kansas.

Two Tube Tandem Rheostat Control

Panel Space Economy with Double Mounting

In making the change from a one tube set to a two tube set, many Radio fans may have been confronted with the problem of insufficient space for another rheostat, which is necessary in order to have a separate control for the one step of amplification. However, this may be overcome by the plan outlined, which will work very satisfactorily.

First, secure a brass strip 1/16 inch thick, ½ inch wide and 7 inches long. Lay this strip flat. Place the two rheostats at each end, as shown, taking care that the rheostats do not extend beyond each end of the strip, then carefully mark the centers where the holes should be drilled. After the holes have been center-punch marked, they should be drilled, using a ¼-inch drill for the center holes of each rheostat, and a number 18 drill for the two outside holes of each rheostat.

Make a line 2½ inches from each end of the brass strip and bend on these lines into the shape of the letter U as shown at A. Particular care must be exercised in this operation, as the holes will not line up if the brass strip is not bent accurately.

The parts may now be assembled in the following manner: Mount the first rheostat in the usual way, but place the brass form next to the panel and then the rheostat on top; then put in a brass tube, ¼ inch outside by 1½ inches long, with a 3/16-inch hole and tighten up the screw. Also put on a dial with a hole all the way through. Fasten the second rheostat in place on the top of the brass form, as shown, and pass a rubber or fibre rod, 3/16 inch by 4 inches long, through the brass tube, stopping to put on the ½-inch rubber or fiber washer, shown at B, and pass through to the second rheostat. If the second rheostat has a ¼-inch hole, it will be necessary to use a reducing bushing, which can be made by cutting a slit in a piece of ¼-inch brass tubing, with a 3/16-inch hole and placing it into the ¼-inch hole in the rheostat. A rubber or fiber tube, ¼ inch outside, by ½ inch long, with 3/16-inch hole should be passed into the bushing.

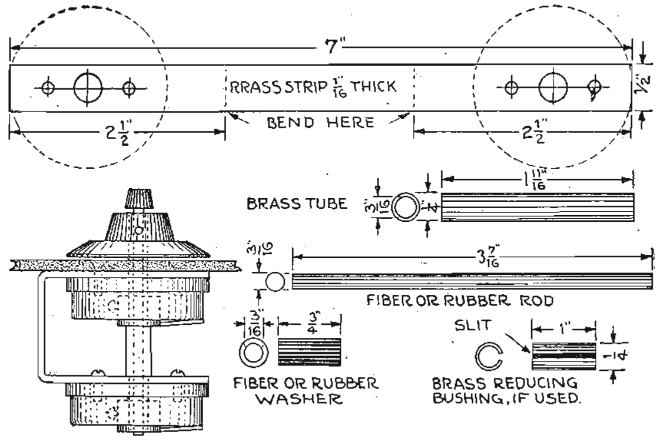
It is then only necessary to place a knob on the end of the rubber or fiber rod to complete the job. It might be said that any make of rheostat could be used, provided that rheostat number 1, has at least a ¼-inch hole.—M. V. Anderson, Edgewood, R. I.

WORKSHOP KINKS EARN A DOLLAR—

THERE are many little kinks worked out at home that would aid your fellow Radio worker if only be 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

SINGLE MOUNTING WITH ONE KNOB



Fake Electrolyte for Charging Storage Cells

The "wets" of Radioland, who prefer to use storage batteries on the filaments, and perhaps the plates, of their tubes, will be interested in what practically constitutes an expose by the bureau of standards of "fake" charging solutions.

An official bureau statement says, "Changing the solution in a storage battery does not charge it," and continues as follows:

An investigation was recently made at the bureau of standards of certain solutions which were said to charge batteries instantly, or in a short time as compared with the usual process. These tests have shown that batteries containing these solutions, contrary to the claims made for them, behave in accordance with well-established laws of electrochemistry.

Analysis revealed these solutions to contain 38 to 42 per cent of sulphuric acid, which is about the amount in the ordinary electrolyte of an automobile battery when charged. In some of them were found also significant amounts of sodium or magnesium as well as coloring matter. The sodium may have been added as soda, lye, or glauber salts; the magnesium as epsom salts. The use of sodium sulphate (glauber salts) in batteries is an old story. It was suggested more than 35 years ago, but various authorities since that time have stated that such material is without beneficial effect. This has been confirmed by the bureau's recent experiments which show the rate of sulphation of plates to be unaffected by even 4 to 5 per cent of epsom salts or glauber salts.

Comparison was made between batteries containing these solutions and similar batteries containing electrolyte of sulphuric acid of equivalent strength. No essential differences were shown in the charging, the voltage, the efficiency, or the temperature. When a battery is said to be charged it is understood that the battery is fully charged. A battery which is almost completely discharged may have nearly the same voltage as one that is charged. In this condition it may be able to operate the starter of an automobile, but this fact can not be taken as evidence that the battery is fully charged. It takes as long to fully charge a battery containing one of these solutions as to charge a similar battery containing the ordinary electrolyte.

The indiscriminate addition of these solutions to a battery is not advisable, although in some cases no great harm may be done. If the solution is used to replace the electrolyte of a completely discharged battery as is usually the case, the battery may be spurred on to give a little more current because the plates retain a surplus of active material. When the battery is recharged by an electric current the specific gravity will rise much too high. This is because the acid formed at the plates by the charging current is added to the acid already present in the solution. In the bureau's experiment it rose to 1.365. This is not desirable because the local action or self discharge within the battery is materially increased. A battery containing one of these solutions lost 47 per cent of its charge in four weeks as compared with 8 per cent which was lost by a similar battery with the ordinary solution. Batteries containing solutions of higher than normal specific gravity often give less capacity at high rates of discharge, as when cranking the engine of an automobile, depending upon the behavior of the negative plates. The higher the specific gravity of the electrolyte the more injurious is the action upon the separators. It is a well-recognized principle in battery operation that acid should be added only to replace that which may have been spilled, or in rare instances to adjust the specific gravity to the required standard after the completion of a full charge.

Although the materials and coloring matter considered individually may be harmless, the disadvantages in using such solutions more than offset any temporary gain.

Wavy Effect on Panels

A beautiful wavy effect can be applied to a panel by covering the tip of your thumb with a bit of felt and using a gritty scouring powder as a cutting agent and cover the entire panel surface with row after row of thumb whorls. A feather duster can be used to remove the surplus powder. This leaves a dizzy, picturesque effect. On soft panels, straight rubbing with a dry scouring powder gives a pleasant, dull grain effect.—J. P. Kennedy, South Bend, Ind.

Questions and Answers

Strange Knocking Noises
(13542) RNM, Crab Orchard, Tenn.

Several times within the last two years I have been bothered with knocking noises in the phones. They start with a slow knock and increase to a speed so that they can be counted. The last time it happened I walked up to the lighting switch and on touching it I received a shock. Putting the antenna blade close to the ground terminal I could see sparks jumping the gap. What caused this?

A.—It is very probable that the noise and sparking which you describe was static. Whenever an antenna is big or whenever it is located on a high building, etc., it will attract static to such an extent as to make it spark. Static sparks have been known to jump a gap of 10 inches at times.

Interference from an Ice Cream Freezer
(13573) WAI, Lamasas, Texas.

