How to Confirm Foreign Reception

Radio Disest EVERY TEN

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

Vol. XVI

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No. 4



"Ghost Viol" Brings Fame; Strange Sounds Come from KFDM; Baltimore Waited Long; College Sent to Farmers; Women's Programs; Raytheon B Eliminator; Radio ABC's

PLAN BRINGS FARM STATISTICS TO LIFE

AGRICULTURISTS TO BENE-FIT BY RADIO SERVICE

Government Will Shortly Conceive "Uncle Bert" and "Fifty Farm Flashes" for Broadcasters' Use

WASHINGTON.—The vast fund of popular and scientific agricultural informa-tion that originates on the farms and in the laboratories of the United States department of agriculture will soon be

tapped in a new place.

This is the announcement made by Sam Pickard, chief of the newly created Radio service in the department. Steps will be taken immediately, he said, to furnish a variety of agricultural program material to commercial broadcasting stations serv-

ing farmer audiences.

Much of the material furnished by the Radio service will be prepared for presentation in a radically different manner than the present almost universal practice of reading manuscripts. Broadcasting sta-tions cooperating will be asked to provide personalities who have unmistakable qualifications to voice the information and material which in most cases will be pre-sented in popular style and in the form

"Uncle Bert," the garden expert, one of Mr. Pickard's phantom characters, will entertain and instruct the boys and girls of the "Radio Order of Junior Gardeners" with nature-study information. Some of the juniors themselves will be heard over the microphone as they ask questions of Uncle Bert.

"Fifty Farm Flashes" will soon be offered as a regular feature on the air. The "flashes" will consist of interesting current information sought by farmers

current information sought, by farmers through several thousand letters received each week by the department.

Other special feature programs are under consideration, among which are the "Housekeeper's Half Hour" and the "National Farm School." In the latter the farm will be considered as the student's laboratory. Timely lecture courses which dovetail with the daily farm work will be developed, and laboratory assignments be developed, and laboratory assignments will be made which necessitate putting into practice the subject matter taught. These will be supplemented with a file of bulletins dealing with the subject matter

FORT WORTH ADOPTS DALLAS SILENT NIGHT

New Arrangement Will Aid Texas Fans to Hunt Distance

FORT WORTH, Texas .-- In order that FORT WORTH, Texas.—In order that the North Texas listeners could enjoy one silent night each week, WBAP, the Star-Telegram and Record-Telegram station here, and WFAA, the Dallas News and Dallas Journal station, have adopted a schedule whereby neither of these broadcasters are on the air after 6:30 p. m., Central time, Wednesday nights. Previous to this arrangement, WBAP was silent on Saturday night and Wednesday was WFAA's silent period. The Star-Telegram and Record-Telegram station is now operating Saturday night on its regular schedule and Sunday from 9:30 to 11 schedule and Sunday from 9:30 to 11

p. m. Under the new arrangement, the Texas hotel orchestra, which was formerly heard each Wednesday night over WBAP heard each Wednesday night over WBAP from 7:30 to 11 p. m. Central time, is now on the air at the same time Sunday night, and the "Sunflower Girl," the headliner of the station, who used to thrill the Radio audience on Wednesday evenings between 11 and 12 o'clock, now entertains Saturday night from 9:30 to 11 o'clock Under the new schedule, the 11 o'clock. Under the new schedule, the Truth society meets at 10 o'clock on Saturday, Sunday and Monday evenings.

Gets Clicquot Club Sleigh Bells, Then Looks for Snow

NEW YORK.—The realistic sleigh bells which have announced the arrival of the "Clicquot Club Eskimos" at WEAF each week recently sent a New Jersey listener bounding out of the house to witness the suddeni Sleigh bells to the contrary notwithstanding, the street was as clear as on a July evening and the mystery was not solved until the close of the "Eskimos" program, when the sleigh bells were heard again.

Give Lighthouses Receivers

PARIS.—As the result of an article in the Paris daily "Matin," a sum of money has been raised by public subscription for presenting lonely lighthouses along the wild coast of Britanny with Radio receiv-

CLAIMS RADIO WILL USE POWER OF SUN



Dr. Henry Marcuse, professor of astronomy and applied forces at the University of Berlin, predicts that the day is coming when airpfanes will carry passengers any distance by means of power received by Radio from great sun machines. Dr. Marcuse is now in this country after a trip through Japan.

MISS EDNA HOPPER IS OUR COVER GIRL

N the cover of Radio Digest this week is Miss Edna Hopper, the original "Matinee Girl" whose voice was heard over Radio Station, WOR, New York.

The picture tells the story. Miss Hopper is one of those kind of girls that men always wish they knew better. After they have seen her picture they make a mental date with her—to see her on the stage from some place near the "bald-headed" row. It is the same way if they hear her through the microphone.

"Now we want a girl who is a regular man's girl," said the picture editor, when it came to selecting a girl for a winning cover for this issue. "We want a girl with a flash in her eye and smile on her lips."

He pounced on this picture of Edna Hopper the moment he saw it. he satisfied? He was.

KYW's Hawaiian Swede Is Back with New Repertoire

CHICAGO.—Cy Berg, the "Hawaiian Swede" and president of the I. O. O. S. Y. S. L. I. is back at KYW, to exploit a lot of new things to the Radio fans, who tune in the Congress carnivals at midnight each Saturday.

For those who are not acquainted with the long string of symbols above mentioned, it all means "International Order of Sky Yumpers, Snuse Chewers and Lutefisk Inhalers."

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Looking Ahead

When he told the Londoners it wasn't "Gonna Rain No Mo'," Wendell Hall, American Radio artist and composer of the song with that theme, struck fire. Some wrote him it was the most terrible crime ever committed against the English language, but the most of them like it. Mr. Hall tells about it in the next issue of the Radio Digest.

Wilda Wilson Church, dean of the Radio play directors at KGO, San Francisco, tells interesting incidents and some of the problems peculiar to Radio play production in the next issue of Radio Digest. She had always wanted to be an actress but did not find her real forte until she took hold of the art of making audible but invisible players entertaining.

come from a little town called Newport, N. H., where the sun shines on both sides of the street," says Billy B. Van to Radio audiences throughout the country, to whom he is known as the "Sunshine Man." He relates some of his humorous and scintilating philosophy in the next Radio Digest.

Flowers are blooming and birds are singing; all is summertime at WGHB, Clearwater, Florida. This new station is helping to voice the praises of the rediscovered "Flowerland," where is located the oldest city in the United States. All about WGHB in the next issue of the Radio Digest.

The Fundamental Principles of the Detector and how it functions will be described by Milo Gurney in next week's issue of the Radio Digest.

The Erla Circloid Five Will Be the Receiver Reviewed in next week's operating and

trouble shooting article and will provide many geneal hints that will help the average listener in.

George Walters, Who Opens a New Series on the construction of B current power supplies in this issue, will next week describe the chemical rectifier type.

Newsstands Don't Always nave Une Lett

WHEN YOU WANT

YOU WANT IT!

BE SURE OF YOUR WEEKLY COPY BY SUBSCRIBING NOW

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NEWS BRIEFS FROM THE BROADCASTERS

MERRY GANG OF PAUL ASH INVADES STUDIO OF WLS

WBAL Broadcasts New Baltimore Or-gan—Learn How to Write Short Story at KGO

Paul Ash and his merry, music-mad gang invaded the studio of WLS, Chicago, recently, took the microphone out of the hands of the announcer, put all the staff artists out of the station and between 11 and 12 midnight played havoc with the ether. They were so enthusiastically received that the musical director, despite their rough tactics, has invited them to come again.

The mammoth organ recently installed in the concert hall of the Peabody Con-servatory of Music at Baltimore by the munificent bequest of the late James Wilson Leakin, may now be enjoyed by Radio fans through WBAL. Every Monday and Thursday between 7:30 and 8 p. m. East-ern time well-known organists of the city will play this fine instrument.

How to write a short story will be explained briefly over KGO, Oakland, Monday night, February I, at 9:30 p. m. Pacific time, by Rebecca N. Porter, extension division, University of California expert. She will be heard on the regular educational program of the station. Four other speakers will also appear before the microphone.

The old-fashioned flute came into prominence recently when James A. Biggs broadcast a program of flute solos from station WJZ. Mr. Biggs is well known in New York city through his afternoon concerts last year in Old Thirities. concerts last year in Old Trinity church.

On Thursday evening, February 4, at 11 p. m. Eastern time, the closing hour of dance music which nightly features the program of WEAF will be furnished by Vincent Lopez and his orchestra direct from the Casa Lopez, New York city. The Radio audience of WEAF was treated to a rare surprise a few weeks ago when Lopez and his orchestra rendered a spe-cial arrangement of Tschaikowsky's "1812

The Syracuse university provides the 7:45 p. m. Eastern time program at WGY, Schenectady, every Thursday evening. WGY and WFBL, Syracuse, have a special hook-up for this purpose.

Sport Broadcasts

Basketball

Saturday, January 30 KFMQ (299.8m-1000kc) University of Kansas-Centenary college, 7:30 p. m., Central time.

Monday, February 1
WOI (270m-1110kc) Ames, Iowa; Nebraska-Ames, 7:15 p. m., Central time.
Friday, February 5
KFMQ (299.8m-1000kc) University of Arkansas-University of Texas. 7:30 p. m.

Arkansas-University of Texas, 7:30 p. m., Central time.

Boxing

Friday, February 5
WOI (270m-1110kc) Notre Dame-Ames, 7:30 p. m., Central time.

Wrestling

Thursday, February 4
WOI (270m-1110kc) Oklahoma-Ames,
7:15 p. m., Central time.

Tuesday, February 2 WBZ (333.1m-900kc) Boston Bruins-St. Patricks, 8 p. m., Eastern time.

Station Changes

KFQA, St. Louis, formerly operating on watts, will now cooperate with the 60 watts, will now cooperate with the 'Voice of St. Louis' and broadcast through KMOX, although still using its own call.

KMOX has shifted wave lengths so that both KFQA and KMOX will now use 280

The Walla Walla broadcaster has increased from 50 to 500 watts. While still retaining the old wave of 256 meters, it will use the new call KOWW.

KFNF, Shenandoah, will use a new wave f 263 meters. The old wave of this of 263 meters. station was 266.

A California station has moved, but not to Florida, however. KFWC, Upland, is now in San Bernardino, Calif.

CONFIRMATION FREE TO ALL FANS

STILL TIME TO WIN **OVERSEAS CONTEST**

GOLD AWARDS AND FAME FOR BEST RECEPTION

Radio Digest to Give \$100.00 to Fans Most Successful in Getting Foreign Stations

CHICAGO.—From all evidence, Radio fans throughout the United States and Canada, are vieing for the \$100 in Gold Awards and the national fame that will be given by the Radio Digest to those persons who are most successful in receiving European and South American proceiving European and South American programs during the International tests between January 24 to 30. Hundred of letters are being received by this magazine asking for further information concerning

No strings Attached

There are no strings attached
There are no strings attached to rules governing the Gold Award contest or the gaining of country-wide prominence through the publishing of the names and pictures of the listeners getting the best daily results. But for those who have not been informed, or those who do not understand the stipulations of the Radio Digest International test week contests, we are again giving the rules under which they will be conducted.

In the Gold Award contest the prizes are

In the Gold Award contest the prizes are In the Gold Award contest the prizes are six in number: first, \$50; second, \$25; third, \$10; fourth, fifth and sixth, each, \$5. In the event of ties, a prize identical in every respect with that tied for will be awarded each tying contestant. The contest is open to every listener in the United States and Condon. and Canada.

The editor of the Radio Digest, Hon. Frank W. Elliott, president of the National Association of Broadcasters, and E. A. Beane, federal supervisor of Radio, will act judges of the reports and select the

Rules of Reception Contest

1. The contest opened Sunday, January 24, 1926 and will close at midnight of Thursday, February 4. All reports must be received by the Chicago offices of Radio

Digest by that time to be considered.

2. The reports will be judged upon four points: First, the fullest and most accurate description of programs received; second, the highest number of stations received; third, the greatest distance covered; fourth, the best and NEATEST re-

The report must include the name of the manufacturer and the style or type number of manufactured sets used by listeners. If a homemade or "kit" set is employed, the names of the manufacturers of the principal parts or the kit must be included. If headphones or loud speaker were used, the name of the maker must

The finale note to remember is that the reception contest is only for the first five nights of the tests, from Sunday to Thursday inclusive, and reception of European and South American stations ONLY are to be reported.

Not Too Late to Try

As this issue of the Radio Digest will be on the newsstands and in the homes of the subscribers before the tests are completed, it is not too late for the ether fans to participate in the contests. A large staff of Radio Digest observers scattered over the country with most sensitive receivers are reviewing the tests, but because of their professional ratings will not participate in the contests. Their reports will make complete information available to fans regardless of locality.

To those listeners who get the best reception reports and notify the Radio Digest, will go national recognition. This magazine will release information daily to the press at large on the results of the overseas trials. Besides the newspaper publicity the successful fans will be given, the victors in the contests will be pictured in future issues of the Radio

What to Telegraph

Fans living in the Eastern sections of the continent are directed to write or tele-graph PREPAID to the New York city offices of Radio Digest, located at 247 Park avenue. Those in the Middle west and western states or western provinces of Canada, should write or telegraph PRE-PAID to the Chicago offices at 510 North Dearborn street. Information will be telegraphed COLLECT, unless the inquiring listener makes it plain that the information is to come by mail.

In order that the name of a listener be given to the press of the country as a successful receiver, the telegram must contain a short sketch of the program received the could be reliable to the program received, the call letters of the station heard the local time received, the approximate

TO WINNERS OF OVERSEAS TESTS



No, no, not the girl, F'evvens sake. If it was, crystal sets would be reporting Koenig-wusterhausen and Radio-Paris. But Miss Dorothy Knapp, famous American beauty, now featured in Earl Carroll's Vanities, is holding the two silver trophies to be awarded in the Freed-Eisemann Radio corporation international reception contests.

meter wave length, and the address of the | foreign test nights (Sunday to Thursday Stener. inclusive) and you may Send telegrams any one of the five credit to your community.

INTERNATIONAL RECEPTION CONFIRMATION BLANK

The following blank may be used by readers of Radio Digest to report Foreign station reception. Confirmation will be made by Radio Digest when these blanks are accompanied by self-addressed and stamped return envelope.

Exact Time Heard	Brief Description of What Was Heard. Confine to Few Words	Call Letters If Heard	Meters or Kilocycles
4	(2

			-

No.			n

If insufficient space is provided in above blank for your log (or you do not wish to mutilate your copy of Radio Digest), give this same information, in a similar form, on any paper available.

EXPERTS WILL AID CHECK OF **FOREIGN CALL**

Furnish Blank for Use

Listening Outposts and Correspondents Preparing Accurate Programs to Verify Reports

What foreign stations have you heard? What ones will you hear before the International Radio Week tests are concluded? Are you sure you heard foreign stations? How do you know? In order to assist in confirming foreign station receptions, the Radio Digest is

presenting this issue a confirmation blank (at bottom of this page) for the use of listeners in getting actual certified endorsement of their achievements.

The blank need not be clipped from Radio Digest. All that is necessary is to present the same information as requested on the blank. However arrangement of

on the blank. However, arrangement of the information similar to the blank will assist in checking the receptions.

Trained Listeners Check Europe
As this issue goes to press, a score of trained listeners, every one of them an expert, is checking the programs broadcast by the European and South American stations. The reports of these expert listeners not the presurenced programs which tions. The reports of these expert insten-ers, not the pre-arranged programs, which so far have proven inaccurate in many points, will be the basis for making con-firmations. Radio Digest's foreign staff is also busying itself in collecting data on the actual programs broadcast. The is also busying itself in collecting data on the actual programs broadcast. The data of the foreign correspondents, together with the reports of the special listening outposts, will make an absolutely correct set of programs, by which every suspected reception, submitted by fans, can be checked.

The confirmation service of Radio Digest is separate and distinct from the Gold Award contest, details of which are given in column one on this page.

How Fans Can Verify

Rough checking of programs can be made on the basis of wave length to which made on the basis of wave length to which dials were set, together with the table presented last week showing the wave lengths of the principal foreign stations. Not all of these are participating. Definitely, with the reports of stations so far received and the announcement of the Radio week committee to judge from, the following stations are on the circ lowing stations are on the air:

Station and Power

Wave Length

station and Power 5XX, Daventry, Eng., 25,000 watts 2BD, Aberdeen, Scot., 1,500 watts Munich, Ger., 4,000 watts OTW, "Radio-Wein," Vienna, Aus., 5,000 watts Stuttgart, Ger., 4,000 watts MS, Munster, Ger., 1,500 watts HA, Hamburg, Ger., 4,000 watts 6BM, Bournemouth, Eng., 1,500 watts 410 watts
OAX, Lima, Peru, 1,500 watts
LOX, Buenos Aires, Arg., 1,500 380 EAJ7, Madrid, Spain, 6,000 watts Prague, Czecho-Sia., 5,000 watts 2LO, London, Eng., 3,000 watts 5WA, Cardiff, Wales, 1,500 watts LOW, Buenos Aires, Arg., 1,500 watts SBR, Brussels, Belg., 1,500 watts Listeners wishing further to identify stations where a foreign language is spoken should refer to last week's issue of the Radio Digest, pages 4 and 5. Here was told how various foreign stations announce themselves.

Minnesota Legionaires Put On Spectacular Radio Revue

a spectacular Radio revue, was presented by the Minnesota department of the American Legion and Legion Auxiliary from WCCO, the Gold Medal station, January 22, for which both the St. Paul and Min-

22, for which both the St. Paul and Minneapolis studios were used.

The revue was the most pretentious Legion program ever broadcast and the number of persons required for the cast necessitated the facilities of both studios. The spectacle depicted the trip of the Minnesotta Legionnaires and their familiants. Paris for the Legion genyrotion. which will be held in 1927.

DeRubertis Began Career with "Ghost Viol"

REAL Mystery Crept in Through
Little Door Beneath Stage of Old San
Carlos Theater, Naples, and Haunted Orchestra Pit. Phantom Fiddle Wailed Accompaniment to Bass Viol Until Leader Investigated and Removed the Mask, All of Which
Led to the Successful Career of N. De Rubertis,
Leader of Little Symphony Orchestra, Kansas
City, Heard Over WDAF.

By H. P. BROWN

HERE was a mystery in the orchestra pit of the San Carlos theater at Naples, and everybody knows that the proper place for mysteries in a theater is on the stage above the pit. The tip of the left ear of the august director trembled as it positively detected the vibration of a bass viol when he saw with his own eyes that the professor in charge of the only bass viol in the pit had removed his bow and was silently sawing the air ready for the next slash at the strings.

But the director was not the only one who had heard the weird tone coming from the ghost fiddle. Other members of the orchestra spoke about it and so the director knew that his ears were not playing tricks. One day during a rehearsal when the presence of the unseen viol was particularly noticeable the director suddenly halted the music and began a determined investigation.

A small boy was discovered crouching in the tiny doorway that led under the stage.

Here was the motive force but where was the instrument, for it must have taken a big one—too big to conceal—to produce the note of the big bass viol? When the boy found he was neither to be scolded nor punished he confessed that he was the player of the ghost fiddle and his fiddle was the door panel against which he had rubbed his rosined fingers. The friction produced sounds which the boy had practiced until he was able to faithfully mimic the notes of the bass viol behind which he had hidden. It seemed incredible but the boy proved his statement by demonstrating how he had made the ghost fiddle groan.

groan.

The director was overwhelmed with astonishment and when he learned that the boy had, through the assistance of a brother who played in the orchestra, spent his hours listening and watching the musicians he declared that such pluck and ambition should be fittingly reported.

tingly rewarded.

Thus it happened that the little, dark door



beneath the old San Carlos theater in Naples opened up to a golden path for the little black-eyed Neapolitan who later became famous as the conductor of the Kansas City Little Symphony orchestra—Mr. N. De Rubertis. The boy was taken under the personal tutelage of the director and proved that he was a "natural born musician." When it came time for him to try his wings and leave the home nest he sailed for America.

A ND, strangely, the haunting melodies from the deep-throated bass viol charmed him most of all the instruments in the orchestra. He soon was established in his favorite place behind the big viol in the Manhattan Operarchestra. From there he found an opportunity to open a studio in Montreal where his fame continued to grow. Eight years ago there was a new impulse toward musical culture in Kansas City and De Rubertis was called to that progressive city to aid in the movement.

gressive city to aid in the movement.

About him there assembled a small group of musicians who specialized in chamber music. They played for the love of playing, meeting at various times in the respective homes of the members. A little social hour and then they would unbox their instruments and the young De Rubertis would marshal them through the sonatas, operatic selections, classics of the masters and sometimes a patriotic selection. The better families considered it a privilege to be invited to these musical soirees. The group added one artist after (Continued on page 26



WKAR Broadcasts Farm Science to Nation

MICHIGAN State College Presents Regular Courses for Benefit of Farmers in Every State. Credits Allowed for Listeners. Sports and Dance Programs Are Also Furnished to Michigan Fans.

Lecture room (left) where farm study courses are broadcast. James B. Hasselman (below) general announcer and supervisor of Station WKAR. Sometimes Miss Margaret Foote (incircle) furnishes song as interlude between lectures. James Gamble (right) is the program director and prevents the professors from monopolizing the mike at the Michigan "Aggie" Radio station.

Michigan but in neighboring states. It saw the need of extending its sphere of the agricultural college. And Radio Station WKAR went on the air.

ORTIMER C. NICHOLS is one of the hardest working men in the state of Michigan. From the time of the first spring plowing until the last of the season's crops are garnered he is on the jump. He has three farms in the vicinity of Hastings in the middle western section of the state. He is up before daylight every day and off in his battered old flivver from the town home to the farm that needs him most for the day.

Mr. Nichols' course in engineering at the state university in Ann Arbor did not make a farmer of him. The farm idea came after he had given the engineering business a thorough try-out with the Illinois Central in Chicago. The monotony of office hours, confinement indoors, a stated salary income, regardless of effort, irked him. He hungered for acres. So he bought a farm near the old homestead.

It was hard sledding at first. Somehow the stock did not do well and the weather failed him with crops and then he found that agriculture nowadays is a science, requiring a scientific education as a specialized line.

He was married, had children and he had to keep going. He didn't have time to attend the very excellent agricultural college established by the state at the capital in Lansing—"East Lansing," as it has been more recently called.

So the state saw the predicament of Mr. Nichols. It may not have seen Mr. Nichols, personally, but saw his case as it existed in many thousands of other instances not only in

A wintertime glimpse at the towers of WKAR on the campus of the Michigan State College at East College at East

T TOOK the agricultural science to Mr. Nichols' home and the homes of the countless other farmers who were plunged head over heels in the business of making a living out of their lands in the face of unexpected difficulties. WKAR became the "Farm School of the Air." Lecture courses were arranged for broadcasting. Actual, practical problems that had been analyzed in the college laboratories by the experts were presented and answered according to established rules. Stock breeding, feeding and economic

ing, feeding and economic marketing were—and continue to be—subjects of lectures similar to the lectures given to the young bucks taking the courses on the campus.

Soil conditions for most appropriate planting were described.

Farmers throughout the region are now gaining their college educations at their own firesides. Questions have been received from practically every state in the union from farmers with their own individual problems.

One individual sends a letter with a pertinent question on a prevalent disease affecting cows, sheep or pigs. The whole countryside hears the answer by one of the



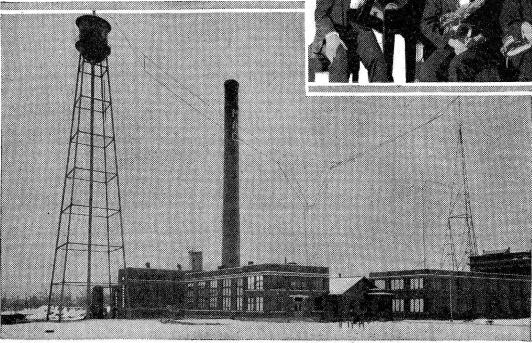


Seely's Pastime Players (above) are the pep manufacturers for this 1,000-watt Michigan station.

most skilled veterinarians in the land. Another wants to know about the kinds of poultry to raise most profitably. The professor of the poultry department gives his expert advice to the farmer who is tuning in near the cross-roads five miles from the nearest town. Study credits are allowed listeners who follow lectures with formal correspondence.

But WKAR also has its lighter programs. In the broadcasting of sport events it has won a warm place in the hearts of followers of college athletics. James B. "Jimmie" Hasselman, chairman of the Radio advisory board of WKAR, is one of the first announcers in the country ever to broadcast a running account of a basketball game direct from the gymnasium in which it was

At the start of the game Hasselman climbs into a sound-proof booth in the balcony of the college gymnasium. There, with his eyes on the playing floor, he tells his unseen audience just how each play was made, who made it and how (Continued on page 12)



Baltimore Waited Long to Join Air Chorus

Max Rosenstein, celebrated WBAL violinist (below).

MAYOR Jackson Thought the Maryland Port Never Would Get a Real Big Broadcasting Station When Along Came WBAL with 5,000 Watts

OR SOME unknown reason when young Radio went leaping about the country establishing new broadcasting stations here, hither and yon it seemed to hop right over Baltimore, Maryland. There was a great deal of talk about it among the responsible people of the town. Some of the city fathers approached Mayor Jackson with the intimation that it might be a good idea to establish a municipal station if none of the private concerns seemed inclined to take it up.

Mayor Jackson spent several sleepless nights pondering over what official attitude he should take in the matter. The people were buying receiving sets by the carload. All the other big cities along the Atlantic seaboard had broadcasting stations. Back in the "hinterland" they were introducing themselves in a glowing way that certainly must be stirring up a mighty curiosity among listeners to come, see the sights, hear the music and spend their money in the

But, what about Baltimore? Only a dark, unremitting silence answered the ether query of the dials all the way back to California's

golden shores. However, the seed was there and November last as the world well knows, Baltimore's -clarion voice flashed into space, full chested and man-sized, ringing and

At right are James Wilkenson (standing) and Stanley Barnett, the announcing team at WBAL, Baltimore. George Bolek, (below) pianist and assistant program director.



F. R. Huber (right), WBAL station director. Gustav K 1 e m m (at plano, circle) and John Wilbo urn, tenor. James Wilkens, and Mr. Klemm. All are WBAL artists.

surging its way down the aerials of the nation. A million pencils throughout the land welcomed the announcement of WBAL, Baltimore, on the air and jotted the meter wave length, 375, opposite the figures of the tuning point on the dial gauge.

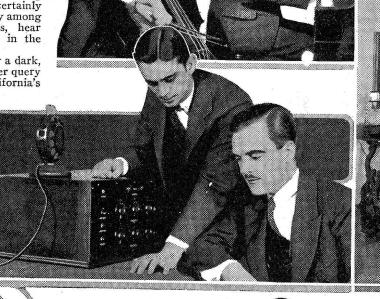
So Baltimore is on the air—

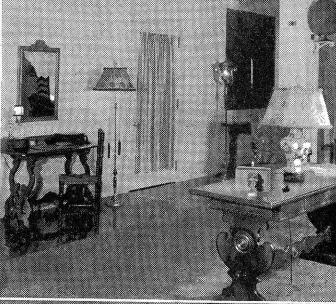
So Baltimore is on the air—and making up for lost time. Mayor Jackson and Governor Ritchie both helped at the and congratulated the proud

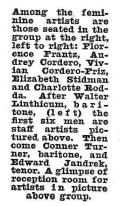
christening and congratulated the proud parents, the Consolidated Gas, Electric Light and Power Company of Baltimore, represented by the president, Herbert A. Wagner.

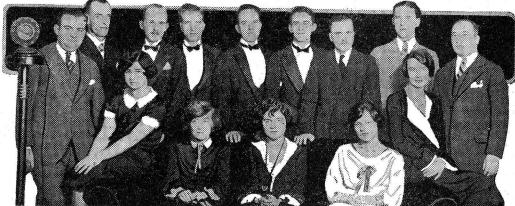
Mr. Wagner promptly dedicated the child to the city of Baltimore with these words:

HE public utility which I represent has taken upon itself, as a public servant, the duty and privilege of providing a superpower broadcasting station for the service of Baltimore and the State of Maryland. Up to this time Baltimore and Maryland have not enjoyed (Continued on page 24)









All Aboard with "Tootsie" via KFDM Line



WJAZ RAILS HOOVER WITH 'PIRATE' WAVE

U. S. SEEKS WAY TO SHUT DOWN ZENITH STATION

E. F. McDonald, Jr., "Takes" Canadian Wave While Amused Public Watches Peculiar Controversy

CHICAGO.—Who owns the air, and if the United States owns the ether and can control it, by what official act are American wave lengths reserved for Canadian stations? Why should one station be allowed 166 hours a week on a certain wave length, and then the department of commerce specify that another station use that wave length for but the remaining two

WJAZ, the broadcasting station here, of WJAZ, the broadcasting station here, of the Zenith Radio corporation, will soon settle the questions listed above, for WJAZ has gone on the air and "taken" the wave length of 329.5 meters, a wave length unused in the United States. In Canada it is used by seven stations, nearly every one of them remote from this city and out-side the sphere of interference.

side the sphere of interference.

