Gold Award for European Reception

Radio Digest

EVERY WEEK — PROGRAMS Illustrated — TEN CENTS

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

Vol. XVI
Copyright 1926
By Radio Digest Publishing Co.
JANUARY 16, 1926 No. 2

Tests Will Promote Peace; Introducing Our "Unitrola" Receiver for Your Phonograph; KFOA, Toastmaster of Northwest; Animals Are Real Radio Fans; Women's Programs

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SEE FACE OVER TELEPHONE WIRE

WILL REWARD BEST OVERSEA RECEPTION

RADIO DIGEST CONTEST TO DECIDE DX CHAMPION

Pacific Coast Stations to Cooperate and Trials Promise to Be Greatest in History

Just a few more days now—only until Sunday night, January 24—and the International Radio Week transatlantic broadcasting tests will be on the air! With this good news comes more. Radio Digest announces a prize award of $100 in gold for the best reports of European station reception by American or Canadian listeners.

Complete details of the contest will appear in next issue of Radio Digest. The contest is free and open to all and closes at midnight Thursday, February 4. In the event of a tie, prizes in all respects identical with those tied for, will be awarded each tying contestant.

Other prize awards have been announced and are given below.

The Pacific coast broadcasters will remain quiet. The Pacific Radio Trade association has withdrawn its objections to the trials.

The stage is set for a most wonderful week for people who like to twist the dials slowly for the studios thousands of miles away.

Pacific Coast Joins

At the time of going to press, 15 of the larger Pacific coast stations had agreed to keep off the air during the tests from 8 to 9 p. m. pacific time, which is 9 to 10 p. m. mountain time, 10 to 11 p. m. central and 11 to 12 p. m. eastern time. Full cooperation, it is believed, will be given by the other western stations since the misunderstandings have been eliminated.

KGO, Oakland, Calif., KGW, Portland, Ore., KFI, Los Angeles, KLS, Oakland, Calif., KWSC, Pullman, Wash., and KFWB, Hollywood, are among the larger stations which have guaranteed complete cooperation. As a result of much work and intensive pleading with the few recalcitrant stations, full success of the 1926 tests are now in sight.

Many Awards Offered

Silver cups, Radio receivers, gold medals and many other items of monetary and intrinsic value, have been announced by various organizations interested in International Radio week.

A silver cup will be awarded by the Freed-Eisemann Radio corporation to the listener logging the most overseas stations during the tests. Logs should be mailed daily, being postmarked before noon of the day following reception, to Arthur Lynch, Garden City, N. Y.

A second silver cup will be awarded by the Freed-Eisemann Radio corporation to the listener using one of their sets who is first to log an overseas station during the tests. Telegrams should be sent to Arthur Lynch, Garden City, N. Y. prepaid.

The Radio World's Fair and the Chicago Radio Show managements have also come forward with prize offers in the form of gold medals, two for fans in the area included in a 250 mile radius around New York, and two for fans in the similar Chicago area. These medals will go to the listeners in each area who send to the Radio show headquarters, 1475 Broadway, New York city, the best reports of their success in reception of the overseas programs. One medal in each area will be for fans using factory built sets and the other will be for home built sets.

In each of the contests mentioned above, the same condition holds, that in event of a tie, an identical prize with that tied for, will be awarded to each tying contestant.

All ready? Dust off the condenser plates. Get the aerial in good condition and don't forget to look over the ground connection. While you're at it inspect the batteries—or the eliminator—for you can't get Europe without current, and then—

Let's listen!

CAN CHECK ON YOUR CHARLESTON CHAMP

CHICAGO,—Plans are being arranged by the officials of WMBB whereby the returns of the national Charleston contest, to be held February 8 and 9, are to be broadcast from WMBB. The programs will be picked up by receivers, tuned to 250 meters, installed in the ballrooms throughout the country having contestants entered in the national contest. Dancers in the various cities may keep in touch with the success of their representative dancers.

PROVES RADIOTELEVISION IS BUT STEP FROM ACTUALITY

Edmond Belin, French Scientist and Inventor, Astounds Watchers as Image of Man Ten Miles Away Is Seen on Screen

BY F. M. DELANO

PARIS, France.—Television, the seeing of distant things and persons by wire, and Radiotelevision, the same without the use of wires, is about to become a practical invention instead of an inventors incompleted dream. For years Edmond Belin, French scientist and inventor, has been perfecting, improving, thinking—and at last he is almost ready to give his device to the public as a finished product, foolproof, and ready for every day usage.

Mr. Belin's experiments came to public notice and acclaim just recently when he invited journalists and the French Photographic society to witness a television trial. It was successfully held between this city and his Malmaison laboratory, 10 miles distant.

See Aide 10 Miles Away

The inventor rang his assistant there on the telephone, fitted, of course, with the Belin device. The assistant, Louis Lumiere, answered and as he did so, his smiling aide's face became visible on a small screen attached to the instrument at Mr. Belin's end of the wire. There the scientists and newspaper men were gathered. They gasped in amazement at the demonstration.

Principles of Radio will be employed in the final public adaption of the device, Mr. Belin said. Only a few difficulties of Radio electricity must be overcome, he continued, before the television attachment can be placed on the market or applied to existing telephone systems.

The final step, from wire television to Radiotelevision—without any conducting wires—will be just as easy, although perhaps not so private in nature, according to the inventor. The Radio device is almost perfected now.

Belin Describes Invention

"Here is a description of the device," Mr. Belin said, as he stood before the apparatus. "Twenty silvered facets are mounted on a vertical steel disc revolving at the tremendous speed of 4,000 revolutions a minute. These revolve before the luminous ray of a small but powerful arc light in front of which is placed the person, thing or photograph whose image is to be transmitted.

"The facets, by the intermediary of a tiny hole, transmit the decomposed image point by point. In other words, the image is broken up into tiny points of light at the rate of 250,000 each second. These light dots are transmitted to a screen by a series of mirrors—25,000 dots every tenth of a second—and register so rapidly that the first are retained on the retina of the human eye while the last are being shown. It is similar to motion pictures where 10 photographs per second give the illusion of movement.

Long Distance Radio Movies Next

"I will overcome the last remaining obstacles within a fortnight. I can transmit the figure or face of a person speaking to London, as there is no limit by distance once the principle is established.

"Before the end of 1926 I expect to perfect the invention so that a person speaking may send his likeness around the world by Radiotelephony. Eventually we shall have long distance movies, with everyone possessing a screen at home.

LIBERTY BELL IS HEARD OVER AIR

TOO BAD the WEAF chain didn't pick up the Liberty Bell and broadcast it on New Year's Eve. WIP, Gimbel Brothers, originated the scheme, invited other broadcasters to participate, and finally, after none accepted, carried out the project alone. The audience would have been greatly increased, when Mrs. W. Freeland Kendrick, above, wife of the mayor of Philadelphia, tapped the bell, had some of the chain, relay or other broadcasters helped carry the peal of American independence to every state in the Union. Let us hope that sometime this year, the 150th anniversary of our independence, the famous old bell will be heard over more microphones.

Sport Broadcasts

This week of January 16 to 22, has many sports events on the broadcast schedule. Hockey looms second to basketball as a microphone athletic feature, while an ice skating race claims third honor. The week's basketball schedule is:

Saturday, January 16

KOAC (280.2) Oregon Aggies vs. Gonzaga, 7:15 p. m. pacific time.

KFMQ (340.7) Arkansas U. vs. Southern Methodist U., 7:30 p. m. central time.

WSUI (483.6) Indiana U. vs. Iowa State U., 7:30 p. m., central time.

Thursday, January 21

KFKU (275) Kansas U. vs. Oklahoma U., 7:30 p. m. central time.

* *

Tuesday, January 19, is the date of the Boston Bruins vs. Montreal hockey game at Boston. The game, called at 8 p. m. eastern time, will be broadcast via Westinghouse Station WBZ.

* *

Monday, January 18, from 8-10 p. m. eastern time, the Metropolitan indoor ice skating championship races will be broadcast from Madison Square Garden through WNYC, New York, N. Y.

German Barristers Unite to Study Legal Phases of Radio

BERLIN, Germany.—The rapid development of Radio has led to the discovery that it has a legal side, and questions connected with it are increasingly coming into the courts. At a meeting of German lawyers interested in Radio, it was stated by the chairman that "the ignorance of Radio matters displayed at times by judges is appalling," and it is resolved to form a Radio Legal association for the purpose of studying the legal aspect of Radio and of helping with proper advice contestants before the courts and the courts themselves.

International Test Programs

COMPLETE, exclusive and special programs for the week of January 24 to 30, inclusive, for every European broadcasting station participating in the international tests, will appear in advance in the next week's issue of Radio Digest. Pictures and stories relating to European stations will appear as well in this special issue. Radio Digest staff correspondents in Great Britain and Continental Europe will give American listeners the best information obtainable anywhere on the international tests.

Wave lengths, hours, descriptions in detail of each number to be broadcast by European stations—all this and more will be found in the next issue of Radio Digest. Be sure to reserve a copy at your newsstand. The special International Week issue will be in great demand.

Reeves Hears Argument on Alleged Monopoly of Radio

WASHINGTON, D. C.—Argument was heard in connection with the complaint alleging a Radio monopoly, on January 11 in New York city, before Examiner Reeves of the Federal Trade commission.

During the early days of the taking of testimony in New York by the commission in its case against the Radio corporation and others, counsel for the defendants made a motion that the case be dismissed. At that time Examiner Reeves announced that he would place the motion before the full commission.

The commission has instructed Mr. Reeves to rule on the motion himself and in accordance with this, he is hearing further argument.

International Radio Hope for World Peace

Here they are, listeners, some of the folk you will be trying to hear speak and sing across the Atlantic and the American continent during the week of January 24-30. Have this page before you when you are trying to catch 2LO, London, England, because four of the quintet at the left are regular staff members of that station and are expected to have a part on the overseas program. They are known to European listeners as (left to right) Miss Sophie Dixon, J. Jefferies, Rex Palmer, Arthur Burrows and Captain C. Lewis. (Mr. Burrows is now director of the International de Radiophonie at Geneva). Keystone View Photo

Below is a scene in the Radio Paris, Paris, France. The lady is Mme. Georgette LeBlanc, former wife of Maurice Maeterlinck, who charmed the famous author with her voice. Jaques Catelain is pointing at the microphone. Robert Tabuis is beside Mme. LeBlanc and then Marcel L'Herbier.

ONE of the most important peace conferences in the history of the world will be held during the week from January 24 to January 30.

It will be a wide-open meeting. There will be no secret bargainings, no whispering behind soundproof doors, no petty dickerings between ambitious statesmen for personal gain. The citizens of the world will sit at the universal table. Master of Ceremonies International Broadcast will conduct the conversations—the most of which will be set to music.

The week of international broadcasting will be one of many such events in the years to come. The peoples of all nations will have an opportunity to hear and understand their neighbors across the international boundaries. All the world courts and leagues of nations will fade into insignificance compared with the intimate personal knowledge that the plain everyday citizen will have of his neighbor of another government.

Music and courteous felicitations will pave the way for kindly and respectful feelings. Armaments, disarmaments and military activities will be taboo at the international Radio table.

To those who have followed the series of articles written by Fred Smith, former director of Station WLW at Cincinnati, as they have been published in Radio Digest, describing conditions as he found them during a tour of the Radio stations in European nations, the international broadcasting week will come as a natural sequence.

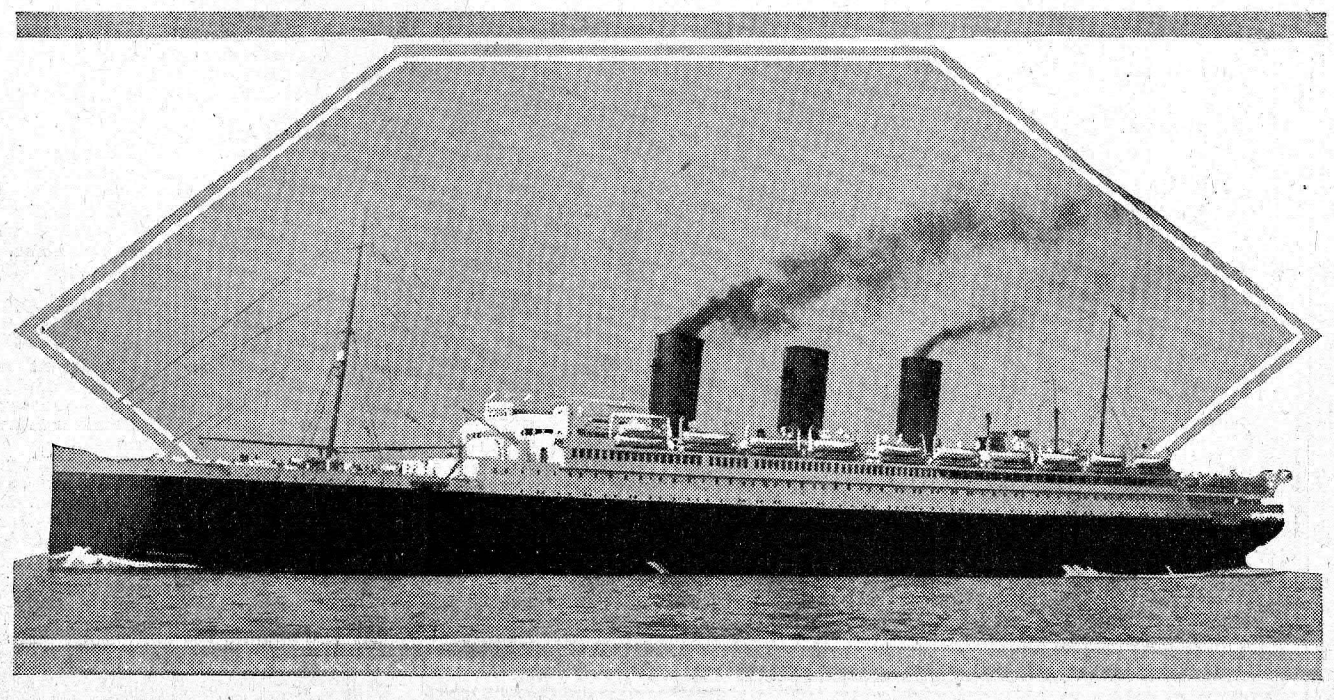
In America we have become nationally organized by good will and mutual understanding. In Europe a similar union between Radio broadcasting interests has been established in the International de Radiophonie bureau at Geneva, Switzerland. Arthur Burrows, former comptroller of the British Broadcasting company, is the director general. Concerning the phase of a better international understanding through the medium of the Radio, Mr. Smith wrote:

"The bureau is working with clear vision toward a beautiful future for Radio in Europe, and probably the world entire. Mr. Burrows expressed to me most earnestly the hope that the Office International de Radiophonie would, before long, have the pleasure and privilege of freely exchanging views with an organized body representative of the great American movement.

"The Radio bureau at Geneva does not have as one of its purposes the definite effort of human intelligence to bring about a closer understanding among the nations of the earth; it is purely and simply the expression of a practical need among the broadcasters of Europe to settle such questions as the allocation of wave lengths. Nevertheless, an examination of the work it has already accomplished and a study of its plans for the future will reveal at once the natural tendency of the influence of such an institution to be directly in line with a fulfillment of the idea to quicken the understanding among European nations, and bring them into more harmonious relationships.

"Radio broadcasting with at least one international language already accepted—music—tears down boundary lines, or rather ignores and passes them over. The German programs feature the music of Puccini, Verdi, Saint-Saens and other Latins, while from Rome are heard echoes of Beethoven and Wagner, and from Spain comes a festival of Bohemian music.

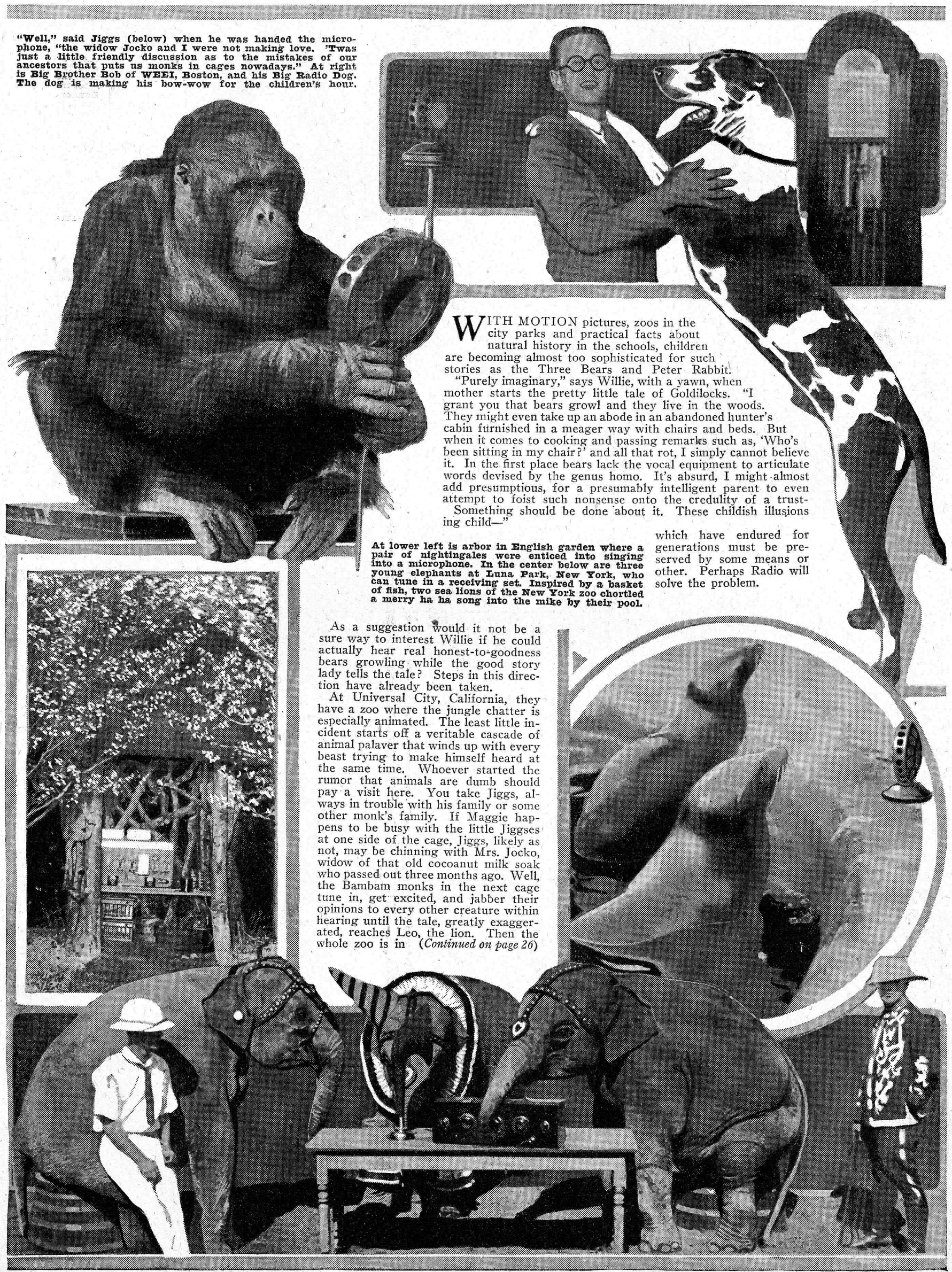
"But the bureau at Geneva is planning to go much further than all this. It means to serve practically the artistic needs of its members. One of the definite jobs of the bureau is to go about finding ways and (*Continued on page 24*)



Mid-ocean tests will be made aboard the liner France (left) during the international broadcasting week by Eric H. Palmer of the Freed-Eisemann Radio corporation. Mr. Palmer has conducted similar tests of reception in his "globe-trotting."

Children Hear Monks and Dogs on the Air

"Well," said Jiggs (below) when he was handed the microphone, "the widow Jocko and I were not making love. 'Twas just a little friendly discussion as to the mistakes of our ancestors that puts us monks in cages nowadays." At right is Big Brother Bob of WEEI, Boston, and his Big Radio Dog. The dog is making his bow-wow for the children's hour.



WITH MOTION pictures, zoos in the city parks and practical facts about natural history in the schools, children are becoming almost too sophisticated for such stories as the Three Bears and Peter Rabbit.

"Purely imaginary," says Willie, with a yawn, when mother starts the pretty little tale of Goldilocks. "I grant you that bears growl and they live in the woods. They might even take up an abode in an abandoned hunter's cabin furnished in a meager way with chairs and beds. But when it comes to cooking and passing remarks such as, 'Who's been sitting in my chair?' and all that rot, I simply cannot believe it. In the first place bears lack the vocal equipment to articulate words devised by the genus homo. It's absurd, I might almost add presumptious, for a presumably intelligent parent to even attempt to foist such nonsense onto the credulity of a trusting child—"

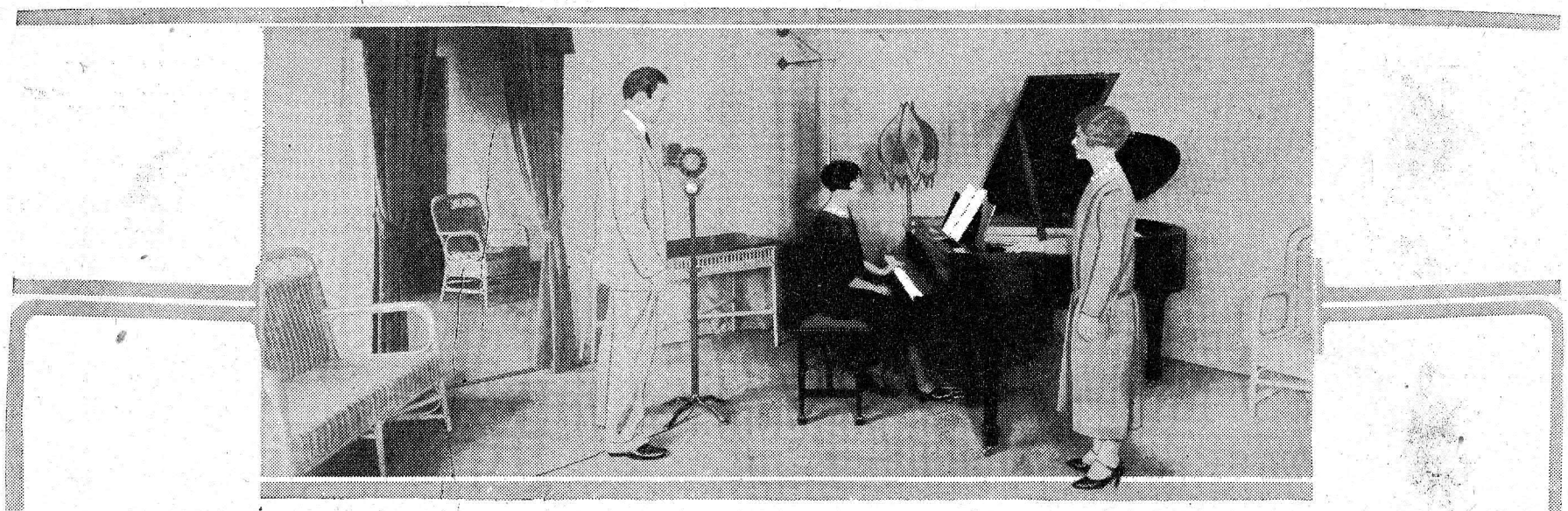
Something should be done about it. These childish illusions which have endured for generations must be preserved by some means or other. Perhaps Radio will solve the problem.

At lower left is arbor in English garden where a pair of nightingales were enticed into singing into a microphone. In the center below are three young elephants at Luna Park, New York, who can tune in a receiving set. Inspired by a basket of fish, two sea lions of the New York zoo chortled a merry ha ha song into the mike by their pool.

As a suggestion would it not be a sure way to interest Willie if he could actually hear real honest-to-goodness bears growling while the good story lady tells the tale? Steps in this direction have already been taken.

At Universal City, California, they have a zoo where the jungle chatter is especially animated. The least little incident starts off a veritable cascade of animal palaver that winds up with every beast trying to make himself heard at the same time. Whoever started the rumor that animals are dumb should pay a visit here. You take Jiggs, always in trouble with his family or some other monk's family. If Maggie happens to be busy with the little Jiggses at one side of the cage, Jiggs, likely as not, may be chinning with Mrs. Jocko, widow of that old cocoanut milk soak who passed out three months ago. Well, the Bambam monks in the next cage tune in, get excited, and jabber their opinions to every other creature within hearing until the tale, greatly exaggerated, reaches Leo, the lion. Then the whole zoo is in (*Continued on page 26*)

KFOA, Seattle, Toastmaster of Northwest



A milliammeter attached to the microphone stand insures proper modulation in broadcasting. At the stand is W. K. Bert (above). With him are Miss Alma Daley, soprano, and Miss Velma Case, accompanist.

PREEMINENT, on the high point at the extreme northwest section of the country, Radio Station KFOA of Seattle stands like a patriarch looking down the ether vista across the mountain tops and through the valleys of a vast domain.

It was planted there when Radio broadcasting was young, back in 1922. C. B. Williams, wide-awake advertising manager of the Rhodes department store, read of the remarkable experiments and discoveries of Radio telephony in the east and argued that "what is good for easterners is just as good for the people of Seattle and the Pacific northwest." In May of that year the first program was broadcast from the Rhodes store and the station was given the call letters KDZE.

Appreciation was instantly manifested. Letters of acknowledgment overwhelmed the little 50-watt station. Carl E. Haymond was appointed director. In a few months it was obvious the time had come for expansion and in July of 1924 the station was on the air with 500 watts. This, too, became inadequate and the following March operations ceased until a new 1,000-watt station could be installed. It had now taken on the title KFOA. The one kilowatt station was introduced last September.

KFOA is conspicuous in many ways. It is more than a mere entertainer. It is sort of a toastmaster at a general assembly of Rotarians, Kiwanians, Lions, chambers of commerce and educational institutions. It broadcasts their luncheon speeches. It carries on for Babbitt through the air. Anything for a bigger and greater northwest reaches the multitude through the big Rhodes store Radio.

It also is a Samaritan, going to the bedsides of the broken-down heroes who have made the Pacific northwest what it is today with special programs for their benefit.

In this way through its sincerity of service the station has surrounded itself with a substantial clientele. KFOA prestige is unquestioned because it is endorsed by and identified with the most influential households throughout the territory. This has reflected favorably toward the store which founded and sponsors it.

Many of the larger Radio stations have found it an advantage to be identified with the press and KFOA has its tie-up with the Seattle Times. The "Afternoons at Home," under the auspices of the Times are almost as popular as their Wm. F. Hoffman Concert orchestra programs, which come later and are hugely enjoyed. The Rhodes store also presents the Hoffman orchestra as a dinner hour feature. The Eddie Harkness Dance orchestra from the Olympic hotel adds to the merriment.

One of the occasional musical treats is provided by the Seattle Saxophone band, under the leadership of Gene Paul. Mr. Paul believes that the saxophone has a higher destiny than the syncopated rhythm of the "jazz." His band dwells only in the atmosphere of the classics and has attracted wide attention because of that as well as for the excellence of its technique.

According to the latest information, Mr. C. B. Williams is now the station director and Miss Mary Gordon arranges the programs. W. K. Bert is the director-announcer for the Times programs and the Times studio. His efforts have injected a great deal of tone and spirit into the KFOA offerings for the younger generation. Among the favorite artists are Miss Alma Daley, soprano; Miss Betty Brandeberry, violin; Miss Velma Case and Miss Fidelia Burgess, pianists. KFOA microphone stands are equipped with milliammeters which register a check on the intensity of the vibration and warn the broadcaster whether to modulate or accentuate—an original idea. Paul B. Gale is the engineer.

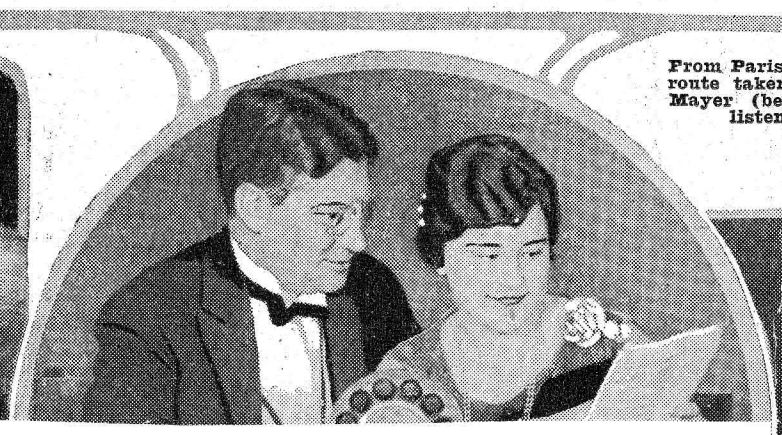
The Rhodes store station also has been favored for the trans-continental hook-ups in important national broadcasting, including the current Atwater Kent programs from New York, the auction bridge series and presidential speeches.

If greatness comes through the degree of service rendered, then KFOA is well located and well deserving of its high esteem. It is a veritable watch-tower keeping a vigilant eye on the world and bringing to the people it serves the good things of the earth that may be conveyed by the ear. And when the great international tests come within the next few days KFOA will be one of the foremost to help bring the voice of Europe to western America.

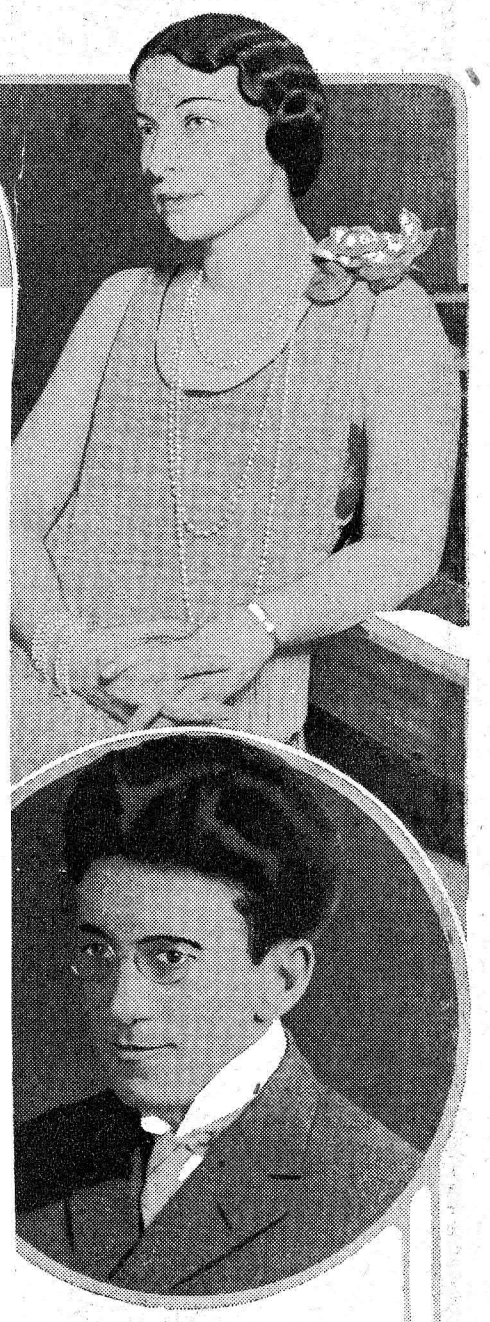
Saxophones are entitled to a higher sphere than jazz and syncopation declare Gene Paul (right) and his Seattle Saxophone band. Hence they play only the classical airs for Rhodes store station, KFOA. Miss Betty Brandeberry (below) with her violin and Miss Fidelia Burgess are favorite artists here.

Listeners of KFOA will be interested to see the heart (above) which pumps the energy that brings them the voice of Seattle.

Soldier Sentiment Wins Love for WMCA



From Paris, Texas, to Broadway, New York, was the route taken by the exceptional voice of Miss Lois Mayer (below). She is a favorite with WMCA listeners and sings in several languages.



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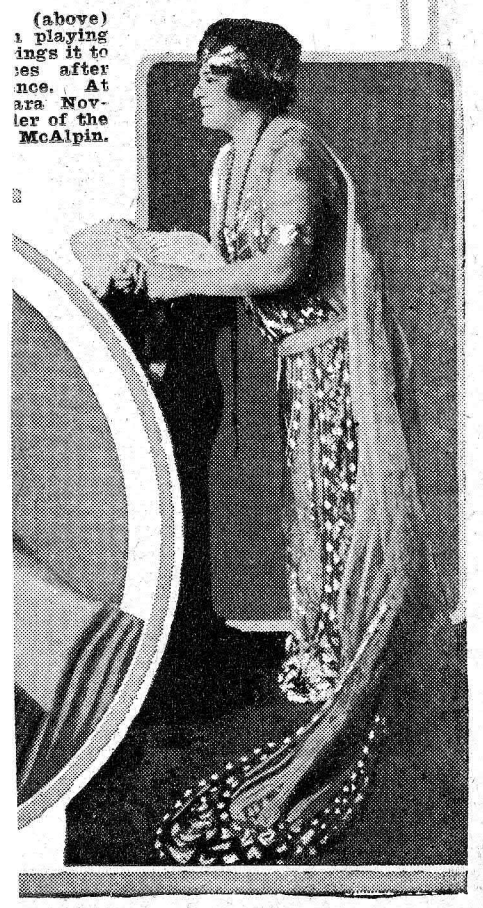


SINGLE SET SERVES 200 LOUD SPEAKERS

FORT LEAVENWORTH RUNS NOVEL ARRANGEMENT

Daily Program Picked Up from 2 P. M. to 1 A. M. Is Provided Community Through System

By B. W. Land

LEAVENWORTH, Kan.—At 2 o'clock each afternoon, a sergeant in the office of Capt. H. Burkhead, post signal officer at Fort Leavenworth here, tunes in an ordinary Radio receiving set. At once an audience of approximately one thousand persons in several hundred houses throughout the army post cut in to enjoy the regular afternoon concert over individual loud speakers.

The simple turning of a switch in the homes brings in the air program over the speakers. There is no other equipment in the homes. There are 200 of these loud speakers in Fort Leavenworth being served from this single receiving set. A thousand homes could be as easily accommodated, according to Captain Burkhead.

Set of Unusual Design

How does he do it? The arrangement looks simple enough, but it required much study on the part of the signal officer before he had his system perfected. Last year Captain Burkhead had a few loud speakers about the post. This fall he started with 25 speakers and has added 175. His capacity to extend the service is limited only by the number who wish to be served with Radio without the bother of bringing in the stations themselves over individual sets.

The receiving set used by Captain Burkhead is not out of the ordinary in the nature of circuit, yet it is of better grade in its assembly. It is equipped with six tubes and incorporates two stages of radio frequency, detector and three stages of audio amplification. The receiver is connected with 15 miles of wire distributed throughout the army post and it is to this 15 miles of wire that the 200 loud speakers have been connected.

Gives Listeners What They Request

"Every time we pick up a station," said Captain Burkhead, "we give it an audience of approximately 1,000. We receive programs from New York, Pittsburgh, Kansas City, Schenectady, San Francisco, Los Angeles and practically all middle west stations from the Gulf to Canada."

The sergeant who operates the set comes on duty at 2 o'clock each afternoon and remains until 1 a. m.

"The advantage of the system," said Captain Burkhead, "is that the listener receives his concert without the annoyance of having to care for his equipment. We give them what they want. Requests come to us for many features from various parts of the country."

In explaining the way in which the service could be multiplied Captain Burkhead said it was only necessary to add another stage of audio amplification for each 50 loud speakers added.

SUGGESTION CONTEST IS FEATURE OF KMOX

Cash Award Given Each Week for Best Suggestion Made

ST. LOUIS.—A suggestion department is a part of "The Voice of Saint Louis," Station KMOX, the new superstation which had its formal opening on the air on January 4. Each week the suggestions received are scrutinized by a committee appointed for that purpose and a cash award is given the best suggestion offered.

The first suggestion to reach the department, which met with general favor, was the message broadcast during the holiday week by announcer Nate Caldwell, "Watch the Candles on the Christmas Tree." This was adopted as a precautionary measure against fire.

Pipe Organs from Different Studios Picked Up for Duet

CHICAGO.—Two pipe organs, playing a duet, one of them located in the studio of WLS, Sears-Roebuck station in the Hotel Sherman, and the other located in the Barton studio, at 5 South Wabash, was a recent feature staged by WLS. Ralph Emerson, WLS organist, was at the console of the organ in the Barton studio and Glenn Rowell, of the Ford and Glenn team, was organist in the WLS studio.

By means of a "mixing board," one of the newest things in broadcasting stations, microphones in each location picked up the music played and through the transmitting plant of WLS delivered the selection as a pipe organ duet into the receiving sets of listeners.

Special Announcer for Each Program

2LO Adopts New Policy of Having Experts on Different Subjects Officiate

LONDON.—A new policy regarding announcing seems to be taking shape at 2LO. Recently Donald Calthrop, a famous theatrical producer took charge, Captain Ian Fraser, a member of parliament, officiated the following day, and he in turn was followed by Plunket Greene, a well-known musician.

Each one of these eminent persons officiated at a program with whose subject he was particularly familiar. Consequently he was better able to explain the various items than the regular announcer.

The British Broadcasting company believes a man who has the special subject of the evening at his fingertips, at once takes listeners into his confidence and can hold their attention for the rest of the program.

WANTS TO REDUCE SNOWBALL TARGET

THE morning gymnastic classes conducted by Arthur Bagley and broadcast by WEAF, WCAP and WEEI have gained adherents for many and varied reasons, but that there are still some arguments previously unknown which induce Radio listeners to arise early and cavort about under Mr. Bagley's direction is indicated in a letter just received by WEAF. A gentleman in New Jersey requests an exercise chart in order that his "bay window" may be reduced during the winter months and his prominence as a snowball target diminished thereby.

Crystal Sets Losing Out

LONDON.—The enormous popularity of the crystal set in England is at last on the wane, chiefly due to the comparatively low price of tube sets. The British fans find the tube set is worth having to bring in the Continent's programs.

Ascend Pikes Peak to Greet New Year

Intrepid Mountain Climbers Welcome in 1926 with Pyrotechnics from Summit as Is Custom

COLORADO SPRINGS, Colo.—The Old Year was bid farewell and the New Year was ushered in in many unique ways, but to the Adaman club goes a moiety of the laurels. The organization is composed of expert mountaineers, who annually climb Pikes Peak New Year's Eve to hold a watch party on the summit. A gigantic display of pyrotechnics was used which was visible 100 miles and the street lights of Colorado Springs blinked off and on to return greetings to the intrepid climbers.

A specially constructed Radio was taken on the trip and Station KFXF, the Pikes Peak station, from where the flares and skyrockets were plainly visible, told the world that the mighty peak was once more conquered.

RADIO BILL HEARING SET FOR JANUARY 18

ALL INTERESTED WILL BE ABLE TO GIVE VIEWS

House Merchant Marine and Fisheries Committee to Hear Proposed Measure by Rep. W. H. White

WASHINGTON.—A tentative date of January 18 has been set by the house merchant marine and fisheries committee for hearings on the White Radio bill. Extensive hearings are planned and all those interested will be given an opportunity to express their views.

It has not yet been decided whether Secretary Herbert Hoover will appear before the committee to testify in regard to the Radio bill. The secretary has been asked by the committee for his views but it is not known whether he will appear personally or whether he will forward a written statement.

Howell Introduces Bill

Senator Howell, of Nebraska, has introduced a bill in the upper house "reaffirming the use of the ether for Radio communication, or, otherwise, to be the inalienable possession of the people of the United States and their government, and for other purposes." The bill has been referred to the senate committee on interstate commerce.

A similar bill was introduced at the last session of congress by Senator Howell. It was passed by the senate, but when the house took up the Radio bill, that section declaring ether free as contained in the senator's bill was incorporated, and the whole reported out by the house committee but no final action was ever taken on it.

FRENCH GOVERNMENT PLACES TAX ON SETS

Action Seems to Indicate State Monopoly of Radio

PARIS.—The question uppermost in the minds of 700,000 French listeners for the past three years—"Will there be a state monopoly of broadcasting?"—has been settled, the state virtually accepting the trust through its recent declaration of taxes on receiving sets.

The new taxes on receivers are: 60 francs (about $2.50) for the first year, and 50 francs for the succeeding years on all tube sets; and 20 francs for the first year and 15 for the succeeding years on crystal sets.

There is a drastic provision that listeners must pay 10 times the amount due if they are found to be evaders.

"OVER THE WIADUCT DOWN BY THE WINIGAR WORKS"

The Boy Scouts of San Francisco have given 50 Radio sets to the poor blind folk of their city in living up to their code to do good turns. If each set causes the happiness the one below does, what joy they've spread.

John Welsh, Magnus Billberg, Neils Peterson, (left to right) blind men who received sets, and Joe Chamberlin, scout leader who installed their receiver.

OVER the wiaduct down by the winigar woiks in San Francisco, live three blind men in an abandoned horse car. By day they ply their various arts of intriguing stray coins from passing pedestrains. One sells lead pencils, another plays a wheezy organ and the third uses his voice to advertise a newsstand located some distance from the more prosperous marts of trade.

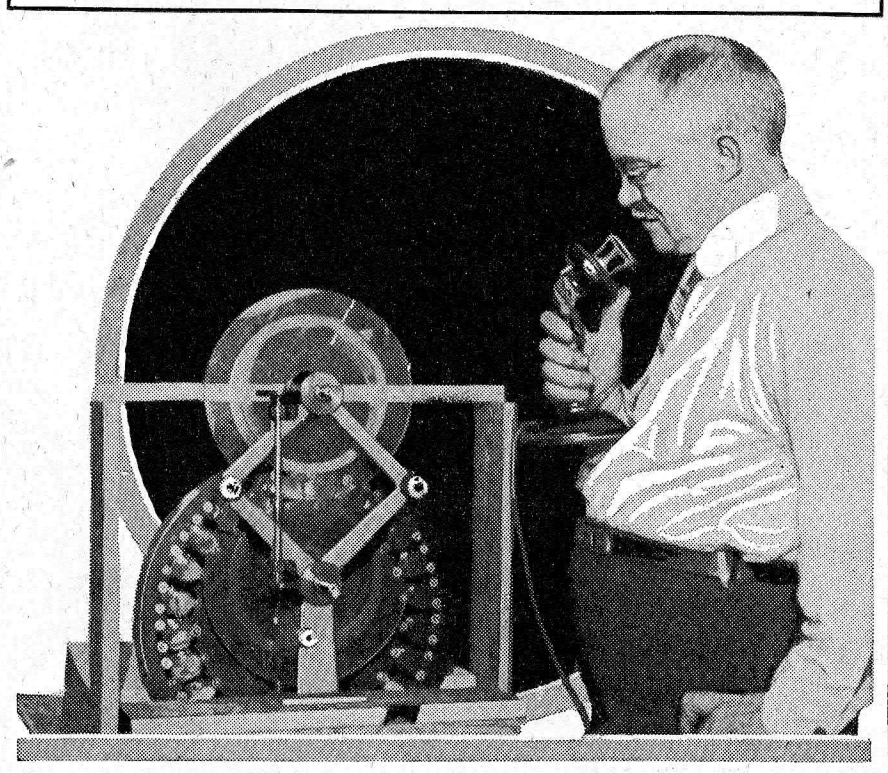
Some days are fair, others are not. But fair or foul, the three cronies find their way back to the abandoned horse car. A brigade of Boy Scouts set out a few weeks ago, to find wherewith and whereupon to bestow the daily kindly deed required by the Boy Scout code. The three blind men were discovered huddled together in the car by Scout Leader Joe Chamberlin.

They were found to be quite normal beneath their shirts and not at all like the original carborundum gent of the "winigar woiks" song. The boys brought in an old iron bed and a few kitchen utensils. By degrees they got the three old fellows organized on a housekeeping basis. Then as a final act of mercy and kindness, the scouts installed a Radio set at the head of the three-in-one bed. The horse car has become a palace car and one pal minds the dials, while the other two by turn are lulled to peaceful sleep. Many hours of the old men's lives are brightened.

WMBB Orchestra Solves Big Broadcasting Problem

CHICAGO.—According to the reports from observing listeners, WMBB is one Radio station which has solved the problem of broadcasting an orchestra properly. J. B. Lampe, the director, has placed the musicians of Dell Lampe's Trianon orchestra in such a position that each instrument not only maintains its proper balance in the orchestra on the air, but also produces its own share of the music for the dancing.

RADIO MOVIES IN TWELVE MONTHS



C. FRANCIS JENKINS, inventor of Radio vision and Radio movies, believes that experiments along the line of his invention during 1926, will progress to such an extent as to permit actual service before another twelve months have past.

"As to the outlook," says Mr. Jenkins, "I can only say that the groping progress which always attends revolutionary research has so far advanced as to lead us to expect that Radio vision will be put into useful service before another twelve months have passed."

In recent tests of Mr. Jenkins' invention, a moving picture and a verbal description of the picture were received at the same time. The pictures and words were transmitted on the same wave length and were separated on the receiving end, different electrical capacities being used in conducting the words to the loud speaker and the pictures to the picture cabinet. He is shown above with his invention.

CREATE OFFICE TO GIVE FARMERS AID

Department of Agriculture Will Keep Bureau to Send News to Rurals Through Ether

WASHINGTON.—With the appointment of Samuel Pickard, director of the Radio broadcasting station of the Kansas Agricultural college, to the newly-created position of "chief of the Radio service" of the United States department of agriculture, Radio now assumes a status along with newspapers and government bulletins as one of the major mediums for distributing agricultural information. Mr. Pickard will be under N. A. Crawford, director of information.

Farmers will be able, through the use of head phones, to receive instructions and helpful suggestions for successful farming fresh from the department of agriculture at Washington. Weather forecasts and market reports will be broadcast through a large chain of private stations and, in addition, the various bureaus of the department will prepare and broadcast popular talks relating to agricultural subjects.

Musical Background to Accompany 'Notices'

KFWB Adopts Screen Method for Poems of Publicity

HOLLYWOOD, Calif.—The latest thing—painless announcements! Most stations have a great many announcements of one kind or another to make, which have to be read yet tend to drive the station's audience away. Charlie Wellman, manager of KFWB, Hollywood, has borrowed a leaf from the pianologue and now renders his announcements about the firemen's ball and similar divertisements with a musical background furnished by Ray Bailey's trio.

Ray Bailey's trio is one of movieland's famous orchestras that furnishes emotional music for the taking of our best screen dramas. The difference between playing for the screen and for the microphone, according to Ray Bailey, is that on the sets the actors do the "emoting," while on the air the audience is supposed to do the job.

At any rate, instead of tiresome announcements from KFWB, we are now to get poems of publicity, Charlie Wellman and Ray Bailey collaborating.

Many letters have shown approval of the innovation.

MUSIC GIVEN MOST TIME ON WRC MIKE

CLASSICS HOLD LEAD OVER POPULAR PROGRAMS

Seventy-Two and One-Half Per Cent of Broadcasting Devoted to Playing of Music

WASHINGTON, D. C.—Music, with the classics holding a slight lead over jazz numbers, still constitutes the major portion of the broadcast entertainment from Station WRC, Washington, according to a check made on the station's broadcasting for one week.

Approximately 72½ per cent of the station's time during the week was devoted to broadcasting music, while the remainder was shared by talks, church services, travelogues and time signals.

290 Different Selections 301 Times

In all, 290 different musical selections were played 301 times from WRC in the 42¼ hours that the transmitter was in operation. Of the total number of selections, 172 were classical and 129 popular.

Despite the complaint that too many of the classical numbers are played and sung too much on the air, only one of the non-jazz compositions, "O Sole Mio" was heard more than once during the week. "My Heart at Thy Sweet Voice," "The Rosary" and Massenet's "Elegie," generally considered among the most overworked compositions, checked in only once each in the seven days.

How Time Was Used

Of the popular dance numbers several were played as many as three times, including "Want a Little Lovin'," "Cecelia," "Brown Eyes Why Are You Blue," "Remember," and "The Vagabond King."

Although WRC is silent on Monday, Wednesday and Friday evenings and all day Sunday, the weeks total of 42¼ hours is the average broadcasting time of the station. Of this total, music occupied 30 hours and 40 minutes; 29 talks were delivered, consuming seven hours and 35 minutes; Christmas services occupied three hours; a travelogue consumed 30 minutes and the remaining half-hour was devoted to broadcasting time signals.

South Dakota Club in Drive

MITCHELL, S. D.—The Sunshine State Radio club has been organized here and is engaged in an effort to enroll all broadcast listeners in South Dakota. F. J. Purdy of Mitchell, S. D., is president. Broadcasters are not eligible for membership.

'KILOCYCLES' ARE IT SAYS GOVERNMENT

'KILO' LIKED BETTER THAN METER WAVE LENGTH

Bureau of Standards Issues Table to Help in the Conversion of Radio Frequencies

WASHINGTON, D. C.—There is increasing tendency in Radio to express radio frequencies in kilocycles, rather than wave lengths in meters. "Kilo" means a thousand, and "cycle" means one complete alternation. The number of kilocycles indicates the number of thousands of times that the rapidly alternating current in the antenna, transmitting set, or receiving set repeats its flow in either direction in one second.

The bureau of standards has just issued a "Kilocycle Meter Conversion Table" in chart form. The table is printed on a single sheet of cardboard and can be posted in a convenient place for ready reference.

The table gives accurate values of kilocycles corresponding to any number of meters, and vice versa. The table gives values for every 10 kilocycles or meters, and is entirely reversible; that is, for example, 50 kilocycles is 5,996 meters and also 50 meters is 5,996 kilocycles. The range of the table is from 10 to 10,000 kc (10,000 to 10 m) and this can be extended in either direction by changing the decimal point.

Editor's Note.—Beginning next issue Radio Digest will give the kilocycles frequency of each station listed in the advance programs. This will be in addition to the wave length in meters listing. The meters listing will be followed by the kilocycles listing, thus:
"KDKA (309.1m-970kc) . . ."

WLS Now Broadcasts Symphony Orchestra

Engage Chicago Little Symphony to Give Nine Concerts

CHICAGO.—WLS, the Sears-Roebuck station, has engaged the Chicago Little Symphony orchestra for a series of concerts, in addition to those given from this station during the past several weeks.

The new contract of WLS with the Chicago Little Symphony orchestra, which is the original little symphony organization in this city, calls for nine performances from WLS between January 1 and March 19, 1926. The schedule calls for four concerts in January, three in February and two in March. More concerts may be added later.

Believing the Radio public would enjoy really good music by one of the best musical organizations in the United States, effort was put forth to secure the Little Symphony orchestra. With the cooperation of Director George Dasch and Business Manager Karl Schulte, the orchestra was induced to give Radio a tryout. This proved successful in the minds of the men who compose the musical organization.

500 FARMERS ENROLL IN BROADCAST SCHOOL

WCCO Short Course Attracts Northwest Farm Interest

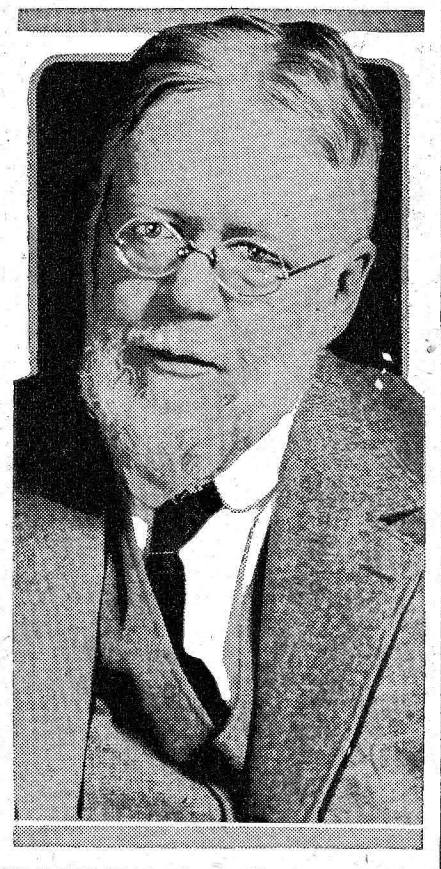
MINNEAPOLIS. — Approximately 500 farmers in Minnesota and other northwestern states have enrolled for membership in the agricultural short course which the Minnesota Farm school is broadcasting from the Gold Medal Station, WCCO, Minneapolis-St. Paul, at 7:45 p. m. central time, Monday and Friday evenings.

The first six weeks of the course, during October and November, were devoted to classes in poultry and dairying. The next six weeks were devoted to classes in swine-raising and bee-keeping. Lessons in gardening and flower growing are now being broadcast.

Hockey Contests Have Firm Hold Upon Radio Audiences

NEW YORK.—Hockey has taken a firm hold on the Radio audience. Station WJY, here, broadcast another game from the Madison Square Garden last Thursday evening, January 7. This time the contest was between the Boston Bruins and the New York team, the Americans. Major J. Andrew White, who was at the microphone, states that the play was the fastest he has ever seen and he feels that until airplane polo is established this game will hold the record for producing thrills.

SUES CORPORATIONS FOR SIXTY MILLIONS



PROFESSOR Reginald A. Fessenden, shown above, of Newton, Mass., nationally known as an inventor, recently filed a suit of $60,000,000 against eight prominent Radio corporations, charging that an unlawful combination on their part had been a restraint of trade and had lessened the value of his inventions. Professor Fessenden further alleged that they had combined to refrain from competition in purchasing patents, and applications for patents, inventions, devices, etc. He was formerly employed by Thomas Edison and is known chiefly as the inventor of the submarine signal.

Station Changes

"Experimental" licenses have been issued to the four following stations: KMMJ, Clay Center, Nebr., 229 meters, 500 watts; KFXR, Oklahoma City, Okla., 214 meters, 15 watts; WAGM, Royal Oak, Mich., 225 meters, 50 watts; WDAH, El Paso, Texas, 268 meters, 50 watts.

One Chicago station, WJJD, has increased antenna imput to 1,000 watts. It is rumored that WSBC, Chicago, will also go up to 1,000 watts. The University of Oklahoma broadcaster, WNAD, reopened last week with 500 watts power.

Canadian changes consist of one addition, a 10-watt station, CFDC, at Vancouver, B. C., and one delete, CHCM, at Calgary, Alta.

All Stations to Get Temporary Permits

Will Leave Way Clear to Act on Radio Bill

WASHINGTON, D. C.—As the broadcast stations licenses expire, the Radio section of the department of commerce is simply issuing temporary permits which have no definite time to run. This means, that within the course of three months, all of the broadcasting stations in the country will be working on temporary permits.

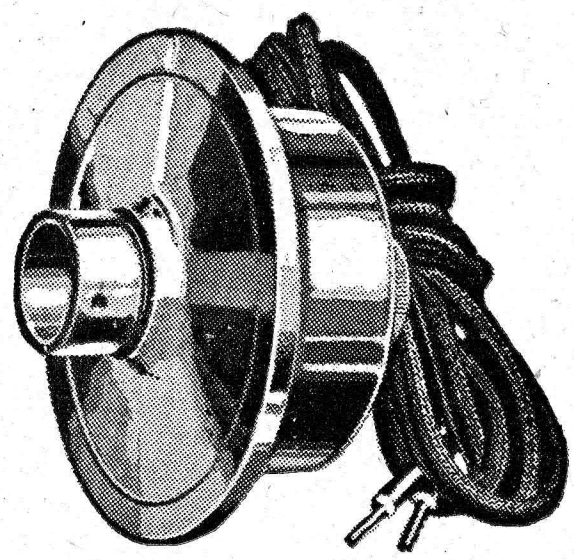
While officials of the department of commerce are not disposed to discuss this situation, it is believed that this is being done so that when a Radio bill is passed by congress, the department will be able to put it immediately into effect, if any changes are made as to permits in the new law.

The Northernmost Station Again

OTTAWA.—Canadians protest against the statement that Longyear-City on the island of Spitzbergen is the northernmost Radio telegraph station in the world, and claim that honor for a Canadian-owned station at Aklavik, which is only some 70 miles from the polar pack-ice ring. This station, it is stated, has been repeatedly heard with great distinctness as much as 2,000 miles away.

Big Price Reduction

FULTONE LOUD SPEAKER FOR YOUR PHONOGRAPH



Fits Any Make Now Only $3.00

Fultone
Trade Mark
LOUD SPEAKER UNIT
$3.00

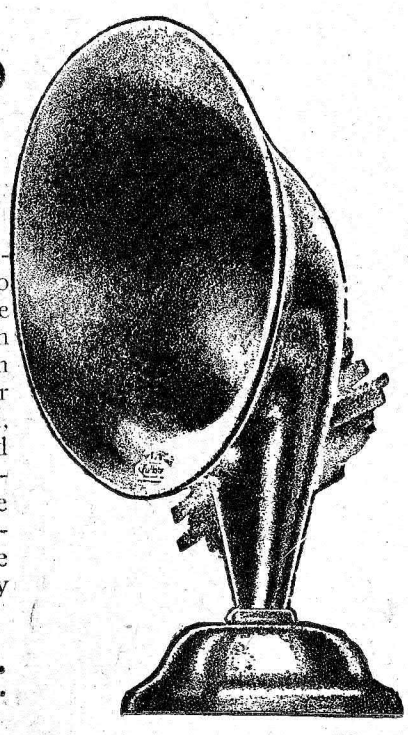
The unit will be shipped on a satisfaction or money back basis on receipt of price in money order or currency.

This unit is the secret behind the unparalleled success of Fultone Speaker. Its large diaphragm and bobbins of fine wire are protected from injury by a heavy nickel-plated case through the back of which adjustment is made by means of a special key. The pole pieces are not made from a solid piece of iron but are assembled from 15 laminations of carefully chosen steel.