How can I stop the interference produced by an ice cream freezer? Whenever it is in operation it impairs the reception of all receiving sets in the neighborhood.

A.—We are not familiar with ice cream freezers so we cannot advise definitely how to remedy the trouble. However, if there is a motor in the machine we would advise that you look over it first. A sparking commutator is usually the cause of the trouble. If you cannot locate the trouble you can overcome it largely by placing a cage made of fly screen around it and grounding it.

Lack of Volume on High Waves
(13670) CWR, Holyoke, Mass.

I have a regenerative set which works wonderfully on the low waves. On the higher waves, however, it does not work as well. What is the matter?

A.—The trouble in your case is one of two things. Either you do not have enough turns on the tickler so that you do not get enough regeneration on the higher waves, or else the fundamental of your antenna falls at upper band of broadcasting. A regenerative set does not oscillate as well if at all on the fundamental of the antenna. To overcome the first add more turns to the tickler. If you find that this does not improve results, put a loading coil in series with the antenna to raise the fundamental above the broadcast band. The loading coil should consist of about 40 turns of bell wire on a 4-inch tube.

Mechanical Rectifier for Batteries
(13586) ELB, Verdun, P. Q.

I wish to make a storage battery charger. I heard a lot about the mechanical type of rectifier. Please give me a hook-up and instructions for building a mechanical storage battery charger.

A.—We would not advise the use of a mechanical type of a storage battery charger made at home. Even the factory made ones do not work too well. Made at home it would only spark and waste current away. The sparking would interfere with the near-by Radio sets. If you wish to build a charger we would suggest the charger described by Mr. Fournier in December 20 issue of Radio Digest.

Copper Tubing for Antenna
(13582) EJM, Waterbury, Conn.

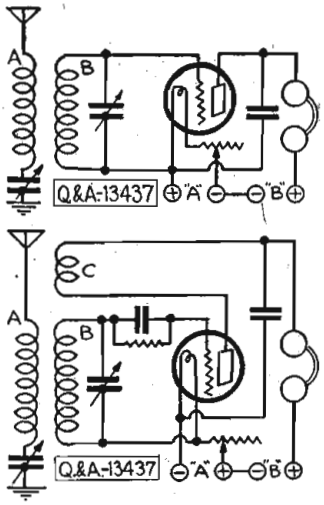
I have heard that reception can be improved by the use of copper tubing for an antenna, is this correct?

A.—It is not correct. The only thing the use of copper tubes does is increase the antenna's capacity to the earth. It is used by transmitters largely because it is rigid.

Non-Regenerative Circuit
(13437) LJM, Cedar Rapids, Iowa.

I am thinking of building a one tube receiving set and would like to know of a good hook-up that will not reradiate and be selective. The set I want must be selective as it is possible to make a one tube outfit and it must have a clear tone without distortion, and if possible it should not reradiate to annoy my neighbors. Long distance reception is no object. If it will bring in the stations good as far away as Chicago I will be satisfied. I desire to use the C-299 or UV-199 tubes. Do you have any instructions for a set that will fill the above requirements?

A.—We are showing two hook-ups from which you may have your choice. The first one is the non-regenerative circuit. This circuit will not reradiate, will not howl and will not disturb others. The



quality of music received by it will be surpassed by the crystal only. However, it will not bring in very much DX. You may and you may not get Chicago stations. If you get them they will not be very loud.

The second is a single tube regenerative set. This set will, if operated properly, bring in the music as clear as the non-regenerative, however, if not it will distort the signal. If operated carelessly it will reradiate and howl. It will also bring in DX and you will have no trouble bringing in Chicago stations and those on the east coast should come in good.

The first part of both these sets are alike. That is, coils A and B. Coil A should consist of about 30 turns of number 18 wire wound in the basket fashion. The secondary, that is coil B, should consist of about 40 to 45 turns of number 18 wire wound in the basket fashion. The size of both these coils is about 4½ inches in diameter. These coils should be arranged so that the distanee between them can be varied. They should be parallel to each other. The tickler, that is coil C, consists of about 25 turns of number 18 wire wound on a basket form about 2 inches in diameter. It should be placed on a shaft so that it can be rotated. While any condenser will do in series with the aerial the one across the secondary should be a low loss condenser. The rotary plate is indicated in the drawing and it is important that it should be connected as indicated.

Through error, the grid leak and grid condenser have been omitted from the non-regenerative circuit. In both circuits the grid condenser should be .00025 mfd. while the leak will be in the neighborhood of 5 megohms. Variable condenser is .0005 mfd., while the bypass is .002.

Sending Out Time Signals
(13467) WSE, Harrisburg, Pa.

Will you please tell me how the broadcasting stations send out the time signals?

A.—The time signals sent out by the broadcasting stations are usually telegraphed to the station from some watch factory or from some observatory or other place that keeps standard time. A ticker is usually arranged so that it operates a buzzer at the station, the buzz of which is sent out.

Amateur Transmitting License
(13620) FWH, Auburn, Ia.

Asks what he has to know to get an amateur operators' license. Also, if he can use a Western Electric C.W.936 transmitter. This transmitter is arranged to transmit on waves of 256, 297, 345, 400 and 600 meters.

A.—To get an amateur operators' license you must first be able to send and receive in the international code at a speed of at least ten words per minute. You must have a knowledge of theory to be able to explain the operation of your sending and receiving set. You must be able to tell how you would tune your transmitter to the correct wave length by the use of a wave meter. You must be able to explain how to adjust your prospective sending and receiving set. You must have read and studied the Radio laws and regulations governing stations in U. S. and of the world. You must have memorized the law of secrecy. You cannot use the transmitter which you mention without rebuilding it so that it will send on a wave length below 200 meters.

Large Outside Loop
(13561) JEW, Oakland, Okla.

I intend to build an outside loop antenna. I intend to put it on a square 9 feet on the side. This antenna is to be 30 feet above the ground with a 30-foot lead to the set. Would this antenna be better than a flat top with a 30-foot elevation?

A.—An antenna of this kind would not be better than a flat top. It would be inferior when compared with it. The 30-foot lead would cancel all directional properties of the loop.

Charging Storage Batteries from 250 V.D.C.
(13673) EEM, Lafferty, Ohio.

What is the best way to charge a storage A and B battery from 250 volts D.C.

A.—You can charge these batteries by connecting a resistance in series with the battery. You should have an ammeter to indicate the charging rate. The charging rate, which may be varied by the size of the resistance should be about 4 to 6 amperes for the A battery and about ½ to 1 ampere for the B battery.

Station Call Letters
(13666) ALS, Royal Oak, Mich.

What are the call leters of a low wave station in University City. They begin with KF and they broadcast at 1 a. m., Eastern standard time.

A.—The station you heard is KFVE. It was started May 6.

List of Amateur Stations
(13542) BE, Fairview, Kans.

Could you please give me the call letters and wave length of amateur broadcasting stations?

A.—We wish to advise that amateur stations are not broadcasting stations. They are transmitting stations which transmit to one certain station only. We could not give the list of them as they number somewhere around 17,000. A call book contains the list you want. The amateurs use various bands, all of which are located below 200 meters. They are as follows: 150-200, 75-85.7, 37.5-42.8, 18.7-21.4, 4.69-5.35, and also a small band for use in beam transmission in the neighborhood of ¼ meter. The amateur phone stations are all in the band between 170 and 180 meters. CW only is allowed on the other wave lengths.