And the "taking" has not been authorized by the department of commerce, either. The latter, according to Secretary of Commerce Hoover, will show WJAZ what's what in short order.

But Will the Department?

But Will the Department?

But will the department of commerce be able to do what it says it will? There is no Radio law with the exception of that passed in 1922, and that law has many defects now. Wise heads are inclined to believe that the WJAZ controversy has several angles, and that E. F. McDonald, Jr., president of the Zenith Radio corporation may have much in his favor. tion, may have much in his favor.

The last dispatches state that the government has launched its litigation against WJAZ for "piracy" of a wave length, first by filing papers demanding forfeiture of the station's license and seizure of its equipment, and second by bringing the Zenith organization into court to show cause why it should not be punished for usurpation of an unauthorized wave

Mr. McDonald has laid his cards on the willing to abide by the decisions of that

McDonald Attacks Hoover Efficiency

Mr. McDonald added further fury to the scorching test case by broadcasting—on 329.5 meters—an attack on the secretary of commerce. The prominent Radio manufacturer claimed that Mr. Hoover had grossly abused his discretionary powers in the regulation of broadcasting.

His point was well taken, for people ask,

if Mr. Hoover really has the power claimed since the test case was inaugurated, why did he allow the broadcasting channels to become so congested? Why, asks Mr. McDonald, are there twenty-seven stations broadcasting on one wave length, and on several other wave lengths, but one station on each?

WJAZ, when formerly located on the Edgewater Beach hotel, of Chicago, got off the air when it was found that interference from this station was disturbing public reception. The transmitter was sold but the call letters were retained. WEBH is the old WJAZ set, rebuilt and

WJAZ and its fore-running experimental stations, belonging to the Chicago Radio Laboratory, a subsidiary of the Zenith company, are Radio pioneers that have blazed the trail for many broadcasters of

Can the U.S. Do Anything?

The case, summed up, is simple. Mr. Hoover, although solicited ever since the sale of WJAZ's old set, has not seen fit to give WJAZ a new wave length, or at least one that is acceptable. Therefore, WJAZ has taken one that is not claimed by the United States. Can the United States prosecute WJAZ or its owners?

Being a broadcasting station without a country, what can be done about it?

If Hoover can do anything, the question arises, then why doesn't he close up certain other stations which are known to merely clog up the air with their inter-fering broadcasts, over-modulated trans-mitters, rank programs, and obsolete type sets?

The stage is set for much amusement for the Radio public.

Station WSAI on Air More Than 1,000 Hours Last Year

CINCINNATI.—A check of the programs broadcast by WSAI, here, during 1925 shows that the station was on the air more than 300 days for a total of more than 1,000 broadcasting hours.

WSAI is on the air six nights a week, its average program lasting three hours. Included in the total of broadcasting hours was a 24-hour anniversary and dedication program.

McDONALD ANSWERS **CHARGES OF PIRACY**

NSWERING the charges made by the A department of commerce and the public press, E. F. McDonald, Jr., president of the Zenith Radio corporation, of Chicago, herewith gives his statement of the whole affair:



E. F. McDonald, Jr.

"My attention has been called to articles appearing in the public press, from which it appears that the United States gov-ernment is about to institute some sort of legal proceedings against Zenith Radio cor-poration, of which I am president, with the idea of punishing the cor-poration or certain of its employees for operating its broadcasting station, WHAZ, for more than two hours per week, the time allotted to it by the secretary

of commerce of commerce.

"If the government does take some action it will not be a surprise to us as we notified the government authorities that we intended to go on the air for the purpose of making a test case in order to determine whether or not there is such thing as freedom of the air.

Hoover Abuses Discretionary Powers

"Before doing this we made every effort to obtain from the secretary of commerce some fair and reasonable division of time.

I spent weeks in Washington with my attorney, Irving Herriott, pointing out the various channels that were open. All our efforts met with failure.

The department even arbitrarily refused to permit us to use a wave length that another station enjoyed and offered to us. We feel that not only we, one of the pioneers in Radio broadcasting, but scores of other stations have been discriminated against.

against.

"The secretary of commerce claims to have wide discretionary powers in the division of time between the broadcasting stations. I question whether or not he has such discretion, but if he has, I wish to state that in my opinion he is abusing this discretionary power, not only in our case. discretionary power, not only in our case, but in many others, to the detriment to the public and the Radio industry.

"The present chaos and congestion in the air which makes it almost impossible

for the listener with the average Radio set of limited selectivity to separate one broadcasting station from the other, is not broadcasting station from the other, is not due to the great number of broadcasting stations in the United States, but is the result of the abuse of the discretionary power which the secretary of commerce claims to have in the division of wave lengths and operating time, and in spite of this chaotic condition for which the secretary of commerce is responsible best. retary of commerce is responsible, he is today asking congress to pass legislation which will confer upon him even broader powers of discretion than those which he now claims to have.

Recites Mismanagement of Department
"As a further indication of the extent
of this abuse of this alleged discretionary
power, I want to point out the fact that
the secretary of commerce has licensed twenty-seven broadcasting stations on one particular wave length, yet permits other stations to enjoy an exclusive wave length, with no time limit. It is obvious that twenty-seven stations cannot operate simultaneously, on one wave length, and be heard.

"In our own particular case he has licensed us to operate only two hours each week and has licensed another station to perate on our wave length the remaining 166 hours each week, and even our little two hours is subject to cancellation at the request of the General Electric company.

"The public is justly complaining about the congestion, yet if there were an equal division of time and wave bands, and no favoritism shown, all could be heard and the public would receive real service without interference.

Who Shall Have Monopoly?

"In the litigation, which, according to newspaper accounts, the government is about to institute, there will be involved necessarily the right of citizens of this country to use the air and have a fair division of it, but there will also be presented the question, (if the government has this right) shall it regulate in favor of monopoly and against the independent interests and the public generally?

"The Radio public today is fully aware of the fact that certain interests now claim to have what virtually amounts to a monopoly of many exclusive wave bands. In my opinion any institution other than one whose business is to disseminate news should have nothing which approaches an exclusive right to any wave band. News

agencies are in the nature of public utili-ties, and their use of the air is of vital interest to the public generally. Such broadcasting should necessarily be given preference over music and other enter-tainment, but I say that none other than

such should be given preference.

Fights for Principle, Not Gain

"With the idea of settling one of the greatest questions presented by the dereserved by the de-velopment of modern science, the Zenith Radio corporation intends to litigate in every way possible the questions involved. We naturally desire a reasonable division of time for our own broadcasting station, but if we can by litigation settle the ques-tion of the freedom of the air and a fair and equitable division of time in the in-terests of the public and the broadcasters is obtained, Zenith will consider its efforts well worth the sacrifice, even though it might itself be unsuccessful in obtaining a reasonable share of the time for its own

use.
"Our action has been referred to in the press as Piracy of a wave band not in use by any broadcasting station in the United States.' With reference to this I am re-minded of the statement by one of the nost eminent leaders in England's politics, when, in discussing the land laws of his country, he said, 'What finger wrote the law that made us trespassers in the land of our birth?'

"With apologies to the Honorable David Lloyd George, I say, what finger wrote the law that makes us pirates in the free air of America?

'In conclusion I wish to state that our position is that we fight for principle rather than for personal gain.

"Old Hickory" New Whistle Of George Hay at Nashville

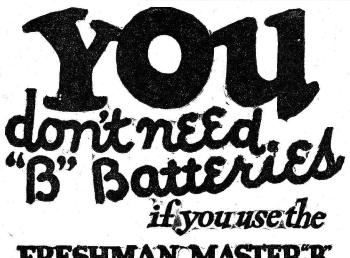
NASHVILLE, Tenn.—And now comes "Old Hickory." George Hay has a new steamboat whistle which is heard regularly from Station WSM, here. The new Jackson, whose home town was Nashville.

It is properly known as the "Cumberland River Steamboat, Old Hickory."

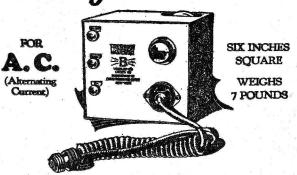
Thousands of the Radio fans will remember Mr. Hay's first whistle, "Hushpuckiny," heard from Station WMC, Memphis, when Mr. Hay was announcer there, and also his "WLS Unlimited Train" whistle he used to give from the Sears-Roebuck station at Chicago.

Latvia Has One Station

RIGA, Latvia.—The little Baltic republic of Latvia has one broadcasting station of which it is very proud, at Riga. News is the principal broadcast feature.



FRESHMAN MASTER B Battery Eliminator



This marvelous device absolutely eliminates "B" batteries

With the Freshman Master "B" Eliminator your set will always be supplied with constant and uniform power. Noiseless in operation; your reception will not be marred by the snap and crackle due to chemical action in "B" batteries

The list price of the A. C. Model Freshman Master "B" Eliminator is \$20.00. However, a tube is required to rectify the alternating current into the required direct current for radio operation. And, as we desire to furnish the best rectifying tube that is obtainable, in our opinion, Freshman Master "B" Eliminators for alternating current are now furnished with R. C. A. Rectron UX-216-B Tubes.



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Write for 24-page illustrated booklet, full of useful information for all radio faus.

CHAS. PRESHMAN CO., INC. Freehman Building, New York
2626 W. Washington Blvd., Chicago

OAX, Lima, Peru, Presents Best Programs



Much credit for the exceptional international test program from Feru is due to the Rev. Father Paulo Chavez Aguilar (above), master of the Metropolitan Basilica and author of many religious works. One of the brightest stars of the Philharmonic Society of Lima, Peru, was Senorita Arrospide de la Flor (center). Antonio Garland was the supervising director of the special program arranged for the week.

7HILE the ears of the North Amer-Wican continent have been straining toward eastern shores during the great international test week, many aerials have been picking up a very pleasing wave from the south.

The particular one referred to is OAX of Lima, Peru, South America, which is on a line almost directly south of Montreal and Philadelphia and about 3,800 miles south of the latter city, approximately the same distance as it is to Edinburgh.

It is doubtful if any station of any country took more elaborate pains to prepare such a universally pleasing series of programs. A spirit of most earnest cooperation was manifest in the letters and cables sent to the supervising committee by Gerald A. Slater, general manager of the Peruvian Broadcasting company at

Lima. Notwithstanding that part of the series will have been already rendered by the time this issue of Radio Digest is on the

Notwithstanding that part of the series will have been already rendered by the time this issue of Radio Digest is on the street, the complete series is published as an example and model of thorough and thoughtful consideration of an important event not only in the history of Radio but in the history of world relationships.

Sunday, January 24

Himno Nacional del Peru, Banda del Regimiento Guardia Republican; Palabras de saludo a los oyentes de Estados Unidos, Sr. Andres Dasso, Alcalde de Istados Unidos, Sr. Andres Dasso, Alcalde de Ragimiento Guardia Republica, Speack de S. E. el Embajador de los Estados Unidos, Mr. Miles Poindexter; Noctuno No. 2, Borodini, Orquesta. "Oax," in Carles Mateucci, La Fanciula Abandonatta, Gerdes (per), Pepita Gomez Sanchez, soorano; Yaravi (Cante Indigena), Jose Llovet Peral; Danza de la Flecha (aire nacional), Ojeda, Banda Gudardia Republicana; Dud de Quenas, Fantasia Incaica, Guillermo Flores; "Ollanta" (Reminiscencias), Vallerriestra-Orquesta "Oax"; (a) Jubilo, (b) Las Gavlotas, Heds compositor Per., Tenol Sr. Carlos Fardo Figueros, Alfonso de Silva, piano, Sr. Carlos Raygada; Canto Espanol, Osma, Solo Violoncello, Prof. Amilicare Mateucci; Poesia Moderna der Peru, Alberto Ureta, Declamidon por el autor; El Nino de la Palma, Faso Doble, A. Childa.

Monday, January 25

"El Derecho International y el Radio," Dr. Oscar Miro Quezada (causerie en ingles); Mi Viejo Amor, Senica, McDowell, Piano Srta. Marina Varlosse; Harmonium Ines Paula, Flauta Enrique Fava Ninct, Violin Virgillo Laghi, Violoncello Amilicare Mateucci, Academia Nacional de Musies; Danza de las Bruias, McDowell, Piano Srta. Marina Vantosse; Carlos o andro lontana, "La Wally," Catalani, Srta. Consuelo Paernio (Piano Sr. Frederico Gerdes); Impresiones de la Tarde, Gerdes, Violin Virgillo Laghi, Piano el autor "Piropos Limenos," Poeslas (declamacion), Poerano Srta. P. Tuesday, January 26

The Plebiscite of Tacna and Arica, Short disertation by Ing. Carlos Jimenez Correa; Variaciones, Proch, Soprano Ligera Srta. Valentina Olin, Piano Srta. Rosa Ayarza de Morales Solar; Quenas, Vals indigena Duncker Lavalle (peruano) Orquesta "Oax"; Perlas dei Brasil, Feliciano David, Soprano Sra. Natalia Garlande Cook, Piano Sr. Frederico Gerdes; Granada, Albeniz, Orquesta "Oax"; Legenda, Opera Iris, Mascagni, Sra Victoria Dien de Stecoli, Orquesta; Serenta de los besos, De Michell, Orquesta "Oax"; Pobre amor, (lied)



Alfonso de Silva (per.), Sra. Natalia Garland de Cook, Piano Sr. Frederico Gerdes; Mai, Melodia R. Hahn, Orquesta "Oax"; Una furtiva lagrima, Do-Miztit, Tenor Marcial Calonge, Piano Sra. Rosa Mercedes Ayazza de Morales Solar; La Gusta en el Arroyo, Valcarcel, Piano Srta. Alicia Cardenas Garcia; A fose lui, Traviata, Srta. Valentina Olin, Piano Sra. Ayazza de Morales Solar; Rusticanela, Fox Cortopazzo, Orquesta "Oax."

Wednesday, January 27

Polonesa Tragica Fava Ninci, Piano Srta. Maria Ureta del Solar; (a) La Jazminera, (b) El Caballo de Paso Poesias declamadas por su autor brilliante poeta laureado Dr. Jose Galvez, (c) La Primera Rosa; Danza Granados, Plano Srta. Enriqueta Arosemena Garland (Conservatorio Padrosa); En el Claustro, Borodine, Orquesta "Oax"; Voces de Primavera, Strauss, Elvira Sanchez Lavalle, (The lark "criollo") Twelve years; Dolor, Melodia tipica del indio peruano ejecutado en "quenas" instrumento primitivo original indios. Sres. Velez y Rey; (a) Varavi, (b) Cancion popular, Tipicos Aires, Estudiantina de Amateurs, (c) Zana (Aire de tierra) populares criollos, guitarra, canto, piano, (d) Marinera y tondero, del Peru, bandurria y cajon; Cuando el Alma so aduerme, Dona Francisquita, Vives, Tenor Chaques; La Zambita y el Betun, Mariners (Tipico

popular) Orquesta; Poesia Contemporanea del Peru, Dr. Alfredo Gonzales Prada, Declamation; Princesita, Cancion espanola, The lark "criollo," Elvira Sanchez Lavalle; La Peruanita, Paso Doble (Inedito) Original popular compositor espanol Quinto Valverde, Orquesta "Oax."

Thursday, January 28

"Thursday, January 28

"The Problema of Tacna and Arica after the decision of President Coolidge," Short disertacion, by Charles E. Ledgard; Prendi I anel to dono, Bellini, Duo Sorano Srta. Valentina Olin y, Tenor Marcial Calonge; "Ell Condor Pasa," Preludio, Folk-iorista Alomias Robles, in New York, Orequesta. "Oax"; 8 Variaciones sobre un Tema Insaico, R. P. Paulo Chavez Aguilar, Maestro de Capilla Basilida de Lima; (a) Qikirle, (b) Santuc, Coro Tres voces mixtas, Paulo Chevez Aguilar, (c) Agnul Del, Musica Sagrada, Maestro de Capilla de la Bascilica, Lima; Noctumo No. 3, Chopin, Plano, Notable Concertista Sra. Mercedes Padrosa de Cabril; Lorley, Danza delle ondini, Catalani Orquesta. "Oax"; Preludio y Alegro, Pugnani, Kreisler, Solo Violin Sr. Hector Cabral, Accompanamiento Sra. M. Padrosa de Cabral; Hermanita Trsiteza, Cancion Cubana, Lerdo de Tejeda, Tenor Chaques; La Lima de hoy que ama el Radio, Short disertation, by Antonio Garland; Es mi amor, Fox-trot de Durand.

STATION KOA TO WIRE PROGRAM OVER DIVIDE

Special Patrol Checking Up 300 Miles of Telephone Line

GRAND JUNCTION, Colo.-Few of the thousands of listeners who tune in this city via Station KOA, Denver, on the night of February 5 would care to make the long, hard journey over the main range of the Rockies in midwinter by ski and snowshoe which broadcasting of the Grand Junction program will make nec-

So that good telephone service from here to the station in Denver will be assured, the telephone company is sending a special patrol along the 300 miles of wire to check up on its insulation. The line is in canyons and mountains practi-cally the entire distance. The patrol will be hazardous on Fremont and Mosquito passes where the wires cross the continen-tal divide at an elevation above 12,000

This will be the first time a Radio prodivide by telephone.

Navy Makes New Record

WASHINGTON.—New distance records are constantly being established by the United States naval laboratory at Bellevue, Md., in its experimental high frequency work. Recently two-way direct communication was established between the Bellevue laboratory and the naval vessel Scorpion in the Mediterranean sea.

Station WGY to Send Special Tests Jan. 30

Will Use 50,000 Watts of Power in Trials for Distance

SCHENECTADY, N. Y .-

SCHENECTADY, N. Y.—From 11 to 11:15 p. m. Eastern time on Friday, January 29, and 11:15 to 11:30 p. m. Saturday, January 30, WGY, General Electric station here, will put on special programs for the benefit of American listeners. Every night of International Radio Week has been dedicated to special transmission stunts in accordance with the spirit of the week. On Saturday and Sunday nights, January 30 and 31, the superstation of WGY using 50,000 watts of power will be on the air. This transmitter has been idle for some weeks pending the completion of several changes mitter has been idle for some weeks pending the completion of several changes in the outfit. It has never had a real test for distance, because on previous occasions when it was used, atmospheric conditions were not favorable for distant reception.

WOC Used Many Languages In International Exchanges

With students drawn from all corners of the earth, The Palmer School of Chiropractic, Davenport, Iowa, was able to broadcast announcements from its own Radio Station WOC, in many foreign languages during international test week.

In all about fifteen languages were used. Vocal selections broadcast from the powerful Davenport station were also epresentative of various European coun-



"Chiquilla" (little) Elvira Sanchez, 12-year-old Indian girl (above), whose clear childish voice was heard in many homes over the North American continent, sang from OAX, Lima, Peru.

STATION WLW GIVES **BIRTHDAY PROGRAM**

CELEBRATION MADE PART INTERNATIONAL TESTS

Powel Crosley, Jr., Gives Address on Broadcasting Development and First Stars Are Heard

CINCINNATI, O.—In addition to its regular schedule of features for the week,

regular schedule of features for the week, the Crosley Radio corporation, arranged a 23-hour program for the international tests to celebrate its fourth anniversary of broadcasting through its WLW station, Wednesday, January 27.

The dedication of the first-remotely-controlled superpower broadcasting station took place last year and it was through that same station that the Radio audience was provided the lengthy program. This station is the fifth one to be owned and operated by Powel Crosley, Jr. gram. This station is the little one to be owned and operated by Powel Crosley, Jr., who addressed the listeners on the development of the broadcasting art. He spoke at the conclusion of the first part of the concert by the Syrian Temple Shrine band, under the direction of Henry Fillmore

Fillmore.

WLW's Ten-Thousandth Hour

Crosley began his

At the time Mr. Crosley began his talk, it marked the beginning of the tenthousandth hour of broadcasting through the WLW station. Many innovations were introduced to the air audience during this period and several surprises are in store for future broadcasting programs.

ing this period and several surprises are in store for future broadcasting programs. "A radario" was presented by Robert Stayman, who was the first announcer of the Crosley station. It depicted the early days of the studio when it was necessary to quit broadcasting until the whistle of a passing locomotive had finished its piercing screams as the station was located alongside of a railroad track. was located alongside of a railroad track. Artists who were booked on the early programs took part in this review.

Robert Alter, the first musician to introduce the playing of a Vox Ferro or hand-saw to the Radio audience, played hat instrument on this dition, there was a trio, consisting of saw, violin and piano.

The large pipe-organ in the WLW stu-dio was played by several artists during the program. Many orchestral effects were obtained in utilizing the various stops.

William Charles Stoess, studio director, and Louis John Johen, program director, contributed to the program, through the former's violin solo work and the latter's baritone solos. Rosemary Stoess accompanied the artists.

SECRETS OF SOUPS **ARE TOLD BY BETTY**

MISS CROCKER DESCRIBES PRINCIPLES OF COOKING

Food Value High-Mineral Content Good For Body-How to Prepare Soup Stock

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, WJAR, WHT, WFI, KSD, KFI, and WCCO, the Gold Medal station at Linneapolis-St. Paul. All of Miss Crocker's recipes and discussions are based upon actual investigations and work of herself and her assistants in model kitchens.—Editor's Note.

By Betty Crocker

In the older European countries, food has never been found in abundance as in America. The peasants have had to struggle long hours at backbreaking tasks for a tiny bit of blackbread and soup. Food has been so scarce that it is almost sacred to them. They look upon it with a sort of reverence and hoard every bit with great care. And so they make deliciously nourishing soups out of scraps that we would throw away. An American cook carelessly throws to-

An American cook carelessly throws together some meat and a few vegetables and seasonings, gives little thought to the preparation of it, and then explains that her family does not care for soup. The same family dining in a foreign country or at a dinner prepared by a good chef will exclaim at the very delicious soup. They might be quite surprised to know that the ingredients in that soup differ very little from those in the soup they

that the ingredients in that soup differ very little from those in the soup they dislike so much at home. It is true that soup may be made out of odds and ends of food, but these ingredients should be so carefully handled and the whole dish so carefully prepared that the result will be a work of art.

Food Value of Soups

Soup has an important place at the beginning of the meal because it stimulates the appetite. The more substantial soups may well be made the main dish for luncheon and supper. Because of the large proportion of water the amount of food value in any soup is not high if we count it in calories.

However, most soups contain reliables

However, most soups contain valuable minerals and vitamins, especially if vegetable pulp and stock are used in it. Then too, because of the heat alone the soup is too, because of the heat alone the soup is stimulating and leaves one with the feeling of being well fed, especially in cold weather. The addition of milk makes any soup more nourishing and milk soups are always convenient because they are quickly and easily made. They are especially good for children. It is substantial

AVOID DYSPEPSIA BY DOING OWN COOKING

CINCINNATI.—Men are just as interested in the culinary art as women, says Mrs. Ralph H. Auch, dietician in charge of cooking Auch, dietician in charge of cooking hints and recipes broadcast every Wednesday afternoon from Crosley WLW superstation here. "Ah," replies the wise one, "the men have to be careful what their wives cook. As it is, look how many get dyspepsia!" Mrs. Auch reports that almost as many men as women write her about her WLW cooking lessons. Which goes to prove men could get along without the ladies.

enough to use as the main dish for lunch-eon or supper when you do not care to serve meat.

Vegetable Chowders

I wonder if you are familiar with the vegetable chowders. The only difference between a chowder and a creamed soup is that the chowder contains cubes of meat and vegetables. Here is the recipe

for a very good corn chowder:

Two cups milk, one-half teaspoon salt, one-eighth teaspoon pepper, one tablespoon minced onion, one tablespoon butter, one tablespoon Gold Medal flour, one cup canned corn, three tablespoons chopped bacon.

Method: Fry onion and bacon in but

method: Fry onion and bacon in butter until brown. Add flour and cook two minutes. Add corn, potatoes, salt, pepper and milk. Let simmer fifteen minutes. This amount will serve six people.

Creamed Vegetable Soups
You do not need a separate recipe for

You do not need a separate recipe for each kind of creamed vegetable soup as the general proportions are very much the same in every case. The foundation of the vegetable soup is a thin white sauce made by adding two toblesseement. tion of the vegetable soup is a thin white sauce made by adding two tablespoons of fat and two tablespoons of figure to one pint or two cups of milk. Combine two cups of vegetables with this white sauce and the water in which they were cooked and season to taste. That is, you should have two cups including the cubed vegetables, or pulp, and the stock. You will note that gives you equal parts of the vegetables and white sauce; one pint or two cups of white sauce and one pint or two cups of white sauce and one pint or two cups of vegetables and stock. If you want a smooth soup, press the cooked vegetables through a sieve before combining with the white sauce.

Cream soup like any other creamed dish forms a scum on standing. Beating the creamed soup with a Dover beater just before it is served will break up this ugly scum and leave the soup foamy on the top. Never remove the scum as it is a valuable part of the soun.

top. Never remove the soup foamy on the top. Never remove the scum as it is a valuable part of the soup.

Very often we have use for a soup without milk and without meat stock. Tomato is a favorite and should be used uable part of the soup.

Very often we have use for a soup without milk and without meat stock. Tomato is a favorite and should be used often in the winter when other vegetables the table.

Heart-Broken Mother Seeks Wandering Son

KOA Broadcasts Do Not Locate Grant Fox

DENVER.—"I will look for a letter every day until it comes!"
Thus reads a letter to KOA, General Electric station here, from a heart-broken mother of Parker, S. D., who is praying that the miracle of Radio will bring back her wandering 16-year old son, Grant.

In her pathetic message, this mother, Mrs. R. B. Fox, asked that her plea for the early return of her boy be read into the air in frul.
"My carling hoy" she heren "pleases."

air in f-'l.

"My darling boy," she began, "please write to me. You were always kind to mother, so I know you won't refuse to write. We are going to Arizona or California soon, so don't wait to write. We have news that you must know. I've already spent two months on the coast searching for you. If you don't get this message, there is not much use to try longer. Oh, please write to your heartbroken mother."

No trace of the missing youth has yet been found.

been found.

Appeal by Radio Brings Son To Bedside of Dying Mother

TORONTO, Ont.—Radio has been in-strumental in bringing a son to the bedstrumental in bringing a son to the bed-side of a dying mother in this city. The mother, Mrs. Woods, had been crying out for days for the son. A daughter decided to send out an appeal by Radio, as she had no idea where he was. Down at Laurel, Md., H. G. Bedwell, owner of the Bedwell racing stable, picked up the mes-sage and, recognizing the name as that of one of his employees, then in Miami, Fla., sent a message to the lad that he was wanted home at once by his mother. The son, Frank, left Miami for Toronto imme-diately.

are rather scarce. This is one of my favorite recipes for tomato soup:
Four cups cooked tomatoes, two cups water, four whole cloves, bit of bay leaf, two teaspoons sugar, one and one-half teaspoons salt, two tablespoons butter, three tablespoons Gold Medal flour, one tablespoon minced onion, one-eighth teaspoon pepper. spoon pepper.

spoon pepper.

Method: Combine tomatoes with water, sugar, bay leaf, cloves and onion. Simmer slowly twenty minutes. Add salt and pepper and strain. Make a smooth paste of the butter and flour. Pour the strained tomato into the paste. Cook five minutes or until it thickens, stirring constantly.

Eight Hours for Women at WCCO

Special Periods Three Mornings and Five Afternoons Are for Fairer Sex

MINNEAPOLIS.—Special periods three mornings and five afternoons each week are devoted to broadcasts exclusively for women by the Gold Medal station, Saint

Paul-Minneapolis, WCCO.

The greatest response from women lis-The greatest response from women listeners is received from the talks by Betty Crocker, home economics specialist, who addresses her audience at 10.45 a.m. Central time on Mondays, Wednesdays and Fridays. Miss Crocker not only offers recipes and culinary suggestions, but gives health talks, suggestions on home management and entertaining.

The Gold Medal station is the home station of Betty Crocker, she having made her debut over the air from there last year. This year, however, her talks are going out at the same time from twelve of the larger broadcasting stations from

of the larger broadcasting stations from the Atlantic to the Pacific coast.

Women's Organizations Have Hour

At two o'clock every afternoon, except Saturdays and Sundays, a special hour's Saturdays and Sundays, a special hour's program for women is sent out by WCCO. This period is occupied by speakers provided by the League of Women Voters, the Women's Republican club of Saint Paul, the Saint Paul League of Women Voters, Mrs. E. F. Barnett, in charge of the Fine Arts department of Saint Paul public library, the Garden club, the Council of Social Agencies, and various other organizations whose work is of particular

cil of Social Agencies, and various other organizations whose work is of particular interest to women.

At 3:05 p. m. every Tuesday, H. A. Bellows, director of WCCO, gives a talk, "The World of Books," which, though not exclusively for women, has a large number of feminine listeners, as has his talk at 2 p. m. Thursdays entitled "Among the Musicians."

Besides these regular features for

Besides these regular features for women, the Minnesota Federation of Women's clubs is broadcasting a series of programs at 4:30 p. m. the second Thursday of each month.