Use on Your Phonograph

Edison Adapter	25c
Columbia or Pathe	20c
Brunswick	30c

Fultone
Trade Mark
THE FORD of LOUD SPEAKERS
$6.50



Fultone Loud Speaker has conclusively proven to the radio world that a reproducer could be made and sold at $6.50 which would handle music or speech in volume as perfectly as any speaker at any price. The horn is solid, non-ringing and wide-throated enough to handle the powerful reproduction from super-heterodyne or reflex. The adjustable diaphragm permits matching Fultone to any receiver and "B" battery voltage.

HALL & WELLS, Inc.
4600 Lincoln Ave. Chicago, Ill.

Tear Off, Fill in, Mail Now

HALL & WELLS, Inc. 4600 Lincoln Avenue, CHICAGO, ILL.

Enclosed is $..... for which ship me ( ) Fultone Speaker .....( ) Fultone Unit at once, my money to be refunded if I am not satisfied and return this merchandise within 5 days.

NAME .....

ADDRESS .....

CITY AND STATE.....

QUICK NUT LOAF AID TO BUSY HOUSEWIFE

HOLDS BOTH CONVENIENCE AND BREAD VARIETY

Betty Crocker Gives Recipe for Making Delicious Loaf for Baking Powder Bread

By Betty Crocker

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

OUR daily bread continues to be one of the important functions of the household, even though the baking of much of that bread has been taken out of the home. In the history of the world, bread has always been the important factor, and in the centuries that have passed, the lady was the loaf giver.

The great lady of yesterday was a busy person. She literally distributed the bread to the family, including the servants and retainers. Bread was not available in those days as it is now. Few homes possessed ovens 200 years ago, and so the castle or the master's house operated the bakery. The lady of today is still the loaf giver, but the conditions under which the loaf is prepared are vastly different.

Quick Breads American Idea

In foreign lands practically all of the bread is made of yeast, with different kinds of flour and meals, according to the products grown in each particular locality. Baking powder and quick breads are quite typical of America, but are scarcely ever found in other countries.

A baking powder bread such as nut bread is much more quickly made than yeast bread. Although it does not take the place of yeast bread in our three meals a day, it is a great convenience and helps to secure variety.

Nut Bread Recipe

Here is the recipe for nut bread:

Two cups Gold Medal flour, two cups Graham or Whole Wheat flour, four teaspoonsful baking powder, one teaspoonful salt, one cup sugar, one egg, two cups milk, and one cup nuts.

Method: Sift the flour once before measuring. Mix and sift dry ingredients. The bran which sifts out of the graham flour should be put back into the mixture. Add the milk gradually. Add the well beaten egg and mix thoroughly. Add the chopped nuts which have been dredged with part of the flour. Pour into well-greased loaf pan. Let stand 20 minutes. Bake one hour in a moderate oven, 350° Fahrenheit.

HELPS WOMEN FROM STATION WGY

Miss Jessie Lane, shown above before the desk microphone of Station WGY, has won a host of followers among the housewives of the country through her interesting and instructive talks, including recipes, which she gives every Monday afternoon over the General Electric transmitter at Schenectady, N. Y.

You will notice that the bran from the mixture is put back into the mixture. Some cooks make the mistake of sifting the graham flour and then throwing away the bran that is left in the sifter. The bran is the part of the graham flour that you particularly want.

The flour should be sifted always, but not with the idea of removing the bran. There are several reasons why we sift flour. First of all, to lighten up the mixture, as flour always packs down in the bin. If the flour is not sifted before measuring, it will be impossible to secure an accurate measurement. Other reasons for the sifting process are to incorporate more air into the flour and to raise the temperature of the flour to that of the room.

Why Let Bread Stand 20 Minutes?

Perhaps you wonder why nut bread must stand 20 minutes before baking. That is because the dough is rather stiff, heavy and in a thick loaf. We should have a good formation of gas from the baking powder before the mixture is put into the oven to bake, in order to have a light loaf.

You cannot expect to get good results if you do not measure accurately. Use the standard half pint measuring cup and standard measuring spoons. The flour should be sifted once before measuring and all measurements should be **level.**

Stale nut bread is delicious when toasted for afternoon tea as it is delicate and crisp. When served with marmalade or jam, it is quite a treat. Any kind of nuts may be used, except that black walnuts are rather strong for nut bread. English walnuts or hickory nuts are probably best. If you wish, you may use raisins in place of the nuts, or perhaps a mixture of half raisins and half nuts.

SHORT WAVES

By Marcella

Nate Caldwell, alias the "Joy Digger," ex-WBBM (Chicago) and now at the new KMOX (St. Louis), is a personal friend of Marcella's, although I hasten to add that our friendship is purely platonic. He's blonde, good looking and single. Went to Dartmouth college, and learned how to sing and entertain with a ukulele. His parental home is Chicago, where his father is a doctor. A year or so ago his favorite pastime was "skip-hiking," burdened only with toothbrush and safety razor. By the latter means he covered much ground and appeared at many stations. But still he's single, and only 24 years old.

* *

Correll and Gosden come in for next number of letters of inquiry this week, Here are the important facts. WGN uses them a lot nowadays, although they have made their usual hit from many other microphones. Both are single. Correll is about six inches shorter than Gosden, who also has an edge in having curly hair. But then Correll can play the violin, so that should make up for that. He started broadcasting at the age of five minutes, about, one day at Peoria, Ill., while Gosden started the same way at Hatteras, N. C., population—599 after he left. And sh-h-h girls, BOTH are extremely sentimental! So much for Gladyce.

* *

Paging Malie and Stept? does ANYONE know where they are and all about them? Write me, please!

* * *

Beg your pardon. I flattered Jack Little. "Little" Jack Little is really little, and 25 years old exactly. If every broadcasting artist were as popular as Jack, I'd sure have to increase the size of my weekly contribution. Of course, he's most popular with Mrs. Jack Little, and we don't think there's a chance for the rest of us. He was married, Elizabeth Ann, just last summer, or was it spring?

* *

Adams Colhoun, the likeable announcer for WFAA, Dallas, is probably married, but I'm not sure. He's one of the few I haven't been able to meet yet, but sometime I'm going to take a train right down and shake his hand. Like him, don't you? My reason for thinking he's married is that he sounds so mellow, wise and thoughtful. Bachelors are seldom that!

* * *

"Bob" Emery was married this last summer. His wife has seen his star rise and is still watching its ascension, for she was secretary to him at old WGI, Melford Hillside, Mass., and later at WEEI, Boston, when Bob went there. These ukulele ditty songsters certainly flutter the hearts of the likes of us.

* *

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

Index to Women's Programs

Saturday, January 16

Eastern	Central	Mountain	Pacific
9:30 a. m.	8:30 a. m.	7:30 a. m.	6:30 a. m.

WWJ (352.7) Tonight's dinner.
11 10 9 8
WEAR (389.4) Home service talk.
WHT (399.8) Women's club.
12 n. 11 10 9
WGN (302.8) Household hints. Fashions.
WQJ (447.5) Better diction. Character readings for young mothers.
1 p. m. 12 n. 11 10
KMA (252) Domestic science topics.
12:30 11:30 10:30 9:30
WGN (302.8) Discussion of fashions.
12:35 11:35 10:35 9:35
KYW (536) Table talk.
4 3 2 1
KJR (384.4) Tonight's dinner.

Monday, January 18

Eastern	Central	Mountain	Pacific
9:30 a. m.	8:30 a. m.	7:30 a. m.	6:30 a. m.

WWJ (352.7) Tonight's dinner.
10 9 8 7
WJZ (454.3) Women's hour.
WRC (468.5) Women's hour.
10:45 9:45 8:45 7:45
WEAF (491.5) Home service talk, Betty Crocker.
WFI (395) Gold Medal talk, Betty Crocker.
11 10 9 8
WEAR (389.4) Home service talk.
WHT (399.8) Women's club.
WNYC (526) Women's program.
11:15 10:15 9:15 8:15
WTIC (475.9) Fashion talk.
11:30 10:30 9:30 8:30
KFAB (340.7), Home economics talk.
WTIC (475.9) Housewive's forum.
11:45 10:45 9:45 8:45
WCCO (416.4) Betty Crocker home service talk.
WDAF (365.6) Betty Crocker home service.
12 11 10 9
WGN (302.8) Household hints. Fashions.
WQJ (447.5) Baking talk.
12:15 11:15 10:15 9:15
KYW (536), talk.
12:35 p. m. 11:35 10:35 9:35
KYW (536) Table talk.
2:30 1:30 p. m. 12:30 p. m. 11:30
WGY (379.5) Cooking lesson; Household talks. What Can Be Done With One Recipe.
3 2 1 12 n.
WCCO (416.4) Women's hour.
WSOE (246) Cooking chats.
4 3 2 1 p. m.
WIP (508.2) Market hints for housewives.
WOC (483.6) Home Management schedule, Aunt Jane.
WQJ (447.5) Table setting and etiquette. Care of the Skin.
5 4 3 2
KJR (384.4) Home helps.
7 6 5 4
KFOA (454.3) Today's recipe.
KLX (508.2) Women's hour.
KTAB (240) Women's club notes.
10:30 9:30 8:30 7:30
KWSC (348.6) Lines for Stout and Slender Women.

Tuesday, January 19

Eastern	Central	Mountain	Pacific
9:30 a. m.	8:30 a. m.	7:30 a. m.	6:30 a. m.

WWJ (352.7) Tonight's dinner.
10 9 8 7
WIP (508.2) Menu.
WJZ (454.3) Women's hour.
WRC (468.5) Women's hour.
10:45 9:45 8:45 7:45
WTAG (268) Talks to Mothers.
11 10 9 8
WEAR (389.4) Home service talk.
WHT (399.8) Women's club.
WMCA (340.7) Home makers' hour.
12 n. 11 10 9
WGN (302.8) Household hints. Fashions.
WQJ (447.5) New Colors for Spring. One Dish Meals.
12:35 p. m. 11:35 10:35 9:35
KYW (536) Table talk.
1 12 noon 11 10
KPO (428.3) Domestic science talk.
2 1 p. m. 12 n. 11
WGY (379.5) Psychology in Child Discipline.
WLIT (395) Household helps and hints.
4 p. m. 3 p. m. 2 p. m. 1 p. m.
WOC (483.6) Home Management schedule.
WQJ (447.5) First Courses for Dinner. Psychology as applied to Children.
5 4 3 2
KJR (384.4) Home helps.
5:30 4:30 3:30 2:30
KOA (322.4) Housewives matinee.
6 5 4 3
KOA (322.4) Culinary hints.
6:15 5:15 4:15 3:15
KOA (322.4) Fashion review.
6:45 5:45 4:45 3:45
KOAC (280.2) Special homemakers' program.
7 6 5 4
KFOA (454.3) Today's recipe.
8:30 7:30 6:30 5:30
KGO (361) As a Woman Thinketh.

Wednesday, January 20

Eastern	Central	Mountain	Pacific
9:30 a. m.	8:30 a. m.	7:30 a. m.	6:30 a. m.

WWJ (352.7) Tonight's dinner.
10 9 8 7
WIP (508.2) Menu.
WJZ (454.3) Women's hour.
WRC (468.5) Women's hour.
10:45 9:45 8:45 7:45
WEAF (491.5) Home service talk, Betty Crocker.
WFI (395) Gold Medal Service talk, Betty Crocker.
WTAG (268) Talk to Housewives.
11 a. m. 10 a. m. 9 a. m. 8 a.m.
WHT (399.8) Women's club.
WNYC (526) Women's program.
11:30 a. m. 10:30 a. m. 9:30 a. m. 8:30 a. m.
KFAB (340.7) Home Economics.
11:45 10:45 9:45 8:45
WDAF (365.6) Checking up for the New Year. Betty Crocker.
12 n. 11 10 9
WGN (302.8) Household hints.
WQJ (447.5) The Middle Aged Woman. The Health Value of Winter Sports.
12:30 p. m. 11:30 10:30 9:30
WGN (302.8) Discussion of fashions.
12:35 11:35 10:35 9:35
KYW (536) Table talk.
1 12 n. 11 10
KPO (428.3) Sewing talk.
3 2 1 12 n.
WCCO (416.4) Woman's hour.
3:30 2:30 1:30 12:30
WLW (422.3) Cooking school.
4 3 p. m. 2 p. m. 1 p. m.
WOC (483.6) Home Management schedule, Aunt Jane.
WQJ (447.5) Pies for Everybody.
5 4 3 2
WMAQ (447.5) Recipes.
7 6 5 4
KFOA (454.3) Today's recipes.
KLX (508.2) Women's hour.
KMA (252) Domestic science talk.
10:30 9:30 8:30 7:30
KOAC (280.2) Household linens. Would You Like to Improve your Kitchen?

Thursday, January 21

Eastern	Central	Mountain	Pacific
9:30 a. m.	8:30 a. m.	7:30 a. m.	6:30 a. m.

WWJ (352.7) Tonight's dinner.
10 9 8 7
WJZ (454.3) Women's hour.
WRC (468.5) Women's hour.
11 10 9 8
WEAR (389.4) Home service talk.
WHT (399.8) Women's club.
12 n. 11 10 9
WGN (302.8) Household hints.
WQJ (447.5) Let's Have a Waggle Supper. Heart Disease.
12:30 p. m. 11:30 10:30 9:30
WGN (302.8) Discussion of fashions.
12:35 p. m. 11:35 10:35 9:35
KYW (536) Table talks.
1 12 n. 11 10
KPO (428.3) Domestic science.
2 1 p. m. 12 n. 11
WGY (379.5) Variety in Winter Months.
4 p. m. 3 p. m. 2 p. m. 1 p. m.
WOC (483.6) Home Management schedule, Aunt Jane.
WQJ (447.5) Red Riding Hood Party for Children. The Value of Mother's Vote.
5 4 3 2
KFOA (454.3) Home helps.
KSD (545.1) Women's Hour.
5:30 4:30 3:30 2:30
KOA (322.4) Housewives' matinee.
6 5 4 3
KOA (322.4) Culinary hints.
6:15 5:15 4:15 3:15
KOA (322.4) Fashion review.
6:30 5:30 4:30 3:30
KSAC (340.7) Removing Stains. Johnny Won't Eat That.
7 6 5 4
KFOA (454.3) Today's recipe.
8 7 6 5
KFMQ (299.8) Building the Small House. Personality Differences in the Family Group.

Friday, January 22

Eastern	Central	Mountain	Pacific
9:30 a. m.	8:30 a. m.	7:30 a. m.	6:30 a. m.

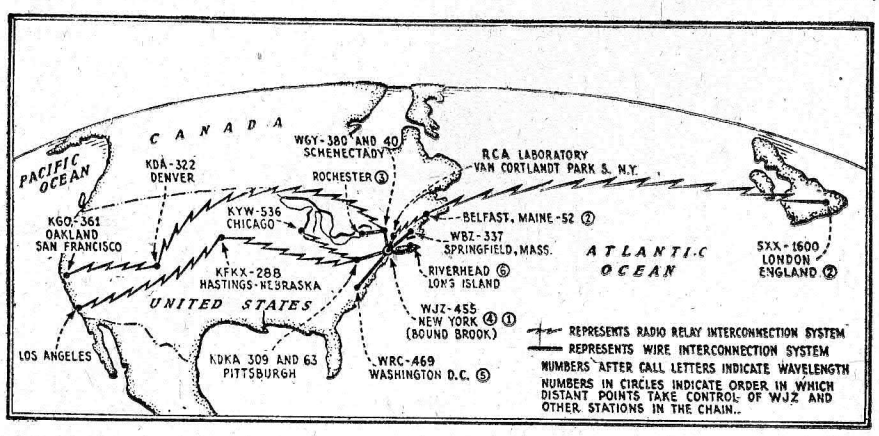
WWJ (352.7) Tonight's dinner.
10 9 8 7
KDKA (309.1) Domestic Science and Arts for the Housewife.
WJZ (454.3) Women's hour.
WRC (468.5) Women's hour.
10:45 9:45 8:45 7:45
WTAG (268) Food hints.
11 10 9 8
WHT (399.8) Women's club.
11:30 10:30 9:30 8:30
KFAB (340.7) Home Economics.
WTIC (475.9) Housewives' forum.
11:45 10:45 9:45 8:45
WDAF (365.6) Pour into the Crust and Bake. Betty Crocker.
WDAF (365.6) Betty Crocker home service.
WEAR (389.4) Home service talk.
12 n. 11 10 9
WGN (302.8) Household hints.
WQJ (447.5) Sunday Dinner Menu.
12:30 p. m. 11:30 10:30 9:30
WGN (302.8) Discussion of fashions.
12:35 11:35 10:35 9:35
KYW (536) Table talk.
1:45 12:45 11:45 10:45
WOAW (526) Sunshine Sunday dinner menu.
3 2 p. m. 1 p. m. 12 n.
WCCO (416.4) Women's hour.
4 3 2 1
WOC (483.6) Home Management, Aunt Jane.
WQJ (447.5) Second Radio lesson.
5 4 3 2
KJR (384.4) Home helps.
5:15 4:15 3:15 2:15
WMAQ (447.5) News of the Shops.
5:30 4:30 3:30 2:30
KOA (322.4) Housewives matinee.
WFAA (475.9) Women's hour.
6 5 4 3
KOA (322.4) Culinary hints.
6:15 5:15 4:15 3:15
KOA (322.4) Fashion review.
11:30 10:30 9:30 8:30
KWSC (348.6) Results of Kitchen Improvement Contest for 1925.

CHIMES OF LONDON RING OVER AMERICA

NEW WORLD AND EUROPE EXCHANGE PROGRAMS

R. C. A. Stations Link United States for International Broadcasts to Celebrate New Year

NEW YORK.—The chimes of London, tolled by unseen hands thousands of miles away, resounded in millions of homes in the United States on New Year's Day. In return, a large part of the civilized world was thrilled by a special New Year's Day gala program rendered by great operatic stars and broadcast by high power from the experimental station of the Radio Corporation of America at Bound Brook, N. J., in cooperation with the group of coast-to-coast broadcasting stations maintained by the General Electric company and the Westinghouse Electric & Manufacturing company.



The British Broadcasting company cooperated with the American stations in the most elaborate demonstration of world-wide broadcasting ever before attempted. The Old World inaugurated the New Year's Day celebration by Radio by pealing forth a greeting to the United States from the chimes in the tower of the Parliament building in London. The New World then broadcast a program, transmitted with sufficient power to be heard clear across the seas. The British Broadcasting company intercepted the American program and rebroadcast it over the chain of stations in England. In like manner, the program was rebroadcast in Germany.

Immediately preceding the special musical program broadcast from the United States, an official spokesman from America greeted the leading countries of the world by Radio. To overcome the barriers of language, a linguist repeated the greetings in French, German, Italian, Spanish, Polish, Swedish, Japanese, etc.

To demonstrate the extent to which Radio has become the art of instantaneous communication, Mr. Kent Cooper, general manager of the Associated Press, broadcast some brief news dispatches from the leading capitals of Europe. These press dispatches were transmitted to the New York office of the Associated Press by the world-wide wireless system of the Radio Corporation of America.

Because of the importance of the event, which represents one of a series of high-power broadcasting experiments now being conducted by the Radio Corporation of America, through the experimental Bound Brook station, 2XAR, and the remarkable program which was assembled for the occasion, the group of broadcasting stations maintained by the R.C.A. and its associated companies were interconnected from coast to coast, either by wire or by Radio.

Listening Posts Collect Data

Official "listening posts" on land and sea were established to gather exact engineering data on reception conditions throughout the world. The information thus collected in London, Paris, Berlin, Rome, Warsaw, Stavanger, Honolulu, Tokyo and other points is expected to be of the greatest importance in determining some of the problems of Radio transmission. In the United States, data was gathered by over 10,000 designated listeners in practically every city and town in the country.

HOT AIR PIPES TAKE AIR MUSIC ALL OVER

CINCINNATI.—A house full of music with the furnace and heat pipes directing the sound waves through the registers of every room has been brought about by Joe Best, an employe of the Crosley Radio corporation here. Taking his set down to the cellar, he placed the loud speaker in the cold air vent and then tuned in. Shortly every room was filled with music and, according to Mr. Best, there was absolutely no directional effect noticeable.

NO. 24 WIRE AND COLLODION OKEH

Bureau of Standards Soon to Issue New Paper on "Low Loss" Coils

WASHINGTON.—The bureau of standards has just completed an investigation on radio frequency resistance and inductance of certain "low loss" coils within the range of broadcast frequencies. A published paper containing the data will soon be available at the government printing office, Washington, D. C.

"The coils were of different shapes and wound with different kinds of wire," the paper will state. "Of the coils measured, the loose basket weave coil and the single-layer coil have the lowest radio frequency resistance. Number 24 double cotton covered wire is a suitable size of conductor, though numbers 32-38 Litz have somewhat less resistance. This holds for the entire broadcast range of frequencies and for all the shapes of coils measured.

"Collodion was found to be a suitable binder for holding the turns of certain shapes of coils together. There was noticeable reduction of resistance by spacing the turns of an ordinary single-layer coil."

If You Tune in Radio-Milan Let Them Know by Letter

ROME.—Radio-Milan station is making daily tests from 9:30 p. m. to midnight (3:41 to 6:11 p. m., eastern time) on a 337-meter wave length, using 1,200 watts. The request is made that listeners in picking these messages up communicate the fact, with observations on clearness, etc., by post card addressed to Radio-Milan, 23 Corso Italia, Milan, Italy.

Many Thousand Fans Visit Studios of KTHS

All the World Comes to See National Park Studio

HOT SPRINGS NATIONAL PARK, Ark.—That all the world comes to Hot Springs is strikingly illustrated from the guest register book kept in the studio of Station KTHS, New Arlington hotel, here, according to an analysis made by G. C. Arnoux, director, which shows that in the last 90 days more than 2,000 guests visited the Radio room on the twelfth floor of the hotel, coming from 37 states and eight foreign countries.

Visitors were registered from far away South Africa, France, Spain, Italy, England, Ecuador, New Brunswick and Winnipeg, Canada and Honduras.

The actual total of tourists visiting the Radio department, however, in the 90-day period is considerably more than the 2,000 names on the register, as it is estimated less than half the visitors take time to sign the book. Every variety of occupation from farmer to major general of the army and rear admiral of the navy is shown on the register.

Visitors May Watch Stars Before KMOX Microphone

ST. LOUIS.—"The Rendezvous" is a feature of the Station KMOX studios in the Mayfair hotel, St. Louis, which has met with instant favor. Every day during program hours visitors drop in for the features they prefer. The rendezvous is a large reception room looking into the studios through plate glass giving a view of the artists before the microphone. The daily organ recital from 12 to 1 p. m. central time is in great favor. This is by Arthur L. Utt, studio organist using the Kilgen organ, who gives a second program each evening from 6 to 7 p. m.

Tower

REG. U.S. PAT. OFF.

Develops New Diaphragm-

TOWER Speakers, now better than ever, are exclusively equipped with the wonderful new double Diaphragm.

Over fifty years ago Alexander Graham Bell invented the telephone receiver with its all-metal Diaphragm. This Diaphragm was for *telephone* reproduction. Since the inception of Broadcasting, this same general type has also been utilized —perforce—for *radio* reproduction.

But now, thanks to Dr. Herman Fisher, the eminent Russian Scientist and acoustical expert of the Tower Co., a distinctly new type of Diaphragm —revolutionary in principle and unparalleled in performance—has been developed.

This new Diaphragm is virtually a composite of two different materials of varying thicknesses. One portion is metal—to bring out high notes; the other portion is a special impregnated parchment for low notes. The metal, being harder, is better able to reproduce the thin, rapid vibrations while the parchment re-acts to the slower vibrations which produce the deep bass notes.

Thus, in Tower Speakers, *perfect* tone quality is obtained over the *entire* musical register—in accordance with the basic laws of sound reproduction.

Tower Speakers on Sale from Coast to Coast

TOWER MFG. CORPORATION
Boston, Mass.

We will pay $500 cash and make 1000 additional awards for a name best describing the wonderful new Diaphragm used exclusively in Tower Speakers. Send in your suggestions—on U. S. Post Cards—before February 15th.

Only Tower Speakers equipped with this New Diaphragm

WORLD'S GREATEST SPEAKER VALUES

ADVANCE PROGRAMS FOR THE WEEK

Saturday, January 16

Headliners Today

Eastern	Central	Mountain	Pacific
8 p. m.	7 p. m.	6 p. m.	5 p. m.
WNYC (526) Symphonic concert.			
8:15	7:15	6:15	5:15
WRC (468.5) Pan-American musicale.			
8:30	7:30	6:30	5:30
WIP (508.2) Pennsylvania - Dartmouth basketball game.			
8:40	7:40	6:40	5:40
WEAF (491.5) Mystery quartet.			
9:15	8:15	7:15	6:15
WSAI (325.9) Playing Card sextet.			
9:30	8:30	7:30	6:30
KSD (545.1) St. Louis symphony.			
10	9	8	7
WSM (282.8) Barn dance program.			
11	10	9	8
KHJ (405.2) Dedication of Shrine Temple.			
KPO (428.3) Special program, Third Birthday party.			
KYW (302.8) Amateur hour.			
11:10	10:10	9:10	8:10
KGO (361.2) Columbian trio.			
12 m.	11	10	9
WAHG (315.6) Alabama Minstrels.			
2 a. m.	1 a. m.	12	11
KFI (467) Midnight frolic.			

Saturday, silent night for: CFAC, CFCA, CHIC, CNRA, CNRC, CNRE, CNRM, CNRR, CNRT, CNRV, CNRW, KFDM, KFEQ, KFKX, KFKU, KFMQ, KFMX, KFUO, KFXF, KLX, KMA, KOAC, KOB, KQP, KSAC, KSO, KTAB, KWSC, WCX, WDOD, WEAO, WEBJ, WEBW, WEEI WGCP, WGR, WGST, WHAD, WHAZ, WHB, WHN, WHO, WIP, WJAR, WJAZ, WKAQ, WKAR, WLIT, WOAI, WOC, WOS, WRVA, WTAG, WTIC, WWJ.

Eastern Time Stations

CKAC, Montreal, Can. (411), 7 p. m., advice to the kiddies; 7:15, Windsor hotel dinner hour; 8:15, talk on Quebec; studio entertainment; 10:30, Windsor hotel dance program; hockey returns.

CKNC, Toronto, Can. (356.9), 4 p. m., CKNC string quintet, Charles E. Bodley, director; Elsie White, soprano; 8-10, Charles E. Bodley and his dance orchestra; Lawrence DeFoe, tenor; Charles Shearer, baritone; Bob Harvey, tenor; singing choruses, orchestra.

CNRO, Ottawa, Can. (435), 7:30 p. m., cozy corner; 8, Chateau Laurier concert orchestra; C. N. R. orchestra.

KDKA, Pittsburgh, Pa. (309.1), 7:15, 8 a. m., morning exercises, O. Shannon; 5:45 p. m., Daddy Winkum; 6:30, Westinghouse Employes band; 8, farm program; 8:30, Westinghouse Employes band; Harry Gretton, bass.

PWX, Havana, Cuba (400), 8:30-11 p. m., concert, Carlos Fernandez and artists.

WAHG, Richmond Hill, N. Y. (315.6), 12:02 p. m., Joe Zimmerman, pianist; 12 midnight, Alabama minstrels; Cotton Pickers quartet; Alabama Pete; Ukulele Bob McDonald; Cliff Ulrich trio; Arthur Feldman; Evan Davies; Alex Melville; John Godfrey; Manly Boone; Apollo theater orchestra.

WBBR, New York, N. Y. (272.6), 8 p. m., Professor Charles Rohner, violinist; 8:10, Fred Twaroschk, tenor; 8:20, Bible questions and answers, Judge Rutherford; 8:40, Fred Twaroschk, tenor; 8:50, Professor Charles Rohner, violinist.

WBZ, Springfield, Mass. (333.1), 7:30 p. m., Rene Dagenair, organist; 8, special musical feature.

WCAE, Pittsburgh, Pa. (461.3), 3 p. m., Nixon cafe; 6:30, William Penn hotel; 8, Youngstown artists.

WCX, Detroit, Mich. (516.9), 6 p. m., dinner concert, Book-Cadillac hotel.

WEAF, New York, N. Y. (491.5), 6:45-7 and 7:20 a. m., Tower health exercises; 4-5 p. m., dance orchestra; 6, dinner music, Hotel Waldorf-Astoria; 7, Ross Gorman and his orchestra from Monte Carlo; 8, "Art in Everyday Life," Robert W. De Forest, Metropolitan museum; 8:15, Mystery quartet; 8:30, Sadie Zuckerman, Dora Gutentog, piano duets; 8:40, Mystery quartet; 8:50, Sadie Zuckerman, Dora Gutentog, piano duets; 9, Pop concert; 10, Hughie Barrett and his orchestra, Hotel Commodore; 11-12, Vincent Lopez and his orchestra.

WFI, Philadelphia, Pa. (394.5), 1 p. m., tea room orchestra; 3, Levina Mitchell, soprano; Loretta Kerk, pianist; 6:30, Bellevue Stratford concert orchestra; 7, Bellevue Stratford dance orchestra; 8, Real Estate board dinner, Bellevue Stratford hotel; 11, dance orchestra.

WGBS, New York, N. Y. (315.6), 10 a. m., timely talk, Terese; 10:10, Cousin Eleanor's Kiddie Klub program; 10:50, fashion talk, Mme. Hall Deane; 1:30 p. m., scripture reading; 1:35, George Herzog, pianist; 2, the Kenmorians; 3, Ben Goldman and his Boy Scout entertainers; 6, Uncle Geebee; 6:30, Bob Blum and his orchestra; 7, Arthur Murray, ballroom dance instructions; 7:10, Bob Blum and his orchestra; 7:20, International Film Arts Guild; 7:30, Twin Oaks orchestra, Frank Dailey, director; 8:30, Shell Beach trio; 10, A. D. Rockefeller, baritone; Robert Sherwood, tenor, duets; 10:30, Arrowhead inn dance orchestra.

WGCP, New York, N. Y. (252), 2:45 p. m., William Vocek serenaders; 3:30, Andy Fayof, Paul Dennake; 3:45, Elmer McDonald, orchestra; 8:30, Strickland's orchestra; 9, Ukulele Bob McDonald; 9:30, Charles Phillips, pianist; 9:15, Hilda Deighton entertainers; 10, June Lee, Sammy Fair, Artie Dunn; 10:15, Della Riordan, female baritone; 10:30, Strickland's orchestra.

WGR, Buffalo, N. Y. (319), 2:30 p. m., WGR's afternoon program.

WHAR, Atlantic City, N. J. (275), 2 p. m., Seaside hotel trio; 7:30, address; 8, Seaside hotel trio.

WIP, Philadelphia, Pa. (508.2), 6:45 a. m., setting-up exercises; 7, setting-up exercises; 10:30, reducing exercises; 1 p. m., organ recital; 3, Dal Ruch and his Arcadians; 6:05, Benjamin Franklin concert orchestra; 7, Uncle Wip's bedtime stories; 8, sports corner; 8:30, basketball game, Pennsylvania and Dartmouth; concert arranged by Abe Einstein, Stanley company of America; 10:05, Benjamin Franklin dance orchestra; 11:05, organ recital from Germantown theater.

WJZ, New York, N. Y. (454.3), 1 p. m., Irwin Abrams' Knickerbocker; 4:30, Hotel Lorraine grill orchestra; 7, Bernhard Levitow's Hotel Commodore dinner music; 8, Freya mixed quartet; 8:30, Radio novel, Cosmo Hamilton; 10:30, Paul Specht's Moulin Rouge orchestra.

WLIT, Philadelphia, Pa. (394.5), 12:02 p. m., daily almanac; Stanley theater organ recital; Arcadia cafe concert orchestra; 2, Arcadia cafe concert orchestra; 4:30, Ed Matthews and his entertainers; 7:30, organ recital; 7:45, Benjamin Franklin hotel concert orchestra.

WNAC, Boston, Mass. (280.3), 6 p. m., the Smilers, Clyde McArdle, conductor; 6:30, dinner dance, Morey Pearl's Tent orchestra; 7:30, "Maine, Its Advantages and Possibilities"; 8, Knickerbocker club, request night; 9, varied program, Bert Spears, director; 10, dance music, Copley Plaza orchestra, W. Edward Boyle, director; vocal selections, Jack Fay; Alice Matthews, accompanist.

WNYC, New York, N. Y. (526), 7 p. m., song recital; 8-10, Symphonic concert; David Mannes; 10, lecture.

WOO, Philadelphia, Pa. (508.2), 11 a. m., organ recital; 12:02 p. m., Golden's Crystal tea room orchestra; 4:45, organ recital; 7:30, Hotel Adelphia French room orchestra.

WOR, Newark, N. J. (405.2), 3:15-4 p. m., Casino tea music; 6:15, "Words Often Mispronounced"; sports, Bill Wathey; 6:30-7:15, Jacques Jacobs' Hotel Shelton ensemble; 7:30, Van's Collegians; 11-12 m., Katinka restaurant orchestra.

WPG, Atlantic City, N. J. (299.8), 1:30 p. m., Hotel Morton trio; 6:45, Arthur Scott Brook, organist; 7, Hotel Ambassador dinner music; 9, Hotel Traymore concert orchestra; 10, Nick Nichols' dance orchestra; 11, Elks Home dance orchestra.

WRC, Washington, D. C. (468.5), 12 n., organ recital, Homer L. Kitt studios; 1 p. m., Hamilton hotel orchestra; 6, Lee House trio; 7, Hotel Washington orchestra; 8, Bible talk; 8:15, Pan-American musicale, Alfredo Oswald, pianist, Clara Elena Sanchez, soprano, Alma Simpson lyric soprano, Lourette Howard, contralto; 9:15, to be announced; 10:30, Crandall's Saturday Nighters; 12-1 a. m., Spanish Village orchestra.

WREO, Lansing, Mich. (285.5), 6-7 p. m., Speed-Wagon serenaders, Gold Standard ensemble; 10-12, Speed-Wagon serenaders.

WTAG, Worcester, Mass. (268), 12:05-2 p. m., WTAG orchestra; 3-5, WTAG orchestra; 5:15, Twinkle Twinkle story teller.

WTAM, Cleveland, Ohio (389.4), 12:15-1:15 p. m., Austin Wylie's Golden Pheasant orchestra; 6-7, Carl Rupp and his Hotel Hollenden orchestra; 8-8:45, Guy Lombardo and his Royal Canadians; 8:45-9, popular music; 9-12, Coo Coo club.

WWJ, Detroit, Mich. (352.7), 9:30 a. m., tonight's dinner; special talk by the woman's editor; 12:05 p. m., Jules Klein's Hotel Statler orchestra; 3, Detroit News orchestra.

Central Time Stations

CKY, Winnipeg, Can. (384.4), 8 p. m., "Contemporary Book Reviews," University lecture, Prof. W. T. Allison; 9, concert, J. A. Banfield company.

KFAB, Lincoln, Nebr. (340.7), 8:30-10:30 p. m., Schmoller & Mueller musicale.

KFMQ, Fayetteville, Ark. (299.8), 7:30 p. m., basketball game, U. of Arkansas vs. Southern Methodist university.

Although Myra Lee has left the legitimate stage for the silent drama, she has found a way to bring her sweet soprano voice into the homes of her public. She broadcasts regularly from KNX, Hollywood. Many fans will remember her last season as the leading lady with Guy Bates Post.

High Lights of the Week

SATURDAY at midnight, the Alabama minstrels, said to be the greatest aggregation of entertainers ever roped, thrown and tied in a single round-up will face the microphone at WAHG for two hours of fun. In the olio will be found the Cotton Pickers quartet, Alabama Pete, the only dancer in the world who executes a triple buck, and others. This show carries the endorsement of pulpit, press and public. One night only. The frolic at KPO this same evening celebrates this station's third birthday.

Florence Austral, soprano, and Cecilia Hansen, violinist, are the Atwater Kent stars, scheduled for this Sunday over the WEAF chain. Mozart's opera "The Magic Flute," will be the feature Sunday at KGO, Oakland. Arthur S. Garbett will talk about this great musician and the KGO Little Symphony orchestra will play the opera.

Ice skating by Radio is the latest sport event of the winter season. The Metropolitan indoor ice skating championship races will be broadcast Monday by WNYC, from Madison Square Garden. WSM, Nashville, will give a special Robert E. Lee program, commemorating this great general of the South.

The Massachusetts Institute of Technology associated clubs are giving a special Radio dinner Tuesday. This meeting will be broadcast by WJZ, WRC, WGY, KDKA, KYW, and KFKX, besides the home station, WBZ. KOA will also attempt to rebroadcast the meeting. Oklahoma cowboys will invade WHB, Kansas City, with a peppy band which will keep fans from thinking any serious thoughts for an hour or two.

Laura C. Gaudet, the little French-Canadian pianist, who won great favor last spring with her series of recitals, will begin her second series of programs Wednesday evening. Miss Gaudet was crowned laureat of the Quebec City Academy of Music in 1922. She also studied two years in Paris and Rome.

The Swiss Singing society, a renowned musical organization of the Pacific coast will be heard from KPO, San Francisco, Thursday night. Sixty voices will take to the ether from this station.

"To Be or Not To Be?" these immortal words will find their way into the ether Friday night, when the famous WGY players put on "Hamlet." At KGO, the Oakland station of the General Electric company, a Scotch program of the prohibition kind will consist of songs and poems of Scotland. Even the old-time bagpiper will play.

KFNF, Shenandoah, Iowa (266), 7 p. m., Scotch trio; 11, old time fiddling.

KFVE, University City, Mo. (240), 9:15 p. m., amusement review, Romaine Fielding; Gene Witacker's orchestra.

KLDS, Independence, Mo. (441), 8 p. m., Ararat temple chanters.

KMA, Shenandoah, Iowa (252), 11:30-12:30 p. m., noonday rural program; domestic science talk, June B. Case; music; news; talk, Earl E. May; 6-7, Pollyanna stories, Mrs. Nickols; music; news; popular program; 9-11, pipe organ recital, William Howle; talk, Mrs. Ida B. Wise.

KMMJ, Clay Center, Nebr. (228.9), 1 p. m., Snoddy's orchestra and local talent; 1:30, factory and office program.

KPRC, Houston, Tex. (296.9), 12 n., Jack Willrich's orchestra; Virginia Willrich, piano accordionist; 7:30 p. m., Bible class, Rev. Claude L. Jonas; 8, Frank Tilton, blind wonder boy pianist; 8, Mrs. E. P. McClanahan; 8:30, Frank Tilton; 11, midnight concert.

KSD, St. Louis, Mo. (545.1), 7 p. m., Grand Central theater; 8:30, St. Louis Symphony orchestra.

KTHS, Hot Springs National Park, Ark. (374.8), 9-9:25 p. m., baritone solos, Louis Davis, Princess King, accompanist; 9:25-9:30, bedside story, Phanton Voice, Medical Intelligence bureau; 9:30-10:15, New Arlington hotel dance frolic; 10:15-10:45, Ruth Nininger, violinist; 10:45-11, dance tunes.

KYW, Chicago, Ill. (535.4), 11:35 a. m., table talk, Mrs. Anna J. Peterson; 12:05-1 p. m., noonday concert, Commonwealth Edison company; 1-2, Congress hotel, Coon-Sanders Original Nighthawks; 4, frolic; 7:05, children's bedtime story, Uncle Bob; 6, dinner music, KDKA; 7:30-8:30, home-lovers' hour; 8:30-11, Congress classic; 11:30-1 a. m., Congress carnival; 1-2, Insomnia club, Coon-Sanders Original Nighthawks.

WAMD, Minneapolis, Minn. (243.8), 12 noon, Marion Latta, contralto; Carl Schmid, tenor; Bayne Cummins, pianist; Whitney Nightengale, tenor; uke soloist; 7:05 p. m., talk; 7:10, musical program; Harmony Twins, Fred Roble, Bob Melcher; Adeline Wagner, soprano; Blue Boys orchestra, Lee Barry, director; Bob Barker, tenor; 11-12, Skyrocket frolic, George Osborn's Hotel Radisson orchestra; Garrick theater organ recital, Jack Malerick.

WBBM, Chicago, Ill. (226), 4-6 p. m., Harry and Sandy; Valentino inn orchestra; Jack Penewell; 8-9:30, college program; 9:30-11, Sandy and Harry; Moulin Rouge orchestra; Sy Berg; Fred Jacobson; 11-2, Sunset male quartet; George Thurn; Two Jays; Lew Russell; Romo Vincent; Moulin Rouge orchestra.

WBCN, Chicago, Ill. (266), 10-10:30 a. m., shopping talk, Penny Wise; 3-5 p. m., tea time matinee; Clarence Jones, pianist and song writer; Cecile and Johanna Arends, violinist and pianist; Marie Wright, soprano; 10-11:15, jazz jamboree, Midway Dancing Gardens orchestra; Cameron and Fett, "The Harmony Wizards," harmony duo; Albert Blaha, concertinist; Johnny Special, the harmonica acrobat; Elizabeth Emmett Malone, soprano; Jack Parker, tenor; 11:15-12, King Static's court; Frank H. MacDonald, "King Static"; Mary Williams, "Queen Olive"; Harry A. Zook, Jr., "Prime Minister"; "Big Boy" Yagle, "Court Jester."

WCCO, Minneapolis-St. Paul, Minn. (416.4), 12:30 p. m., Golden Pheasant orchestra; 2:30, afternoon concert; 6:15, Dick Long's Nankin cafe orchestra; 8, fireside philosophies, Rev. Roy L. Smith; 8:15, musical program; 10:05, Oxford theater orchestra.

WDAF, Kansas City, Mo. (365.6), 3:30-4:30 p. m., The Star's string trio; 6-7, address, "Street Railway Engineering and Transportation Problems," A. E. Harvey; address, Roger W. Babson; organ music, Pantages theater; The Trianon ensemble; 11:45-1 a. m., Plantation players, Hotel Muehlebach; Billy Adair's Kansas City club orchestra; Eddie Kuhn's Kansas City Athletic club orchestra.

WEBH, Chicago, Ill. (370.2), 11:30-12 n., woman's half hour; 3-4 p. m., special features; 7-8, Oriole orchestra; Sunday school lesson; Howard Neumiller, pianist; 9-10, Oriole orchestra; James Murray, tenor; Marie Kelly, reader; 11-11:15, Oriole orchestra; 11:15-12:30 a. m., news flashes; Wayne Myers, Frank Greif.

WENR, Chicago, Ill. (266), 6-7 p. m., daily dinner concert; Rauland-lyric trio; violin and cello selections, vocal numbers; 8-10, All-American Pioneers; Al Tweed and Walter Peterson, harmonic and guitar selections; Floyd Falch, baritone; John Papa, concertinist; Art Bilquist; 12-2 a. m., Frank Westphal and his All-American Pioneers; Rita McFawn, soprano; Art Bilquist, Mary Bieber.

WFAA, Dallas, Tex. (475.9), 12:30-1 p. m., Alex Hughes, pianist; 3:30-4, Tom Fowler, violinist; 4:30-5, Cloyd Griswold, singer; 6:30-7:30, Don Bestor's Baker hotel orchestra; 8:30-9:30, Mozart Choral club, Earle D. Behrends, directing; 11-12 m., Jack Gardner's Adolphus hotel orchestra.

WGES, Oak Park, Ill. (250), 5-7 p. m., Marge Van, organist; Ruth Kalthoff, mezzo-soprano; John Stanford, tenor; playlet, Miles Sullivan players; 8-9, Doc Berendson and his Tiffin theater orchestra; Paola Corado, baritone; Ellen Maurico, pianist; Remington Welsh, organist; 11-1 a. m., the Coyne Serenaders orchestra; Remington Welsh, organist; Sandy McTavish, Scotch comedian; Eddie Adams, the girl with the uke; Rose Sweeney and Loretta Clusman.

WGN, Chicago, Ill. (302.8), 11-11:30 a. m., household hints; 11:30-12 n., discussion of fashions; 12-12:40 p. m., public service period; 12:40-2:30, luncheon concert, Drake concert ensemble and Blackstone string quintet; 2:30-3, Lyon & Healy artists' series; 3-3:25, public service period; 3:25-3:30, "Port o' Missing Men"; 3:30-4:15, tea time music, Marshall Field's tea room orchestra; 4:30-5, organ recital, Edward Benedict; 5:30-5:57, Skeezix time; 6:30-7, dinner concert, Drake concert ensemble and Blackstone string quintet; 8-9, music hour, Drake concert ensemble and vocal artists; 9-10, popular program; 10-11, amateur hour.

WHAD, Milwaukee, Wis. (275), 11 a. m., pianolog, Andy Hertel; story for children, Faye McBeath; Margaret Cunningham, pianist; Willard Kaleibe, tenor banjo soloist.

WHAS, Louisville, Ky. (399.8), 1-2 p. m., Benson trio; 3-3:30, Mrs. Myrtle Fulks Zahn, Jr., organist; 4-5, musical selections, Harry S. Currie, director; Martha Pope Robinson, reader; readings, editorials; 7:30-9, Barney Rapp's orchestra.

WHT, Chicago, Ill. (399.8), 6 p. m., classical program; dinner organ recital, Al Carney, Grayling's string trio, Eleanor Kaplan, violinist, W. A. Dyckman, basso; Jean Carlson, soprano; Hugh Aspinwall, tenor; 7:45, 9:15 (238), musical features, Alamo orchestra; 9:30 (399.8), Chez Pierre orchestra; Fred Jacobson, humorist; 9:50, Kitchen Klenzer entertainers; 10:10, Vic Fredericks, baritone; Clark and Bala, Hawaiian team; 10:30, Gervin Little symphony; 11:30, Oscar Heather, tenor; 12, Pat Barnes, "Your Hour League," presidents, Pat Barnes and Al Carney.

WIBO, Chicago, Ill. (226), 10-11 a. m., shoppers' bureau; 2-4 p. m., popular shut-in program; 6-8, dinner concert, WIBO trio; Ruth Buhl Flick, reader; North Shore Line quartet.

WLIB, Chicago, Ill. (302.8), 7-8 p. m., dinner concert; 11-12, popular program; 12-1, dance program.

WLS, Chicago, Ill. (344.6), 12-12:45 p. m., Junior R. F. D. Roundup program; "Trapping," S. T. Keshen; "The Illinois State Egg Laying Contest," A. D. Smith; "Farm Woman at the National Poultry Show," Minnie G. Stearns; 2, "Silver Fox Farming," E. C. Fitch; 7, lullaby time; 7:15-12 m., barn dance.

WLW, Cincinnati, Ohio (422.3), 7 p. m., organ concert, Johanna Grosse; 7:30, children's safety talk, John Fry; 7:40, Seckatary Hawkins; 8, Community Fireside sing, chorus from Cincinnati Conservatory of Music; 8:30, Rose City quartet; 9, program, Cincinnati Automobile club.

WMAQ, Chicago, Ill. (447.5), 6 p. m., Chicago theater organ; 6:30, violin choir, J. Sterling Morton school; 8, Frederick Daw and Russell Pratt; 8:30, Radio pho-

ALABAMA MINSTRELS COME TO WAHG

Saturday, January 16

tolog, "Rome in the Time of Caesar," Clara Laughlin; 9, Chicago theater revue; 9:55, University of Chicago chimes.

WMBB, Chicago, Ill. (250), 7-8 p. m., Trianon concert artists; Davida Boyd, Ralph Elliott, tenor and artists; semi-classical program; 9-11, Trianon orchestra, Dell Lampe, Woodlawn theater orchestra, Armin F. Hand, director; Scotty Welsh and Madison Sisters; Lionel Carter, Tracy and Duncan, popular program.

WMC, Memphis, Tenn. (499.7), 7:15 p. m., bedtime stories, Peter Pan and Tinker Bell; 8:30, Memphis Plectrum orchestra, Robert L. Sharpe, director.

WOAW, Omaha, Neb. (526), 6 p. m., orchestra; 7, after-dinner hour; 9, de luxe program; 10:30, Frank Hodek and his Nightingale orchestra; 11, Arthur Hays and organ jubilee.

WOC, Davenport, Iowa (483.6), 5:45-6 p. m., chimes; 6:30-6:50, Sandman's concert; 9-10, Rex's band; 11-12, LeClaire hotel orchestra; Peter MacArthur, baritone.

WOI, Ames, Iowa (270), 12:45 p. m., "Soil Problems," Prof. W. H. Stevenson.

WOK, Chicago, Ill. (217.3), 1-2 a. m., Tierney's Town club orchestra; Husk O'Hare's Cocoanut Grove orchestra; Harriet Lee, contralto; Herman Sinaiko, violinist; George Allen, tenor; Bob Mokrejs, pianist; 6 p. m., 1:30 a. m., Gus C. Edwards and his orchestra; Husk O'Hare's Cocoanut Grove orchestra; Tierney's Town club orchestra; Capitol theater musical program; WOK mixed quartet; Herman Sinaiko, violinist; Harriet Lee, contralto; George Allen, tenor; Bob Mokrejs, pianist; Bill Hay, bass.

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

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

WQJ, Chicago, Ill. (447.5), 11-12 m., "Better Diction," Madame Peggy Righter; F. E. Ormsby, character reader; 3-4 p. m., koffee klatsch; 7-8, Rainbo Gardens orchestra; Gertrude Wolf Quentin soprano; Kane McDuffee, whistler; Ralph Keim, pianist; Anne Keim, mezzo-soprano; 10-3, Rainbo Skylarks; Dr. Carl Bertschinger, pianist; Jerry Sullivan; Rose Vanderbosch, soprano; Hal Lansing; Everett George Opie, reader; Oxford Girls; Rita McFawn, Mary Bieber, harmony singers; Thelma Pefferle, soprano.

WRR, Dallas, Tex. (246), 12-1 p. m., musical program; 5:15, bedtime story; 6-7, dinner hour music, Jack Gardner and his orchestra, Adolphus hotel; 8-9, program, Hubbell club.

WSAI, Cincinnati, Ohio (326), 7:30 p. m., children's stories, Mrs. Ethel Knapp Behrman; 7:50, chime concert, Robert Badgley; 8, national and international events, Allison F. Stanley; 8:15, Bicycle Playing Card sextet; 12 m., Hotel Sinton orchestra, Charles Dornberger, director.

WSM, Nashville, Tenn. (282.8), 6:30 p. m., concert, Francis Craig and his orchestra from Hermitage hotel; 7, bedtime story interlude; 8, program, Mrs. Thomas Pinkerton and associate artists, Franklin, Tenn.; 9, barn dance program.

WSMB, New Orleans, La. (319), 8:30-10:30 p. m., concert, Mrs. Dupuy Harrison.

WSOE, Milwaukee, Wis. (246), 8:30 p. m., Sunday school lesson, Milwaukee Council of Churches; 9, Adolph Suppan, clarinetist; Carl Bauman, pianist.

WSUI, Iowa City, Iowa (483.6), 7:30 p. m., Indiana-Iowa basketball game.

Mountain Time Stations

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

KOA, Denver, Colo. (322.4), 12:15 p. m., Rialto theater musicale; 9, Harmony Peerless orchestra.

Pacific Time Stations

KFI, Los Angeles, Calif. (467), 5:30-6 p. m., Examiner matinee; 6, nightly doings; 6:15, KFI's Seeing California; 6:30, vest pocket program; 6:45, radiotorial period; 7-8, Bill Hatch's Oakmont Country club dance orchestra; 8-9, Examiner hour; 9-10, Mary Christine Albin trio, Florence Kitzmiller, soprano; 10-11, Packard Radio club; 11-3 a. m., KFI midnight frolic.

KFOA, Seattle, Wash. (454.3), 4-5:15 p. m., William F. Hoffman's concert orchestra; today's recipe; 6-6:45, Hoffman's concert orchestra; 6:45-8:15, Rhodes department store; 10-11:30, Olympic hotel, Eddie Harkness' dance orchestra.

KFON, Long Beach, Calif. (232.4), 4:30-5 p. m., amusement bulletin; 6-6:30, organ recital, Brayton's theater; 7:30-9, Long Beach Municipal band; 9-11, Echophone Entertainers frolic.

KFWB, Hollywood, Calif. (252), 7:45 p. m., microphone brevities; 8-9, program, Paralta Photographic studios; 9-10, Warner Brothers syncopators; Stephanie Newton, contralto; Le Roy Kullberg and his ukulele; 10-11, Warner Brothers frolic, direction Charlie Wellman.

KGO, Oakland, Calif. (361.2), 4-5:30 p. m., concert orchestra, Hotel St. Francis; 8:10, Leo J. Meyberg company program; George Garland, saxophonist; Columbian trio; Lela Saling, soprano; Carol Jarboe, accompanist; Alice Poyner, violinist; Jeannette Sheerer, clarinetist; Frank Mueller, tenor; 10-12, Girvin-Deuel California Collegians.

KGW, Portland, Ore. (491.5), 12:30-1:30 p. m., Rose City trio; 6-7, dinner concert; 9-12, dance music; Curt Kremer, pianist.

KHJ, Los Angeles, Calif. (405.2), 6-6:30 p. m., Leighton's Arcade cafeteria orchestra, Jack Cronshaw, leader; 6:30-7:30, history story, Prof. Hertzog; Dollie Wright, Henrietta Poland, Nona Clapp with Uncle John; 7:30-8, Roller canary show; 8-10:30, dedication and program, Al Malaikah Shrine, Los Angeles; 10:30-11:30, Biltmore hotel dance orchestra.

KJR, Seattle, Wash. (384.4), 1-2:30 p. m., organ recital, Columbia theater; "What to Prepare for Tonight's Dinner," Bernice Redington; 6-6:30, what's doing at the theaters; 6:45-7, the box office, Seattle theaters' doings; 8:30-10, L. C. Warner company program, featuring artists; 10-12 m., Henry Halstead's Victor Recording orchestra.

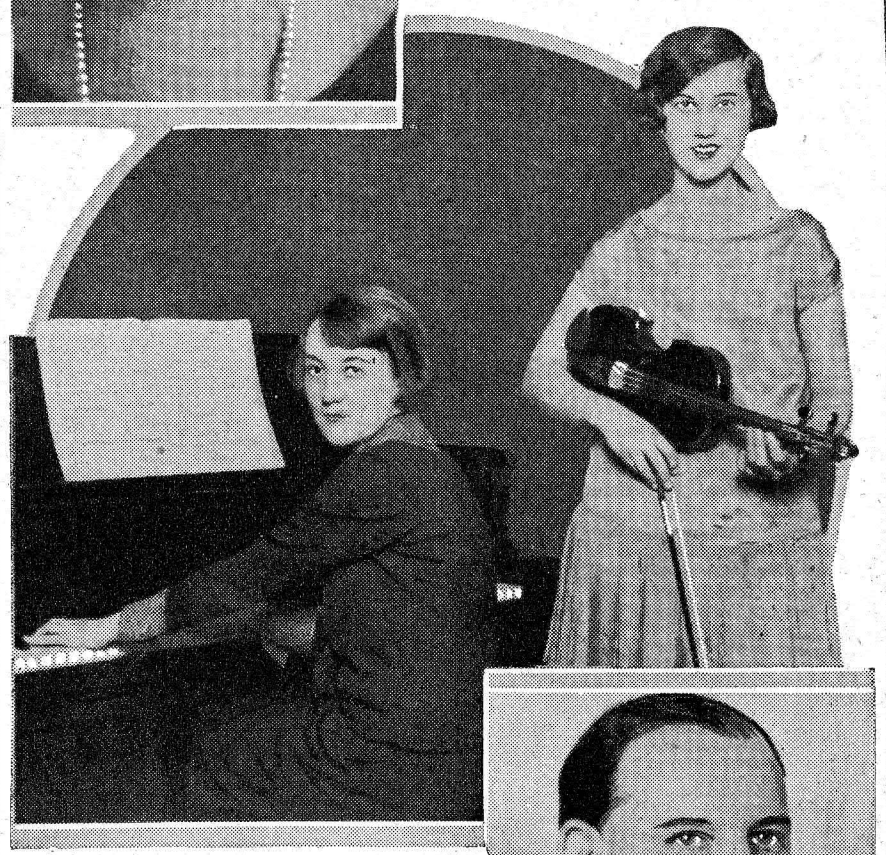
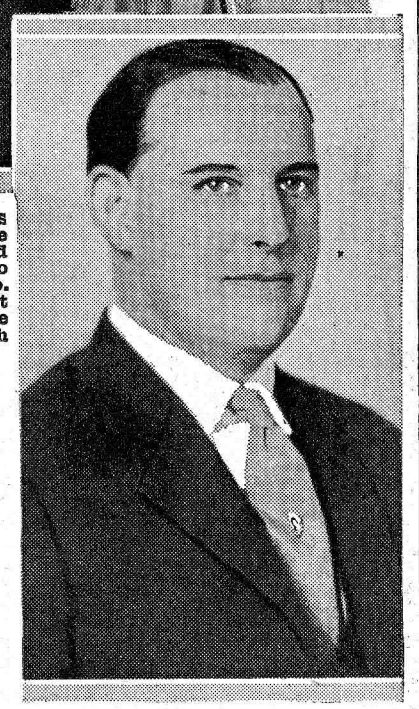
KMTR, Hollywood, Calif. (238), 6-7 p. m., Starr Piano company studio; 8-10, Turner orchestra, Loren Powell, director.

KNX, Hollywood, Calif. (336.9), 5-5:30 p. m., Sunny Jim's story; 5:30-6:15, Wurlitzer pipe organ studio; Town Tattler; 6:15, travel talk, W. F. Alder; 6:30-7, Atwater Kent concert orchestra; 7, talks on insect life, H. W. McSpadden; 7:15, church announcements; 7:30-8, Wurlitzer pipe organ studio; 8-10, KNX feature program; 10-11, Ambassador hotel dance orchestra; 11-2 a. m., Hollywood Nite, Filmland Frolickers.