Radiophone Broadcasting Stations

Corrected Every Week—Part II

FIND MISTAKES AND YOU'LL GET DOLLAR

ONE DOLLAR will be paid to the Radio fan reader of Radio Digest submitting the most errers 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-ealled accurate Radio directories or lists. Turn in correctiens for as many statiens 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 second part of the schedule list appears below. The first appeared last week.)

KJR, Seattle, Wash. 384.4 meters. 1000 watts. Northwest Radio Service Co. Announcer, Vincent I. Kraft. Slogan, "Radio Headquarters." Daily ex Sun, 12:30-1 pm, markets; 1-1:30, music; 6-6:30, Mon, Wed, Fri, 8:30-10 pm, Thurs, 10:30-12 midnight, Sat, 1:30-2 pm, sports, Sun, 11 am, 7 pm, services. Pacific.

KJS, Los Angeles, Calif. 293.9 meters. 750 watts. Bible Inst. of Los Angeles. Announcer, M. E. Carrier. Slogan, "King Jesus Saves." Tues, Thurs, 8-9 pm, sacred music, lectures, etc. Fri, 7-8 pm, Sun, 10:45-12:30 pm, 6-6:45, 7:15-9:30, church services. Pacific.

KLDS, Independence, Mo. 268 meters. 500 watts. Reorganized Church of Jesus Christ of Latter Day Saints. Announcer, Arthur B. Church. Tues, Thurs, 8 pm. Sun,, 11 am. 5 pm, 7:30. Central.

KLS, Oakland, Calif. 242 meters. 250 watts. Warner Bros. Radio Supplies. Announcer, S. Warner. Slogan, "The City of Golden Opportunity." Daily 11:30-1 pm. Sun, 10-11 am. Pacific.

KLX, Oakland, Calif. 508.2 meters. 500 watts. Oakland Tribune. Announcer, Seth T. Bailey. Slogan, "Where Rail and Water Meet." Daily ex Sun, 6-7 pm, news; 7:30, weather. Daily ex Sun, Mon, 3-5 pm, baseball. Mon, 10-11 pm, Lake Merritt Ducks. Mon Wed, Fri, 8-10 pm, talks; entertainment. Fri, 10:30-12 midnight, dance music. Pacific.

KLZ, Denver, Colo. 266 meters. 250 watts. Reynolds Radio Co. Announcer, Mrs. William D. Reynolds. Slogan, "Its a Privilege to Live in Colorado." Daily ex Sun, 8:30 am, Tues, Thurs, 8-10 pm. Sun, 9-10:30 pm. Mountain.

KMJ, Fresno, Calif. 234 meters. 50 watts. San Joaquin Lt. Pr. Corp. Slogan, "Home of the Raisin." Irregular schedule.

KMO, Tacoma, Wash. 250 meters. 100 watts. Association Station. (Love Electric Co.) Mon, Wed, Fri, 6-7 pm, popular program; 9-10, artist's program. Pacific.

KNX, Hollywood, Calif. 336.9 meters. 500 watts. Los Angeles Evening Express. Announcer, "Town Crier." Daily ex Sun, 7:30 am and every hour, time; 5:45-12 midnight. Fri, Sat, 12-2:30 am. Sun, 10-1 pm, 2-3, 5-11. Pacific.

KOA, Denver, Colo. 322.4 meters. 2000 watts. General Elec. Co. Daily ex Sun, 12:20-12:50 pm, organ; 1 pm; 2, stocks, Daily ex Sat, Sun, 6 pm, stocks, Tues, 6:30 pm; Tues, Thurs, Fri, 3 pm, matinee. Mon, Wed, Fri, 8 pm, entertainment. Wed, 10-12:30 am. Sat, 9-12:30, dance music. Sun, 11 am; 4 pm; 7:30 pm, services Mountain.

KOB, State College, N. M. 348.6 meters. 750 watts. N. M. College of Agri. & Mech. Arts. Announcer, J. D. Burke. Slogan, "The Sunshine State of America." Daily 11:55-12:20 pm, 9:55-10:10, 1, 6 pm, time, reports, news; Mon, Wed, Fri, 6:35, children's hour; 7:30-8:30 pm, concert. Mountain.

KOCH, Omaha, Neb. 258 meters. 50 watts. Central H. S. Announcer, Arnold Cisler. Daily ex Sat, Wed, 3-4:30 pm, orchestra, pipe organ. Mon, Tues, Thurs, 7:30-9 pm, Sat, 11:30-1 a. m., pipe organ. Central.

KOP, Detroit, Mich. 278 meters. 500 watts. Detroit Police Dept. Announcer, B. D. Fitzgerald. Slogan, "Safety First." Daily ex Sun, 1 pm, 6:30; reports, police information, emergency. Safety talks. Eastern.

KPO, San Francisco, Calif. 428.3 meters. 500 watts. Hale Bros., Inc. Announcer, Clair E. Morrison. Slogan, "The City by the Golden Gate." Daily ex Sun, Mon, 7 am, exercises. Daily ex Sun, 10:30 am, talk; 12 m, reading. Daily ex Sat, Sun, 1-2 pm, 4:30-5:30 pm, music. Fri, 12:45-1:30 pm, talks; 8-10 pm. Sat, 1-2 pm, 3:30-5:30 pm, music. Mon, Tues, Wed, Thurs, 5:30 pm, children's hour; 7-7:30, dinner music; 8-11, concert, lectures. Sat, 8-12 midnight, music. Sun, 11-12:15 pm, church services, 6-7:30 pm, 8-10, music. Pacific.

KPPC, Pasadena, Calif. 228.9 meters. 50 watts. Pasadena Presbyterian church. Announcer, G. Anton Pohlman. Wed, 7:30-9 pm, Sun, 10:15 am, chimes; 10:30-12:30 pm, service, 6:30, chimes; 6:45-9, service. Pacific.

KQP, Hood River, Ore. 270.3 meters. 10 watts. Apple City Radio Club. Announcer, H. H. Read. Slogan, "The Home of the Hood River Apple." Fri, 6:30 pm, music. Wed, 9 pm, special. Pacific

KQV, Pittsburgh, Pa. 275.2 meters. 500 watts. Doubleday-Hill Elec. Co. Daily ex Sat, Sun, 10:30 am, 3 pm. Sat, 10:30 am, 12:30 pm, Eastern Daylight.

KQW, San Jose, Calif. 226 meters. 50 watts. Charles D. Herrold.

KRE, Berkeley, Calif. 258 meters. 150 watts. Daily Gazette. Announcer, Harrold Kirby. Mon, Tues, Thurs, 8-10 pm. Wed, 5-6 pm, 8-12. Sat, 8-12 midnight. Sun, 10-11 am, 6:30-7:30 pm, 8-9, 9-10. Pacific.

KSAC, Manhattan, Kan. 340.7 meters. 500 watts. Kansas State Agricultural College. Announcer, Sam Pickard. Daily ex Sat, Sun, 12:30 pm. Central.