'Things Talked About" to

Re Discontinued for Month
WASHINGTON, D. C.—Mrs. Nina Reed,
whose book reviews and discussions of
"Things Talked About" from Station
WRC, at Washington, will take a holiday
from the microphone during the month
of February. During that time, the
talks on "Things Talked About" will be
temporarily discontinued, but the book
reviews will be presented on Friday
afternoon as usual by prominent club
women of the capital so the thousands of
fans may still enjoy this feature.

Index to Women's Programs

4 3 2 KJR (384.4m-780kc) Tonight's dinner.

Monday, February 1

Eastern Central Mountain Pacific 9:30 a. m. 8:30 a. m. 7:30 a. m. 6:30 a. m. WWJ (352.7m-850kc) Tonight's dinner, 10 9 7 WJZ (454.3m-660kc) Women's hour. WRC (468.5m-640kc) Women's hour. 10:45 9:45 8:45 7:45 WEAF (491.5m-610kc) Home service talk, Betty Crocker. Crocker.

11 10 9 8 Crocker. WDAF (365.6m-820kc) Fry in Deep Fat, Betty WDAF (365.6m-820kc) Fry in Deep Fat, Betty Crocker.

12

WGN (302.8m-990kc) Household hints, Fashions.

WQJ (447.5m-670kc) Spices Used in Your Kitchen.

12:15

KYW (555.4m-560kc) Talk.

12:35

KYW (555.4m-560kc) Talk.

13:35

KYW (555.4m-560kc) Table talk.

2:30

KFNF (266m-1130kc) Mothers' hour.

WGY (379.5m-790kc) Cooking lesson; Household talks. From Rags to Rugs.

3

2

WCCO (416.4m-720kc) Women's hour.

WSOE (246m-1220kc) Women's hour.

WSOE (246m-1220kc) Cooking chats.

4

WIP (508.2m-590kc) Market hints for housewives.

WOC (445.5m-990kc) Home Management schedule,

Aunt Jane. Aunt Jane.
WQJ (447,5m-990kc) Egg Dishes. Care of the Hair and Skin During Winter Months.

5 p. m. 4 p. m. 3 p. m. 2 p. m.

KJR (384.4m-780kc) Home helps.
7:15 6:15 5:15 4:15

WKAR (285.5m-1000kc) Homemade Confections.

Short Cuts in Cleaning and Washing Dishes.

Tuesday, February 2 Eastern Central Mountain 9:30 a. m. 8:30 a. m. 7:30 a. m. WWJ (352.7m-850kc) Tonight's dinner.

Wednesday, February 3 ### Control of the co 10:45 9:45 8:45 7:45 WEAF (491.5m-610kc) Home service talk, Betty Crocker.
WFI (394.5m-760kc) Gold Medal Service talk,
Betty Crocker.
WTAG (268m-1120kc) Talk to Housewives.
Il a. m. 10 a. m.
WHT (399.8m-750kc) Women's club.
WNYC (526m-570kc) Women's program.

11:30 a.m. 10:30 a.m. 9:30 a.m. 8:30 a.m. KFAB (340.7m-880kc), Revelations of a Clothes Thursday, February 4

Thursday, February 4

Eastern Central Mountain 6:30 a. m.

9:30 a. m. 8:30 a. m. 7:30 a. m.

WWI (352.7m-850kc) Tonight's dinner.

10

WIZ (454.3m-660kc) Women's hour.

WRC (468.5m-640kc) Women's hour.

WEAR (389.4m-770kc) Home service talk.

WHT (399.8m-750kc) Women's club.

11:10

WEAR (491.5m-610kc) Fish menus. Cookery.

12.1.

12.1.

WGN (302.8m-990kc) Household hints.

WJ (447.5m-670kc), Parties for the Party Month.

12:30 p.m. 11:30

WGN (302.8m-990kc) Discussion of fashions.

12:35 p.m. 11:35

10:35

KYW (555.4m-560kc) Table talks.

1 [2 n.

WGY (379.5m-790kc), Keeping Little Children Well.

4 p. m. 3 p. m. 2 p. m. 1 p. m.

WOC (483.6m-620kc) Home Management schedule. Well.
4 p. m. 3 p. m. 2 p. m. 1 p. m.
WOC (483.6m-620kc) Home Management schedule WOU (483.0m-520kc) Home Management schedule. Aunt Jane.
WQJ (447.5m-670kc), Valentine Party Plans. Common Sense Care of the Feet. Lessons in Golf.
5
KFOA (454.3m-660kc) Home helps.
KSD (545.1m550kc) Women's hour.

5:30 p. m. 4:30 p. m. 3:30 p. m. 2:30 p. m. KOA (322.4m-930kc) Housewives' matinee. Friday, February 5 WHT (399.8m-750kc) Women's club.

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10:45 1:45 12:45 11:45 10:45 WOAW (526m-570kc) Sunshine Sunday dinner 3 2 p. m. i p. m. WCCO (416.4m-720kc) Women's hour. 4 3 2 1 WOC (483.6m-620kc) Home Management, Aunt Jane. WQJ (447.5m-670kc), The Fourth Domestic Science Lesson. Valentine Party. 5 4 3 KJR (384.4m-780kc) Home helps KYW (535.4m-560kc) Woman's 1 5:15 4:15 3:15 WMAQ (477.5m-670ke) 5:30 4:30 3:30 KOA (322.4m-930kc) Housewives mat WFAA (475.9m-630kc) Women's hour. 2:30 matinee. 6 5 4 KOA (322.4m-930kc) Culinary hints. 6:15 5:15 4:15 KOA (322.4m-930kc) Fashion review.

Ida Bailey Allen Aids Nation's Housewives



Ida Bailey Allen, above, "The Nation's Home-Builder," in the picture at the right is shown supervising the making of a choice tid-bit in the cozy kitchen in her offices. A "Set-Up" for a king, upper right, is one of the meals and table decorations broadcast over WMCA.

"We can live without music or books, But civilized man cannot live

By J. G. Forrest

without cooks."

DA BAILEY ALLEN, known as the Nation's Home-Maker, was found in The Bailey Allen, known as the Nation's Home-Maker, was found in her sunshiny and electrically equipped kitchen testing a recipe for Scotch soda scones, which was sent in by a member of her National Home-Makers club, which she organized last June, and of which she is now president. Each of her members are on their toes submitting their recipes in hopes of winning the monthly prize she offers for the best recipe.

This kitchen, located on the fifteenth floor of an office building overlooking the Hudson river, is quite thrilling. Oh, so compact, and yet it contains the necessities so dear to a woman's heart, such as an electric ice making machine, electric stove, colored dishes, tan kitchen table and chairs, glistening pots and pans, with dainty curtains completing the picture.

The writer was taken into Mrs. Allen's office, a place where her personality is reflected. Cretonne drapes, flowers, a soft

The writer was taken into Mrs. Allen's office, a place where her personality is reflected. Cretonne drapes, flowers, a soft rug, a few pictures, books, a few comfortable chairs and a purring cat. Mrs. Allen, who is an attractive looking woman, has created a niche for herself in this busy and hustling world.

Mother Encouraged Her

Wother Encouraged Her
When asked what prompted her to become a cooking expert, the mantle of
years seemed to drop from her and once
again she was a child. Pausing to think
of those very happy days, she said, "My
mother is to blame for my success. When
I was small, it was my delight to dress
as a grown-up and parade around in the
kitchen, as mother said that eight years
was not too young to learn to cook.

kitchen, as mother said that eight years was not too young to learn to cook.

"She was everlastingly patient with me. Always encouraging and never fussy if I made a mess out of the kitchen—something I could do very easily. Then, the big event of the week was the night I was allowed to prepare the evening meal and could invite a girl friend for dinner. When I grew older, I preferred to invite the boys, as I was flattered by their praises. I became more absorbed in cookpraises. I became more absorbed in cooking problems and finally decided to take domestic science courses at college."

"What do you do with your spare time, if you have any?" asked the interviewer.

HIGH SOPRANO NOTE SPLITS BIG WINDOW

R. and Mrs. Joady Rhodes of Falls City, Oregon, were listen-ing to a KFI program 1,000 miles from Los Angeles, when a large glass window twelve feet from the loud speaker split flawlessly from top to bottom, just as one of the well known Clark Sisters took a high "C." known Clark Sisters took a high "C."
The window was set loosely in the frame, so the settling of the house could not account for the happening. Although the KFI engineers pointed out the fall of the walls of Jericho at the sound of trumpets as a similar case, Mr. Rhodes believes that some settlement should be made, nevertheless

education of my two children, Ruth Elizabeth, six years old, and Tom, twelve years old. The three of us are great pals and always together.

"At the present time we are studying "At the present time we are studying french and have plenty of fun conversing in the French language. As I am very fond of singing, Tom, who plays the piano quite well, accompanies me while I practice. We go to the opera and take long walks together. After the children go to bed, I read and listen to my Radio."

We then discussed breadesting a sub-

morning at 11 o'clock from Station WMCA, and has an invisible audience of over 10,000 people. She has gained so many friends during the last six months, many friends during the last six months, they come to her with their problems.

"What do you do with your spare time, if you have any?" asked the interviewer.

"I have so little Spare Time
"I have so little spare time," she laughingly replied, "that I must crowd everything into a few hours. I am a real housekeeper and personally direct the little spare time, with which she is confronted each week.

"I have so little spare time," she last six months, they come to her with their problems. And what problems! Who should discipline the children, the mother or father? How to make ends meet on the husband's small salary? A couple are considering getting a divorce. Are they right in do-authority. Placing one of her cook books in my hand, I departed while she went back to the kitchen and her recipes.

Get Gerhardt Cake Recipe for Asking

Thousands of Housewives Who Have Followed WTIC Instructions for Dessert Write in Praise

HARTFORD, Conn. — To those who write to Station WTIC, here, a recipe for making the famous Elena Gerhardt cake will be sent. Already thousands of housewives have made the delicious descent. Following instructions broadcast sert, following instructions broadcast through the station, and letters are pour-

through the station, and letters are pouring in in its praise.

Housewives listening to WTIC each Tuesday and Friday noon from 11 a.m. to 12 m, Eastern time have heard a new voice recently, that of Miss Beatrice Bangs, a member of the staff. Miss Bangs has taken charge of the announcing and introducing of all of the participants in the Travelers station daytime programs, which include fashion talks, lessons in professional candy-making, and WTIC's Housewives' Forum.

"Betsy Ross" Brought Up To Date, Is KPO Feature

SAN FRANCISCO, Cal.—"Betsy Ross" brought up to date, is a regular feature broadcast by Station KPO, here. She appears before the microphone each Wedness before the microphone each Wedness before the microphone and Medness before the microphone and Medness an We then discussed broadcasting, a subject that she was very much interested in. Mrs. Allen broadcasts every Tuesday Her work is being followed by thousands Her work is being followed by thousands turned to the microphone of WEAF, of feminine Radio fans throughout northern California. Choosing of colors, materials, styles and other subjects are covered.

SHORT WAVES

By Marcella

"Will you please tell me where 'Little' Jack Little will be next week?" seems to be an awfully popular question these days. Last I heard of him, he traveled from the midwest over to New York for two weeks, thence to Buffalo. Then I lost him. However, watch "Headliners Today" in the advance program section and if Radio Digest can locate him, he'll be listed. He's listed this week.

Yes ma'am, Mr. E. L. Tyson of WWJ is just as nice as his pleasing voice would indicate. Have I heard him? My stars, girl friend, that's my business to hear 'em all. Of course I've heard him. In fact I've been to a cabaret with him. Dances nicely, too. Well, he said he wasn't married, and I don't think he is. He's VERY bashful and unassuming, and if I'm not mistaken some brave girl will have to take him by the hand and lead him to the altar.

Now one for the boy friends who WILL write for data. WEAF's "Winnie," otherwise known to listeners as Winifred T. Barr, is off the matrimonial list. Howard Hunter, of the engineering force of the American Telephone and Telegraph company, is the lucky man who bought the diamond.

Emily wants to know if Al Carney, the popular organist at WHT, is married, how many children to his credit, how old he is, how tall and how thin. That's quite an order, but I found out. He is a smiling, jovial bachelor, weighing 195 pounds, but well able to do so. His height is less than six feet but not much. He's just 25 years old and lives all hy he's just 25 years old and lives all by himself in a cozy corner. He remarks that he is just getting his Hudson car all fixed for the spring. There's a wonderful opportunity for somebody.

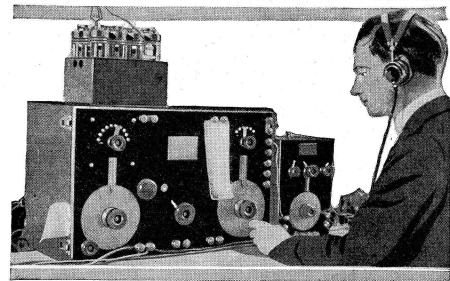
Much ado about this Hired Hand fellow of the Star-Telegram superstation, WBAP, at Fort Worth, Texas. Now one of my correspondents wants to know if he came from Houston, and what he does over the air. Well, the H. H. is an honest-togoodness entertaining announcer with original wit. I know of none that can compare with this Texan. He does his turn as "substitute" announcer on Saturday, Sunday and Monday evenings. Speaking of his home city, have heard it unofficially that he escaped from the Indian reservation in Oklahoma, and that his wife is as jealous of him as he is of the rattle-snake skin hat band he wears on his sombrero. Sure, I like him.

where he is in charge of auditions, anwhere he is in charge of auditions, announces frequently, and is heard in frequent vocal solos. "Let Joy be unconfined," say I, for he certainly was drawn many scented letters written in purely feminine hands.

What deep secret would you like to know about your favorite broadcast star?

Drop me a note, girls, and I'll do by best to answer here.

HE'S OFFICIAL WORLD TIMEKEEPER



Paul Sollenberger, an astronomer at the U.S. naval observatory in Washington, D.C., is known as the official timekeeper of the world. When the chronograph shows that the standard clock registers 11:55 a.m., he turns a switch, cutting in the transmitting clock which gives the signal for noon, thereby setting the clocks of the world.

GENE ROUSE LEAVES WOAW MICROPHONE

TWO AND ONE-HALF YEARS WITH OMAHA STATION

Announcer Who Made Expression, "Yes-Sah" Famous on Air, Will Not Forsake Radio Work

By Ned E. Williams "Yes-sah!"

Listeners of WOAW, the station operated by the Woodmen of the World Insurance company at Omaha, Nebr., will miss this familiar little expression, which has become a by-word in the vocabularies of hundreds of Radio fans through its use at the close of each musical number by Gene Rouse, known as "G. R." to his Radio audience.

That is, unless his successor chooses to adopt it, and Gene swears he is going to copyright the expression, if it is pos-

Because he says he realizes that WOAW could offer him no further advancement in the field of Radio than he has received at its hands, Rouse has resigned his position as chief announcer, which he has held since the inauguration of the station in April, 1923.

No Definite Plans for Future

He has announced no definite plans for his future, except that he is determined to not forsake Radio work and that he aspires to a post in a superpower station.

Seven years on the stage and eight years in newspaper work equipped "G. R."

well for his place as Radio announcer, since nearly all authorities agree that theatrical and journalistic fields are best for the development of Radio workers.

Gene was born in Boulder, Colo., and was educated in the public schools of Denver, where his parents still reside His first taste of fame followed his offer to bind himself as a slave for a year to anyone who would produce "The Scoop," a playlet written by him.

The production was taken in hand by a New York concern, which refused his offer of a year's servitude, however, stating that the playlet would stand upon its own merits. Which it did.

Rouse Began Career at WNAL

Rouse began his career as announcer in 1922 at WNAL, the pioneer Radio station of Omaha, which was established and operated by the Omaha Daily News. It was abandoned a year later, soon after "G. R." went to WOAW.

He landed in third place in the 1925 Radio Digest contest for the most popular announcer, has visited all Radio shows within a 500-mile radius of Omaha and last year spent seven weeks in a 3,000-mile tour of Radio stations in several states.

"I'll be on the air again soon; I have not left it," is the assurance of "G. R." to thousands of his admirers who know him as "the announcer with the heavenly voice," a description coined by Henry Field, now owner of a Radio station at Shenandoah. Iowa.

Paraguay Wants Station

WASHINGTON.—Erection of a broad-casting station has been proposed in Paraguay, according to a report made public by the department of commerce. The southern republic is displaying great interest in Radio, and the ministry of war and marine has decided to purchase the necessary equipment for a station.

WIRES NOT NEEDED TO PICK UP CHIMES

MEMPHIS, Tenn.—Curiosity recently caused the staff of WMC, station of The Commercial Appeal, Memphis, "Down in Dixie," to place a micro-phone outside the studio window while

memorial chimes were being played several hundred yards away.

Response was almost immediate, for messages of congratulation started pouring in, stating that the reception was excellent. And that, too, in spite of the fact that there were many noises from the street four stories below the microphone.

The simple test was made after several letters had been received by WMC stating that the chimes had been dimly heard dur-ing regular programs when the studio was

supposedly soundproof.

Results of the test seem so good that
WMC is seriously considering making the
chimes a feature of the regular broadcasting.

WKAR, LANSING, MICH.

(Continued from page 5)

much of an advantage it gained. Between halves of the game he holds his listeners with a rapid story of the crowds, the bands and other details.

"Jimmie" also goes on the air whenever State college has a home football game. For those events he moves his

booth and apparatus to the outdoor sta-dium press box where he has a clear view of the field.

view of the field.

Dance programs by student orchestras are broadcast Monday, Tuesday, Wednesday and Thursday nights from 8 to 9 o'clock. Other musical programs, including vocal and instrumental numbers, are also presented during the school year.

Two separate broadcasting schools make Two separate broadcasting schools make up the Radio school terms. The first, opening November 2, continues until December 18 and the other is from January 11 to April 2. A new feature added this year is the broadcasting each Monday evening of "Farmerkin" bedtime stories by Mrs. Dora Stockman, editor, and member of the state hoard of agriculture. ber of the state board of agriculture.

Mrs. Stockman's program is given each

Monday evening from 7 to 7:15 o'clock,

Eastern time. Her stories are especially

designed for farm children.

designed for farm children.

At the same time on the other four broadcasting nights of the week, members of the State college faculty present nature study lectures. From 8 to 9 o'clock Friday evenings an educational program is presented.

The regular Radio school lectures for farmers, held Monday, Tuesday, Wednesday, Thursday and Friday evenings, start at 7:15 o'clock, Eastern time, and continue until 8 o'clock. Five college departments offer instruction in the course which is for a period of twelve weeks.

which is for a period of twelve weeks.

Enrollment slips are mailed out to listeners and at the end of twelve weeks those "students" are asked to write papers on what they have learned.

EAST LANSING, Mich.—Radio Station WKAR, Michigan State college, has compiled its first formal Radio program made up in magazine form. The new program gives in detail the farm Radio courses which will be broadcast from January 11 to April 2 and which will cover a great variety of subjects. The courses listed are in home economics, animal husbandry, poultry and veterinary medicine, horticulture and gardening, dairy husbandry and farm crops. dairy husbandry and farm crops.