KPO, San Francisco, Calif. (428.3), 7-7:30, 8 a. m., daily dozen exercises, Y. M. C. A.; 10:30, "Ye Towne Cryer"; 12, reading of the Scriptures; 1-2 p. m., Rudy Seiger's Fairmont hotel orchestra; 2:30, popular music program by the Bohemian dance orchestra; 3:30, Palace hotel concert orchestra; Cyrus Trobbe, director; 6:30, "Ye Towne Cryer"; 6:35-7:30, Waldemar Lind and the States restaurant orchestra; 8-10, special program, celebrating the third birthday of the station; 10-12, Jack Coakley's Cabirians.

KPSN, Pasadena, Calif. (315.6), 8-9 p. m., Paul Reese and artists; 9-10, dance orchestra, Hotel Maryland.

KTAB, Oakland, Calif. (240), 9-9:30 a. m., prayer service, Rev. E. L. Spaulding.

A dainty little lady is Petrinella Trimbur (left) but she can play the organ so well that she has given the noonday concerts on Tuesdays at WLW, Cincinnati, for over a year.



There is real harmony at WBBM Thursdays from 8 to 10 p. m. central time when these two girls above, Marion Hadley, violinist, and her sister, Edna, pianist, get together to broadcast from the Stewart-Warner studio. If you are getting thin or putting on weight by tuning in for KGO, Oakland, you are listening to the instructions given by Hugh Barrett Dobbs, right.

Sunday, January 17

Headliners Today

Eastern	Central	Mountain	Pacific
3:30 p. m.	2:30 p. m.	1:30 p. m.	12:30 p. m.
WTIC (475.9) New Haven symphony orchestra.			
6:30	5:30	4:30	3:30
KGO (361.2) Little symphony orchestra.			
8	7	6	5
WBZ (333.1) Jordan Marsh Jubilee chorus.			
8:30	7:30	6:30	5:30
WCAU (278) Bonwit-Teller light opera.			
9	8	7	6
WQJ (447.5) Fontella trio.			
9:15	8:15	7:15	6:15
WEAF (491.5), WEEI (348.6), WGR (319), WCAE (461.3), WCAP (468.5), WJAR (305.9), WTAG (268), KSD (545.1), WCCO (416.4), WOC (483.6), WFI (394.5), WGN (302.8), WSAI (326), WWJ (352.7) Atwater Kent hour.			
10	9	8	7
WIP (508.2) "Rigoletto," opera.			
11	10	9	8
KFI (467) Classic hour.			
KTHS (374.8) A rollicking good time.			
12 m.	11	10	9
KFWB (252) Movie frolic.			
12:15 a. m.	11:15	10:15	9:15
WHB (365.6) Organ concert.			

Sunday, silent night for: CFAC, CKNC, CNRA, CNRC, CNRE, CNRM, CNRO, CNRR, CNRT, CNRV, CNRW, KFAB, KFAU, KFKX, KFKU, KFMQ, KFOA, KFVE, KFWA, KMA, KMTR, KOAC, KOB, KSAC, KSO, KWSC, PWX, WAHG, WCAD, WCX, WDAF, WEAO, WEBJ, WEBW, WGES, WGHB, WGST, WHAD, WHAS, WHAZ, WJAZ, WJJD, WKAF, WKAQ, WKAR, WLIT, WMAQ, WMC, WNYC, WOI, WOO, WRC, WRVA, WSB, WTAM, WTIC.

Eastern Time Stations

CFCA, Toronto, Canada (356), 11 a. m., Walmer Road Presbyterian church; 4 p. m., Washington cathedral; 6:20, dinner hour concert, Vesper string ensemble; 7:20, Capitol theater program, WEAF, 9:15, Atwater Kent hour.

CHIC, Toronto, Can. (357), 5 p. m., organ recital, George H. Graham, M. A.

CKAC, Montreal, Can. (411), 2:45 p. m., Capitol theater hour.

KDKA, Pittsburgh, Pa. (309.1), 11 a. m., service; 4 p. m., Dr. Charles Heinroth, organist; 4:45, Shadyside Presbyterian church, Rev. Hugh Thomson Kerr, pastor; 6:30, dinner concert; 7:45, church service.

WBBR, New York, N. Y. (272.6), 10 a. m., violin duets, Professor Charles Rohner and Carl Park; 10:15, Sunday school lesson, S. M. Van Sipma; 10:35, I. B. S. A. choral singers; 10:45, violin duets; 10:55, I. B. S. A. choral singers; 11, Bible lecture, Judge Rutherford; 11:40, I. B. S. A. choral singers; 2 p. m., Watchtower orchestra; 2:30, Fred Twaroschk, tenor; 2:45, Watchtower orchestra; 3, Bible lecture, Judge Rutherford; 3:30, Fred Twaroschk, tenor; 3:40, Watchtower orchestra; 9, Watchtower string quartet; 9:15, Bible questions and answers, Judge Rutherford; 10, Watchtower string quartet.

WBZ, Springfield, Mass. (333.1), 10:30 a. m., Trinity church; 7 p. m., Copley Plaza orchestra; 8, Jordan Marsh Jubilee chorus and orchestra; 9, Nina Mae Forde, soprano.

WCAP, Washington, D. C. (468.5), 11 a. m., First Baptist church; 7 p. m., St. Michael's cathedral.

WCAU, Philadelphia, Pa. (278), 5:15 p. m., undenominational church services, Rev. John W. Stockwell; 5:25, scripture quotations; 5:45, "The Escape from the Killer," Rev. John W. Stockwell; 6:45, Clarence Seamen's concert orchestra; 7:45, Cathay Tea Garden concert orchestra; 8:30, Bonwit Teller Light Opera; 9, Potash and Perlmutter.

WCX, Detroit, Mich. (516.9), 10:30 a. m., services, Central Methodist Episcopal church.

WEAF, New York, N. Y. (491.5), 2 p. m., Sunday Radio service, auspices of the Greater New York Federation of Churches, Rev. Herbert F. Laflamme, presiding; music, Lotta Madden, soprano; Mildred Bryars, contralto; Albert Miller, tenor; Arthur Billings Hunt, baritone; George Shackley, pianist; Walter C. Gale, organist; address, Rev. William F. Sunday; 3-4, young people's conference from Marble Collegiate church, New York; 4-5:30, men's conference from Bedford branch, Brooklyn; address, Dr. S. Parkes Cadman; special music, Gloria Trumpeters; George Betts, chime soloist; Mr. and Mrs. Howard Wade Kimsey, song leader and pianist; 7:20-9:15, special musical program, Capitol theater; 9:15-10:15, Atwater Kent Radio hour.

WEEI, Boston, Mass. (348.6), 10:50 a. m., Old South church; 3 p. m., Chamber of Commerce organ; 5, Dr. S. Parkes Cadman, WEAF; 7:20, Capitol family; 9:15, Atwater Kent Radio artists.

WFI, Philadelphia, Pa. (394.5), 4:30 p. m., religious talk, Y. M. C. A.; Harold Simonds, baritone; 9:15, Atwater Kent concert, WEAF.

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

WGCP, New York, N. Y. (252), 7 p. m., Dulcimerians; 7:45, Madeline Freeman, soprano; 8, Paul Hagan, tenor; 8:15, Bernard Share, violinist; Harry Retakin, pianist; 8:55, health talk; 9, Strickland's orchestra.

WGR, Buffalo, N. Y. (319) 7:45 p. m., Central Presbyterian church service; 9:15, jointly with WEAF, Atwater Kent program; Florence Austral, soprano, and Cecelia Hansen, violinist.

WGY, Schenectady, N. Y. (379.5), 11 a. m., service of Madison Avenue Reformed church, Rev. R. M. Little, pastor; 12:30, Symphony society concert, Walter Hampden theater; 3, musical program, WJZ; 5, organ recital, Dr. Frank Sill Rogers; T. Roy Keefer, violinist, from St. Peter's Episcopal church; 7:45, service, Madison Avenue Reformed church; 9, WJZ program; 10, Godfrey Ludlow, violinist, WJZ.

WHAR, Atlantic City, N. J. (275), 10:45 a. m., morning service, Chelsea Baptist church; 2:15 p. m., sacred recital, Seaside hotel trio; 2:45, sermon; 7:50, Chlesea Baptist church; 9, "An Hour with the Classics," Seaside hotel quartet; 11:15, Strand theater organ recital.

WIP, Philadelphia, Pa. (508.2), 4 p. m., religious talk, Germantown Y. M. C. A.; 7:15, services, Holy Trinity church; 10, opera, "Rigoletto"; Ben Stad and his Little Symphony orchestra.

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

WMAK, Lockport, N. Y. (265.5), 10:25 a. m., First Presbyterian church; 7:30, Churchill tabernacle.

WNYC, New York, N. Y. (526), 7:30 p. m., musicale.

WOO, Philadelphia, Pa. (508.2), 10:30 a. m., services, Bethany Presbyterian church; 2:30 p. m., Sunday school musical exercises from Bethany Presbyterian church; 6, Clarence K. Bawden, organist.

WREO, Lansing, Mich. (285.5), 10 a. m., chimes, Belfry Plymouth Congregational church; 10:30, Plymouth Congregational church; 7 p. m., Central M. E. church.

WTAG, Worcester, Mass. (268), 4-5:30 p. m., Y. M. C. A., Dr. S. Parkes Cadman, WEAF; 7:20-9:15, Capitol Family; 9:15-10:15, Atwater Kent Radio hour.

WTIC, Hartford, Conn. (475.9), 3:30 p. m., New Haven Symphony orchestra.

WWJ, Detroit, Mich. (352.7), 11 a. m., services at St. Paul's Episcopal cathedral; 2 p. m., Detroit News orchestra; 7:20, Capitol theater gang, WEAF.

Central Time Stations

CKY, Winnipeg, Can. (384.4), 7 p. m., service, St. Andrew's United church; 9, Eveready hour of classical music, Earle C. Hill's Capitol theater orchestra.

KFAB, Lincoln, Nebr. (340.7), 4-5 p. m., vesper service.

KFNF, Shenandoah, Iowa (266), 10:45 a. m., First M. E. church; 2:30 p. m., Golden Rule song service; 3, men's gospel team; 6:30, Golden Rule circle; 7:30, Christian church service.

KFUO, St. Louis, Mo. (545.1), 4 p. m., "Take No Thought for the Morrow," comfort against anxious cares for the future, Rev. F. A. C. Meyer; 9:15, "Whatsoever Ye Would That Men Should Do to You, Do Ye Even So to Them," Rev. L. J. Sieck.

KLDS, Independence, Mo. (441). 11 a. m., Stone church services; 3 p. m., sacred program; 6:30, vesper service; Nina Smith, soprano; Alice Burgess, contralto; George Anway, tenor; Frank Russell, bass; sermonet, Ralph W. Farrell; 9, studio service; Robert Miller, organist; George Miller, pianist; Elizabeth Tanner Hitchcock, soprano; "Story of the Book of Mormon," Roy V. Hopkins.

KMA, Shenandoah, Iowa (252), 4-6 p. m., vesper service; music and talk, G. H. Van Houten; Bible study class.

KMMJ, Clay Center, Nebr. (228.9), church services.

KPRC, Houston, Tex. (296.9), 10:45 a. m., South Main Baptist church, Rev. M. M. Wolf, pastor; 8, Trinity Lutheran church; 8, Trinity Lutheran church, Rev. J. W. Behnken, pastor; 9:30, studio concert.

KSD, St. Louis, Mo. (545.1), 6:15 p. m., St. Louis Post-Dispatch concert orchestra; 8:15, Atwater Kent, WEAF.

KTHS, Hot Springs National Park, Ark. (374.8), 11-12:15 p. m., services, St. Luke's Episcopal church; 9-10, classic hour, New Arlington grand ensemble; 10-11:30, Arkansas Traveler frolic; 11:30-12:30 a. m., Lawson Reid, organist.

KYW, Chicago, Ill. (535.4), 11 a. m., Central church services, Rev. Frederick F. Shannon, pastor; 2:30 p. m., studio chapel services; 4:30, studio concert, Edwin Harper, director; 7, Chicago Sunday Evening club services, Clifford Barnes, president; music, Edgar Nelson, director; "Industry and Human Personality," Wm. P. Hapgood; 9:30, classical concert, Commonwealth Edison company.

WAMD, Minneapolis, Minn. (243.8), 7:05 p. m., Arthur H. Faust, Leome Faust; 9:30, Gayle Wood, harmony hurricane; request program.

WBBM, Chicago, Ill. (226), 12:30-2 p. m., William Zimmer, tenor; Kantor A. Kritz; Sandy Meek and Harry Sosnik; Edna Wheeler Ballard, harpist; Moulin Rouge operatic quartet; 4-6, Joe Allabaugh; Lavergne and Shayne, xylophonists; Pete Kules; Tip trio; Ziegler; Harold Anderson; 8-10, Sunset male quartet; WBBM string trio; Moulin Rouge orchestra; 12-2, Nutty club.

WBCN, Chicago, Ill. (266), 10:30 a. m.-12 noon, morning service, People's Liberal church; talk, Rev. Rufus A. White; 4-5 p. m., Dain & Son classical hour; Velma Cook, soprano; Oriental quartet; male harmony group; Robert Stronach, pipe organist; 7:45-9:15, evening services, Thoburn M. E. church, 40-piece Thoburn semi-symphony orchestra; 80-voice choir, special vocal soloist; speaker.

WCBD, Zion, Ill. (344.6), 8 p. m., Zion band and ladies' quartet, assisted by performers.

WCCO, Minneapolis-St. Paul, Minn. (416.4), 10:50 a. m., Westminster Presbyterian church; 4:10 p. m., House of Hope Presbyterian church; 6:20, Second Church of Christ Scientist; 8:15, Atwater Kent program.

WDAF, Kansas City, Mo. (365.6), 4-4:45 p. m., Sabbath vespers, First Presbyterian church, Rev. James Congdon, pastor.

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

WEBH, Chicago, Ill. (370.2), 10:40-12 m., Seventh Church of Christ, Scientist; 5-6 p. m., Oriole orchestra; Dorothy Herman Blum, soprano; 7-9, artists program; 8:15, Richard Dale, baritone; Mamie Stillerman, pianist; Belle Forbes Cutter, soprano.

WEBW, Beloit, Wis. (268), 4:30 p. m., regular college vesper service.

WENR, Chicago, Ill. (266), 2-4 p. m., classical program; Rauland-Lyric trio; sacred selections; 9:30-11:30, popular program; Frank Westphal and his All-American Pioneers; twin piano duets, vocal selections; Eric Sagerquist, violinist.

WFAA, Dallas, Texas (475.9), 2:30-4 p. m., Sunday hour for farmers; 6:30-7:30, Radio Bible class, Dr. William M. Anderson, pastor First Presbyterian church; Bible study and gospel song; 7:30-8:30, service, City temple, Dr. B. P. Fullerton, pastor; 8:30-10, Jack A. Davis, pianist; Jack Bell, tenor, "A Pair of Jacks"; 10-11, Don Bestor's orchestra.

WGES, Oak Park, Ill. (250), 7:40 p. m., the Woodlawn Park Presbyterian church choir; the Baldwin mixed quartet; Lydia Werner, soprano; Veronica Krebs, contralto; Peter Matthews, basso; John Stamford, tenor; Moody Bible institute program; Doc Erendson's orchestra.

WGN, Chicago, Ill. (302.8), 11 a. m., reading of the comics by Uncle Walt; 11:45, Chicago theater organ recital; 12:45 p. m., Chicago theater program; 2-3, Lyon & Healy organ recital; 3-5, Chicago Philharmonic orchestra; 8:15-9:15, Atwater Kent program, WEAF.

WHAD, Milwaukee, Wis. (275), 3:15 p. m., Turnverein Symphony orchestra.

WHAS, Louisville, Ky. (399.8), 10 a. m., St. Boniface Catholic church; 4:30-5:30 p. m., evening choral service, Christ Church cathedral; Ernest Arthur Simon, organist.

WHB, Kansas City, Mo. (365.6), 9:40-10:45 a. m., Linwood Boulevard Christian church; 11:15-12:30 p. m., Independence Boulevard Christian church; 8-9:15, Assembly of God church; 11:15-1 a. m., Linwood theater.

WHO, Des Moines, Iowa (526), 11 a. m., services; 7:30-8:30 p. m., Reese-Hughes orchestra.

WHT, Chicago, Ill. (399.8), 12 n., Sunday dinner sacred concert, vocal and organ; 12:45 p. m. (238), sunshine hour, program for shut-ins and the sick; 1:15, shepherd time for the kiddies; 1:30, Aerial girls program; 1:45, Radio rangers; 2, fellowship program; 2:30, missionary program; 2:45, orchestra concert and afternoon services, Chicago Gospel tabernacle; 5:30, Vesper

KPO TO CELEBRATE THIRD BIRTHDAY

Sunday, January 17

concert; 6, Young Women's council; 6:30, concert, Tabernacle band and choir; sermon, Paul Rader; 9:30, request program; 10:30, Paul Rader and National Radio chapel staff.

WIBO, Chicago, Ill. (226), 2-4 p. m., Chester Newman, baritone; Mildred Perlin, reader; WIBO string trio; 6-8, sacred songs, Walter Preston; Fred Nobel, cornetist; Earl Bigelow, pianist; WIBO trio; 10-12, Hamilton club; Eugene Kammerer, bass; Walter Preston, tenor.

WLIB, Chicago, Ill. (302.8), 5-7 p. m., studio program.

WLS, Chicago, Ill. (344.6), 6 p. m., prelude; 7-7:55, WLS Little Brown church.

WLW, Cincinnati, Ohio (422.3), 9:30 a. m., school, editorial staff of Sunday School Publications, Methodist Book concern; 11, morning worship, Seventh Presbyterian church, Jesse Halsey, minister; 3 p. m., Cincinnati auto show; 4, organ recital, Mrs. Lillian Arkell Rixford; 7:30, services, First Presbyterian church, Dr. Frederick McMillan, pastor; 8:30, the H. & S. Pogue company concert, Walter Esberger, director.

WMBB, Chicago, Ill. (250), 3-5 p. m., Trianon orchestra, Dell Lampe, director; Earl Smith, Tommy Hughes, Scotty Welch, Madison Sisters, popular concert program; 7:40-9, services, Fifth Church of Christ, Scientist; 9-11, Trianon orchestra, Dell Lampe, director; Woodlawn theater orchestra, Armin F. Hand; Billie Allen Hoff, Grace Wells, Walter Duffy, Si Berg, popular program.

WMC, Memphis, Tenn. (499.7), 11 a. m., Second Presbyterian church.

WOAI, San Antonio, Texas (394.5), 11 a. m., services, First Presbyterian church, Rev. P. D. Hill, pastor; 7:45, services, Central Christian church, Rev. Hugh McLellan, pastor.

WOAW, Omaha, Nebr. (526), 9 a. m., Rev. R. R. Brown and his associates; 1:30 p. m., matinee program; 6, Mrs Carl R. Gray; 9, chapel service.

WOC, Davenport, Iowa (483.6), 1-2 p. m., Palmer Little Symphony; Paul J. Vipperman, tenor; 6:30-7, "The Brotherhood of Man," Dr. B. F. Martin; 8:15-9:15, Atwater Kent Radio artists; 9:45-11:45, Palmer Little Symphony.

WOK, Chicago, Ill. (217.3), 1-2 p. m., Bernie Cummins Town club orchestra; Husk O'Hare's Cocoanut Grove orchestra; Harriet Lee, contralto; Herman Sinaiko, violinist; George Allen, tenor; Bob Mokreis, pianist; 6-1:30 a. m., Husk O'Hare's Cocoanut Grove orchestra; Bernie Cummins Town club orchestra; Capitol theater complete musical program; WOK mixed quartet; Herman Sinaiko, violinist; Harriet Lee, contralto; George Allen, tenor; Bob Mokreis, pianist; Bill Hay, bass.

WOQ, Kansas City, Mo. (278), 11 a. m.-12:30 p. m., services; 7-7:45, services.

WOS, Jefferson City, Mo. (440.9), 9:30 a. m., religious services, Rev. Haushalter, pastor; 7:30 p. m., services, First Christian church, Rev. R. M. Talbert, pastor.

WQJ, Chicago, Ill. (447.5), 3-4 p. m., Christian A. Grimm, pianist; Dorothy Paxton, contralto; Jean St. Anne, baritone; Agnes Pringle, violinist; 8-10, Rainbo Gardens orchestra; Fontella trio; Prof. Ascan W. Kittner, pianist; stringed trio; Sheppard Levine, tenor; Helen Reed, accompanist.

WRR, Dallas, Texas (246), 11 a. m., church services; 7:30, church services; 9-10, Mexican artists.

WSAI, Cincinnati, Ohio (326), 3-4:30 p. m., address, Dr. S. Parkes Cadman, pastor of the Central Congregational church, Brooklyn, N. Y.; music, Gloria trumpeters; George Betts, chimer; 7:45, chime concert, Robert Badgley; 8, sermonet, Press Radio Bible Service, Inc.; 8:15-9:15, Atwater Kent Radio hour, featuring a famous grand opera star; 9:15, Union Central Life Insuance company orchestra, Sigmund Culp, director.

WSM, Nashville, Tenn. (282.8), 7:30 p. m., services, First Presbyterian church, sermon by Dr. James I. Vance.

WSUI, Iowa City, Iowa (483.6), 9:15 p. m., familiar hymns, William G. Edmondson, Jr., tenor.

Mountain Time Stations

CFAC, Calgary, Can. (435.8), 11 a. m., First Baptist church, Rev. H. H. Bingham.

KFXF, Colorado Springs, Colo. (250), 7:30-9 p. m., First Methodist church services.

KOA, Denver, Colo. (322.4), 11 a. m., First Congregational church, Rev. Robert Hopkin, pastor; 3 p. m., organ recital, R. H. Mintenauer; Mrs. Bernice W. Doughty, soprano; Jane Ballantyne, contralto; Royden S. Massey, tenor; Dr. Cornelius DeBey, baritone; 7:30, First Congregational church.

Pacific Time Stations

KFI, Los Angeles, Calif. (467), 6:30 p. m., nightly doings; 6:45, sunspot weather forecast; music appreciation chat; 7-8, Aeolian residence pipe organ, Dan L. McFarland, organist; 8-9, classic hour program arranged by Clarabell Patten Wallace; 9-10, Examiner hour; 10-11, Packard Six dance orchestra, Dick Barton, soloist.

KFON, Long Beach, Calif. (232.4), 6-6:30 p. m., organ recital, Brayton's theater; 8-9, service, First Church of Christ Scientist.

KFWB, Hollywood, Calif. (252), 9-11 p. m., late news; Warner Brothers Sunday night movie frolic.

KGO, Oakland, Calif. (361.2), 11 a. m., First Methodist Episcopal church; 3:30 p. m., KGO Little Symphony orchestra; Albert Gillette, bass-baritone; 7:30, First Methodist Episcopal church.

KGW, Portland, Ore. (491.5), 10:25-12 noon, services, First Presbyterian church; 7:30-9 p. m., religious services; First Congregational church; 9-10, concert, Chevrolet Little Symphony orchestra.

KHJ, Los Angeles, Calif. (405.2), 5-5:30 p. m., Roller canary show from Biltmore hotel; 6:30-7, Leighton's Arcade cafeteria orchestra, Jack Cronshaw, leader; 7-7:30, First Methodist Episcopal church; 8-10, program, Martin Music company; Ruth Pitts, soprano; John Martin, concert pianist.

KJR, Seattle, Wash. (384.4), 11-12:30 a. m., church services, First M. E. church, Dr. J. Ralph Magee, pastor; 5-6, Spargur string quartet, chamber music; 7:15-7:30, organ recital, Mrs. Montgomery Lynch; 7:30-9, evening services, First M. E. church, Dr. J. Ralph Magee, pastor; 9-10:30, Puget Sound Savings and Loan association orchestra, Henry Damski, director.

KNX, Hollywood, Calif. (336.9), 2-4 p. m., Park board musical program; 7-8, First Presbyterian church; 8-9, Ambassador hotel concert orchestra, Josef Rosenfeld, leader; 9-10:30, program, Beverly Hills Nurseries, Calmon Luboviski, violinist; Russian string quartet.

KPO, San Francisco, Calif. (428.3), 9:45-10:45 a. m., undenominational and non-sectarian church service; talk, "How We Can Work With God," Dr. S. H. Werlein; bass solos, George W. Lane; improvisation on a familiar theme by Uda Waldrop; 10:45, "Ye Towne Cryer"; 2:30-3:30, program by KPO instrumental trio; 5-6, organ recital by Marshall W. Giselman at the California Palace; 6-6:30, Waldemar Lind and the States restaurant orchestra; 6:30, "Ye Towne Cryer"; 6:35-7:30, Palace hotel concert orchestra, Cyrus Trobbe, director; 8-8:25, Palace hotel concert orchestra, Cyrus Trobbe, director; 8:35-10, Rudy Seiger's Fairmont hotel orchestra.

KPSN, Pasadena, Calif. (315.6), 8:45-9:45 p. m., Maryland artists' ensemble.

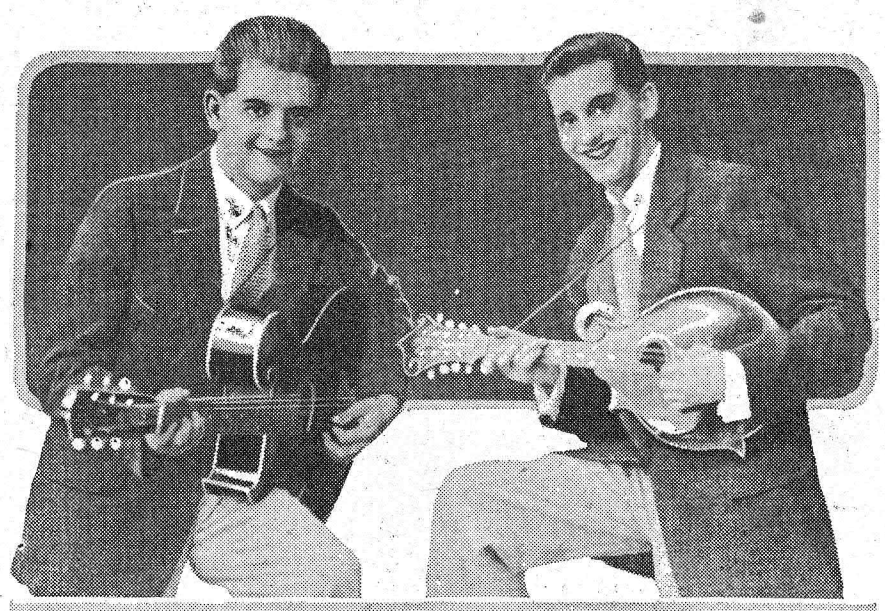
KTAB, Oakland, Calif. (240), 9:45-10:45 a. m., Bible lecture, Prof. E. G. Linsley; 11-12:30 p. m., church service; 7:45-9:30, church service; 9:30-11, after-service concert.

Monday, January 18

Headliners Today

Eastern 8 p. m.	Central 7 p. m.	Mountain 6 p. m.	Pacific 5 p. m.
KSD (545.1) Rader's instrumental quartet.			
WNYC (526) Ice skating races.			
8:30	7:30	6:30	5:30
KSO (241.8) Old time music.			
WHO (526) Simpson Conservatory of Music.			
9	8	7	6
KDKA (309.1) Ruud light opera hour.			
WDAF (365.6) "Iolanthe," opera.			
WLIT (394.5) Stanley hour of music.			
WSM (282.8) Robert E. Lee program.			
WTAG (268) Robin Hood hour of music.			
9:30	8:30	7:30	6:30
KPRC (296.9) Band concert.			
10	9	8	7
WEAF (491.5), WEEI (348.6), WGR (319), WCAE (461.3), WTAG (268), WCCO (416.4) Grand opera, "Romeo and Juliet."			
10:30	9:30	8:30	7:30
WHAZ (379.5) Dixie orchestra.			
WGR (319) "Thoughts with Tunes," novelty program.			
WTIC (475.9) For distant listeners.			
10:45	9:45	8:45	7:45
KTHS (374.8) Old favorite ballads.			
11	10	9	8
WLW (422.3) Popular program.			

The sheik of the ukulele is the title given LeRoy Kullberg at KFWB, Hollywood. He is popular with the ladies whether he is seen or unseen.



The Williamson Brothers, Harold and Leo, above, have grown up with Radio. Look at the handsome young men they have become. These wandering minstrels of the air can never be found at the same station very long. The last station they visited was WOAW. No wonder Roxy's gang is popular. Here is Beatrice Belkin, left, whose colorature soprano voice is a regular feature of the group when broadcasting over the WEAF chain.

Monday, silent night for: CHIC, CNRA, CNRC, CNRE, CNRM, CNRO, CNRR, CNRT, CNRV, CNRW, KFDM, KFEQ, KFMQ, KFMX, KFWA, KHJ, KLDS, KYW, PWX, WBBM, WBCN, WCAD, WCBD, WEAO, WEBH, WEBJ, WEBW, WENR, WGBS, WGES, WGN, WHAS, WHT, WIBO, WIP, WJAZ, WJJD, WKAQ, WLIB, WLS, WMAQ, WMBB, WOAI, WOC, WOK, WORD, WQJ, WRC, WREO.

Eastern Time Stations

CKAC, Montreal, Can. (411), 1:45 p. m., Windsor hotel trio.

CKNC, Toronto, Can. (356.9), 8-11 p. m., CKNC Little Symphony orchestra, Charles E. Bodley, director; Aeolian vocal quartet; Hazel Hall VanderVoort, soprano.

KDKA, Pittsburgh, Pa. (309.1), 7:15 a. m., 8 morning exercises; 5:45, p. m., children's period; 6:30, dinner concert; 8:15, current events, Dr. Elmer Graper; 9, Ruud light opera hour.

WAHG, Richmond Hill, N. Y. (315.6), 12:03 p. m., Grebe matinee trio; 7:30 p. m., "A Kiss at Xanadu," Maude Mason; 7:45, Davison Sisters; 8, Synchrophase trio; 8:30, Horace J. Taylor, reader; 9:30, "The Land of the Pharaohs," Major Dent Atkinson; 9:45, Jean McGregor, soprano; 10:20, Joe Zimmerman's orchestra; 12, popular program.

WBBR, New York, N. Y. (272.6), 8 p. m., Irene Kleinpeter, soprano; 8:10, worlds news digest; 8:20, George Twaroschk, violinist; 8:30, Bible instruction from "The Harp of God"; 8:40, Irene Kleinpeter, soprano; 8:50, George Twaroschk, violinist.

WBZ, Springfield, Mass. (333.1), 6:30 p. m., KDKA; 7:30, Hotel Lenox ensemble; 8, Capitol theater orchestra; 8:30, "Theatrical Gossip," Samuel Wren; 9, Aleppo Drum corps; 9:30, program, courtesy Humbert F. Tosi.

WCAP, Washington, D. C. (468.5), 7 p. m., studio program; 7:45, women's industrial meet; 9, A. and P. Gypsies, WEAF; 10, opera, New York.

WCAU, Philadelphia, Pa. (278), 8 p. m., Radio talk, Wilson N. Durham; 8:15, Carolyn Thomas, soprano; 8:45, Barry O'Moore and the 437 American Radio quartet; 9:10, Nokol concert; 9:30, Midget Miller and Will Morrisey; 10, Madame Cecile, concert violinist; 10:30, Parodians dance orchestra.

WCX, Detroit, Mich. (516.9), 6 p. m., dinner concert, Book-Cadillac hotel; 8, studio concert.

WEAF, New York, N. Y. (491.5), 6:45-7 and 7:20 a. m., Tower health exercises; 10:45-12, Betty Crocker Gold Medal Flour home service talk; musical program; "A Cooking Corner for Children," Mrs. Arthur Griswold; Columbia university lecture on "Physical Care of Infants and Small Children and Health of Preadolescent Children"; 4-5, Mrs. Lawson Turner, alto; children's stories by Catherine West Hallett; "The Place of the Smaller College in the Educational World," Dr. Murray Barrlett; 6-12, dinner music from Rose room of Hotel Waldorf-Astoria; Columbia university lecture; lullaby lady; Pop concert; Tower health talk; music, A. and P. Gypsies; grand opera, "Romeo and Juliet," WEAF; Ben Bernie and his orchestra from Hotel Roosevelt.

WFI, Philadelphia, Pa. (394.5), 10:40, Betty Crocker; 1 p. m., tea room orchestra; 3, "Four-footed Heroes," Ed N Skipper; talk, Benjamin Franklin's birthday; 6:30, Bellevue Stratford concert orchestra; 7, Bellevue Stratford dance orchestra.

WGBS, New York, N. Y. (315.6), 10 a. m., timely talks; 10:30, Jack Cohen, jazz pianist; 10:20, Lillian Regan, fashion talk; 10:40, decorations, Dorothy Herzig; 10:50, Jack Cohen, jazz pianist; 1:30 p. m., Frances Callo, soprano; 2, Herman Goldberg, violinist; 3, interview with Adelaide Stedman; 3:10, duets, Florence Loftus and Theodore North; 3:20, talk, Blair Niles; 3:30, duets; 3:40, talk, Florence Kelley; 6, Uncle Geebee; 6:30, Premier club orchestra; 7, talk; 7:10, orchestra.

WGCP, New York, N. Y. (252), 11:45 a. m., race results; 3 p. m., Ona Welsh, pianist; 3:20, LeRoy Montesanto, tenor; 3:35, Eva Rothenberg, pianist; 3:50, Jack Davis; 4:15, Sherman and Pollack; 4:30, Uncle Robert's pals; 5:15, Judith Roth, soprano; 8:30, Loomis orchestra; 9:15, talk to boys, Philip Wolf; 9:55, studio program; 9:45, Bob Ward, three little Wards; 10, orchestra; 11, Connie's orchestra.

WGR, Buffalo, N. Y. (319), 2:30 p. m., WGR afternoon program; 6:30, Mountain View orchestra; 8, Buescher's Saxophone band; 9, program, Wheat's Ice Cream company; 10, vocal recital, featuring soprano and baritone; 10:30, "Thoughts with Tunes," novelty program by Gertrude Hutchinson; 11-1 a. m., Vincent Lopez' Hotel Statler dance orchestra, Harold Gieser, director.

WGY, Schenectady N. Y. (379.5), 2 p. m., Asia restaurant orchestra; 2:30, music; household talks, cooking lesson, Jessie B. Lane; "What Can Be Done With One Recipe," Reena Roberts; 6:30, dinner program, Porter E. Potts' Hotel Van Curler orchestra, Schenectady; 7, agricultural program, news items; 7:45, Hebrew music, WGY orchestra; Lillian Rosenthal Leavitt, soprano; "Literary Appreciations," William L. Widdemer.

WHAR, Atlantic City, N. J. (275), 2 p. m., Seaside hotel trio; 7:30, talk; 8, Seaside hotel trio; 11:30, dance orchestra.

WHAZ, Troy, N. Y. (379.5), 9 p. m., program, boys of Berkshire Industrial school; 9:30, "Methods of Testing Engineering Materials," Prof. T. R. Lawson; 10:30, Dixie orchestra, Catskill, N. Y.

WIP, Philadelphia, Pa. (508.2), 6:45 a. m., setting-up exercises; 7, setting-up exercises; 1 p. m., Gimbel tea room orchestra; 3, artist recital, Philadelphia Conservatory of Music, Hendrik Ezerman, director; Anna Speck, soprano; Flora Ripka, pianist; 4, market hints for housewives; 6:05, Benjamin Franklin concert orchestra; 7, Uncle Wip's bedtime stories; dancing lesson by Miss Miller.

WKAR, East Lansing, Mich. (285.5), 7:15-7:30 p. m., "Table Setting," Josephine Hoffarth; 7:45-8, "Renovating Clothes," Anna Bayha; 7:30-7:45, "Time Schedules," Edna V. Smith, Irma Gross; 8-9, Michigan State Union orchestra.

WLIT, Philadelphia, Pa. (394.5), 12:02 p. m., daily almanac; Stanley theater organ recital; Arcadia cafe concert orchestra; 2, Arcadia cafe concert orchestra; 7:30, Dream Daddy's bedtime stories; 9, Stanley theater hour of music; movie review, James A. Nassau; 10, Arcadia cafe dance orchestra; 10:30, vaudeville features, Gay's Knickerbocker theater.

WMAK, Lockport, N. Y. (265.5), 7:30-8:30 p. m., Murray Whiteman and his serenaders; 8:30-9, New Olympic theater.

WNYC, New York, N. Y. (526), 6:30 p. m., German lessons; 7:35, dance program; 8-10, Metropolitan Indoor Ice Skating championship races; 10:10, lecture.

WOO, Philadelphia, Pa. (508.2), 11 a. m., organ recital; 12:02 p. m., Golden's crystal tea room orchestra; 4:45, organ recital; 7:30, Ritz Carlton concert orchestra; 8, pop concert; 9, A. and P. Gypsies; 10, grand opera, "Romeo and Juliet"; 11, Ritz Carlton dance orchestra.

WOR, Newark, N. J. (405.2), 2:30-3 p. m., Oreste's Queensland club; 3:45, talk; 6:15, "Words Often Mispronounced"; 6:17, sports, Bill Wathey; 6:30-7:15, Jacques Jacobs Hotel Shelton ensemble; 8-8:30, current topics lecture, H. V. Kaltenborn; 8:30-9:30, Al Reid's hour, Branford theater; 11-12 Irving Aronson's Crusaders.

WRC, Washington, D. C. (468.5), 10 a. m., women's hour; 12 n., organ recital, Homer L. Kitt studios; 1 p. m., Shoreham hotel orchestra; 4:30, musicale.

WRVA, Richmond, Va. (256), 8:10 p. m., Fourrose jubilee quartet, spirituals and cotton field melodies; 8:45, Pat Binford and Bright Keck, popular entertainers; 9, travelogue, Dr. Douglas Freeman; 9:10, Pat Binford and Bright Keck, popular entertainers; 9:30, Woman's choral club of Richmond, solos and instrumental trio, violin, piano, cello, Paul Saunier, director; 11 Carry Me Back to Old Virginny.

WTAG, Worcester, Mass. (268), 10:30 a. m., musical selections; 10:45, talk, Marjorie Woodman; 12:05-2 p. m., WTAG orchestra; 7, science talk, Fred D. Aldrich; 7:15, twilight scouts; 7:45, scout announcements, Joseph Wadleigh; 8, "The Cockerel Futurity Test—a Method of Progeny Testing," W. C. Monohan; 9-10, Robin Hood hour of music, Arthur Crosbie, director; 10-11, WEAF Grand Opera company.

WTAM, Cleveland, Ohio (389.4), 12:15-1:15 p. m., Austin Wylie's Golden Pheasant orchestra; 6-7, Guy Lombardo and his Royal Canadians; 8-11, Willard symphony; 11-12, Austin Wylie's Golden Pheasant orchestra; 6-7, Guy Lombardo and his Royal Canadians; 8-11, Willard symphony; 11-12, Austin Wylie's Golden Pheasant orchestra; 12-1, Guy Lombardo and his Royal Canadians.

WTIC, Hartford, Conn. (475.9), 11 a. m., talk, citizenship, Professor Sigmund Adler; 11:15, fashion talk; 11:30, WTIC's housewives' forum, Mrs. J. M. Dean; 12:05, luncheon music; 6:30, the children's entertainer, Mother Goose; 6:50, dinner concert; 9, popular period; 9:30, dance orchestra; 10:30-12, studio program for distant listeners.

WWJ, Detroit, Mich. (352.7), 9:30 a. m., tonight's dinner; special talk, woman's editor; 12:05 p. m., Jules Klein's Hotel Statler orchestra; 3, Detroit News orchestra; 6, dinner concert; 8, News orchestra and soloists.

Central Time Stations

CKY, Winnipeg, Can. (384.4), 8 p. m., University lecture; 9, French concert, M. Benoist, director; Yvonne Thibault; 11, weekly revue, Metropolitan theater.

KFAB, Lincoln, Nebr. (340.7), 8:30-10:30 p. m., Mono Motor Oil Cans; Belshaw's orchestra; Cow Bell boys; Gloomy Gus, entertainer; Mike Kopec, pianist; Ed Ellingson, original songbird.

KFKU, Lawrence, Kan. (275), 7 p. m., "The Work of the Old-Time Railway Locating Engineer," Prof. Frank A. Russell; 7:15, School of Fine Arts (Kansas University) string trio; Marjorie McKelvey, mezzo-soprano; 7:40, sport question box, Athletic Service bureau, John W. Bunn, director; 7:55, campus news.

KFKX, Hastings, Nebr. (288.3), 1 p. m., "Haying the Brood Sows—It's Good Practice"; Ramblers orchestra, Dick Rutherford, director; 5:30, KDKA dinner concert; 9, musical program, J. H. Riffe.

KFMQ, Fayetteville, Ark. (299.8), 7:30 p. m., Farmers' night; "Farm Filosofy," Cy Adams; "Fertilizer for Cotton," D. J. Burleson; "Preparation of the Seed Bed," J. H. Heckman; "Use of Small Skins and Hides," Flora Ferril; "Start the Year Right—Do Your Food Habits Need Changing?" Gertrude Conant; "Power on the Farm," W. B. Miser.

KFUO, St. Louis, Mo. (545.1), "The Young People and Their Companions," Prof. Walter A. Maier.

KFVE, University City, Mo. (240), 9:15 p. m., amusement review, Romaine Fielding; Orchestra Romaine.

KMA, Shenandoah, Iowa (252), 11:30-12:30 p. m., noonday rural program; talk, Earl E. May; travelog, G. H. Van Houten; musical saw, J. A. Showers; music; news; 6-7, Pollyana stories, Mrs. Nickols; news; music; 9-11, Farnham trio; How-Do-You-Do boys.

KMMJ, Clay Center, Nebr. (228.9), p. m., Old Trusty orchestra; 1:30, factory and office program.

KPRC, Houston, Tex. (296.9), 12 n., Frank Tilton, blind wonder pianist; 5:30 p. m., kiddies' hour, Uncle Judd; 7:30, Malon Gunn's Texas Ramblers; 8:30, Humble Oil & Refining company band.

KSAC, Manhattan, Kan. (340.7), 9-9:25 a. m., music, inspirational talks, agricultural primer, calisthenics; 9:55-10:25, readings, question box; today's meals; 12:35-1:05 p. m., readings, question box; "Germination and Reparation," H. R. Sumner; "Barley Diseases," D. R. Porter; 4:30-5, Third Year English literature, High School credit; 6:30-7:30, opportunity talks; book review, current events; extension credit course, sociology; "Industrial Production and Agricultural Prosperity," R. M. Green; "Insects Common to Sorghums and Their Control," J. W. McColloch.

KSD, St. Louis, Mo. (545.1), 7 p. m., Fur hour, Rader's instrumental quartet; 9, artist concert Mrs. John E. Stocker, soprano.

KSO, Clarinda, Iowa (241.8), 7-7:30 p. m., farm talks; 7:30-9, old-time music, Allen Blair, director.

KTHS, Hot Springs National Park, Ark. (374.8), 9-9:45 p. m., semi-classical hour, New Arlington orchestra; 9:45-10, old favorite ballads, Lawson Reid, organist; 10-12, Rainbo Gardens 555 serenaders.

KYW, Chicago, Ill. (536), 6:30-7 a. m., morning exercises, Paul A. Leonhardt; 7:30, morning family worship, Y. M. C. A; 11:15, talk, John C. Cutting; 11:35, table talk, Mrs. Anna J. Peterson, Peoples

FLORENCE AUSTRAL, CECILIA HANS

Index to Popular Concerts

Saturday, January 16

Eastern	Central	Mountain	Pacific
7:30 p. m.	6:30 p. m.	5:30 p. m.	4:30 p. m.
WFAA.			
8	7	6	5
WLS.			
9	8	7	6
WBBM, WEAF, WENR, WGBS, WLS, WMAQ, WNYC.			
10	9	8	7
KFAB, KPRC, WBBM, WENR, WGN, WLS, WMBB, WREO.			
11	10	9	8
KFVE, KFWB, KNX, KTHS, WBBM, WMBB, WOK, WQJ, WRC.			
12	11	10	9
KNX KOIL, KPO, KPRC, WBBM, WLS, WOAW, WOK, WQJ.			
1 a. m.	12 m.	11	10
KFWB, WDAF, WBBM, WEBH, WENR, WOK, WQJ, WSAI.			
2	1 a. m.	12 m.	11
KNX, WBBM, WENR, WQJ.			

Sunday, January 17

Eastern	Central	Mountain	Pacific
9 p. m.	8 p. m.	7 p. m.	6 p. m.
WBBM.			
10	9	8	7
WBBM, WMBB.			
11	10	9	8
WMBB.			
12	11	10	9
KNX, KTHS.			
1 a. m.	12 m.	11 p. m.	10
KFWB, WBBM.			
2	1 a. m.	12 m.	11
KFWB.			

Monday, January 18

Eastern	Central	Mountain	Pacific
7 p. m.	6 p. m.	5 p. m.	4 p. m.
WBBM, WFAA, WOAW.			
8	7	6	5
WGBS.			
9	8	7	6
WCAU, WEAF, WGR, WKRC, WOK.			
10	9	8	7
KFAB, WGR, WKRC, WMCA, WOAW, WOK, WSOE.			
11	10	9	8
KFAB, KFVE, WOK.			
12 m.	11	10	9
KLX, KNX, KOIL, WHO, WOK.			
1 a. m.	12 m.	11	10
KFWB, KLX, WAHG, WDAF, WHT, WKRC, WOK.			
2 a. m.	1 a. m.	12 m.	11
KFWB.			

Tuesday, January 19

Eastern	Central	Mountain	Pacific
7 p. m.	6 p. m.	5 p. m.	4 p. m.
WMCA, WOAW.			
8	7	6	5
WBBM, WEAR.			
9	8	7	6
WBBM, WEAR, WBZ, WSB.			
10	9	8	7
WBBM, WMBB, WOAW.			
11 p. m.	10 p. m.	9 p. m.	8 p. m.
KFVE, KFWB, KNX, WBBM, WHT, WMBB, WOK, WQJ.			
12 m.	11	10	9
KNX, KOIL, KPO, WBBM, WFAA, WKRC, WMC, WOK, WQJ.			
1 a. m.	12 m.	11	10
KFWB, KNX, WFAA, WHT, WOAW, WOK, WQJ.			
2	1	12 m.	11
KFWB, WQJ.			

Wednesday, January 20

Eastern	Central	Mountain	Pacific
8 p. m.	7 p. m.	6 p. m.	5 p. m.
KFNF, WAHG, WEBJ, WEEI, WMCA.			
9	8	7	6
WBBM, WEBJ, WGCP, WNYC.			
10	9	8	7
KFAB, KPRC, WBBM, WGCP, WHO, WMBB.			
11	10	9	8
KFAB, KFVE, KGW, KPO, KWSC, KYW, WBBM, WHN, WMBB, WOK, WQJ.			
12 m.	11	10	9
KFWA, KFWB, KNX, KYW, WOK, WQJ, WSAI.			
1 a. m.	12 m.	11	10
KNX, KYW, WBBM, WHT, WOK, WQJ.			
2	1 a. m.	12 m.	11
KFWB, KNX, WBBM, WOK, WQJ.			

Thursday, January 21

Eastern	Central	Mountain	Pacific
8 p. m.	7 p. m.	6 p. m.	5 p. m.
WCAE, WEAF, WJAR, WMC, WOC, WSAI.			
9	8	7	6
WBBM, WHAD.			
10	9	8	7
KMA, WBBM, WEEI, WHAD, WHN, WMBB, WMC, WNYC, WOAW, WSOE.			
11	10	9	8
KHJ, KMA, KYW, WBBM, WMBB, WOK, WQJ.			
12 m.	11	10	9
KHJ, KTAB, KOIL, WBBM, WDAF, WEAA, WKRC, WOC, WOK, WQJ.			
1 a. m.	12 m.	11	10
KFWB, KHJ, WHT, WOK, WQJ.			
2	1 a. m.	12.m.	11
KNX, WQJ.			

Friday, January 22

Eastern	Central	Mountain	Pacific
8 p. m.	7 p. m.	6 p. m.	5 p. m.
WGCP, WJR.			
9	8	7	6
WBBM, WGR, WLS.			
10	9	8	7
KFAB, WBBM, WMC, WDAF, WHAD, WMBB, WOAW, WSOE.			
11	10	9	8
KFVE, KFWA, KHJ, KLX, KYW, WMBB, WOK, WQJ.			
12 m.	11	10	9
KFWB, KHJ, KNX, KOIL, WMC, WOK, WQJ.			
1 a. m.	12 m.	11	10
KFWB, KHJ, WDAF, WHT, WOK, WQJ.			
2	1 a. m.	12 m.	11
KNX, WQJ.			

The Atwater Kent artists to broadca violinist, left, and Florence Austral, s are well known both in New York and in the Straw" has lately been revived the air as "Sweet Georgia Brown." orchestra, below, have become popular practice the barn dance in

Monday, January 18

Gas company; 12:05 p. m., concert; 1, luncheon concert, Congress hotel; 6, dinner musical, KDKA, 7:05, bedtime story, Walter Wilson.

WAMD, Minneapolis, Minn. (243.8), 12 m., Coilla Dare, contralto; Bee Lowell, accompanist; Grace Norman ,soprano; Norvy Mulligan, pianist; 6:30, WAMD traffic squad, Earle Buell, recruiting officer; 7:05, talk; 7:10, Garrick theater symphony orchestra, Fred Heiseke, director; 7:20, classical program; William Erickson, tenor; Amy Hedburg, accompanist; Edna Weese, soprano; Isabelle Olson, violinist; Lila Logan, accompanist; 11, Skyrocket frolic, George Osborn's Hotel Radisson Skyrockets.

WBBM, Chicago, Ill. (226), 4-6 p. m., Valentino inn orchestra, artists; 6-7, Harold Anderson, piano-accordionist; WBBM string trio artists.

WCCO, Minneapolis-St. Paul, Minn. (416.4), 10:45 a. m., Betty Crocker; 12 n., Donaldson's orchestra; 2 p. m., woman's hour; 2:30, afternoon concert; 4, readers' club, Mrs. Walter Stevens; 5:30, children's hour; 6, talk, Benjamin Franklin; 6:30, Gordon Cooke ensemble; 8, University of Minnesota program; 9, classical program.

WDAF, Kansas City, Mo. (365.6), 10:45-11 a. m., Betty Crocker, home service talk; 6-7 p. m., Tell-Me-a-Story lady; dialect readings, C. M. Ragan; The Trianon ensemble; 8-9:30, "Iolanthe," Gilbert Sullivan opera, Marie Whitney, director; 11:45-1 a. m., Plantation players, Hotel Muehlenbach; selections, Ted Meyn; Wendell Hall, the "Red-Headed Music Maker."

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

WFAA, Dallas, Tex. (475.9), 12:30-1 p. m., DeWitt McMurray in a medley of pathos, philosophy and fun; 4:30-5, Cyrus Barcus, cornetist; 6:30-7:30, Artie Collins and his orchestra; 8:30-9:30, Sears-Roebuck Agricultural Foundation program

WGN, Chicago, Ill. (302.8), 11-11:30 a. m., household hints; 11:30-12 n., fashion discussion; 12-12:40 p. m., public service period; 12:40-2:30, luncheon concert, Drake concert ensemble and Blackstone string quintet; 2:30-3, Lyon & Healy artists' series; 3-3:25, public service period; 3:25-3:30, "Port o' Missing Men"; 3:30-4:15, tea time music, Marshall Field's tea room orchestra; 4:30-5, organ recital, Edward Benedict; 5:30-5:57, Skeezix time; 6:30-7, dinner concert, Drake concert ensemble and Blackstone string quintet.

WGST, Atlanta, Ga. (270), 9-10 p. m., program, Georgia Tech glee club, Arthur Edge, Jr., president.

WHAD, Milwaukee, Wis. (275), 11 a. m., pianolog, Andy Hertel; 4 p. m., Trixy Ann Troy, ukulele; 6:15-7, Bill Benning's Milwaukee Athletic club orchestra; 8-10, Marquette university studio program.

WHAS, Louisville, Ky. (399.8), 1-2 p. m., Royal Peacock orchestra; 3-3:30, Mrs. Myrtle Fulks Zahn, Jr., organist; 4-5, musical selections, Harry C. Currie, director; editorials.

WHB, Kansas City, Mo. (365.6), 2-3 p. m., ladies' hour, Sweeney Radio trio; 7-8, Milo Finley trio; Sweeney Radio orchestra.

WHO, Des Moines, Iowa (526), 7:30-9 p. m., program, Dean Harvey, director; Simpson Conservatory of Music program, Indianola, Iowa; 11-12, Bankers Life Corn Sugar orchestra.

WHT, Chicago, Ill. (399.8), 10 a. m., Jean Sargent's program, woman's club; Borden health talk, Jelke Good Luck Girl; Helen Raub, pianist; John Clark, baritone; 10:45, Betty Crocker home service; 11, special studio features; 12 p. m., Al Carney's organ hour; 1, special studio program, Grayling's string trio; 6, classical program, Linner organ recital; Helen Raub, pianist; Grayling's string trio; Pat Barnes; Helen Axtel, soprano; John Clark, baritone; 7, Kitchen Klenzer Klassics.

WIBO, Chicago, Ill. (226), 10-11 a. m., shoppers' bureau, Grace Viall Gray; 2-4 p. m., Ted Fiorito, pianist; Dan Russo, violinist; Victor Young, violinist.

WLS, Chicago, Ill. (344.6), 12 m., WLS studio trio.

WLW, Cincinnati, Ohio (422.3), 7:30 a. m., exercises, William Stradtman, Y. M. C. A.; 8, morning devotions, auspices of Parkway Y M. C. A.; 12:05 p. m., religious service, Rev. George H. Kase; 4, children's hour, pupils of Leo Stoffregen; 6:30, special theatrical feature; 7, dinner hour concert, Hotel Gibson, Robert Visconti, director; 7:30, Y M. C. A. basketball question box; 7:40, Hotel Gibson concert; 8, the Cincinnati Times-Star program, William J. Kopp, director; 10, popular program, Cincinnati Post, Bill Schulther's orchestra.

WMAQ, Chicago, Ill. (447.5), 1 p. m., Radio farm school; 2, shut-in program; 4, mothers in council; 4:30, "Foibles of the Moment", Mrs. Graham Aldis; 4:40, Glenn Dillard Gunn school of music; 5, children's games, Glenn Adams; 5:15, Topsy-turvy time; 6, Chicago theater organ recital; 6:30, Hotel LaSalle orchestra; 6:40, family altar league.

WMC, Memphis, Tenn. (499.7), 8:30 p. m., Kathleen Graves.

WNAD, Norman, Okla. (254), 12:30 p. m., university girls quartet, Louise Aggers, first soprano; Emmalu Aggers, second soprano; Mary Corinne Woodard, first alto; Irene Croom, second alto; Mrs. R. H. Richards, accompanist; 12:50, "History of Oklahoma," Dr. E. E. Dale; 3:30, Sooners; 7:30, "The Driving Power of Thought," Dean W. W. Phelan; 7:40, "Why We Go to School," Dr. J. W. Scroggs; 10:30, Ramblers.

WOAI, San Antonio, Texas (394.5), 3 p. m., musical program.

WOAW, Omaha, Nebr. (526), 12:45 p. m., Randall's Royal Fontenelle orchestra; 6, classical; 6:15, popular song period; 6:40, insurance talk, Daniel D. Mackin; 6:50, Randall's Royal Fontenelle orchestra; 9, de luxe program.

WOC, Davenport, Iowa (483.6), 12:15-12:25 p. m., "Haying the Brood Sows; It's Good Practice,", Prof. John M. Evvard; 3-3:30, home management schedule, Aunt Jane; 5:45-6, chimes.

WOS, Jefferson City, Mo. (440.9), 8 p. m., Missouri State Farmers' week, music, addresses.

WQJ, Chicago, Ill. (447.5), 11-12 m., "Baking Talk," Cleve Carney; "Colorado," Mrs. E. Tolman East; 3-4 p. m., "Table Setting and Etiquette," Helen H. Downing; "The Care of the Skin," Madame Huntingford.

WRR, Dallas, Texas (246), 12-1 p. m., Hartwell Jones, piano, ukulele, voice; Bill Davidson, singer; 5:15, bedtime story; 6-7, dinner hour concert, Jack Gardner and his orchestra; 8-9, artists' concert; directed by Emmet Peck, violinist; 11-12, novelty program, featuring Virgil Whitworth, xylophone and theatrical talent.

WSAI, Cincinnati, Ohio (326), 10-12 p. m., community program; symphony orchestra and soloists.

WSB, Atlanta, Ga. (428.3), 8 p. m., Biltmore salon orchestra; 10:45, entertainment.

WSM, Nashville, Tenn. (282.8), 6:30 p. m., concert, Beasley Smith and his orchestra, Andrew Jackson hotel; 7, bedtime story interlude; 8, Robert E. Lee, program; 10, program, Scottish Rite, I. Milton Cook, director.

WSUI, Iowa City, Iowa (483.6), 12:30 p. m., Harry Thatcher, Jr., pianist; "Consider School Costs," Dr. Harry Greene; 8, Mrs. Louise Gibbons Sueppel, pianist.

Mountain Time Stations

CFAC, Calgary, Canada (435.8), 8 p. m., studio program.

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

KFXF, Colorado Springs, Colo. (250), 8:30 p. m., musical selections; 8:45-9, educational talk; 9-10:30, dance program, Warner Stone's Columbians.