KSD, St. Louis, Mo. 545.1 meters. 750 watts. St. Louis Post Dispatch. Daily ex Sun, 8:40 am, 9:40, 10, 10:40, 11:40, 12:40 pm, 1:40, 2:40, 3:40. Mon, 7 pm, 9, 10, Sat, 7 pm, 8:30, Tues, 6 pm. Thurs, 4 pm, Wed, 7 pm, Fri, 7 pm; 7:30, 8:30, 10, Sun, Thurs, silent nights. Central.

KSL, Salt Lake City, Utah. 299.8 meters. 1,000 watts. Radio Service Corp. of Utah. Announcer, Charles H. Hays. Mon, Wed, Fri, 7-11 pm, Tues, Thurs, Sat, 7:30-11 pm, Sun, 9-11 pm. Mountain.

KTCL, Seattle, Wash. 305.9 meters. 1,000 watts. B. F. Fisher. "Know the Charmed Land."

KTHS, Hot Springs, Ark. 374.8 meters. 500 watts. The New Arlington Hotel. Announcer, G. C. Arnoux. Slogan, "Tune to Hot Springs." Daily ex Sun, Wed, Fri, 12:30-1:15 pm, weather, markets, orchestra. Daily, 8:30-8:40 pm, baseball; 8:40-10, concert. Mon, Wed, Sat, 10-11 pm. Sun, 11 am, church services; 8:30-10 pm, concert; 10-11:30, jazz. Central.

KTW, Seattle, Wash. 454.3 meters. 1,000 watts. First Presbyterian church. Announcer, J. G. Priestly. Slogan, "Hear Ye, hear ye, the Gospel." Sun, 11-12:30 pm, 3-4:30, 7-9:30; church service. Pacific.

KUO, San Francisco, Calif. 246 meters. 150 watts. San Francisco Examiner. Slogan, "The Voice of the West." Temporarily off the air.

KUOM, Missoula, Mont. 244 meters. 250 watts. University of Montana.

KWG, Stockton, Calif. 248 meters. 50 watts. Portable Wireless Telephone Co. Announcer, E. R. Garrow. Slogan, "Voice of the San Joaquin Valley." Daily ex Sun, 4-5 pm, news, concert, markets. Tues and Fri, 8-9 pm, concert. Sun, 2-3 pm, concert. Pacific.

KYW, Chicago, Ill. 535.4 meters. 1500 watts. Westinghouse Elc. & Mfg. Co. Announcer, Edward Borroff. Daily ex Sun, Sat, afternoon, 6:30 am, 7, morning exercises. 9:30 am, 10, 10:30, 11, markets; 10:55, time; 11:05, weather; 11:30, news; 11:35, table talk; 12 m, 12:30 pm, 1, 1:20, 2:15, 2:30, markets; 3, 3:30, 4, news; 4:15, markets; 4:30, 5, news; 6:30, markets. Daily ex Sun, Mon, 6:35-7 pm, bedtime story; 7-7:30 pm, dinner concert; 8, concert; 9, special; 1-2 am, Insomnia club. Tues, Thurs, 2:30-4 pm, musical frolic. Tues, Thurs, 10-11:30 pm, "at home" program. Sat, 10-11:30 pm, classical program; 12-2, carnival. Sun, 11 am, Central church; 4 pm; 7, Chicago Sunday Evening club. World Crier every half hour. Central.

KZKZ, Manila, P. I. 270-460 meters. 500 watts. Radio Corporation of the Philippines.

KZM, Oakland, Calif. 242 meters. 100 watts. Western Radio Institute (Hotel Oakland). Announcer, H. Lewis. Daily ex Sun, 6:30-7 pm, orchestra. Pacific.

KZRQ, Manila, P. I. 222 meters. 500 watts. Far Eastern Radio, Inc.

NAA, Radio, Va. 435 meters. United States Navy Dept. Daily ex Sun, 10:05-10:20 am, 3:45-4 pm, 10:05-10:20. Wed, 7:20-7:40 pm, civil service lecture. Mon, 7:45-8 pm, lecture, War dept. Tues, Thurs, 7:45-8 pm, Dept. of Commerce. Fri, 7:45-8 pm, Treasury dept.

WAAB, New Orleans, La. 268 meters. 100 watts. Valdemar Jensen.

WAAC, New Orleans, La. 275 meters. 100 watts. Tulane Univ. Announcer, P. S. LeJaup. Fri, 7:15-7:30 pm, reports; 8-9:30, educational and entertainment program. Central.

WAAD, Cincinnati, O. 258.6 meters. 25 watts. Ohio Mechanics Inst. No regular schedule.

WAAF, Chicago, Ill. 278 meters. 200 watts. Chicago Daily Drovers Journal. Announcer, Carl Ulrich. Daily ex Sun, 8:40 am, 10:30, 10:45, 12:30 pm. Daily ex Sun, Sat, 12:45, 3, 4:30, live stock and weather reports. Central.

WAAM, Newark, N. J. 263 meters. 250 watts. I. R. Nelson Co. Announcer, J. B. Bayley. Slogan, "Electrical Repairing and Manufacturing." Daily ex Sun, 11-12 m, music, talks, markets. Mon, Tues, Wed, Fri, 7-11 pm. Eastern.

WAAW, Omaha, Neb. 384.4 meters. 500 watts. Omaha Grain Exchange. Slogan, "Where Agriculture Accumulates Wealth." Daily ex Sun, 8:45 am, 9:15, 10:15, 10:45, 11:15, 11:45, 12:15, market reports. Central daylight.

WABA, Lake Forest, Ill. 227 meters. 200 watts. Lake Forest university. Wed, 8-9 pm, music, talks. Central.

WABB, Harrisburg, Pa. 266 meters. 10 watts. Harrisburg Sporting Goods Co. Announcer, Frank B. Gaucher. Tues, Fri, 8 pm, sports, music. Sun, 9 pm, church services. Eastern.

WABI, Bangor, Me. 240 meters. 100 watts. Bangor Hydro-Elec. Co. Announcer, H. D. Tucker. Slogan, "The Pine Tree Wave."

WABL, Storrs, Conn. 275 meters. 500 watts. Connecticut Agri. College. Announcer, Daniel E. Noble. Slogan, "From the Nutmeg State." Mon, Wed, Fri, 7-9 pm. Eastern.

WABM, Saginaw, Mich. 261 meters. 200 watts. F. E. Doherty Automotive & Radio Equip. Co. Announcer, G. C. Hiatt. Daily ex Sun, 10:15 am, news, markets, 2:15 pm, weather, stocks; 6, news, stocks, sports, music. Daily ex Sun, Sat, 10 pm, dance. Sun, 10:30 am, 7:30 pm, church strvice. Eastern.

WABN, La Crosse, Wis. 244 meters. 500 watts. Ben A. Ott. Announcer, W. G. Grover. Slogan, "The City Beautiful on the Old Mississippi." Club, Thirsty Knights. Mon, Thurs, 9-12 midnight. Central.

WABO, Rochester, N. Y. 278 meters. 100 watts. Lake Avenue Baptist church. Announcer, Laurence Hickson. Sun, 10:15-12 m, 7:15-9 pm. Eastern.

WABQ, Haverford, Pa. 261 meters. 50 watts. Haverford College Radio club. Announcer, Gerald C. Gross. Thurs, 10-11 pm, lectures, music. Eastern daylight.