AN EVENING AT HOME WITH THE LISTENER IN IN CENTRAL TIME

	Call	Location	Met.	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	
	AT9	Fort Bragg, N. C		Silent	5:00- 6:00	Silent	Silent	Silent	7:00- 8:55	Silent	
	CFCN	Calgary, Alta Edmonton, Can		11:00- 1:00 10:00-12:00	Silent 8:30-9:30	Silent 8:30-10:30	Silent 8:30- 9:00	Silent 7:00- 9:00	9:00-10:00	Silent	
	CKAC	Montreal, Que	410.7	6:00-10:30	3:30- 4:30	Silent	6:00-10:30		10:00-12:00 6:00-10:30	9:00-12:00 Silent	
	CKY	Winnipeg, Man	384.4	8:00-11:00	7:00-10:00			7:30-11:00	8:30-11:00	Silent	
	CNRO	Ottawa, Ont		7:30-12:30 Silent	Silent 9:24-10:54	Silent	Silent 9:24-10:54	7:30-12:30 Silent	Silent	Silent	
	CZE	Mexico City, Mex	200	8:24- 9:24	Silent	8:24- 9:24	8:24- 9:24		8:24- 9:24	9:24-10:54 8:24- 9:24	
	KDKA	Pittsburgh, Pa	309.1	5:30- 8:55	3:00- 7:45	5:30- 8:55	5:30-11:35		5:30-11:00	5:30- 8:55	
8	KFAB KFDM	Linceln, Nebr		5:30- 9:30 Silent	4:00- 5:00	5:30-10:30 Silent	5:30-10:30 8:00-10:30		Silent	5:30-10:30	
	KFI	Beaumont, Texas Los Angeles, Calif.		8:00- 5:00	8:00- 9:00 6:00- 1:00	8:00- 1:00	8:00-10:30		Silent 8:00- 1:00	8:00-10:30	
	KFJF	Okla. City, Okla	261	6:30-10:45	2:30-11:45	6:30-10:45	6:30- 7:30	6:30-12:00	6:30-10:45	8:00- 1:00 6:30-10:45	
	KFKX KFMQ	Hastings, Nebr	288.3	5:30- 6:30 Silent	Silent	9:00-11:00 7:30- 8:30	5:30-6:30 8:00-9:00			9:00-11:00	
	KFMX	Fayetteville, Ark Northfield, Minn		Silent	Silent 7:00-8:00	Silent	9:30-10:00	100000000	8:00- 9:00 Silent	Silent	
Ш	KFNF	Shenandoah, Ia		7:00- 9:00	6:30- 8:30	7:00- 9:00	7:00- 9:00		7:00- 9:00	10:00-11:00 7:00- 9:00	
	KFOA	Seattle, Wash		10:30- 1:30	Silent	8:45-12:00 6:15- 7:15	10:30-12:00		Silent	8:45-1:30	
H	KFUO	Columbia, Mo St. Leuis, Mo	499.7 545.1	Silent Silent	7:30-8:30 4:00-10:15	8:00- 9:00	6:15- 7:15 Silent	9:00-11:00 9:15-10:15	6:15- 7:15 Silent	12:00- 2:00	
H	KFVE	Univ'ty City, Mo.	1	9:15-10:15	Silent	9:15-10:15	9:15-10:15		Silent	9:15-10:15	
8	KFWB	Hollywood, Calif	252	9:45- 2:00	11:00- 1:00	9:00- 2:00	9:00- 2:00	9:00- 2:00	9:00- 2:00	9:00- 2:00	
	KG0 KGW	Oakland, Calif	361.2	10:30- 2:00 8:00- 2:00	5:30-11:30 9:25-12:00	8:00-12:00 8:00-11:00	8:00- 1:00 8:00- 2:00		8:00-10:00 8:00-10:00	8:00-9:00	
	KHJ	Portland, Ore Los Angeles, Calif.		8:00-1:00	8:30-12:00	Silent	8:30- 1:00		8:00- 3:00	11:00-12:30 8:00- 1:00	
8	KIAF	Sihtipok, Minn	421	Silent	4:00- 5:00	9:00-10:00	Silent	9:00-10:00	Silent	9:00-10:00	
	KJR KLDS	Seattle, Wash	384.4	10:30-12:00 8:00- 9:00	9:15-11:00 6:30-10:00	Silent	10:30-12:00 8:00-11:59	9:00-12:00 Silent	10:30- 2:00 8:00- 9:00	10:30- 1:00	
2	KLX	Independence, Mo. Oakland, Calif	508.2	9:00- 9:30	Silent	6:00-9:30	9:00- 1:30		9:00- 9:30	Silent 6:00-9:30	
ť	KNX	Hollywood, Calif	336.9	8:15- 4:00	4:00-12:30	8:15- 2:00	8:15- 2:00		8:15- 1:00	8:15- 2:00	
	KOA	Danver. Colo		10:00-12:00	4:00- 9:45	7:30-11:30 8:30- 9:30	7:30- 9:30		7:30- 8:30	7:30-10:00	
3	KOB KOIL	State College, N.M.	070	Silent 6:15- 3:00	Silent 7:00-12:00	6:30- 2:00	Silent 6:15-12:00	Silent 6:15- 7:15	Silent 6:15-12:00	Silent	
=	KPO	San Francisco, Cal	428.3	8:35- 2:00	7:00-12:00	8:40- 1:00	8:15- 1:00	8:15- 1:00	8:15- 1:00	6:15-12:00 8:30- 1:00	
7	KPRC	Houston, Taxas			7:30-10:30	7:30-10:00 7:00-12:00				Silent	
1	KSD	St. Louis, Mo Salt Lake City, Ut.		7:00-10:00 9:00-12:00	6:15- 9:15 10:00-12:00	9:00-12:00			6:55-10:00 9:00-12:00	7:00-10:00	
ı	KTAB	Oakland, Calif	240	Silent	9:45- 1:00	10:00-12:00	10:00-12:00	Silent	11:00-2:00	10:00-12:00 10:00-12:00	
1	KTBI KTCL	Los Angeles, Calif. Seattle, Wash	293.9 305.9	Silent Silent	9:15-11:30 8:10-11:10	9:00-10:00	10:00-11:00 10:00-11:00	Silent	10:00-11:00	Silent	
ı	KTHS	Hot Springs, Ark	374.8	9:00-11:00	9:00-11:30		9:00-11:00		Silent 9:00-11:00	9:00- 2:00	
	KTW	Seattle, Wash	455	Silent	9:00-11:30	Silent	Silent	Silent	Silent	9:00-11:00	
У	KWKH	Shreveport, La	261	9:00-12:00	Silent	10:00- 3:00	9:00-12:00	Silent	8:00- 9:00	Silent Silent	
n	KWSC	Pullman, Wash Chicago, III	348.6 535.4	Silent 7:00-10:00	Silent 4:00-8:00	9:30-11:00 Silent	Silent	9:30-11:00 7:00-1:30	Silent	9:30-11:00	
_	PWX	Havana, Cuba		7:30-10:00	Silent	Silent	7:00-12:30 Silent	7:30-10:00	7:00-12:30 Silent	7:00- 1:30	
e	WAHG	Richmond, N. Y	315.6	11:00- 1:00	Silent	6:30- 1:00	Silent	6:30-11:00	Silent	Silent 7:00-10:00	
-	WAMD		244	6:15-12:00 Silent	7:00-10:00 5:30- 6:30	7:00-12:00 5:45- 9:00	8:45- 9:45 6:30- 7:30	7:00-12:00 Silent	6:15-12:00	7:05-12:00	
	WBAP	Baltimore, Md Fort Worth, Tex		6:00-10:45	5:00-12:00	6:00-12:00	6:00-10:45		5:45-6:45 6:00-10:45	4:30- 5:00	
r	WBAR	Sisiht, Wis	406	Silent	10:00-11:00	9:00-10:00	Silent	8:00- 9:00	7:30- 8:30	6:00-10:45 Silent	
-	WBBM	Chicago, III	226	8:00- 1:00	8:00- 2:00	6:00-7:00	8:00-12:00	8:00- 2:00	8:00-12:00	8:00-10:00	
s e	WBBR	Staten Island, N.Y.		7:00- 9:00 9:00- 1:00	8:00-9:15 5:00-12:00	7:00- 8:00 Silent	Silent 9:00-1:00	Silent 8:00-12:00	7:00-8:00 9:00-2:00	Silent	
2	WBZ	Springfield, Mass		5:30- 9:00	7:00-12:00	5:00- 9:15	5:00- 9:15	5:00- 9:15	5.00- 2:00	9:00- 1:00	
-	WCAE	Pittsburgh, Pa	461.3	7:30-8:30	5:30- 7:20	7:30-11:00	7:00-10:00	7:30-9:00 6:00-10:00	8:00-10:00	5:00- 9:15 7:00- 8:30	
	WCAP	Washington, D. C Philadelphia, Pa		Silent Silent	3:00- 9:15 4:20- 9:00	5:00-10:00 7:00-10:30	Silent 6:30-10:30	5:45-11:00	Silent 5:30-10:00	6:00-11:00	
1	WCBD	Zion, 111	344.6	Silent	8:00-10:30	Silent	8:00-10:30	Silent	8:00-10:30	6:30-10:30 Silent	
3	WCCO	Minn-St. P., Minn.	416.4	6:15-11:05	4:10- 8:15	6:30-10:00	6:15- 9:30	7:00-12:30	7:00-11:05	6:15-11:05	
5	WCX	Detroit, Mich		5:00- 6:00	Silent	5:00- 8:00	5:00- 1:00	5:00- 8:00 6:00- 1:00	5:00- 8:00	5:00-10:00	
٦	WDAF	Kansas City, Me New York, N. Y		6:00-1:00 5:00-11:00	4:00- 4:45 1:00- 9:15	6:00-1:00 5:00-11:00	6:00- 1:00 5:00-11:00	5:00-11:00	6:00-1:00 5:00-11:00	6:00- 1:00	
t	WEAD	Celumbus, Ohio	293.9	Silent	Silent	Silent	Silent	7:00- 8:00	7:00- 8:00	5:00-11:00 Silent	
е		Cleveland, Ohio Chicago, III		6:00-12:00 7:00- 2:00	6:00- 9:15 5:00- 9:00	7:00-11:00	6:00-9:00 7:00-12:30		6:00-10:00 7:00-12:30	6:00-10:00	
-	WEBJ	New York, N. Y		Silent	Silent	Silent Silent	7:00-12:30	7:00- 9:00	Silent	7:00-12:30	
1	WEEL	Boston, Mass	348.6	Silent	6:20- 9:20	7:30- 9:00	7:00-10:00	7:00-10:00	7:00-10:00	6:00- 8:00	
1	WENR	Chicago, III	286	6:00- 2:00	2:00-11:30	Silent	6:00-10:00	6:00- 2:00	6:00-10:00	7:00- 8:00 6:00- 2:00	
•	WFAA	Dallas, Tex New York, N. Y	475.9 272.6	6:30-11:00 10:30- 1:00	6:30-11:00	6:30- 9:30	6:30-12:00	Silent 10:30- 1:00	6:30-12:00	6:30- 9:30	
	WFI	Philadelphia, Pa	394.5	7:00- 8:30	4:00- 7:00 6:30- 7:30	10:30- 1:00 Silent	7:00-11:00	Silent	10:30- 1:00 7:00-10:00	10:30- 1:00	
-	WGB8	New York, N. Y	315.6	5:00-10:30	7:00-8:00	6:00- 6:15	5:00-10:30	5:00- 7:30	5:00- 7:45	Silent Silent	
s	WGBU	Fulford, Fla New York, N. Y.	278 252	5:30-12:00 Silent	8:30-11:00 7:00-10:15	5:30-12:00 7:00-10:00	5:30-12:00 Silent	5:30-12:00 7:00-10:15	5:30-12:00 Silent	5:30-12:00	
•	WGES	Oak Park, III	250	8:00- 1:00	5:00- 7:00	5:00- 7:00	5:00- 1:00	5:00- 1:00	5:00- 1:00	7:00-10:00 5:00- 1:00	
	WGHB	Clearwater, Fla	266 270	6:30- 1:00 Silent	Silent	6:30- 1:00	6:30- 1:00	6:30- 1:00	6:30-1:00	6:30-1:00	
1	WGN	Detroit, Mich Chicago, III		6:30-11:00	Silent 2:00-9:15	6:00- 8:00 6:30- 7:00	6:00- 8:00 6:30-11:00	6:00- 8:00 6:30-11:00	8:00-10:00 6:30-11:00	8:00-10:00	
s	WGR	Buffalo, N. Y	319	Silent	6:45- 9:15	7:30-12:00	7:00-10:00	7:00-12:00	7:00-10:00	6:30-11:00 7:45-12:00	
-	WGY	Schenectady, N. Y.	379.5	8:00-11:00	5:30- 9:00	5:30- 7:30	6:00-10:00	Silent	5:45-10:30	6:15- 9:30	
r	WHAD	Milwaukee, Wis Atlantic City, N. J.	275 275	Silent 6:30- 9:30	3:15- 4:15 6:50-12:15	6:15-10:00	6:15- 7:00	6:15-12:30	6:15- 7:00 6:30-10:00	6:15-10:00	
s	WHAS	Louisville, Ky		7:30- 9:00	4:00- 5:00	6:30- 9:00 Silent	6:50-12:15 7:30- 9:30	Silent 7:30-9:00	7:30-9:00	6:30-12:15 7:30- 9:00	
-	WHAZ	Trey, N. Y		Silent	Silent	8:00-11:00	Silent	Silent	Silent	Silent	
9	WHB	Kansas City, Mo New York, N. Y		Silent 6:30- 9:00	8:00-1:30 4:00-4:30	7:00-8:00 7:00-11:00	7:00-10:00 8:30- 9:00	7:00-8:00 9:00-10:30	7:00-10:00 7:00- 9:00	7:00- 8:00	
-	WHO	Des Moines, la	526	Silent	7:30- 8:30	7:30-12:00	7:30-12:00	6:30-11:30	7:30-12:00	6:30-11:30 7:30-12:00	
e	WHT	Chicago, III	399.8 226	7:00- 1:00 6:00- 8:00	12:00-10:30 6:00-12:00	Silent Silent	7:00- 1:00	7:00- 1:00	7:00- 1:00	7:00- 1:00	
e	WIP	Philadelphia, Pa	508.2	5:05-11:05	3:00- 4:00	5:05- 7:00	6:00- 2:00 5:05-10:30	6:00-12:00 5:05- 7:00	6:00- 2:00 5:05-11:00	6:00- 2:00 5:05- 7:00	
,	WJAR	Providence, R. I	305.9	Silent	6:20- 9:15	7:00- 9:00	6:30- 9:00	6:30-10:00	7:00-10:00	7:00-11:00	
-	WJA8 WJAZ	Pittsburgh, Pa Chleage, Ill	275.3 322.4	6:00-11:00 Silent	Silent	6:00-11:00 Silent	6:00-11:00	6:00- 1:00	6:00-11:00	6:00-11:00	
7	MIID	Mooseheart, III	370.2	6:00-12:00	7:45-11:00	Silent Silent	Silent 6:00- 1:00	Silent 6:00-11:00	10:00-12:00 6:00- 1:00	Silent	
,	WJR	Pontiac, Mich New York, N. Y	516.9	6:00-11:30	7:30- 9:00 7:15- 8:15	6:00-11:30	6:00- 9:00	6:00-10:30	6:00-11:00	6:00-1:00 6:00-8:00	
3	MIZ	New York, N. Y		Silent 6:00-10:30	7:15-8:15	Silent 7:15- 8:15	7:30-10:15 7:10-10:30	Silent 8:30-10:30	7:30-9:00 7:30-10:30	7:45-8:45	
-	WKAQ	San Juan, P. R	340.7	Silent	Silent	Silent	Silent	6:00- 8:00	6:00- 8:00	7:15- 9:45 6:00- 8:00	
	WKAR	Lansing, Mich Cincinnati, O		11:30- 1:00 10:00-11:00	Silent 6:45-11:00	6:15- 8:00	6:15- 7:00 10:00-12:00	6:15- 8:00 8:00-10:45	6:15- 7:00 8:00-10:00	6:15-8:00	
1	WLIB	Chicago, Ill	302.8	7:00-12:00	7:00-8:00	6:00-12:00 Silent	7:00- 1:00	7:00-10:45	7:00- 1:00	Silent 7:00- 1:00	
,	WLIT	Philadelphia, Pa Chicago, Ill		6:30-7:30	1:00- 2:00	6:30-10:45	6:30-6:50	6:30-10:00	6:30- 7:30	6:30-10:00	
	WLW	Cincinnati, O	422.3	7:45- 1:00 7:00- 9:00	6:30- 7:55 7:30- 9:30	Silent 7:00- 8:00	7:00- 8:00 6:30-10:00	7:00-11:30 7:00-11:00	7:00- 8:55 8:00-12:00	7:00-11:30 Silent	
r	WLWL	New York, N. Y	288.3	Silent	6:00- 7:00	7:00-9:00	Silent	Silent	7:00-9:00	Silent	
- 1	WMAK WMAQ	Lockport, N. Y Chicago, III	265.5	6:30- 9:00	6:30 - 7:30	7:00- 9:00	Silent	6:30- 9:00	Silent	8:00-9:00	
	WMBB	Chicago, III	250	8:00-10:00 7:00-11:00	Silent 3:00-11:00	Silent Silent	8:00-10:15 7:00-11:00	8:00-9:45 7:00-11:00	7:00-11:00 7:00-11:00	8:00-10:15	
íl	WMBF	Miami Beach, Fla	384.4	6:00-11:00	6:00-11:00	6:00-11:00	6:00-11:00	6:00-11:00	6:00-11:00	7:00-11:00 6:00-11:00	
	WMCA	Memphis, Tenn New York, N. Y.	499.7 340.7	7:30- 9:30 8:00-12:00	Silent 6:00- 9:00	7:30-9:30 8:00-11:00	7:30-12:00 7:00-11:00	Silent	7:30-9:30	7:30-12:00	
r	WNAC	Boston, Mass		7:00- 9:00	2:00- 8:30	7:00- 9:00	7:00-11:00	8:00-11:00 7:00- 9:00	8:00-11:00 7:00- 9:00	7:00-10:45 7:00- 9:00	
- 1	WNYC	New York, N. Y	526	6:00- 9:30	8:00-10:00	6:35- 9:30	6:10- 9:30	6:30-9:30	6:35- 9:30	6:30- 9:30	
-	WOAI	San Antonio, Texas Lawrenceb'g, Tenn.		Silent Silent	7:45- 8:45 9:00-10:00	Silent 9:00-10:00	8:30-10:30 9:00-10:00	8:30-9:30 9:00-10:00	Silent	8:30-9:30	
-1	WOAW	Omaha, Nebr	526	6:00-12:00	9:00-10:00	6:00-11:00	6:00- 1:00	Silent	9:00-10:00 6:00-10:00	9:00-10:00 6:00-10:00	
9		Trenton, N. J Davenport, Ia	240 483 B	Silent	8:30-10:30	Silent	Silent	Silent	Silent	Silent	
1	WOK	Homewood, III	217.3	6:30-12:00	6:30-11:45	Silent	6:30-11:15	6:30-10:00	6:30-12:00	6:30- 9:45	
1	WOO	Philadelphia, Pa	508.2	6:30- 7:30	5:00- 6:00	Silent 6:30-11:00	6:30- 7:30	10:00- 1:00 6:30-11:00	10:00- 1:00 6:30- 7:30	0:00- 1:00 6:30-11:00	
1	WOR	Kansas City, Mo.	278	8:00-11:00	7:00- 7:45	Silent	8:00- 9:00	Silent	7:00- 9:00	Silent	
1	WORD	Batavia, III	405.2 275	5:15- 7:30 8:30-10:30	Silent 6:45- 8:00	5:15- 8:30 Silent	5:15- 6:30 8:30-10:00	5:15-11:00 8:30-10:00	5:15- 6:30 8:30-10:00	5:15- 6:30	
1	W08	Jefferson City, Mo.	440.9	Silent	8:00- 9:00	8:00-10:00	Silent	8:00-10:00	The state of the s	8:30-10:30 8:00-10:00	
1			299.8	6:00-11:00	3:15-11:00	6:00-11:00	7:00-11:00	Silent	7:00-11:00	6:00-11:00	
1	WRC		447.5 468.5	7:00- 3:00 5:00-12:00	7:00-10:00 Silent	Silent	7:00- 2:00 5:50-12:00	7:00- 2:00 5:00- 6:00	7:00- 2:00 6:00-10:00	7:00- 2:00 Silent	
	WREO	Lansing, Mich	285.5	5:00-11:00	6:00- 7:00	5:00- 6:00	5:00- 8:15	5:00- 6:00	5:00-11:30	Silent Silent	
,		Tarrytown, N. Y	273	8:00-10:30	7:00-10:30	8:00-10:30	8:00-10:30	8:00-10:30	8:00-10:30	8:00-10:30	
1		Cincinnati, O	325.9 428.3	7:30-9:15 8:00-12:00	7:45-10:15 7:30- 9:15	0:00-12:00 8:00-12:00	6:30-10:30 8:00-12:00	10:00-12:00	7:00-10:00	Silent	
	WSM	Nashville, Tenn	282.8	7:15-11:00	7:30- 8:30	7:00-11:00	8:00-12:00 Silent	7:00-11:00	8:00-12:00 Silent	8:00-12:00 Silent	
1	WSWB	New Orleans, La Iowa City, Ia	319 483 6	8:30-10:30 Silent	Silent	8:30-11:30	Silent		8:30-11:00	Silent	
- 1	WTAGI	Worrester Mose	260	Silont	0.00 0.45	7:30- 8:30 7:00- 8:00	Silent 7:00-10:00	7-00 0 00	Silent 7:00-10:00	Silent 7:00- 8:00	
, 1	WTAM	Cleveland, O	389.4	5:00-11:00	Silent	5:00-11:00	5:00- 6:00	5:00 -11:00	5:00- 6:00	5:00- 6:00	
1	WW1	Cleveland, O Hartford, Conn Detroit, Mich	352.7	0:30-11:00 Silent	5:20- 9:15	5:00- 8:00	Silent 5:00- 8:00	5:30- 9:00 5:00- 9:00	5:30-6:30	5:30-11:00	
				120	- 140		0.00	0.00	~ .00-II :50	0.00- 9:00	
										2 A 1 A 1 A 1	

ADVANCE PROGRAMS FOR THE WEEK

Saturday, January 30

Headliners Today

Saturday, silent night for: CFAC, CFCA, CNRA, CNRC, CNRE, CNRM, CNRR, CNRT, CNRV, CNRW, KFDM, KFEQ, KFKX, KFKU, KFMX, KFUC, KFXF, KLX, KMA, KOAC, KOB, KQP, KSAC, KSO, KTAB, KWSC, WCX, WDOD, WEAO, WEBI, WEBW, WEEI, WGCP, WGST, WHAD, WHAZ, WGR, WHN, WHO, WIP, WJAR, WJAZ, WKAQ, WTAG, WTIC, WWJ.

Eastern Time Stations
6KW, Tuinucu, Cuba (388m-890ke), 11:45-12 noon, Tuinucu Radio orchestra.
CKAC, Montreal, Can. (440.7m-730kc), 7 p. m., advice to kiddies; 7:20, Windsor hotel dinner concert; 10-11, talks by Senator R. Dandurand.
CKNC, Toronto, Can. (356.9m-840ke), 4 p. m., CKNC Chamber orchestra, Charles Bodley, director; Sydney Walsh, tenor; Noranna K. Trounce, reader; 8-10, Charles Bodley and his dance orchestra; Paramount vocal quartet; Bob Harvey, singing choruses for the orchestra.

Charles Bodey and mis dance otherstra, Taramover vocal quartet; Bob Harvey, singing choruses for the orchestra.

KDKA, Pittsburgh, Pa. (309.1m-970kc), 7:15-8 a. m., exercises, O. Shannon; 5:45 p. m., Daddy Winkum, G:30, dinner concert, T. J. Vastine, conductor; 8, farm program; 8:30, concert, T. J. Vastine, conductor; Harry Wirtz, bass.

PWX, Havana, Cuba (400m-750kc), 8:30 p. m., violin players, V. Vallve, director.

WAFD, Port Huron, Mich. (275m-1090kc), 10 p. m.-12, midnight, Harrington hotel dance music; 12, Ether Buster club.

WBBR, New York, N. Y. (273m-1100kc), 8 p. m., Prof. Charles Rohner, violinist; 8:10, Fred Twaroschk, tenor; 8:20, "Health and Household"; 8:30, Fred Twaroschk, tenor; 8:40, Bible discussion; 8:50, Prof. Charles Rohner, violinist.

WBZ, Springfield, Mass. (333.1m-900kc), 6:30 p. m., Little Symphony orchestra; 6:45, Hotel Lenox ensemble; 7:30, Rene Bagenais, organist.

WCAE, Pittsburgh, Pa. (461.3m-650kc), 12:30 p. m., news; 3, music, Nixon cafe; 6:30, dimer concert, William Penn hotel; 7:30, address; 8, Youngstown artists.

WCAP, Washington, D. C. (468.5m-640kc), 6:45-7:45

William Penn hotel; 7:30, address; 8, 10mgsdown artists.

WCAP, Washington, D. C. (468.5m.640ke), 6:45-7:45
a. m., Tower health exercises; 8-9:15 p. m., semi-annual meeting, Bureau of the Budget; address, President Coolidge, General H. M. Lord; U. S. Army band, Capt. Wm. Stannard, leader.

WEAF, New York, N. Y. (491.5m.640ke), 4-5 p. m., dance program; 6-12, dinner muste, Hotel Waldorf-Astoria; Ross Gorman and his orchestra; Leslie Arnold, baritone; Paul Jelenek, planist; Hughte Barrettt and his orchestra; Vincent Lopez and his orchestra;

wear, Cleveland, Ohio (389.4m-770kc), 11 a. m., home service talk; 7 p. m., Hotel Statler concert orchestra. WEE1, Boston, Mass. (346.6m-860kc), 6:45 a. m., tower health exercises; 7:45, morning watch, Estey organ studio; 8 p. m., Grey Gull hour, Ben Litchfield and Joe Sargent.

organ studio; 8 p. m., Grey Gull hour, Ben Litichfield and Joe Sargent.

Wfl, Philadelphia, Pa. (394.5m-760ke), 1 p. m., Tea room ensemble; 3, Josh Saddler's Plantation Serenaders; 3, Ralph Leibowitz, songs; 6:30, Bellevue Stratford concert orchestra; 7, Bellevue Stratford dance orchestra; 8, concert orchestra and male quartet of Kiwanis club, Pottstown; 9:15, Metropolitan Life Insurance company's annual banquet; 11, test program to Canada; 11:16, test frogram to Northern U. S.; 11:31, test program to Southern states; 11:46, test program to Mexico and Cuba.

WGBS, New York, N. (315.6m-950ko), 10:10-10:40
2. m., Cousin Eleanor; 10:40, Baker trio; 10:50, fashion talk, Mme. Hall-Deane; 1:30, scribure reading; 1:35, Muriel Anderson, contrato; 2, Charles Reed, tenor; 3-4, Ben Goldman and his Boy Scout entertainers; 6, Uncle Gee Bee; 6:30, Bill Hines orchestra, 7, International Film Arts guild; 7:10, Bill Hines orchestra; 7:30, Twin Oaks orchestra; 8:30, Rene Landauer, talk; 8:45, Dana D. Baer, musical saw soloist; 8:50, Hilda Ramon, mezzo-soprano; 9, William MacGowan, bass-baritone; Miss Ramon, duettist; 9:10, Angelina Arcela, concert pianist; 9:30, Parks male quartet; 10, Arrowhead inn dance orchestra.

WGBU, Fulford-by-the-Sea, Fla. (278m-1080kc), 1 p. m., automobile race, 300-mile, Carl G. Fischer cup

w GP, New York, N. Y. (252m-1190ke), 3 p. m., or chestra; 3:15, studio program; 4, orchestra; 8:30, orchestra; 9, Hilda Deighton, entertainer; 9:30, Ukulele Bob McDonald; 9:45, June Lee, songster; 10, Yama Yama Boys; 10:15, Strickland's orchestra.

WGR, Buffalo, N. Y. (319m-940ke), 2:30 p. m., WGR*, afternoon program; 9:15, jointly with WEAF, convention of the Metropolitan Life Insurance company.

WGY, Schenectady, N. Y. (379.5m-790kc), 6:30 p. m., dinner program, Hotel Onondaga; 8:25, Philharmonic society student symphony series, Willem Mengelberg, conductor; 10:30, dance program, Hotel Syracuse, WHAR, Atlantic Gity, N. J. (275m-1090ke), 2 p. m., Seaside hotel trio; 7:30, lecture period; 8, Seaside hotel trio.

Seasted note: 1710; 7.30, feeding period; 3, Seasted hotel trio.

WIP, Philadelphia, Pa. (508.2m-590ke), 6:45 a. m., setting-up exercises; 10:30, reducing exercises; 1 p. m., organ recital; 3, Dal Ruch and his Arcadians; 6:05. Benjamin Franklin hotel concert orchestra; 7, Uncle Wip's bedtime stories; violin solos, Nicholas DeCollibus; 8, sports corner, Dr. Francis D'Eliscu; 8:15, operatic program, direction Helen Wells Abbott; 9, Donath-Mount trio; 10:30, Benjamin Franklin El Patio dance orchestra; 11:05, organ recital, Germantown theater.

WLIT, Philadelphia, Pa. (394.5m-780kc), 12:02 p. m., daily almanae; Stanley theater organ recital; Arcadia

WLIT, Philadelphia, Pa. (394.5m-760kc), 12:02 p. m., daily almanac; Stanley theater organ recital; Arcadia cafe concert orchestra; 2, Arcadia cafe concert orchestra; 2, Arcadia cafe concert orchestra; 4:30, Ed. Matthews dance orchestra; 7:30, Benjamin Franklin hotel concert orchestra.
WMAK, Buffalo, N. Y. (266m-1130kc), 7:15 p. m., news items; 7:30-8:30, musical program; 8:30-9, musical program, Wolff's Furniture House, Inc.; 9-9:30, musical program, The Beaver Products company; 9:30-10:30, musical, Sunrise Point Development company; 11:15-11:30, international test musical program, WMBF, Miami Beach, Fla. (384.4m-780kc), 7-9 p. m., Fleetwood Radio orchestra; 10-1 a. m., Gene Fosdick and his orchestra; Fleetwood Radio orchestra.
WNAC, Boston, Mass. (280.2m-1070kc), 6 p. m., Smilars, Clyde McArdle, director; 6:30, Shepard Colonial dinner dance; 7:30, 'Maine, Its Advantages and Possibilities;' 8:15, music; 11:15, Copley Plaza orchestra.

WNYC, New York, N. Y. (526m-570kc), 7 p. m., song recitals; 7:35, Seville trio; 8-10, symphonic concert, Metropolitan Museum of Art, David Mannes, conductor; 10, song recital; 10:15, lecture, WOO, Philadelphia, Pa. (508.2m-590kc), 11 a. m., organ recital; 12:02 p. m., Golden's crystal tea room orchestra; 4:45, organ recital; 7:30, A. Candelori's French room orchestra.

WPG, Atlanta City, N. J. (299.8m-1000kc), 1:30 p. m., Hotel Morton trio; 6:30, news flashes; 6:45, Arthur Scott Brook, organist; 7, Hotel Ambassador dinner music; 8:15, weekly sports lesson, Jimmy Carmack; 8:30,

dinner concert, Speed-Wagon serenaders and Gold Standard ensemble; miscellaneous bulletins; 10-12 noon, speedal dance program, WREO, Speed-Wagon serenaders, Carl Hall Dewey, director, WTAG, Worcester, Mass. (268m-1120ke), 10-39 a. m., musical selections; 12:05 p. m., tea dansant music, WTAG; 5:15, "The Twinkle Twinkle Story Teller." WTAM, Cleveland, Ohie (389.4m-770ke), 12:15-1:15 p. m., Golden Pheasant orchestra; 8-7, Carl Rupp and his Hotel Hollenden orchestra; 8-7, Carl Rupp and and his Royal Canadians; 8:45-12, Ev Jones and Coo Coo club.

Madame Ernestine Schumann-Heink is perhaps one of the best known singers in the concert world. For over thirty years her mellow voice has been heard in the concert halls of this country and Europe. She will sing before her largest audience Sunday, when she appears to Radio fans through the WEAF chain during the Atwater Kent hour program.

Swarthmore college musical clubs; 10, test program 10:10, Nick Nichols' dance orchestra; 11:15, tes program.

program.

WRC, Washington, D. C. (468.5m-640ke), 12 noon, organ recital, Homer L. Kitt studios; 1 p. m., Hamilton hotel, orchestra, Daniel Chwalow, director; 6, Lee House trio, Sam Udrin, director; 7, Irving Boernstein's Hotel Washington orchestra; 8, Bible talk; 8:30, concert, Philharmonic society, WJZ, WGY; 10:30, "Crandall's Saturday Nighters"; 12-1 a. m., Spanish Village orchestra.

WREO, Lansing, Mich. (285.5m-1050kc), 6-7 p. m.,

WTIC, Hartford, Conn. (475.9m-630ke), 6:30 p. m., Skinny and his gang; 6:50, dinner concert; 8, Sunday school period; 8:15, Joint recital, University club and Hartford Choral club; 10:20, dance music; 11:15, Torgan trio.

WWJ. Defroit, Mich. (352.7m-850kc), 9:30 a. m., "Tonight's Dinner," talk, woman's editor; 12:05 p. m., Jules Kitein's Hotel Statler orchestra; 3, Detroit News orchestra.

Central Time Stations CKY, Winninge, Can. (384.4m-780ke) 8 p. m., bool reviews, Prof. W. T. Allison; 9, concert, J. A. Ban field; 11, Er ready hour, Earle C. Hill's Capitol the-

field; 11, FF ready hour, Earle C. Hill's Capitol the-ater orchestra.

KFAB, Lincoln, Nebr. (340.7m-380kc), 8:05 p. m., "Club Members Take Advantage of Short Courses," E. A. Burnett; "Know Why You Pay Taxes," J. O. Rankin; 8:30-9:30, Schmoller and Mueller musicale.

KFH, Wichita, Kans. (268m-1120kc), 9-10 p. m., J. O. Adams music company; 12:15-1:15 a. m., Harry Hunts Imperial orchestra.

KFMQ, Fayetteville, Ark. (299.8m-1000kc), 7:30 p. m., basketball game, University of Arkansas vs. Centenary college.

KFH, Wiehita, Kans. (268m-1120ke), 9-10 p. m., J. O. Adams music company; 12:15-1:15 a. m., Harry Hunts Imperial orchestra. KFMQ, Fayetteville, Ark. (299.8m-1000kc), 7:30 p. m., basketball game, University of Arkansas vs. Centenary college. KFNF, Shenandoah, la. (266m-1130kc), 7 p. m., Griswold H. S. orchestra, Dorothy DeWilt, directer; 11. old-time fiddling. (19. Mo. (240m-1250kc), 9:15 p. m., Yamusement Review, Romaine Fielding; woman's protective star and director; harmonica duo; dance numbers; Gene Witacker's orchestra; unique organ moments, Dave George. (LDS, Independence, Mo. (440.9m-680kc), 8 p. m., request program, Mr. and Mrs. E. N. Brinkman; Dr. Harry Cooper, organist; 10:15, test. KMA, Shenandoah, 10wa (252m-1190kc), 9-9:45 a. m., music; current topics, G. H. Van Houten; 11:30-12:30, moonday rural program; domestic science alik, June B. Case; popular musical numbers; seed talk, Earl E. S. Case; popular musical numbers; seed talk, Earl E. M. (250m-1310kc), 13:30 p. m., factory and office program; S. Snoddy's orchestra and local talent. KPRC, Houston, Tex. (299.9m-1010kc), 12 m., Jack Williteli's orchestra, featuring Virginia Willrich, piano accordionist; Ted Kleinfelter, arranger and soloist; 7:30 p. m., universal Bible class, Rev. M. M. Wolf; S. pleo organ recital, Mrs. Vivian G. Buchanan; 8:30, Frank Tilton, blind boy planist; 10:30-10:45, international test, Frank Tilton, Fostock, P. G. M., orchestral program and stage specialties, Grand Central KYH, H. A. Springs, Matical Pack, Ark. (274.9m-200kc), 9:25-9:30 p. m., bedside story; 9:30-10, New Arlington hotel orchestra; 11:30-11:45, Lawson Bedi, organist. KYW, Chicago, Ill. (356m-560kc), 6:30-7 a. m., exercises, Paul A. Leonhardt; 7:30, moming family worship; 11:35, table talk, Mrs. Anna J. Peterson; 12:05 p. m., nonoday concert, Commowealth Edison company; 1, luncheon concert, Congress hotel; 2:30-4, "Saturday Frolic;" 6, dinner music, KDKA; 7:05, bedtime story, Walter Wilson; 7:30, "Home-Lovers' program; 11, Congress classic; 11:30-1, Congress ca

Muchiebach; Billy Adair's orchestra; Eddie Kuhn's orchestra.

WEBH. Chicago, III. (370.2m-810kc), 11:30-12 noon, woman's half hour; 3-4 p. m., Oriole orchestra; 7-3, Oriole orchestra; Sunday school lesson; 9-10, Oriole orchestra; James Murray, tenor; Marie Kelly, reader; 11-12 midnight, Oriole orchestra; Marie Kelly, reader; 11-12 midnight, Oriole orchestra; Marie Kelly, reader; 11-12 midnight, Oriole orchestra; Marie Kelly, reader; 12-2 a. m., Frank Greif, tenor; Wayne Meyers, reader; 12-3 ms., Frank Greif, tenor; Wayne Meyers, reader; 1-8 ms., Frank Greif, tenor; Wayne Meyers, reader; 1-8 ms., Frank Greif, tenor; Wayne Meyers, Roman Standard, Sta

and uke solos; 6:30-7:30, Don Bestor's orchestra; 8:30-9:30, varied program, Dallas Advertising league, Alfonso Johnson, president; 11-12, Jack Gardner's orchestra.

WGES, Oak Park, III. (250m-1200kc), 5-7 p. m., basso, tenor, organ; pianist, organ, orchestra; 11-1 a. m., Coyne Serenaders orchestra; Remington Welsh, organist; Bddie Adams, the girl with the uke.

WGN, Chicago, III. (302.8m-990ko, 10-11 a. m., public service period; 11-11:30, household hints; 12:40-2:30 p. m., luncheon concert, Drake concert ensemble and Edward Benedict, organist; 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 Edward Benedict, organist; 8-9, music hour; 9-10, popular program.

WGST, Atlanta, Ga. (270m-1110kc), 10:30-10:45 p. m., songs, glee club of Georgia Tech.

WHAD, Milwaukee, Wis. (275m-1090kc), 11 a. m., pianolog, Andy Hertel; story for children, Faye McBeath; Margaret Cunningham, pianist; Willard Kaleibe, tenor banjo soloist.