KOA, Denver, Colo. (322.4), 12:15 p. m., Rialto theater musicale; 6:30, Brown Palace string orchestra; 7:30, sandman's hour, H. G. Knight; 8, Spanish lesson, Prof. Amanda Lopez Knecht; KOA orchestra; 9, studio players; 9:30, Ina Rains, dramatic soprano; Franklin Hornaday, tenor.

KOB, State College, N. M. (348.6), 7:30-8:30 p. m., "Suiting the Crop to the Soil," Prof. H. V. Jordan; "Dairying," Prof. O. C. Cunningham.

Pacific Time Stations

KFI, Los Angeles, Calif. (467), 5:30-6 p. m., Examiner matinee; 6, nightly doings; 6:15, KFI's Seeing California; 6:30, vest pocket program; 6:45, Radiotorial period; 7-8, Screen Artists' string quartet; 8-9, studio program; 9-10, program, Walter M. Murphy Motors company, with KPO; 10-11, Examiner hour.

KFON, Long Beach, Calif. (232.4), 4:30-5 p. m., amusement bulletin; 6-6:30, organ recital, Brayton's theater; 8-9, Press-Telegram program, presenting Community Service entertainment; 9-10, Ardys Anderson musical hour.

KFWB, Hollywood, Calif. (252), 5-6 p. m., children's hour, Big Brother of KFWB; 7-8, microphone brevities; 8-9, program, Globe Ice Cream and Weber Baking companies; 9-10, program, Starr Motor Car company; Million Dollar Four dance orchestra; Ashley sisters; 10-11, Warner Brothers frolic, direction Charlie Wellman.

KGO, Oakland, Calif (361.2), 10:40 a. m., classroom instruction; "Preparation of Booklets," Cora Boone; 3-4 p. m., interpretation of the classics, Wilda Wilson Church; Josephine Lind, soprano; Hazel Weimer, accompanist; Ralph L. Cavanagh, baritone; 5:30-6, Aunt Betty stories; 6-6:55, twilight concert, Wiley B. Allen company studio; 8, farm program; "Chats About New Books," Joseph Henry Jackson; "Better English," Wilda Wilson Church; "The Mother Who Worried, the Father Who Nagged, and the Children Who Wouldn't Be Good," Dr. Nash; "Income Tax," John L. Flynn.

KGW, Portland, Ore. (491.5), 7:15 a. m., physical culture exercises; 12:30-1 p. m., concert, Rose City trio; 6-7, dinner concert; 8-9, concert, Willys-Overland Pacific company; 9-10, concert.

KJR, Seattle, Wash. (384.4), 10:30-11:30 a. m., music, Cornish school; talk, "Weaving", Mrs. Christine Hauser; "Flashes of Fifth Avenue", Gladys G. Miller; 1-2:30, organ recital, Columbia theater; "What to Prepare for Tonight's Dinner," Bernice Redington; 6-6:30, what's doing at the theaters; 6:45-7, the box office, Seattle theaters' doings; 7-8:30, Sears Roebuck and company program, Aunt Bunny, the story lady; Mendelssohn trio; 8:30-10, studio program.

KMTR, Hollywood, Calif. (238), 5-6 p. m., home hour with Mammy Simmons, Walter Benson, Helen Frances Levy, Billy Henderson, Betty McKay; 7:15, Y. M. C. A. hour; 8-10, Turner orchestra, Loren Powell, director; Tom Mitchell, baritone; 10-11, Starr Piano company studio.

KNX, Hollywood, Calif. (336.9), 5-5:30 p. m., Sunny Jim's story; 5:30-6:15, Wurlitzer pipe organ studio; Town Tattler; 6:15, travel talk, W. F. Alder; 6:30-7, Atwater Kent concert orchestra; 7-7:30, Mutual Motors mirth contest; 7:30-8, program, Columbia Outfitting company; 8-9, program, L. W. Stockwell company; 9-10, program, Ward Heater company; 10-11, Goodrich Silvertown Cord dance orchestra; Lilyan May Challenger, contralto; 11-12 m., Ambassador hotel dance orchestra.

KOAC, Corvallis, Ore. (280.2), 6:50 p. m., musical selections; 7, agricultural question box; 7:10, "Cost of Range Cattle Production," E. L. Potter; 7:30, "Vegetable Varieties, Seeds and Plants," A. G. Bouquet; 7:45-8, "Oregon's Agricultural Situation," R. S. Besse.

KPO, San Francisco, Calif. (428.3), 7-7:30, 8 a. m., daily dozen exercises; 10:30, "Ye Towne Cryer"; 1-2, Rudy Seiger's Fairmont hotel orchestra; 2:30-3:30, matinee program; 5:15-6:15, children's hour stories by Big Brother; 6:30-6:40, "Ye Towne Cryer"; 6:40-7, Waldemar Lind and the States restaurant orchestra; 7-7:30, Rudy Seiger's Fairmont hotel orchestra; 8-9, Wurlitzer organ recital, Uda Waldrop; 9-10, program, for Walter M. Murphy Motor Car company from KFI; 10-11, Jack Coakley's Cabirians.

KTAB, Oakland, Calif. (240), 9-9:30 a. m., prayer service, Rev. E. L. Spaulding; 4-5 p. m., women's club notes; 8-10, Western States Life Insurance company.

KWSC, Pullman, Wash. (348.6), 7:30-9 p. m., string trio; Norma Sparlin, pianist; Evelyn Sparlin, violinist; Margaret McLechlan; Kathro Aucutt, vocal solos; "Making Our Thinking Count," Dr. F. F. Nalder; "Contributions of Science to the Diary Industry," "Mechanical Refrigeration," E. V. Ellington; "Investments," Joseph Demmery; "Lines for Stout and Slender Women," Mary Olive Howey; readings, Audrey Savage.

Tuesday, January 19

Headliners Today

Eastern	Central	Mountain	Pacific
8:30 p. m.	7:30 p. m.	6:30 p. m.	5:30 p. m.
KDKA (309.1) Tamburitza orchestra.			
WHAS (399.8) Zoeller's Melodists.			
9	8	7	6
WCBD (344.6) Organ, mandolin and guitar band.			
WHB (365.6) Cowboy band.			
9:30	8:30	7:30	6:30
WJZ (454.3), WGY (379.5), WBZ (333.1), KDKA (309.1), KYW (535.4), WRC (468.5) Mass. Tech. dinner.			
11	10	9	8
KGO (361.2) Selections from opera, "Martha."			
12:45 a. m.	11:45	10:45	9:45
WDAF (365.6) Wendell Hall.			
12:59	11:59	10:59	9:59
KLDS (441) Midnight program.			
1	12 m.	11	10
KFI (467) Packard ballad hour.			
WOAW (526) Rialto Alarm.			

Tuesday, silent night for: CFCA, CHIC, CKNC, CKY, CNRC, CNRE, CNRM, CNRO, CNRW, CNRT, KFAU, KFKX, KFKU, KFMQ, KFUO, KFWA, KOA, KOAC, KOB, KUOM, KWSC, PWX, WAHG, WAMD, WBBR, WCAD, WCAP, WGCP, WGST, WHAD, WHAZ, WJAD, WJAZ, WKAF, WKAQ, WOI, WRVA, WSM, WSUI, WTAM, WTIC.

Eastern Time Stations

CKAC, Montreal, Can. (411), 7 p. m., talks with the kiddies; 7:15, Windsor hotel dinner hour; 8:15, special; 10:30, Windsor hotel dance program; hockey reports.

CNRA, Moncton, N. B. (291), 6:30 p. m., bedtime stories; 7, juvenile program, Professor C. M. Wright, director; 8, studio program, operatic selections; Mrs. Irvine Malcolm, Mrs. Harold N. Price, Mrs. R. L. Steeves, F. S. Wilkins, A. H. Lindsay, Frank Eliot and Walter Neal; 10, CNRA orchestra.

KDKA, Pittsburgh, Pa. (309.1), 7:15 a. m., 8, morning exercises; 12:20 p. m., "Personal Adjustment in the Family, Unseen Pitfalls that Confront Us," Roswell Johnson; 5:45, children's period, Daddy Winkum; 6:30, KDKA Little symphony orchestra; 8:15, "Psychology of Public Speaking," Wayland M. Parr; 8:30, Tamburitza orchestra; 11:35, concert, Grand theater.

WAHG, Richmond Hill, N. Y. (315.6), 12:03 p. m., musical program.

WBZ, Springfield, Mass. (333.1), 6:30 p. m., KDKA; 7:30, "The New Biography—the Realistic Treatment of Great Men," Prof. Robert Emmons Rogers; 8, hockey, Boston Bruins and Montreal; 9:30, dinner, M. I. T. associated clubs, WJZ, WRC, WGY, KDKA, KYW, KFKX.

WCAU, Philadelphia, Pa. (278), 7:30 p. m., N. Snellenburg concert; 8, building and loan talk; 8:10, Three Brothers; 8:25, theater digest, Abe Lischutz; 8:30, playlet; 9, Arlene R. Smith, soprano, Sarah Snyder, pianist; 9:30, Robert Frazer, blind gospel singer; 10, Harry Link, songs; 10:30, Billy Hayes and his Cathay Tea Garden dance orchestra.

WCX, Detroit, Mich. (516.9), 6 p. m., dinner concert, Book-Cadillac hotel; 10, the Red Apple club.

WEAF, New York, N. Y. (491.5), 6:45-7 and 7:20 a. m., Tower health exercises; 11-12, Henry Dart, pianist; motion picture forecast by Adele Woodard; board of

DANC
Central
Saturday,
8, Wjr, W
8:30, Wfaa;
9, Webh, W
Wnyc, Wreo;
Wip; 9:30, K
Wor, Wrc;
Kfwa, Koa,
Wgn, Wjr, W
Wnyc, Wor,
Wtam; 10:
10:30, Wan
Wls; 11, K
Kfwb, Kpo, W
Wgbu, Who,
Kfoa; 11:45,
Kfwa, Kgo,
Wgbu, Wjjd.
Monda
8, Wgcp
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Wgr, Wnyc,
Wor; 10:30,
Whn; 11,
Wgbu, Wgcp,
Who; 12:45,
Knx, K
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9:30, Wcau,
Wip; 9:35,
Kfve, Wbb
Webh, Wgbu,
Wmca, Wnyc,
Kths; 10:30,
10:45, Wsb;
Koil, Wgbu,
Kfoa; 11:45,
Kgw, Khj,
Wdaf; 1, W
Wednesday,
20: 9, W
Wgbu, Wgcp,
Wmbb, Wn
9:15, Wahg;
Who, Wor;
Wbap, Weaf,
Wqj; 10:0
10:30, Wbap
Koil, Kpo, W
Wgcp, Wgr,
Wdaf; 12,
Kpo, Wjjd.
Thursday,
8, Wjr; 9, W
Wgbu, W
Wmbb, Wsai,
Wbz, Wip;
Wgy, Whn;
10, Kths, W
Wgbu, Whn,
Wqj; 10:30,
Webh, Wgbu,
11:45, Wdaf
Khj, Knx, K
Friday,
Wwj; 9, W
Weei, Wgl
Wmbb; 9:15,
Wcau, Whn
Kpo, Kths, W
Whn, Wgr,
Wcco; 10:30,
11, Kfwb,

NSEN, KENT ARTISTS ON WEAF CHAIN

s to broadcast this Sunday are Cecilia Hansen, ce Austral, soprano, right. These two musicians w York and other large American cities. "Turkey een revived by Radio and holds as high a place on a Brown." Humphrey Bate and his barn dance ome popular at WSM, Nashville. Tennessee fans arn dance instead of the Charleston.

DANCING

Central Time

Saturday, January 16: 8, Wjr, Wnyc, Wpg; 8:30, Wfaa; 8:35, Wgy; 9, Webh, Weei, Wmbb, Wnyc, Wreo; 9:10, Kths, Wip; 9:30, Kths, Wgbs, Wor, Wrc; 10, Kfve, Kfwa, Koa, Kpo, Weaf, Wgn, Wjr, Wkrc, Wmca, Wnyc, Wor, Wqj, Wreo, Wtam; 10:05, Wcco; 10:30, Wamd; 10:45, Wls; 11, Kfpg, Kfwa, Kfwb, Kpo, Webh, Wfaa, Wgbu, Who, Woc; 11:30, Kfoa; 11:45, Wdaf; 12, Kfwa, Kgo, Kgw, Knx, Wgbu, Wjid.

Monday, January 18: 8, Wgcp, Weei, Wgbu, Wiar, Wjr; 9:15, Wahg; 10, Kths, Wgbu, Wgcp, Wgr, Wgyc, Wpg; 10:15, Wor; 10:30, Kfoa, Wgcp, Whn; 11, Kgw, Koil, Wgbu, Wgn, Wgr, Whn, Who; 11:45, Wdaf; 12, Knx, Kwk.

Tuesday, January 19: 9, Webh, Wgbu, Wmbb; 9:30, Wcau, Wgbs, Wgy, Wip; 9:35, Wnyc; 10, Kfve, Wbbm, Weaf, Webh, Wgbu, Wgn, Whn, Wmca, Wnyc, Wpg; 10:15, Kths; 10:30, Kths, Whn; 10:45, Wsb; 11, Kgw, Koil, Wgbu, Whn; 11:30, Kfoa; 11:45, Wdaf; 12, Kgw, Khj, Knx, Kpo, Wdaf; 1, Wqj.

Wednesday, January 20: 9, Wcx, Webh, Wgbu, Wgcp, Whn, Who, Wmbb, Wmca, Wtic; 9:15, Wahg; 9:30, Wbap, Who, Wor; 10, Kfve, Wbap, Weaf, Wgbu, Wgcp, Wqj; 10:05, Wcco; 10:30, Wbap, Whn; 11, Koil, Kpo, Webh, Wgbu, Wgcp, Wgr, Whn; 11:45, Wdaf; 12, Kfwa, Knx, Kpo, Wjid.

Thursday, January 21: 8, Wjr; 9, Webh, Weei, Wgbu, Whn, Wjr, Wmbb, Weai, Wtag; 9:05, Wbz, Wip; 9:30, Wgbs, Wgy, Whn; 9:35, Wnyc; 10, Kths, Wbbm, Weaf, Wgbu, Whn, Wmca, Wpg, Wqj; 10:30, Kths, Whn, Webh, Wgbu, Whn, Woc; 11:45, Wdaf; 12, Kgo, Khj, Knx, Kpo, Wjid.

Friday, January 22: 9, Wcx, Webh, Weei, Wgbu, Wgcp, Wmbb; 9:15, Wahg, 9:30, Wcau, Whn; 10, Kfve, Kpo, Kths, Wgbu, Wgcp, Whn, Wgr, Wqj; 10:05, Wcco; 10:30, Wgcp, Whn; 11, Kfwb, Knx, Kpo.

education lecture; 4-5, Ruth Peter, soprano; John DeBueris, clarinet soloist; 6-12, dinner music, Rose room of Hotel Waldorf-Astoria; Warren Scofield, baritone; Blue Ribbon male quartet; The Gold Dust Twins; Eveready hour; auction bridge game; Rose Gorman and his orchestra, Monte Carlo, New York.

WEBJ, New York, N. Y. (272.6), 7 p. m., Barnett's orchestra; 7:45, Phillip Krumholtz, tenor; 8, "Railroad Talk," G. J. Geer; 8:15, Bella Goldenburg, pianist; 8:30, Al Ciccone's Harlem tea garden orchestra.

WFI, Philadelphia, Pa. (394.5), 1 p. m., tea room orchestra; 3, Pheonixville program; 6:30, Rotary club ladies' night; 8, Blue Ribbon male quartet; 8:30, Goldy and Dusty; 9, Eveready hour; 10, Radio auction bridge; 10:30, Vincent Lopez and his orchestra.

WGBS, New York, N. Y. (315.6), 10 a. m., timely talks; 10:10, Lorna Leeds, soprano; 10:20, household economy, Phoebe Cole; 10:30, Lorna Leeds, soprano; 10:40, reducing talk, Nestor Matson; 1:15-1:30, Astoria Collegians; 3:30, lecture recital, Mildred Howson Hartley; 3:40, piano lessons, A. G. Robyn; 6, Uncle Geebee; 7, Arrowhead inn concert orchestra; 8, Y. M. H. A. vocational forum; 9, Crystal Palace orchestra; 10:30, Arrowhead inn dance orchestra.

WGCP, New York, N. Y. (252), 12:30 p. m., race results; 3, Muriel Engel, pianist; 3:20, J. Vincent Moore, tenor; 3:30, Isabelle Henderson, soprano; 3:45, Charles Phillips, pianist; 4:10, 20th Century entertainers; 4:30, Ukulele Bob McDonald; 4:45, studio program; 7, Jonssen's orchestra; 8, health talk; 8:15, orchestra.

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

WGY, Schenectady, N. Y. (379.5), 2 p. m., music; address, "Psychology in Child Discipline," Mrs. W. L. Fodder; 2:30, organ recital, Stephen E. Boisclair, Albany, N. Y; 6:30, dinner program, Porter E. Potts' Hotel Van Curler orchestra; 7:30, address, "The Drama"; Prof. Raymond M. Herrick; 7:45, Marine band, WRC; 8:30, Edison hour, WJZ; 9:30, program, Alumni of Massachusetts Institute of technology; 11, Spencer Tupman's Hotel Mayflower orchestra, WRC.

WHAR, Atlantic City, N. J. (275), 2 p. m., Seaside hotel trio; 7:30, book review; 8, Seaside hotel trio; 11:15, organ recital.

WHN, New York, N. Y. (361.2), 12:30-1 p. m., organ recital; 2:15-3:15, vaudeville, Loew's State theater; 3:15-4:30, Lexington orchestra; 6:30, Everglades orchestra; 7, Vincent Lopez Iceland orchestra; 7:30, Will Oakland's Chatheau Shanley; 11, Ciro's orchestra; 11:30, Bob Murphy's orchestra; 12-12:30, Club Kentucky orchestra.

WIP, Philadelphia, Pa. (508.2), 6:45 a. m., setting-up exercises; 7, setting-up exercises; 10, menu talk, Mrs. Anna B. Scott; 1 p. m., organ recital; 3, Carolyn Schimminger, soprano, Elizabeth Gear, pianist, Babette Gerhab, contralto, Flora Ripka, accompanist; 6:05, Al Lentz and his Versatile entertainers; 7, Uncle Wip's bedtime stories; 8, Elliot Lester, dramatic critic; 8:15, "Shakespeare in Music," Ada Turner Kurtz Vocal studio; 9:15, piano recital, John A. Thoms; 10:05, Emo's weekly movie talk; 10:30, Pagoda cafe dance orchestra.

WKAR, East Lansing, Mich. (285.5), 7:15-7:30 p. m., "The Development of the Chick Embryo," F. W. Chamberlain; 7:30-7:45, "Michigan Certified and Accredited in Chicks," J. A. Hannah; 7:45-8, "The Farm Meat Supply," G. A. Brown.

WLIT, Philadelphia, Pa. (394.5), 11 a. m., organ recital; 12:02 p. m., daily almanac; organ recital from Stanley theater; Arcadia cafe concert orchestra; 2, Arcadia cafe concert orchestra; 7:30, Dream Daddy's bedtime stories; 7:30, play review, Allyn C. Saurer.

WNYC, New York, N. Y. (526), 7:10 p. m., the Canadians; 7:35, the Canadians; 8, studio concert; 9, string ensemble; 10, Harry Ash's orchestra; 10:35, Harry Ash's orchestra.

WOO, Philadelphia, Pa. (508.2), 11 a. m., organ recital; 12:02 p. m., Golden's crystal tea room orchestra; 4:45, organ recital; 7:30, Hotel Adelphia French room orchestra.

WOR, Newark, N. J. (405.2), 6:15 p. m., "Words Often Mispronounced"; 6:17, sports, Bill Wathey; 6:30, Jacques Jacobs Hotel Shelton ensemble; 6:45-7, Man in Moon stories.

WRC, Washington, D. C. (468.5), 10 a. m., women's hour; 12 n., George F. Ross, organist; 1 p. m., Hotel Washington orchestra; 6, Hotel Hamilton orchestra; 6:50, "Show Shopping," Leonard Hall; 7, Lee House trio; 7:15, Radio School of International Relations; 7:30, U. S. Marine band; 8:30, New York Edison hour, WJZ, WGY; 9:30, Massachusetts Institute of Technology dinner, WJZ, WGY, WBZ, KDKA, KYW; 10:30, W. Spencer Tupman and his Hotel Mayflower orchestra, WJZ, WGY; 11:30, Gertrude Smallwood, organist; 12 m., Meyer Dans le Paradis band.

WRVA, Richmond, Va. (256), 2 p. m., Governor Trinkle and Governor-elect Harry F. Byrd, speakers at laying of cornerstone of Virginia's World war memorial; 6, American Legion banquet; speakers; camp songs; camp quartets and soloists; special entertainment features; 8, U. S. Marine band; 11, Carry Me Back to Old Virginny.

WTAG, Worcester, Mass. (268), 10:30 a. m., musical selections; 10:45, talk, Rosebelle Jacobus; 12:05-2 p. m., WTAG orchestra; 7:45, "Physical Development of Young Men," Prof. Carpenter; 8-9, program; 9-10, Eveready hour; 10:30-11, Vincent Lopez and his orchestra.

WTAM, Cleveland, Ohio (389.4), 12:15-1:15 p. m., Guy Lombardo and his Royal Canadians; 6-7, Carl Rupp and his Hotel Hollenden orchestra.

WWJ, Detroit, Mich. (352.7), 9:30 a. m., tonight's dinner; special talk by the woman's editor; 12:05 p. m., Jules Klein's Hotel Statler orchestra; 3, Detroit News orchestra; 6, dinner concert; 8, concert from WEAF.

Central Time Stations

KFAB, Lincoln, Nebr. (340.7), 8:05-10:30 p. m., program, University of Nebraska.

KFKX, Hastings, Nebr. (288.3), 1 p. m., "Poultry Day—Ducks, Geese and Pigeons," A. G. Philips; orchestra; 5:30, KDKA dinner concert.

KFMQ, Fayetteville, Ark. (299.8), 8 p. m., musical program, pupils of Henry Towey.

KFVE, University City, Mo. (240), 9:15 p. m., amusement review; Paul and Jack Snyder; Orchestra Romaine.

KLDS, Independence, Mo. (441), 6:30 a. m., morning devotional service; 11:59, midnight program.

KMA, Shenandoah, Iowa (252), 11:30-12:30 p. m., noonday rural program; talk, Earl E. May; music; news; 6-7, May Flower trio; news; May's flower lady, Lina Ferguson; 9-11, May's mandolin musicians; talk, G. H. Van Houten.

KMMJ, Clay Center, Nebr. (228.9), p. m., local talent; 1:30, factory and office program.

KPRC, Houston, Tex. (296.9), 12 n., Majestic theater folks; 5:30 p. m., Uncle Judd; 7:30, Billie Mack's orchestra; 8:30, studio concert.

KSAC, Manhattan, Kan. (340.7), 9-9:25 a. m., music, inspirational talks, agricultural primer, calisthenics; 9:55-10:25, readings, question box; today's meals; 12:35-1:05 p. m., readings, question box; "Equipment for Brooding Chicks," D. J. Taylor; "Avian Infectious Bronchitis," Dr. J. W. Lumb; 4:30-5, program for women's clubs; 6:30-7:30, better speech, etiquette; extension credit courses; economics; "Use of Protein Supplements in Hog Rations," A. D. Weber; "Developing a Herd of Dairy Cattle," J. B. Fitch.

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

KSO, Clarinda, Iowa (241.8), 7-7:30 p. m., farm talks; 7:30-9, Snappy Seven.

KTHS, Hot Springs National Park, Ark. (374.8), 9-9:30 p. m., Eastman hotel orchestra; 9:30-10:30, Meyer Davis orchestra; Clyde Foey, singer.

KYW, Chicago, Ill. (536), 6:30-7 a. m., morning exercises, Paul A. Leonhardt; 7:30, morning devotional worship, Y. M. C. A; 11:35, table talk, Mrs. Anna J. Peterson, Peoples Gas company; 12:05 p. m., concert; 1, luncheon concert, Congress hotel; 2:35-4, afternoon frolic; 6, dinner music, KDKA; 7:05, bedtime story, Walter Wilson; 7:33, speeches, American Farm Bureau federation; 8, musical program; 9, an hour of music; 10, evening at home program; 10:40, Coon-Sanders Original Nighthawks; 1 a. m., Insomnia club, Coon-Sanders Original Nighthawks.

WAMD, Minneapolis, Minn. (243.8), 12 m., organ recital, Garrick theater organ, Jack Malerick.

WBBM, Chicago, Ill. (226), 4-6 p. m., Valentino inn orchestra; artists; 8-9, Moulin Rouge orchestra; Phil Fleming, tenor; Jean St. Anne, French baritone; 9-10, Utilities Craftsman glee club; 10-12, Ziegler Sisters; Moulin Rouge orchestra; Claire Matthews.

WBCN, Chicago, Ill. (266), 10-10:30 a. m., Penny Wise, the shopper's ready helper; 7-8, Ballantine Electric company classical hour; Robert Sansome, cellist; Gordon A. Nelson, tenor; Ann Kelley, soprano; Pearl Fairchild, pianist; 10-12, jazz jamboree, Midway orchestra; Borden Brothers, harmony duo; Ed Dempsey, tenor; Niese and Nehr, banjo bimbos; Drexel quartet, vocal group; Marie Wright, soprano; Finney Briggs, column conductor "Crazy Quilt" column; Marquette banjo four, string quartet; Frank H. McDonald, Radio talk; 12-2 a. m., pirate ship.

WCBD, Zion, Ill. (344.6), 8 p. m., The Mixed quartet; organ, mandolin and guitar band and celestial bells, assisted by artists.

WCCO, Minneapolis-St. Paul, Minn. (416.4), 12 n., Dick Long's Dayton trio; 2 p. m., League of Women Voters; 2:30, Dick Long's trio; 3:05, "The World of Books," H. A. Bellows; 4, readers' club, Eleanor Poehler; 5:30, children's hour; 6:15, Dick Long's Nankin cafe orchestra; 7:30, WEAF: Gold Dust Twins, Eveready hour, bridge lesson.

WDAF, Kansas City, Mo. (365.6), 3:30-4:40 p. m., The Star's string orchestra; 6-7, Tell-Me-a-Story lady; address, Radio piano lesson, Maudellen Littlefield; music, the Trianon ensemble; 11:45-1 a. m., The Plantation players; Eddie Kuhn's Kansas City Athletic club orchestra; Wendell Hall, the "Red-Headed Music Maker."

WDOD, Chattanooga, Tenn. (256), 9-9:30 p. m., bridge games.

WEBH, Chicago, Ill. (370.2), 11:30-12 m., woman's half hour; 3-4, special features; 7, Oriole orchestra; Lydia Lochner, contralto; Kathryn Forbes, soprano; 9-10, Uptown theater; 11-11:15, Oriole orchestra; 11:15-12:30, news flashes, Herald and Examiner; Jack Penewell, Fred Palmiter, Howard Neumiller.

WEBW, Beloit, Wis. (268), 8 p. m., fortnightly concert hour; violin, vocal, piano and organ selections.

WENR, Chicago, Ill. (266), 6-7 p. m., dinner concert; Rauland-Lyric trio; double piano selections; 8-10, Frank Westphal and his All-American Pioneers; Loretta Giles, popular songs; American Hawaiian trio; Philip Millville, Al Tweed and Walter Peterson, harmonica and guitar duets.

WFAA, Dallas, Tex. (475.9), 12:30-1 p. m., Beaumont band, KFDM; 4:30-5, Cloyd Griswold, songs and ukulele; 6:30-7:30, Don Bestor's orchestra, dinner music; 8:30-9:30, Southern Methodist university faculty musicale; 11-12 m., Honey boys orchestra.

WGES, Oak Park, Ill. (250), 5-7 p. m., Lydia Werner, soprano; Miles Sullivan players, one-act playlet; Stenstrom sisters, vocal duo; Tiffin theater organ and orchestra; 8-9, Helen Frahm, soprano; Tiffin orchestra; 11-1 a. m., Serenaders orchestra; quartet; Remington Welch, organist; Sandy McTavish, Scotch comedian; Erwin Schmidt and his own song; Jack Goodwin, tenor.

WGN, Chicago, Ill. (302.8), 11-11:30 a. m., household

Index to Farmers' Programs

Farmer Dinner Concerts

Daily Except Sunday

CENTRAL TIME

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

Saturday, January 16

Eastern	Central	Mountain	Pacific	
1:45 p. m.	12:45 p. m.	11:45 a. m.	10:45 a. m.	WOI (270) Soils, questions and answers.
8	7	6	5	KDKA (309.1) Farm program.

Sunday, January 17

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

Monday, January 18

Eastern	Central	Mountain	Pacific	
1:15 p. m.	12:15 p. m.	11:15 a. m.	10:15 a. m.	WOC (483.6) Haying the Brood Sows—It's Good Practice.
1:35	12:35	11:35	10:35	KSAC (340.7) Germination and Reparation. Barley Diseases.
1:45	12:45	11:45	10:45	WOI (270) Dairy Production.
				WMAQ (447.5) Radio farm school.
2	1	12 n.	11	KFKX (288.3) Haying the Brood Sows—It's Good Practice.
8	7	6	5	KSAC (340.7) Industrial Production and Agricultural Prosperity. Insects Common to Sorghums, and Their Control.
7:15	6:15	5:15	4:15	WKAR (285.5) Farm school.
7:45	6:45	5:45	4:45	WSOE (246) Hog Raising.
8:30	7:30	6:30	5:30	KFMQ (299.8) Farmers' night. Cotton Fertilizer. Preparation of Seed Beds. Power on the Farm.
				WMC (499.7) Talk.
				WOI (270) Poultry Course.
9:05	8:05	7:05	6:05	KFAB (340.7) Agricultural talks.
10	9	8	7	KOAC (280.2) Agricultural question box. Cost of Range Cattle Production.
10:30	9:30	8:30	7:30	KOAC (280.2) Vegetable Varieties, Seeds and Plants. Oregon's Agricultural Situation.

Tuesday, January 19

Eastern	Central	Mountain	Pacific	
11:30 a. m.	10:30 a. m.	9:30 a. m.	8:30 a. m.	KFAB (340.7) Poultry talks.
1:15 p. m.	12:15 p. m.	11:15	10:15	WOC (428.3) Ducks, Geese and Pigeons.
1:35	12:35	11:35	10:35	KSAC (340.7) Equipment for Brooding Chicks. Avian Infectious Bronchitis.
1:45	12:45	11:45	10:45	WMAQ (447.5) Radio farm school.
				WOI (270) Animal Husbandry, questions and answers.
2	1	12 n.	11	KFKX (288.3) Ducks, Geese and Pigeons.
8	7	6 p. m.	5 p. m.	KSAC (340.7) Use of Protein Supplements in Hog Rations. Developing a Herd of Dairy Cattle.
7:15	6:15	5:15	4:15	WKAR (285.5) Animal Husbandry, Veterinary Medicine Course.
8	7	6	5	WOC (483.6) Feeding Plans Which Will Make Hogs Pay a Profit.

Wednesday, January 20

Eastern	Central	Mountain	Pacific	
1 p. m.	12 n.	11 a. m.	10 a. m.	WOI (270) The Farmer's Hired Man.
1:15	12:15 p. m.	9:15	8:15	WOC (483.6) The Dairy Cow in Summer.
1:35	12:35	11:35	10:35	KSAC (340.7) Winter Horse Feeding. The Wily Coyote.
1:45	12:45	11:45	10:45	WMAQ (447.5) Radio farm school.
				WOI (270) Poultry husbandry.
2	1	12 n.	11	KFKX (288.3) The Dairy Cow in Summer.
7:15	6:15	5:15 p. m.	4:15 p. m.	WKAR (285.5) Horticulture course.
9:05	8:05	7:05	6:05	KFAB (340.7) Agricultural talks.

Thursday, January 21

Eastern	Central	Mountain	Pacific	
1:15 p. m.	12:15 p. m.	11:15 a. m.	10:15 a. m.	WOC (483.6) Legumes Like to Work—Inoculate Them and Give Them a Chance.
				WOI (270) Better Farm Equipment week.
1:35	12:35	11:35	10:35	KSAC (340.7) More About Sweet Clover. Stream Control Measures.
1:45	12:45	11:45	10:45	WMAQ (447.5) Radio farm school.
				WOI (270), Farm crops.
2	1	12 n.	11	KFKX (288.3) Legumes Like to Work—Inoculate Them and Give Them a Chance.
7:15	6:15	5:15 p. m.	4:15 p. m.	WKAR (285.5) Dairy Husbandry course.
8:30	7:30	6:30	5:30	WOI (270) Dairyman's short course.
9:30	8:30	7:30	6:30	KOA (322.4) Farm question box.

Friday, January 22

Eastern	Central	Mountain	Pacific	
1:15 p. m.	12:15 p. m.	11:15 a. m.	10:15 a. m.	WOC (483.6) Special farm service day.
1:35	12:35	11:35	10:35	KSAC (340.7) Furnace Heating. Long vs. Short Cane Systems of Grape Pruning.
1:45	12:45	11:45	10:45	WOI (270) Agricultural Economics.
2	1	12 n.	11	KFKX (288.3) Special Farm Service Day.
				WMAQ (447.5) Radio farm school.
7:15	6:15	5:15 p. m.	4:15 p. m.	WKAR (285.5) Farm Crops course.

Markets and Weather

Daily Except Sunday

Eastern	Central	Mountain	Pacific	
9:30 a. m.	8:30 a. m.	7:30 a. m.	6:30 a. m.	WFAA (475.9) markets.
				WOAW (526) markets.
9:45	8:45	7:45	6:45	KDKA (309.1) livestock, grain.
10	9	8 p. m.	7 p. m.	WLS (345) livestock, markets, fruit.
				WOS (440.9) hogs.
10:30	9:30	8:30	7:30	KFKX (288.3) livestock, fruit, vegetables, hogs.
				KTCL (305.9) weather, sheep, quotations.
				WFAA (475.9) markets.
				WOI (270) Weather.
10:45	9:45	8:45	7:45	WCCO (475.9) markets.
				WMC (499.7) weather, markets.
11	10	9	8	WBAP (475.9) markets, quotations.
				WOS (440.9) weather, hogs.
11:15	10:15	9:15	8:15	WTAG (268) markets, weather.
11:30	10:30	9:30	8:30	KFKX (288.3) weather, fruit, vegetables.
				WCCO (416.4) markets.
				WEAR (389.4) markets, weather.
11:45	10:45	9:45	8:45	WAAW (384.4) Livestock, butter, eggs.
12 noon	11 a. m.	10 a. m.	9 a. m.	KDKA (309.1) weather, livestock, grain.
				WBAP (475.9) weather, cattle, grain.
				WEAR (389.4) markets, weather.
				WHAD (275) weather, markets.
				WLS (345) poultry, dairy, hogs, sheep.
				WOS (440.9) livestock, poultry, eggs, grain.
12:30 p. m.	11:30 a. m.	10:30 a. m.	9:30 a. m.	KFKX (288.3) livestock, fruit, vegetables, dairy.
				WEAR (389.4) markets, weather.
				WFAA (475.9) markets.
1 p. m.	12 noon	11 a. m.	10 a. m.	WBAP (475.9) markets.
				WHT (400) fruit, weather.
				WOS (440.9) livestock, weather.
1:05	12:05	11:05	10:05	KMA (252) markets and weather.
1:30 p. m.	12:30 p. m.	11:30 a. m.	10:30 a. m.	KTHS (374.8) markets, weather.
				WFAA (475.9) markets.
				WOAW (526) markets.
				WOI (270) Weather, livestock.
1:35 p. m.	12:35 p. m.	11:35 a. m.	10:35 a. m.	KPO (428.3) butter, eggs, cheese, poultry.
1:45 p. m.	12:45 p. m.	11:45 a. m.	10:45 a. m.	KOA (322.4) weather, roads, livestock, poultry.
2 p. m.	1 p. m.	12 noon	11 a. m.	WOC (484) weather, grain, livestock, dairy.
				WOS (440.9) grain.
2:15	1:15	12:15	11:15	WAAW (384.4) Grain markets.
2:30 p. m.	1:30 p. m.	12:30 p. m.	11:30 a. m.	WCCO (416.4) markets, weather.
				WFAA (475.9) markets.
3 p. m.	2 p. m.	1 p. m.	12 noon	WLS (345) livestock, grain, dairy, fruit, vegetables.
				WOS (440.9) livestock, markets, grain.
3:30	2:30	1:30	12:30	WFAA (475.9 markets.
				WMC (499.7) markets, weather.
3:50	2:50	1:50	12:50	WWJ (352.7) weather, markets.
4	3	2	1	KFKX (288.3) livestock, wool.
				WCCO (416.4) markets.
				WCX (517) stock and grain.
4:30	3:30	2:30	1:30	WEAR (389.4) markets, weather.
				WFAA (475.9) markets.
5:50	4:50	3:50	2:50	WDAF (365.6) markets, weather, road reports.
				WHAS (399.8) markets.
6	5	4	3	KFAU (278) markets, weather.
6:30	5:30	4:30	3:30	KSAC (340.7) markets.
6:45	5:45	4:45	3:45	WIP (508.2) livestock, markets.
6:50	5:50	4:50	3:50	WHAD (275) markets.
7:30	6:30	5:30	4:30	KMA (252) markets and weather.
				KSAC (340.7) market review.
7:45	6:45	5:45	4:45	KFWA (261) market reports.
8	7	6	5	KFKX (288.3) markets.
				KOA (322.4) sheep, markets, livestock, poultry.
9	8	7	6	WAAW (384.4) Marketgrams and talks.
11	10	9	8	WCCO (416.4) weather, grain.

OKLAHOMA COWBOY BAND FROM WHB

Tuesday, January 19

Here is the young lady who made G. C. Arnoux of KTHS, Hot Springs National Park, desert the bachelors. Mrs. Natalie Arnoux gave her most recent recital Friday evening, January 15.

hints; 11:30-12 n., fashion discussion; 12-12:40 p. m., public service period; 12:40-2:30, luncheon concert, Drake concert ensemble and Blackstone string quintet; 2:30-3, Lyon & Healy artists' series; 3-3:30, public service period and "Port o' Missing Men"; 3:30-4:15, tea time music, Marshall Field's tea room orchestra; 4:30-5, organ recital, Edward Benedict; 5:30-5:57, Skeezix time; 6:30-7, dinner concert, Drake concert ensemble and Blackstone string quintet; 8-9, Eveready program, WEAF; 9-10, Ford program, WEAR; 10-11, amateur hour.

WHAD, Milwaukee, Wis. (275), 11 a. m., pianolog, Andy Hertel; "Getting the First Thousand," Carl Skinrood; 4 p. m., musical numbers; 6:15-7, Bill Benning's Milwaukee Athletic club orchestra.

WHAS, Louisville, Ky. (399.8), 12-1 p. m., Trinity Methodist church; 1-2, Benson trio; 2:45-3, news; 3-3:30, Mrs. Myrtle Fulks Zahn, Jr., organist; 4-5, musical selections, Harry S. Currie; editorials; 7:30-9, Carl Zoeller's Melodists.

WHB, Kansas City, Mo. (365.6), 7-7:30 p. m., Morrell Moore; 8-9:30, Cowboy band.

WHO, Des Moines, Iowa (526), 7:30-8 p. m., Raleigh quintet; 8-9, Bankers Life trio, Helen Birmingham, director; 11-12, Bankers Life Little Symphonic orchestra.

WHT, Chicago, Ill. (399.8), 10 a. m., Jean Sargent's program, woman's club; Borden health talk; Jelke Good Luck Girl; studio music; 11, special studio features, Magnus musical lecture; 12 noon, Al Carney's complimentary organ recital; 1 p.m., special studio program; 6, classical program; dinner organ recital; Grayling's string trio; Eleanor Gilmour, soprano; Oscar Heather, tenor; Loftus half hour of music; Alois Bragagnolo, basso; 7:45-9:15 (238), musical features; 9:30 (399.8), Jelke's entertainers; Kitchen Klenzer Klassics; Kenneth Clark's Hawaiian trio; Al Carney, organist; Husk O'Hare's orchestra; 10:10, U. S. L. half hour dance music.

WIBO, Chicago, Ill. (226), 10-11 a. m., shoppers' bureau; 2-4 p. m., shut-in program; 6-8, dinner concert, popular American ballads, Walter Preston; WIBO trio; Bernice Taylor, soprano; Ruth Buhl Flick, reader; 12 m.-2 a. m., jamboree.

WLIB, Chicago, Ill. (302.8), 7-7:30 p. m., dinner concert; 7:30-8, Gold Dust Twins, WEAF; 11-12, popular program; 12-1, dance program.

WLS, Chicago, Ill. (344.6), 12 m., Ford and Glenn; 6:30 p. m., Ralph Emerson, organist; 7, lullaby time; 7:15-7:55, musical concert.

WLW, Cincinnati, Ohio (422.3), 7:30 a. m., exercises, William Stradtman, Y. M. C. A.; 8, morning devotions, auspices of Parkway Y. M. C. A.; 12:05 p. m., organ concert, Petronella Trimbur; 12:30, Hotel Gibson, Robert Visconti, director; 4, talk, Ralph Schmidt; 4:10, French lesson, Mme. Ida Tcimpidis; 7, musical appreciation series, Cincinnati Conservatory of Music, Mrs. Etelka Evans; 7:15, talk, John W. Lewis; 7:20, Crosley popular science series, Dr. Hobart Hoskins, University of Cincinnati; 7:30, piano memories, Mary Louise Woseczek; 7:50, talks on dogs, T. W. Price of Sunbeam farm, Strong Heart Kennels, New Brunswick, N. J.; 8, Crosley Burnt Corkers; 8:45, musical handshakes, Bob Groenke and Jim Mischler; 8:55, talk, Robert W. Pogue, president of the Retail Merchants association; 9, concert program, under auspices of the Formica Insulation company, William C. Stoess, director; 10, Mrs Jessie Adler, speaker, assistant prosecutor of Hamilton county; 10:05, popular dance program from Castle Farm.

WMAQ, Chicago, Ill. (447.5), 12:45, Radio farm school; 2, shut-in program; 4:45, Columbia school of music; 6, Chicago theater organ recital; 6:30, Hotel LaSalle orchestra; 8, Harry Hansen book talk; 8:20, travel talk, Clara Laughlin; 9, lecture, University of Chicago; 9:20, thrift program, Illinois Federation of Women's clubs; 9:55, University of Chicago chimes.

WMBB, Chicago, Ill. (250), 7-8 p. m., Trianon concert artists; Genevieve Barry Burnham, Eleanor Kaplan, Preston Graves and artists; talk on finance; 9-11, Trianon orchestra, Dell Lampe, director; Woodlawn theater orchestra, Armin F. Hand; Babbe and Barr, Glen Wells, Bob Bennett, Joe Morrison, Clyde Hager, popular program.

WMC, Memphis, Tenn. (499.7), 8:30 p. m., anniversary program; 11, Britlings novelty orchestra.

WNAD, Norman, Okla. (254), 12:30 p. m., Ernest Sharpe, baritone; Helen Rubin, violin; 12:50, "History of Oklahoma," Dr. E. E. Dale; 3:30, O. U. troubadours; 7:20, relation of automotive transportation to the railroad problem, Dr. Floyd L. Vaughan; 7:30, "Sources of Power," Dr. Charles N. Gould; 10:30, Boomers.

WOAI, San Antonio, Texas (394.5), 8:30-9:30 p. m., musical program, Gebhardt Mexican players.

WOAW, Omaha, Neb. (526), 12:45 p. m., Jaffy's string orchestra; 6, classical; 6:50, Jaffy's string quintet; 9, de luxe program; 10:10, Radio review, Neal Jones; 10:30, Herb Feierman and his Omadala orchestra; 12, midnite Rialto alarm.

WOC, Davenport, Iowa (483.6), 12:15-12:25 p. m., "Ducks, Geese and Pigeons," Prof. A. G. Philips; 3-3:30, home management, Aunt Jane; 6:30-6:50, sandman's stories; 7-7:10, "Feeding Plans Which Will Make Hogs Pay a Profit," R. E. Patrick; 7:30-8, Gold Dust Twins, WEAF; 8-9, Eveready hour, WEAF; 9-9:30, auction bridge; 9:30-10:15, "Around the World," Dr. B. J. Palmer; 10:15-11:15, Mrs. R. M. Harper, soprano; Louis Crowder, pianist; Emil Hass, reader.

WOK, Chicago, Ill. (217.3), 4:30-7 p. m., Capitol theater organ; Tearney's Town Club Twilight Dansant; studio program; 10-1:30, Tearney's Town club orchestra; Carl LaRine's Pershing Palace orchestra; Husk O'Hare's Cocoanut Grove orchestra; Capitol theater program; studio program.

WOQ, Kansas City, Mo. (278), 8-9 p. m., devotional musical program.

WOS, Jefferson City, Mo. (440.9), 8 p. m., Missouri State Farmers' week, music, addresses.

WQJ, Chicago, Ill. (447.5), 11-12 m., "The New Colors for Spring," Mrs. Lillian Russell; Marie K. Johnson; 3-4 p. m., "First Courses for Dinner," Helen H. Downing; "Psychology as Applied to Children," Donald F. Abel; 7-8, Rainbo Gardens orchestra; Fontella trio; Everett G. Mitchell, baritone; 10-1, Rainbo Skylarks; Jerry Sullivan; Rose Vanderbosch, soprano; Hal Lansing; Merrill Carder; Ila Shannabrook, soprano; Mary Wade, soprano; Dave Kapp, Romo Vincent, boy baritone; 1-2, Ginger hour.

WRR, Dallas Texas (246), 12-1 p. m., program, Mrs. J. C. Nagle and assisting artists; Mrs. B. M. Grimes, pianist; Virgil Whitworth, xylophone soloist; 5:15, bedtime story; 6-7, dinner hour concert, Jack Gardner's orchestra; 8-9, program, studio of Montgomery, photographer.

WSAI, Cincinnati, Ohio (326), 5:30 p. m., twilight musicale; 7, Mabley and Carew orchestra, Reuben Lawson, director; 8, Eveready Hour of music, WEAF; 9-9:30, Radio auction bridge, WEAF; 9:30, musical program, WSAI; Austin Brothers, Hawaiian guitars; 12, Hotel Sinton orchestra.

WSB, Atlanta, Ga. (428.3), 8 p. m., Lyon and King deluxe concert; 10:45, Metropolitan theater artists.

WSUI, Iowa City, Iowa (483.6), 12:30 p. m., Jeanette Rothschild, soprano; "Development of Musical Talent," Dean Carl E. Seashore.

Index to Classical Concerts

Saturday, January 16

Eastern	Central	Mountain	Pacific
6 p. m.	5 p. m.	4 p. m.	3 p. m.
WCX, WEAF, WMCA, WREO.			
7	6	5	4
KGO, KYW, WEAR, WENR, WMAQ, WNYC, WOAW, WOK, WRC.			
8	7	6	5
KDKA, KFNF, KOIL, KSD, KYW, WBBR, WGN, WMBB, WNYC, WOAW, WQJ.			
9	8	7	6
KFOA, KPRC, KHJ, KYW, WHAS, WIP, WLW, WORD, WSAI, WSOE			
10	9	8	7
KNX, KYW, WEAF, WMAQ, WMC, WOAW, WOC, WORD.			
11	10	9	8
KGO.			
12 m	11	10	9
WOAW.			

Sunday, January 17

Eastern	Central	Mountain	Pacific
6 p. m.	5 p. m.	4 p. m.	3 p. m.
WCAU.			
7:20	6:20	5:20	4:20
WCAE, WCAU, WEAF, WEAR, WEEI, WJAR, WTAG, WWJ.			
8	7	6	5
KYW, WBZ, WEAR, WGBS, WGCP, WKAQ, WLS, WORD.			
9	8	7	6
KFDM, KPRC, KSD, WBZ, WCAU, WCBD, WCCO, WEAR, WGY, WHAR, WHT, WNYC, WQJ.			
9:15	8:15	7:15	6:15
WEEI, WJAR, WTAG.			
10	9	8	7
KHJ, KNX, KTHS, KYW, WCCO, WFAA, WNYC, WOC, WQJ, WSOE.			
11	10	9	8
KFVE, KHJ, KNX, KPO, KTHS, KYW, WHN, WKRC, WOC.			
12 m	11	10	9
KHJ, KNX, WOC.			
1 a. m.	12 m	11	10
KNX.			

Monday, January 18

Eastern	Central	Mountain	Pacific
6 p. m.	5 p. m.	4 p. m.	3 p. m.
KGO, WCX, WEAF, WMCA, WREO, WWJ.			
7	6	5	4
KMA, WCCO, WEAF, WEAR, WHAD, WJR, WOAW, WOK.			
8	7	6	5
KFNF, KSD, WBBR, WBZ, WCAU, WCX, WHAR, WHT, WJAR, WLW, WMBB, WTAG, WTIC.			
9	8	7	6
KFOA, KGO, KHJ, KPRC, WBBR, WCCO, WBZ, WCAE, WEEI, WHAD, WHO, WJAR, WLW, WORD, WOS.			
10	9	8	7
KMA, KPO, KPRC, KSD, KTHS, WCCO, WEAF, WHAD, WJAR, WOAW, WSUI, WTAG.			
11	10	9	8
KGW, KHJ, KMA, KSD, KTHS, KWSC, WHN, WSAI.			
12 m	11	10	9
KGW, WBAP, WSAI.			
1 a. m.	12 m	11	10
KHJ.			

Tuesday, January 19

Eastern	Central	Mountain	Pacific
6 p. m.	5 p. m.	4 p. m.	3 p. m.
WBZ, WCX, WEAF, WMCA, WREO, WWJ.			
7	6	5	4
KGO, KMA, WEAR, WEBJ, WGBS, WHAD, WJR, WMAQ, WOAW, WOK, WOR, WTIC, WWJ.			
8	7	6	5
KFNF, KSD, KYW, WBZ, WCAE, WCAU, WCX, WEAR, WEEI, WGR, WHAR, WHT, WLS, WMBB, WQJ, WRC, WTIC.			
9	8	7	6
KFDM, KFOA, KGO, KHJ, KLDS, KYW, WCAE, WCBD, WCCO, WEAF, WEEI, WGR, WHAS, WJAR, WLW, WMAQ, WOC, WORD, WTAG.			
10	9	8	7
KFAB, KFDM, KFMQ, KMA, KNX, KPRC, KTHS, WCAE, WCCO, WEAF, WEAR, WEEI, WLW, WMCA, WOC, WSAI, WSOE, WTAG.			
11	10	9	8
KGO, KHJ, KMA, KYW, WSAI.			
12 m	11	10	9
KPO, KYW, WHO, WMC.			

Wednesday, January 20

Eastern	Central	Mountain	Pacific
6 p. m.	5 p. m.	4 p. m.	3 p. m.
WCX, WEAF, WMCA, WREO, WWJ.			
7	6	5	4
KGO, WEAR, WHAD, WJR, WMAQ, WOK, WTIC.			
8	7	6	5
KFNF, KPRC, KSD, KYW, WBZ, WCX, WEAF, WEEI, WHT, WLW, WMBB, WMCA, WQJ, WTAG, WWJ.			
9	8	7	6
KFOA, KGO, KPRC, KSD, KYW, WBZ, WCCO, WDAF, WEEI, WGR, WHAD, WHAS, WJAR, WMAQ, WOR, WOS, WORD.			
10	9	8	7
KFMX, KMA, KNX, KTHS, WCCO, WEAF, WEEI, WGR, WHAD, WJAR, WLS, WMAQ, WNYC, WOC, WSOE.			
11	10	9	8
KGO, KGW, KMA, KPO, KTHS, WCAE, WLS, WLW, WOC, WSAI.			
12 m	11	10	9
KGW, KPO, WHAD, WLW.			
1 a. m.	12 m	11	10
WLW.			

Thursday, January 21

Eastern	Central	Mountain	Pacific
6 p. m.	5 p. m.	4 p. m.	3 p. m.
WBZ, WCX, WEAF, WIP, WMCA, WREO, WWJ.			
7	6	5	4
KGO, KSD, WEAF, WEAR, WGBS, WHAD, WJR, WMAQ, WOAW, WOK, WWJ.			
8	7	6	5
KYW, WBBR, WBZ, WCAU, WCCO, WCX, WEAR, WEEI, WGR, WGY, WHAR, WHT, WLS, WLW, WMBB, WOAW, WQJ, WTAG, WTIC.			
9	8	7	6
KHJ, KLDS, WBAP, WCAE, WCAU, WCBD, WCCO, WEAF, WEEI, WGR, WHAR, WHAS, WJAR, WNYC, WOC, WORD, WRC, WASI, WSB, WTAG.			
10	9	8	7
KNX, KPRC, KTHS, KYW, WGR, WGY, WHAD, WMC, WOAW, WOC, WSAI.			
11	10	9	8
KGO, KPO, KTHS, WBAP, WKRC.			
12 m	11	10	9
KGW, KPO, WHO, WKRC.			

Friday, January 22

Eastern	Central	Mountain	Pacific
6 p. m.	5 p. m.	4 p. m.	3 p. m.
KGO, WCX, WMCA, WREO, WWJ.			
7	6	5	4
KGO, WEBJ, WGY, WHAD, WJR, WMAQ, WOAW, WOK, WOR, WTIC.			
8	7	6	5
KYW, WAHG, WBZ, WCAU, WCX, WEBJ, WEEI, WHT, WLS, WQJ, WWJ.			
9	8	7	6
KFDM, KFNF, KFOA, KGO, KHJ, KSD, KYW, WBAP, WBZ, WCAU, WDAF, WEEI, WHAD, WJAR, WMAQ, WMCA, WSAI.			
10	9	8	7
KFAB, KFDM, KOA, WCCO, WHAD, WMAQ.			
11	10	9	8
KFMX, KHJ, KNX, KPO.			
12 m	11	10	9
KPO.			

Mountain Time Stations

CFAC, Calgary, Canada (435.8), 8 p. m., ladies concert trio, Gladys Webb Foster, director.

CNRR, Regina, Can. (476), 8 p. m., bedtime story; Regina Rover Scout band.

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

KFXF, Colorado Springs, Colo. (250), 8:30-10 p. m., Freeman Dust Absorber musical program.

KOA, Denver, Colo. (322.4), 12:15 p. m., Rialto theater musicale; 3:15, relaxing and corrective exercises, Mrs. Ruth Drumm; 3:30, Frances Staunton, contralto; Mrs. S. C. Oliver, accompanist; Otis B. Thayer, reader; 4, culinary hints, Mrs. Clara Hoover; 4:15, Sally Dee, fashion review; 6:30, Brown Palace string orchestra; 7:30, farm box.

Pacific Time Stations

KFI, Los Angeles, Calif. (467), 5:30-6 p. m., Examiner matinee; 6, nightly doings; 6:15, KFI's Seeing California; 6:30, vest pocket program; 6:45, Radiotorial period; 7-8, studio program; 8-9, Examiner hour; 9-10, Owen Fallen's Californians dance orchestra; 10-11, Packard ballad hour with Dick Barton, Charlie Cole, Polly and Billy Hall, and others.

KFON, Long Beach, Calif. (232.4), 4:30-5 p. m., amusement bulletin; 6-6:30, organ recital, Brayton's theater; 8-9, Press-Telegram program, arranged by William Conrad Mills; 9-11, Long Beach Aero club Hi-Jinks.

KFWB, Hollywood, Calif. (252), 5-6 p. m., Children's hour, Big Brother of KFWB; 7, health talk, Dr. W. I. Schuster; 7:15, microphone brevities; 8-9, program, MacDonald-Dodson Tire company; 9-10, Joe Martin's Famous Studio Six dance orchestra; 10-11, Warner Brothers frolic, direction Charlie Wellman.

KGO, Oakland, Calif. (361.2), 4-5:30 p. m., concert orchestra, Hotel St. Francis; 5:30, "As a Woman Thinketh," Louise Landis; 6-6:55, twilight concert; 8-9, Eveready hour, selections from "Martha," Elsa Behlow Trautner, soprano; Carolyn Crew Hill, soprano; Margaret Lloyd, soprano; Ruth Waterman, contralto; Annabelle Jones Rose, contralto; Gwynfi, tenor; Albert Gillette, bass-baritone; Mischa Gluschkin orchestra; 9-9:30, Ricketty-Racketty-Radio minstrels; 9:30, bridge; 10-11, Girvin-Deuel's California Collegians.

KGW, Portland, Ore. (491.5), 12:30-1:30 p. m., concert, Rose City trio; 6-7, dinner concert; 7:45-8, talk; 8-10, educational program; auction bridge lessons; style talk; McElroy quartet; 10-12, dance music; solo, Curt Kremer, pianist.

KHJ, Los Angeles, Calif. (405.2), 6-6:30 p. m., Leighton's Arcade cafeteria orchestra, Jack Cronshaw, leader; 6:30-7:30, history story, Prof. Hertzog; weekly visit of Queen Titania, Sandman and the Radio fairies; Lenore Killian, contralto; Charles Leslie Hill, readings; 8-10, de luxe program; 10-11, Don Clark's Biltmore hotel dance orchestra.

KJR, Seattle, Wash. (384.4), 10:30-11:30 a. m., Puget Sound Savings and Loan association musical program, Jessie Emmerick; talk, "Why some people are always in debt and the remedy", Inez Meyring; 1-2:30, organ recital, Columbia theater; "What to prepare for tonight's dinner", Bernice Redington; 6-6:30, what's doing at the theaters; 6:45-7, the box office, Seattle theaters' doings; 7-8:30, Frederick, and Nelson, bedtime stories; musical program, Cornish school; artistic ensemble, Peter Mereblum, violin; Kola Levienne, cello; Mme. Berthe Poncy Dow, pianist; 8:30-10, Puget Sound Savings and Loan association orchestra, Henry Damski, director; 10-12, Henry Halstead's victor recording orchestra.