WABR, Toledo, O. 263 meters. 50 watts. Scott High School. Daily ex Sat, Sun, 9:30 am, garden talks. Fri, 8:15-9 pm, program by high school students. Eastern.

WABU, Camden, N. J. 226 meters. 50 watts. Victor Talking Machine Co.

WABW, Wooster, O. 206.8 meters. 50 watts. The College of Wooster, Dept of Physics. Announcer, Frank C. Isely. Mon, Tues, Wed, Thurs, Fri, 9:30-10 am, chapel service. Eastern.

WABX, Mt. Clemens, Mich. 246 meters. 500 watts. Henry B. Joy.

WABY, Philadelphia, Pa. 242 meters. 50 watts. John Magaldi, Jr. Slogan, "Quaker City Sleep Dodgers" Club. "The American Broadcasting Club." Sun, 9 pm, music; 10:30, "Sleep Dodgers' Session." Eastern.

WABZ, New Orleans, La. 275 meters. 50 watts. The Coliseum Place Baptist church. Announcer, V. W. Bradbury. Slogan, "The Station with a Message." Wed, 9-10 pm, talks, music; Sun, 11-12:15 pm, 7:15-8:45, church service. Central.

WADC, Akron, Ohio. 258 meters. 100 watts. Allen T. Simmons.

WAFD, Port Huron, Mich. 256 meters. 250 watts. B. Parker Co. Slogan, "We Are Ford Dealers." Daily ex Sat, Sun, 8-11 pm. Sat, 9-12. Sun, 7:30-9 pm. Eastern daylight.

WAHG, Richmond Hill, N. Y. 315.6 meters. 500 watts. A. H. Grebe & Co. Slogan, "Wait and Hear Grebe." Mon, 7:30-2 am. Wed, Fri, 7:30-11:15 pm. Sat, 12-2 am. Eastern daylight.

WAIT, Taunton, Mass. 229 meters. 10 watts. A. H. Waite & Co., Inc.

WAMD, Minneapolis, Minn. 243.8 meters. 500 watts. Hubbard Co. Sun, Mon, Tues, Wed, 9 pm, Thurs, Fri, 10 pm. Sun, 2 pm. Central.

WARC, Medford Hillside, Mass. 261 meters. 500 watts. American Radio & Research Corp.

WBAA, W. Lafayette, Ind. 273 meters. 250 watts. Purdue University. Announcer, J. W. Stafford. Daily ex Sun, 9:50 am, stocks, markets, weather. Mon, Fri, 7:15 pm, special program. Central.

WBAK, Harrisburg, Pa. 275.2 meters. 500 watts. Pennsylvania State Police. Announcer, Frank P. Gaucher. Daily ex Sun, 10 am, 1:30 pm, 3:45, police reports, fire protection, markets; 12:30, police reports. Mon, Tues, Wed, 7:30 pm, special. Eastern.

WBAO, Decatur, Ill. 263 meters. 100 watts. James Millikin Univ. University activities. No definite schedule.

WBAP, Fort Worth, Tex. 475.9 meters. 1500 watts. Fort Worth Star-Telegram. Announcer, "The Hired Hand" Club, "Radio Truth League" Daily ex Sun, 10, 11, 12 m, 1 pm, 2, market reports, weather; 4, "Port of Missing Men." Mon, Tues, Wed, Thurs, Fri, 12:05-12:30 pm, 7:30-8:30, 9:30-10:45, concert. Sat, 7 pm, Bible lesson. Sun, 11 am, church; 4 pm, concert; 11, midnight frolic. Central.

WBAR, [illegible], Wis. 406 meters. 500 watts. Kopp Radio Co. Slogan, "The Station of Northern Wisconsin." Mon, 9-10 pm. Wed, 8-9 pm. Thurs, 7:30-8:30. Sun, 10-11 pm. Central.

WBAV, Columbus, O. 293.9 meters. 500 watts. The Erner and Hopkins Co. Announcer, H. E. Day. Slogan, "We Broadcast a Variety." Daily ex Sun, 12-1 pm. Mon, Fri, 8-10 pm. Eastern.

WBAX, Wilkes-Barre, Pa. 256.4 meters. 10 watts. John H. Stenger, Jr. Slogan, "In Wyoming Valley, Home of the Anthracite." Tues, Wed, Thurs, Sat, 9:30-12 midnight, music. Sun, 7-9 pm. Eastern.

WBBA, Newark, Ohio. [illegible] meters. 20 watts. Plymouth Congregational church. Daily, 6:30 pm, news. Fri, 7:30 pm, special Radio service. Sun, 11 am; 7:30 pm, church services. Eastern.

WBBG, Mattapoisett, Mass. 248 meters. 250 watts. Irving Vermilya. Mon, Wed, Fri, 8-10 pm, music. Sun, 10:45-12 m, church service. Eastern daylight.

WBBL, Richmond, Va. 229 meters. 100 watts. Grace Covenant Presbyterian church. Announcer, Herbert C. Taylor. Tues, 8 pm. Sun, 11 am; 8 pm. Eastern.

WBBM, Chicago, Ill. 226 meters. 1500 watts. Atlass Investment Co. Announcer, Dean Borresson. Slogan, "We Broadcast Broadmoor Music." Daily ex Mon, 4-6 pm. Mon, 4-7 pm, Tues, Thurs, 8-12. Wed, Fri, Sun, 8-10 pm. Wed, Sun, 12-2 am. Sat, 8-2 am. Central daylight.

WBBP, Petoskey, Mich. 238 meters. 100 watts. Petoskey High School. Announcer, Carl Bowman. Wed, 9:30-10:30 pm, popular program. Fri, 8-9:30 pm, athletics. Sun, 10:30 am, service; 3 pm, sacred concerts. Central.

WBBR, Staten Island, N. Y. City, N. Y. 272.6 meters, 500 watts. International Bible Students' Association. Mon, Thurs, Sat, 8-9 pm, lectures, music. Sun, 10-11:30 am; 9-10:30 pm. Eastern.

WBBS, New Orleans, La. 252 meters. 50 watts. First Baptist church. Slogan, "The Gospel Wave." Sun, 11 am, 7:30 pm, services. Central.

WBBU, Monmouth, Ill. 224 meters. 10 watts. Jenks Motor Sales Co. Mon, Thurs, 8 pm. Central.

WBBV, Johnstown, Pa. 248 meters. 5 watts. Johnstown, Radio Co.

WBBW, Norfolk, Va. 222 meters. 50 watts. Ruffner Junior High School. Announcer, Lee M. Klinefelter. Slogan "The School You'd Like to Go to." Fri, 8 pm, Eastern.

WBBY, Charleston, S. C. 268 meters. 10 watts. Washington Light Infantry. Announcer, Hugh Easterly. Eastern.

WBBZ, Indianapolis, Ind. 238 meters. 50 watts. Noble B. Watson. Announcer, Floyd J. Elliott. Mon, 8:30-10 pm. Central.