WHAS, Louisville, Ky. (399.8m-750kc), 1-2 p. m., Benson trio; 3-3:30, organ recital, Mrs. Myrtle Fulks Zahn; 4-5, cencert, Harry S, Currle's Music Box; readings; 7:30-9, concert, Barney Rapp's orchestra.

WHT, Chicago, III. (399.8m-750kc), 10 a. m., penson trio; 3-3:30, organ recital, program and studio features; 11, Mike Rizzo, boy violinist; 12, organ recital, Al Carney; 6 p. m., classical program; Al Carney, organist; Grayling's string trio; W. A. Dyckman, basso; Leola Alikman, soprano; Hugh Aspinvall, tenor; (238m-1260kc), 7:45-9:15, musical features; Alamo orchestra; G99.8m-750kc), 9:30, Chez Pierre orchestra; Fred Jacobsen, humorist; Paul Small, popular songs, John Clark, baritone; 9:50, Kitchen Klenzer entertainers; 10:10, Cecil Ward, Hawaiian team; 10:30, Gervin Little symphony; 11:30, Oscar Heather, tenor; 12: "Your Hour Leazue," Pat Barnes and Al Carney, Gervin Little symphony; 11:30, Oscar Heather, tenor; 19: "Pat Barnes and Al Carney, Gervin Little symphony;

Atwater Kent Program, January 31, over WEAF and Chain*

Mme, Ernestine Schumann-Heink Florence Hardeman, violinist

II. Ave Maria Schubert-Wilhemj
Tambourine Chinois Fritz Kreisler
Old Refrain Florence Hardeman III.

..Lieurance c. Danny Boyd. ErlkingWeatherly ..Franz Schubert Mme. Ernestine Schumann-Heink

Trees Oscar Rasbach
Spinnerliedchen 16th Century
Agnus Dei George Bizet
Mme. Ernestine Schumann-Heink (with violin obbligato) *The WEAF chain for the Atwater Kent hour (9:15 p. m. Eastern, 8:15 p. m. Central time) includes WEAF, WFI, WGR, WCAE, WCAP, WJAR, WTAG, WGN, KSD, WCCO, WOC, WSAI, WEAR, WEEI, WWJ.

AUTOMOBILE RACES ON AIR AT WGBU

Saturday, January 30

9:15-9:30, special hour; 10-11, feature hour, Garod studio, Palmer House; Palmer House Victorians; studio, program; 12-1 a. m., settin' up hour, Garod studio, Palmer House Victorians; Jack Nelson.
WKAF, Milwaukee, Wis. (261m-1150ke), 8:30-10 p. m., Trixie Ann Troy and her Royal Hawaiians; Hi Coleman's orchestra.
WLIB, Chicago, III. (302.8m-990ke), 7-8 p. m., popular dinner concert; 11-12, popular program; 12-1, dance program.

dimer concert; 11-12, popular program, 12-1, uance program.

WLS, Chicago, III. (344.6m-870kc), 9 a. m., home question box, Ellen Rose Dickey; 12:25, Junior R. F. D. roundup program; talk, "Next Season's Honey Crop," J. J. Davis; talk, "With Our Boy Trappers," Johnné Muskrat; 7, lullaby time; 7:15, dance and revue program; 12, Ford and Glenn, organists.

WLW, Cincinnati, Ohio (422.3m-710kc), 7 p. m., organ concert, Johanna Grosse; 7:30, children's safety talk; 7:40, Seckatary Hawkins; 8, Air City banio boys; 8:30, Radio play, "The Valiant"; 9, dance program, Castle farm.

farm.

WMAQ, Chicago, III. (447.5m-670ke), 6 p. m., Chicago theater organ; 6:30, Hotel LaSalle orchestra; 8, Frederick Daw, Russell Pratt; 8:30, "New Zealand." Capt. Kilroy Harris; 9, Chicago theater revue; 9:55, U. of

Ringy Harrs, o, Chicago abade.

C. chimes.

(MBB, Chicago, III. (250m-1200ke), 7-8 p. m., Trianon Duo, Ralph F. Elliott, tenor; Ethel Story, violinist; Leola Barber, soprano; semi-classical program; 9-11, Trianon orchestra, Dell Lampe, conductor; Woodlawn theater orchestra, Armin F. Hand, conductor; Tracy & Duncan, harmony duo; Lionel Carter, tenor; Clarice Taylor, whistler; Zither quartet, popular program.

theater orchestra, Armin F. Hand, conductor; Tracy & Duncan, harmony duo; Lionel Carter, tenor; Clarice Taylor, whistier; Zither quartet, popular program.

WMC. Memphis, Tenn. (499.7m-600kc), 7:15. p. m., bedtime stories, Peter Pan and Tinker Bell; 8:30, organ recital, Harry O. Nichols.

WOAW, Omaha, Nebr. (526m-670kc), 6 p. m., orchestra; 7, after-dinner hour; 9, de luxe program; 10:30, Frank Hodek and his Nightingale orchestra; 11, Arthur Hays and his organ jubilee.

WOC. Davenport, lowa (483.6m-620kc), 5:45-6 p. m., chimes; 8-10, sandman program; Mrs. A. P. Griggs, Fay Paarmon and Erwin Swindell; Harry Maher, tenor; Henry Maher, tenor; Henry P. Borgen, baritone; 11-12, LeClaire hotel orchestra; Peter MacArthur, bartione.

WORD, Batavia, III. (275m-1090kc), 8-10 p. m., Webster hotel concert and orchestra program.

WOI. Ames, lowa (270m-1110kc), 12:30 p. m., college chimes; 12:45, Prof. W. H. Stevenson, discussion relating to soils; 10:15-10:30, international testing, Ames quartet.

WOK, Chicago, III. (217.3m-1380kc), 4:30-7 p. m., Capitol theater organ; artists; 10-1 a. m., Town club orchestra; Capitol theater complete musical program; WOK mixed quartet; Herman Shnaiko, violinist; Harriet Lee, contraito; George Allen, tenor; Bob Mokrejs, pianist; Bill Hay, bass.

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

WOJ. Chicago, III. (447.5m-670kc), 11-12 m., F. E. Ormsby, reader; 3-4 p. m., kaffee klatsch, Jerry Sullivan, Rose Vanderbosch, Hal Lansing; 7-8, Rainbo Gardens orchestra; Katherine McDevitt, Margaret MeDevitt, Ralph Keim, Anne Keim; 10-1 a. m., Rainbo Skylarks; Jerry Sullivan, Rose Vanderbosch, Hal Lansing, 7-8, Rainbo Gardens orchestra; Katherine McDevitt, Margaret MeDevitt, Ralph Keim, Anne Keim; 10-1 a. m., Rainbo Skylarks; Jerry Sullivan, Rose Vanderbosch, Hal Lansing, 7-8, Rainbo Gardens orchestra; Katherine McDevitt, Margaret MeDevitt, Ralph Keim, Anne Keim; 10-1 a. m., Rainbo Skylarks; Jerry Sullivan, Rose Vanderbosch, Hal Lansing, 7-8, Rainbo Ga

Sinton.
WSB, Atlanta, Ga. (428.3m-700kc), 8 p. m., Atlanta
Atwater Kent hour. Nashville, Tenn. (282.8m-1060ke), 6:30 p. m.,

alto theater musicale; 9:30, overseas listeners' program; 10:30, Scheuerman's Colorado orchestra.

Pacific Time Stations

KFI, Los Angeles, Calif. (468.5m-640kc), 5:30-6 p. m., natinee dance; 6, nightly doings; 6:15, KFI's Seeing California; 6:30, vest pocket program; 6:45, Radiotorial period; 7-8, Owen g'allon and his Californians; 8-9, varied instrumental and vocal program; 9-10, program, Packard dealers of California, KFI and KPO; 10-11, Packard Radio club; 11-3 a, m., KFI midnight frolic, Don Meaney, master of ceremonies (KFOA, Scattle, Wash. (454.3m-660kc), 4-5:15 p. m., afternoon at home program, The Times; today's recipe; 5:15-5:30, around the towne; 9:30-11, Rhodes department store, presenting Jackie Souder's Club Lido Serenaders.

Serenaders. KFON, Long Beach, Calif. (233m-1290kc), 4-4:30 p. m., news bulletins; 6-6:39, organ, Brayton's theater; 6:39-7, KFON gossip and amusement information; 7:30-8, Long Beach municipal band; 9-11, feature

news bulletins; 6-6:30, organ, Brayton's theater; 6:30-7, KFON gossip and amusement information; 7:30-8, Long Beach municipal band; 9-11, feature program.

KFWB, Hollywood, Calif. (252m-1190ke), 7:45 p. m., microphone brevities; 8-9 p. m., Warner Brothers syncopators, Esther White, blues singer; Charlie Wellman, tenor; 9-10 p. m., Bill Hatch's dance orchestra. Ray Kellogg, violinist; Sol Hoopii's Hawaiians; 10-11 Warner Brothers frolle, direction Charlie Wellman, tenor; 9-10 p. m., Bill Hatch's dance orchestra. Ray Kellogg, violinist; Sol Hoopii's Hawaiians; 10-11 Warner Brothers frolle, direction Charlie Wellman, tenor; 9-10 g. direction Charlie Wellman, tenor; 9-10 g. direction Charlie Wellman, 10-11 Warner Brothers frolle, direction Charlie Wellman, 10-12 d. date training exercises, Hugh Barrett Dobbs; 8:15-8:30, exercises, Hugh Barrett Dobbs; 8:30, "Daily Strength"; 4-5:30 p. m., concert orchestra, Hotel St. Francis, Vinton La Ferrera, conductor; 8:30-8:45, international Radio week; program, KGO Little symphony orchestra, Carl Rhodehamel conducting, assisted by Arthur S. Garbett, musical interpretative writer; Gwynn Jones, tenor; 10-12, dance music program, Hotel St. Francis; Girvin-Deuel's California Collegians.

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

KHJ, Los Angeles, Calif. (405.2m-740ko), 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, George Ezra Crane, Nona Clap and Uncle John; 9-11, program, Motor Transit company, Uncle Renus, Monryla Grib.

KMT, Hollywood, Calif. (336.9m-890ke), 5-5:30 p. m., Starr Piano company studio; 8-10, the Turner orchestra, Loren Powell, directing. Motor Transit company, Uncle Renus, Morryla Grib.

KMX, Hollywood, Calif. (336.9m-8

orchestra.

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

hotel.

KTAB, Oakland, Calif. (240m-1250kc), 9-9:30 a. m., prayer service, Rev. E. L. Spaulding; 12-1 p. m., luncheon concert program.

CNRV, CNRW, KFAB, KFAU, KFKX, KFKU, KFMQ, KFOA, KFVE, KFWA, KLX, KMA, KMTR, KOAC, KOB, KSAC, KSO, KWSC, PWX, WAHG, WCAD, WCX, WDAF, WEAO, WEBJ, WEBW, WGES, WGHB, WGST, WHAD, WHAS, WHAZ, WJAZ, WJJC, WKAF, WKAG, WKAF, WKAF, WKAG, WKAF, WKAF, WKAG, WROC, WOL, WROC, W

Eastern Time Stations

CKAC. Montreal, Can. (410.7m-730ke), 2:45 p. m., Capitol theater hour; Capitol theater symphony, Jerry Shea, director; specialties, members of symphony; vocal selections; Buddy Payne, organist, WAFD, Port Huron, Mich. (275m-1090ke), 10-11:30 a. m., services: 6-7 n. m. organ, recital.

WAFD, Port Huron, Mich. (275m-1090kc), 10-11:30 a. m., services; 6-7 p. m., organ recital.

WBAL, Baltimore, Md. (246m-1220kc), 6:30-7:30 p. m., WBAL Concert orchestra.

WBBR, New York, N. Y. (273m-1100kc), 10 a. m., violin duets, Prof. Charles Rohner, Carl Park and Martin Hartman; 10:15, Sunday school lesson, "Jesus Feeds the 5,000," S. M. Van Sipma; 10:35, violin duets; 10:45, I. B. S. A. choral singers; 11, Bible lecture, "Does God Care?" F. W. Franz; 1:30, I. B. S. A. choral singers; 11:40, violin duets; 11:50, I. B. S. A. choral singers; 11:40, violin duets; 11:50, I. B. S. A. choral singers; 2 p. m., Watchtower orchestra; 2:30, Fred Twaroschk, tenor; 2:45, Watchtower orchestra; 3; Bible lecture, "All the Earth Shall Be Filled with the Glory of Jehovah," F. W. Franz; 3:30, Fred Twaroschk, tenor; 3:46, Watchtower orchestra; 9, Watchtower brass quartet.

WBZ, Springfield, Mass. (333 m-900kc), 10:45 c. m.

Bible questions and answers; 10, Watchtower brass quartet; 9:15, squartet, ouartet.

WEZ, Springfield, Mass. (333.1m-900kc), 10:45 a. m., Community church; "Dynamic Personalities in English Life Today," Mary Agnes Hamilton; 7, Copley Plaza orchestra; 8, Holy Cross program; Yestboro Choral club; Lorin Gilmore, xylophonist; Valmore Dufualt, planist; saxophone sextet; Thomas Laffih, tenor.

WOAE, Pittsburgh, Pa. (461.8m-650kc), 3:45 p. m., Dr. S. P. Cadman, WEAF; 6:30, dinner concert, WIlliam Penn hotel; 7:20, Capitol theater gang, WEAF; 9:15, Atwater Kent, WEAF,

WCAP, Washington, D. C. (468.5m-640kc), 11 a. m., services; 4 p. m., services; 7:20-9:15, Capitol theater program, WEAF; 9:15-10:15, Atwater Kent hour, WEAF,

WCAP, WASHINGTON, PROGRESS CANTER CONTRACT CONTRAC

program, WEAF; 9:15-10:15, Atwater Kent hour, WEAF;

WGAU, Philadelphia, Pa. (278m-1080kg), 5 p. m., recital; 5:15, undenominational church services; 5:25, "Flight of Thought Quicker Than Birds in Air., Rev. John W. Stockwell; 5:35, recital; 5:45, "Ah. Little Invitation Wrapped in Gold Leaf," Rev. John W. Stockwell; 6:45, Clarence Seaman and his Hotel Pennsylvania orchestra; 7:45, Cathay concert orchestra; 8:30, Bonwit Teller Light Opera company; 9, "Totash and Perlmutter," in discussions of the day WCX, Detroit, Mich. (316,9m-580kc), 10:30 a. m., services, Central Methodist Episcopal church.

WEAF, New York, N. Y. (491.5m-610kc), 2-3 p. m., Greater New York Federation of Churches, Rev. Herbert F. Laflame; 3-4, Young People's conference; "Clown or King," Dr. Daniel A. Poling; 4-5:30, Y. M. C. A. address, Dr. S. Parkes Cadman, WEAF, WEEI, WTAG, WCAE, WSAI; 7:20-9-15, Capitol theater family, WEAF, WEEI, WCAP, WJAR, WTAG, WWJ, WCAE; 9:15-10:15, Atwater Kent

the Classics," Seaside hotel quartet; 11:15, Strand theater organ recital.

WHN, New York, N. Y. (361.2m-830ke), 11:30-12:30
p. m., Calvary morning service; 12:30-1, Lexington organ recital; 2-3, Queen's County Christian Endeavor program; 3-4:30, Bible class; 5-5:30, Roseland dance orchestra; 7:30-9:45, Calvary Baptist church services; 10:45-11:15, Janssen's Hofbrau orchestra; 12:12:39 a. m., Harry Richman and his entertainers.

WIP, Philadelphia, Pa. (508.2m-5990kc), 4 p. m., "Family Remedies," religious talk, Herbert Leon Cope; 7:15, services, Holy Trinity church; 10, Ben Stad and his WIP Little Symphony orchestra; Thelan Melrose Davies, contralto.

and his WIP Little Symphony orchestra; Thelan Mel-rose Davies, contralto.

WLIT, Philadelphia, Pa. (394.5m-760ke), 2 p. m., Ac-cadia cafe concert orchestra, Professor Feri Sarkoza, director; 6:30, Benjamin Franklin concert orchestra; 7, Benjamin Franklin orcan recital.

WMBF, Miami Beach, Fla. (394.4m-780kc), 7-9 p. m., Fleetwood Radio orchestra; 10-1 a. m., Gene Fosdek and his orchestra; Fleetwood Radio orchestra.

WNYC, New York, N. Y. (526m-570kc), 8:15 p. m., announced.

WNYC, New York, N. Y. (526m-570ke), 8:15 p. m., announced.
WOO, Philadelphia, Pa. (508.2m-570ke), 10:30 a. m., services, Bethany Presbyterian church; 2:30 p. m., services, Bethany Presbyterian church; 2:30 p. m., sunday school musical exercises, Bethany temple; 6, organ recital, Clarence Bawden.
WOR, Nowark, N. J. (405.2m-740ke), 3:15 p. m., Zit's Central Park Casino orchestra; 6:15, "Words Often Mispronounced"; 6:17, sports, Bill Wathey; 6:45-7:15, Jacques Jacobs' Hotel Shelton ensemble; 7:30-7:45, Van's Collegians; 11-12, Katinka orchestra.
WREO, Lansing, Mich. (285.5m-1050ke), 10 a. m., chimes, beifry Plymouth Congregational church; 10:30, church services, Edwin W. Bishop, pastor; 7 p. m., church services, Central M. E. church, Rev. Frank Kingdon, pastor.
WTAG, Worcester, Mass. (268m-1120ke), 4-5 p. m., men's conference, H. Walter Riland; address, Dr. S. Parkes Cadman; music, Gloria Trumpeters and George Betts, chime soloist; Mr. and Mrs. Howard Wade Kimsey, baritone and accompanist; 7:20-9:15, musical program, Capitol theater; 9:15-10:15, Atwater Kent hour.

musical program, Capitol theater; 9:15-10:15, Atwater Kent hour.
WIIC, Hartford, Conn. (475.9m-630ke), 9 p. m., concert, Symphonette ensemble.
WWI, Detroit, Mich. (352.7m-850ke), 11 a. m., St. Paul Episcopal cathedral services; 2 p. m., Detroit News orchestra; 7:20, Capitol theater family.

Central Time Stations
CKY, Winnipeg, Can. (384.4m-780ke), 7 p. m., Young United church; 9, studio program.
KFH, Wichita, Kans. (266m-1120kc), 9:45 a. m., men's Bible class, First Baptist church; 7:15 p. m., sermon, W. H., Rogers; 9:15, Coleman string quartet.
KFFH, Columbia, Mo. (499.7m-600kc), 7:30 a. m., sunrise service; lesson, Nellie Lee Holt; mustc, Stephens college sextet; 9:20, Jessie Burrall Bible





G. C. Arnoux of KTHS, Hot Springs National Park recently discovered dio entertainer, Mrs. B. D. Rigs

concert, Francis Craig's orchestra; 7, bedtime story interlude; 8, Uncle Jimmy Thompson, barn dance

wsoft and the program. Wsoft and the program. Wsoft and the program. Wsoft and the program wsoft and the program wsoft and the program of music; 10:16-10:30, test program; Michael Swedish, baritone; Henry Sandusky, plano-accordionist; Adelbert Nelson, planist; "Electricity," F. A. Vaughn.

Mountain Time Stations

KFAU, Boise, Idaho (280.2m-1070kc), 7:30-8:30 p. m.,

Sunday, January 31

Headliners Today

Eastern Central Mountain Pacific 3 p.m. 4 p.m. 3 p.m. 4 p.m. 3 p.m. WDAF (365.6m-820kc) Mabel Garrison. 7:20 6:20 5:20 4:20 WEAF (491.5m-610kc), WEEI, WCAP, WJAR, WTAG, WWJ, WCAE, Capitol theater family. 8 7 7:30 6:30 5:30 6:30 5:30 WCAU (278m-1080kc) Westboro choral club. 6:30 7:30 8:30 7:30 8:30 7:30 8:30 5:30 6:30 5:30 WCAU (278m-1080kc) Bonwit-Teller light opera company. 9:15 8:15

company.
9:15
8:15
7:15
6:15
WEAF (491.5m-610ke), WEEI, WCAP, WJAR,
WGR, WCAE, WSAI, WWJ, WOC, WCO, WGN,
WEAR, KSD, WTAG, WFI, Atwater Kent pro-

| 10 9 8 7 | WIP | (508.2m-590kc) | Ben Stad and Little symphony. | 10:30 9:30 8:30 8:30 7:30 | KPRC (296.9m-1010kc) | Aeolian string quartet. | WAMD (244m-1230kc) | Harmony Hurricane. | 10:45 9:45 8:45 7:45 | WOC (483.6-620kc) | Palmer Little symphony. | 11 9 8 | WIP | 10:45 | WIP

WOC (483.6-620kc) Paimer Little sympnomy.

11 10 9 8

KTHS (374.8m-800kc) Arkansas Traveler Train frolic.

12 m. 11 10 9

KFI (468.5m-640kc) Blue Bird band.

KFWB (252m-1190kc) Movie frolic.

KNX (336.9m-890kc) Classic program.

Musicale.

KOA, Denver, Colo. (322.4m-930kc), 12:15 p. m., RiCNRA, CNRC, CNRE, CNRM, CNRO, CNRR, CNRT,

Radio hour, Madame Ernestine Schumann-Heink, contralto; Florence Hardman, violinist, WBAF, WEBI, WCAP, WJAR, WGR, WGAE, WSAI, WWJ, WOC, WCCO, WGN, WEAR, KSD, WTAG, WFI, WEAR, Cleveland, Ohio (389.4m-770ke), 3:30 p. m., Goodyear concert orchestra; 7, Stillman theater orchestra; 7:45, fireside hour; 8:30 Vincent Percy, organ recital; 9:15, Atwater Kent hour, WEI, Beston, Mass. (348.6m-860ke), 10:50 a. m. morning service, Old South church; 3 p. m., Chamber of Commerce organ recital; 4, Dr. S. Parkes of Commerce organ recital; 4, Dr. S. Parkes end for the firm of the family; 9:15, Atwater Kent Radio hour. WFI, Philadelphia, Pa. (394.5m-760ke), 4:30 p. m., "Men for the Times," Dr. Chas. R. Erdman; 9:15, Atwater Kent Radio hour. WFI, Philadelphia, Pa. (394.5m-760ke), 4:30 p. m., "Men for the Times," Dr. Chas. R. Erdman; 9:15, Atwater Kent concert, WEAF; Mme. Ernestine Schuman Heink, Florence Hardman, violinist. WGBS, New York, N. Y. (315.6m-950ke), 3:30 p. m., Crystal Palace orchestra. WGCP, New York, N. Y. (252m-1190kc), 7 p. m., pianist; 7:15, Ralph Heish, violinist; 7:45, Wm. C. Ihlefeld, baritone; 8:15, Bernard Share, violinist, Harold Retskin, pianist; 3:45, health talk; 9, Strick land's orchestra. WGR, Buffalo, N. Y. (319m-940ke), 10:45 a. m., Westminster Presbyterian church service; 7:45, Central Presbyterian church service (7:45, Central Presbyterian church service; 7:45, Cent

inist.

WGY, Schenetady, N. Y. (379.5m-790kc), 10:45 a. m., First Methodist Episcopal church services, Dr. Philip L. Frick, pastor; 12:30, Symphony society concert, Walter Hampden theater, Josiah Zuro, conductor; 3, musical program, WFBL; 5, organ recital, Dr. Frank Sill Rogers, assisted by T. Roy Keefer, violinist; 7:30, First Methodist Episcopal church services; 9, studio program, WZZ; 10, Godfrey Ludlow, violinist; 7:30, First Methodist Episcopal church services; 9, studio program, WZZ; 10, Godfrey Ludlow, violinist, 7:30, m, morning service, Chelsea Baptist church; 2:15 p. m., sacred recital, Seaside hotel trio; 2:45, sermon; 7:50, Chelsea Baptist church; 9, "An Hour with

class; orchestra, Junior Harper, director; 7:30 p. m., evening student service, First Baptist church, Rev. Luther W. Smith, minister.

KFUO, St. Louis, Mo. (545.1m-550kc), 4 p. m., "The Prince of This World Is Judged"—Comfort Against the Temptations of Satan, Prof. P. E. Kretzmann; 9:15, "Go Ye, Therefore, and Teach All Nations, Baptizing Them in the Name of the Father and of the Son and of the Holy Ghost," Rev. Th. Leatsch; music. KLDS, Independence, Mo. (440.9m-680kc), 11 a. m., Stone church service; 3 p. m., sacred program; 6:30, vesper service, Lilly Belle Allen, soprano; Mrs. Arthur Daniels, contralto; Elbert Dembsey, tenor; Dr. Frank Criley, bass; sermonet, Ralph W. Farrell; 9:15, Pauline Becker Etzenhauser, organist; Lillian Green, violinist; Mrs. I. A. Smith, soprano; George Anway, tenor; "Story of the Book of Mormon (George Anway, tenor; "Story of the Book of Mormon (George Anway, tenor; "Story of the Book of Mormon (Hay), acred song, Mrs. Earl May, director; 4-5, church choir music; 5-6, Bible class, G. H. Van Houten, director, Neb. (229m-1310kc), 8:30 p. m., church service.

KPRC, Houston, Tex. (296.9m-1010kc), 4 p. m., First

KMMJ, Clay Center, No. Church service.

Church service.

KPRC, Houston, Tex. (296.9m-1010kc), 4 p. m., First. Baptist church orchestra, C. A. Durkee, director; Mrs. J. Howard Clark, soloist; 7:55, First Church of Christ, Scientist; 9:30, Aeolian string quartet, Cedric Seaver, and actor.

Scientist, 9:30, Aeolian string quartet, Cedric Seaver, conductor.

KSD, St. Louis, Mo. (545.Im-550kc). 6:15 p. m., concert orchestra. Max Steindel, conductor; 8:15. Atwater Kent, WEAF.

KTHS, Hot Springs National Park, Ark. (374.8m-600kc), 11-12:15 p. m., service, St. Luke's Episcopal church; 9-10, New Arlington hotel grand ensemble; 10-11:30, "The Arkansas Traveler Limited Special Train," Ben nie Ford and his musical train crew; 11:30-12:30 a. m., midnight organ classic, Lawson Reid.

KVW. Chicago. III. (536m-560kc), 11 a. m., Central

KYW, Chicago, III. (536m-560kc), 11 a. m., Central church service; 2:39 p. m., Chicago church federation; 4:30, studio concert, Edwin Harper, director; 7-9:15, Sunday Evening club, music, Imperial mais

KOA GIVES FANS VOICE CULTURE

Sunday, January 31

quartet; "Some Old Letters," Clifford W. Barnes; choir of 100; "Empty Thrones," Dr. Gaius Glenn

quartet; "Some Old Letters," Clifford W. Barnes; choir of 100; "Empty Thrones," Dr. Gaius Glenn Akins.

WAMD, Minneapolis, Minn. (244m-1230kc), 6:45 p. m., Arthur H. Faust, Leome Faust, Radio Stock company; 9:30, Gayle Wood, Harmony Hurricane.

WBAP, Fort Worth, Tex. (475.9m-630kc), 9:30 p. m., Texas hotel orchestra. (226m-1330kc), 9:30 p. m., Texas hotel orchestra.

WBBM, Chicago, Ill. (226m-1330kc), 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 a. m., Nutty club.

WBCN, Chicago, Ill. (266m-1130kc), 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.

WGBD, Zion, Ill. (344.6m-770kc), 8 p. m., Zion band, male quartet; G. R. Sparrow, tenor; Florence Farrar, contralto; Mrs. H. E. Mayfield, soprano; Beem and Newcomer, marimba duet.

WCCO, Minneapolis-St. Paul, Minn. (416.4m-720kc), 10:50 a. m., Westminster Presbyterian church, Rev. WCCO, Minneapolis-St. Paul, Minn. (416.4m-720kc), 6:20, Second Church of Christ, Scientist, 8:15, Alwater Kent program, WEAF; Mme. Ernestine Schumann-Heink, contralto; Florence Hardeman, violinist.

WDAF, Kansas City, Mo. (365.6m-820kc), 4-4:45 p. m., WDAF's Sabbath vespers, Rev. James Condon, pastor; 5, program, Mabel Garrison, coloratura soprano: "Voci de Primavera," Johannes Strauss; "Guarda, che bianca luna," W. Josten; "Crepuscule," Massenet; "Air de Rossignol," Saint-Saens; George Siemonn, pianist, "I Bring You Heartsease," Gene Bancsombe; "Howdy-do, Miss Springtime," David Guion; "Little Star," Frank La Fo

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

WEBH, Chicago, 111. (370.2m-810ke), 10:40 a. m., Seventh Church of Christ, Scientist; 5-6 p. m., twilight musicale; 7-9, artists' program.

Rangers; 2, fellowship program; 2:30, missionary program; 2:45, orchestra concert and afternoon services, Chicago Gospel tabernacle; 5:30, vesper concert; 6, young women's council; 6:30, concert, tabernacle band and choir; sermon, Paul Rader; 9:30, request program; 10:30, Paul Rader, back home hour.