KMTR, Hollywood, Calif. (238), 5-6 p. m., citizenship hour with Mammy Simmons, Boy Scouts and Campfire Girls; 6-7, Starr Piano company studio; 7:30, "Diamond Mines of Central Africa," E. P. Barclay; 8-10, The Turner orchestra, Loren Powell, directing.

KNX, Hollywood, Calif. (336.9), 5-5:30 p. m., Sunny Jim's talk; 5:30-6:15, Wurlitzer pipe organ studio; Town Tattler; 6:15, travel talk, W. F. Alder; 6:30-7, Atwater Kent concert orchestra; 7-7:45, program, Cavalier Shoe stores; 7:45, health talk, Dr. Robt. T. Williams; 8-10, KNX feature program; 10-12, movie night at the Ambassador; Ray West's Cocoanut Grove dance orchestra.

KOAC, Corvallis, Ore. (280.2), 3:45-4:30, special homemakers' program.

KPO, San Francisco, Calif. (428.3), 7-7:30, 8 a. m., daily dozen exercises; 10, talk on domestic science by Virginia Tappan; 10:30, "Ye Towne Cryer"; 1-2, Rudy Seiger's Fairmont hotel orchestra; 2:30-3:30, matinee program; 3:30-4:30, Cyrus Trobbe's Palace hotel concert orchestra; 5:15-6:15, children's hour stories, Big Brother; 6:30, "Ye Town Cryer"; 6:40, Waldemar Lind and the States Restaurant orchestra; 7-7:30, Rudy Seiger's Fairmont hotel orchestra; 8-9, program, featuring instrumental and vocal selections; 9-10, program, featuring the Mona Motor Oil trio and Gypsy and Marta, close harmony team; 10-11, Waldemar Lind and the States restaurant orchestra.

KPSN, Pasadena, Calif. (315.6), 8-9 p. m., Adolf Tandler instrumental group.

KTAB, Oakland, Calif. (240), 9-9:30 a. m., prayer service, Rev. G. W. Phillips; 8-10, studio program.

Wednesday, January 20

Headliners Today

Eastern	Central	Mountain	Pacific
8 p. m.	7 p. m.	6 p. m.	5 p. m.
WQJ (447.5) Saida A. Ballantine artists.			
8:30	7:30	6:30	5:30
KDKA (309.1) Quartet de luxe.			
WBZ (333.1) Fitchburg night.			
WNYC (526) Radio Love Birds.			
9	8	7	6
WDAF (365.6) Round Table club.			
WSM (282.8) Musical Coterie artists.			
9:15	8:15	7:15	6:15
WTIC (475.9) Laura Gaudet.			
9:30	8:30	7:30	6:30
KFAB (340.7) Mona Motor Oil Cans.			
KPRC (296.9) Texas City artists.			
10	9	8	7
WGR (319) Walther chorus.			
10:15	9:15	8:15	7:15
KTHS (374.8) Request night.			
11	10	9	8
WOC (483.6) "Safety First," three-act comedy.			
12 m.	11	10	9
KOA (322.4) Rhythm Hustlers.			

Wednesday, silent night for: CHIC, CKNC, CNRA, CNRC, CNRE, CNRM, CNRR, CNRT, CNRV, KFAU, KFDM, KFEQ, KFKU, KFMQ, KFXF, KGO, KLDS, KOB, KTAB, WBAL, WBBR, WCAD, WSBD, WEBW, WFAA, WGBS, WGCP, WGST, WHAR, WHAZ, WIP, WJAZ, WMC, WOAI, WOAW, WOI, WPG, WRC, WREO.

Eastern Time Stations

CKAC, Montreal, Canada (411), 1:45 p. m., Windsor hotel luncheon concert.

CNRO, Ottawa, Can. (435), 7 p. m., children's half hour; 8, Chateau Laurier concert orchestra; 8:45, Charlotte Marier, pianist; M. Rene Laflame, tenor; Paul Larose, pianist; Ronald Godbout, cornetist; Charles Pare, cornetist; Madame Henri Gauthier, soprano; Louis de Puyjalon, baritone; Chateau Laurier dance orchestra.

KDKA, Pittsburgh, Pa. (309.1), 7:15, 8 a. m., morning exercises; 12:20 p. m., "Personal Adjustment in the Family," Roswell Johnson; 5:45, KDKA mailbox; 6:30, dinner concert; 8:15, "Chemistry and Human Progress," Dr. Kendall S. Tesh; 8:30, KDKA Little Symphony orchestra; quartet deluxe.

PWX, Havana, Cuba (400), 8:30-11 p. m., concert, Malecon band, Cuban navy, Lieut. Armando Romeu, band leader.

WAHG, Richmond Hill, N. Y. (315.6), 12:03 p. m., musical program; 7:30 p. m., Club Castle dance orchestra; 8, Augustine Jaquillard, soprano; 8:15, contralto; 9:15, Sterling male quartet; 9:45, Jerva Emery Deutsch, violinist; 9, Jerva Blix, Norwegian Blix; 10:03, Raymond Maher, baritone; 10:20, Frank Lapeire's Collegians.

WBZ, Springfield, Mass. (333.1), 6:30 p. m., Little symphony orchestra, KDKA; 7:30, "Bird Life in Northern Patagonia," James L. Peters; 8, Hotel Kimball dance orchestra; 8:15, Mass. Aggie Radio forum; 8:30, Fitchburg night; 10:20, Leo Reisman's Hotel Brunswick studio.

WCAP, Washington, D. C. (468.5), 7 p. m., bridge, Ipana Troubadours; Roxy and his gang.

WCAU, Philadelphia, Pa. (278), 6:45 p. m., Parodians dance orchestra; 8, health talk; 8:10, Papa Bailey and his Gang; 8:45, Smokey; 9, Rigo's Royal Gypsy ensemble; 9:30, Jones' Jolly Four; 10, Lew Chapman's Inter-Fraternity dance orchestra; 10:30, White Strickland, "poetician"; 10:45, Frank Cook, old-time songs; 11, Artie Bittong's Cheer-up club.

WCX, Detroit, Mich. (516.9), 6 p. m., dinner concert, Book-Cadillac hotel; 8, musical program from studio.

WEAF, New York, N. Y. (491.5), 6:45-7 and 7:20 a. m., Tower health exercises; 10:45, Betty Crocker Gold Medal Flour home service talk; 11:05, Warren Scofield, baritone, accompanied by Winifred T. Barr; 11:15, health talk; 11:30, Columbia university lecture, "Home Management"; 4, Ruth Shaffner, soprano, ac-

From an old Spanish family is Carmen D. Obarrio, talented young pianist, who entertains every Monday at KTAB, Oakland.

KPO TO INTRODUCE SWISS SINGERS

Wednesday, January 20

companied by Winifred T. Barr; 4:15, Nora Norman, pianist; program, "Capriccio", "Nocture", "Golliwog's Cake-Walk", "Waltz", "The Elf", Gnossienne", "Seguidilla"; 4:30, Paul Butler, tenor, accompanied by Winifred T. Barr; 6, dinner music, Hotel Waldorf-Astoria; 7, Synagogue servicers; 7:30, chamber musicale; artists; 8:30, Davis saxophone octet; 9, Ipana Troubadours; 10, musical program, "Roxy and His Gang"; 11-12, Hughie Barrett and his orchestra.

WEBJ, New York, N. Y. (272.6), 8 p. m., Putnam County Chamber of Commerce dinner.

WFI, Philadelphia, Pa. (394.5), 1 p. m., tea room orchestra; 3, Kathryn Beard, soprano, Helen Bader Yost, pianist; 6:30, Bellevue Stratford concert orchestra; 7, Bellevue Stratford dance orchestra.

WGBS, New York, N. Y. (315.6), 10 a. m., timely talks; 10:10, Mary Miller, pianist; 10:20, beauty talk; 10:30, Mary Miller, pianist; 10:40, "House Furnishing", Olive Cowe; 10:50, Mary Miller, pianist; 3 p. m., special program for Hospital Shut-ins; 6, Uncle Geebee; 6:30, Jersey Collegians.

WGCP, New York, N. Y. (252), 12:30 p. m., race; 3 p. m., Ona Welsh, pianist; 3:20, Bobby Grey; 3:30, Schwarz; 4:15, Haines Good News party; 4:30, Jeanne A. Dair, composer; 4:45, Charlotte Trystmann, pianist; 5:10, Tracey and Mohr; 7, studio program; 7:30, Lillian Rubin, soprano; 3:55, dental talk, Dr. J. D. Kennedy Harmony group; 8, Hock and Jerome; 8:15, Charol De Thomee pianist.

WGR, Buffalo, N. Y. (319), 2:30 p. m., WGR afternoon program; 6:30, Armbruster's orchestra, Jack Little; 8:30, jointly with WEAF, Davis saxophone octet; Ipana Troubadours; 10, Walther chorus; 11-1 a. m., Vincent Lopez Hotel Statler dance orchestra, Harold Gieser, director.

WGY, Schenectady, N. Y. (379.5), 6:45 dinner program, Eastman theater orchestra, WHAM; 7:30, "Book of Knowledge" program; 8:05, musical program, WHAM.

WHN, New York, N. Y. (361.2), 7 p. m., Ted Lewis and his orchestra; 7:30, Burr McIntosh; 8, Calvary Baptist church; 10, Roseland dance orchestra; 11, Silver Slipper orchestra; 11:30, Melody club orchestra; 12, Cotton club orchestra; 12:30-1, Harry Richman and his entertainers.

WIP, Philadelphia, Pa. (508.2), 6:45 a. m., setting-up exercises; 7, setting-up exercises; 10:30, reducing exercises; 1 p. m., Gimbel tea room orchestra; 3, Shapp instrumental quartet, Isidor Shapp, violinist, Anthony Bove, harpist, Anthony Giampectra, flutist, Frank Vetera, cellist, Flora Ripka, accompanist; 6:05, Benjamin Franklin concert orchestra; 7, Uncle Wip's bedtime stories.

WKAQ, San Juan, P. R. (340.7), 7-9 p. m., musical selections, Municipal band; Prof. Manolo Tizol, conductor.

WKAR, E. Lansing, Mich. (285.5), 7:15-8 p. m., "New Discoveries and Their Application to Horticultural Problems," J. W. Crist; 8-9, music.

WLIT, Philadelphia, Pa. (394.5), 12:02 p. m., daily almanac; organ recital from Stanley theater; Arcadia cafe concert orchestra; 2, Arcadia cafe concert orchestra; 4:30, recital; 7:30, Dream Daddy's bedtime stories; 8, recital; 10, Arcadia cafe dance orchestra.

WMAK, Lockport, N. Y. (265.5), 7:30-9 p. m., musical.

WNYC, New York, N. Y. (526), 6:30 p. m., Spanish lessons; 7:35, dance program; 8:30, the Radio Love Birds; 9-11, banquet of the National Boot and Shoe manufacturers.

WOO, Philadelphia, Pa. (508.2), 11 a. m., organ recital; 12:02 p. m., Golden's crystal tea room orchestra; 4:45, organ recital; 7:30, Sylvania hotel dance orchestra; 8, Chamber musicale; 8:30, Davis saxophone octet; 9, American male quartet; 9:30, address, Rev. Forest Dager; 10, Fox theater studio program; 10:30, Sylvania hotel dance orchestra.

WOR, Newark, N. J. (405.2), 6:15 p. m., "Words Often Mispronounced"; 6:17, sports, Bill Wathey; 6:30, Jacques Jacobs Hotel Shelton ensemble; 8, "Topics of the Day," Spencer Armstrong; 9:15, talk, Dr. Frank H. Vizetelly; 9:30, Sam Siegel, mandolinist; 9:45, Ballin and Race, piano duettists; 10, Sam Siegel, mandolinist; 10:15, Ballin and Race.

WRC, Washington, D. C. (468.5), 10 a. m., women's hour; 12 m., Gertrude Smallwood, organist; 1 p. m., Lee House trio; 4:15, Meyer Davis' Le Paradis band; 5, WRC Foolish entertainers; George F. Ross, pianist; Ellsworth Tompkins, baritone; 6, "Things Talked About," Mrs. Nina Reed.

WTAG, Worcester, Mass. (268), 10:30 a. m., music; 10:45, talk to housewives, Mrs. Lyda Flanders; 12:05-2 p. m., WTAG orchestra; 4:45, talk, Robert K. Shaw; 7:15, Twinkle Twinkle story teller; 7:30, talk, Harold Whitehead; 7:45, Spanish lesson, Mrs. De La Parra; 8:30-9, Davis saxophone octet; 9-10, program; 10-11, Roxy and his gang.

WTIC, Hartford, Conn. (475.9), 6:30 p. m., dinner concert; 8, studio program; 9, talk, "Some Aspects of Human Inheritance", Prof. Goodrich of Wesleyan university; 9:15, piano recital, Laura C. Gaudet; 9:30, organ recital.

WWJ, Detroit, Mich., (352.7), 9:30 a. m., tonight's dinner; special talk by the woman's editor; 12:05, Jules Klein's Hotel Statler orchestra; 3, Detroit News orchestra; 6, dinner concert; 8, News orchestra and soloists; 9, dance program; 10, Roxy and his gang.

The Rushmore ensemble singers gather at WJJD, Mooseheart, every Tuesday night under the direction of Elizabeth Rushmore, above. These programs are creating a very favorable impression this year.

Central Time Stations

CKY, Winnipeg, Can. (384.4), 7:30 p. m., Canadian National Railway's program, CNRW.

CNRW, Winnipeg, Can. (384.4), 7:30 p. m., bedtime story; 7:50, farmers' program; 8, Fort Garry hotel orchestra; 8:40, C. N. R. Transcona Shops brass band; Eleanor Williams Edmond, contralto; 10, Fort Garry hotel orchestra.

KFAB, Lincoln, Nebr. (340.7), 8:30-10:30 p. m., Mono Motor Oil Cans; Belshaw's orchestra, Slick Merriam, pianist; Cow Bell Boys; Olive Fletcher, Ruby Theater, double piano number; Harriett Cruise, Oriole of the Air.

KFKX, Hastings, Nebr. (288.3), 1 p. m., "The Dairy Cow in Summer," C. H. Eckles; 5:30, KDKA dinner concert; 9, musical program.

KFUO, St. Louis, Mo. (545.1), "How Can You Prove the Inspiration of the Bible?" Prof. M. S. Sommer.

KMA, Shenandoah, Iowa (252), 11:30-12:30 p. m., noonday rural program; talk, Earl E. May; music; news; 5:30, travelogue, G. H. Van Houten; 6-7, domestic science talk, Le Ona Teget; music; news; 9-11, Wm. Cunningham, Scotch songs; Babe and Bobbie Riddle, singers and clog dancers; men's chorus, Coin, Iowa.

KPRC, Houston, Texas (296.9), 12 m., Lion's club luncheon; 5:30 p. m., Uncle Judd's kiddies; 7:30, Eddie's Syncopators; 8:30, E. J. Katzmark, tenor; Mabel Lewis, pianist; 11, West Coast serenade program.

KSAC, Manhattan, Kans. (340.7), 9-9:25 a. m., music, inspirational talks, agricultural primer, calisthenics; 9:55-10:25, readings, question box; today's meals; 12:35-1:05 p. m., readings, question box; "Winter Horse Feeding," R. W. Kiser; "The Wily Coyote," A. E. Oman; 4:30-5, basketball lectures; 6:30-7:30, sports; Extension credit course, agricultural journalism; "Transportation Problems of Kansas," F. F. Frazier; "Systematic Trouble Shooting," Ray Flagg.

KSD, St. Louis, Mo. (545.1), 7 p. m., "Fur Hour;" 8, WEAF chain.

KSO, Clarinda, Iowa (241.8), 7-7:30 p. m., farm talks; 7:30-9, Mrs. Helen Grimes.

KTHS, Hot Springs National Park, Ark. (374.8), 9-9:15 p. m., W. C. Brown, baritone; 9:15-10, KTHS staff, New Arlington hotel orchestra; 10-10:45, concert, Southerners dance orchestra.

KYW, Chicago, Ill. (536), 6:30-7 a. m., morning exercises, Paul A. Leonhardt; 7:30, morning family worship, Y. M. C. A; 11:35, table talk, Mrs. Anna J. Peterson, Peoples Gas Company; 12:05 p. m., concert; 1, luncheon concert, Congress hotel; 6, dinner music, KDKA; 7:05, bedtime story, Walter Wilson; 7:30, music program, KYW; 8, musical program, Congress hotel; 10, midnight revue, KYW, Paul Ash and his orchestra, McVickers theater; 10:10-11:10, Sanders original Nighthawks; 12, Henri A. Keates, organlogue, McVickers theater; 1, Insomnia club, Congress hotel.

WAMD, Minneapolis, Minn. (243.8), 12 m., musical program; Dorothy Vanesek, soprano; Hazel Stageberg, accompanist; D. A. Lindholm, baritone; Donald Mensing, violinist; Wayne Hugaboom, accompanist; 7:05, talk; 7:10, musical program; Joy Nichols, soprano; Charles Jereb, tenor; Harvy Burt, pianist; Amy Hedburg, accompanist; Beata Hanson, violinist; 11, Skyrocket frolic, George Osborn's Hotel Radisson Skyrockets.

WBBM, Chicago, Ill. (266), 4-6 p. m., Valentino inn orchestra; artists; 8-10, string trio; Moulin Rouge orchestra; 12-2, artists; Two Jays.

WBCN, Chicago, Ill. (266), 10-10:30 a. m., Penny Wise, the shopper's ready helper, shopping talk; 7-8, classical hour; Emily Stone, violinist; Ada Mae, tenor; Ethel Eaves Price, soprano; Alice McMahon Stone, accompanist; Lemmyon Amoureaux, French tenor; Ethel Eaves Price, soprano; Alice McMahon, contralto; Margaret McArthur, pianist; John Williams, baritone; 10-1 a. m., Elmer Jordan & Co., Owl matinee.

WCCO, Minneapolis-St. Paul, Minn. (416.4), 10:45 a. m., "Checking up for the New Year," Betty Crocker; 2 p. m., "How the General Hospital Serves Minneapolis," Dr. Walter E. List; 2:30, afternoon concert; 4, reader's club, Eleanor Poehler; 7, midweek church, Rev. Douglas Atwill, rector; 8, Ipana Troubadours, WEAF; 9, "School Safety Problems," Gust H. Barfuss; 10:05, Wallie Erickson's Coliseum orchestra; 11:30, Eddie Dunstedter, organist.

WDAF, Kansas Ctiy, Mo. (365.6), 10:45-11 a. m., Betty Crocker in home service talk; 6-7, The Tell-Me-a-Story lady; address, Ralph E. Herrick; The Trianon ensemble; 8-9, program, Round Table club; 9-10, classical musical program, the Star's string ensemble; 11:45-1, the Plantation players; Eddie Kuhn's orchestra; Kansas City Athletic club, Wendell Hall.

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

WEBH, Chicago, Ill. (370.2), 11:30-12 m., woman's half hour; 3-4 p. m., special features; 7-8, Oriole orchestra; Florence Behrend, soprano; Frank Bordner, baritone; 11-11:15, Oriole orchestra; 11:15-12:30, Howard Neumiller, pianist; Oriole orchestra.

WENR, Chicago, Ill. (266), 6-7 p. m., dinner concert; Rauland-lyric trio; piano and vocal selections; 8-10, popular program; All-American Pioneers; J. E. Peterson; Archie Rawls, tenor; Art Bilquist, popular songster; Helen Hart, soprano; Claire Gorska Geis, soprano; 12-2 a. m., All-American Pioneers; banjo and sax duettists; violin solos, vocal selections.

WFAA, Dallas, Texas (475.9), 12:30-1 p. m., Sears-Roebuck agricultural foundation program.

WGES, Oak Park, Ill. (250), 5-7 p. m., Betty Bebb and Helen Cameron, vocal duo; McDevitt sisters, pianists; Tiffin theater organ and orchestra; 8-9, Ethel Giese, basso; John Stamford, tenor; Tiffin theater organ and soprano; Ruth Kalthoff, contralto; Peter Mathews, orchestra; 11-1 a. m., Phillips twins, vocal duo and ukulele soloists; Tiffin theater organ and orchestra; Serenaders; Morris Hoffman, tenor.

WGN, Chicago, Ill. (302.8), 11-11:30 a. m., household hints; 11:30-12 m., fashion discussion; 12-12:40 p. m., public service period; 12:40-2:30, luncheon concert, and Johnson, Marie Wright, Lenore Friedman, Pearl Holzman, Prof. Black.

WLIB, Chicago, Ill. (302.8), 7-8 p. m., dinner concert; 11-12, popular program; 12-1, dance program.

WLS, Chicago, Ill. (344.6), 6:30 p. m., Ralph Emerson, organist; 7, lullaby time; 7:15, WLS trio; 7:45, Rodeheaver program; 8:15, Arneson quartet; 8:45, WLS theater presentation; 10:40, Chicago Little symphony; 11, WLS circus.

WLW, Cincinnati, Ohio (422.3), 7:30 a. m., exercises, William Stradtman, Y. M. C. A; 8, morning devotions, auspices of Parkway Y. M. C. A; 12:05 p. m., Irene Downing, pianist; 3:30, Kroger cooking school, Mrs. Ralph H. Auch; 4, shut-in program, William Duning; 7, dinner hour concert, Hotel Gibson, Robert Visconti, director; 7:30, address, representative of the Ohio Farm Bureau federation; 7:40, Hotel Gibson concert; 8, Baby Bernadine; 8:15, second concert, Cincinnati Conservatory of Music, Ralph Lyford, conductor; 10, pep concert, fraternities of the University of Cincinnati, Ohio Delta Lambda of Alpha Tau Omega; 10:30, readings, by Charles Meade; 10:40, Crosley male quartet; 11:15, Crosley musical news, Johanna Grosse, organist; 11:40, pianologues, Carl Bamberger; 12, midnight stage and screen scribes frolic.

WMAQ, Chicago, Ill. (447.5), 12:45 p. m., Radio farm school; 1, Chicago Association of Commerce luncheon; 2, shut-in program; 4, recipes, Mrs. E. O. Hiller; 4:30, Cosmopolitan school of music pupils; 6, Chicago theater organ recital; 6:30, Georgene Faulkner, story lady; 8, lecture, Northwestern university; 8:30, musical program; 9, WMAQ players; 9:55, University of Chicago chimes.

WMBB, Chicago, Ill. (250), 7-8 p. m., Trianon concert artists, miscellaneous program, saxophone sextet, Veronica Krebs, semi-classical program; talk on finance; 9-11, Trianon orchestra, Dell Lampe, director; Woodlawn theater orchestra; Armin F. Hand, director; Scotty Welsh and Madison Sisters; Cecil and Esther Ward; Wilson and Davis, Billie Allen Hoff, popular program.

WNAD, Norman, Okla. (254), 12:30) p. m., Delta Pi serenaders; 12:50, " History of Oklahoma," Dr. E. E. Dale; 3:30, Boomers; 7:20, "Venus," course in astronomy and mythology, Professors Moseley and Hassler; 7:40, the work of the world, Dr. Allan M. Ruggles; talk, choosing one's life work; 9, Delta Pi serenaders; 10, WNAD little symphony; 11, collegians; 12, sooners.

WOAI, San Antonio, Texas (394.5), 3 p. m., musical program; 8:30-9:30, Army night, musical program, Ft. Sam Houston.

WOAW, Omaha, Nebr. (526), 12:45 p. m., Phyllis Griswold, organist.

WOC, Davenport, Iowa (483.6), 12:15-12:25 p. m., "The Dairy Cow in Summer," Prof. C. H. Eckles; 3-3:30, home management, Aunt Jane; 4-4:15, Clayton Meyer, baritone; Nat Ozman, entertainer; 5:45-6, chimes; 6:30-6:50, sandman; 6:50-7, "Modern Method of Salting and Smoking Meat at the Same Time," Yewell Rice; 9-10, Erwin Swindell, organist; Jeanette Brubaker, soprano; 10, "Safety First," WOC players.

WOK, Chicago, Ill. (217.3), 4:30-7 p. m., Capitol theater organ; Tearney's Town club Twilight Dansant; Lillian Knowles, contralto; Edwin Kemp, tenor; 10-1:30, Tearney's Town club orchestra; Carl LaRine's Pershing Palace orchestra; Husk O'Hare's Cocoanut Grove orchestra; Capitol theater program; studio program.

Atwater Kent Program, January 17, over WEAF and Chain*

Artists will be Florence Austral, soprano, and Cecilia Hansen, violinist.

I

Aria, Elizabeth's Greeting from Tannhauser.....Wagner
Florence Austral

II

"Poem".....Fibich
"Valse Bluette".....Drigo
Cecilia Hansen

"Dreary Steppe".....Gretchaninoff
"The First Violet".....Mendelssohn
"The Dawn".....Pearl Curran
Florence Austral

"Meditation Thais".....Massenet
"Caprice Viennois".....Kreisler
"Serenade".....Arensky
Cecilia Hansen

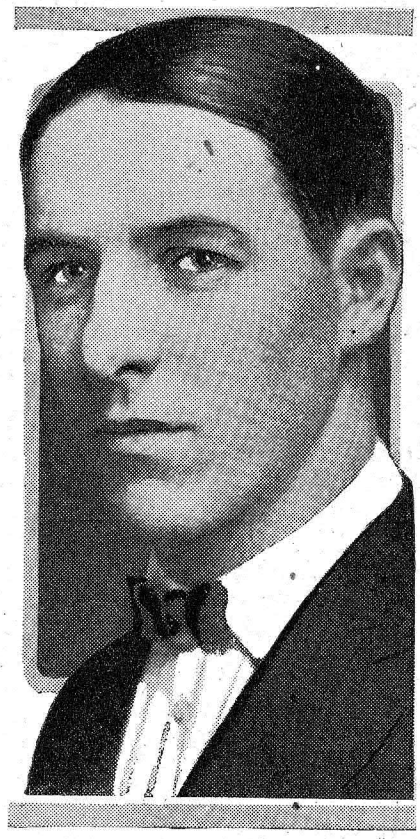
Aria Ritorna Vincitor from "Aida".....Verdi
Florence Austral

"Humoresque".....Dvorak
"Ave Maria".....Schubert-Wilhelmy
Cecilia Hansen

"Oh, Could I But Express in Song".....Malashkin
"Love's Quarrel".....Cyril Scott
"Sea Rapture".....Eric Coates
Florence Austral

Myron Jacobson at the piano for Miss Austral.
Boris Zakharoff at the piano for Miss Hansen.

*The WEAF chain for the Atwater Kent hour (9:15 p. m., eastern, 8:15 p. m., central time) includes WEAF (491.5), WFI (394.5), WGR (319), WCAE (461.3), WCAP (468.5), WJAR (305.9), WTAG (268), WGN (302.8), KSD (545), WCCO (416.4), WOC (483.6), WSAI (326), WEEI (348.6).



"Hot Lips" might be applied to "Bud" Morely, harmonica king of New York, who has found his way to WOC, Davenport. There is nothing this jazz artist cannot play on his chosen musical instrument.

WOS, Jefferson City, Mo. (440.9), 8 p. m., Missouri State Farmers' week, music, addresses.

WQJ, Chicago, Ill. (447.5), 11-12 m., "The Middle Aged Woman," Dr. Bertha Van Hoosen; "The Health Value of Winter Sports," Erna Baylis; 3-4 p. m., "A Soup and a Salad," Helen H. Downing; Lavine Price, pianist; "Pies for Everybody," Jean K. Rich; 7-8, Rainbo Gardens orchestra; Saida A. Ballantine artists; 10-1, Rainbo Skylarks; Melodians; Clarence Theders, tenor; J. Edwin Peterson, bass; Joey Stool, tenor; Eddie Vogel, baritone; Oxford Girls; Thelma Pefferle, soprano; 1-2, Ginger hour.

WSAI, Cincinnati, Ohio (326), 7 p. m., chime concert, Robert Badgley; 7:15, art talk, Cincinnati Art club; 7:30, the Davis Saxophone octet, WEAF; 10, talk, faculty member of University of Cincinnati; 10:15, the Congress Playing Card string quartet.

WSB, Atlanta, Ga. (428.3), 10:45 p. m., Biltmore salon orchestra.

WSM, Nashville, Tenn. (282.8), 6:30 p. m., concert, Francis Craig and his orchestra from Hermitage hotel; 7, bedtime story interlude; 8, program, Mrs. T. E. Miles and associate artists; 10, studio program.

WSUI, Iowa City, Iowa (483.6), 12:30 p. m., Dorothy Marshall, violinist; "An Epic of the Maori or Native New Zealanders," Prof. C. C. Nutting; 7:30-9, music.

Mountain Time Stations

CFAC, Calgary, Canada (435.8), 4 p. m., Red Cross, address; 8, program, W. F. Strack.

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

KOA, Denver, Colo. (322.4), 12:15 p. m., Rialto theater musicale; 6:27, farm council; 6:30, Brown Palace string orchestra; 7:30, Book of Knowledge; 8, studio program, Cooperative club; Cooperative boys' choir; KOA orchestra; Nina Churcher Thomson, soprano; Mrs. Morris J. Krohn, contralto; address, Herbert G. Brown; William Wegener, tenor; Charles Sackman, boy soprano; Aeolian trio; Charles M. White, tenor; Wilhelmina Rinche, contralto; First Baptist church quartet; Gertrude Livingston, contralto; Elmer Nelson, tenor; Mrs. Percy J. Lee, soprano; Clarence J. Schnebly, baritone.

Pacific Time Stations

KFI, Los Angeles, Calif. (467), 5:30-6 p. m., Examiner matinee; 6, nightly doings; 6:15, KFI's seeing California; 6:30, vest pocket program; 6:45, Radiotorial period; 7-7:20, Nick Harris' detective story; 7:20-8, Al Wesson and his dance orchestra; 8-9, program, Ventura Refining company, Ventura string quartet; 9-10, Examiner hour; 10-11, Patrick-Marsh dance orchestra, Betty Patrick, soloist.

KFON, Long Beach, Calif. (232.4), 4:30-5 p. m., amusement bulletin; 6-6:30, organ recital, Brayton's theater; 8-9, Press-Telegram program, directed by L. D. Frey.

KFWB, Hollywood, Calif. (252), 5-6 p. m., children's hour, Big Brother of KFWB; 7-7:30, Mutual Motors mirth contest; 7:30-8, microphone brevities; 8-9, program, Cheek-Neal Coffee company, Maxwell House Coffee string quartet; 9-10, Warner Brothers syncopators and entertainers; 10-11, Warner Brothers frolic, direction Charlie Wellman.

KGO, Oakland, Calif. (361.2), 3-4 p. m., speaker, Williams institute; Gladys Geary, soprano; Mitchell Landis, baritone; Frank Clark, pianist; 4-5:30, concert orchestra, Hotel St. Francis; 6-6:55, Arrillaga musical college; Clara Puccinelli, violinist; Charles William Warriner, accompanist.

KGW, Portland, Ore. (491.5), 7:15 a. m., physical culture exercises; 12:30-1:30 p. m., concert, Rose City trio; 6-7, dinner concert; 8-9, concert, 7th United States Infantry band; 10-11, concert, Sherman, Clay and company studio.

KHJ, Los Angeles, Calif. (405.2), 6-6:30 p. m., Leighton's Arcade cafeteria orchestra, Jack Cronshaw, leader; 6:30-7:30, history story, Prof. Hertzog; Dick Winslow, juvenile reporter; Mickey McBan, screen juvenile; Laon Ramon, pianist; Piggy Wiggly girls' trio; 8, Dr. Mars Baumgardt, scientific lecturer; 8:30-10, program, Motor Transit Stages system; 10-11, Don Clark's Biltmore hotel dance orchestra.

KJR, Seattle, Wash. (384.4), 1-2:30 p. m., organ recital, Columbia theater; "What to Prepare for Tonight's Dinner," Bernice Redington; 7-8:30, Sears Roebuck and company program; Aunt Bunny, the story lady; Bab's lady orchestra; 8:30-10, studio program; 10-12, Henry Halstead's victor recording orchestra.

KMTR, Hollywood, Calif. (238), 5-6 p. m., variety hour with Mammy Simmons and pupils of Geraldine Kasal, Irene Bennet, Louise Trosper; 8-10, the Turner orchestra, Loren Powell, director; Rondeau male quartet; 10-11, Starr Piano company studio.

KOAC, Corvallis, Ore. (280.2), 7:20 p. m., musical program; 7:30, "Household Linens" Blanche Stevens; 7:45-8, "Would You like to improve Your Kitchen?" Emma S. Weld.

Wednesday, January 20

KPO, San Francisco, Calif. (428.3), 7-7:30, 8 a. m., daily dozen exercises; 10, sewing talk, Betsy Ross; 10:30, "Ye Towne Cryer"; 12, reading of the Scripture; 1-2, Rudy Seiger's Fairmont orchestra; 2:30-3:30, matinee program; 5:15-6:15, children's hour stories, Big Brother; 6:30, "Ye Towne Cryer"; 6:40-7, Waldemar Lind and the States restaurant orchestra; 7-7:30, Rudy Seiger's Fairmont hotel orchestra; 8-9, program by Atwater Kent artists; 9-10, dance music, Goodrich Silvertown Cord orchestra; 10-11, Palace Hotel Rose room dance orchestra.

KTAB, Oakland, Calif. (240), 9-9:30 a. m., prayer service, Rev. G. W. Phillips.

KWSC, Pullman, Wash. (348.6), 7:30-9 p. m., women's glee club, Mrs. Herbert Kimbrough, director; special program, Colfax Chamber of Commerce.

Thursday, January 21

Headliners Today

Eastern	Central	Mountain	Pacific
7 p. m.	6 p. m.	5 p. m.	4 p. m.
WTIC (475.9)	Travelers' banquet program.		
8:30	7:30	6:30	5:30
WBZ (333.1)	Salvation Army band.		
9:15	8:15	7:15	6:15
WBZ (333.1)	MacDowell program.		
9:30	8:30	7:30	6:30
CKY (384.4)	Princess Pat's band.		
10	9	8	7
WGY (379.5)	Rice string quartet.		
11	10	9	8
KGO (361.2)	"A Scrap of Paper," play.		
KPO (428.3)	Swiss singing society.		
11:15	10:15	9:15	8:15
KTHS (374.8)	French harp and accordion novelties.		

Thursday, silent night for: CHIC, CKNC, CNRA, CNRE, CNRO, CNRR, CNRT, CNRV, CNRW, KFAB, KFAU, KFDM, KFEQ, KFMX, KFOA, KFUO, KFVE, KFWA, KGW, KLDS, KLX, KOA, KOAC, KOB, KWSC, PWX, WAFD, WAHG, WCAP, WCEE, WDOD, WEAO, WEBJ, WEBW, WHAD, WHAZ, WJJD, WKAQ, WLIT, WOAI, WOR, WSM, WSUI, WTAM.

Eastern Time Stations

CKAC, Montreal, Canada (411), 4:45 p. m., Windsor hotel tea dansant; 8, CNRM.

CNRM, Montreal, Canada (411), 8:30 p. m., scottish music, St. Andrews choir; Master Gerald Christmas, violinist; address, J. A. H. Cameron.

KDKA, Pittsburgh, Pa. (309.1), 12:20 p. m., "The Development of Personality, Neglected Channels of Self Expression," Floyd Allport; 6:30, KDKA Little Symphony orchestra; 8:15, farm program; 8:30, "Charles Francois Gounod," Richard Kountz; KDKA Little Symphony orchestra; Juliet Bartletti, soprano; 9, KDKA Little Symphony orchestra; soprano; 11, Pittsburgh Post midnight revue.

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

WBBR, New York, N. Y. (272.6), 8 p. m., Carl Park, violinist; 8:10, vocal selections, Ruth de Boer and Elvira Kiefer; 8:20, Bible lecture, W. L. Pelle, "True Friendship"; 8:40, vocal selections, Ruth de Boer and Elvira Kiefer; 8:50, Carl Park, violinist.

WBZ, Springfield, Mass. (333.1), 6:30 p. m., KDKA; 7:30, Hotel Lenox ensemble; 8, Hotel Kimball dance orchestra; 8:30, Salvation Army band; 9:15, MacDowell program, Edmund Lloyd Myhaver, pianist; 9:30, to be announced.

WCAU, Philadelphia, Pa. (278), 6:30 p. m., Billy Hayes Cathay tea garden dance orchestra; 7:30, N. Snellenburg concert; 8, Mitchell Gondoliers; 8:15, recital; 8:45, Kandy Kid; 9, Barry Moore, Irish tenor; 9:30, Musical Chefs; 9:45, burlesque lessons, Professor Doolittle; 10, Sesqui-Centennial hour; 11, Parodians dance orchestra; 11:30, Club Cadix revue.

WCX, Detroit, Mich. (516.9), 6 p. m., dinner concert, Book-Cadillac hotel; 8, musical program.

WEAF, New York, N. Y. (491.5), 6:45-7 and 7:20 a. m., Tower health exercises; 11, Ruth Donaldson, soprano, accompanied by Winifred T. Barr; 11:10, Megowen's Mayfair extension talk; 11:20, Ruth Donaldson, soprano; 11:30, Columbia university lecture, "Cookery"; 4 p. m., recital, Julia Forrest, contralto, and Louise D. Scanlon, soprano; 4:15, Margaret Lyon, violinist, accompanied by Mrs. Mary Riker; 4:30, Henri Beaugard, tenor; 4:45, "Color in Lamps," Mrs. Bernice Bowser; 6, dinner music, Rose room of Hotel Waldorf-Astoria, New York City; 7, mid-week hymn sing, auspices of Greater New York Federation of Churches; 7:30, Smith brothers; 8, Larkinites; 8:30, Hire's harvesters; 9, Clicquot Club Eskimos; 10, Silvertown Cord orchestra, Joseph Knecht, director; 11-12 m., Vincent Lopez and his orchestra.

WFI, Philadelphia, Pa. (394.5), 1 p. m., tea room orchestra; 3, Oak Lane Review club; 6:30, Bellevue-Stratford concert orchestra; 7, Bellevue-Stratford dance orchestra; 8, Larkinites; 8:30, Hire's harvesters; 9, Clicquot Club Eskimos; 10, Silvertown Cord orchestra.

WGBS, New York, N. Y. (315.6), 10 a. m., timely talks; 10:10, T. Edgar Schewe, pianist; 10:20, "Better Homes," Alice Banrhill; 10:30, T. Edgar Schewe, pianist; 10:40, Hazel Lee, reader; 1:30 p. m., Phyllis Haverly, soprano; 2, Crescent City trio; 3, "Women in the Home" program, Prudence Penny; 6, Uncle Geebee; 7:45, Crystal Palace orchestra; 8:30, "Footlight and Lamplight," Oliver Sayler; 10:30, Vanderbilt hotel dance orchestra.

WGCP, New York, N. Y. (252), 12:45 p. m., 3, Elvira Rosa Geiger, pianist; Davis and Gallase; 3:35, Harold Glenn, whistler; 4:10, Fair and Dunn entertainers; 4:30, White Rose Melody boys; 5:10, Sylvia Schatz, pianist; 8:30, Strickland's orchestra; 9, F. R. Capocielliez, baritone; 9:15, Eva Rothenberg, pianist; 9:30, Piotti and Val; 9:45, studio program; 10:30, Strickland's orchestra; 11, Connie's orchestra.

WGR, Buffalo, N. Y. (319), 2:30 p. m., WGR afternoon program; 6:30, Vincent Lopez's Hotel Statler dance orchestra, Harold Gieser, director; 8, jointly with WEAF, Larkinites; 8:39, Jack Little; 9, jointly with WEAF, Clicquot Club Eskimos, Goodrich Silvertown Cord orchestra; 11-1 a. m., Vincent Lopez's Hotel Statler dance orchestra, Harold Gieser, director.

WGY, Schenectady, N. Y. (379.5), 2 p. m., music; "Variety in Winter Months," Dora Sonnenday; 6:30, dinner program, Ten Eyck concert trio; 7:30, book chat, L. L. Hopkins; 7:45, program, Syracuse university, WFBL; 9, Royal Salon orchestra hour, WJZ; 10, Rice string quartet; Mrs. John E. Faulkner, contralto; 11:30, organ recital, Stephen E. Boisclair, Albany, N. Y.

WHAR, Atlantic City, N. J. (275), 2 p. m., Seaside hotel trio; 7:30, lecture period; 8, Seaside hotel trio; 9, vocal and instrumental concert; 11:30, dance orchestra.

WHN, New York, N. Y. (361.2), 12:30-1 p. m., Lexington organ recital; 3:15-4:30, Lexington orchestra; 7, Iceland orchestra; 7:30, Ciro's orchestra; 8, Will Oakland's Chateau Shanley; 8:30, Sans Gene orchestra; 10:30, Club Kentucky orchestra; 11, Joe Ward's Swanee entertainers; 11:30, Bob Murphy's orchestra; 12-12:30 a. m., Ted Lewis and his orchestra.

WIP, Philadelphia, Pa. (508.2), 6:45 a. m., setting-up exercises; 7, setting-up exercises; 10, menu talk, Mrs. Anna B. Scott; 1 p. m., Gimbel tea room orchestra; 3, artists' recital, Combs Conservatory of Music; 6:05, Pagoda cafe dance orchestra; 7, Uncle Wip's bedtime stories; 8, "The Sesqui-Centennial," talk by Harry Mackey; 8:15, "Opportunities in Commercial Education in the Public Schools," John G. Kirk; 8:30, Y. M. and Y. W. H. A. chorus and orchestra; 10:05, Al Bentz and his versatile entertainers.

WKAR, E. Lansing, Mich. (285.5), 7:15-8 p. m., "Possibilities with Cows," H. W. Wigman; "Selecting Dairy Cows," J. E. Burnett; "Selecting the Dairy Bull," George Girrbach.

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, child welfare talk; 7:30, Dream Daddy's bedtime stories.

WNYC, New York, N. Y. (526), 7:10 p. m., dance program; 7:35, dance program; 8, studio concert; 10:10, lecture, Sydney Neville Ussher.

WOO, Philadelphia, Pa. (508.2), 11 a. m., organ recital; 12:02 p. m., Golden's Crystal tea room orchestra; 4:45, organ recital; 7:30, Adelphia French room orchestra.

WOR, Newark, N. J. (405.2), 3:30 p. m., talk, B. P. Adams; 6:15, "Words Often Mispronounced"; 6:17, Bill Wathey, sport talk; 6:30-7:15, Jacques Jacobs' Hotel Shelton ensemble.

WRC, Washington, D. C. (468.5), 10 a. m., women's hour, WJZ; 12 m., organ recital, Homer L. Kitt; 1 p. m., Hotel Mayflower orchestra; 6, Hotel Hamilton orchestra; 7, Smithsonian talk; 7:15, Shoreham hotel orchestra, WJZ; 7:45, U. S. Army band, WJZ, WGY, WCAD; 8:15, talk on horses, Gen. James G. Harbord; 8:30, "The Political Situation in Washington Tonight," Frederick William Wile; 9, Royal Salon orchestra, WJZ, WGY, WCAD; 10, to be announced; 10:30-11:30, Meyer Davis' Swanee orchestra.

WRVA, Richmond, Va. (256), 8:15 p. m., orchestra; 8:30, Silver Tone male quartet; 8:45, soloists; 9, speaker; 9:10, violin; 9:20, piano; 9:30, Silvertone male quartet; 9:40, orchestra; 11, Carry me back to old Virginny.

WTAG, Worcester, Mass. (268), 10:30 a. m., musical selections; 10:45, talk, Marjorie Woodman; 12:05-2 p. m., WTAG orchestra; 4:30, Radio entertainment, WTAG indoor sports; 5, Twinkle Twinkle story teller; 7:45, nature talk, Esther Cunningham Averill; 8-8:30, Larkinites, WEAF; 8:30-9, program, WEAF; 9-10, Clicquot Club Eskimos; 10-11, Silvertown Cord orchestra.

WTAM, Cleveland, Ohio (389.4), 12:15-1:15 p. m., Austin Wylie's Golden Pheasant orchestra; 6-7, Guy Lombardo and his Royal Canadians; 8-10, City of Cleveland program; 10-11, Hollenden hour; 11-1 a. m., Guy Lombardo and his Royal Canadians.

WTIC, Hartford, Conn. (475.9), 6:30 p. m., "Twenty Minutes in Happyland," Edna Kimball Heath; 7, Travelers' Managers banquet, from Hartford club; Governor's Foot Guard band; Colonial male quartet; after-dinner speakers.

WWJ, Detroit, Mich. (352.7), 9:30 a. m., tonight's dinner; special talk by the woman's editor; 12:05, Jules Klein's Hotel Statler orchestra; 3, Detroit News orchestra; 6, dinner orchestra; 8, concert, WEAF.

Central Time Stations

CKY, Winnipeg, Canada (384.4), 8:30 p. m., Simpson's hour, Princess Pat's band.

KFKU, Lawrence, Kans. (275), 7 p. m., talk, Prof. Ivan Benson; 7:15, School of Fine Arts, Lee Greene, pianist; 7:30, K. U.-Oklahoma basketball game.

KFKX, Hastings, Nebr. (288.3), 1 p. m., "Legume day—Legumes Like to Work, Inoculate Them and Give Them a Chance," O. H. Sears; 5:30, KDKA dinner concert.

KFMQ, Fayetteville, Ark. (299.8), 8 p. m., "Selecting the Builder for Building the Small House," B. N. Wilson; "Personality Differences in the Family Group," Helen C. Goodspeed; "Can a Business Man Foretell the Future of His Business?" G. R. Esterly; "Exploiting the Health Interest," Irene Story; "Measuring Results in Education", G. N. Cade; "Early Christian and Byzantine Architecture," W. B. Allen; "Preliminary Surveys," W. N. Gladson.

KMA, Shenandoah, Iowa (252), 11:30-12:30 p. m., noonday rural program; garden talk, Earl E. May; news, music and popular program; May's flower lady, Lina Ferguson; 4-5, travelogue, G. H. Van Houten; 6-7, Iowa federation of women's clubs; Delmonico dreamers, dance orchestra.

KMMJ, Clay Center, Nebr. (228.9), p. m., Saronville, Nebr. Victory orchestra; 1:30, factory and office program.

KPRC, Houston, Texas (296.9), 12 m., book talk, Julia Ideson; 12:30, health talk, Dr. A. H. Flickwir; 5:30, Uncle Judd's kiddies' hour; 7:30, Blanchard's dance orchestra; 8:30, studio concert.

KSAC, Manhattan, Kans. (340.7), 9-9:25 a. m., music, inspirational talks, agricultural primer, calisthenics; 9:55-10:25, readings, question box; today's meals; 12:35-1:05 p. m., readings, question box; "More About Sweet Clover," L. C. Williams; "Stream Control Measures," Claude K. Shedd; 4:30-5, Botany; 6:30-7:30, music; Extension credit course, Educational Psychology; "Removing Stains," Lucille O. Rust; "Johnny Won't Eat That," Pearle E. Ruby.

KSD, St. Louis, Mo. (545.1), 4 p. m., women's hour, Wednesday club; 6:55, WEAF chain; 7:30, Esmeralda Berry Mayes, pianist; 8, WEAF chain.

KSO, Clarinda, Iowa (241.8), 7-7:30 p. m., farm talks; 7:30-9, mixed concert schools, Miss Taylor, director.

KTHS, Hot Springs National Park, Ark. (374.8), 9-9:30 p. m., ballad numbers, Eastman hotel orchestra; 9:30-10, Lawson Reid, organist; 10-10:15, New Arlington hotel orchestra; 10:15-10:30, French Harp, Mrs. Lula Keith; 10:30-11, Meyer Davis orchestra.

KYW, Chicago, Ill. (536), 6:30-7 a. m., morning exercises, Paul A. Leonhardt; 7:30, morning family worship, Y. M. C. A; 11:35, table talk, Mrs. Anna J. Peterson, Peoples Gas company; 1, noon-day concert; 1-2, luncheon concert, Congress hotel; 4, frolic, Hearst square; 6, dinner music, KDKA; 7:05, bedtime story Walter Wilson; 7:33, speeches, American Farm Bureau federation; 8-8:20, reading Rev. C. J. Perin, Loyola university; 8:20-9, musical program, Congress hotel; 9, music hour; 10, evening at home, KYW; 10:40-11:10, Coon-Sanders' Original Nighthawks; 1, Insomnia club, Coon-Sanders Original Nighthawks.

WAMD, Minneapolis, Minn. (243.8), 12 n., musical program; Chuch Johnson, uke soloist, Mrs. James Barett, soprano, Bert Searles, tenor, Katherine Grill, contralto; 7 p. m., dinner concert, George Osborn's Hotel Radisson orchestra; 7:05, talk; 11, Skyrocket frolic, George Osborn's Hotel Radisson orchestra.

WBBM, Chicago Ill. (266), 4-6 p. m., Valentino inn orchestra; singers; 8-10, Tip trio; Ziegler sisters; Moulin Rouge orchestra; 10-12, Moulin Rouge orchestra; artists and stars.

WBCN, Chicago, Ill. (266), 10-10:30 a. m., Penny Wise, the shopper's ready helper, shopping talk; 7-8, classical hour; Emily Stone, violinist; Ada Mae Stone, accompanist; Lemmyon Amoureoux, French tenor; Ethel Eaves Price, soprano; Alice McMahon, contralto; Margaret McArthur, pianist; John Williams, baritone; 10-1 a. m., Elmer Jordan & Co., Owl matinee.

WCBD, Zion, Ill. (344.6), 8 p. m., the mixed quartet and brass quartet, assisted by artists.

WCCO, Minneapolis-St. Paul, Minn. (416.4), 12 m., Donaldson's orchestra; 2 p. m., "Among the Musicians," H. A. Bellows; 2:30, afternoon concert, State theater; 4, readers' club, Eleanor Poehler; 5:30, Children's hour; 7, Larkinites, WEAF; 7:30, musicale; 8, program, Clicquot Club Eskimos, Silvertown Cord orchestra; 10:05, Emmet Long's Golden Pheasant orchestra.

WDAF, Kansas City, Mo. (365.6), 3:30-4:30 p. m., The Star's string orchestra; 6-7, The Tell-Me-a-Story lady; address, Louis Mecker; The Trianon ensemble; 11:45-1, Plantation players; organ numbers, Ted Meyn, Pantages theater.

WEBH, Chicago, Ill. (370.2), 11:30-12 m., woman's half hour; 3-4 p. m., features; 7-8, features; 9-10, Oriole orchestra; Belle Forbes Cutter, soprano; Ruth Buhl Flick, reader; 11-11:15 Oriole orchestra; 11:15-12:30 news flashes; Belle Forbes Cutter, soprano.

WENR, Chicago, Ill. (266), 6-7 p. m., dinner concert; Rauland-Lyric trio; twin piano duets; vocal solos; 8-10, All-American Pioneers; Strand Harmony entertainers; Rose Kutta, soprano; Vic Fredericks, popular songster; Ray Hibbeler, Will Rossiter.

WFAA, Dallas, Texas (475.9), 12:30-1 p. m., Mario H. Bolack, pianist; 4:30-5, Cloyd Griswold, songs, ukulele; 6:30-7:30, Don Bestor's orchestra, dinner music; 8:30-9:30 banquet Texas farm bureau organizations; 11-12 Cline's Collegians' orchestra.

WGES, Oak Park, Ill. (250), 5-7 p. m., Frederick Irving, basso; Rose Olech, soprano; Stenstrom sisters, vocalists; Miles Sullivan players; John Brown, pianist; Wyzenbeck trio; Tiffin theater organ and orchestra; 8-9, Remington Welsh, organist; Richard Dale, baritone; Ruth Kalthoff, mezzo-soprano; Wyzenbeck trio.