WBCN, Chicago, Ill. 266 meters. 500 watts. Southtown Economist. Announcer, Wm. H. McDonnell. Slogan, "World's Best Community Newspaper." Daily ex Sat, Sun, 6-6:25 pm, children's hour; 6:45-7 pm, police bulletins. Tues, Thurs, 8-8:30 pm, popular program; 8:30-9, 10-11; 11-12. Tues, 12-2 am, pirate ship. Wed, 7-11 pm. Thurs, 12-1 am, owl matinee. Fri, 8-9 pm; 10-12. Sat, 8-12 mid. Sun, 10:30-12, service; 4-5 pm; 7-8; 9-11. Central daylight.

WBDC, Grand Rapids, Mich. 256 meters. 50 watts. Baxter Laundry and Dry Cleaning Co. Announcer, Richard Smith.

WBES, Takoma Park, Md. 222 meters. 100 watts Bliss Elec. school.

WBOQ, Richmond Hill, N. Y. 236 meters. 100 watts A. H. Grebe & Co., Inc.

WBR, Butler, Pa. 203 meters. 250 watts. Pa. State Police. Announcer, H. Nifong. Daily ex Sun, 9:30 am, 10, 10:30, 1 pm, 1:30, 2, 5:30, 5:45, 6:15, 12, 12:30 am, 1. Eastern.

WBRE, Wilkes-Barre, Pa. 231 meters. 10 watts. Baltimore Radio Exchange.

WBS, Newark, N. J. 252 meters. 200 watts. D. W. May, Inc. Announcer, C. J. Ingram. Daily, 1-2:15 pm, reports, music. Mon, Thurs, 5:30-7 pm; 8:30-12. Tues, Wed, Fri, 7-8:30 pm. Fri, 12-2 am. Eastern.

WBT, Charlotte, N. C. 275 meters. 250 watts. Southern Radio Corp.

WBZ, Springfield, Mass. 333.3 meters. 2000 watts. Westinghouse Elec. & Mfg. Co. Announcer, A. E. Bach. Daily ex Fri, Sun, 6-7 pm, dinner concert; 7, market reports, talks; 7:05 bedtime stories; 7:15, talks; 7:30, lectures; 10:55-11:05, time, weather. Mon, 8-10:30 pm, concert; 11:20-12, orchestra. Tues, 8-10 pm, concert. Wed, 8-10:30 pm, concert; Thurs, 8-10:30 pm; 11:30-12:30, dance. Sat, 8-10:30 pm, concert. Sun, 10:45 am, service; 8:30-10 pm, concert. Eastern daylight.

WCAD, Canton, N. Y. 263 meters. 250 watts. St. Lawrence Univ. Announcer, Ward C. Priest. Slogan, "The Voice of the North Country." Daily, 11 am, weather, reports, time. Wed, 8 pm, program. Eastern.

WCAE, Pittsburgh, Pa. 461.3 meters. 500 watts. Kaufman & Baer Co., Pittsburgh Press. Announcer, Joseph Sartory. Daily ex Sun, 12:30 pm, news; 4:30, reports; 6:30, music; 7:30, Uncle Kaybee; 8:30, music. Mon, Tues, 11 pm. Sat, 2:30-4:30 pm. Sun, 10:45 am, services; 3 pm, sermon; 4, 6:30, music. Eastern.

WCAG, New Orleans, La. 268 meters. 100 watts. Clyde R. Randall. Temporarily off the air.

WCAH, Columbus, O. 286 meters. 200 watts. Entrekin Elec. Co. C. A. Entrekin, announcer. Slogan, "The Heart of Ohio." Daily, 11:30-12:30 pm. Tues, 8-10:30 pm. Sun, 4 pm, vesper. Eastern.

WCAJ, Univ. Place, Nebr. 254 meters. 300 watts. Nebr. Wesleyan Univ. Announcer, J. C. Jensen. Daily 11:30 am, weather. Tues, 7 pm, children's hour. Fri, 9 pm, music, lectures. Central.

WCAL, Northfield, Minn. 336.9 meters. 500 watts. Dept. of Physics, St. Olaf College. Announcer, Kenneth Onsgard. Slogan: "The College on the Hill." Daily ex Sun, Thurs, 9:45 am, chapel. Thurs, 9 am, music. Fri, 8:30 pm, talk. Sun, 8:30 pm, sermon, music. Central.

WCAO, Baltimore, Md. 275 meters. 100 watts. Brager of Baltimore. Announcer, R. E. Bronner. Slogan, "The People's Store." Wed, Fri, 8-11 pm, Sun, 5 pm, Eastern.

WCAP, Washington, D. C. 468.5 meters. 500 watts. Chesapeake & Potomac Tel. Co. Announcer, O. P. Gascoigne. Mon, 7-10:30 pm, Wed, 7-10:30 pm, Sun, 6:20-9:15 pm. Eastern.

WCAR, San Antonio, Tex. 263 meters. 100 watts. Southern Radio Corp. of Texas. Announcer, L. Tatom. Club, "Royal Order of Prevaricators" Mon, Thurs, Sat, 8:30-9:30 pm, concert. Wed, Sat, 11 pm. Central.

WCAT, Rapid City, S. D. 240 meters. 50 watts. S. D. State School of Mines. Announcer, J. O. Kammerman. Daily ex Sun, 9:30 am, 12:30 pm, weather, reports. Thurs, 7:30 pm, concert. Mountain.

WCAU, Philadelphia, Pa. 278 meters. 500 watts. Durham & Co. Daily ex Mon, Sat, 7-10 pm. Sun, 5-10 pm. Eastern.

WCAX, Burlington, Vt. 252 meters. 100 watts. University of Vermont. Fri, 7:30-8:30 pm. Eastern.

WCAY, Milwaukee, Wis. 266 meters. 250 watts. Milwaukee Civic Broadcasting Station. Announcer, Ray Mitchell. Mon, Wed, Fri, 11:15 am. Mon, Fri, 3 pm. Tues, Thurs, 9:15 pm, frolic. Wed, 6:30 pm. Sun, 9:15 pm. Central.

WCAZ, Carthage, Ill. 246 meters. 50 watts. Carthage College. Wed, 9-10 pm. Central.

WCBA, Allentown, Pa. 254 meters. 10 watts. Queen City Radio Station. Wed, 8:15-11 pm. Fri, 6:45-7:45 pm, bedtime stories, Bible lessons. Sun, 7 pm, church service. Eastern.

WCBD, Zion, Ill. 345 meters. 500 watts. Wilbur Glenn Voliva. Announcer, J. H. DePew. Slogan, "Where God Rules, Man Prospers." Mon, Thurs, 8-10:30 pm, concert. Wed, 12:30-1 pm, organ. Thurs, 1:30-2:45 pm, service. Sun, 8-10:45 am, Bible school; 1:30-5 pm, church services. Sun, 8-10:30 pm. Central.

WCBE, New Orleans, La. 263 meters. 5 watts. Uhalt Brothers Radio Co. Announcer, Johnnie Wilson. Slogan: "Second Port U. S. A." Sat, 9 pm, dance. Sun, 12:30-2 pm, dinner concert; 9, dance music. Central.

WCBG, Herrin, Ill. 268 meters. 10 watts. Howard S. Williams. Slogan, "Will Christ Be Glorified?" Daily ex Sun, 12:30-1 pm; Daily ex Sun, Mon, 7 pm. Sun, 6:45 pm.

WCBH, Oxford, Miss. 242 meters. 10 watts. U. of Mississippi. Announcer, W. L. Kennon. Mon, Fri, 8 pm. Central.