WIBO, Chicago, III. (226m-1330kc), 2-4 p. m., Chester Newman, baritone; Midred Perlin, reader; WIBO string trio; 6-8, sacred songs, Walter Preston; Fred Nobel, cornetist; Earl Bigelow, planist; WIBO trio.

Nobel, cornects; Earl Bigelow, plants, made chow MyllD, Mooseheart, III. (370.2m-820kc), 7:45-8:45 a. m., Catholic services; 9:40-10:30, Protestant services; 3-4 p. m., Mooseheart Sunday concert. WKAF, Milwaukee, Wis. (261m-1150kc), 4-6 p. m., Jean Hammond and her Tune Tinkers; ladies' trio; cello solo. WLIB, Chicago, III. (302.8m-990kc), 5-7 p. m., studio program.

gram.
Chicago, III. (344.6m-870kc), 6 p. m., prelude;
7-7:55, WLS Little Brown Church in the vale; LitBrown Church choir; Ralph Emerson, organist;
ito trio. 6:30-7:55, tle Brown studio trio.

studio trio.

WLW, Cincinnati, Ohio (422.3m-710kc), 9:30 a. m., school, editorial staff of Sunday School Publications, Methodist Book Concern; 11, services, Seventh Presbyterian church, Jesse Halsey, pastor; 3 p. m., organ recital, Lillian Tyler Plogstedit; 7:30, services, First Presbyterian church, Dr. Frederick McMillan, pastor; 8:30, concert, H. & S. Pogue Co., Walter Esberger, director; Arthur Bowen, cellist; John Eken, trombonist.

bonist.

WMBB, Chicago, III. (250m-1200ke), 3-5 p. m., Trianon orchestra, Dell Lampe, conductor; Woodlawn theater orchestra, Armin F. Hand, conductor; Ludile O'Hara. Tommy Hughes, Bob Duiffy, Earl Smith, popular concert; 7:40-9, Fifth Church of Christ, Scientist, services; 9-11, Trianon orchestra, Dell Lampe, conductor; Woodlawn theater orchestra, Armin F. Hand, conductor; Scotty Welch and Madison Sisters, harmony trio; Austin Kavanaugh, Bob Bennett, popular program.

gram.

WMC, Memphis, Tenn. (499.7m-600ke), 11 a. m., services, First Baptist church.

WOAI, San Antonio, Tex. (394.5m-700ke), 11 a. m., First Presbyterian church, Rev. Dr. P. D. Hill, pastor; 7:45 p. m., Central Christian church.

WOAW, Omaha, Nebr. (526m-670ke), 9 a. m., chapel service, Rev. R. R. Brown; 1:30 p. m., matinee; 6, Mrs. Carl R. Gray; 9, chapel service.

WOC, Davenport, Iowa (483.6m-620ke), 6:30-7 p. m., Evangelical Church of Peace, Rev. J. F. Rolf; 8:15-9:15, Atwater Kent Radio artists; 9:45-11:45, Palmer Little symphony.

WOI, Ames, Iowa (270m-1110ke), 10:45 a. m., chimes; 11, chapel service, President John L. Hillman.

WOK, Chicago, Ill. (217.3m1380kc), 1-2 a. m., Tierney's Town club orchestra; Husk O'Hare's Coccanut Grove

High Lights of the Week

The fastest program ever put on the air will take place Saturday, January 30, when details of the three-hundred-mile Carl G. Fisher cup race at Miami, Florida, speed through the ether from WGBU. The new A. A. A. Speedway at Fulford, has just been completed and promises to be one of the best automobile race tracks in the world. Barney Oldfield will be the starter and all the well-known drivers will take part in the race. One-thirty p. m. Eastern time the race begins. Tune in on 278 meters. The University club of New Haven and the Hartford choral club will give a joint recital from WTIC, Hartford, Saturday evening, at 8:15 p. m. Eastern time.

Madame Ernestine Schumann-Heink, whose singing has been appreciated

Madame Ernestine Schumann-Heink, whose singing has been appreciated for the last thirty years, will appear before her largest audience Sunday evening when she reaches millions of Radio fans through the WEAF chain. Mabel Garrison, soprano, whose voice was heard recently during the Atwater Kent hour at WEAF

whose voice was heard recently during the Atwater Kent hour at WEAF and chain, will sing under the auspices of the Atwater Kent company at WDAF, Sunday afternoon. The program she will give is included in the program for WDAF for this day. Voice culture is the latest educational addition to the Monday programs of KOA, Denver. Americans of the future will doubtless be as naturally a singing nation as Italy is today. Lessons will include only the fundamentals of correct singing and will in no way compete with per-

sonal vocal instruction. John C. Wilcox is directing the course.

cox is directing the course.

The Wampas Stars of 1926! To be one of the thirteen lucky ones is the dream of every extra girl in Hollywood. The thirteen loveliest and most talented of the younger motion picture actresses are chosen each year for the Wampus club. These beautiful young women, will make their Radio debut from KNX, Hollywood. Tuesday night. wood, Tuesday night.

wood, Tuesday fight.

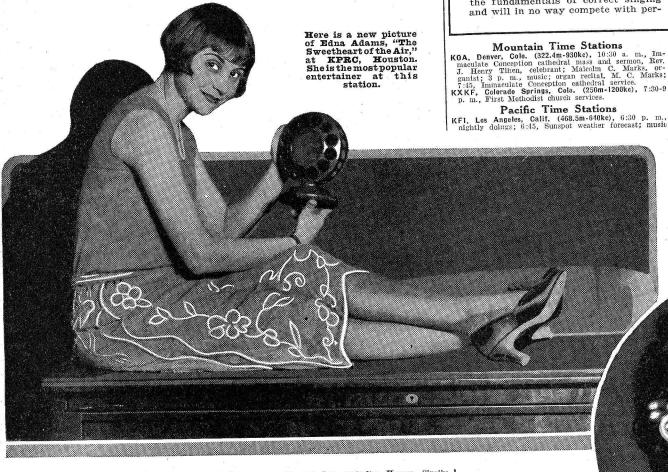
It seems as if all the popular wondering minstrels of the air have migrated to WSAI, Cincinnati, this week. At midnight Wednesday appear Jack Little, Wendell Hall, and the Ray-O-Vac Twins. Here is a headliner program for any fan who enjoys the merry songs of these partiets.

artists.

The South claims an artist whose lovely lines have immortalized the old-time southern chivalry, Sidney Lanier. A memorial program will be given Thursday at WBAL for this famous poet. The Philharmonic trio and Madame Tosi will make the 9 p. m. Eastern time program of WBZ, Springfield, an unusually fine one.

"Just Folks," is the title of the comedy of American life given by the WGY players. This is one of those homely comedies which contains many laughs and yet manages to touch the

laughs and yet manages to touch the heart of the listener. At WCCO is the annual mid-winter concert of the Apollo club of Minneapolis. The assisting soloist will be Oscar Seagle, New York baritone.



WEBW, Beloit, Wis. (268m-1120ke), 4:30 p. m., college vesper service.

WENR, Chicago, Ill. (266m-1130ke), 2-4 p. m., classical program, Rauland-Lyrie trie; Marie Tulley, Frank Westphal; sacred selections; 9:30-11:30, popular program, Frank Westphal and his All-American Pioneers; soprano solos; piano improvisions; banjo and sax duets.

soprano solos; plano improvisions, bando and etas.

WFAA, Dallas, Tex. (475.9m-630kc), 2:30-4 p. m., Sunday hour for farmers; Cartwright string band, George T. Shaw, harmonicist; 6-7, Bible class, Dr. William M. Anderson; Gospel song; 7:30-8:30, Pearl and Bryan Street Church of Christ, services, Rev. J. R. Nelson, minister; 9-9:30, Cartwright string band; 9:30-11, Little symphony orchestra, Grace Methodist Episcopal church, South, Earle D. Behrends, director.

WGES, Oak Park, III. (250m-1200kc), 7:40 p. m., Moody Bible institute program; 11-12 midnight, organ, sacred, classical.

elassical.

WGN, Chicago, III. (302.8m-990ke), 11-I1:45 a. m.,
Uncle Walt; 11:45-12:45, organ recital, Chicago theater; 12:45-2, feature program, Chicago theater, 2organ recital, Lyon and Healy; 3-5, Chicago Philharmonic orchestra; 8:15-9:15, Atwater Kent program,
WEAF.

WEAF.

WHAD, Milwaukee, Wis. (275m-1090ke), 3:15 p. m.,
Turnverein Symphony orchestra.

WHAS, Louisville, Ky. (399.8m-750ke), 9:57 a. m., organ
prelude; 10, services, Temple Adath Israel, Joseph
Rauch, rabbi, Karl Schmitt, organist and choir director; Charles Letzler, violinist; Mrs. Lewis Cole, soprano; Mrs. William Scholtz, contralto; William J.
Horn, tenor; Douglas Webb, baritone; 4:30-5:30 p. m.,
evensong choral service, Christ church cathedral, Rev.
Richard L. McCready, dean; boys' choir.

WHO, Des Moines, Iowa (526m-570ke), 11 a. m., church
service; 7:30-8:30 p. m., Reese-Hughes orchestra.

WHT. Chicage, III. (399.8m-750ke), 12 m. Sunday dinner sacred concert, vocal and organ; 12:45, special
program for shut-ins and sick; 1:15, shepherd time for
the kiddles; 1:39, Asrial Girls program: 1:45, Radio

orchestra; Harriett Lee, contralto; Herman Sinaiko, violinist; George Allen, tenor; Bob Mokreis, 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 Harriett Lee, contralto; George Allen, tenor; Bob Mokreis, pianist; Bill Hay, bass.

WOQ, Kansas City, Mo. (278m-1080ke), 11 a. m.-12:30 p. m., services; 7-7:45, services.

WORD, Batavia, III. (275m-1090kc), 10-11 a. m., sacred solos and duets; address, G. A. Hali; 2:30 p. m., musical program; 3:30, address, W. E. Page 7-8, evensong, Gladys Kennedy; 7:30, address, B. F. Hollister; 9-10:30, I. B. S. A. program; address, A. L. Seeley.

M. L. Seciely.

WOS, Jefferson City, Mo. (440.9m-680kc), 9:30 a. m.,
remote control Christian church services, Rev. Haushalter, pastor; 7:30, Evangelical church services, Rev.
E. W. Berlekamp, pastor.

WQJ, Chicago, III. (447.5m-670kc), 10:30-11:30 a. m., People's church; 3-4 p. m., concert, Saida A. Ballan-tine artists; 3-10, Rainbo Gardens orchestra; Prof. Ascan W. Kittner, pianist; Fontello tric; Leo Miller, violinist; Milton Sherman, pianist; Kenneth Sterling, bartione; Lorena Anderson, soprano; Clement Las-

kowski, tenor.

WSAI, Gincinnati, Ohio (325.9m-920kc), 3-4:30 p. m. address, Dr. S. Parkes Cadman; music; Gloria Trum peters; George Betts, chimer; 7:45, Radio chime con cert, Robert Badgley; 8, sermonette; 8:15-9:15, Valvater Kent hour WEAB; 9:15, Union Central Lift Insurance company orchestra, Sigmund Culp, director

wsui, lowa City, lowa (483.6m-620kc), 9:15 p. m., familiar hymns, Mrs. Mildred B. Paddock.

WSB, Atlanta, Ga. (428.3m-700kc), 5 p. m., Epworth Methodist church choir.

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

Congregational church; 7:35-9 p. m., First Presby-terian church; 9-10, Chevrolet Little Symphony or-chestra.

chestra.

KHJ. Los Angeles, Calif. (405.2m-740kc), 4-5 p. m.,

Masonic service; 6:30-7, Leighton's Arcade cafeteria
orchestra, Jack Cronshaw, leader; 7-7:30, First Methodist Episcopal church; 8-10, de luxe studio program.

orenestra, 43cd Clouslaw, Factor, 1980, 1980, 1981, 19

KPSN, Pasadena, Calif. (315.6m-950ke), 6:45-8:45 p. m., Presbyterian church service; 8:45-9:45 Maryland artists ensemble, Henri J. Van Praag, director.

KTAB, Oskind, Calif. (240m-1250kc), 9:45-10:45 a. m., Bible lecture, Prof. E. G. Linsley; 11-12:30, church service; 7:45-2:30 p. m., church service; 9:30-11, after-service concert.

Much of the piano music at KFMQ, the University of Arkansas station, is given by the fair coed at the right, Lorraine Allen.

appreciation chat; 7-8, Aeolian residence pipe organ, Dan L. McFarland, organist; 8-9, Louise Klos trio, Ysabel Bowen. sopranc; 9-10, Mabelle Hein and hen Blue Bird band; 10-11, Packard Six dance orchestra. KFON, Long Beach, Calif. (233m-1290kc), 2:30-4, p. m., Long Beach Municipal band; 6-6:39, organ, Brayton's theater; 6:30-7, KFON gossip and amusement information; 7:45-9, service, First Church of Christ, Scientist.

KFWB, Hollywood, Calif. (252m-1190kc), 9-11 p. m. late news, Warner Brothers Sunday night movie frolic.

late news, Warner Brothers Sunday night movie fronc.

KGO, Oakland, Calif. (361.2m-830kc), 11 a. m., First
Congregational church service, Rev. James L. Gordon,
pastor; 3:30 p. m., concert, KGO Little symphony
orchestra, Carl Rhodehamel, conductor, assisted by
Arthur S. Garbett, and Carl Anderson, tenor, guest
artist; 7:45, First Congregational church service, Rev.
James L. Gordon, pastor.

KGW, Pertland, Ore: (491.5m-610ke), 11-12 m., First

Monday, February 1

Headliners Today

Eastern Central Mountain 8:30 p. m. 7:30 p. m. 6:30 p. m. 5:30 p. M. 5:30 p. M. 6:30 p. m. 5:30 p. Music. 5:30 p. m.

9 8 7 6 WSM (282.Sm-1060kc) Negro Spirituals, Fisk student sextet.

9:30 8:30 7:30 WBZ (333.1m-900kc) Movie, club.

WANDERING MINSTRELS, LITTLE, HALL,

Index to Popular Concerts

Saturday, January 30 Eastern Central Mountain Pacific 7:30 p. m. 6:30 p. m. 5:30 p. m. 4:30 p. m. WFAA. WAMD, WLS. 9 8 8 WBBM, WEAF, WENR, WGBS, WLS, WMAQ, WNYC. WNYC.
10 9
KFAB, KPRC, WBBM, WENR, WGN, WLS, WMBB, WREO. 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, WQJ, WQJ.

1 a. m. 12 m.

KFWB, WDAF, WBBM, WEBH, WENR, WOK, WQJ, WSAL.

2 m. 12 m. 12 m. 2 1 a. m. 12 m. KNX, WBBM, WENR, WQJ.

Sunday, January 31
Eastern Central Mountain Pacific
p. m. 8 p. m. 7 p. m. 6 p. m. 9 p. m. WBBM, 10 9 WBBM, WMBB. WMBB. WMBB.
12 11 10
KNX, KTHS.
1 a. m. 12 m. 11 p.
KFWB, WBBM.
2 1 a. m. 12 m. 11 p. m. KEWB.

Monday, February 1 Eastern Central Mountain 7 p. m. 6 p. m. 5 p. m. 4 p. m. WBBM, WFAA, WOAW. 6 5 WCAU, WEAF, WGR, WKRC, WOK.

O 9 8 8 7

WFAB, WGB, WKRC, WMCA, WOAW, WOK, WSOE. WGBS. WSOE. 10 9 8
KFAB, KFVE, WOK.
12 m. 11 10 9 8
KLX, KNX, KOIL, WAMD, WHO, WOK.
1 a. m. 12 m.
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Tuesday, February 2 Eastern Central Mountain Pacific 7 p. m. 6 p. m. 5 p. m. 4 p. m. WMCA, WOAW. WBBM, WEAR. 9 8 7
WBBM, WEAR, WBZ, WSB.
10 p. m. 9 p. m. 8 p. m.
WBBM, WMBB, WOAW.

Eastern Central Mountain Paeific
11 p. m. 10 p. m. 9 p. m. 8 p. m.
KFVE, KFWB, KNX, WBBM, WHT, WMBB,
WOK, WQJ.
12 m. 11
KNX, KOIL, KPO, WAMD, WBBM, WFAA,
WKRC, WMC, WOK, WQJ.
1 a. m. 12 m. 11
KFWB, KNX, WFAA, WHT, WOAW, WOK,
WQJ. 1 12 m. 11 KFWB, WQJ. 12 m. 11

Wednesday, February 3 Wednesday, February 3

Eastern Central Mountain Pacific 6 p. m. 7 p. m. 6 p. m. 5 p. m.

KFNF, WAHG, WEBJ, WEEI, WMCA.

9 8

WBBM, WEBJ, WGCP, WNYC.

10 9

KFAB, KPRC, WBBM, WGCP, WHO, WMBB.

11 10 8

KFAB, KFVE, KGW, KPO, KWSC, KYW, WBBM, WHN, WMBB, WOK, WQJ.

12 m. 11

KFWA, KFWB, KNX, KYW, WAMD, WOK, WQJ.

14 a. m. 12 m. 11

KNX, KYW, WBBM, WHT, WOK, WQJ.

2 1 a. m. 12 m.

KFWB, KNX, WBBM, WHT, WOK, WQJ.

Thursday, Pebruary 4 WQJ.

12 m.

11 m.

11 m.

10 m.

WBBM, WDAF, WEAA,

WKRC, WOC, WOK, WQJ.

1 a. m.

12 m.

KFWB, KHJ, WHT, WOK, WQJ.

2 NX WOL

1 a. m.

12 m.

10 m.

10 m.

10 m.

12 m.

10 m.

12 m.

11 m.

12 m.

11 m.

12 m.

11 m. KNX, WQJ.

Priday, Pebruary 5
Eastern Central Mountain Pacific
8 p. m. 7 p. m. 6 p. m. 5 p. m.
WGCP, WJR. WAMD, WBBM, WGR, WLS. WAMD, WBBM, WGR, WLS.

10 9 8 KFAB, WBBM, WMC, WDAF, WHAD, WMBB, WOAW, WSOE.

11 9 8 8 KFVE, KFWA, KHJ, KLX, KYW, WMBB, WOK, WQJ.

12 m. 11 10 9 KFWB, KHJ, KNX, KOIL, WAMD, WMC, WOK, WQJ.

14 m. 12 m. 11 10 10 ", ACIL, WAMD, WMC, V 1 a. m. 12 m. 11 WOK, WDAF, WHT, WOK, WQJ. RNX, WQJ.



Monday, February 1

9;45 p. m. 8;45 p. m. 7;45 p. m. 6;45 p. m. WMC (499.7m-600kc) Cortese ensemble.

10 9 8 7

KPRC (286.9m-1010kc) Cycle of songs, old and new. KTHS (374.8m-800kc) Novelty night.

WEAF (491.5m-610kc). WOO, WJAR, WCAP, WTAG, WCAE, WSAI, "Barber of Seville."

11 10 9 8

KOA (322.4m-930kc) Voice Culture.

11:15 10:15 9:15 8:15

WOC (483.6m-620kc) Mendelssohn club.

Monday, silent night for: CNRA, CNRC, CNRE, CNRM, CNRO, CNRR, CNRT, CNRV, CNRW, KFAU, KFOM, KFEQ, KFMM, KFMA, KFWA, KHJ, KLDS, KYW, PWX, WBBM, WBCN, WCBD, WACO, WEBH, WEBJ, WEBW, WENR, WGRS, WGES, WGN, WHAS, WHT, WIBO, WIP, WIAZ, WJID, WAQ, WLIB, WLS, WMAQ, WMBB, WOAI, WOC, WOK, WORD, WQJ, WRC, WREO.

Eastern Time Stations

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

CKNC, Teronte, Can. (356.9m-840kc), 8-11 p. m., CKNC
Little symphony orchestra, Charles Bodley, director;
Verdl mixed quartet; Madeline Bell, soprano; Ella McQuillan, contralto; Lawrence De Foe, tenor; Edgar Smith, bass.

WAFD, Port Huron, Mich. (275m-1090kc), 12-2 a. m., studio program, dance orchestra.

WAHG, Richmend Hill, N. Y. (315.6m-950kc), 12:02
p. m., Grebe matinee trio; 7:30, "Crazy Cat." John Alden Carpenter; Maude Mason, pianist; 8, Synchrophase trio; 9, Marie Nicholson, soprano; 10:03, Walter looss, pianist; 10:20, Joe Zimmerman's orchestra; 12, dance music.

WABAL Rattimage Md. (245m-1900th), 2,000

dance music.

WBAL, Baltimore, Md. (246m-1220ke), 6-6:30 p. n.,

"The Happy Prince and Other Happy People," Hazel
Knox; 6:30-7:30, WBAL dinner orchestra; 7:30-8,
Peabody Conservatory of Music; Frederick D. Weaver,
organist; 8-9, Marion McFall Kaye, soprano; Elizabeth
Oppenheim, pianist; Walter N. Linthicum, baritone;
9-9:10, Dr. Hugh H. Young; 9:10-10, Eugenia Earp
Arnold, contralto; Robert Lee, violinist; Clarence L.
Hilm, tenor.

Arnold, contraito; Robert Lee, violinist; Clarence L. Hilm, tenor.

WBBR, New York, N. Y. (273m-1100kc), 8 p. m., Irene Kleinpeter, soprano; 8:10, world news digset; 8:20, vocal duets, Irene Kleinpeter and Fred Franz; 8:30, Bible instruction; 8:40, Fred Franz, tenor; 8:50, vocal duets.

WBZ, Springfield, Mass. (333.im900kc), 6:30 p. m., Little Symphony orchestra; 7, "Theatrical Gossip," Samuel Wren; 7:30, Rene Dagenais, organist; 8, Capitol theater orchestra; 8:30, S. A. I. sorority; 9, Aleppo Drum corps; 9:30, WBZ Radio Movie club.

WCAE, Pittsburgh, Pa. (464.3m-650kc), 10:45 a. m., Gold Medal talk; 12:30 p. m., news, library news, 6:30, dinner concert, William Penn hotel; 8, Nixon orchestra; 9, studio concert, Mae R. DeBlasio; 10, grand opera.

grand opera. WCAP. Washington, D. C. (468.5m-640ke), 6:45-7:45 a. m., Tower health exercises, WEAF: 6-11 p. m., Washington Post hour; A. and P. Gypsies, grand opera, WEAF.

Washington Post hour; A. and P. Gypsies, grand opera, WEAF.

WCAU, Philadelphia, Pa. (278m-1080ke), 7:30 p. m., concert by N. Snellenburg and company; 8, Carolyn Thomas, soprano; Ella Jaquette Kratz, planist; 8:45, Barry O'Moore and \$37 American Radio trio; 9:30, The Monday Nighters; 10, Kathryn Fightonne, contralto, Virginia Klein, pianist; 10:30, Parodians dance orchestra.

WCX, Detroit, Mich. (516.9m-580ke), 4 p. m., news and markets; 6, dinner concert, Book-Cadillae hotel; 8, studio program.

8, studio program.

WEAF, New York, N. Y. (491.5m-610kc), 10:45 a. m.,
Betty Crocker; 11:05, music; 11:15, talk; 11:30,

"Physical Care of Infants," Columbia university; 2:30 p. m., Mrs. George E. Owens; 4:30, Ben Gorden, tenor; 4:45, talk; 6, Waldorf-Astoria; 7, Columbia university lecture; 7:20, Iris Torn, pianist; 7:30, Iullaby lady; 8, pop concert, WEAF, WOO; 8:30, Coal Miners trio; 8:45, tower health talk, WEAF, WEEI, WCAP; 9, A. and P. Gypsies, WEAF, WEEI, WCAP; 9, A. and P. Gypsies, WEAF, WEEI, WCAP, WUJ, WJAR, WOO, WSAI; 10, "Barber of Seville," WEAF Grand Opers company, WEAF, WOO, WJAR, WCAP, WTAG, WCAE, WSAI, 11-12, Ben Bernie and his orchestra.

WEAO, Columbus, Ohio (293.9m-1020kc), 1:15 p. m., "Timely Economic Information for the Farmer," C. J. West; 1:30, music.

West; 1:30, music.

WEAR, Cleveland, Ohio (389.4m-770kc), 11 a. m., home service; 7, Allen theater orchestra.

WEI, Boston, Mass. (348.6m-860kc), 6:45 a. m., tower health exercises; 7:45, morning watch, Estey organ studio; 6:15 p. m., Joe Rines and his Hunters' Cabin orchestra; 7, Big Brother club; 7:30, musical; 8, E. B. Ridcout, meteorologist; 8:15, Black Iron Shiners; 8:45, tower health talk, WEAF; 9, A. and P. Gypsies, WEAF; 10, Scotty Holmes and his orchestra; Imperial Marimba band.

WFI, Philadelphia, Pa. (394.5m-760kc), 10:30 p. m., Betty Crocker; 10:40, solos; 1 p. m., Tea Room ensemble; 3, Mrs. J. M. Camp. soprano; Caroline Sharp, planist; Louis Pearlman, violinist; Dr. J. G. Rogers, Science Man of the Orient; 6:30, Bellevue Stratford concert orchestra; 7, Bellevue Stratford dance orchestra; New York, N. Y. (315.6m-950kc), 10:30

planist; Louis Pearlman, wollinist; Dr. J. G. Rogers, Science Man of the Orient; 6:30, Bellewe Stratford concert orchestra; 7, Bellewe Stratford dance orchestra.

WGBS, New York, N. Y. (315.6m-950kc), 10 a. m., timely talks; 10:10, 10:30, 10:50, Bernard Kalkin, organist; 11:20, "Little Theaters," Dorothy Herzog; 11:40, fashion talk, Lillian Regan; 1:30, Bob Platz and Murray Miller, jazz pianists; 3, Interview with Harry Archer and Harlan Thompson, musical comedy authors; Virgil Forrest, pianist; 6, Uncle Geebee, 6:30, Premier club orchestra.

WGCP, New York, N. Y. (252m-1190kc), 1 p. m., race results; 3, Ona Welsh, pianist; 3:20, LeRoy Montenanto, tenor; 3:35, Eva Rothenberg, pianologist; 3:45, studio program; 4:30, Uncle Robert and his pals; 8:30, Perry Bradford and his Cotton Belt quartet; 8:50, talk to boys, Philip Wolf; 9, Loomis orchestra; 9:30, Marie Kalla, soprane; Alexander Kallo, violinist in Hungarian program; 10, Bob Ward and the three little Wards; 10:30, Strickland's orchestra. WGHP, Detroit, Mich. (270m-110kc), 6 p. m., dinner concert, Hotel Tuller; 7, farm program; 9, classical concert; Little Symphony orchestra; Cameron McLean, baritone; Mabel Howe, pianist; Lucille Burke, soprano; T. Stanley Perry, tenor.

WGR. Buffale, N. Y. (319m-940kc), 2:30 p. m., WGR's aftermon program; 6:30, Reveliers orchestra; 8:45, Evelyn Fossum, soprano; 9, popular program, Ethel Johnson and associates; 11-1 a. m., Vincent Lopez' Hotel Statler dance orchestra, Harold Gleser, director, and Arthur Melgier at the organ.

WGY, Schenectady, N. Y. (379.5m-790kc), 2 p. m., Asia restaurant orchestra; 2:30, music; household talks, cooking lesson, Jessie B. Lane; "From Rags to Rugs," Merle Pinkston; 6:30, dinner music, Hotel Van Curler; 7, agricultural program, addresses; 7:45, Hebrew music; Lillian Rosenthal, Levitt, soprano; "Literary Appreciations," William L. Widdenmer, New York, N. Y. (3612m-830kc), 6-6:30 p. m., Littman's dinner music; 6:30, 6:45, Doddy Dingie and his Jingle Box; 6:45, Storage Battery talk; H. B. Shontz;

Miller's fatz Carlton dance orchestra,

WOR, Newark, N. J. (405.2m-740kc), 2:30 p. m.,
Oreste's Queensland orchestra; 3:45-5, fashion talk,
Dorothy Mines; 6:15, "Words Often Mispronounced',
6:17, sports, Bill Wathey; 6:45, Jacques Jacobs 'Hotel
Shelton ensemble; 7:30-7:45, Katinka orchestra; 8,
"Current Topies" lecture, H. V. Kaltenborn; 8:309:15, Al Reid's hour; 9:30-9:45, Serenaders; 10:1010:30, Serenaders; 11-12 midnight, Irving Aronson's
Crusaders.