WGN, Chicago, Ill. (302.8), 11-11:30 a. m., household hints; 11:30-12, fashion discussion; 12-12:40, public service period; 12:40-2:30 p. m., luncheon concert, Drake concert ensemble and Blackstone string quintet; 2:30-3, Lyon and Healy artist series; 3-3:25, public service period; 3:25-3:30, Port O'Missing men; 3:30-4:15, tea time music, Marshall Field's tea room orchestra; 4:30-5, organ recital, Edward Benedict; 5:30-5:57, Skeezix time; 6:30-7, dinner concert, Drake concert ensemble and Blackstone string quintet;

AN EVENING AT HOME WITH THE LISTENER IN
IN EASTERN TIME

Call	Location	Met.	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
AT9	Fort Bragg, N. C.	435	Silent	6:00- 7:00	Silent	Silent	Silent	8:00- 9:55	Silent
CFCN	Calgary, Alta.	434.5	12:00- 2:00	Silent	Silent	Silent	Silent	10:00-11:00	Silent
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	10:00- 1:00
CKAC	Montreal, Que.	410.7	7:30-11:00	Silent	Silent	7:30-11:00	Silent	7:30-11:00	Silent
CKNC	Toronto, Ont.	356.9	8:00-12:00	Silent	8:00-11:00	Silent	Silent	Silent	Silent
CKY	Winnipeg, Man.	384.4	9:00-12:00	8:00-11:00	9:00- 1:00	Silent	8:30-12:00	9:30-12:00	Silent
CNRO	Ottawa, Ont.	434.5	8:30- 1:30	Silent	Silent	Silent	8:30- 1:30	Silent	Silent
CYL	Mexico City, Mex.	480	Silent	10:24-11:54	Silent	10:24-11:54	Silent	Silent	10:24-11:54
CZE	Mexico City, Mex.	350	9:24-10:24	Silent	9:24-10:24	9:24-10:24	9:24-10:24	9:24-10:24	9:24-10:24
KDKA	Pittsburgh, Pa.	309.1	6:30- 9:55	4:00- 8:45	6:30- 9:55	6:30-12:35	6:30- 9:55	6:30-12:00	6:30- 9:55
KFAB	Lincoln, Nebr.	340.7	6:30-10:30	5:00- 6:00	6:30-11:30	6:30-11:30	6:30-11:30	Silent	6:30-11:30
KFDM	Beaumont, Texas	315.6	Silent	9:00-10:00	Silent	9:00-11:30	Silent	Silent	9:00-11:30
KFI	Los Angeles, Calif.	467	9:00- 6:00	7:00- 2:00	9:00- 2:00	9:00- 2:00	9:00- 2:00	9:00- 2:00	9:00- 2:00
KFKX	Hastings, Nebr.	288.3	6:30- 7:30	Silent	10:00-12:00	6:30- 7:30	10:00-12:00	8:00- 9:00	10:00-12:00
KFMQ	Fayetteville, Ark.	299.8	Silent	Silent	Silent	8:30- 9:30	9:00-10:00	Silent	Silent
KFMX	Northfield, Minn.	337	Silent	8:00- 9:00	Silent	10:30-11:00	10:00-11:00	Silent	11:00-12:00
KFNF	Shenandoah, Ia.	266	8:00- 9:00	7:30-10:00	8:00- 9:00	8:00- 9:00	8:00- 9:00	8:00- 9:00	8:00- 9:30
KFOA	Seattle, Wash.	454.3	11:30- 2:30	Silent	9:45- 1:00	9:45- 1:00	9:45- 1:00	Silent	9:45- 2:30
KFUO	St. Louis, Mo.	545.1	Silent	9:15-10:15	9:00-10:00	Silent	10:15-11:15	Silent	Silent
KFVE	Univ'ty City, Mo.	240	10:15-11:15	Silent	10:15-11:15	10:15-11:15	10:15-11:15	Silent	10:15-11:15
KFWB	Hollywood, Calif.	252	10:45- 3:00	12:00- 2:00	10:00- 3:00	10:00- 3:00	10:00- 3:00	10:00- 3:00	10:10- 3:00
KGO	Oakland, Calif.	361.2	11:00- 3:00	6:30-12:30	9:00- 1:00	9:00- 2:00	9:00-10:00	10:00- 1:00	9:00-11:00
KGW	Portland, Ore.	491.5	9:00- 3:00	10:25- 1:00	9:00-12:00	9:00- 3:00	9:00- 2:00	9:00-11:00	12:00- 1:30
KHJ	Los Angeles, Calif.	405.2	9:00- 2:00	9:30- 1:00	Silent	9:30- 2:00	9:00- 2:00	9:00- 4:00	9:30- 2:00
KIAF	Sihtipok, Minn.	421	Silent	3:00- 4:00	8:00- 9:00	Silent	8:00- 9:00	Silent	8:00- 9:00
KJR	Seattle, Wash.	384.4	11:30- 1:00	10:15-12:00	10:00- 2:00	11:30- 1:00	10:00- 1:00	11:30- 3:00	11:30- 2:00
KLDS	Independence, Mo.	440.9	9:00-10:00	7:30-11:00	Silent	9:00-10:00	Silent	9:00-10:00	Silent
KLX	Oakland, Calif.	508.2	Silent	Silent	11:00- 1:30	Silent	11:00- 2:30	Silent	12:45- 1:30
KNX	Hollywood, Calif.	336.9	9:15- 5:00	5:00- 1:30	9:15- 3:00	9:15- 3:00	9:15- 2:00	9:15- 2:00	9:15- 3:00
KOA	Denver, Colo.	322.4	11:00- 1:00	5:00-10:45	8:30-11:00	8:30-10:30	8:30- 1:00	8:30- 9:30	8:30-11:00
KOB	State College, N.M.	348.6	Silent	Silent	9:30-10:30	Silent	7:15- 8:15	7:30- 1:00	Silent
KOIL	Council Bluffs, Ia.	278	7:15- 4:00	8:00- 1:00	7:30- 3:00	7:15- 1:00	9:15- 2:00	9:15- 2:00	8:30- 1:00
KPO	San Francisco, Cal.	428.3	9:35- 3:00	8:00- 1:00	9:40- 2:00	9:15- 2:00	8:30- 1:00	8:30- 1:00	9:30- 2:00
KPRC	Houston, Texas	296.9	8:30- 1:00	8:30-11:30	8:30-11:00	8:30-10:30	8:00-10:00	7:55-11:00	Silent
KSD	St. Louis, Mo.	545.1	7:45-11:00	7:15-10:15	7:55-12:00	7:55-11:00	8:00-10:00	7:55-11:00	8:30-10:00
KSL	Salt Lake City, Ut.	299.8	10:00- 1:00	11:00- 1:00	10:00- 1:00	11:00- 1:00	10:00- 1:00	10:00- 1:00	11:00- 1:00
KTAB	Oakland, Calif.	240	Silent	10:45- 2:00	11:00- 1:00	11:00- 1:00	Silent	12:00- 3:00	11:00- 1:00
KTBI	Los Angeles, Calif.	293.9	Silent	10:15-12:30	Silent	11:00-12:00	Silent	11:00-12:00	Silent
KTCL	Seattle, Wash.	305.9	Silent	12:10- 9:10	10:00-11:00	11:00-12:00	Silent	Silent	10:00- 3:00
KTHS	Hot Springs, Ark.	374.8	10:00-12:00	10:00-12:30	10:00-12:00	10:00-12:00	10:00-12:00	10:00-12:00	10:00-12:00
KTW	Seattle, Wash.	455	9:30-10:30	Silent	Silent	9:30-10:30	Silent	9:30-10:30	Silent
KWKH	Shreveport, La.	261	10:00- 1:00	Silent	11:00- 4:00	10:00- 1:00	Silent	9:00-10:00	Silent
KWSC	Pullman, Wash.	348.6	Silent	Silent	10:30-12:00	Silent	10:30-12:00	Silent	10:30-12:30
KYW	Chicago, Ill.	535.4	8:00-11:00	5:00- 9:00	Silent	8:00- 1:30	8:00- 2:30	8:00- 1:30	8:00- 2:30
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
PWX	Havana, Cuba	400	8:30-11:00	Silent	Silent	Silent	8:30-11:00	Silent	Silent
WAHG	Richmond, N. Y.	315.6	12:00- 2:00	Silent	8:00- 2:00	Silent	7:30-12:00	Silent	8:00-11:00
WBAL	Baltimore, Md.	246	Silent	6:30- 7:30	6:45-10:00	7:30- 8:30	Silent	6:15-10:00	5:30- 6:00
WBAP	Fort Worth, Tex.	475.9	8:30- 9:30	6:00- 1:00	7:00- 1:00	7:00-11:45	7:00- 1:00	7:00-11:45	7:00-11:45
WBAR	Sisiht, Wis.	486	Silent	11:00-12:00	10:00-11:00	Silent	9:00-10:00	8:30- 9:30	Silent
WBBM	Chicago, Ill.	226	9:00- 2:00	9:00- 3:00	7:00- 8:00	9:00- 1:00	9:00- 3:00	9:00- 1:00	9:00-11:00
WBBR	Staten Island, N.Y.	272.6	8:00-10:00	9:00-10:15	8:00- 9:00	Silent	Silent	8:00- 9:00	Silent
WBCN	Chicago, Ill.	266	10:00- 2:00	6:00- 1:00	Silent	10:00- 2:00	9:00- 1:00	10:00- 3:00	10:00- 2:00
WBZ	Springfield, Mass.	333.1	Silent	8:00- 9:00	6:30-11:05	6:30-10:02	6:30- 9:45	6:30-10:00	6:30-11:05
WCAE	Pittsburgh, Pa.	461.3	8:30- 9:30	6:30- 8:20	6:30-12:00	8:00-11:00	8:30-10:00	9:00-11:00	8:00- 9:30
WCAP	Washington, D. C.	468.5	Silent	4:00-10:15	6:00-11:00	Silent	7:00-11:00	Silent	7:00-12:00
WCAU	Philadelphia, Pa.	278	Silent	5:20-10:00	8:00-11:30	7:30-11:30	6:45-12:00	6:30-11:00	7:30-11:30
WCBD	Zion, Ill.	344.6	Silent	9:00-11:30	Silent	9:00-11:30	Silent	9:00-11:30	Silent
WCCO	Minn-St. P., Minn.	416.4	7:15-12:05	5:10- 9:15	7:30-11:00	7:15-10:30	8:00- 1:30	8:00-12:05	7:15-12:05
WCX	Detroit, Mich.	516.9	6:00- 7:00	Silent	6:00- 9:00	6:00-11:00	6:00- 9:00	6:00- 9:00	6:00-11:00
WDAF	Kansas City, Mo.	365.6	7:00- 2:00	5:00- 5:45	7:00- 2:00	7:00- 2:00	7:00- 2:00	7:00- 2:00	7:00- 2:00
WDWF	Providence, R. I.	440.9	Silent	Silent	Silent	8:30- 9:30	Silent	Silent	Silent
WEAF	New York, N. Y.	491.5	6:00-12:00	2:00-10:15	6:00-12:00	6:00-12:00	6:00-12:00	6:00-12:00	6:00-12:00
WEAO	Columbus, Ohio	293.9	Silent	Silent	Silent	Silent	8:00- 9:00	8:00- 9:00	Silent
WEAR	Cleveland, Ohio	389.4	7:00- 1:00	7:00-10:15	8:00-12:00	7:00-10:00	7:00- 8:00	7:00-11:00	7:00-11:00
WEBH	Chicago, Ill.	370.2	8:00- 3:00	6:00-10:00	Silent	8:00- 2:00	8:00- 2:00	8:00- 2:00	8:00- 2:00
WEBJ	New York, N. Y.	272.6	Silent	Silent	Silent	8:00- 9:00	8:00-10:00	Silent	7:00- 9:00
WEEI	Boston, Mass.	348.6	Silent	7:20-10:20	8:30-10:00	8:00-11:00	8:00-10:00	8:00-11:00	8:30-11:00
WENR	Chicago, Ill.	266	7:00- 3:00	3:00-12:30	Silent	7:00-11:00	7:00- 3:00	7:00-11:00	7:00- 3:00
WFAA	Dallas, Tex.	475.9	9:30- 1:00	7:30-12:00	7:30-10:30	7:30- 1:00	Silent	7:30- 1:00	7:30-10:30
WFBH	New York, N. Y.	272.6	11:30- 2:00	5:00- 8:00	11:30- 2:00	11:30- 2:00	11:30- 2:00	11:30- 2:00	11:30- 2:00
WFI	Philadelphia, Pa.	394.5	8:00- 9:30	7:30- 8:30	Silent	8:00-12:00	Silent	8:00-11:00	Silent
WGBS	New York, N. Y.	315.6	6:00-11:30	8:00- 9:00	7:00- 7:15	6:30-11:30	6:00- 8:30	6:00- 8:45	Silent
WGBU	Fulford, Fla.	278	6:30- 1:00	9:30-12:00	6:30- 1:00	6:30- 1:00	6:30- 1:00	6:30- 1:00	6:30- 1:00
WGCP	New York, N. Y.	252	Silent	8:00-11:15	8:00-11:00	Silent	8:00-11:15	Silent	8:00-11:00
WGES	Oak Park, Ill.	250	11:30- 3:00	11:30- 3:00	Silent	11:30- 3:00	11:30- 3:00	11:30- 3:00	11:30- 3:00
WGHB	Clearwater, Fla.	266	6:00- 1:00	Silent	6:00- 1:00	6:00- 1:00	6:00- 1:00	6:00- 1:00	6:00- 1:00
WGHP	Detroit, Mich.	270	Silent	Silent	7:00- 9:00	7:00- 9:00	7:00- 9:00	9:00-11:00	9:00-11:00
WGN	Chicago, Ill.	302.8	7:30-12:00	3:00-10:15	Silent	7:30-12:00	7:30-12:00	7:30-12:00	7:30-12:00
WGR	Buffalo, N. Y.	319	Silent	7:45-10:15	8:30- 1:00	8:00-11:00	8:00- 1:00	8:00-11:00	8:45- 1:00
WGY	Schenectady, N. Y.	379.5	9:00-12:00	6:30-10:00	6:30- 8:30	7:00-11:00	Silent	6:45-11:30	7:15-10:30
WHAD	Milwaukee, Wis.	275	Silent	4:15- 5:15	9:00-11:00	Silent	11:30- 1:00	Silent	9:30-11:00
WHAR	Atlantic City, N. J.	275	7:30-10:30	7:50- 1:15	7:30-10:00	7:30- 1:15	Silent	7:30-11:00	7:30- 1:15
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
WHAZ	Troy, N. Y.	379.5	Silent	Silent	9:00-12:00	Silent	Silent	Silent	Silent
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
WHN	New York, N. Y.	361.2	7:30-10:00	5:00- 5:30	8:00-12:00	9:30-10:00	10:00-11:30	8:00-10:00	7:30-12:30
WHO	Des Moines

SCOTCH EVENING FRIDAY OVER KOA

Thursday, January 21

8-9, Clicquot Club Eskimos, WEAF; 9-10, Silvertown program, WEAF; 10-11, dance program.

WGST, Atlanta, Ga. (270), 7-8 p. m., vocal program, Lewis H. Johnson, director, "Athletics at Georgia Tech.," W. A. Alexander.

WHAD, Milwaukee, Wis. (275), 11 a. m., pianolog, Andy Mertel; 4 p. m., Mrs. Ferne Medley Hansen, vocalist; I. E. Clayton, baritone; 6:15-7, Bill Benning's Milwaukee Athletic club orchestra.

WHAS, Louisville, Ky. (399.8), 1-2 p. m., Benson trio; 3-3:30, Mrs. Myrtle Fulks Zahn, Jr., organist; 4-5, musical selections, Harry S. Currie, director; editorials; 7:30-9, concert, auspices Zeta Chapter Delta Omicron National Musical sorority; Sunday school lesson.

WHB, Kansas City, Mo. (365.6), 7-7:45 p. m., Morrell Moore, organist; aviation talk, Harry Wimer; 8-9:30, novelty music.

WHO, Des Moines, Iowa (526), 7:30-8 p. m., Raleigh quintet; 8-9, Bankers Life trio, Helen Birmingham, director; 11-12, Bankers Little symphony orchestra.

WHT, Chicago, Ill. (399.8), 10 a. m., Jean Sargent's program, woman's club, Jelke Good Luck girl, studio features; 11, specialists from studio; 12 n., Al Carney's complimentary organ hour; 1-2 p. m., special studio program; 6-7:30, classical program, dinner organ recital; Franklin Hathaway, baritone; Ada May Hathaway, violinist; Edwin Kemp, tenor; Genevieve Barry Burnham, soprano; 7:45-9:15, musical features; 9:30, Jelke entertainers; Al Carney, organist; Husk O'Hare's orchestra; Howard Sershon, tenor; Rita McFawn, popular songs; 10:10, U. S. L. half hour of dance music; 12 m., Pat Barnes and Al Carney.

WIBO, Chicago, Ill. (226), 10-11 a. m., shoppers bureau, Grace Viall Gray; 2-4 p. m., shut-in program; 6-8, dinner concert, Walter Preston; WIBO trio, Chester Newman, baritone; Helen Snyder, soprano; Harriet Hebert, contralto; 12-2, midnight jamboree.

WLIB, Chicago, Ill. (302.8), 7-8 p. m., dinner concert; 11-12 m., popular program; 12-1 a. m., dance program.

WLS, Chicago, Ill. (344.6), 12 m., WLS studio trio; 6:30, Ralph Emerson, organist; 7, Ford and Glenn's Woodshed theater; 7:20-7:55, Salvation Army band.

WLW, Cincinnati, Ohio (422.3), 7:30 a. m., exercises, William Stradtman, Y. M. C. A; 8, morning devotions, auspices of Parkway Y. M. C. A; 12:05 p. m., organ concert, Mildred Prigge; 12:30, health talk, Dr. Carl Wilzbach; 4, concert, artists from Huntington, W. Va; 7, dinner hour concert, Hotel Gibson, Robert Visconti, director; 7:30, talk, Dr. C. H. Kaufman; 7:40, Hotel Gibson concert; 9, Cincinnati automobile show, Music hall; 10, Doherty Melody boys; 11, dance music, Castle farm; 12:15, Crosley Skyterriers.

WMAQ, Chicago, Ill. (447.5), 12:45 p. m., Radio farm school; 2, shut-in program; 4, Illinois Federation of Women's clubs; 4:45, program, pupils; 5:15, Topsy-turvy time; 6, Chicago theater organ recital; 6:30, Hotel LaSalle orchestra; 8:30, Chicago Association of Commerce talk; 8:40, financial talk; 9, University of Chicago lecture; 9:20, program, Grace and Robert Whitney, cello and piano; 9:55, University of Chicago chimes.

WMBB, Chicago, Ill. (250), 7-8 p. m., Trianon concert artists; National program; Christopher Gleason, Irish harpist; jigs and reels; James T. Carney, semi-classical program; talk on finance; 9-11, Trianon orchestra, Dell Lampe, director; Woodlawn theater orchestra, Armin F. Hand, director; Tracy and Duncan, Tommy Hughes, Katherine O'Hara, popular program.

WMC, Memphis, Tenn. (499.7), 8:30 p. m., Missouri Pacific program.

WNAD, Norman, Okla. (254), 12:30 p. m., university male quartet, Roscoe Roberts first tenor; Andrew Ireland, second tenor; Townsend McClure, baritone; Jack Boone, bass; 12:50, History of Oklahoma, Dr. E. E. Dale; 3:30, Ramblers; 7:20, business conditions, Dean A. B. Adams, school of business; 7:30, "Why Heat the basement," Dr. Williams Schriever; 7:40, "Some Weather Proverbs and Explanation," Prof. O. F. Evans; 10:30, troubadours.

WOAW, Omaha, Nebr. (526), 12:45 p. m., Jaffy's string quintet; 6, classical; 6:15, Hawaiian trio; 6:50, Randall's Royal Fontenelle orchestra; 9, de luxe program; 10:30, Herb Feierman and his Omadala orchestra; 12, midnite program.

WOC, Davenport, Iowa (483.6), 12:15-12:25 p. m., "Legumes Like to Work—Inoculate Them and Give Them a Chance," O. H. Sears; 3-3:30, home management, Aunt Jane; 5:45-6, chimes; 6:30-6:50, sandman; 7-7:30, Larkinites; 7:30-8, Nat Ozman, entertainer; 8-9, Clicquot Club Eskimos; 9-10, Goodrich Silvertown Cord orchestra; 11-12 m., LeClaire hotel orchestra; Peter MacArthur, baritone.

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

WOQ, Kansas City, Mo. (278), 7-8 p. m., Unity educational program; 8-9, concert.

WOS, Jefferson City, Mo. (440.9), 8 p. m., Missouri State Farmer's week, music, addresses.

WQJ, Chicago, Ill. (447.5), 11-12 m., "Let's Have a Waggle Supper," Erna J. Bertrams; "Heart Disease and the Greatest Battle against Disease the World Has Ever Known," Gertrude Howe Britton; 3-4 p. m., "A Red Riding Hood Party for Children," Helen H. Downing; "The Value of Mother's Vote," Mrs. Guy W. Cornwell; 7-8, Ralph Williams and his Rainbo Gardens orchestra; Kenneth Sterling, baritone; Jean Carlson, soprano; Cecelia Arends, violinist; Johanna Arends, accompanist; Doris Gross, reader; 10-1, Rainbo Skylarks; Jerry Sullivan; Rose Vanderbosch, soprano; Ralph Keim, pianist; Anne Keim, mezzo soprano; Lew Butler; Parish and Ward; Ray Lawson, tenor; 1-2, Ginger hour.

WRR, Dallas, Texas (246), 12-1 p. m., Roy Newman, pianist, old time melodies; Dr. R. S. Hyer, Bible talk; 5:15, bedtime story; 6-7, dinner hour concert, Jack Gardner and his orchestra; 8-9, program, joint direction of Emmett Peck and Robert Gooding, violin and saxophone orchestra.

WSAI, Cincinnati, Ohio (326), 6:30 p. m., Charles Dornberger's Victor Recording orchestra, Hotel Sinton; 7, program; 8, Clicquot club program of music, WEAF; 9, Silvertown Cord orchestra, Joseph Knecht, director.

WSB, Atlanta, Ga. (428.3), 8 p. m., organ recital, Dr. Charles A. Sheldon, Jr.; 10:45, entertainment.

WSUI, Iowa City, Iowa (483.6), 12:30 p. m., Mrs. Preston C. Coast, organist; popular physics address.

Mountain Time Stations

CFAC, Calgary, Can. (435.8), 7 p. m., bedtime story, Radio Lady; 9-11, Canadian National Railways program; dance program, Jack Rushton's serenaders.

CNRC, Calgary, Canada (435.8), 7 p. m., bedtime story; 9, Jack Rushton's serenaders.

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

KFXF, Colorado Springs, Colo. (250), 9-10:30 p. m., Rosemary Gardens dance program.

KOA, Denver, Colo. (322.4), 12:15 p. m., Rialto theater musicale; 3:15, relaxing and corrective exercises, Mrs. Ruth Drumm Witting; 3:30, matinee for housewives, St. Mary's academy; Marjorie Heid, violinist; Geraldine Koch, pianist; Mary Christiana Johnson, pianist; 4, culinary hints, Mrs. Clara Hoover; 6:30, Brown Palace string orchestra.

Pacific Time Stations

KFI, Los Angeles, Calif. (467), 5:30-6 p. m., Examiner matinee; 6, nightly doings; 6:15, KFI's seeing California; 6:30, vest pocket program; 6:45, Radiotorial period; 7-8, program, students of University of Southern California; 8-9, Louis Klos trio, Lee Bolin, tenor; 9-10, program, Chickering hall; 10-11, Examiner hour.

KFON, Long Beach, Calif. (232.4), 4:30-5 p. m., amusement bulletin; 6-6:30, organ recital, Brayton's theater; 7:30-9, Long Beach Municipal band.

KFWB, Hollywood, Calif. (252), 7 p. m., talk, Dr. T. Floyd Brown; 7:15, microphone brevities; 8-9, KFWB's Little symphony, Ray Bailey, leader; Bill Blake, tenor; 9-10, program, Don P. Smith, Inc., Diana-Moon dance orchestra; Sol Hoopii's Hawaiians; 10-11, Warner Brothers frolic, direction Charlie Wellman.

KGO, Oakland, Calif. (361.2), 4-5:30 p. m., concert orchestra, Hotel St. Francis; 5:30-6:30, George W. Ludlow, "Friend to Boys;" sea stories, Jane Isabel Curtis; 8, "A Scrap of Paper," KGO Players; Arion trio.

KGW, Portland, Ore. (491.5), 12:30-1:30 p. m., concert, Rose City trio; 6-7, dinner concert; 7:45-8, lecture, Catholic Truth society.

KHJ, Los Angeles, Calif. (405.2), 6-6:30 p. m., Leighton's Arcade cafeteria orchestra, Jack Cronshaw, leader; 6:30-7:30, history story, Prof. Hertzog; Dickie Brandon, screen juvenile; Joyce Coad, Jeanne de Bard and Uncle John; 8-10, program, Cochran Bros. Caswell Coffee quintet; 10-11, Don Clark's Biltmore hotel dance orchestra.

KJR, Seattle, Wash. (384.4), 10:30-11:30 a. m., Frederick and Nelson; music, Cornish school; talk, "Wash Material for Children's Play Suits," Grace Denny; 1-2, organ recital, Columbia theater; "What to prepare for tonight's dinner," Bernice Redington; 6-6:30, what's doing at the theaters; 6:45-7, the box office, Seattle theaters' doings; 7-8:30, program, Eureka mixed quartet; 8:30-10, Puget Sound Savings and Loan association orchestra, Henry Damski, director; 10:30-12, weekly meeting of "Keep Joy Radiating Order of Bats."

KMTR, Hollywood, Calif. (238), 5-6 p. m., home hour, Mammy Simmons and pupils of Carter Weaver in continuity program; 6-7, Starr Piano company studio; 8-10, The Turner orchestra, Loren Powell, directing.

KNX, Hollywood, Calif. (336.9), 5-5:30 p. m., Sunny Jim's talk; 5:30-6:15, Wurlitzer pipe organ studio; Town Tattler; 6:15, travel talk, W. F. Alder; 6:30-7, Atwater Kent concert orchestra; 7-8, program H. L. Crockett; Ilya Bronson, concert cellist; H. L. Crockett, baritone; 8-9, program, Willys-Overland dealers of Southern California; 9-10, program, M. Weinstein, dealer in precious stones; 10-11, Ray West's Cocoanut Grove dance orchestra from Ambassador hotel.

KPO, San Francisco, Calif. (428.3), 7-7:30 a. m., daily dozen exercises; 10, domestic science talk, Virginia Tappan; 10:30, "Ye Towne Cryer"; 12 n., reading of the Scriptures; 1-2 p. m., Rudy Seiger's Fairmont hotel orchestra; 2:30-3:30, matinee program; 3:30-4:30, Cyrus Trobbe's Palace hotel concert orchestra; 5:15-6:15, children's hour stories by Big Brother; 6:30, "Ye Towne Cryer"; 6:40-7, Waldemar Lind and the States restaurant orchestra; 7-7:30, Rudy Seiger's Fairmont hotel orchestra; 8-9, studio program; 9-10, Swiss singing society program; 10-11, Jack Coakley's Cabirians.

KPSN, Pasadena, Calif. (315.6), 8-9 p. m., Pasadena Chamber of Commerce.

KTAB, Oakland, Calif. (240), 9-9:30 a. m., prayer service, Rev. G. W. Phillips; 8-10, studio program.

Friday, January 22

Headliners Today

Eastern	Central	Mountain	Pacific
8 p. m.	7 p. m.	6 p. m.	5 p. m.
WFAA (475.9) Varied program.			
8:15	7:15	6:15	5:15
WGY (379.5) Tragedy, "Hamlet."			
8:30	7:30	6:30	5:30
WGR (319) Jack Little.			
9:15	8:15	7:15	6:15
WCCO (416.4) American Legion program.			
9:30	8:30	7:30	6:30
KOB (348.6) College band.			
WGR (319) Melodette ladies' orchestra.			
10	9	8	7
KOA (322.4) Songs and poems of Scotland.			
KTHS (374.8) Opera selections.			
WLIT (394.5) Morning Glory club concert.			
11	10	9	8
WSM (282.8) Golden Echo quartet, Negro spirituals.			
12 m.	11	10	9
KFI (467) Scotch comedian, joke contest.			

Friday, silent night for: CFAC, CHIC, CKNC, CKY, CNRC, CNRM, CNRO, CNRR, CNRW, KFEQ, KFKU, KFMQ, KFUO, KFWA, KFXF, KGO, KLDS, KPRC, KUOM, PWX, WAFD, WBBR, WCAD, WCBD, WEAO, WEBW, WGBS, WGST, WHAZ, WIP, WJAZ, WKAQ, WKRC, WLW, WRC, WREO, WRVA, WSAI, WSUI, WSMB, WTAM.

Eastern Time Stations

CNRA, Moncton, N. B., (291), 8 p. m., studio program, Mrs. George O. Spencer, soprano; Mrs. W. A. Fitch, contralto; E. Stuart Stubbs, tenor; George O. Spencer, bass; Mrs. P. A. Kerr, accompanist; 11, CNRA orchestra.

CNRT, Toronto, Canada (356.9), 6:30 p. m., Luigi Romanelli and his King Edward hotel concert orchestra; 9, songs of the east, Alfred Heather, director; Kathleen Irwin, pianist; Jessie Borthwick, contralto; John Detwiler, baritone; Florence McNair, soprano; 11, Luigi Romanelli and his King Edward hotel dance orchestra.

KDKA, Pittsburgh, Pa. (309.1), 10 a. m., domestic science and arts; 12:20 p. m., "The Development of Personality," Floyd Allport; 5:45, Auntie Jim's letter; 6:30, dinner concert; 8:15, "Radio Chat No. VI," George A. Scott.

WAHG, Richmond Hill, N. Y. (315.6), 12:03 p. m., musical program; 7:30, studio program; 7:45, Prof. Richard E. Mayne; 9-9:55, Richard Delnunzio, violinist; Louis Caton, tenor; 10:03, popular program; 10:20, Bernie Fletcher's orchestra.

WBZ, Springfield, Mass. (333.1), 6:30 p. m., KDKA; 7:30, "Appreciation of Music," Prof. John A. O'Shea; 8, Edwin J. McEnelly and his orchestra; 8:30, concert, group from Boston symphony orchestra; 9, "Whatdoyoucallit Club;" 10:05, Edwin J. McEnelly and his singing orchestra.

WCAP, Washington, D. C. (468.5), 6 p. m., Mozart string quintet; Hohner Harmony hour; Wardman Park Hotel Boernstein orchestra; popular setting-up exercises.

WCAU, Philadelphia, Pa. (278), 7:30 p. m., Clarence Seamen's concert orchestra; 8:15, chiropractic talk; 8:30, Singing Groundhog; 8:45, Carolyn Thomas and 437 American Radio Four; 9:15, recital; 9:30, Billy and his saxophone; 9:45, Ed Kiefer, Radio humorist; 10, Willie Horowitz, songs; 10:30, Jack Myers' Musical Architects.

WCX, Detroit, Mich. (516.9), 6 p. m., dinner concert, Book-Cadillac hotel; 9, studio concert; 10, dance music, Graystone ballroom.

WEAF, New York, N. Y. (491.5), 6:45-7 and 7:20 a. m., Tower health exercises; 10:45-12 n., Betty Crocker Gold Medal Flour home service talk; "A New Servant in the House," Frank E. Watts; Columbia university lecture on "Practical Household Arts"; 4-5 p. m., Adamo trio; Carl L. Sibert, tenor; "The Fish Hatchery at the Aquarium," Thomas H. A. Hawley; 6-12 m., dinner music, Hotel Waldorf-Astoria; "Sir Hobgoblin" talk, Blanche Elizabeth Wade; Beatrice Wickens, pianist; Happiness Candy boys; Eagle Neutrodyne trio; Spear and company home entertainers; Hohner Harmony hour; Ben Bernie and his Hotel Roosevelt orchestra.

WFI, Philadelphia, Pa. (394.5), 1 p. m., tea room orchestra; 3, recital; 6:30, Bellevue-Stratford concert orchestra; 7, Bellevue-Stratford hotel dance orchestra.

WGBS, New York, N. Y. (315.6), 10 a. m., timely talks; 10:10, June Warren, pianist; 10:20, fashion talk, Bertram Taylor; 10:30, June Warren, pianist; 10:50, June Warren; 1:30 p. m., Atlas string trio; 3:10, Negro spirituals, Leila Gardner; 6, Uncle Geebee; 6:30, Anzell's orchestra.

WGCP, New York, N. Y. (252), 12:30 p. m., race results; 3, Samuel Weber, blind pianist; 3:25, Hugo Angela, tenor; Lita Crittenden, soprano; 3:50, Samuel Weber; 4:10, Clarence Profit, pianist; 4:35, Jack Neal; 4:45, Charol de Thomee, pianist; 7, Janssen's orchestra; 7:30, studio program; 8, health talk; 8:15, studio program.

WGR, Buffalo, N. Y. (319), 2:30 p. m., WGR afternoon program; 6:30, Clef trio and Jack Little; 7:30, jointly with WEAF, children's stories, Blanche Elizabeth Wade; 8:30-9, Jack Little; 9, jointly with WEAF, Hohner Harmony program; 9:30, Melodette ladies' orchestra; 10:30, Hewitt Humorists, Hewitt Rubber company; 11-1 a. m., Vincent Lopez's Hotel Statler dance orchestra, Harold Gieser, director.

WGY, Schenectady, N. Y. (379.5), 2 p. m., Asia restaurant orchestra; 2:30, music; health notes, Dr. C. W. Woodall; one-act play, "The Code of Honor," WGY matinee players; 6:30, Sunday school lesson; 7, dinner program, Eastman theater, WHAM; 7:30, health talk; 7:40, French by Radio, Leon A. Huguemont; 8:15, tragedy, "Hamlet," WGY players; 10:30, WGY orchestra, Ellsworth Page, basso, soloist.

WHAR, Atlantic City, N. J. (275), 2 p. m., Seaside hotel trio; 8, Seaside hotel trio; 11:15, Strand theater organ recital.

WHN, New York, N. Y. (361.2), 6 p. m., Littmann's dinner music; 6:30, Daddy Dingle and his jingle machine; 6:45, Littmann's dinner music; 7, Harry Richman and his entertainers; 7:30, Melody club orchestra; 10, Roseland dance orchestra; 10:30, Everglades orchestra; 12-12:30 a. m., Silver Slipper orchestra.

WIP, Philadelphia, Pa. (508.2), 6:45 a. m., setting-up exercises; 7, setting-up exercises; 1 p. m., Gimbel tea room orchestra; 3, artists' recital; 6:05, Benjamin Franklin concert orchestra; 7, Uncle Wip's bedtime stories.

WKAR, E. Lansing, Mich. (285.5), 7:15-8 p. m., "Wheat and Chaff," H. C. Rather; "Crop Production in Michigan," J. F. Cox; "Plant Breeding at the Michigan Experiment Station," E. E. Down; "A County Crop Program," John Sims; 8-9, health department.

WLIT, Philadelphia, Pa. (394.5), 12:02 p. m., daily almanac; Stanley theater organ recital; Arcadia cafe concert orchestra; 2, Arcadia cafe concert orchestra; playlet; 7:30, Dream Daddy's bedtime stories; Sunbeam party; 8:30, Pablo Casals, cellist; 10, Morning Glory club concert; Arcadia cafe dance orchestra; Rufus and Rastus; Sam Gold and his Nuggets.

WNYC, New York, N. Y. (526), 6:30 p. m., French lessons; 7:35, resume of meeting of board of estimates; 8, recital, Herman Newman; 8:30, Rudolph Joskowitz, violinist; 9, string ensemble; 10:10, lecture, Carter Troop.

WOO, Philadelphia, Pa. (508.2), 11 a. m., organ recital; 12:02 p. m., Golden's Crystal tea room orchestra; 4:45, organ recital; 7:30, "Sir Hobgoblin" by Blanche Wade; 7:45, Ritz-Carlton orchestra; 8:15, WOO orchestra; 9:25, Fox theater orchestra; 11, Ritz-Carlton dance orchestra.

WOR, Newark, N. J. (405.2), 6:15 p. m., "Words Often Mispronounced"; 6:17, sports, Bill Wathey; 6:30-7, Man in the Moon stories; 7, Jacques Jacobs' Hotel Shelton ensemble.

WRC, Washington, D. C. (468.5), 10 a. m., women's hour; 12 m., organ recital, Otto F. Beck; 1 p. m., Meyer Davis' New Willard hotel orchestra; 3:30, U. S. Marine band; 5, Hotel Lafayette trio.

WTAG, Worcester, Mass. (268), 10:30 a. m., musical selections; 10:45, "Food Hints," Mildred C. Thomas; 12:05-2 p. m., WTAG orchestra; 3-5, tea dansant, WTAG orchestra; 7:10, Twinkle Twinkle story teller; 7:30-7:45, stories, Blanche Elizabeth Wade; 7:45, mechanics of speech, Meta B. Wade; 8, travel talk, travel editor, Worcester Telegram; 8:30, current events for people, Gwendoline Albee; 8:45, program.

WTAM, Cleveland, Ohio (389.4), 12:15-1:15 p. m., Guy Lombardo and his Royal Canadians; 6-7, Carl Rupp and his Hotel Hollenden orchestra.

WTIC, Hartford, Conn. (475.9), 11 a. m., talk, "Eating Disease Germs," Dr. Millard Knowlton; 11:15, morning topics; 11:30, WTIC's housewives' forum, Mrs. J. M. Dean; 12:05 p. m., luncheon music; 6:30, dinner concert; 8, medical talk; 8:15, musical program; 10:15, theater review; 10:30, popular program; 11, dance orchestra.

WWJ, Detroit, Mich. (352.7), 9:30 a. m., tonight's dinner; talk by the woman's editor; 12:05, Jules Klein's Hotel Statler orchestra; 3, Detroit News orchestra; 6, dinner concert; 8, News orchestra and soloists; 9, dance program.

Central Time Stations

KFKX, Hastings, Nebr. (288.3), 1 p. m., Special farm service day; 5:30, KDKA dinner concert; 9, vocal and instrumental musical numbers; Gas House quartet, instrumentalists.

KFVE, University City, Mo. (240), 9:15 p. m., amusement review, Romaine Fielding; Mae Miller, soprano; Mrs. Gertrude Watson, accompanist.

KLDS, Independence, Mo. (441), 6:30 a. m., morning devotional service.

KMA, Shenandoah, Iowa (252), 11:30-12:30 p. m., noonday rural program; seed talk, Earl E. May; music; talk, G. H. Van Houten; 6-7, How do you do Boys; Grady and Doc., Auntie Blossom and the Slumber boat; 9-11, Council Bluffs entertainers.

KMMJ, Clay Center, Nebr. (228.9), p. m., local home talent; 1:30, factory and office program.

KPRC, Houston, Tex. (296.8), 12 m., Frank Tilton, pianist.

KSAC, Manhattan, Kan. (340.7), 9-9:25 a. m., music; inspirational talks, agricultural primer, calisthenics; 9:55-10:25, readings, question box, planning today's meals; 12:35-1:05 p. m., readings, question box; "Furnace Heating," Walter G. Ward; "Long vs Short Cane Systems of Grape Pruning," W. R. Martin; 4:30-5, lessons in color design; 6:30-7:30, travelog; vocational education, Extension credit course; "Next Steps in Rural Community Development," Walter H. Burr; "Great Physicists' Contribution to Modern Life," E. K. Chapin.

KSD, St. Louis, Mo. (545.1), 7 p. m., "Fur Hour," Elmer Lutz, tenor; 7:30, Ladies' quartet; 8:30, commerce hour; John Halk, violinist.

KSO, Clarinda, Iowa (241.8), 7-7:30 p. m., farm talks; 7:30-9, orchestra, Ralph Yehle, director.

KTHS, Hot Springs National Park, Ark. (374.8), 12:30-1:30 p. m., Farmers Radio chautauqua; 9-9:30, New Arlington hotel grand ensemble; 9:30-10:30, Eastman hotel orchestra; 10:30-11, Lon Chassy, violinist.

KYW, Chicago, Ill. (536), 6:30-7 a. m., morning exercises, Paul A. Leonhard; 7:30, morning family worship, Y. M. C. A; 11:15, talk, John C. Cutting; 11:35, table talk, Mrs. Anna J. Peterson, Peoples Gas company; 1, nooday concert, luncheon concert, Congress hotel; 6, dinner music, KDKA; 7:05, bedtime story, Walter Wilson; 9, music hour; 10-12:30, midnight revue, Hearst square; 10, Paul Ash McVickers theater; 10:40-11:10, Coon-Sanders original Nighthawks; 12, Henri A. Keates, organlogue; 1 a. m., Insomnia club, Coon-Sanders Original Nighthawks.

WAMD, Minneapolis, Minn. (243.8), 12 n., musical program: Ella Sundstrom Pendleton, soprano, L. V. Koos, accompanist; Ted Johnson, violinist, Oscar Westlund, accompanist; Charles Sandberg, baritone; 7:05 p. m., talk; 7:10, Minneapolis public school hour, T. P. Giddings, director; Jefferson junior high school orchestra, operetta, Nell Wesely, director; 11, Skyrocket frolic, George Osborn's Hotel Radisson Skyrockets.

WBBM, Chicago, Ill. (226), 4-6 p. m., Valentino inn orchestra; artists; 8-10, Tip trio; Moulin Rouge orchestra; artists.

WBCN, Chicago, Ill. (266), 10-10:30 a. m., Penny Wise, "The Shopper's Ready Helper," shopping talk; 5-5:15 p. m., police bulletins; 7-8, Fireside hour, WBCN hobby club; George R. Cleveland. "Big Boy" Yagle, pianist; Will Rossiter, "The Daddy of the Song Publishers," tenor and songwriter; Harold Johnson, boy xylophonist; 10-12 m., request program; Midway dancing gardens orchestra; Eddie Matts and Billy Donovan, tenor and pianist; West End Harmony boys, instrumental duo; Ed. Dempsey, "The Silken-Voiced Tenor," Alice McMahon, contralto; "The Boy" Yagle, pianologist.

WCCO, Minneapolis-St. Paul, Minn. (416.4), 10:45 a. m., "Pour into the Crust and Bake," Betty Crocker; 12 m., Dick Long's Dayton trio; 2 p. m., women's hour; 2:30, Dick Long's Nankin cafe orchestra; 4, readers' club, Mrs. Walter Stevens; 5:30, Court of Gold Medal; 6:15, Biley's St. Paul hotel concert orchestra; 8, health talk, Minnesota State Medical association, Olmstead County Medical society; 8:15, Minnesota Post, American legion; 11, Arnold Frank's St. Paul hotel orchestra.

WDAF, Kansas City, Mo. (365.6), 10:45-11 a. m., Betty Crocker in home service talk; 6-7, The Tell-Me-a-Story lady; address; The Trianon ensemble; 8-9:30, around the town with WDAF; 11:45-1, The Plantation players; Eddie Kuhn's orchestra.

WDOD, Chattanooga, Tenn. (256), 6:30-7 p. m., organ music, Tivoli theater; 7-8, Hotel Patten orchestra; 8:15, special features and program; 11, popular requests.

WEBH, Chicago, Ill. (370.2), 11:30-12 m., woman's half hour; 3-4 p. m., features; 7-8, Oriole orchestra; Pauline Sachs, soprano; Eleanor Kaplan, violinist; 9-10, Oriole orchestra; WEBH Light Opera company; 11-11:15, Oriole orchestra; 11:15-12:30, Irene Beasley, Jack Penewell, Fred Palmiter.

WENR, Chicago, Ill. (266), 6-7 p. m., dinner concert; Rauland-Lyric trio; Eric Sagerquist; violinist, soprano solos; 8-10, popular program; All-American Pioneers; Harmony four; George Moran and Bill Alt, Hawaiian guitar selections; Jack Todd, baritone; 12-2 a. m., Frank Westphal and his All-American Pioneers; Rita McFawn and Mary Bieber; violin solos; Jim Beaumont, banjoist; Art Bilquist, popular songs.

WFAA, Dallas, Texas (475.9), 12:30-1 p. m., Dr. Horace M. Whaling, Sunday school lesson; music; 3:30-4, Sears-Roebuck agricultural foundation homemakers' program; 4:30-5, woman's hour, literary review; 6:30-7:30, Alfonso Trent's orchestra; 7-10, varied program.

WGES, Oak Park, Ill. (250), 5-7 p. m., Lydia Werner, soprano; John Brown, pianist; Katherine Gray, contralto; Edwin Kemp, tenor; Tiffin theater organ and orchestra; 8-9, Thomas Pappas, accordion; Tiffin theater organ and orchestra; John Stamford, tenor; McDevitt sisters, vocal duo; 11-1 a. m., Remington Welch, organist; Parish and Ward; Sandy McTavish, Scotch comedian; Bebb and Cameron, duettists; Thomas Pappas, accordionist.

WGN, Chicago, Ill. (302.8), 11-11:30 a. m., household hints; 11:30-12, fashion discussion; 12-12:40, public service period; 12:40-2:30, luncheon concert, Drake concert ensemble and Blackstone string quintet; 2:30-3, Lyon and Healy artist series; 3-3:25, public service period; 3:25-3:30, Port O'Missing men; 3:30-4:15, tea time music, Marshall Field's tea room orchestra; 4:30-5, organ recital, Edward Benedict; 5:30-5:57, Skeezix time; 6:30-7, dinner concert, Drake concert ensemble and Blackstone string quintet; 8-9, music hour, Drake concert ensemble and vocal artists; 9-10, Ford program, WEAF; 10-11, dance program.

WHAD, Milwaukee, Wis. (275), 11 a. m., pianolog, Andy Hertel; 4 p. m., Ira Schnell, baritone; 6-7, Arthur Richter, organist; 7, Bill Juhre's Radio Cartoon game; 8:30-10, Wisconsin theater revue; 35-piece Wisconsin theater concert orchestra; Dexter's Wisconsin roof orchestra.

WHAS, Louisville, Ky. (399.8), 1-2 p. m., Royal Peacock orchestra; 3-3:30, Mrs. Myrtle Fulks Zahn, Jr., organist; 4-5, musical selections, Harry S. Currie, director; editorials; 7:30-9, glee club, Ashbury college civil service talk, O. A. Beckman.

WHB, Kansas City, Mo. (365.6), 2-3 p. m., Sweeney Radio trio; 7-8, Sweeney Radio orchestra.

WHO, Des Moines, Iowa (526), 7:30-9 p. m., Helen Smith, whistler; Alex Lindbloom, violinist; Stewart Watson, baritone; Vernon Sheffield, pianist; Myrtle Williams, soprano; 11-12, Bankers Life Corn Sugar orchestra.

WHT, Chicago, Ill. (399.8), 10 a. m., Jean Sargent's program, woman's club, Jelke Good Luck girl, studio features; 10:45, Betty Crocker home service; 11, special studio features; 12 n., Al Carney's complimentary organ hour; 1-2 p. m., special studio program, Gray-

(Continued on page 28)

STATIONS IN ORDER OF WAVE LENGTHS USED

Meters	Call	Meters	Call	Meters	Call	Meters	Call	Meters	Call	Meters	Call
217.3	WOK	275	WHAR	305.9	WJAR	361.2	KGO	406	WBAR	468.5	WRC
226	WBBM	275	WORD	309.1	KDKA	361.2	WHN	410.7	CKAC	475.9	WBAP
226	WIBO	275.3	WJAS	315.6	KFDM	365.6	WDAF	416.4	WCCO	475.9	WTIC
240	KFVE	278	KOIL	315.6	WAHG	365.6	WHB	421	KIAF	475.9	WFAA
240	KTAB	278	WCAU	315.6	WGBS	370.2	WEBH	422.3	WLW	480	CYL
240	WOAX	278	WGBU	319	WGR	370.2	WJJD	422.3	WKRC	483.6	WOC
246	WBAL	278	WOQ	319	WSMB	374.8	KTHS	428.3	WSB	483.6	WSUI
250	WGES	280.2	WNAC	322.4	KOA	379.5	WGY	428.3	KPO	491.5	KGW
250	WMBB	282.8	WOAN	322.4	WJAZ	379.5	WHAZ	434.5	CNRO	491.5	WEAF
252	KFWB	282.8	WSM	325.9	WSAI	384.4	CKY	434.5	NAA	499.7	WMC
252	WGCP	285.5	WKAR	333.1	WBZ	384.4	KJR	434.5	CFCN	508.2	KLX
265.6	WMAK	285.5	WREO	336.9	KNX	384.4	WMBF	435	AT9	508.2	WIP
266	KFNF	288.3	KFKX	337	KFMX	389.4	WEAR	440.9	KLDS	508.2	WOO
266	WBCN	288.3	WLWL	340.7	KFAB	389.4	WTAM	440.9	WDWF	516.9	CJCA
266	WGHB	293.9	KTBI	340.7	WKAQ	394.5	WFI	440.9	WOS	516.9	WCX
268	WTAG	293.9	WEAO	340.7	WMCA	394.5	WLIT	447.5	WMAQ	516.9	WJR
270	WGHP	296.9	KPRC	344.6	WCBD	394.5	WOAI	447.5	WQJ	526	WHO
272.6	WBBR	299.8	KFMQ	344.6	WLS	399.8	WHAS	454.3	KFOA	526	WNYC
273	KWKH	299.8	KSL	348.6	KOB	399.8	WHT	454.3	WJZ	526	WOAW
272.6	WEBJ	299.8	WPG	348.6	KWSC	400	PWX	455	KTW	535.4	KYW
272.6	WFBH	302.8	WGN	348.6	WEEI	405.2	KHJ	461.3	WCAE	535.4	WHA
273	WRW	302.8	WLIB	352.7	WWJ	405.2	WJY	467	KFI	545.1	KFUO
275	WHAD	305.9	KTCL	356.9	CKNC	405.2	WOR	468.5	WCAP	545.1	KSD

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Vol. XVI Saturday, January 16, 1926 No. 2

Peace and Universal Language

THE great moment is soon to be! Our friends in Europe beginning Sunday, January 24, will attempt to make themselves heard on this continent by means of Radio broadcasting. It has been done before, true, but this year the project will be eminently more successful.

Conditions are better. Stations in the United States, Canada and Mexico are almost universally agreeing to keep silent as asked by the International Radio Week committee. Even the Pacific coast broadcasters have, according to last reports, finally agreed not to ruin selfishly the sport of many nations. Greater power will be used by the many more European stations than participated last year. Several score of English, French, German, Spanish and Italian broadcasters are now capable of being heard in America when American stations using the same wave lengths remain silent. A year ago, the number of European stations able to cross the ocean satisfactorily was limited to less than half a score.

What will international broadcasting, when realized as an everyday occurrence, mean to the world? To answer this effectively and have the prediction carry truth and weight, takes considerable thought.

One idea we have is that the exchange of programs and thoughts across the international boundry lines some time in the future is going to be the strongest force for world peace we have ever known. Most wars are caused by misunderstandings. Often these are so slight as to be classed ridiculous. If we, therefore, understand our cousins and friends of other countries—know his problems and his mode of living—we are going to be less inclined to start killing and maiming him and his brother citizens.

What we do not understand, we fear.

The child fears the dark because it cannot comprehend its meaning. Savage tribes are frightened to hysterics by an eclipse of the sun.

When we understand, we do not fear, be the object darkness, eclipses or other nations.

Another thought is that of a universal language. What will it be? Can French fill the requirements? It is the language of diplomats of all civilized countries. Will the public learn to use the language of France?

No, we believe that French can never become the tongue of the world. More than likely it will be English, for the United States, England and Canada are broadcasting nightly to the world. They are broadcasting with so many more powerful stations than the rest of the world put together. Six to seven hundred broadcasters are operated by English speaking nations. Not over one hundred broadcasting stations are operated by all the other nations of the world.

English is destined, as long as this superior leadership continues, to become the broadcast tongue of the world. It will be through the medium of English that mutual understandings of peoples of other lands will be created. English may change slightly in the transfusion, but not much. English is already a melting pot language.

We are cognizant that while English is spoken daily by 160 millions of people, Chinese is the only language of over 400 millions, but we are hopeful. If it is possible, by international Radio broadcasting, to permeate English through the ears of Germany, Russia, France, Spain, Italy, Portugal, Sweden, Norway, Croatia, Bohemia, Czecho-Slovakia, Bulgaria, Holland, Poland and Greece—seventeen nations—then 470 millions of people would comprehend our language.

If China, India and Japan knew our tongue, 550 million could be added to the total. The immense total population of these three Asiatic countries gives birth to the idea that perhaps it wouldn't be a bad scheme for the English nations to erect relay or originating broadcasting stations in those countries and further the use of English.

Yes, the international broadcasts, once and still somewhat of a stunt and novelty, are going to be a most commonplace happening, and their ability to bring about world peace and a universal language is very promising.

RADIO INDI-GEST

When Waves Roll In

(With Apologies)

There's a glorious, tickly feelin',
Kinda vergin' on divine,
When the new set's all connected
And you've strung the long clothes line.

There's a thrill no other instrument
Can ever make you feel,
When you turn the knobs expectantly
And hear a howl and squeal.

But the joy supreme is findin'—
Let no artist dare to scorn—
That the waves are in the ether,
And there's music in the horn.

WILL I?

Should Teach the Horses

Dear Indi: So WCAU, Philadelphia, is going to broadcast horseback riding lessons? That should be made a feature of the International transmission tests. Build up foreign friendships. The Prince of Wales ought to fall for that.

IDA HOE.

Well, there are two sides to the question and it's pretty hard to stick to either one, so why not be considerate? You know the Prince is under trying circumstances.

And the Show Starts Right Away

Dear Indi: Here it is again! Bet you're thankful—WHAT—you don't know what I'm talking about? Canyuimajun that? Why the All-Star-American program, of course. It's designed especially for internationally-inclined stations to shoot across the ocean for the benefit of our cousins overseas. Show 'em what a swell country we have. Read it and vote the straight All-Star-American ticket:

I.
Address, "How to Buy a Pardon or Parole"
.....Gov. Len Small of Illinois
II.
Duet, "Miserere" from "Il Trovatore"
.....Nicky Arnstein and Fanny Brice
III.
Lecture, "How to Hold the Gun When Shooting Husbands".....W. C. T. U.
IV.
Lobby solo, "The Flying Dutchman".....Edward Bok
Accompanied at the money box by Senator Norris
V.
Close Harmony, a duet.....
.....Al Smith and Wm. Randolph Hearst
VI.
"Come Over and Play in Our Yard," mixed chorus
.....League of Nations
VII.
Talk, "What the Farmer Doesn't Want"
.....Pres. Cal Coolidge
VIII.
"Remember," solo.....Dicky Loeb
Accompanied by Nathan Leopold, in Joliet costumes
IX.
"Never Cripple, Always Kill Pedestrians So They Can't Sue".....Am. Automobile Assn. & Yellow Cab Co.
X.
"But You Gotta Know How," drinking song.....
District 13, Chief Prohibition Agent, Ed Yellowley
XI.
Booster Talk, "Chicago Autos, Gunmen, Poison Liquor etc., Kill More People Annually than the population of Florida Taken from the Florida Ads".....
.....Chicago Assn. of Commerce
XII.
Hymn, "Higher, Oh Raise Me".....
.....U. S. Assn. Skirt Manufacturers
Finale
"My Country Tis of Thee".....
.....by the Mixed Assortment Above

AN ILL NOISE ANN

Why not add, "Wings of the Mourning," from Schillings, by the Army Court Martial ensemble?

NIGHT

Thrilled am I to thus speak out into the night,
O silence infinite . . . . . mysterious night!
Over ethereal paths of celestial pageantry
Vibrating in a mystic lovely unknown light
The dim light cast by nocturnal skies
O'er dreamy worlds amidst the silence deep
Messages on the wings of thought flying
Piercing the darkness and the shades of sleep.

I am living o'er a century this hour
While slowly the wheels of silence wind
Where currents of life vibrate o'er the spheres;
Thoughts terrestrial hold me and I find
Myself in cosmic consciousness
Beyond the mortal edge in unknown lands;
O silence infinite . . . . . mysterious night!
God watches over all He understands.

RHEA SHELDON.

Just a Little Justice

Dear Indi: I see in last week's issue that Betty Crocker is going to give a talk on "Biscuits and Variations." What I want to know is, will the law protect me if I make my wife wear ear muffs during the program. She knows too much about variations from biscuits now. Her biscuits always vary—from bad to worse.

PTOMAINE

We're not so sure about the law, but almost any twelve men who have been through that stage of indigestion will. Take a chance, it's worth it.

The Finale

Condensed

BY DIELECTRIC

Station WMC, Memphis, Tenn., incorporates in the dance programs broadcast from their studio most of the modern numbers to be heard these days, and judging from the announcer's statements between selections a great many folk listen to them. This station does acknowledge telegraphic bouquets but consumes less time in doing so than most any station I know of. That is an example to follow.

Tuning in Station WEAO, station of the University of Ohio, an evening's pleasure was well-nigh complete. The directors of that station have been successful in controlling their modulation so as to transmit features with a great deal of fidelity. On the particular evening in mind a concert comprising selections played on the University's chimes made one loath to pass on. Granting the possibility of these being somewhat superior, their tone as received in my set was beautiful. We must not overlook the skill of the player.

The oratorio of the Messiah was broadcast by numerous stations with more or less effectiveness. Repetition, rather prolific in this work, does not become boresome where the choruses are well trained by directors who introduce a variety of phrasing. Such was the noticeable case of the production sung at WOC, Davenport, recently. The listeners' satisfaction was the more complete due to the accompaniment provided by the Palmer little symphony orchestra (another little symphony organization). Applause is due the soloists of the evening also.

Station WHO, Des Moines, arranged programs of Christmas music which were very pleasing and no doubt enjoyed by an extensive audience. The mere fact that the writer of this column was pleased signifies little, of course, so it behooves you who listened to their music to write the station expressing satisfaction—if that was felt—or adverse criticism, if you can specify the faults you consider existed. Criticism is always invaluable, where it is constructive, and especially so to Dielectric, who appreciates your comments on his efforts to properly evaluate (after years of musical experience and criticism) that which is heard by him. After all, critics differ even in their appraisal of outstanding artists. We are all human, you know.

Certainly all lovers of symphony music feel indebted to the sponsors of the broadcasting of the New York Philharmonic society's concerts, one of which was performed a short time ago and known as one of the students' series. While this was performed in Carnegie's hall, New York, and broadcast through Station WJZ, with the great power used by this station, no one could sense the artificial mediums making possible such music in our homes. Here is a body of musicians schooled in the classics and directed by leaders with international reputations.

Listeners in on the Atlantic coast boast now and then of their success in pulling in one of the California broadcasters, but the number is rather limited, comparatively speaking. To facilitate a larger audience getting Pacific programs, KFI, Los Angeles, arranged to have five broadcasting stations scattered across the country rebroadcast on a certain evening. My personal experience with this test was to find KFKX, Hastings; WOC, Davenport, and WHO, Des Moines, producing the best results. WGY, Schenectady, was foggy and of course faded miserably. Making a comparison with KFI itself during the singing by a coloratura soprano, KFKX and WOC most nearly approached the original.

ABC Radio Fundamentals for Everybody

Chapter II—Inter-Relation of Radio to Audio Telephony

By Milo Gurney

IN ORDER to complete our understanding of the close relationship existing between wire telephony and audio telephony, we have only to associate the fact that voice telephony uses air as the medium and wire telephony uses wire. Wire telephony has been shown to be identical with audio telephony, with the exception that an electric current, rather than the sound itself, was flowing through the connecting wires. This current in turn actuates purely mechanical devices capable of reproducing the wave form of the sound in the receiver.

Recognizing Air Surges

Of even greater interest to the reader is a more careful study of figure 1, shown in last week's article. In that drawing, it is evident that even an experienced eye could not judge or comprehend it as other than an artist's conception of varying air surges. Likewise, it is also apparent that the radiating spheres possess no intelligent meaning to the eye. Were it possible to convert this picture of air surges into vibrations the ear would, in turn, readily recognize them. Hence, as

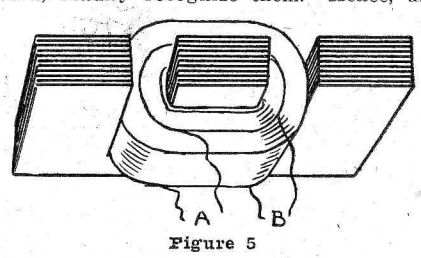

Figure 5

an object is identified through the application of definite, unchangeable optical laws, in like manner is a succession of moulded air surges identified through the basic vibratory laws.

In modern telephone practice, refinements of both the means for signaling and transmission are continually taking place. However, such improvements have not, or cannot, alter the fundamental laws governing telephony in any particular.

A Connecting Circuit

Some few of my readers will dispute figure 3 as not correct because it does not solve the problem of duplex or two-way conversations. Figure 4 (page 24) is therefore given as typical of the circuit used for duplex telephony. It comprises two of the circuits shown in figure 3 and a third, or connecting circuit, between them. With this arrangement, the receivers are connected together, the transmitters at either end of the line comprising individual circuits. As no physical or mechanical connection exists between any two of the three, then, to all intents and purposes, the completed circuit becomes an actual wireless circuit. We may, with all fair-

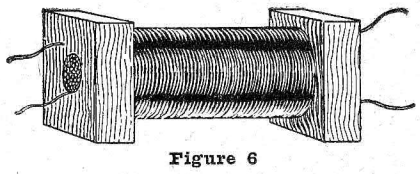

Figure 6

ness, consider the two outer circuits as broadcast transmitters, the central circuit comprising two receivers. The writer is of the belief that had this phenomena of voice transmission been properly exploited at its inception, as a discovery in wireless telephony, it would have created a furore not unlike that which Radio profited by.

Let us now return to figure 4 and trace this most interesting circuit, which makes possible two-way or duplex telephony. In figure 5 is shown the two windings comprising an audio frequency transformer as used in Radio receivers. These windings are placed over one another and separated with a compound which thoroughly insulates each winding from the other. The laminated core upon which the windings are pictured as mounted, having no bearing upon our present discussion, will not be considered, while figure 6 is included to show the type of audio transformer use in wire telephony, and which is termed an induction coil.

It will be noted that the circuits at either end of figure 4 are but duplicates of figure 3 with the receiver omitted, while the center circuit of figure 4 has, in effect, taken the receiver from the circuit show in figure 3 and inserted them in this circuit and in series with one of the windings of each of the coupling transformers. Going a step farther, we also note that in place of the receiver which was originally a part of figure 3, we have substituted the remaining winding of each of the transformers.

Gap Must Be Bridged

In order to make myself more clear, may I call your attention to the fact that neither of the three circuits have any mechanical or conductive connection each to the other, as we may ignore the vertical lines shown in figure 4. They merely represent the laminated core used in the transformers. It then follows, as previously stated, that in order for communication to be established, the gap or distance between the windings of each transformer must be jumped or bridged through the medium of the air or some agency undiscernible and closely related to it.