WCBI, Bemis, Tenn. 240 meters. 150 watts. Nicoll, Duncan & Rush.

WCBJ, Jennings, La. 244 meters, 10 watts. J. C. Mans.

WCBL, Houlton, Me. 266 meters. 100 watts. Northern Radio Mfg. Co. Announcer, Lee J. Bell. Slogan, "Call of the North." Wed, 7:30-10 pm. Sun, 10:30 am, 3-5 pm, 7. Eastern.

WCBM, Baltimore, Md. 229 meters. 50 watts. Hotel Chateau. Announcer, Harry J. Dohe. Tues, Thurs, 10 pm-1 am. Sat, 9:30-12 mid. Sun, 9:45-11 pm. Eastern.

WCBQ, Nashville, Tenn. 242 meters. 50 watts. First Baptist church. Announcer, Harry Stone. Sun, 7:30 pm. Central.

WCBR, Providence, R. I. 205.4 meters. 30 watts. Charles H. Messter. (Portable.)

WCBU, Arnold, Pa. 220 meters. 50 watts. Arnold Wireless Supply Co. Announcer, F. J. Ambrose. Slogan, "The Little 50 Watt Station In a 50 Kilowatt town." Wed, Sun, 9-10 pm. Sat, 10-11 pm. Eastern.

WCBY, Buck Hill Falls, Pa. 231 meters. 20 watts. Forks Electric Shop. Announcer, Hugh Kemper.

WCBZ, Chicago, Heights, Ill. 217.3 meters. 50 watts. Neutrowound Radio Mfg. Co.

WCCO, Minneapolis-St. Paul, Minn. 416.6 meters. 1,500 watts. Washburn-Crosby Co. Announcer, Paul Johnson. Daily ex Sun, 9:30 am, reports, weather; 10, 10:30, markets; 10:45, home service; 11:30, markets; 1:30 pm, markets, weather; 2, woman's hour; 3, markets; 4, magazine; 5:30, children's hour. Mon, Wed, Sat, 2:30 pm, music. Thurs, 6 pm, music from New York. Mon, Tues, Fri, Sat, 8 pm, talks, music. Mon, Sat, 8:30 pm, music. Mon, Wed, Fri, Sat, 10 pm, dance music. Wed, 10:30 pm, 11:30, dance music. Wed, Thurs, Fri, music, reports. Wed, Thurs, 7 pm. Wed, Fri, 9 pm. Fri, 7:30 pm, lecture. Sun, 10:40 am, 4:15 pm, 7:30, services; 9:15, music. Central.

WCEE, Elgin, Ill. 275.1 meters. 500 watts. Charles E. Erbstein. Mon, 10:30-12 midnight. Tues, Wed, Fri, Sat, 7-8 pm, 10:30-12. Central.

WCK, St. Louis, Mo. 273 meters. 100 watts. Stix, Baer & Fuller Dry Goods Co. Announcer, Helen G. Hatfield. Daily, 12-12:30 pm, 3-3:30. Mon, Tues, Wed, Fri, Sat, 8-9 pm; Mon, Sat, 12 m; Tues, 11:15 pm; Mon, Wed, Thurs, 11 am, Thurs, Fri, 11 pm; Sun, 9 pm. Central.

WCM, Austin, Tex. 268 meters. 250 watts. University of Texas. Announcer, J. Austin Hunter. Daily ex Sun, 9:45 am, 11:45, 2:45, 3:45 pm. Central.

WCSO, Springfield, O. 248 meters. 100 watts. Wittenberg College. Announcer, Lester Crowl. College activities. Fri, music.

WCTS, Worcester, Mass. 268 meters. 100 watts. C. T. Sherer Co. Announcer, Chester Gaylord. Slogan, "The Voice from the Heart of the Commonwealth." Daily ex Sun, 10:30-2 pm, music, reports; 4-5, music, stocks. Mon, Wed, Fri, 7:15 pm. Tues, Thurs, Sat, 5:15 pm, "The Twinkle-Twinkle Story Teller." Mon, Wed, Fri, 8 pm, music. Eastern.

WCUW, Worcester, Mass. 238 meters. 250 watts. Clark University. Collegiate Dept. Fri, 8-11 pm, concert. Eastern daylight.

WCX, Detroit, Mich. 516.9 meters. 500 watts. The Detroit Free Press. Announcer, C. D. Tomy. Club, "Red Apple Club." Daily ex Sun, 2 pm, news; 2:15, stock reports; 2:30, weather, markets; 4:15, 6, music. Daily ex Sat, Sun, 9:30-10 pm, alternate weeks, concert. Tues, 10-12 pm, club. Sun, 10:30 am, 7:15 pm, church services. Eastern.

WDAE, Tampa, Fla. 273 meters. 250 watts. Tampa Daily Times. Announcer, Dave Ginsburg. Daily, 7:30. Tues, 8-10 pm, Thurs, 8-10 pm.

WDAF, Kansas City, Mo. 365.6 meters. 500 watts. Kansas City Star. Announcer, Leo Fitzpatrick. Club, "Nighthawks." Daily ex Sun, 3:30-4:30 pm, music; 5:50, markets, weather; 6-7, educational, bedtime story, music; 11:45, Nighthawks. Mon, Wed, Fri, 8-10 pm, concert. Mon, Tues, 5-5:30 pm, children's programs. Sun, 4-5 pm, music, 5-5:30, Sunday school lesson, music. Central.

WDAG, Amarillo, Tex. 263 meters. 100 watts. J Laurence Martin. Slogan, "Where Dollars Always Grow." Tues, Thurs, 9-10:30 pm, music. Central.

WDAH, El Paso, Tex. 268 meters. 50 watts. Trinity Methodist Church South. Announcer, Oscar Morton. Wed, 7:30 pm. Sun, 11 am; 7:30 pm, services. Mountain.

WDAY, Fargo, N. D. 244 meters. 50 watts. Radio Equip. Corp. Announcer, K. M. Hance. Slogan: "The Biggest Little City in the World." Daily ex Sun; 10 am, 11-12:30 pm, markets, news; 2, markets; 5, music, news. Tues, Thurs, Sat, 7:30 pm, entertainment. Sun, 10:30 am, church services; 4 pm, concert. Central.

WDBC, Lancaster, Pa. 258 meters. 50 watts. Kirk Johnson & Co., Inc. Mon, Tues, Thurs, 8 pm. Eastern.

WDBE, Atlanta, Ga. 278 meters. 100 watts. Gilham-Schoen Elec. Co. Announcer, E. E. Floyd. Slogan, "We Distribute Better Equipment." Tues, Sat, 9-10 pm, music. Central.

WDBF, Youngstown, Ohio. 222 meters. 50 watts. Robert G. Phillips.

WDBJ, Roanoke, Va. 229 meters. 50 watts. Richardson-Wayland Elec. Corp. Announcer, Charles E. Stone. Slogan, "Roanoke Down in Old Virginia." Daily ex Sun, 12-1 pm, music; 5:30-6:45, music, news, weather. Wed, Sat, 9 pm, concert. Eastern.

WDBK, Cleveland, Ohio. 227 meters. 100 watts. M. F. Broz Furniture.