9:15, Al Reid's hour; 9:30-9:45, Serenaders; 10:10-10:30, Serenaders; 11-12 midnight, Irving Aronson's Crusaders.
WRC, Washington, D. C. (468.5m-640ke), 10 a. m., women's hour, WJZ; 12, organ recital, Homer L. Kitt studios; 1 p. m., Shoreham hotel orchestra, Sidney Seidenman, director; 4:30, musical program.
WRVA, Richmond, Va. (256m-1170kc), 8-12 midnight, Hotel Jefferson orchestra; 9, travelog, Dr. Douglas Freeman; 9:10, U. S. Marine band.
WTAG, Worcester, Mass. (268m-1120ke), 10:30 a. m., musical selections; 10:45, talk, Mariorie Woodman; 12:05-2, luncheon music, WTAG, Will Hardy, director; 7, science talk, Fred D. Aldrich; 7:15, twillight scouts; 145, scout announcements, Joseph Wadleigh; 8, "Housing and Management of the Breeding Flock." W. C. Monahan; 9-10, Robin Hood hour of music, Arthur Crosbie, director; 10-11, grand opera, "Barber of Seville," WEAF, W. C. Monahan; 9-10, Robin Hood hour of music, Arthur Crosbie, director; 10-11, grand opera, "Barber of Seville," WEAF, W. C. Monahan; 9-10, Robin Hood hour of music, Arthur Crosbie, director; 10-11, grand opera, "Barber of Seville," WEAF, Combardo and his Royal Canadians; 8-11, Willard symphony; 11-12, Austin Wylle's Golden Pheasant orchestra; 6-7, Guy Lombardo and his Royal Canadians; 8-11, Willard symphony; 11-12, Austin Wylle's Golden Pheasant orchestra; 12-1, Guy Lombardo and his Royal Canadians; 8-11, Willard symphony; 11-12, Austin Wylle's Golden Pheasant orchestra; 12-1, Guy Lombardo and his Royal Canadians; 8-11, Willard symphony; 11-12, Austin Wylle's Golden Pheasant orchestra; 12-1, Guy Lombardo and his Royal Canadians; 8-10, Ginner music, Hub trio; 7:35, popular hits from "Too Many Brothers," Massachusetts Technical students; 8, concert, "Salle de Danse"; 9:30, dance music, Emil Heimberger's Hotel Bond orchestra; 10:30, Travelers Symphonic ensemble; Eric Tesche, tenor.

WWI, Detroit, Mich. (352.7-850ke), 7:30-8, a. m., setting-up exercises, R. J. Horton; 9:38, "Tonight's

wWJ, Detroit, Mich. (352.7-850ke), 7:30-8 a. m., setting-up exercises, R. J. Horton; 9:30, "Tonight's Dinner"; talk, woman's editor; 10:45, home service talk, Betty Crocker; 12:05, Jules Klein's Hotel Stater orchestra; 3, Detroit News orchestra; 6, dinner concert; 8, News orchestra and soloists; A. and P. Gypsies.

cert; 8, News orchestra and soloists; A. and P. Gypsies.

Central Time Stations

CKY, Winnipeg, Can. (384.4m-780kc), 8 p. m., university lecture; 9, studio program; 11, weekly revue, Metropolitan theater.

KFAB. Lincoln, Nebr. (340.7m-880kc), 10:30 a. m., "An Important Foundation Stone of Health," Fiorence Atwood; 8:05 p. m., "Legume Crops for Soll Improvement," D. L. Gross; "Pruning the Grape," C. C. Wiggans; 8:30-10:30, Belshaw's orchestra; Cow Bell boys; Mike Kopec, pianist; Gloomy Gus, entertainer; Ed Ellington, original songbird; Harmony boys.

KFH, Wiehita, Kans. (288m-1120kc), 9-10 p. m., entertainers, Kansas Milling company.

KFMQ, Fayetteville, Ark. (299.8m-1000kc), 7:30 p. m., farmers' program; farm filosofy, Cy Adams; "Bull Association Work," M. Sullivant; "Ground Hog Day," Lan T. Gray; "Profitable Rice Production," A. H. Prince; "What the 1925 Account Books Show." A. D. McNair; "Spring and Summer Wardrobe for the School Girl," Helen Hobbs; "Taking Out Stains," Ella Posey; 8. Lamda Chi orchestra.

KFBU, Columbia, Mo. (499.7m-600kc), 6:15 p. m., dimer program; 7. Radio school.

KFUO, St. Louis, Mo. (545.1m-550kc), 8 p. m., "The Young People and Their Money," Rev. G. Hilmer; musle.

Young People and There music.

KMA, Shenandoah, Iowa (252m-1190kc), 9-9:45 a.

music; current topics, G. H. Van Houten; 11:30-12:

paral program; travelogue, G. H.

tavelogue, G. H. music; current topics, G. H. Van Houten; 11:30-12:30, noonday rural program; travelogue, G. H. Van Houten; music; seed talk, Earl E. May; musical saw, J. A. Showers; 6-7, Pollyana stories, Mrs. Dwight Nickols; music; 9-11, Farnham trio; How-Do-You-Do Boys; Grady and Doc.

KPRC, Houston, Tex. (296.9m-1010kc), 12 m., Frank Tilton, blind boy pianist; 5:30 p. m., Uncle Judd's kiddies' hour; 7:30, Maion Gunn's dance orchestra;

8:30, Bessie Griffiths, classical pianist; 9, Mrs. T. J. Harling, old and new songs; pioneer Radio entertainer. (KSAC, Manhattan, Kans. (340.7m-830kc), 9-9:25 a. m., music, inspirational talk, agricultural primer, calisthenies; 9:55, readings, backyard gossip; question box; planning today's meals; 12:35-1:05 p. m., readings, talks, question box; "Certified Potato Seed," D. R. Porter; "Ground Hog Day," A. E. Oman; 4:30-5, Third Year English literature, High School credit; 6:30-7:30, opportunity talks; book review; current events; Extension credit course, Sociology; Extension course, "Money Market and Agricultural," R. M. Green; "Sorghums as Feed for Beef Cattle," C. W. McCampbell.

(KSD, St. Louis, Mo. (545.1m-550kc), 7 p. m., fur hour; artist receital, Mrs. Franklyn Knight, contralto; 9, artist concert, Mrs. Carroll Smith, soprano; Agnes Grey, violinist; Vernon Henshie, pianist.

(KSO, Clarinda, lowa (242m-1240kc), 12:30-1:15 p. m., farmer dinner concert; 7-7:30, music; farm talk; 7:30-9:30, Jean Stutesman, old-time music; Hay Mow Five contest.

(HS, Hot Springs National Park, Ark. (374.8m-300kc),

7:30-9:30, Jean Stutesman, Old-Line music; Hay Mow Five contest, KTHS, Hot Springs National Park, Ark. (374.8m-800kc), 12:30-1 p. m., orchestra; 9-10, novelty night, Meyer Davis' soloists and orchestra; 10-11, Brick English and his novelty orchestra. KYW, Chicago, III. (536m-560kc), 7:30 a. m., morn-ing family worship; 11:35, table talk, Mrs. Anna J. Peterson; 1-2 p. m., Joshka DeBabary and his or-chestra; Coon-Sanders orchestra; 6, dinner music, KDKA.

KDKA.

WAMD, Minneapolis, Minn. (244m-1230ke), 12 noon, Cecilla Dare, contralto; Bee Lowell, accompanist; Jack Leeman, clarinetist; Roy Nowack, banjoist; 6:30, WAMD traffic squad; 7:05, Garrick theater orchestra; 7:20, Ethel Vanderpool, soprano; Louise and Henry Cook, duet; Isabelle Olson, violinist.

WBAP, Fort Worth, Tex. (475.9m-630ke), 7:30 p. m., vocal concert; 9:30, Ward's Trail Blazers; 11, Majectite theater.

don Cooke ensemble, Meta Ashwin Birnbach, soprano, Louise Lupien Jenkins, accompanist; 7:45, farm lecture; 8, University of Minnesota program; 9, classical concert.

WDAF, Kansas City, Mo. (365.6m-820kc), 10:45-11 a. m., Betty Crocker, home service talk; 6-7 p. m., the Tell-Me-a-Story lady; dialect readings, C. M. Ragan; The Trianon ensemble; 8-9:30, around the town with WDAF; 11:45-1 a. m., Carl Nordberg's Plantation players; selections, Ted Meyn, organist.

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

WBH. Chicago, III. (370.m-810kc), 11:30-12 noon, woman's half hour; 3-4 p. m., special features.

WFAA, Dallas, Tex. (475.9m-630kc), 12:30-1 p. m., pathos, philosophy and fun; Edmund F. Boettcher, tenor; Viola Cassidy, planist; 4:30-5. Cyrus Barcus, cornetist; Joseph Strother, planist; 5:30-7:30, Artie Collins and his orchestra; 8:30-9:30, Sears-Roebuck Agricultural Foundation program.

WGN, Chicago, III. (302.8m-990kc), 10-11 a. m., public service period; 11-11:30, household hints; 12:40-2:30, luncheon concert, Drake concert ensemble and Edward Benedict, organist; 2:30-3, Lyon and Healy, artists; 5:20-7:330, Port o' Missing Men; 3:30-4:15, tea time music, Marshall Field's tea room orchestra; 4:30-5, organ recital, Edward Benedict, 5:30-7; dinner concert, Drake concert ensemble and Edward Benedict, organist.

WHAD, Milwaukee, Wis. (275m-1090kc), 11 a. m., planologue, Andy Hertel; 4 p. m., Trixy Ann Troy, ukulele; 6:15-7, Bill Benning's Milwaukee Athletic

DANCING Central Time

Central Time

Saturday, January 36

S. Wir. Wnyc. Wyg

8:30, Wfaa; 8:35, Wg5

9, Webh, Weel, Wmbt

Myc. Wreo; 9:10, Kths

Whyc, Wre; 10, Kfvs

Kfwa, Koa, Kpo, Weal

Wgn, Wir, Wkrc, Wmea

Whis, 11, Kfpg, Kfws

Kfwb, Kpo, Webh, Wfaa

Wgbu, Who, Woe; 11:30

Kfoa; 11:45, Wdaf; 12

Kfwa, Kgo, Kgw, Knu

Wgbu, Wjjd.

Monday, February 1

8, Wgcp; 9, Weel, Wgbu

Wjar, Wor; 9:15, Wahg

10, Kths, Wgbu, Wger,

Wgr, Wnyc, Wog; 10:15

Wor; 10:30, Kfoa, Wger,

Wgh, Wyc, Wgs; 10:15

Wgbu, Wgc, Wgr, Why

Wgbu, Wijd.

Wgbu, Wger, Wgr, Why

Klas, Wgw, Wger, Wgr, Why

Wgh, Wger, Wgr, Why

Wgh, Wger, Wgr, Why

Klas, Kho,

Fuesday, Gebruary 2

9, Webb, Webn, Wgb

Who; 11.45, Wdaf; 12
Knx, Kpo.
Tuesday, jehruary 2
9, Webh, Wabu, Wmbb
9:30, Wasu, Wgbs, Wgy
Wip; 9:35, Waye; 10
Kfve, Wbbm, Weaf
Webh, Wgbu, Wgn, Whn
Mmca, Wnyc, Wpg; 10:15
Kths; 10:30, Kths, Whn
10:45, Wsk; 11.4 Kgw
Koil, Wgbu, Whn; 11:30
Kfoa; 11:45, Wdaf; 12
Kgw, Khi, Knx, Kpo
Wdaf; 1, Wqi.

Wednesday, Februar
3: 9, Wex, Webh
Wgbu, Wgcp, Whn, Who
Wmbb, Wgcp, Whn, Who
Wmbb, Wges, Wth
Whap, Weaf, Wgbu, Wscp
Wqi; 10:45, Wcco
10:30, Whap, Whn; 11
Koil, Kpo, Webh, Wgbu
Wgcp, Wgr, Whn; 11:45
Wdaf; 12, Kfwa, Knx
Kpo, Wjid.

Thursday, February 4
Wgwi, Wjid.

Thursday, February 4
Wgwi, Wgcl, Wgcl
Thursday, February 4
Wgwi, Wgd, Wgcl
Thursday, February 4
Wgwi, Wgd, Wgd

Yoda, Spo, Wijd.

Thursday, 7chruary 4

1, Wir 7 9, Webh, Weel
Wgbu, Whn, Wir
Vmbb, Wsai, Wtag; 9:05
Whz, Wip; 9:30, Wgbs Thursday, 7chruary 4
8, Wir, 9, Webh, Weel
Wgbu, Whn, Win
Wmbb, Wsal, Wtag, 9:05
Wbz, Wip; 9:30, Wgbs
Wgy, Whn; 9:35, Wnye
10, Kihs, Wbbm, Weaf
Wgbu, Whn, Wmca, Wps
Wd; 10:30, Kths, Whn
Webh, Wgbu, Whn, Wil,
11:45, Wdaf; 12, Kgo
Khi, Knx, Kpo, Wjid.
Friday, February 5
Wwi; 9, Wcx, Webh
Weel, Wgbu, Wgcp
Wmbb; 9:15, Wahg, 9:30
Wcau, Whn; 10, Kfve
Kpo, Kths, Wgbu, Wgcp
Whn, Wgr, Wdi; 10:05,
Wcoo; 10:30, Wgcp, Whn
11, Kfwb, Knx, Kpo.

ALL, RAY-O-VAC TWINS MEET AT WSAI



DANCING

Central Time Central Time

Saturday, January 36:
\$, Wir, Wnyc, Wpg;
\$:30, Wta; \$:35, Wgy;
\$:30, Wta; \$:35, Wgy;
\$:30, Wth, Wed, Wmbb,
Wnyc, Wreo; 9:10, Kths,
Wlip; 9:30, Kths, Wgbs,
Wor, Wre; 10, Kfve,
Kfwa, Koa, Kpo, Weaf,
Wgn, Wir, Wkrc, Wmca,
Wnyc, Wor, Wdi, Wreo,
Wtam; 10:05, Wcco;
10:30, Wamd; 10:45,
Wls; 11, Kfvg, Kfva,
Kfwb, Kpo, Webb, Wfaa,
Wgbu, Who, Woc; 11:30,
Kfoa; 11:45, Wdaf; 12,
Kfwa, Kgo, Kgw, Knx,
Wgbu, Wjid.

Monday, Fehruary 1:

Klwaj, Kego, Kgw, Knx, Wobu, Wild.

Monday, February (:
8, Wgep; 9, Weel, Wgbu, Wilar, Wor; 9:15; Wahg; 10, Kths. Wgebu, Wger, Wnye, Wng; 10:15, Wor; 10:30, Kfoa, Wger, Whn; 11, Kgw, Koll, Wgbu, Wger, Wgr, Whn, Who; 11:14, Kgw, Koll, Wgbu, Wgbs, Wgy, Ebruary 2:
9, Webh, Wabu, Wmbb; 9:30, Wcau, Wgbs, Wgy, Wil; 9:35, Whye; 10, Kfve, Wbbm, Weaf, Webh, Wgbu, Wgn, Whn, Wnea, Wnye, Wpg; 10:15, Kths; 10:30, Kths, Whn; 10:45, Wst; 11, Kgw, Koll, Wgbu, Whn; 11:30, Kfoa; 11:45, Wdaf; 12, Kgw, Khj, Knx, Kpo, Wdaf; 1, Wdish, Wgbu, Wgep, Will, Wgbu, Wgep, Who, Wor; 10, Kfve, Whob, Wgep, Wln, Who, Wno; 10; Wsto, William, Who, Wnos, Wges, Wgbu, Who, Who, Who, Wor; 10, Kfve, Wbap, Wash, Wgbu, Wgep, William, Wgo, Wdi; 10:55, Weco; 10:30, Wbap, Wgbu, Wgbu, Wgbu, Wgbu, Wgbu, Wgep, Wgr, Whn; 11:45, Kdaf; 12; Kfwa, Khj, Knx, Kpo, Wdi; 10:55, Weco; 10:30, Wbap, Whn; 11:45, Wdaf; 12; Kfwa, Khx, Knx, Knx, Knx, Wgbu, Wgep, Wgr, Whn; 11:45, Wdaf; 12; Kfwa, Knx, Knx, Knx, Wgbu, Wgep, Wgr, Whn; 11:45, Wdaf; 12; Kfwa, Knx, Knx, Wgbu, Wgep, Wgr, Whn; 11:45, Wdaf; 12; Kfwa, Knx, Knx, Wgbu, Wgep, Wgr, Whn; 11:45, Wdaf; 12; Kfwa, Knx, Knx, Wgsu, Wgep, Wgr, Whn; 11:45, Wdaf; 12; Kfwa, Knx, Wash, Wgep, Wgr, Whn; 11:45, Wdaf; 12; Kfwa, Knx, Wash, Wgep, Wgr, Whn; 11:45, Wdaf; Max, Knx, Wash, Wgen, Wgep, Wgr, Whn; 11:45, Wdaf; Max, Knx, Wash, Wgen, Wgen, Whn; Mgagu, Wang, Whagh, Whagh, Wash, Whagh, Wash, Knx, Knx, Wash, Wgen, Wgen, Whn; Mgagu, Wash, Whagh, Wash, Whagh, Wash, Whagh, Wash, Knx, Knx, Wash, Wgen, Whish, Whagh, Wash, Whagh, Wash, Whagh, Wash, Whagh, Wash, Knx, Wash, Wgan, Whagh, Wash, Whagh, Wash, Whagh, Wash, Knx, Knx, Wash, Wgan, Whagh, Wash, Whagh, Wash, Whagh, Wash, Knx, Knx, Wash, Wgan, Whagh, Whagh, Wash, Whagh, Wash, Whagh, Wash, Whagh, Wash, Knx, Wash, Whagh, W

Wgcp, Wgr, Whn; 11:45, Wdaf; 12, Kfwa, Knx, Kpo, Wjjd.

Kpo, Wjid.

Thursday, 76 ruary 4:
S, Wir; 9, Webh, Weel,
Wgbu, Whn, Wir,
Wmbb, Wsal, Wtag; 9:05,
Wbz, Wlp; 9:30, Wgbs,
Wgy, Whn; 9:35, Wnye;
10, Kths, Wbbm, Weaf,
Wgbu, Whn, Ymca, Wpg,
Wdi; 10:30, Kths, Whn,
Webh, Wgbu, Whn, Woc,
11:45, Wdaf; 12, Kgo,
Khj, Knx, Kpo, Wjid.
Friday, February 5:

Khi, Knx, Kpo, Wjid.
Friday, February 5:
Wwi; 9, Wx, Webh,
Weet, Wgbu, Wab,
Wab, Sil5, Wahg, 9:30,
Weau, Whn; 10, Kfve,
Kpo, Kths, Wgbu, Wgcp,
Whn, Wgr, Wql; 10:95,
wcc; 10:30, Wgcp, Whn;
11, Kfwb, Knx, Kpo.

club orchestra; 8-10, Marquette university studio pro-

gram.

WHAS, Louisville, Ky. (399.8m-750kc), 1-2 p. m., concert, Royal Peacock orchestra; 3-3:30, organ recital, Mrs. Myrtle Zahn; 4-5, Harry S. Currle's Music Box concert; readings; fashion talk, Peggy True.

WHO, Des Moines, Iowa (526m-570kc), 7:30-9 p. m., Paul Stöye, planist and composer; Mrs. Percy Potter, soprano; Lenore Mudge, accompanist; Alex Lindblou, violinist; Cornelius Ahern, tenor; 11-12, Corn Sugar orchestra.

orchestra.
WHT, Chicago, III. (399.8m-750ke), 19 a. m., women's club program; Borden health talk; Helen Rauh, pianist; John Clark, bartione; 10/45, home service, Berty Crocker; 11, special features; 11:15, drama talks; 6, p. m., classical program; dinner organ recital, Al Carney; 6:40, Kitchen Klenzer entertainments.

WIBO, Chicago, III. (226m-1330ke), 10-11 a. m., shoppers' bureau, Grace Viall Gray; 2-4 p. m., Ted Fiorito, pianist; Dan Russo, violinist; Victor Young, violinist.

WKAF, Milwaukee, Wis. (261m-1150ke). 10-11 p. m., Helen Osmundsen, soprano; Leon Grieb, tenor; Viola Sontag, pianist.

Sontag, pianist.

WKAR, Lansing, Mich. (285.5m-1050kc), 7:15-7:30 p. m.,
"Homemade Confections," Osee Hughes; 7:30-7:45,
"Short Cuts in Cleaning and Washing Dishes," Edna
V. Smith and Irma Gross; 7:45-8, "Correct Way of
Handling Woolen Materials," Anna Bayha.

WLS, Chicago, III. (344.6m-870kc), 12 m., R. F. D.
program; 6 p. m., WLS studio trio; Ralph Emerson,
organist.

WLW, Cincipnati Obio (2002.77)

program; 6 p. m., WLS studio trio; Ralph Emerson, organist.

WLW, Cincinnati, Ohio (422.3m-710ko), 7:30 a. m., healthful exercises, William Stradtman; 8, morning devotions, auspices of the Parkway Y. M. C. A.; 12:05 p. m., religious service, Rev. George H. Kase, pastor; 4, children's hour, young pupils from the Cincinnati College of Music; 7, dinner hour concert, Hotel Glbson orchestra, Robert Vinconti, director; 7:30, Y. M. C. A. basketball question box; 8, Times-Star program, Times-Star orchestra, featuring "An Evening of Serenades," William Kopp, musical director, soloist, William Hafford.

WMAQ, Chicago, III. (447.5m-570kc), 12:20 p. m., Junior Association of Commerce; 1, Radio farm school, 2, shut-in program; 4, mothers in council; 4:35, 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 La Salle orchestra; 6:40, Family Altar league.

WMC, Memphis, Tenn. (499.7m-600kc), 8:45 p. m., Cor-

MC. Men WMC, mempins, tenn. (226m-670kc), 12:45 p. m., Ran-tese ensemble.

WOAW, Omaha, Nebr. (526m-670kc), 12:45 p. m., Ran-dall's Royal Fontenelle orchestra; 6, entertainment; 6:20, popular songs; 6:40, insurance talk, Daniel D. Mackin; 6:50, Randall's Royal Fontenelle orchestra;

Mackin; 6:50, Randall's Royal Fontenelle orchestra; 9, classical.

WOC, Davenport, Iowa (483.6m-620kc), 12:15-12:25 p. m., "Tankage Is Good for the Unborn Pig," Prof. John M. Evvard; 3-3:30, Aunt Jane; 5:45-6, chimes.

WOI, Ames, Iowa (270m-1110kc), 12:45 p. m., dairy production, Prof. Earl Weaver; 1:30, "Charting the Course," Dean Anna Richardson; "Women as Citizens," Mrs. Pauline Lewelling Devitt; 4:30, "Charting the Rouse," Dean Anna Richardson; "Women as Citizens," Mrs. Pauline Lewelling Devitt; 4:30, "Health Talk," Dr. J. F. Edwards; 7:15, basketball game, Nebraska-Ames; 7:30, "Automobile Troubles and Their Diagnosis," G. I. Mitchell; 8, addresses, Dean C. F. Curtiss, Dean Anna E. Richardson, President R. A. Pearson.

WOJ, Chicago, Ill. (447.5m-670kc), 11-12 m., baking talk, "Spices Used in Your Kitchen," Maud Jacobs; 3-4 p. m., "Egg Dishes," Helen H. Downing; "The Care of the Hair and Skin During the Winter Months," Madame Huntingford.

Madame Huntingford.

WSAI, Cincinnati, Ohio (325.9m-920kc), 7 p. m.,
Wendall Hall; 7:30, Ray O'Vac Twins; 8, A. and P.
Gypsies, WEAF; 9, grand opera, "Barber of Seville";

Mountain Time Stations
CFAC, Calgary, Can. (435.8m-688kc), 8 p. m., Crescent quartet.

cent quartet. KFWA, Ogden, Utah (261-1150ke), 4-5 p. m., organ recital, Paramount theater; 5-6, Ogden Radio Dealers

recital, Paramount theater; 5-6, Ogden Radio Dealers program.

KFXF, Colorade Springs, Colo. (250m-1200kc), 8:30 p. m., musical selections; 8:45-9, educational talk.

KOA, Denver, Colo. (322.4m-930kc), 12:15 p. m., Rialto theater musicale; 6:30, dinner concert, Brown Palace string orchestra, Howard Tillotson, director; 7:30, sandman's hour; 8, Radio instruction in conversational Spanish, Prof. Amanda Lopez Knecht, conductor; 8:30, sinstrumental program; Scheuerman's Colorado orchestra: 8:45, miscellaneous music, KOA orchestra and assisting soloists, 9, voice culture, John C. Wilcox, director; 9:30, miscellaneous music, KOA orchestra and assisting soloists.

KOB, State College, N. Mex. (348.6m-860kc), 7:30-8:30 p. m., "Important Small Grain Crops in the Rotation under Irrigated Conditions," W. T. Conway; "The Management of Sows at Farrowing Time," W. F. Dickson.

Dickson.

Pacific Time Stations

KFI, Los Angeles, Calif. (468.5m-640ke), 5:30-6 p. m.,
Owen Fallon's Californians; 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, program arranged by Sylvia Knah,
violinist; 9-10, program, Walter M. Murphy Motors
company, broadcast simultaneously by KFI and KPO,
Pryor Moore's concert orchestra; Virginia Flohri, soprano; Ivan Edwards, tener; 10-11, Al Wesson and
his dance orchestra.

KFON. Long Beach, Calif. (232m-1200ka), 6.645.

his dance orchestra.

KFON, Long Beach, Calif. (233m-1290kc), 6-6:45
p. m., organ, Brayton's theater; 6:45-7:15, KFON
gossip and amusement information; 8-9, community
sing program, Municipal auditorium; 9-11, Echophone
artists froile.

KFWB, Hollywood, Calif. (252m-1190kc), 5-6 p. m.,
children's hour, Big Brother of KFWB; 7-7:30 p. m.,
program, Osborne, Kelsey company; 7:30-8 p. m.,
program, Dr. Ralph Mitchell and the Associated
Dentists; 8-9, Bill Hatch's Oakmont Country club
dance orchestra; Dan Gridley, tenor; Ashley Sisters,
10-11, Warner Brothers frolic, direction Charlie
Wellman.

10-11, Warner Brothers frolic, direction Charlie Weilman.

K60, Oakland, Calif. (361.2m-830kc), 7:15-7:30 a. m., health training exercises, Hugh Barrett Dobbs; 7:45, pep class; 8:30, "Daily Strength"; 11:30-1 D. m., Pacific States Electric company luncheon concert; 3-4, musical program; 5:30-6, Aunt Betty stories and K60 Kiddles' Klub, Ruth Thompson; 6-6:55, dinner concert; 8, educational program; music, Arion trio; boys' and girls' clubs, W. R. Ralston; chats about new books, Joseph Henry Jackson; "Better English," Wilda Wilson Church; "The Worst Boy I Ever Knew," Dr. Albertine Richards Nash; "Short Story Writing," Rebecca N. Porter.

K6W, Portland, Ore. (491.5m-610kc), 12:30-1:30 p. m., Oregon Radio Trades association; 6-7, dinner concert, Olds, Wortman and King company; 8-9, concert, Willys-Overland Pacific company; 9-10, concert.

KLX, Oakland, Calif. (508.2m-590kc), 4-5 p. m., women's

Willys-Overland Pacific company; 9-10, concert.

LX, Oakland, Calif. (508.2m-590ke), 4-5 p. m., 60:30-7,
hour; 5-5:30, Aunt Elsie's sunset matinee; 6:30-7,
Athens Athletic club orchestra; 8-9, studio program;
9-10:30, meeting of the Protective Order of Lake
Merritt Ducks.

KMTR, Hollywood, Calif. (233m-1260ke), 5-6 p. m., home hour, Mammy Simmons, Walter Benson, Helen Frances Levy, Billy Henderson, Betty McKay; 7:15, Y. M. C. A. program; 8-10, the Turner orchestra, Loren Powell, director; 10-11 p. m., Starr Piano company studio.

KNX, Hollywood, Calif. (336.9m-890kc), 5-5:30 p. m., Starr Piano company studio.

KNX, Hollywood, Calif. (336.9m-890kc), 5-5:30 p. m., Sunny Jim's story; 5:30. First Presbyterian church organ; 5:55, Town Tattler; 6:15, travel talk, W. F. Alder; 6:30-7, Atwater Kent concert orchestra; 7-7:30, Mutual Motors mirth contest; 7:30-8, studio program, S-9, program, L. W. Stockwell company; 9-10, program, Listenwalter & Gough; 10-11, Goodrich Silvertown Cord dance orchestra, Lilyan May Challenger, contratio; 11-12, Ambassador hotel dance orchestra.

KOAC, Corvallis, Ore. (280.2m-1070kc), 6:50 p. m., musical selections; 7, agricultural question box; 7:10, "Growing Heavier Fleeces," H. A. Lindgren; 7:30, "Certification of Seed Potatoes," E. R. Jackman; 7:45-8, "The Boys' and Girls' club program for 1926," H.

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 30

Eastern Central Mountain Pacific 1:45 p. m. 12:45 p. m. | 1:45 a. m. 10:45 a. m. WOI (270m-110ke) Soils, questions and answers, 8 7 6 6 KDKA (309.1m-970kc) Farm program.

Sunday, January 31
Eastern Central Mountain Pacific
3:30 p. m. 2:30 p. m. 1:30 p. m. 12:30 p. m.
WFAA (475.9m-630kc) Sunday hour for farmers.