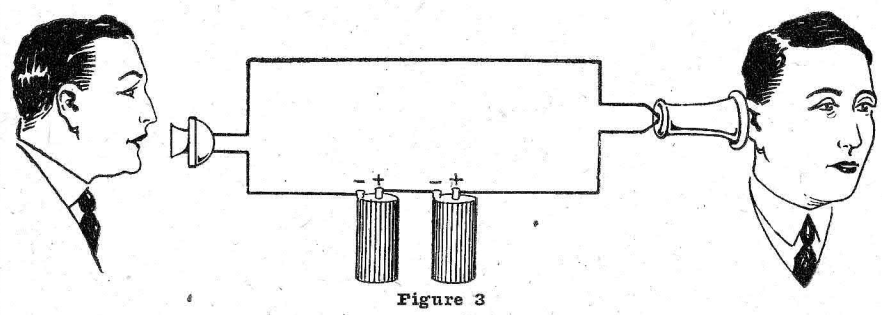

Figure 3

Hence duplex telephony is virtually but another form of wireless communication with which the public has not been concerned because of its having become one of life's necessities.

Radio More Complex

While the relation of wire to audio telephony is comparatively easily understood, the relation which Radio bears to each is somewhat more complex, except as we reverse the process of explanation. In doing so, I shall offer a discussion of the medium which Radio uses to span great areas or distances, which in this instance is light or the electromagnetic wave.

The nature of light has created much speculation. Physically, it appears as a ripple in a substance called ether. But this is of doubtful existence. Yet, admitting this uncertainty, the substance is of value toward the explanation of light waves. That light waves resemble sound waves, as ever expanding spheres, is readily recognized if we but visualize that the light from an ordinary lamp will shine equally in all directions, as will a sound wave, from a given source, penetrate equally over a like area.

While each is capable of being directed,

(Continued on page 24)

No More "B" Batteries on Your Radio

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

Genuine Fansteel
Balkite "B" Eliminator
Sent for Only
$1.00 Down

The Balkite "B" is connected to your radio just like "B" batteries and attached to an ordinary electric light socket. Replaces "B" batteries entirely and furnishes "B" current direct from regular house lighting current. Always gives current equal to four new and fresh 22½ Volt dry "B" batteries. For sets of five tubes or less. Simplifies radio receiving. More convenient, more economical and more efficient than dry or wet "B" batteries. Operates storage battery or dry cell tubes and gives tubes longer life. Entirely noiseless. Creates no disturbance in reception. Has no bulbs, nothing to break, wear out, replace or get out of order. Requires no change in your set, no extras to buy. Operates from 110-120 AC, 60 cycle current. Measures 8 3-16 inches by 8 inches by 3¼ inches. Current costs only 1-20 of a cent per hour.

$5.00 a Month, if satisfied after trial

Only $1.00 with the coupon below brings the Balkite "B" to your home on trial. Try it out thoroughly before you pay another penny. See how it improves reception. See how much more convenient than using batteries. Judge for yourself how it will save you money and make your radio set more enjoyable. Then, if not satisfied, send it back at our expense and we'll refund your $1.00 plus all transportation charges. If you decide to keep the Balkite "B," start paying only $5.00 a month until you have paid the total price of only $35.00. That's the price others ask for spot cash. We give you the lowest cash price on easy monthly payments you will never feel.

Send Coupon

Don't miss this opportunity to get the genuine Balkite "B" at the rock-bottom cash price on easy monthly payments. Send coupon now while this offer lasts. **Order by No. Y-8578A, $1.00 with coupon; $5.00 a month; total price $35.00.**

STRAUS & SCHRAM
Dept. R4411 Chicago, Ill.

STRAUS & SCHRAM, Dept. R4411 Chicago

Enclosed find $1.00. Ship special advertised Balkite "B" Battery Eliminator. I am to have 30 days free trial. If I keep it, I will pay you $5.00 monthly. If not satisfied, I am to return it within 30 days and you are to refund my money and any express charges I paid.

Balkite "B" Battery Eliminator, No. Y8578A, $35.00

*Name*_____

*St., R. F. D. or Box No.*_____

*Shipping Point*_____

*Post Office*_____ *State*_____

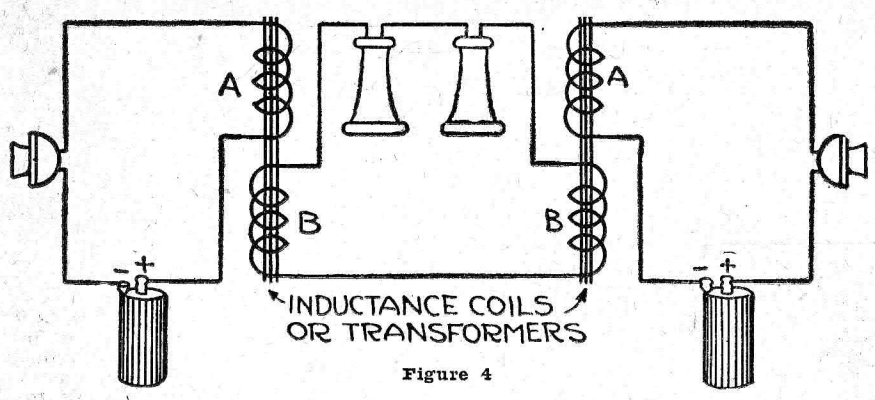

Figure 4

A B C'S OF RADIO SETS

(Continued from page 23)

through the application of mechanical means, and the resemblance is complete, yet each differs in the disturbance created. As has been previously explained, sound waves comprise spheres of condensation and expansion. On the other hand, light waves can be shown to be spheres of electric or electromagnetic forces.

Light and Radio Have Same Speed

Light travels 186,000 miles a second, or 300,000 kilometers, but of greater interest is the somewhat startling fact that Radio waves travel at a like velocity. Light waves of varying colors are produced wherever electrical charges vibrate, examples being the X-Ray, violet, green and red, some of which are decernable to the naked eye. All may be photographed.

As it is evident that this particular portion of my explanation relative to Radio waves being comparable to light waves will carry on into my next article, it appears as expedient that I, at this point, answer the one question most often asked by the novice. "What is meant by the term 'wave lengths,' and what is meant by the term 'meter?'" In order to answer this compound question, it seems essential that I answer it backwards.

Definition of Wave Lengths

The definition of the word "meter" has not changed a ten-thousandth part of an inch since each of us went to school. Without reference to the French metric system of measurements, of which it is a part, one may define it as equal to 39.37-inches. This of itself is meaningless as an explanation of what is meant when a station advises that it broadcasts upon a given wave length, which, for illustrative purposes, we will assume is 360 meters. May we then go a step further through determining the number of inches equaling 360 meters? This is but a problem in multiplication. The result shows that 360 meters is equal to 1,181.1 feet. Unlike the electric current used in wire telephony, that used for broadcasting is alternating in character, rather than continuous. These reversals of current flow are, however, so rapid that they appear as continuous. With each reversal a wave is released, similar in anology to the ripple which follows along a rope which is swung at one end, the other end being fastened to some object. These ripples as they follow each other are known as crests, and the time interval between each crest determines its wave or crest length. The composite answer is that a station broadcasting upon a wave length of 360 meters has so timed each impulse from its transmission as to allow each succeeding wave or impulse to travel 1,181.1 feet before the next impulse is released. In other words, the time interval is that period of time which is consumed for each wave to travel the above mentioned distance.

Simple, is it not? Yet how perplexing until explained, which reminds me of the little school boy who complained that his teacher didn't know anything, because she was continually asking him questions.

Next week, Mr. Gurney will continue his interesting discussion of the relation between Radio and its associates, audio and wire telephony.—Editor's Note.

TESTS WILL AID PEACE

(Continued from page 4)

means to furnish a telephone service from one country to another, and from all countries to each other.

"'For example,' said Mr. Burrows, 'if London wants a Bohemian program, the directors of programs in England do not have to try to arrange it and furnish it to their public—we simply hook up a line with Bohemia and give the English public a real Bohemian program with all native color direct.'"

And, of course, the same idea would work out just as well with Germany where the Radio broadcasting is restricted quite particularly to the opera and classical music in general. The Germans have been working industriously to develop equipment capable of receiving American programs. They expect to accomplish this result during the international broadcasting week.

Is it not conceivable that all the nations which participated in the world war might have found a way out of the conflagration if the millions of citizenry could have established an international comraderie through the Radio in the preceding years?

International interest in Radio would lead to a desire to understand the languages of other countries. Such languages could be taught over the Radio as they are now being taught in America. A better understanding of the languages would lead to a better understanding of the nations the languages represent because the listener would be interested in broadcasts coming from that country and such broadcasts naturally would present the viewpoint of that nation. An understanding of the language would lead to an interest in the literature and periodicals of a foreign country. All peoples would feel more neighborly, regardless of race, creed or nation.

Little has been said as to how the Asiatic countries will figure in this historic week of international broadcasting. Japan and China apparently will be in a position to listen to Europe with one ear as the waves sweep around the Indian sea and the Himalayas and to America with the other ear as the ether waves come singing over the Pacific. Whether they will attempt any broadcasting themselves for distant nations had not been announced at the time of this writing.

Radio Digest has received programs from Austria, Belgium, Denmark, England, Esthonia, Finland, France, Germany, Holland, Hungary, Italy, Jugo-Slavia, Norway, Russia, Spain, Sweden and Switzerland for the big international week. Other countries will be heard from west and south before January 24.

Long and loud may the great DX fraternity prosper! Now comes the time when George K. Babbit of Guthrie, Okla., U. S. A.; John Torro of Effingham, England; Gustav Schmalz of Koenigswusterhausen, Germany; Alphonse Beauvais of Chaumont, France, and all the other distance rangers may roam around the dials and bring in the same station with a common sympathy and delight for each other. And a blooper! Say let one of those birds start a squeal and all the nations would rise together and march shoulder to shoulder for a common—er, extermination!

British Notes

Important experiments have been made at 2LO with a form of "bottled Radio." The apparatus used was the telegraphone, which is a development of the old cylindrical phonograph record. It was used for recording part of the broadcast performance from an airplane, and will be brought into requisition in connection with the public speeches of eminent persons in cases where the installation of a "mike" is undesirable. While listeners may be prevented from hearing speeches at the moment of delivery, there will be no reason why they should not receive them a few hours afterwards when the station is not occupied.

One evening, this month, a shorthand demonstration will be given from 2LO, London, of words spoken at different rates. Lord Riddell, president of the Shorthand Fellowship and proprietor of the News of the World, a famous London paper, will speak at speeds, first of 100 then 150, and third, 200 words a minute. Shorthand experts will try to "take him down."

Oscillators are the chief subject of British complaints, and opinion is unanimous that some form of deterrent must be made use of before the nuisance can be entirely eradicated. Willful oscillators, it is urged, must be punished in a form fitting to their offense.

Roxy's Lair Disclosed

NEW YORK.—For the benefit of those who have not been able to trace S. L. Rothafel, "Roxy" of Radio fame, to his lair, it is announced that he has taken permanent quarters at Steinway hall, 113 West 57th street, room 605, New York, where he holds his rehearsals for the concerts at WEAF.

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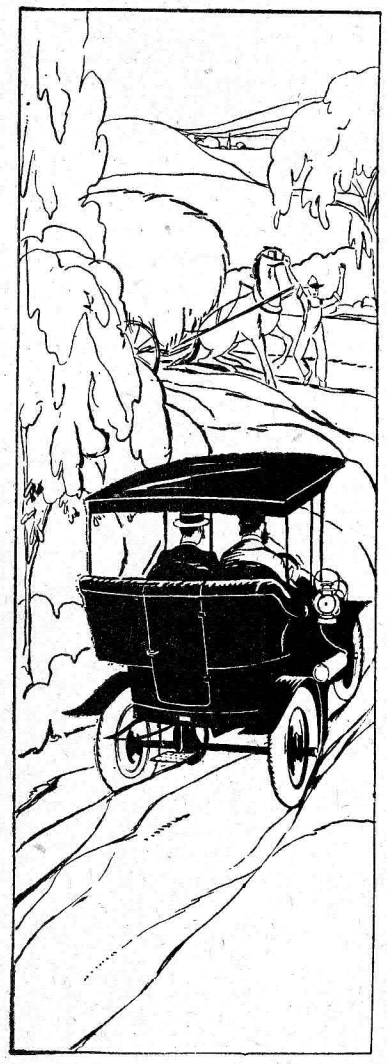

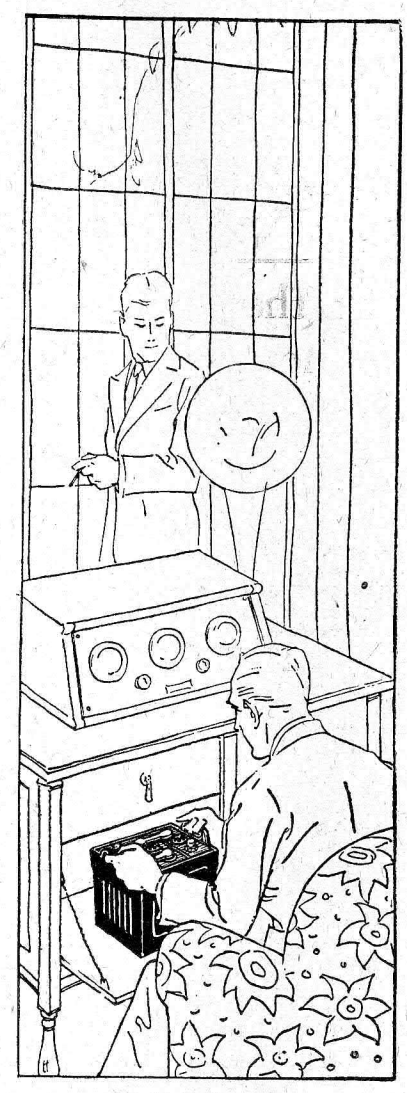

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OPERATING AND TROUBLE SHOOTING

OPERATING and Trouble Shooting, is a Radio Digest feature, the purpose of which is to give practical information on the operation, care and cure of simple troubles in every kind of receiver. Standard Radio receivers of wide distribution and use are studied from the standpoint of instructions for installing and connecting, tuning and operating, and remedying little difficulties. The suggestions below, if executed faithfully, will make winter broadcast listening yield all there is to yield to the reader and give your set a fair chance to show its worth.

For the Owner of a Thorola Islodyne Receiver

THIS set is most unusual in many ways. In appearance, the front panel differs radically from any other receiver available, due to the attractive wood covering over most of the front panel. In efficiency, the effect of the doughnut coils used is most noticeable in that this set really tunes sharp and confines local stations to a very few degrees on the dials. Operation is easily mastered and the controls have been reduced to the lowest possible minimum in a set of this type.

Islodyne comes sturdily packed against breakage and marring of the cabinet and is best removed from the container by placing carton on its side, opening the flaps at top and bottom and pushing through. Attempts to lift it out or drop it out were not very successful. The lint from the corrugated board may be removed with a soft cloth and at the same time the whole cabinet might well be gone over to restore the polish. There is no compartment for the batteries and space should be provided in the cabinet or table on which the set is placed, for them. A Belden battery cable affords a convenient means of making connections and was used by the writer when testing this set.

While there is an excellent diagram provided which shows clearly the proper battery connections, it may be a good idea to go over these for the benefit of those who may purchase from some one an Islodyne from which diagram card has been removed. There are three possible antenna connection posts; beginning at the left they are antenna long, antenna medium and antenna short. The choosing of the proper one for your installation is a matter of selectivity. If the antenna proper and the lead-in have a combined length of 105 to 125 feet, the "Antenna Long" binding post should give best results. Total lengths between 75 and 105 feet will probably call for the "Antenna Medium" post, while overall lengths of 40 to 75 feet should work better on the antenna short terminal.

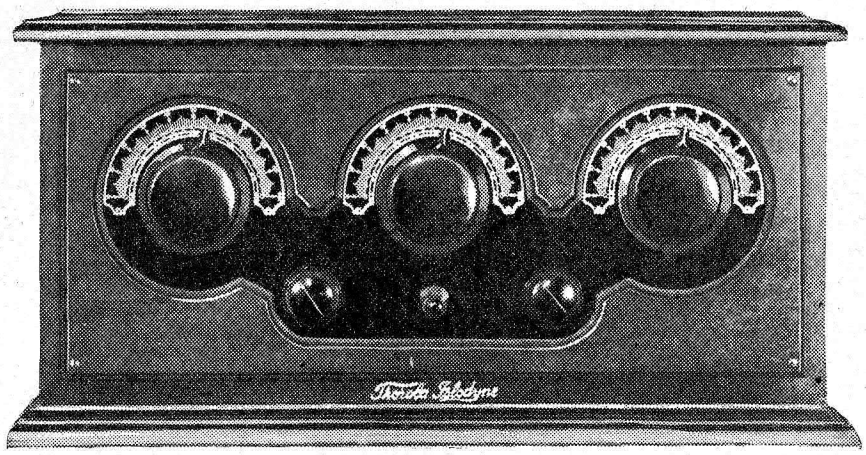

Figure 1

Try connecting your antenna on first one and then the other of these until adjustment is reached that gives you the desired compromise between selectivity and volume on distant stations. This is a compromise on any receiver which may or may not have been settled by the maker before shipping the set. This choice, as provided in the Islodyne, seems to be the better way as all locations differ. No matter what the characteristics of your antenna, the long antenna connection will give the greatest selectivity, with medium next and the short connection the least. On the other hand, the short connection will give greater volume on long distance.

Ground Connections

The fourth terminal from the left is for the ground wire which can be attached to either the cold water pipe or, in rural districts, a long rod can be driven into the ground 4 to 10 feet. This should, if possible, be placed in a spot where the earth is always moist. If attaching to a water pipe, carefully scrape, file or sandpaper the nearest portion of the pipe, for a length of about three inches. A ground clamp, as carried by Radio and electrical stores, is much to be preferred and costs but little. Otherwise, remove the insulation from the last two feet of the wire and scrape it bright, then wrap this portion around the pipe pushing the turns closely together. Over this wrap a layer or two of tinfoil and then cover well with what is called "electrician's" or "bicycle" tape.

Connections for the speaker come next and are in the form of small cord tip jacks. It will be noted that, on most speakers, the cord terminates in two leads one of which is marked with a red tracer thread. The unmarked cord tip is to be plugged into the first of the two jacks while the marked one goes into the second. This makes quite a lot of difference in most speakers and if improperly done the speaker will sound badly choked and will rattle. If cord tips are not marked with tracer thread, some reversing will be necessary to determine which way sounds best.

Connecting the Batteries

Before connecting the batteries be sure that the storage battery is fully charged as indicated on a hydrometer. One of the caps on the battery must be unscrewed and the tip of the hydrometer inserted in the liquid. The bulb is then squeezed and released which will draw up electrolyte into the large glass portion of this device. Within the hydrometer is a float on which there is a scale reading from 1,100 to 1,400. This float is read by noting the point on the scale opposite the surface of the liquid. The scale reading should be 1,210 or better. When between 1,280 and 1,310 battery is fully charged.

The first three terminals for batteries are for the B battery supply and are labelled B+90, B+45 and B—. This B power supply may take the form of dry cell B units as made by Eveready, may be of the storage battery type as constructed by Prest-O-Lite, World or Hawley, or may be one of the B eliminators on the market which supply direct current in the correct voltages when connected to the electric light socket. If a B eliminator is used, the binding posts will be found to carry practically the same identifications as those on the set although they may read B+100, B+50 and B—.

If batteries are used, either dry or wet, it will be found they come in 45-volt units and two will be required. The minus terminal on one of them is to be connected to the third from the last post in the set which is labelled B—. The other terminal on this battery is then to be connected to the B+45 post in the set and to the minus terminal of the second B battery. The remaining plus terminal on the second battery goes to the B+90 post in the set.

The last two posts in the set are for connection to the storage battery, usually called the "A" battery. One terminal of this battery will be found marked POS., + or painted red. This must be connected to the next to the last binding post while the second terminal of the storage battery connects to the last post on the set.

Tuning Controls

The three large knobs provided with pointers, which revolve over engraved scales, are the actual tuning controls. The center one, and that to the right, which we will call numbers 2 and 3, will be found to read practically the same on any station. Dial number 1 will probably read somewhat lower due to the effect of the antenna. Since every antenna installation varies it would be impossible for any manufacturer to alter this point. Below the dials there are two knobs and one switch. The switch is used to turn the current on and off. One must get in the habit of snapping this to the left when through with the set. If a B eliminator is used instead of B batteries, the switch controlling the house current should also be turned off.

The knob to the left controls the brilliancy of the first three tubes; the two which amplify the signals while still at radio frequencies, and the detector. This knob must be turned to the right to light the tubes and is used as a volume control on local stations or exceptionally loud distant programs. It also permits control over any tendency toward oscilla-

(Continued on page 26)

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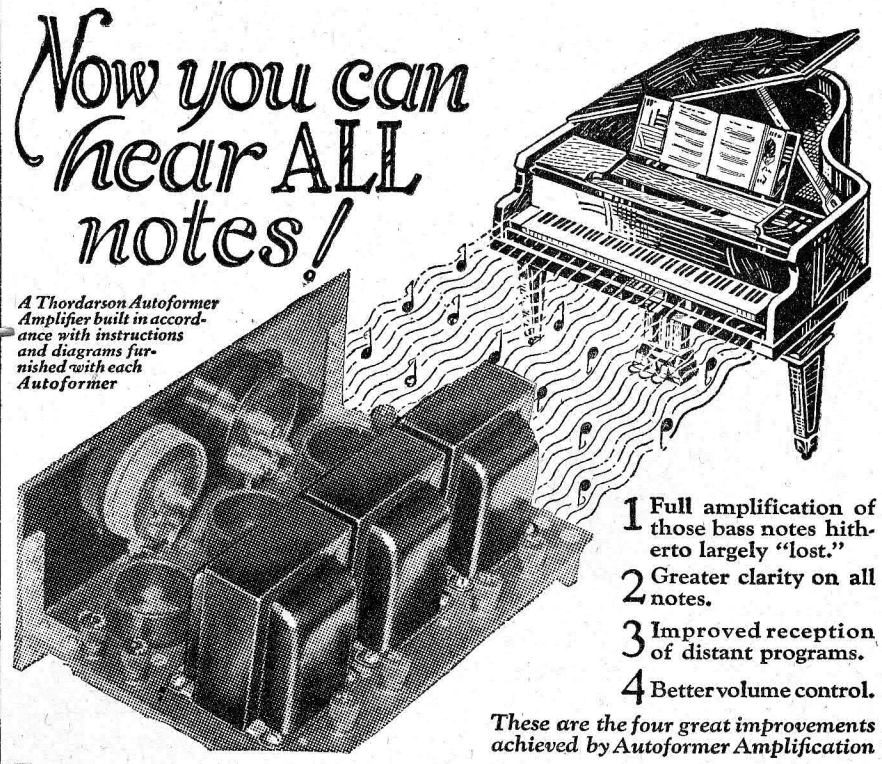

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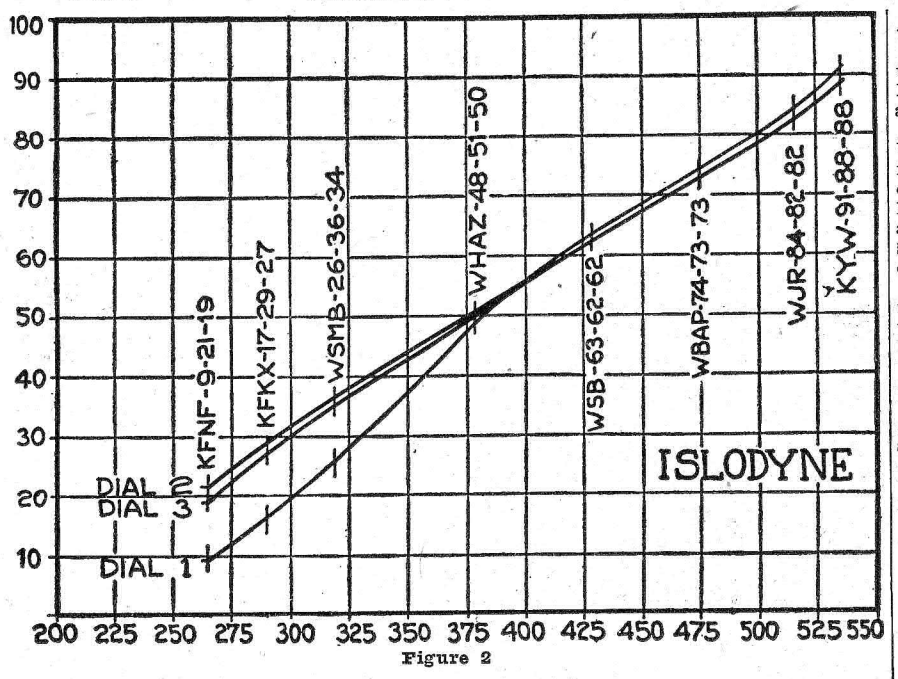


Figure 2

THOROLA ISLODYNE

(Continued from page 25)

tion on the lower wave lengths, 0 to 30 on the dials, which would evidence itself by squeals, howls and distortion. Turning it to the left clarifies the program.

The other knob is called a "distance amplifier control" and adjustment is necessary only on distant stations. By turning it to the right, the volume on weak or far-away stations can be built up. When receiving local and nearby programs, and also distant stations found between 0 and 30 on the dials, this knob should be kept turned to the left. Much of the really exceptional volume on out-of-town stations possible with this set is due to proper use of this knob to the right, and this innovation is both new and exclusive with the Islodyne.

Method of Tuning

It is suggested, to start, that the first dial be placed at 28 and then a hand placed on each of the other two so they can be revolved together. Revolve them slowly, and together, between 30 and 40. If no program is heard, turn the left knob slightly toward the right and try it again. If again there is no result, reset dial 1 at 30 and revolve the other two between 30 and 42. This should be tried several times, moving dial 1 two degrees each time. At some setting of the left knob and dial 1, a program will be encountered when revolving dials 2 and 3. Slight readjustment of all three dials and the knob will quickly bring the station in with maximum volume and clearness.

It is good practice to jot down the settings of the three dials for about seven stations, well distributed over the dials, and then make a chart, such as that reproduced here. Wave lengths are evenly spaced along one edge and dial settings from 1 to 100 along an adjacent edge. The little crosses for the settings of dial 3 can then be connected and will make a curve as shown. Do the same with the crosses for dial 2 settings and those of dial 1. If dials 2 and 3 run exactly together throughout the scale, only one curve for both of them is necessary.

As in any receiver of the tuned radio frequency type, it is a good policy to switch tubes around in their sockets when tuned in on a distant station, as nearly always there is one that makes a better detector than the rest and two that are superior as radio frequency amplifiers.

(The Stewart-Warner receiver will be studied next week.—Editor's Note.)

ANIMALS HEARD ON AIR

(Continued from page 5)

the tale, greatly exaggerated, reaches Leo, the lion. Then the whole zoo is in an uproar—and over nothing at all!

Carl Laemmle, pater familias to the Universal institution in general, got the idea the children would like to listen in on some of this jungle pow-wow. So he had a microphone brought up for the animals to make their Radio debut. Jiggs started it off and Leo ended it. The children pronounced it a great success.

It was over a year ago that the golden notes of the English nightingale were wafted into a concealed microphone and broadcast to Radio listeners throughout the British Isles and even so far as the continent. A pair of the nightingales had taken up their residence in a small arbor in the garden of Colonel and Mrs. Harrisons' estate near London. Cables were laid through the vines and a microphone ambushed among the leaves. Miss Beatrice Harrison, having previously discovered that the birds found inspiration in her 'cello, carried the instrument out to a convenient place and began to play. Seemingly flattered by such an unusual accompaniment the nightingales fluttered near and took up the song, their tiny throats fairly bursting with throbbing melody.

Off through the cables and the tubes and the antenna their voices were instantly radiated for a thousand or more miles round about bringing intense joy to children and their elders in the more crowded districts of the city where nightingales are unknown.

We are enraptured with the songs of the birds but few persons would care to compliment the sea lions for their vocal accomplishments. Imagine a sea lion duet! They are like some Radio sets—plenty of volume but low grade quality. However, in the New York zoological park, a microphone was placed at the edge of the pool where the sea lions live. To a sea lion volume is the essence of quality in itself and the sea lion that can croak and bark the loudest gets the prima dona role. So the prima dona and the runner up put on a duet that almost knocked everything but the crystal sets out of business for miles around.

Dogs on numerous occasions have had their turn at broadcasting. One of the most intelligent dog Radio artists naturally lives in Boston. His name is Pep. And the hundreds of thousands of children who spend the story hour with Big Brother Bob Emery are acquainted with Pep's cheerful ejaculations at appropriate times. Pep is the original "Big Radio Dog." He enjoys the WEEI story hour as much as anybody and seems to fully comprehend what is expected of him. When he addresses the microphone he puts his paws on Brother Bob's shoulders and his jaws come about level with the aperture. If he were to stand up straight on his hind legs Big Brother Bob would come about to Pep's collar buckle.

Maude, Julie and Trixie, three music loving young elephants at Luna Park, New York, prefer to do their broadcasting in the old-fashioned way without the aid of Radio transmission but when it comes to listening in just hand them a good superhet and they will tickle the dials with the sensitive tips of their trunks until they get what they want through the loud speaker. Then they will sit back on some old tubs and listen with the keenest pleasure. They are particularly fond of band music and sway their bodies when the rhythm isn't too fast.

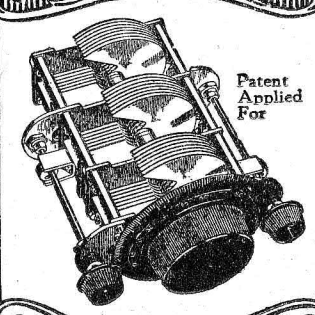
Some smart uncle or aunt or big brother will get the animals together one of these days and put on a regular air circus. Peter Rabbit may be lost in the broadcast shuffle but the Three Bears ought to be able to do their stuff with a little assistance and then happy days will come for our over-sophisticated youngsters.

Long Waves Are Better

LONDON.—Experience so far in re-broadcasting, on high power, messages received on short wave lengths, has not been entirely satisfactory here. Shorter waves have proved inconsistent, and show more erratic characteristics than the longer wave transmissions. The results of recent tests show that during daylight the short wave transmission, however, is much to be preferred

Rule Against Battery Charger

ZANESVILLE, Ohio.—The city council here has passed an ordinance making it a violation of law to operate a battery charger of the vibrator type between the hours of six o'clock in the evening and five o'clock the next morning. This ordinance was passed to prevent any interference from that source. A fine is imposed if there is a violation.



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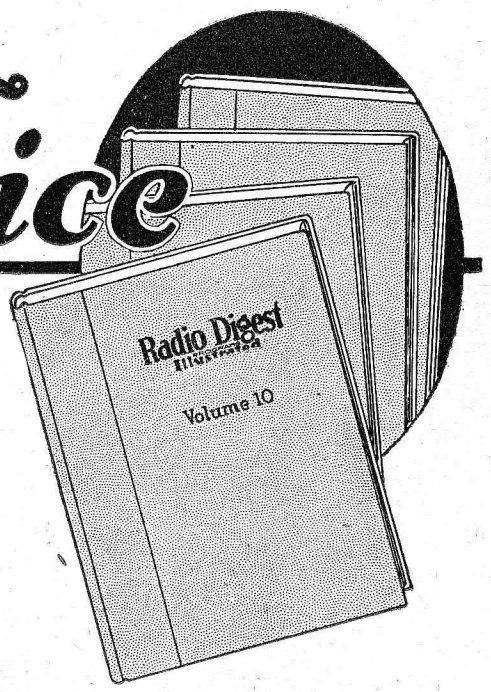

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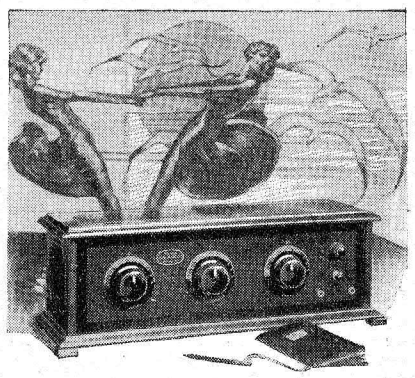

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Unitrola: Single Dial Phonograph Receiver

Part I—A Five Tube Set on a 12-Inch Panel

By Carl Patterson

FOR some reason known only to herself, Dame Nature gave us only two hands. Of course in Adam, the original model, she didn't have a Radio enthusiast and possibly the fact that his ancestors might wish to twist dials didn't occur to her. At any rate, two is all most of us have, yet just now there are more three-dial receivers being tuned nightly than any other kind. Personally, I do not like moving two dials just two degrees at a time and then jockeying the third; it takes too long to run the scale looking for stations that may still be on at two a. m., and one can miss them anyhow. This set I am about to describe, originally had two dials, and, personally, I thought it was about all that one could want, but not Mrs. C. P.

Only One Dial

The two dials ran almost together but on the lower waves they began to spread a little—"not so good." The set was, accordingly, redesigned and rebuilt. Incidentally, there were a few suggestions made that it might just as well go in the phonograph since we use a phonograph speaker unit anyway. There being only one dial, this was a perfectly feasible suggestion, and the resulting design, while it looks far from the customary shape of a Radio receiver, is an unexcelled 5-tube performer and is out of sight when not in use. Although a Radio bug, I'll admit there is little of beauty in most home built sets.

There are few phonographs of either the console or upright variety that this set will not go in. Of course many consoles have a lid over the record compartment which lifts upward and the panel of a set for that type would have to be horizontal. On the other hand, there are just as many consoles in which a door opens at the front admitting one to the record compartment, and all uprights have that kind of door on the record space. The panel of this set is but 12 inches wide and all phonographs are that wide. In depth, Unitrola is 16 inches and most talking machines are closer to 20 inches inside depth. The height is the usual 7 inches; I couldn't go any further from regulation style and had to have something standard.

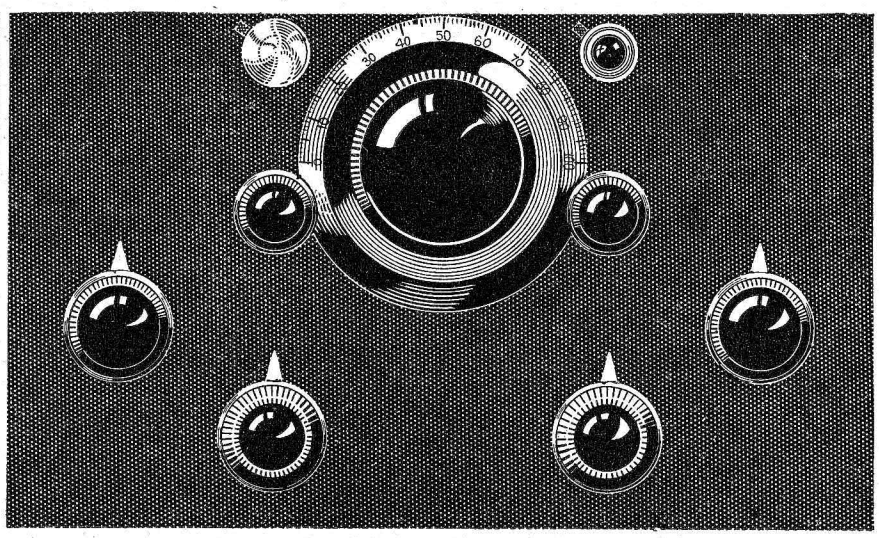


Figure 1

Panel at an Angle

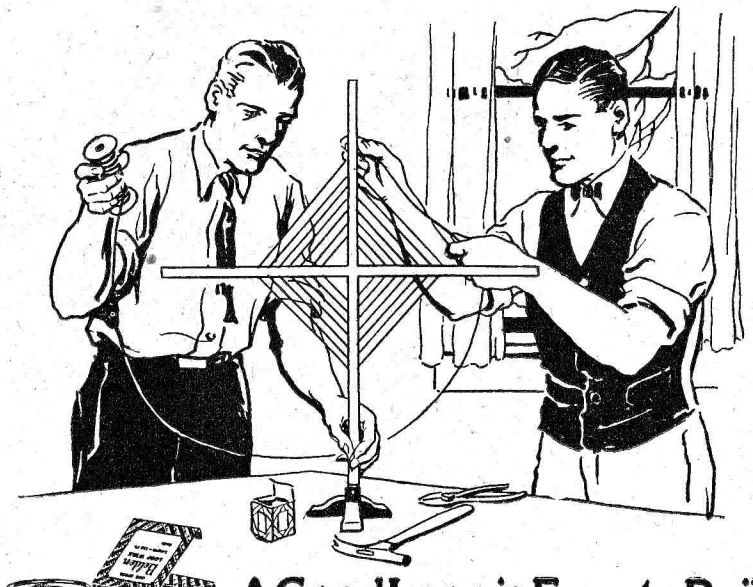
Since this receiver is to be operated in a position below table height, the panel is tipped back 30 degrees. When one is sitting or standing in front of Unitrola, tuning can be done most easily because of this slant. The single dial control is, of course, a pleasant innovation, but here is another. Due to the set being down inside the record compartment, it is comparatively dark, so a light, run from the battery, is placed on the panel close to the dial markings. It draws but little current and will not materially hasten the discharge of the battery. Across the dial from it is a pilot switch as the set being unobtrusively placed in the phonograph, it is surprisingly easy to walk off and leave the tubes burning.

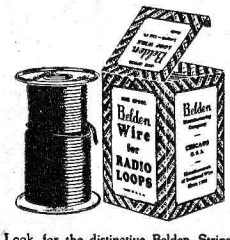
The United Scientific Laboratory multiple condenser is a thing of beauty both mechanically and electrically. Study of it brings to mind the words "Packard assembly." The plates are all of brass, well aligned and sturdily held together. The compensating arrangement for two of the sections is most unusual in that the two knobs do not affect the rotor. The large knob of course turns all three rotors simultaneously but each of the smaller ones swings a stator. The rear stator has no adjustment. The center stator is pivoted at the right side and the left knob, by means of a cam, swings this stator up into deeper mesh with the center rotor in whatever position it may be. The front stator is pivoted at the left side and the right compensator knob swings this stator up or down. Thus the small differences in capacities, wiring, etc., are taken care of very nicely.

Bodine coils are a new type of inductance that are both logical and technically correct. They are a cross between a binocular and a D-coil that results in a compact field and little tendency toward interaction between secondaries. For this set their physical compactness is ideal and parts can be placed fairly close without loss or oscillation. They mount easily and are low in cost, both points to be considered carefully. See that you get type T-35 which is the correct size for the .00035 units in the multiple condenser.

The new Amsco sockets are designed to take the tubes, now being sold by nearly all dealers, with the new UX base. Other sockets can of course be used but these are easily mounted by one machine screw, make very fine contact with the tube pins and should give very low losses. The contacts are as far apart as they could possibly be and genuine bakelite has been used for the main supporting block. If you are using tubes made by R. C. A. or Cunningham, you will find that from now on, dealers will have the new base tubes.

(Continued on page 28)



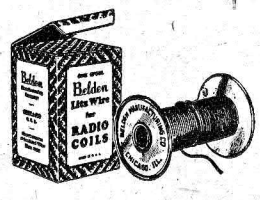


Look for the distinctive Belden Striped Carton. Furnished in maroon cotton or braided with brown or green Rayon (artificial silk).

A Good Loop is Easy to Build if You Use Belden Loop Wire

WHEN you build your new loop antenna, obtain maximum efficiency by using the special loop wire prepared by Belden engineers for standard loops. The Belden loop wire is made of sixty strands of No. 38 copper wire combined with five strands of No. 36 copper wire which has been treated to prevent stretching. All strands are insulated with a double wrap of cotton or with a Rayon braid. This unique construction provides a non-kinking, non-stretching, non-sagging conductor that will make a splendid loop, and one that will keep taut.

Ask your dealer for Belden loop wire!



Belden Litz Wire is a special high-frequency conductor, ranging from 20 to 48 strands of Beldenamel. Furnished in 100-ft. spools for winding high-frequency coils and apparatus.

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was no exception to
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UNITROLA: SINGLE DIAL

(Continued from page 27)

While everyone does not, possibly, prefer the plate resistance method of controlling oscillations at the lower wave lengths, it has always given me sets that equal anything else in the tuned radio frequency class, so I have put a C-R-L unit of 200,000 ohms in the common plate return of the two R.F. tubes and, by it, one can bring the circuits up to oscillation at any wave length. Some may claim that the efficiency is thus cut down at the lower end of the scale by insertion of resistance but surely it is not cut down any more than if one applied only 67 volts on the plates and this method has the advantage that regeneration can be secured at the upper end of the scale. Few tuned R.F. sets are efficient above 450 meters as regards range or, if they are, the rheostats must usually be turned down to prevent oscillation below 300 meters.

Thordarson Transformers Used

Following the detector in Unitrola there are two stages of transformer coupled audio frequency amplification and the volume on anything within range will comfortably fill a good size room. Thordarson transformers are used and the amplification over the entire musical scale is nearly even. They were the first to bring out this type of transformer with large primary and low ratio and, while their unit may be equalled by a very few and usually at a higher price, the results are not surpassed. The amplification per stage is far greater than most experimenters are used to and on locals it would be far too great for comfort or the ability of a speaker to handle if means of control were not provided. Accordingly, another C-R-L resistor is placed across one of the audio amplifier grid circuits and gives smooth, even control from whisper to roar. I first saw this system on one of Jacques Fournier's Fireside receivers and liked it so well I put it on Unitrola's predecessor.

These audio frequency amplifiers are lighted through Amperites as elimination of panel adjustments is always desirable and particularly so on this set with its 12-inch by 7-inch panel. Audio frequency tubes are not critical as regards filament lighting and you need have no fear that you are losing anything in either clearness or volume by not putting in a rheostat for these tubes.

LIST OF PARTS

1 U. S. L. Multiple Condenser	United Scientific Lab., New York	$13.50
3 Bodine Twin-8 Transformers	Bodine Electric Co., Chicago	9.00
5 Amsco Universal Sockets	Amsco Products Co., New York	3.75
1 Amsco Grid Gate, 3 mg.	Amsco Products Co., New York	.45
1 Formica Panel 7"x12"	Formica Insulation Co., Cincinnati	1.80
1 Formica Panel 16"x11½"	Formica Insulation Co., Cincinnati	4.00
1 Piece Stiff Aluminum 12"x12"		.50
1 "Imp" Rheostat, 15 ohms	Carter Radio Co., Chicago	1.00
1 "Imp" Rheostat, 30 ohms	Carter Radio Co., Chicago	1.00
1 Carter "Dialite"	Carter Radio Co., Chicago	1.75
1 Carter Pilot Switch	Carter Radio Co., Chicago	1.50
1 C-R-L Unit, 200,000 ohms	Central Radio Lab., Milwaukee	1.65
1 C-R-L Unit, 500,000 ohms	Central Radio Lab., Milwaukee	1.65
1 Daven No. 50 Mounting	Daven Radio Corp., Newark	.35
2 Sangamo Bypass Cond., 0.5 mfd.	Sangamo Elec. Co., Springfield, Ill.	1.80
1 Sangamo Fixed Cond., .00025 mfd.	Sangamo Elec. Co., Springfield, Ill.	.40
1 Sangamo Fixed Cond., .001 mfd.	Sangamo Elec. Co., Springfield, Ill.	.50
2 Amperites 1-A	Radiall Corp., New York City	2.20
7 Ensign Binding Posts	H. H. Eby Mfg. Co., Philadelphia	1.05
2 Audio Transformers, 2-1	Thordarson Elec. Co., Chicago	10.00
	Total Cost	$57.85

It was soon found that the dial light was not needed during the day as the light from the windows illuminates the dial plentifully. Having both the Dialite and the Pilot switch, a combination was soon worked out by which the Dialite could be turned on or off irrespective of the current to the filaments and the Pilot switch is used not only to indicate whether the tubes are lighted but also to turn them on or off. A quarter turn of the hood on the Carter Dialite puts it on at night and off when set is used during the day.

As to results with this set, I have seen but one receiver of the tuned R.F. type to compare with it and that is the highest priced neutrodyne on the market. On a 60-foot antenna, with, of course, a well made ground, it steps out of Chicago's congested North Side, through WEBH, WQJ, WIBO, WBBM, et al, and brings us the Hired Hand from Fort Worth, the Dixola novelty orchestra from New Orleans, Goldie and Dusty from New York and the stations lining the shores of the Great Lakes. No, we do not "do the Coast" every night. Those much sought entertainers, KFI and KGO, come through with commendable frequency but are not nightly playmates. Probably those living out on farms or in smaller cities throughout Iowa, Wisconsin and Indiana, where aerial traffic is not quite so thick, could use a slightly longer antenna and bring in the coast regularly.

(In next week's issue Mr. Patterson will go into the drilling and assembly of panel and baseboard and the bending of the special brackets out of the aluminum.—Editor's Note.)

Navy Radio Saves U. S. $1,000,000

WASHINGTON, D. C.—The navy department saved the United States $1,000,000 during the fiscal year just ended. The navy handled some of the U. S. Radio traffic.

ADVANCE PROGRAMS

(Continued from page 21)

ling's string trio; 6, classical program, dinner organ recital, Grayling's string trio; Bob York, tenor; Bernice Taylor, soprano; Mina Smith, violinist; Leola Alkman, soprano; 7:45 (238), musical features; 9:30, Dutch Masters, Loftis half hour of music, Freddie Whitmer, pianist; Samuel G. Rowe, tenor; Oscar Heather, tenor; Pat Barnes, tenor; Helen Rauh, pianist; Husk O'Hare's orchestra; 12 m., Pat Barnes and Al Carney.

WIBO, Chicago, Ill. (226), 10-11 a. m., shoppers' bureau; 2-4 p. m., popular shut-in program; 6-8, dinner concert, Walter Preston; WIBO trio; Rae McKay, Otis Pike Jester; 10-12, Oh Henry night.

WLIB, Chicago, Ill. (302.8), 7-8 p. m., dinner concert; 11-12 m., popular program; 12-1 a. m., dance program.

WLS, Chicago, Ill. (344.6), 12 m., Ford and Glenn; 6:30, Ralph Emerson, organist; 7, lullaby time; 7:15, WLS trio; 7:45, "Robert Burns Wallace Bruce Amsbarry; 8, Julia Gay M. E. church male quartet; 8:30, Ford and Glenn presentation; 9, George Albert's mandolin club; 9:30, special musical feature; 10:40, Ford and Glenn.

WLW, Cincinnati, Ohio (422.3), 7:30 a. m., exercises, William Stradtman, Y. M. C. A; 8, morning devotions, auspices of Parkway Y. M. C. A; 12:05 p. m., organ recital, Erwin E. Schenk; 12:30, concert, Hotel Gibson, Robert Visconti, director.

WMAQ, Chicago, Ill. (447.5), 12:25 p. m., Y. M. C. A. forum; 1, Radio farm school; 2, shut-in program; 4, talk preschool child; 4:15, news of the shops, Mildred Graham; 4:30, "Foibles of the Moment," Mrs. Graham Aldis; 4:35, pupils of Bush conservatory; 5, child-life stories; 6, organ; 6:30, Wide-Awake club; 8, musical lecture, Mr. and Mrs. M. E. Oberndorfer; 8:30, Whitney trio; 9, lecture, University of Chicago; 9:20, Elizabeth Stokes, soprano; 9:55, University of Chicago chimes.

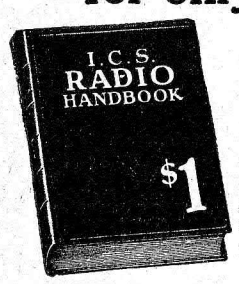
WMBB, Chicago, Ill. (250), 7-8 p. m., Trianon artists; Frank Bornder, Frank Chaplin, artists; old home songs night; 9-11, Trianon orchestra, Dell Lampe, director; Woodlawn theater orchestra, Armin F. Hand, director; 9-11, Trianon orchestra, Dell Lampe, director; Woodlawn theater orchestra, Armin F. Hand, director; Babbe and Barr, Joe Morrison, Walter Duffy, Glen Wells, Montana cowboy; popular program.

WMC, Memphis, Tenn. (499.7), 8:30 p. m., Atwater Kent program; 11, organ recital, Harry Nichols.

WOAI, San Antonio, Texas (394.5), 3 p. m., musical

(Continued on page 30)

Every Question ANSWERED for only $1



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Technically edited by F. H. Doane

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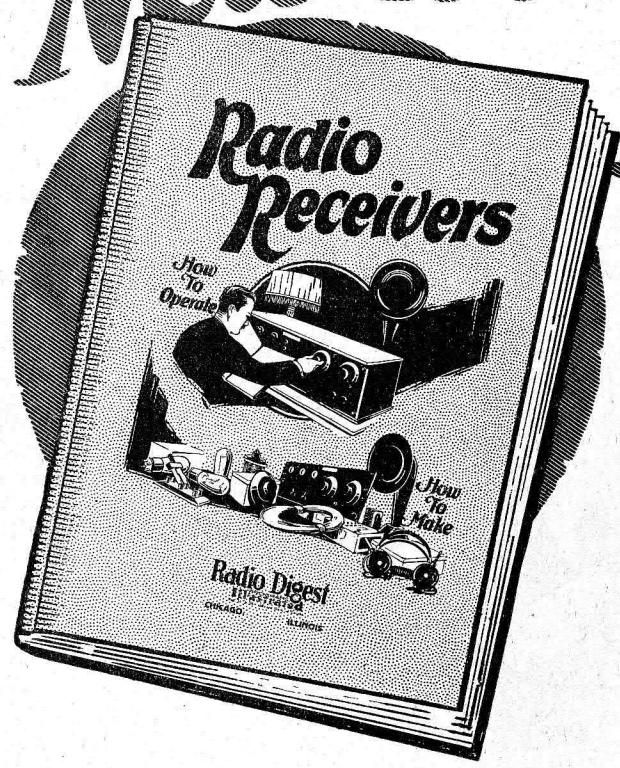

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NAME.....

ADDRESS.....

CITY..... STATE.....

Reader Shows Novel Use of Table

Evening at Home Made Up for Easy Reference

One of the most valuable features of Radio Digest, I think, is the "Evening at Home with the Listener In" table. I have found it very useful in operating my set. However, I find it difficult to follow with the eye clear across the line of days to the day on which I am listening, and so have devised the following scheme to assist me in using the list:

Although only the top part of the list is shown in the illustration, I cut a strip of stiff cardboard the length of the full table, and as wide as the first four columns, which include the call, location, meters, and the Saturday list of hours. I then carefully clip the list out of the issue, and cut it in eight strips, as shown. Seven of these strips are the days, of course, and the eighth includes the call, location, and meters. The last mentioned strip I paste flush with the left edge of the cardboard, putting paste all over the back of the clipped strip before mounting. Then I put a square of paste at the point marked "paste here only" in the drawing, and being careful that the hours calendar properly with the stations they are meant for, I stick the top edge of the Saturday column on this spot of paste. Over this same spot paste is again applied, and Sunday's column is pasted in place right over Saturday. The same method is continued until all seven of the hours columns are mounted in order one on top of the other.

The result is a cardboard strip about twelve inches long and a little less than two inches wide, with top mounted and hinged "pages" for each day of the week showing the evening hours stations can be found broadcasting.

The mounted table is very simple to make and I find it much more convenient to handle. I keep the latest table prepared in this form at all times beside my receiver.—A. R. Poirier, Providence, R. I.

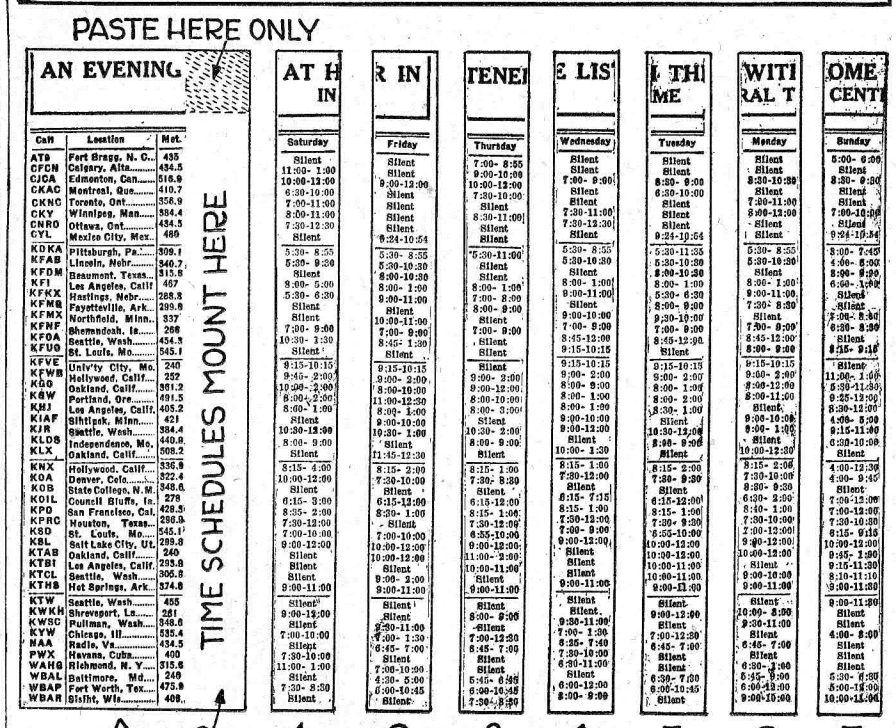
WORKSHOP KINKS EARN A DOLLAR—

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

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

Short waves travel farther than long waves and require less power to cover the same distance than the longer waves.

HOW TO CUT AND MAKE MOUNTING



SOLDIERS LOVE WMCA

(Continued from page 7)

success of these productions? Many deep and ponderous councils floundered through the problem. But finally Radio won. The productions were heard on the air and the box office found no reason to complain.

Today Mr. Weir is able to present each Thursday, over WMCA, the principals and chorus of the leading Broadway shows at a midnight special studio performance.

Many celebrities have been heard over the WMCA microphone. One of the more recent artists to make history there was Samuel Siegel, world famous mandolinist, who surrendered all that he had achieved with this small instrument twenty years ago, because he could not persuade the world to regard the mandolin seriously. He alone had brought it to the heights of artistic success. Wherever he appeared he was acclaimed but there it ended. The world at large, not having heard the master, smiled at the mandolin as a college serenader's toy. For twenty years, Siegel put his mandolin aside nor could he be persuaded to play it again until recently.

Then friends induced him to bring it to Radio Station WMAC. He played. A flood of letters indicated that he was still the master and he himself was satisfied because now he hopes through the Radio to reach millions and prove to the world that the mandolin is capable of the finest artistic achievement.

Miss Lois Mayer of Paris, Texas, was discovered to have a voice of extraordinary power and tenderness and she was featured during the Hardman Hour of Music over WMAC. Harriette Keyes, famous on the Victor records and on the stage the country over, was annexed as one of the regular stars at the MsAlpin studios. Louise Bave, who at the age of 19, made her debut at La Scala in Milan, under Toscannini was brought by Arthur L. Lee, managing director of the McAlpin, to the WMCA station as a regular feature.

Miss Bave is the girl with the three octave voice taking high G, with ease and clearness. She can sing with the coloratura range most effectively having the depth and warmth necessary for lyric roles.

Benar Barzelay, Polish violinist, who has played at the command of royalty in five European countries, was presented to the audiences of the McAlpin Radio station. Of course, the big features are Ernie Golden's orchestra and Olcott Vail's String Ensemble and the Symphony orchestra.

One of the oldest, WMCA has continued to grow in prestige and stands among the first of the leading Radio broadcasting stations of the United States—and the United States has a long march in the lead of every other country in the world in its popular Radio transmission.

New Belgium Station On Air

BRUSSELS, Belgium.—The province of Liege, which complained of not hearing the Radio-Belgique transmission from Brussels, now has no less than three stations of its own. The opening of Radio-Wallcnie was reported recently. Its wave length has been definitely fixed at 285 meters. The newcomers are Radio-Central, 205 meters, and Seraing-Radio, 195 meters.

15,000 Study Spanish

DENVER.—Thousands of broadcast listeners comprising what is believed one of the largest educational classes ever organized, are now studying Spanish every Monday evening over KOA, Denver station of the General Electric company. More than 15,000 persons, representing all nationalities and walks of life thus far have been registered for this course.

Hawaii Heard Every Night

CHICAGO.—Hawaii has been reached regularly each week for the past two months, according to the Stewart-Warner studio of Station WBBM here. Communications received by the station indicate that WBBM is being heard consistently in the islands in the Pacific ocean since winter weather has set in.

Fred W. Stein.

Steinite Low Loss
Interference Eliminator
No Radio Set Complete Without It

Select stations at will. With music and voices crowding the air the average set fails to bring in the desired stations properly. The *Steinite Interference Eliminator* shuts out local and other interference. You get one station at a time, the one you want, and tune in loud and clear. Operates on any set—attach to aerial wire and to set—no changes—no extra tubes or batteries. Greatest Dollar Value in Radio Today.

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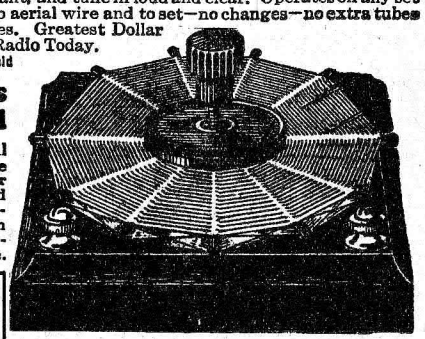
Improved Results with Tube or Crystal

Try entirely at my risk the wonderful improvement this inexpensive little device will make in the reception of your set. Improves results on both crystal and tube sets that use any kind of aerial except loop antenna. Clears up reception wonderfully, increases volume, and partially absorbs static. Money-Back Guarantee.