WDBO, Winter Park, Fla. 240 meters. 50 watts. Rollins College, Inc. Slogan, "Wander Down by Orlando."

WDBP, Superior, Wis. 242 meters. 50 watts. Superior State Normal School.

WDBQ, Salem, N. J. 234 meters. 10 watts. Morton Radio Supply Co. Announcer, Wm. T. Gallaway. Irregular weekly schedule. Sun, 7:30 pm, church services. Eastern daylight.

WDBR, Boston, Mass. 261 meters. 100 watts. Tremont Temple Baptist Church. Announcer, Raymond B. Meader. Fri, 7:30-8:30 pm. Sun, 10:30 am; 6:30, pm, church services. Eastern daylight.

WDBX, New York, N. Y. 233 meters. 50 watts. The Dyckman Radio Shop. Announcer, Eugene Delman. Mon, Thurs, Sat, evening program.

WDBY Chicago, Ill. 258 meters. 500 watts. North Shore Congregational church. Announcer, Rev. J. C. O'Hair. Wed, 7-8 pm. Fri, 7:30-9 pm. Sun, 11-12:30 pm; 3:30-5, 7:45-9:30. Central.

WDBZ, Kingston, N. Y. 233 meters. 10 watts. Boy Scouts of America. Announcer, G. Henry [illegible]. Wed, 7:30-12 pm. Sun, 2:30-4 pm. Eastern daylight.

WDM, Washington, D. C. 270 meters. 50 watts. Church of the Covenant. Announcer, Thomas J. Williams. Sun, 11 am, church service; 8 pm, church service. Eastern.

WDOD, Chattanooga, Tenn. 256 meters. 50 watts. Chattanooga Radio Co., Inc. Announcer, Dick L. Park. Slogan, "The Dynamo of Dixie." Mon, Wed, 7-10:30 pm. Tues, 9-10 pm. Fri, 7-12. Sun, 7:30-9 pm. Central.

WDRC, New Haven, Conn. 268 meters. 100 watts. Doolittle Radio Corp. Mon, Thurs, 8 pm. Sun, 11 am. Eastern.

WDWF, Providence, R. I. 440.9 meters. 500 watts. Dutee W. Flint, Inc. Slogan, "Quality First." Tues, 8 pm. Thurs, 8:30 pm, talks. Sun, 5 pm. Eastern Daylight.

WDZ, Tuscola, Ill. 278 meters. 100 watts. James L. Bush. Daily ex Sun, 9:30 am, 10, 10:30, 11, 11:30, 12 m, 12:30 pm, 1, 1:15, Chicago Board of Trade quotations. Central daylight.

WEAA, Flint, Mich. 234 meters. 100 watts. Frank D. Fallain. Slogan, "The Vehicle City." Daily ex Sun, 7 pm, police broadcasts, music. Eastern.

WEAF, New York, N. Y. 491.5 meters. 2500 watts. A. T. & T. Co. Slogan, "The Voice to the Millions." Daily ex Sun, 6:45-7:45 am, 4-5 pm. Tues, Wed, Thurs, Fri 11-12 m. Mon, 6-11:30 pm. Tues, Wed, Thurs, Fri, Sat, 6-12 mid. Sun, 3-5 pm; 7:20-10:15. Eastern daylight.

WEAH, Wichita, Kan. 268 meters. 100 watts. Wichita Board of Trade. Announcer, Amos Dadisman. Slogan: "Kansas Grows the Best Wheat in the World." Daily ex Sun 10 am, 11, 12, 1 pm, markets. Daily ex Sat, Sun, 2, markets. Tues, Fri, 8-10 pm, music. Central.

WEAI, Ithaca, N. Y. 286 meters. 500 watts. Cornell Univ. Irregular.

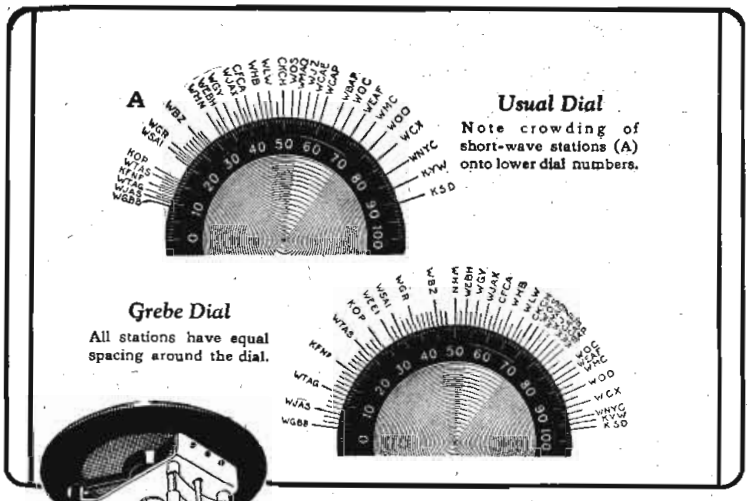
WEAJ, Vermilion, S. D. 278 meters. 200 watts. Univ. of S. D. Announcer, Sidney Lawton. Slogan, "South Dakota for South Dakotans." Wed, 8-8:30 pm, music; 9, talks, athletics; 10:15-11:30, popular music. Central.

WEAM, North Plainfield, N. J. 261 meters. 250 watts. Borough of N. Plainfield. Announcer, H. W. Blackford. Slogan, "America's Pioneer Municipal Broadcasting Station." Fri, 8-12 pm, concert, talks. Eastern.

WEAN, Providence, R. I. 270 meters. 250 watts. Shepard Co. Announcer, R. Foster Reynolds. Daily ex Sun, 12-1 pm, 4-5, music, reports, weather, concert. Wed, 10:45 pm, organ. Mon, Tues, Wed, Fri, 8-10, concert. Sat, 9-11 pm, dance music. Sun, 10:45-11:30 am, 7:30-8:45 pm, church service. Eastern Daylight.

WEAO, Columbus, O. 293.9 meters. 500 watts. Ohio State Univ. Announcer, Mrs. F. C. Charles. Slogan, "Where Education Advances Ohio." Daily ex Sun, 9:45 am, 11, markets, weather; talks to farmers, markets, music. Thurs, 4 pm, lectures, music; 8, lecture, music. Wed, 3 pm, music, lectures. Eastern.

(The third part of the directory of station schedules will appear next week.)



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(straight line frequency)
Condenser

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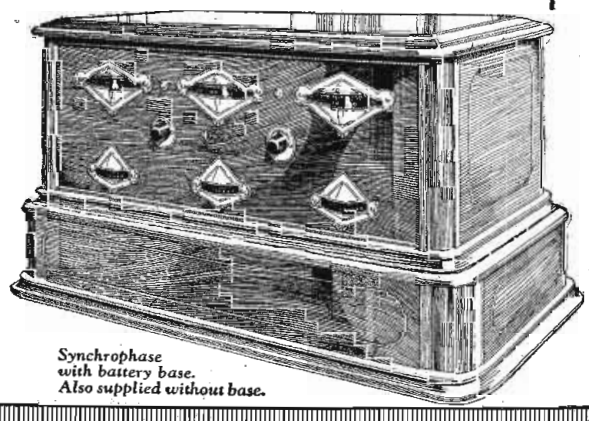

Synchrophase with battery base. Also supplied without base.