Mfrs. Famous 1,500 Mi. Steinite 1-Tube Set, $6; Long Distance Crystal Set, $6; Steinite Crystal 50¢ — Three for $1.

Steinite 5-Tube Set $29.75

FREE Descriptive Literature on request.

$1 Postpaid If you are not delighted with results you get your dollar back

Put this interference eliminator on your set and note amazing improvement. No tools needed—install in a moments time. Connect with set and follow simple instructions. Money back promptly if not delighted. $1.00 postpaid anywhere in U. S. when cash with order.

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Full, sweet, mellow and natural, without the slightest indication of distortion, is another achievement that is making the APEX SUPER FIVE the most popular of all receiving sets.

VOLUME

That supplies dance music or entertainment without any loss, is a feature for which the APEX SUPER FIVE is world famed.

DISTANCE

Lends added enjoyment to radio with an indescribable fascination of tuning-in far away stations, which is always possible with the APEX SUPER FIVE.

Ask your dealer for a demonstration. Your eyes and your ears will tell you that APEX stands at the high point of perfection in both performance and appearance. $80 —t thout accessories.

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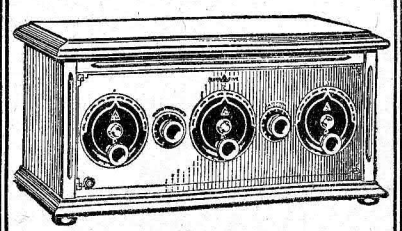
Quality Radio Apparatus

SUPER 5



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$2.75 C.O.D. World Storage "B" Battery

12 Cells, 24 Volt units. Equipped with **Solid Rubber Case**, an insurance against acid and leakage. Extra heavy glass jars. Heavy rugged plates. Built with the same care and precision as the famous World Radio "A" Batteries.

Lasts Indefinitely—Pays for Itself

Economy and performance unheard of before! Recharged at a negligible cost. Delivers unfailing power that is clear, pure and quiet. Tube plate (B) voltage is best served by storage battery power. It is, above all, constant, unvarying, dependable and efficient. Radio tubes are far too critical to subject them to power less efficient than that coming from a good storage "B" battery. Your set demands the best!

Tested and Approved by Leading Authorities

The following qualified institutions of merit have tested and approved World Storage "B" Batteries: Radio News Laboratories, Popular Science Institute of Standards, Popular Radio Laboratories, Radio Broadcast Laboratories, Radio Age Laboratories, Lefax, Inc., and others equally important. You can depend on a tried and proven article when you decide on a World Storage "B" Battery. Thousands in use. Order yours today!

SEND NO MONEY

Just state number of batteries wanted and we will ship day order is received. **Extra Offer:** 4 batteries in series (96 volts), $10.50. Pay expressman after examining batteries. 5 percent discount for cash with order. Save 50 percent—get a tried and proven battery of merit, by mailing your order in NOW!

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1219 So. Wabash Ave., Dept. 76 Chicago, Ill.
Makers of the Famous World Radio "A" Storage Battery
Prices: 6-volt, 100 Amp. $11.25; 120 Amp. $13.25; 140 Amp. $14.00.
All equipped with Solid Rubber Case.

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Questions and Answers

Charging A Battery with Generator

EW, Lancaster, Mo.

Can I use the generator off of an automobile to charge a 100-ampere hour Radio A battery? Can I remove the generator and connect it by belt to a small gas engine to do this?

If so, how many hours would it take to fully charge the battery? Would I need to put the car's ammeter in the line when I charged the battery?

A.—It is entirely feasible for you to charge your 100-ampere hour storage battery by connecting it to a 6-volt generator. If the car which you have uses a 6-volt generator, you will then find that the car starting battery is also 6 volts.

It will then only be necessary for you to disconnect the starting battery, take it out of the car and replace it with the battery you use for Radio.

Start your engine and allow it to run fast enough that it is showing by the dash ammeter it is charging. This can be done during daylight hours with the car standing still.

We believe that there is an ammeter on your car which shows the rate depending on speed of engine of charge. It is only necessary for you to divide 100 by this rate to determine the number of hours necessary to run before the battery is fully charged. If no ammeter is on the car, you may then secure a hydrometer for testing the battery's specific gravity. When the specific gravity reaches between 1275 and 1300, the battery will be charged and ready for use.

How to Make Tuning Chart

WEM, Sharpsburg, Ga.

In looking back over your Radio Digest dated November 21, 1925, I found something that I would like for you to furnish me if possible. On pages 27 and 28 is an explanation of how to set your dials to pick up different stations. I have an Atwater Kent five tube set and I am unable to get different stations. If you will furnish me with a chart showing how to get different stations, I will pay you what you ask.

A.—The chart shown in our November 21 issue of Radio Digest we felt was self explanatory. However we are pleased to inform you further about it.

The process which you should follow is to first draw the chart without any of the station notations, on the left of it is indicated the dial readings, while the base line indicates the wave length in meters.

Proceed to tune your receiver, and as you secure a station, note the dial setting, also the wave length of that station. Then place a dot at the intersection of these two values. Once you have secured the location thus for several stations, a line joining the dots can be drawn and others can be found automatically on this line.

Please understand that this is merely a guide, and is of no assistance in assisting you to use your receiver to separate or secure stations beyond the possibilities of your receiver. It is primarily a handy chart for easily determining at a glance the approximate dial setting for a given wave length.

Electric Pad Interference

LHL, Big Timber, Mont.

As a regular subscriber of your valuable paper, I wish to ask if there is not some way in which I can eliminate the interference caused in my set by an electric heating pad used about 100 feet away from my location by an invalid. He uses the pad all day and night, and the prospects are that he will continue to use it for some time. Cannot the thermostat be grounded in some fashion?

A.—Place two heavy fixed condensers, say one or two microfarads, in series across the line just ahead of the pad. Attach a wire to the wire connecting the two condensers, and run this wire to a good ground connection. This may stop the interference. See Radio Digest issues of August 1 and 8 for a complete treatise on the causes and cure of Radio inductive interference.

ADVANCE PROGRAMS

(Continued from page 28)

program, Kamma's Hawaiians; 8:30, musical program, Menger hotel trio.

WOAW, Omaha, Nebr. (526), 12:45 p. m., Sunshine dinner menu; 1, Randall's Royal Fontenelle orchestra; 6, music review, Hester Bronson Copper; 6:50, Jaffy's string quintet; 9, classical program; 10:30, Frank Hodek and his Nightingale orchestra.

WOC, Davenport, Iowa (483.6), 12:15-12:25 p. m., special farm service day; 3-3:30, home management, Aunt Jane; 4-5, Crescent orchestra; 5:45-6, chimes; 6:30-6:50, sandman; 8-9, musical program, American Legion; 9-9:45, travel lecture.

WOK, Chicago, Ill. (217.3), 4:30-7 p. m., Tearney's Town Club Twilight dansant; Capitol theater organ; studio program; 10-1:30 a. m., Tearne 's Town club orchestra; Carl LaRine's Pershing Palace orchestra; Husk O'Hare's Cocoanut Grove orchestra; Capitol theater program; studio program.

WOS, Jefferson City, Mo. (440.9), 8 p. m., "Postoffice Government and Its Progress," Ben H. Linhardt; vaied musical program, McGirk band, New S. Newton, director.

WQJ, Chicago, Ill. (447.5), 11-12 m., Sunday dinner menu, Ted Wilmes; 3-4 p. m., "The Second Radio Lesson," Helen H. Downing; talk, Francis Hewett Crouse; 7-8, Rainbo Gardens orchestra; Henrietta Nolan, violinist; Clement Laskowski, tenor; "Jesus, Lover of My Soul," W. H. Bundy; 10-1, Rainbo Skylarks; Dr. H. Lucille Long, harmonica soloist; artists from Rainbo Glories; Melodians; Dean Terrill, baritone; Merrill Carder, baritone; Mary Wade, soprano; Romo Vincent, baritone; 1-2, Ginger hour.

WRR, Dallas, Texas (246), 12-1 p. m., Ethel Smith, pianist; W. W. Macbeth, harmonica; Sheldon Leachman, tenor; 5:15, bedtime story; 6-7, dinner concert, Jack Gardner and his orchestra; 8-9, novelty program-Dailey Hembree, tenor, and assisting musicians; 11-12, organ recital, George Perfect and assisting musicians, Phil Pierce studio.

WSB, Atlanta, Ga. (428.3), 8 p. m., First Baptist church choir, Griffin, Ga.; 10:45, Nunnally miniature symphony orchestra.

WSM, Nashville, Tenn. (282.8), 6:30 p. m., concert, Beasley Smith and his orchestra from Andrew Jackson hotel; 7, bedtime story interlude; 8, program, Mrs. William Hall, Jr., contralto, and associate artists; 10, Negro spirituals, Golden Echo quartet.

WSUI, Iowa City, Iowa (483.6), 12:30 p. m., Dr. Phillip G. Clapp, pianist.

Mountain Time Stations

CFAC, Calgary, Can. (435.8), 7-8 p. m., Salon broadcast, Gladys Webb Foster, director.

CNRE, Edmonton, Canada (516.9), 7:30-8 p. m., children's half hour; 8:30-10:30, Wilfred Cooper and his Hawaiian troup; 10:30-11:30, John Bowman and his orchestra.

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

KOA, Denver, Colo. (322.4), 12:15 p .m., Rialto theater musicale; 3:15, relaxing and corrective exercises, Mrs. Ruth Drumm Witting; 3:30, matinee for housewives, Elizabeth Jacoway Matthews; Edith Rassmussen, soprano; Elizabeth Alexander Rundquist, contralto; Frances Smith, reader; Edith Rassmussen, soprano, Ruth Haffner Rader, pianist; 4, culinary hints, Mrs. Clara Hoover; 4:15, fashion review; 6:30, Brown Palace string orchestra; 7:30, Sunday school lesson, Rev. William O. Rogers; 8, musicale, Fort Collins Chamber of Commerce; 157 Infantry band; Fort Collins Masonic quartet; L. Lyon, clarinetist; Mrs. Elizabeth Carson, contralto; Preston Murphy, baritone; Ladies' quintet, Colorado Agricultural college.

KOB, State College, N. Mex. (348.6), 7:30-8:30 p. m., musical program, college band.

Pacific Time Stations

KFI, Los Angeles, Calif. (467), 5:30-6 p. m., Examiner matinee; 6, nightly doings; 6:15, KFI's seeing California; 6:30, vest pocket program; 6:45, Radiotorial period; 7-8, Examiner hour; 8-9, Aeolian residence pipe organ, Dan L. McFarland, organist; 9-10, William MacDougal, Scotch comedian and Mutual Motors joke contest; 10-11, program, pupils Myra Belle Vickers.

KFON, Long Beach, Calif. (232.4), 4:30-5 p. m., amusement bulletin; 6-6:30, organ recital, Brayton's theater; 6:30-7, Captain's inn orchestra from Seal Beach; 8-9, Press-Telegram program; 10-12, Long Beach Elks No. 888 Midnight frolic.

KFWB, Hollywood, Calif. (252), 7-7:10 p. m., announcements; 7:10, safety first talk, Officer E. C. Brown; 7:20, Jack Boaz, fishing and hunting scout; 7:30, Eye-o-logue, Dr. Marshutz; 7:40, microphone brevities; 8-9, program, John Wright, the Right Tailor, Raquel Nieto, coloratura soprano; Chico de Verde trio; 9-10, studio program; 10-11, Warner Brothers frolic, direc-

KGO, Oakland, Calif. (361.2), 3-4 p. m., San Francisco musical bureau; Clara Puccinelli, violinist; Anna Lucchesi, pianist; Margaret Bentley, soprano; Ira D. Morgan, baritone; Esther Heller, violinist; book review; 4-5:30, concert orchestra, Hotel St. Francis; 6-6:55, Arrillaga Musical college; Clara Puccinelli, violinist; Charles William Warriner, accompanist. tion Charlie Wellman.

KGW, Portland, Ore. (491.5), 7:15 a. m., physical culture exercises; 12:30-1:30 p. m., concert, Rose City trio; 6-7, dinner concert; 8-9, concert; 9-10:30, concert, Sherman Clay and company studio; 10:30-12 m., Hoot Owl frolic.

KHJ, Los Angeles, Calif. (405.2), 6-6:30 p. m., Leighton's Arcade cafeteria orchestra, Jack Cronshaw, leader; 6:30-7:30, history story, Prof. Hertzog; Richard Headrick and Vyola Von, screen juveniles, Uncle John; 7:30, "Romance of Santa Fe Trail," Gladys De Witt; 8-10, program, Western Auto Supply company; 10-11, Don Clark's Biltmore hotel dance orchestra.

KMTR, Hollywood, Calif. (238), 5-6 p. m., Peter Pan hour, Mammy Simmons, Marion Gilmore and Magdalene Schaffer, Anna Lee and Barbara Erdman; 7, "Color Photography," Chas. W. Beam; 7:30, "Wonders of Nature," Prof. Alfred Cookman; 8-10, The Turner orchestra, Loren Powell, director; 10-11, Starr Piano company studio.

KNX, Hollywood, Calif. (336.9), 5-5:30 p. m., Sunny Jim's talk; 5:30-6:15, Wurlitzer pipe organ studio, Town Tattler; 6:15, travel talk, W. F. Alder; 6:30-7, Atwater Kent concert orchestra; 7-7:30, studio program; 7:30-8, program, Eastern Outfitting company, 8-9, West Coast theaters; 9-10, Order of Optimistic Donuts; 10-11, dance music; 11-12, Ray West's Cocoanut Grove dance orchestra from Ambassador hotel.

KOAC, Corvallis, Ore. (280.2), 7:05 p. m., musical selections; 7:15, "Business Digest," A. C. Schmitt; 7:30, "Minor Adjustments and Inspection of the Auto," Prof. W. J. Gilmore; 7:45, "Oregon Fuels and Their Economical Use," C. E. Thomas; 8-9, musical program.

KPO, San Francisco, Calif. (428.3), 7-7:30 and 8 a. m., daily dozen exercises; 10:30, "Ye Towne Cryer"; 12 n., reading of the Scriptures; 12:45 p. m., talk from the Commonwealth club luncheon at the Palace hotel; 1:30-2, Rudy Seiger's Fairmont hotel orchestra; 5:30-6, children's entertainment; 6-6:10, "Ye Towne Cryer"; 6:30-7, Waldemar Lind and the States restaurant orchestra; 7-7:10, investment talk, J. C. Wilson; 8-9, studio program; 9-10, Palace hotel dance orchestra, Gene James, director; 10-11, Waldemar Lind and the States restaurant orchestra.

KTAB, Oakland, Calif. (240), 9-9:30 a. m., prayer services, Rev. E. L. Spauling; 8-10, program, Breuner's.

KWSC, Pullman, Wash. (348.6), 7:30-9 p. m., piano solos, Dorothy Burson; Louise Clausen, vocalist, Granville McGucken, violinist; "Physics of Everyday Life," Dr. R. O. Hutchinson; "General Accounting," H. J. Rehn; "Results of Kitchen Improvement Contest for 1925," Gladys Gallup.

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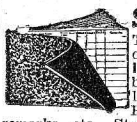

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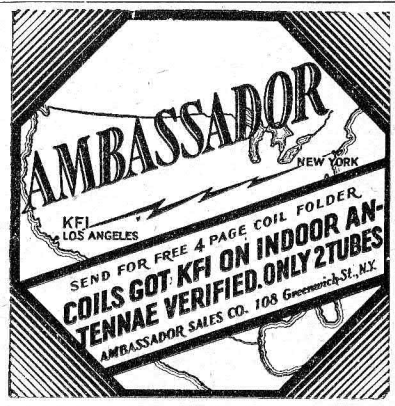

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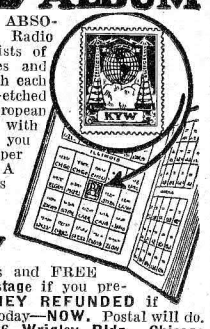

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United States (Cont'd)

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

WNYC, New York, N. Y. 526 meters. 1000 watts. New York Municipal Radio Station. Announcer Tom Cowan. Slogan, "Municipal Broadcasting Station of the City of New York." Daily 7 pm, markets; 7:30 pm, 10:30, police; 7:35, entertainment; 10:30, weather. Eastern.

WOAC, Lima, O. 261 meters. 50 watts. Page Organ Co. (H. P. Maus). Central.

WOAI, San Antonio, Tex. 394.5 meters. 2000 watts. Southern Equip. Co. (Evening News-Express), Announcer, J. G. Cummings. Slogan, "The Winter Playground of America, Where the Sunshine Spends the Winter." Daily ex Sun, 10 am, weather reports, news; 12:15 pm, 3, 6:15. Tues, Wed, Fri, 8:30-9:30 pm. Sun, 11 am, service; 7:30. Central.

WOAN, Lawrenceburg, Tenn. 282.8 meters. 500 watts. James D. Vaughan. Announcer, James D. Vaughan. Daily ex Sat, 9-10 pm, concert. Central.

WOAW, Omaha, Neb. 526 meters. 1000 watts. Woodmen of the World. Slogan, "The City Surrounded by the United States." Daily ex Sun, Wed, 12:30-1:15 pm; 6-7:30, 9-11. Sat, 11-12 midnight, dance. Sun, 9-10:45 am; 2:30-4 pm; 9-11. Central.

WOAX, Trenton, N. J. 240 meters. 500 watts. F. J. Wolff. Slogan, "Trenton Makes the World Takes." Daily, 12:15 pm, 1:15, weather; 5:15-6, orchestra. Wed, 1:15 pm, midweekly crop report, Sun, 10:15-12:15 am, orchestra. Eastern.

WOC, Davenport, Iowa. 483.6 meters. 5,000 watts. The Palmer School of Chiropractic. Slogan, "Where the West Begins and in the State Where the Tall Corn Grows." Daily ex Sat, Sun, 12:15 pm, weather, Radio Farm school; 1:55 pm, time; 2, closing markets; 3, home hour; 5:45, chimes, 6, music, bulletins, Tues, 6:30-7 pm, 7:30-9; New York program, 9-10. Wed, 4-4:45 pm; 9-11, Thurs, 7-10 pm, 11-12. Fri, 4-5 pm. Crescent orchestra; 6:30, 8-9. Sat, 12:55 pm, 1, 5:45, 6, 6:30, 9-10 pm; 11-12. Sun, 1-2 pm, 6:30-7 pm, church; 8:15-9:15, program; 9:45-11:45, Central.

WOCG, Sycamore, Ill. 205.4 meters. 10 watts. Triple Alliance Radio Station.

WOCL, Jamestown, N. Y. 275.2 meters. 15 watts. Hotel Jamestown, Inc. Announcer, William A. McCutcheon. Slogan, "We're on Chautauqua Lake." Mon, 9 pm. First Mon. each month 9-3 am, Sun. 10:30 am, 7:30-9. Eastern.

WODA, Patterson, N. J. 224 meters, 500 watts. O'Dea Temple of Music. Slogan, "A Voice from the Silk City." Daily ex Sun, 12-1 pm; 5-7, 8:30-11. Eastern.

WOI, Ames, Ia. 270 meters. 750 watts. Iowa State College. Announcer, H. B. Deal. Daily ex Sun, 9:30 am, weather reports; 12:30 pm, chimes, market, weather, educational talks; 9:30, weather. Central.

WOK, Homewood, Ill. 217.3 meters. 5,000 watts. Neutrowound Radio Mfg. Co. Announcer, George W. Allen. Daily ex Sun, Mon, 5-7 pm; 10-1:30, Sun, 1-2 pm, 6-1. Central.

WOKO, New York, N. Y. 233 meters. 50 watts. The Dyckman Radio Shop. Announcer, Oscar H. Sherrane. Mon, Thurs, Sat, 8-12 pm. Eastern.

WOO, Philadelphia, Pa. 508.2 meters. 500 watts. John Wanamaker. Announcer, Jos. N. Nassau. Daily ex Sun, 11 am, organ recital; 11:55, time; 12-1 pm, concert; 4:30, weather; 4:45, organ recital; 7:30, police reports; 9:55, time; 10:02, weather. Mon, Wed, Fri, 7:30-11 pm, music, concert. Sun, 2:30 pm, Sunday school; 6, organ recital; alternate am and pm services, 9:15, alternate Sundays. Eastern.

WOQ, Kansas City, Mo. 278 meters. 1,000 watts. Unity School of Christianity. Tues, 8-9 pm. Thurs, 7-7:45 pm, 7:45-9, Sat, 8-9 pm, 10-11 pm. Sun, 11 am, 7-9:15 pm. Central.

WOR, Newark, N. J. 405.2 meters. 500 watts. L. Bamberger & Co. Announcer, J. M. Barnett. Daily ex Sun, 6:45 am, 2:30-4 pm. Mon, Wed, Sat, 6:15-12 midnight. Tues, Thurs, Fri, 6:15-7:30 pm. Eastern.

WORD, Batavia, Ill. 275 meters. 5,000 watts. Peoples Pulpit association. Announcer, B. M. Rice. Solgan, "Watchtower Station WORD." Tues, Wed, Fri, 7-8 pm; 9-10, Wed, Sat, 8-10 pm, Sun, 10-11 am, 7-8 pm; 9-10:30. Central.

WOS, Jefferson City, Mo. 440.9 meters. 500 watts. Missouri State Marketing Bureau. Slogan, "Watch Our State." Daily ex Sun, first 15 min. of every hour from 9 am-8 pm, markets; 3, N. Y. stock and bond markets. Daily ex Sat, Sun, 5 pm, markets. Mon, Wed, Fri, 8-10 pm, concert. Sun, 7:30-9 pm, church service. Tues, Fri, 5 pm, children's story hour. Central.

WOWL, New Orleans, La. 270 meters. 10 watts. Owl Battery company.

WOWO, Fort Wayne, Ind. 227 meters. 500 watts. Main Auto Supply Co.

WPAK, Fargo, N. D. 275 meters. 100 watts. N. D. Agricultural College. Announcer, Gordon Laing. Mon, Wed, Fri, 7:30 pm. Central.

WPCC, 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, 8, service. Central.

WPG, Atlantic City, N. J. 299.8 meters. 500 watts. Municipality of Atlantic City. Slogan, "World's Playgrounds." Mon, Tues, Fri, 7 pm. Tues, Thurs, Fri, Sat, 9 pm; 10, classics. Mon, 8 pm, Thurs, 11 pm. Sat, 6:30 pm, concert; 10. Sun, 3:15 pm, organ; 4:15, service; 10, service. Eastern.

WPRC, Harrisburg, Pa. 215.7 meters. 100 watts. Wilson Printing & Radio Co.

WPSC, State College, Pa. 261 meters. 500 watts. Pa. State College. Slogan: "The Voice of the Nittany Lion."

WQAA, Parkesburg, Pa. 220 meters. 500 watts. Horace A. Beale, Jr. Temporarily discontinued.

WQAC, Amarillo, Tex. 234 meters. 100 watts. Gish Radio Service. Irregular schedule.

WQAE, Springfield, Vt. 246 meters. 50 watts. Moore Radio News Station. Announcer, Ernest S. Newell. Slogan, "Boost Springfield." Sat, 11-1 am. Sun, 10:30 am, church service; 7 pm, service. Eastern.

WQAM, Miami Fla. 263 meters. 100 watts. Electrical Equip. Co. Announcer, Frederick W. Mizer. Slogan, "The Most Southern Radiocasting Station in U. S." Daily ex Sun, 6-6:30 pm; 8:15-9:30; 10:30-12:30 Sun, 7:30-9 pm, Eastern.

WQAN, Scranton, Pa. 250 meters. 100 watts. Scranton Times. Announcer, T. V. Nealon. Slogan, "The Voice of the Anthracite." Daily ex Sun, 12:30-1 pm, 4:30-5, news, reports, sports, music. Tues, Fri, 8 pm, entertainment. Sat, 10-12 midnight, dance music. Eastern.

WQAO, New York City, N. Y. 361 meters. 500 watts. Calvary Baptist Church. Slogan: "The First Church Owned and Operated Broadcasting Station in the World." Wed, 8 pm, church service. Sun, 11:30 am, 7:30 pm, church services. Eastern.

WQJ, Chicago, Ill. 447.5 meters. 500 watts. Calumet Baking Powder company-Rainbo Gardens. Announcer, Jerry Sullivan. Daily ex Sun, 11-12 m., women's hour. Daily ex Sun, Mon, 3-4 pm. Daily ex Sun, Sat, 7-8 pm, 10-2 am. Sat, 11-12 m. 3-4 pm, 7-8, 10-3. Mon, 11-12 m, 3-4. Sun, 3-4 pm, 8-10. Central.

WRAF, La Porte, Ind. 224 meters. 100 watts. Radio Club, Inc. Announcer, Charles Middleton. Slogan, "The Voice of the Maple City." Mon, Thurs, Sun, 8:30 pm. Central.

WRAK, Escanaba, Mich. 256 meters. 100 watts. Economy Light Company. Announcer, H. E. Flath. Slogan, "The Gateway to Cloverland." Mon, Fri, 8:30 pm. Eastern.

WRAM, Galesburg, Ill. 244 meters. 100 watts. Lombard College. Mon, 7-11 pm. Central.

WRAV, Yellow Springs, O. 263 meters. 100 watts. Antioch College. Announcer, Charles Hoffman. Wed, 8 pm, music; 9, educational. Sun, 7 pm. Central.

WRAW, Reading, Pa. 238 meters. 10 watts. Avenue Radio & Elec. Shop. Slogan, "The Schuylkill Valley Echo." Announcer, C. M. Chafey. Thurs, 10-11:30 pm. Eastern.

WRAX, Gloucester City, N. J. 268 meters. 500 watts. Flexon's Garage. Announcer, A. D. Flexon.

WRBC, Valparaiso, Ind. 278 meters. 500 watts. Immanuel Lutheran church. Announcer, Forrest Jones. Slogan, "World Redeemed by Christ." Mon, 7:30 pm. Sun, 7:30 pm, church service. Central.

WRC, Washington, D. C. 468.5 meters. 1000 watts. Radio Corp'n. of America. Announcer, Norman Brokenshire. Slogan, "The Voice of the Capitol." Mon, Wed, Fri, 10 am-6:30 pm. Tues, Thurs, Sat, 10 am-12, midnight. Eastern.

WRCO, Raleigh, N. C. 252 meters. 100 watts. Wynne Radio Co. Mon, Fri, 7-8 pm. Wed, 9-10 pm, Sun, 11 am, church. Eastern.

WREC, Coldwater, Miss. 254 meters. 10 watts. Wooten's Radio & Elec. Co. Announcer, S. D. Wooten. Slogan, "The Most Powerful 10-Watt Station in the World." Sat, 9:30-10:30 pm; Sun, 4-5 pm. Central.

WREO, Lansing, Mich. 285.5 meters. 500 watts. Reo Motor Car Co. Announcer, Roy E. Davis. Slogan, "Watch Reo." Daily ex Sun, 6-7 pm, dinner concert; 10, weather, sports. Tues, Thurs, 8:15-10 pm. Sat, 10-12 midnight. Sun, 10 am, chimes; 10:30 am, 7:30 pm, church. Eastern.

WRHM, Minneapolis, Minn. 252 meters. 50 watts. Rosedale Hospital, Inc. Announcer, Troy S. Miller. Thurs, 9-11 pm, music. Sun, 1:30-2:30 pm, children's hour; 2:30-4:30, music, lectures. 9:15-10:30 pm. Central.

WRK, Hamilton, O. 270 meters. 200 watts. Doron Bros. Elec. Co. Slogan, "The Oldest Station in Existence." Fri, 8:15 pm, music, lecture. Sun, 10:15 am, 7:30 pm, church services. Central.

WRM, Urbana, Ill. 273 meters. 500 watts. Univ. of Ill. Tues, 7-8 pm, musical, basketball. Central.

WRMU, New York, N. Y. 236 meters. 100 watts. A. H. Grebe & Co., Inc. Motor Yacht "MU-1."

WRNY, New York, N. Y. 258.5 meters. 500 watts. Experimenter Pub. Co. Daily ex Sat, Sun, 9:44 am, 12:29 pm, 4:14, 6:59. Sat, 9:44 am, 2:29 pm, 6:59, 12-1. Sun, 3-5 pm. Eastern.

WRR, Dallas, Texas. 246 meters. 500 watts. City of Dallas. Announcer, John Thorwald. Slogan, "City of Achievements." Daily ex Sun, Wed, 12-1 pm; 6:30-7:30; 8-9. Thurs, Sat, 12-2 am. Fri, 11-12 midnight. Sun, 8-9 pm. Central.

WRST, Bay Shore, N. Y. 215.7 meters. 250 watts. Radiotel Mfg. Co., Inc. Announcer Louis A. Wittenberg. Slogan, "Radiotel on the Sunrise Trail." Daily ex Sun, 12-1 pm; 8-10:30. Sun, 10-12 m, 4-6. Eastern.

WRVA, Richmond, Va. 256 meters. 1,000 watts. Larus & Bro. Co., Inc. Announcer, Elmer G. Hoelzle. Slogan, "Carry Me Back to Ole Virginny." Mon, Thurs, 9-12 midnight. Eastern.

WRW, Tarrytown, N. Y. 272.6 meters. 500 watts. Tarrytown Radio Research Laboratory. Announcer, Frederick Koenig. Slogan, "Everything in Radio." Daily ex Sun, Wed, 9-11:30 pm. Mon, 7-8 pm. Wed, 10-11:30 pm. Sun, 8-9 pm, 10:30-11:30. Eastern.

WSAI, Cincinnati, O. 325.9 meters. 5,000 watts. United States Playing Card Co. Announcer, P. A. Greene. Mon. 10-12 m. Tues, 5:30-10; 12-1. Wed, 7:30-12 midnight. Thurs, 6:30-10 pm. Sat, 7-10 pm; 12-1:30. Sun, 3-4 pm; 7:45-10:15, 8-10 pm. Central.

WSAJ, Grove City, Pa. 229 meters. 250 watts. Grove City College. Announcer, H. W. Harmon. College activities. Wed. 7:30-9 pm, music, irregular programs. Eastern.

WSAN, Allentown, Pa. 229 meters. 100 watts. Allentown Call Pub. Co. Announcer, C. Fred Ritter. Tues, Thurs, 8:15 pm. Sat, 8:15 pm, 11:30. Eastern.

WSAR, Fall River, Mass. 254 meters. 100 watts. Doughty & Welch Elec. Co., Inc. Announcer, Barton G. Albert. Daily ex Sun, 12-1 pm. Sun, 10:30-12 m. Eastern.

WSAX, Chicago, Ill. 268 meters. 100 watts. Zenith Radio Corp. (Portable.)

WSAZ, Pomeroy, Ohio. 244 meters. 50 watts. Chase Elec. Shop. Announcer, Glenn E. Chase. Sat, 2 pm. Sun, 10:30 am, 2:30 pm. Eastern.

WSB, Atlanta, Ga. 428.3 meters. 1,000 watts. Atlanta Journal. Announcer, Lambdin Kay. Slogan, "The Voice of the South." Daily ex Sun, 12-1 pm, music, weather; 2:30, reports; 5, orchestra, time story; 8-9, concert (ex Wed) 10:45-12, concert. Sun, 5-6, 7:30-9:15, church services. Central.

WSBC, Chicago, Ill. 209.7 meters. 1000 watts. World Battery Co.

WSBF, St. Louis, Mo. 273 meters. 250 watts. Stix Baer & Fuller Dry Goods Co. Announcer, Helen G. Hatfield. Daily, 12-12:30 pm, 3-3:30. Mon, Wed, Fri, 7:30-9 pm. Tues, 11-1 am. Thurs, 10-12 midnight. Sun, 9-10 pm; 11-1 am. Central.

WSBT, South Bend, Ind. 275 meters. 250 watts. South Bend Tribune. Announcer, C. G. Livengood. Mon, Wed, Fri, 7:15-9:30 pm, concert. Central.

WSDA, New York, N. Y. 263 meters. 250 watts. City Temple. Thurs, 7:45-9:30 pm. Sat, 10:45-1 pm. Sun, 7:30-9:30 pm. Eastern.

WSKC, Bay City, Mich. 261 meters. 100 watts. World's Star Knitting Co. Announcer, L. M. Nims. Slogan, "Where the Summer Trails Begin." Mon, Wed, 9-11 pm. Sat, 11-2 am. Eastern.

WSM, Nashville, Tenn. 282.8 meters. 1,000 watts. National Life and Accident Insurance Company. Announcer, George Hay, Sat, Wed, 6:30-8 pm; 10-11. Mon, 6:30-9, 10-11. Sun, 10-11 pm. Central.

WSMB, New Orleans, La. 319 meters. 500 watts. Saenger Amusement Co. and The Maison Blanche Co., Daily ex Sun, 12:30-1:30 pm, 6:30-7:30. Mon, Wed, Thurs, Sat, 8:30-10:30 pm. Central.

WSMH, Owosso, Mich. 240 meters. 20 watts. Shattuck Music House. Announcer, Don Shattuck. Wed, 8 pm, Sat, 10 pm. Sun, 10 am. Eastern.

WSMK, Dayton, Ohio. 275.2 meters. 500 watts. S. M. Krohn, Jr. Slogan, "The Home of Aviation." Daily ex Sun, 12-1 pm; 4-4:30. Daily ex Sun, Tues, 6-7 pm. Sun, 8-12 midnight. Central.

WSOE, Milwaukee, Wis. 246 meters. 500 watts. School of Engineering of Milwaukee. Announcer, O. W. Meissner. Slogan, "In the Land of the Sky-blue Waters." Daily ex Sat, Sun, 5:25 pm, 5:30, 5:45, 6:05. Daily ex Sun, 9-10 pm. Tues, 7:30 pm; 8:45, Wed, 8:30 pm. Thurs, 8:30 pm; 8:45. Fri, 8:45 pm. Sat, 2 pm, reports; 2:05, 8:30, 9. Mon, 2 pm, cooking chat. Sun, 9:30 am; 11. Central.

WSRO, Hamilton, Ohio. 252 meters. 100 watts. Radio Co. Announcer, Harry W. Fahrlander. Slogan, "We Sell Radio Only." Tues, Fri, 8-10 pm. Sun, 2-4 pm. Central.

WSUI, Iowa City, Ia. 483.6 meters. 500 watts. Univ. of Iowa. Announcer, Carl Menzer. Mon, Tues, Wed, Thurs, Fri, 12:30-1 pm. Mon, 7:30 pm. Wed, 9-9:30 am; 7:45 pm. Alternate Mon, 4 pm. Sun, 9:15-9:45 pm. Central.

WTAB, Fall River, Mass. 266 meters. 100 watts. Fall River Daily Herald. Daily, 6 pm, organ. Tues, Thurs, 7:30 pm. Mon, Thurs, 10:45 am. Eastern.

WTAC, Johnstown, Pa. 267.8 meters. 100 watts. Penn. Traffic Co. Announcer, D. B. Cole. Mon, Fri, 7:30-10 pm. Eastern.

WTAD, Carthage, Ill. 236 meters. 50 watts. Robert E. Compton.

WTAG, Worcester, Mass. 268 meters. 500 watts. Worcester Telegram. 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." Daily ex Sat, 8 pm. Eastern.

WTAL, Toledo, Ohio. 252 meters. 10 watts. Toledo Radio & Elec. Co. Announcer, E. R. Frank Slogan, "The Gateway to the Sea." Daily ex Sun, 7:30 pm. Eastern.

WTAM, Cleveland, Ohio. 389.4 meters. 3,500 watts. Willard Storage Battery Co. Announcer, A. R. Herske. Slogan: "The Voice from the Storage Battery." Daily ex Sun, 12:15-1:30 pm, 6-7 pm, dinner program. Mon, 8-12 pm, concert. Wed, 8-1 am. Sat, 8-12 midnight, dance. Eastern.

WTAP, Cambridge, Ill. 242 meters. 100 watts. Cambridge Radio & Elec. Co. Announcer, B. Talbot.

WTAQ, Osseo, Wis. 254 meters. 100 watts. S. H. Van Gorden & Son. Announcer, Mrs. C. S. Van Gorden. Slogan: "The Voice of the Wilderness." Daily ex Sun, 10:30 am, 12:15 pm, 6:15, weather, markets; 6:30, code. Tues, 8 pm. Fri, Sun, 7:30 pm. Central.

WTAR, Norfolk, Va. 261 meters. 100 watts. Reliance Electric Co. Announcer, J. K. Bohannon. Slogan, "Down in Old Virginia." Daily ex Sun, 6 pm, Weather, markets, news. Eastern.

WTAT, Boston, Mass. 244 meters. 100 watts. Edison Elec. Illuminating Co. (portable). Announcer, Leon B. Hentz.

WTAW, College Station, Tex. 270 meters. 500 watts. Agricultural and Mechanical College of Texas. Wed, Fri, 8 pm. Sun, 11 am. Central.

WTAX, Streator, Ill. 231 meters. 50 watts. Williams Hardware Co., Radio Division. Announcer, N. B. Williams. Slogan: "Tappa Kegga Nails." Thurs, 8-12 pm. Central.

WTAZ, Lambertville, N. J. 261 meters. 15 watts. Thomas J. McGuire. Mon, 8-10 pm, music. Eastern.

WTG, Manhattan, Kan. 273 meters. 50 watts. Kan. State Agri. College. Off the air temporarily.

WTIC, Hartford, Conn. 475.9 meters. 500 watts. The Travelers Insurance Company. Slogan, "The Insurance City." Mon, 6:30-8 pm. Tues, 6:30-10 pm. Wed, 6:30-8:30; 10-11 pm. Thurs, 6:30-8 pm. Fri, 6:30-12 pm. Sun, 9-10:15 pm. Eastern.

WWAD, Philadelphia, Pa. 250 meters. 250 watts. Wright & Wright, Inc. Announcer, H. W. Feyhl. Slogan, "Penn City Station." Mon, 7:45 pm. Thurs, 7 pm. Every other Sun, 9:30 pm. Eastern.

WWAE, Plainfield, Ill. 242 meters. 5,000 watts. Electric Park. Announcer, Harry B. Ohlhaver. Daily ex Sun, 12:30-1:30 pm; 9-12, midnight, orchestra. Sun, 10:50-12:15 pm, Methodist church; 3:30-4:30, popular program. Central.

WWAO, Houghton, Mich. 263 meters. 250 watts. Michigan College of Mines.

WWGL, Richmond Hill, N. Y. 212.6 meters. 500 watts. Radio Engineering Corp.

WWI, Dearborn, Mich. 266 meters. 500 watts. Ford Motor Co. Wed. 8-10 pm, music, lectures. Eastern.

WWJ, Detroit, Mich. 352.7 meters. 1,000 watts. The Detroit News. Announcer, E. L. Tyson. Mon, Wed, Fri, 7:30-8 am, 8-8:30 am, setting-up exercises; 9:30-9:45, household hints; 10:25-10:30, weather; 11:55-12, time; 12:05-12:45 pm, music; 3-3:55, music; 3:55, markets. Daily ex Sat, Sun, 6-7, dinner concert; 8, music. Mon, Wed, Fri, 9 pm, orchestra. Wed, 10 pm, orchestra. Sun, 11 am, church service; 2-3 pm, concert; 7:20, Capitol theater; 9:15. Eastern.

WWL, New Orleans, La. 275 meters. 100 watts. Loyola Univ. Announcer, O. L. Abell. Sat, 7:30-8:30 pm. Central.

Argentina

B-I, Buenos Aires, Argentina. Francisco J. Brusa.

LOR, Buenos Aires, Argentina. 350-410 meters. 500 watts. Cia Radio Argentina.

LOV, Buenos Aires, Argentina. 350 meters. 1,000 watts. Francisco J. Brusa.

LOW, Buenos Aires, Argentina. 300 meters. 1,500 watts. Grand Splendid Theater. Announcer, Federico A. Dominguez.

LOX, Buenos Aires, Argentina. 375 meters. Radio Cultura.

LOY, Buenos Aires, Argentina. Radio Nacional. Announcer, Osvaldo P. Valla.

TCR, Buenos Aires, Argentina. 325-300 meters. 100 watts. Francisco J. Brusa.

Australia

2BL, Sydney, Australia. 350 meters. 5,000 watts. Broadcasters Limited.

2FC, Sydney, Australia. 1,100 meters. 5,000 watts. Farmer & Co., Ltd.

3AR, Melbourne, Australia. 480 meters. 1,600 watts. Associated Radio Co., Ltd.

5CL, Adelaide, South Australia. 395 meters. 5,000 watts. Central Broadcasters, Ltd.

6WF, Perth, Australia. 1,250 meters. 5,000 watts. Westralia Farmers, Ltd.

Brazil

SPE, Rio de Janeiro, Brazil. 250 meters. 500 watts. Dept of National Telegraphs.

Bahia, Brazil. Radio Sociedade do Bahia.

Belle Horizontes, Brazil. 50 watts. National Telegraph Service.

Rio de Janeiro, Brazil. 6,000 watts. Marconi (Radio Sociedade do Rio de Janeiro.

Sao Paulo, Brazil. 320 meters. 20 watts. Radio Bondeirantes.

Canada

CFAC, Calgary, Alta, Can. 434.5 meters. 500 watts. Calgary Herald. Announcer, Fred Carleton. Daily ex Sun, 1 pm, news, markets, music. Mon, Tues, Wed, 8-9 pm. Thurs, 9-11 pm. (CNRC) Fri, 7-8 pm. Mountain.

CFCA, Toronto, Ont., Can. 356.9 meters. 500 watts. Toronto Star. Announcer, E. J. Bowers. Daily ex Sun, 12 m., weather, news, stocks; 5:30-6 pm, news, stocks, weather, bedtime story. Wed, 8-10 pm, music; 11, dance. Thurs, 8-11 pm, concert. Fri, 6:30-12 midnight, CNRT. Sun, 11 am, 7 pm, church services. Eastern.

CFCF, Montreal, P. Q., Can. 410.7 meters. 1,650 watts. Canadian Marconi Co. Announcer, C. Walter Darling. Daily ex Sun. 12:45-1:40 pm, stocks, music. Mon. Fri, 7-7:30 pm, bedtime stories; 7:30-8:30, music; 9-10; 10:30-11:30, orchestra. Wed, 7-8 pm, orchestra. Eastern.

CFCH, Iroquois Falls, Ont., Can. 499.7 meters. 250 watts. Abitibi Power & Paper Co., Ltd. Slogan, "The Call of the North." Experimental station for forest protection.

CFCK, Edmonton, Alta., Can. 516.9 meters. 100 watts. Radio Supply Co., Ltd. Daily ex Sun, 4-5 pm. Wed, 9-10:30 pm. Sun, 4-5:30 pm. Mountain.

CFCN, Calgary, Alta., Can. 434.5 meters. 1,800 watts. W. W. Grant, Ltd. Slogan, "Voice of the Prairies." Tues, 11:30 pm, Bronco Busters; Wed, 9 pm, Fri, Sat, 10 pm, Sun, (alternate) 11 am, 7:30 pm, service. Mountain.

CFCQ, Vancouver, B. C. 410.7 meters. 5 watts. Sprott-Shaw Radio Co.

CFCT, Victoria, B. C., Can. 329.5 meters. 500 watts. The Deaville Station. Slogan, "The Mecca of Tourists." Wed, Fri, 8-9:30 pm. Every second Thurs, 10:30 pm, 12 midnight. Night Birds, Sat, 10-11 pm. Sun, 11 am, 7:30 pm. 9:30, organ. Pacific.

CFCU, Hamilton, Ont, Can. 340.7 meters. 500 watts. Jack V. Elliot, Ltd.

CFCY, Charlottetown, P. E. I. 312.3 meters. 50 watts. Island Radio Co.

CFDC, Vancouver, Canada 410.7 meters. 10 watts. Western Auto Elec. Co.

CFKC, Thorold, Ont., Can. 247.8 meters. 75 watts. D. J. Fendell. Daily ex Sun, 12-12:30 pm; 5-6. Tues, Thurs, Sat, 8:30-10:30 pm. Sun, 11 am, church service; 2-4 pm, 8 pm, sacred concert, music.

CFMC, Kingston, Ont., Can. 267.7 meters. 20 watts. Monarch Battery Co.

CFQC, Saskatoon, Sask., Can. 329.5 meters. 500 watts. The Electric Shop, Ltd. Announcer, Grant Stevenson. Slogan, "The Hub City of the West Where No. 1 Northern Hard Wheat Grows." Daily ex Sun, 9-10 am; 1:15-2 pm, markets, reports, music. Wed, 8-10 pm. Fri, 9-11:30 pm, dance program. Sun, 11 am, church service. Mountain.

CFRC, Kingston, Ont., Can. 267.7 meters. 500 watts. Queen's University. Discontinued temporarily.

CFXC, New Westminster, B. C. 291.1 meters. 50 watts. Westminster Trust Co. and Hume & Rumble, Ltd. Announcer, C. P. Rumble. Slogan, "Voice of the Fraser River." Mon, Wed, Sat, 7:30-8:30 pm. Pacific.

CFYC, Barnaby, B. C. 410.7 meters. 500 watts. Commercial Radio, Ltd. Slogan, "Canada's Flourishing Young City."

CHCS, Hamilton, Ont., Can. 340.7 meters. 10 watts. Hamilton Spectator. Announcer, H. Earnshaw. Daily ex Sun, 6:45 pm, news, markets, baseball. Sat, 10-12 midnight, dance. Sun, 11 am, 7 pm. Eastern.

CHIC, Toronto, Can. 356.9 meters. 500 watts. Northern Electric Company, Ltd. Announcer, R. W. Lowman. Mon, 8-10 pm. Sat, 8 pm. Eastern.

CHNC, Toronto, Can. 356.9 meters. 500 watts. Toronto Radio Research society. Announcer, R. H. Combs. Mon, 8:30 pm, concert. Programs CHIC CKNC through this station. Eastern.

CHSC, Unity, Sask., Can. 356.9 meters. 250 watts. Horace N. Stovin.

CHUC, Saskatoon, Sask., Can. 329.5 meters. 50 watts. International Bible Students' association. Announcer, E. G. Esson. Tues, Thurs, 8-9:30 pm. Sun, 1-2 pm; 7:30-9:30.

CHXC, Ottawa, Ont., Can. 434.5 meters. 250 watts. J. R. Booth, Jr. Fri, 8:30-1 am.

CHYC, Montreal, Que., Can. 410.7 meters. 850 watts Northern Elec. Co., Ltd. Announcer, N. S. Richards. Wed, 8:30 pm. Sun, 7 pm. CNRM programs occasionally. Eastern.

CJBC, Toronto, Can. 356.9 meters. Jarvis St. Baptist Church.

CJCA, Edmonton, Alta., Can. 516.9 meters. 500 watts. Edmonton Journal, Ltd. Announcer, R. A. Rice. Slogan: "The Sunniest Spot in Sunny Alberta." Club, "Igloo Hut." Daily ex Sun, 12:45-1:30 pm, weather, markets. Mon, Tues, Thurs, Sat, 7:30-8 pm. Mon, 8:30-9:30 pm. Wed, 6-8 pm. Sat, 9-11 pm. Fri, 8:30-10:30, CNRE. Sun, 7:30-9 pm. Mountain.

CJCD, Toronto, Can. 356.9 meters. 50 watts. The T. Eaton Co., Ltd.

CJGC, London, Ont., Can. 329.5 meters. 50 watts. London Free Press. Daily ex Sun, 1-2 pm, news, stocks, music. Tues, Thurs, Fri, 7:15-8:40 pm. Fri, 11-12 midnight. Sun, 11 am, 7 pm, church services. Eastern.

CJKC, Burnaby, B. C., Can. 410.7 meters. 500 watts. Pyramid Temple society.

CJSC, Toronto, Can. 356.9 meters. 500 watts. The Evening Telegram.

CJWC, Saskatoon, Sask., Can. 329.5 meters. 250 watts. Wheaton Elec. Co.

CJYC, Toronto, Can. 291.1 meters. 500 watts. De-Forest Radio Corp., Ltd.

CKAC, Montreal, Que., Can. 410.7 meters. 1,200 watts. La Presse. Announcer, Jacques Cartier. Mon, Wed, Fri, Mon. 1:45 pm, orchestra. Daily ex Sat, 4 pm, weather, markets, stocks, reports. Tues, Thurs, Sat, 7 pm, piano lessons; 7:30, concert; 8:30 pm, studio concert; 10:30, dance. Sun, 4:30 pm, sacred concert. CNRM programs 3 first Thursdays of each month. Eastern.

CKCD, Vancouver, B. C., Can. 410.7 meters. 1,000 watts. Vancouver Daily Province. Announcer, William Rose. Slogan, "Canada's Western Gateway." Daily ex Sun, 8:30-9:30 pm, music, news, entertainment. Pacific.

CKCK, Regina, Sask., Can. 475.9 meters. 500 watts. Leader Pub. Co. Announcer, A. W. Hooper. "The Queen City of the West." Daily ex Sat, Sun, Tues, 9:45-10:30 am; 1-1:45 pm; 7:30-8:15, music, news, markets. Tues, 9:45-10:30 am; 1-1:45 pm; (CNRR) 8-10 pm. Sat, 9:45-10:30 am; 1-1:45 pm. Sun, 9 pm, service. Mountain.

CKCL, Toronto, Can. 356.9 meters. 500 watts. The Dominion Battery Co, Ltd. Daily ex Sat, Sun, 10:30 am; 3-4:30 pm. Mon, Wed, Fri, 7 am, 7:15, 7:45, exercises. Tues, 7-11:30 pm. Alternate Thurs, 7-8 pm, Sat, 7-8 pm. Sun, 3-4:30 pm. Eastern.

CKCO, Ottawa, Ont., Can. 434.5 meters. 100 watts. Dr. G. M. Geldert (Ottawa Radio Assn.) Announcer, Dr. O. K. Gibson. Slogans, "Ottawa's Radio Voice," "The Community Voice of Canada's Capital." Tues, 8-10 pm. Sun, 7 pm, services; 9, sacred concert. Eastern.

CKCW, Burketon Junction, Ont., Can. 329.5 meters. 5,000 watts. Canadian Broadcasting Corp.

CKFC, Vancouver, B. C., Can. 410.7 meters. 50 watts. First Congregational church.

CKNC, Toronto, Ont., Can. 356.9 meters. 500 watts. Canadian National Carbon Co., Ltd. Mon, 8-12 midnight. Sat, 4-5 pm; 8-10. Eastern.

CKOC, Hamilton Ont., Can. 340.7 meters. 50 watts. Wentworth Radio Supply Co., Ltd. Announcer, H. Slack. Slogan: "In the Garden of Canada" Mon, Fri, 8-9 pm, music entertainment. Sun, 7-8 pm, church services. Eastern.

CKY, Winnipeg, Man., Can. 384.4 meters. 500 watts. Manitoba Tel. System. Announcer, D. R. P. Coats. Slogan, "Manitoba's Own Station." Daily ex Sun, 10:50-11 am, time, weather; 12:30-1:30 pm, music, lectures, livestock; 2:15 pm, grain markets; 4-5, news, kiddies story. Mon, Sat, 8 pm, lecture; 8:30, music. Wed, 7:30 pm, CNRW program. Sun, 7 pm. Central.

CNRA, Moncton, N. B., Can. 291.1 meters. 500 watts. Canadian National Railways. Announcer, W. V. George. Slogan, "Voice of the Maritimes." Daily ex Sun, 2:45-3:45 pm. Tues, Fri, 8 pm. Atlantic.

CNRC, Calgary, Alta., Can. 435.8 meters. 750 watts. Canadian National Railways. Thurs, 7 pm, bedtime story; 9-11. Mountain.

CNRE, Edmonton, Alta., Can. 516.9 meters. 500 watts. Canadian National Railways. Fri, 7:30-8 pm, 8:30-10:30. Mountain.

CNRM, Montreal, Que., Can. 410.7 meters. 1,000-1,650 watts. Canadian National Railways. Announcer, J. S. McArthur. Thurs, 8:30 pm. Eastern.

CNRO, Ottawa, Can. 434.5 meters. 500 watts. Canadian National Railways. Announcer, A. W. Ryan. Wed, Sat, 7:30 pm, markets, bedtime story; 8, 9, 10:30, dance program. Eastern.

CNRR, Regina, Sask., Can. 476 meters. 500 watts. Canadian National Railways.

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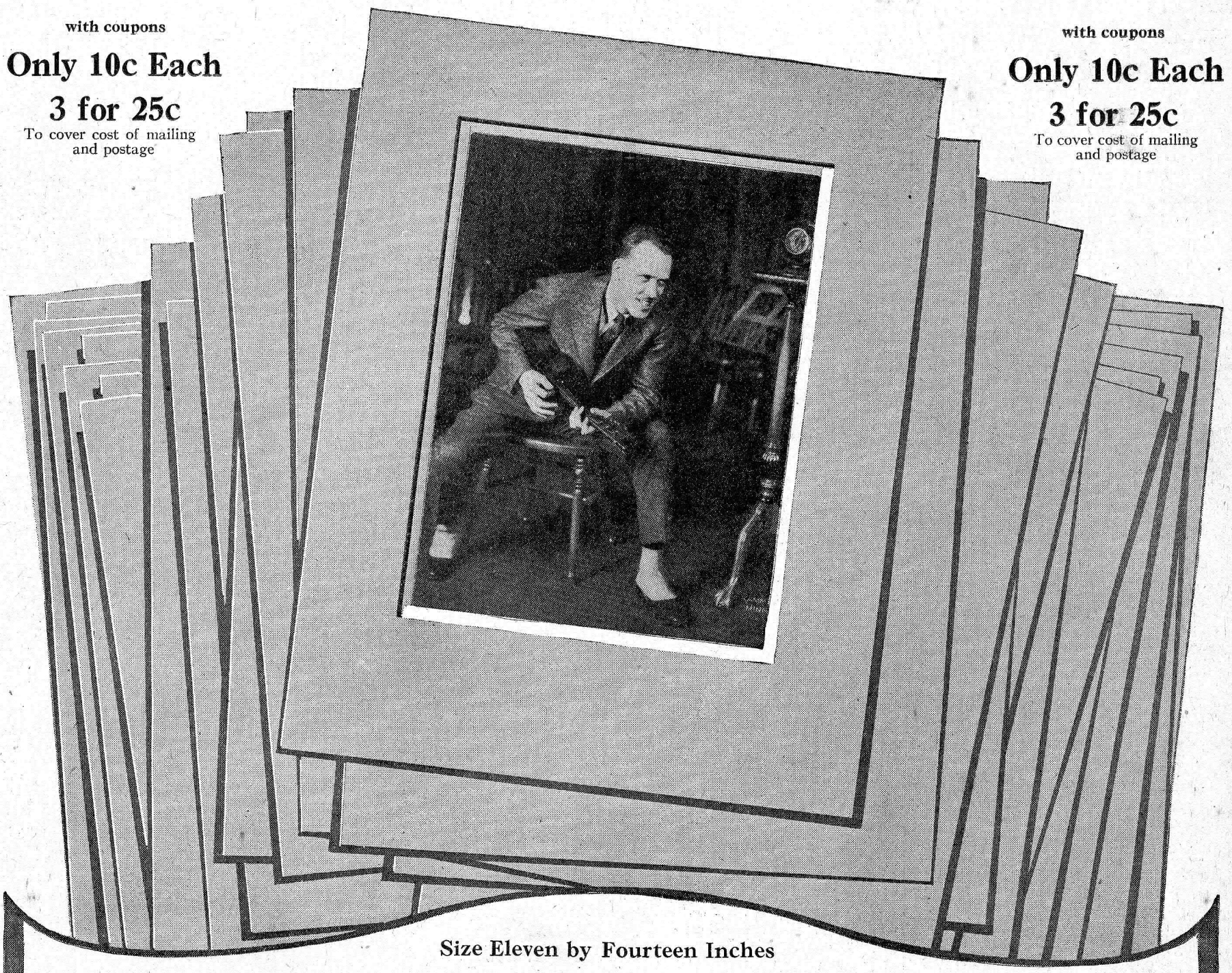

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- ☐ Harry Ehrhart, "Dream Daddy" of WLIT
- ☐ Correll and Gosden of "Kinky Kids Parade" fame, at WEBH and other stations
- ☐ Norman Brokenshire, popular at WRC, WJZ
- ☐ Indiana Male Quartet, popular at WEBH
- ☐ Jane Novak, Blues Singer of Twin Cities, WCCO
- ☐ Jean Sargent, the original, now at WHT
- ☐ Ralph Emerson, popular organist at WLS
- ☐ Edna Adams, "Sweetheart of the Air" at KPRC
- ☐ Pat Barnes, vaudeville announcer at WHT
- ☐ R. V. Haller of KGW Hoot Owls fame
- ☐ Henry L. Dixon, ukulele wizard of KYW
- ☐ Quin Ryan, WGN's Uncle Walt and sports announcer
- ☐ "Willie the Weeper," Ernest Rogers, WSB
- ☐ Walter Wilson, "Uncle Bob" of KYW

CHECK YOUR CHOICE

- ☐ Jack Chapman of Drake hotel repute
- ☐ Ray-O-Vac Twins, known country-wide
- ☐ Art Linick, KYW's Mrs. Schlagenhauer
- ☐ Fred Hamm, of WTAS, now WLIB fame
- ☐ Meyer Davis' Le Paradis orchestra of WRC
- ☐ "Senator" Schultz, WLW's illiterate comic
- ☐ "Uncle John" Daggett of KHJ
- ☐ D. R. P. Coats, 1925 Silver Cup announcer
- ☐ Gene Rouse, WOAW's popular announcer
- ☐ Freda Sanker, WKRC jazz orchestra director
- ☐ Irish Ruth Pavey, KOA's invisible stage beauty
- ☐ Queen Titania, star of KHJ Fairyland

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