8:15 7:15 6:15 5:15
KSAC (340.7m-880ke) Sorghums as Feed for Beef Cattle.
8:30 7:30 6:30 5:30
KFMQ (299.8m-1000ke) Farmers' night. Prepare for a Permanent Pasture. Cotton Diseases.
WMC (499.7m600ke) Talk.
WOI (270m-1110ke) Automobile Troubles and Their Diagnosis.
7:45 6:45 5:45
WCCO (416.4m-720ke) Farm lecture.
9:05 8:05 7:05 6:05
KFAB (340.7m-880ke) Legume Crops for Soil Improvement. Pruning the Grape.
9:30 8:30 Monoton Solution of Sow Management at Farrowing Time.
10 8 8 KOAC (280.2m-1070ke) Agricultural question box. Growing Heavier Fleece.
10:30 9:30 8:30 7:30
KOAC (280.2m-1070kc) Certification of Seed Potatoes.

Tuesday, February 2

Eastern Central Mountain Pacific 10 a.m. 9a.m. 8a.m. 7a.m.

WOI (270m-1110kc) Haying Machinery. 11:30 9.30 9.30

KFAB (340,7m.880kc) How the Chick Is Formed. 1:15 p.m. 12:15 p.m. 11:15 10:15

WOC (428.3m.e20kc) How to Manage an Incubator, 1:35 11:35 10:35

KSAC (340,7m.880kc) Kanota Summarized. The Boy Crop. 1:45 11:45 10:45

WMAQ (447.5m.e370kc), Radio farm school. WOI (270m1110kc) Animal Husbandry, questions and answers. 12 n. 11

KFKX (288.3m-1040kc) How to Manage an Incubator.

bator.

8 7 6 p. m. 5 p. m.

KSAC (340.7m-880kc) Ayrshire and Holstein Cattle
in Kansas. Feeeding the Sow and Litter.

WEAO (233.9m-1020kc) Farmers' week poultry
program.

7:15 6:15 5:15 4:15

WKAR (285.5m-1050kc) Meat Inspection. Nutritional Requirements of Growing Chicks.

7:45 6:45 5:45 4:45

WKAR (285.5m-1050kc) Types and Breeds of Beef
Cattle.

8 7 6 5 WOC (483.6m-620kc) Feeding Plans Which Will Make the Dairy Cow Pay a Profit.

Thursday, February 4
Eastern Central Mountain Pacific
10 a. m. 9 a. m. 8 a. m. 7 a. m. Lastern Central Mountain Pacific 10 a.m. 9 a.m. 8 a.m. 7 a.m. WOI (270m-1110ke) Red Clover. 1:15 p. m. 12:15 p. m. 11:15 10:15 WOC (483.6m-620ke) Legume day. What Folks Say About It. 1:35 12:35 11:35 10:35 10:35 KSAC (340.7m-880ke) Serious Soil Problems. Brambles to Include in the Nursery Order. 1:45 12:45 11:45 WMAQ (447.5m-670ke) Radio farm school. WOI (270m-1110ke) Farm crops. 21 KFKX (288.3m-1040ke) What Folks Say About It. WOI (270m-1110ke) Minerals and Sunshine for Hogs.

KPO, San Francisco, Calif. (428.3m-700ke), 1-2 p. m., Rudy Seiger's Fairmont hotel concert orchestra; 2:30-3:30, matinee program; 5:15-6:15, children's hour: 6:40-7, Waldemar Lind and States restaurant orchestra; 7-7:30, Rudy Seiger's Fairmont hotel orchestra; 8-9, organ recital. Uda Waldrop; 9-10, program, presented for the Walter Murphy Motors company; 10-11, Cabira cafe orchestra, Jack Coakley, director.

Eastern Central Mountain Pacific 3 p. m. 2 p. m. 12 n. 12 n. WOI (270m-1110kc) New Facts in Dairy Cattle Feeding. 7:15 6:15 5:15 4:15 p. m.

WKAR (285.5m-1050kc) Raising the Dairy Calf.

Developing the Dairy Heifer. WKAR (285.5m-1050kc) Raising the Dairy Calf. Developing the Dairy Heifer 9 8 7 6 WEAO (293.9m-1020kc) How to Select the Breeding Flock, 9:30 7:30 6:30 KOA (322.4m-930kc) Farm question box.

Friday, February 5 Eastern Central Mountain Pacific 10 a.m. 9 a.m. 8 a.m. 7 a.m. WOI (270m-1110kc) 1926 Crop Problems. 1:15 p.m. 12:15 p.m. 11:15 10:15 WOC (483.6m-620kc) Special farm service day. 1:35 12:35 KSAC (340.7m-880kc) The Sweet Clover Seedbed. Control of Round Worms in Poultry. 1:45 12:45 11:45 10:45 WOI (270m-1110kc) Agricultural Economics. 2 12 n. 11 KFKX (288.3m-1040kc) Special Farm Service day. WMAQ (447.5m-670kc) Radio farm school. 7:15 6:15 6:15 5.15 p.m. 4:15 p.m. ers' week, amouncements. Corn and Potato Crop Winners. 7:45 6:45 5:45 WCCO (416.4m-720kc) Farm lecture.

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 (475.9m-630kc) Markets. WOAW (526m-570kc) Markets. 9:45 8:45 7:45 KDKA (309.1m-970kc) Livestock, grain.

WEAR (389.4m-770kc) Markets, weather. WHAD (275m-1090ke) Weather, markets. WLS (344.6m-870kc) Poultry, dairy, hogs, sheep. WS (440.9m-680kc) Livestock, poultry, eggs, grain 12:30 p.m. 11:30 10:30 9:30 KFKX (288.3m-1040kc) Livestock, fruit, vegetables, dairy. WEAR (384.4m-780kc) Markets, weather. WFAA (475.9m-630kc) Markets. WHA (475.9m-630kc) Markets. WHT (238m-1260kc) Fruit, weather. WS (440.9m680kc) Livestock, weather. 1:30 12:30 Livestock, weather. 1:30 12:30 10:30 KTHS (374.8m-800kc) Markets and weather. WSAA (475.9m-630kc) Markets, weather. WSAA (475.9m-630kc) Markets, weather. 1:30 12:30 10:30 KTHS (374.8m-800kc) Markets, weather. WSAA (475.9m-630kc) Markets. WOAW (526m-570kc) Markets. WOI (270m-1110kc) Weather, livestock. 1:35 12:35 11:35 10:35 KPO (428.3m-700kc) Butter, eggs, cheese, poultry. 1:45 NOA (322.4m-930kc) Warketr, roads, livestock, poultry. 12 n. 11

6:50 5:50 4:50 WHAD (275m-1090kc) Markets. 6:30 5:30

WHAD (275m-1990ke) Markets, 7:30 6:30 5:30 4:30 KMA (252m-1190ke) Markets and weighter. KSAC (340.7m-880ke) Market review! 7:45 6:45 5:45 4:45 KFWA (261m-1150ke) Market reports, 8 7 6 6:5 5 8 7 6 KFKX (288.3m-1040kc) Markets. KOA (322.4m-930kc) Sheep, mar poultry.

markets, livestock. 9 8 7 6 WAAW (384.4m-780kc) Marketgrams and talks, 11 10 9 8

WCCO (416.4m-720kc) Weather, grain.

KTAB, Oakland, Calif. (240m-1250ke), 9-9:30 a. m., prayer service, Rev. E. L. Spaulding; 12-1 p. m., luncheon concert; 4-5, women's club notes; 8-10, program, Western States Life Insurance company.

KWSC, Pullman, Wash. (348.6m-860kc), 7:30-9 p. m. violin solos, Olga Kraus; vocal solos, Agnes Dilts piano solos, Lucille Aiken; "Psychology of Efficiency," Dr. F. F. Nalder; farm situation, R. M. Turner,

13 WAMPUS STARS FROLIC AT KNX

Tuesday, February 2

| Headliners Today | Eastern | Central | Mountain | Pacific | 8 p. m. | 7 p. m. | 6 p. m. | 5 p. m. | WBZ (353.1m-900ke), | Hockey game. | 8:30 | 7:30 | 6:30 | 6:30 | 5:30 | Signary | Si

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

Eastern Time Stations
Montreal, Can. (410.7m-730ke), 7 p. m., Safety
t talks to kiddies; 7:15, Windsor hotel dinner
tt; 8:15, dinner concert; 10:30, Windsor hotel

league talks to kiddles; 7.10, concert; 8:15, dinner concert; 10:30, Windsor hotel dance program.

WAFD, Port Huren, Mich. (275m-1090kc), 10-11:30 a. m., Issuing club.

WAFD, Port Huron, Mich. (2/5m-1090ke), 10-11-00 a. m., Ironing club.

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

BAL, Baltimore, Md. (246m-1220ke), 6:30-7:30 p. m., WBAL string trio; John Wilbourn, tenor; Philip Jeffreys, planist; 7:30-8, WBAL male quartet; 8-9, George Bolek, planist; James Wilkinson, baritone; Loretta Lee, soprano.

WBZ, Springfield, Mass. (333.1m-900ke), 6:30 p. m., Little Symphony orchestra; 6:45, Hotel Lennox ensemble; 7:30, "Amy Lowell, 1874-1925," Prof. Robert Emmons Rogers; 8, hockey game, Boston Bruins vs. St. Patricks.

semble; 7:30, Amy Lowell, 1017-1029, ett Emmons Rogers; 8, hockey game, Boston Bruins vs. St. Patricks.

WCAE, Pittsburgh, Pa. (461.3m-650kc), 12:30 p. m., news; 4:30, sunshine girl; 6:30, dinner concert, William Penn hotel; 8, program, WEAF; 8:30, Gold Dust Twins, WEAF; 9, Eveready hour, WEAF; 10, "Your Hour"; 10:30, Vincent Lopez and his orchestra; 11, Ralph Harrison and his Midnight Sons.

WCAP, Washington, D. C. (468.5m-640kc), 6:45-7:45 a. m., Tower health exercises, WEAF.

WCAU, Phiadelphia, Pa. (278m-1080kc), 7:30 p. m. concert by N. Snelleburg and company; 8, building and loan talk; 8:10, the Three brothers; 8:25, theater digest, Abe Lipshutz; 8:35, playlet; 9, Robert Frazer, blind gospel singer, Elizabeth Holtz, planist; 9:30, Sea Isle City Garden Gulls; 10, Harry Link, popular den dance orchestra.

blind gospel singer, Elizabeth Holtz, pianist; 9:30, Sea Isle City Garden Gulls; 10, Harry Link, popular songs; 10:30, Billy Hayes and his Cathay Tea Garden dance orchestra.

WCX, Detroit, Mich. (516.9m-580kc), 4 p. m., news and markets; 6, dinner concert, Book-Cadillac hotel; 10, the Red Apple club.

WEAF, New York, N. Y. (491.5m-610ke), 11 a. m., music; 11:10, "Tales of Araby," Sumayeh Attiyeh; 11:25, music; 11:35, motion picture forecast, Adele Woodard; 4 p. m., William Lawlor, baritone; 4:15, Evelyn Smith, pianist; 6, Hotel Waldorf-Astoria; 7, Ruth Shaffner, soprano; 7:10, Columbia university French course; 7:30, Russian ensemble; 8, Blue Ribbon male quartet, WEAF, WEEI, WFI, KSD, WCAE, WWJ, WGR; 8:30, Gold Dust Twins, WEAF, WEEI, WFI, WCAE, WGR, WWJ, WOC, WIAR, WCCO, WEAR, KSD, WLIB; 9, Eveready hour, WEAF, WEEI, WFI, WCAE, WEAF, WEAF, WEAF, WCAE, WEAF, WEAF, WEAF, WCAE, WEAF, WEAF, WCAE, WEAF, WSAI, KSD; 10, bridge; 10:30, Vincent Lopez and his orchestra, WEAF, WCAE, WEAF, WEAF, WCAE, WEI, WYJ, WGR, KSD; 11-12, Ross Gorman and his orchestra. WEAF, Olumbus, Ohio (293.9m-1020ke), 7 p. m., university chimes, Allen Manigal; 7:05, farmers' week poultry program.

WEAR, Cleveland, Ohio (389.4m-770kc), 11 a. m., home service talk; 7 p. m., State theater vaudeville; 8, instrumental ensemble; 8:30, Gold Dust Twins; 9, Eveready entertainers; 10:30, Cities Service program; 11, Wormack's Singing syncopators.

WEBJ, New York, N. Y. (273m-1100ke), 7 p. m., Dan Barnett's orchestra; 7:45, Thomas Prytherch, Welch tenor; 8, rallroad talk, G. T. Geer; 8:15, Jerry

tainers; 10:30, Cittes Service program, 11, 10-200-2005, Singing syncopators.

[EBJ, New York, N. Y. (273m-1100kc), 7 p. m., Dan Barnett's orchestra; 7:45, Thomas Prytherch, Welch tenor; 8, railroad talk, G. T. Geer; 8:15, Jerry Alexander, Doyle Sisters; Stella Rose, soprano; 8:30,

Barnett's orchestra; 7:45, Thomas Prytherch, Welch tenor; 8, railroad talk, 6. T. Geer; 8:15, Jerry Alexander, Doyle Sisters; Stella Rose, soprano; 8:30. Lehigh serenaders.

WEEI, Boston, Mass. (348.6m-860ke), 6:45 a. m., tower health exercises; 7:45, morning watch, Estey organ studio; 2 p. m., Eugene's singing orchestra; George Joy and Nell Cantor; 5:30, Joe Herlihy's Collegians; 6:30, talk, Nellie E. Friend; 7, Big Brother elub; 7:30, musical; 8, Blue Ribbon quartet, WEAF; 8:30, Gold Dust Twins; 9, Eveready hour; 10, musical.

WFI, Philadelphia, Pa. (394.5m-760ke), 1 p. m., Tea room ensemble; 3, talk, "Beauty Culture in Home," Mme. Manka Rubinstein, 3:15, trumpet solos, Catherine Heuser; violin solo, Marie Sofozo; Betty Spencer, soprano; 6:30, Bellevue Stratford concert orchestra; 7. Bellevue Stratford dance orchestra; 7:15, banking talk, George W. Weldy; concert from WEAF; 8:30, Gold and Dusty; 9, Eveready hour; 10, grand opera from WEAF, Weldy; concert from WEAF, 8:30, Gold and Dusty; 9, Eveready hour; 10, grand opera from WEAF, Mildred Greenwald; William Dobson, accompanist; 2, Landau's Serenaders; 3, interview with A1 Herman and Lesile Eichel, playwrights; Max Hart, violinist; George Ward, reader; 3:40, piano lessons, A. G. Robyn; 6, Uncle Geolee; 6:45, Arrowhead inn concert orchestra; 8, Y. M. C. A. forum; 10:30, Arrowhead Inn dance orchestra.

**GCP, New York, N. Y. (252m-1190ke), 3 p. m., planist; 3:20, Paul Hagan, tenor; 3:30, Isabella Henderson, soprano; 3:45, Max Heitt, violinist; 4:15-4:45, Sioux City syncopators; 4:45, Ukulele Bob McDonald; 7, Janssen's orchestra; 7:30, Clarence Williams' trio; 7:55, health talk; 8-8:30, Jolly Rogers' orchestra.

**GGPP, Detroit, Mich. (270m-1110ke), 6 p. m., dinner concert, Hotel Tuller; 7, farm program; 9, popular

wGHP, Detroit, Mich. (270m-1110ke), 6 p. m., dinner concert, Hotel Tuller; 7, farm program; 9, popular program; Skylark dance band; Billy Miller, tenor; Vern Ricketts, accordionist; Gladys Sanderson, uku-

program; Skylark dance band; Billy Miller, tenor; Vern Ricketts, accordionist; Gladys Sanderson, ukulele lady; Charles Wiggle, the singing cop.

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

WGY, Schenectady, N. Y. (379.5m-790kc), 2 p. m., music; address, "National Characteristics of the Drama of Today—the American Influence." Lawrence Jones; 2:30, organ recital, Stephen E. Boisclair; 6:20, address, "Newer Varieties of Apples." J. Folger; 6:30, dinner program, Hotel van Curler; 7:30, address, "What is Matter Made Or," Prof. Charles B. Hurd; 7:45, Marine band, WG; 8:30, Edison hour, WJZ; 9:30, Mrs. Dana C. Goodrich, soprano; 10,

"The Grand Tour—Spain," WJZ; 10:30, George Olsen's Hotel Pennsylvania orchestra, WJZ.

WHAR. Atlantic City, N. J. (275m-1090kc), 2 p. m., Seaside hotel trio; 7:30, talk; 8, Seaside hotel trio.

WHN, New York, N. Y. (361.2m-830kc), 12:30-1 p. m., Lexington organ recital; 2:15-3:15, overture and vaudeville, Loew's State; 3:15-4:30, Lexington orchestra; 6:30-7, Everglades orchestra; 7-7:30, Vincent Lopez' Iceland orchestra; 7:30-8, Will Oakland's Chateau Shanley; 11, Clro's orchestra; 12-12:30 a. m., Club Kentucky orchestra.

WIP, Philadelphia, Pa. (508.2m-590kc), 6:45 a. m., setting up exercises; 7, setting up exercises; 10, menu talk, Mrs. Anna B. Scott; 1 p. m., organ recital; 3, Dorothy Gitens, soprano; artists from John Thomas Plano studio; 6:05, Al Lentz and his Versatile entertainers; 7, Uncle Wip's bedtime stories; Frank E. Deemer, harmonica, William Deemer, harmonica, Afred Deemer, guitar, Leonard Deemer, guitar, Robert Boyd, mandolin; 8, Elliott Lester, dramatic critic; 8:15, Boys' West Philadelphia high school orchestra; 9, WIP concert quartet—Elizabeth Poret Earl, soprano, Thelma Melrose Davies, contralto, Frank

WWJ, Detroit, Mich. (352.7m-850kc), 9:30 a.m., "To-night's Dinner"; talk, woman's editor; 12:95, Jules Klein's Hotel Statler orchestra; 3, Detroit News orchestra; 6, dinner concert; 8, concert, WEAF.

Central Time Stations

Central Time Stations
CNRR, Regina, Can. (476m-640kc), 8 p. m., Rosson's concert orchestra.
KFAB, Lincoln, Nebr. (340.7m-880kc), 10:30 a. m., 'How the Chick Is Formed,'' F. E. Mussehl; 8:05-10:30 p. m., University of Nebraska program.
KFH, Wichita, Kan. (268m-1120kc), 9-10 p. m., Mc-Vicar-Howard ladies quartet; 12:15-1:15 Mentholatum company orchestra.
KFMQ, Fayetteville, Ark. (299.8m-1000kc), 8 p. m., David O. Hansard, violinist. KFRU, Columbia, Mo. (499.7m-600kc), 8:45 a. m., public school convocation; music, Stephens College Conservatory of Music; 9, educational talk; 6:15, dinner program; 7, Radio school talk, agriculture.
KLDS. Independence, Mo. (440.9m-680kc), 7:15 p. m., basketball game, William Jewell college-Liberty; 8, program, William Chrisman high school; Indpendence

Index to Classical Concerts

Saturday, January 30
Eastern Central Mountain
6 p. m. 5 p. m. 4 p. m.
WCX, WEAF, WMCA, WREO. KGO, KYW, WEAR, WENR, WMAQ, WNYC, WOAW, WOK, WRC. Sunday, January 31 Central Mountain Pacifie 5 p. m. 4 p. m. 3 p. m. 6 p. m. 5 p. m. 4 p. m. 3 p. m.

WCAU. 6:20 5:20 4:20

WCAR, WCAU, WEAF, WEAR, WEEI, WJAR, WTAG, WWJ.

8 7

KYW. WAMD, WBZ, WEAR, WGBS, WGCP, WKAQ, WLS, WORD.

9 8 7

KFDM, KPRC, KSD, WBZ, WCAU, WCO, WCAD, WGY, WHAR, WHT, WNYC, WGJ.

9:15 8:15 7:15 6:15

WEEI, WJAR, WTAG.

10 9

KHJ, KNX, KTHS, KYW, WCCO, WFAA, WNYC, WOC, WQJ, WSOE.

11 10 9

KFVE, KHJ, KNX, KPO, KTHS, KYW, WHN, WKRC, WOC.

12 m 11 10 9

KHJ, KNX, WOC.

14 m. 12 m 11 10

KNX.

Monday, February 1

Eastern Central Mountain Pacific 6 p. m. 5 p.m. 4 p.m. 3 p. m.

KGO, WCX, WEAF, WMCA, WREO, WWJ. 7

KMA, WCCO, WEAF, WEAR, WHAD, WJR, WOAW, WOK. 6

KFNF, KSD, WBBB, WBZ, WCAU, WCX, WHAR, WHT, WJAR, WLW, WMBB, WTAG, WTIC. 9

8

7 WTIC. 8 8 KJ, KPRC, WBBR, WTAG, 9 8 KFOA, KGO, KHJ, KPRC, WBBR, WCCO, WBZ, WCAE, WEEI, WHAD, WHO, WJAR, WOSD, WOS. 8 7 KMA, KPO, KPRC, KSD, KTHS, WAMD, WCCO, WEAF, WHAD, WJAR, WOAW, WSUI, 11 10

11 10 9 8 8 KGW, KHJ, KMA, KSD, KTHS, KWSC, WHN, WSAI. WSAI. 12 m II KGW, WBAP, WSAI. 1 a. m. 12 m

Tuesday, February 2

Eastern Central Mountain Pacific 6 p. m. 5 p. m. 4 p. m. 3 p. m. WBZ, WCX, WEAF, WMCA, WREO, WWJ. 7

KGO, KMA, WEAF, WEBJ, WGBS, WHAD, WJR, WMAQ, WOAW, WOK, WOR, WTIC, WWJ. 8 WWJ.

8
7
KFNF, KSD, KYW, WBZ, WCAE, WCAU,
WCX, WEAR, WEEI, WGR, WHAR, WHT,
WLS, WMBB, WQJ, WRC, WTIC. Eastern Sp. m. Mountain Pacific Sp. m. KFDM. KGO. KGO. KHJ. KLDS. KYW. WCAE. WCBD. WCCO. WEAF, WEEI, WGR. WHAS. WJAR, WLW, WMAQ, WOC. WORD.

WTAG.

10

8

KFAB, KFDM, KFMQ, KMA, KNX, KPRC, KTHS, WCAE, WCCO, WEAF, WEAR, WEET, WLW, WMCA, WOC, WSAI, WSOE, WTAG.

11

10

KGO, KHJ, KMA, KYW, WSAI.

12 m

11

KPO, KYW, WHO, WMC.

Wednesday, February 3
Eastern Central Mountain wednesday, February 3
Eastern Central Mountain Pacific 6 p. m. 4 p. m. 3 p. m.

WCX, WEAF, WMCA, WREO, WWJ. 5 p. m.

KGO, WEAR, WHAD, WJR, WMAQ, WOK, WTC. -

Thursday, February 4
Eastern Central Mountain Pacific 6 p. m. 5 p. m. 4 p. m. 3 p. m.
WBZ, WCX, WEAF, WIP, WMCA, WREO, 7 WWJ.

7
6
KGO, KSD, WEAF, WEAR, WGBS,
WJR, WMAQ, WOAW, WOK, WWJ.

8
KYW, WBBR, WBZ, WCAU, WCCO, WCX,
WEAR, WEEI, WGR, WGY, WHAR, WHT,
WLS, WLW, WMBB, WOAW, WQJ, WTAG,
WTIC.

9
9
9

WTIC.

8

KHJ, KLDS, WBAP, WCAE, WCAU.
WCCO, WEAF, WEEI, WGR, WHAR, WHAS, WJAR, WNYC, WOC, WORD, WRC, WASI, WSB, WTAG,

10

KNX, KPRC, KTHS, KYW, WAMD, WGR, WGY, WHAD, WMC, WOAW, WOC, WSAI.

11

10

KGO, KPO, KTHS, WBAP, WKRC.

12m

11

KGW, KPO, WHO, WKRC.

KGW, KPO, WHO, WKRC.

Friday, February 5
Eastern Central Mountain Pacific 6 p. m. 5 p. m. 4 p. m. 3 p. m.

KGO, WCX, WMCA, WREO, WWJ.

KGO, WEBJ WGY, WHAD, WJR, WMAQ, WOAW, WOK, WOB, WTIC.

KYW, WAHG, WAMD, WBZ, WCAU, WCX, WEBJ, WEEL, WHT, WLS, WQJ, WWJ.

KYW, WBAP, WBZ, WCAU, WDAF, WEEL, WHAD, WJAR, WMAQ, WMCA, WSAI.

KYW, WBAP, WBZ, WCAU, WDAF, WEEL, WHAD, WJAR, WMAQ, WMCA, WSAI.

KYM, WBAP, WBZ, WCAU, WDAF, WEEL, WHAD, WJAR, WAQ, WMCA, WSAI.

KYM, WBAP, WBZ, WCAU, WDAF, WEEL, WHAD, WJAR, WMAQ, WMCA, WSAI.

KFAB, KFDM, KOA, WCCO, WHAD, WMAQ.

KFAN, KHJ, KNX, KPO.

11 10 9

KPO.

Oglesby, tenor, and Chas. D. Long, basso; 10:05, movie talk, Eli M. Orowtiz; 10:30, Pagoda cafe orchestra. WLIT, Philadelphia, Pa. (394.5m-760ke), 11 a. m., organ recital; 12:02 p. m., daily almanac; Stanley theater organ recital; Arcadia cafe concert orchestra; 2, Arcadia cafe concert orchestra; 4:30, magazine corner, Mrs. B. F. Maschal; 7:30, Dream Daddy's bedtime stories.

Mrs. R. F. Maschai; 7:50, Bream Daddy s beddine stories.

WMBF, Miami Beach, Fla. (384.4m-780kc), 7-9 p. m., Fleetwood Radio orchestra; 10-1 a. m., Gene Fosdick and his orchestra; Fleetwood Badio orchestra.

WNYC, New York, N. Y. (526m-570kc), 7:10 p. m., the Canadians; 7:35, the Canadians; 8, studio features; 10, Harry Ash's orchestra; 10:35, Harry Ash's orchestra; 10:35, Tary Ash's orchestra; 10:35, Harry Ash's orchestra.

orchestra. Hary Asis s orchestra, 10.30, Ind. Sality Schorchestra.

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

WOR, Newark, N. J. (405.2m-740ke), 6:15 p. m., "Words Often Mispronounced"; 6:17, sports, Bill Wathey; 6:30, "Man in the Moon Stories for the Children"; 7-7:15, Jacques Jacobs' Hotel Shelton envemble.

Wathey; 6:39, "Man in the Moon Stories for the Children"; 7-7:15, Jacques Jacobs' Hotel Shelton ensemble.

WRC, Washington, D. C. (468.5m-640kc), 10 a. m., women's hour, WIZ; 12, organ recital, George F. Ross; 1 p. m., Hotel Washington orchestra, Irving Boernstein, director; 6, Hotel Hamilton orchestra, Changle Chwalow, director; 6, Hotel Hamilton orchestra; 7, "Show Shopping," Leonard Hall; 7:10, international relations; 7:30, concert, United States Marine band, Captain William H. Santelmann, leader, WIZ, WGY; 8:30, Edison hour, WIZ, WGY; 10:30, WSpencer Tupman and his Hotel Mayflower orchestra; 11:30, organ recital, Gertrude Smallwood; 12, Meyer Davis' Le Paradis band.

WTAG, Worcester, Mass. (268m-1120kc), 10:30 a. m., musical selections; 10:45, talk to mothers, Rosebelle Jacobus; 12:05-2, luncheon music, WTAG, Will Hardy, director; 5:15, "The Twinkle Story Teller"; 7:45, "The Mystery of Alcohol," Prof. Walter L. Jennings; 9-10, Eveready hour, WEAF; 10:30-11, Vincent Lopez and his orchestra.

WTAM, Cleveland, Ohio (389.4m-770kc), 12:15-1:15 p. m., Guy Lombardo and his Royal Canadians; 6-7, Carl Rupp and his Hotel Hollenden orchestra.

Parent-Teachers' association; 11:59, midnight program, Herbert Johnson, organist.

KMA, Shenandoah, lowa (252m-1190ke), 9-9:45 a. m., music; current topics, G. H. Van Houten; 11:30-12:30, noonday rural program; seed talk, Earl E. May; music; 2-3, music; travelogue, G. H. Van Houten; 6-7, May Flower trio; Lina Ferguson; 9-11, May's Mandolin Musicians; talk, G. H. Van Houten.

KPRC, Houston, Tex. (296.9m-1010ke), 12 m., book talk, Julia Ideson; 12:30 p. m., public health talk, Dr. A. H. Flickwir; 5:30, Uncle Judd's kiddles' hour; 7:30, Ralph Park's dance orchestra; Bill Mullin, vocal entertainer; 8:30, string trio; 9, Eleanor Hoffman, contratio.

entertainer; 8:30, string trio; 9, Eleanor Hoffman, contralto.

KSAC, Manhattan, Kans. (340.7m-880kc), 9-9:25 a. m., music, inspirational talks, agricultural primer, calisthenics; 9:55-10:25, readings, backyard gossip, question box, planning today's meals; 12:35-1:05 p. m., readings, question box; "Kanota Summarized," H. R. Sumner; "The Boy Crop," M. H. Coe; 4:30-5, program for women's clubs; 6:30-7:30, "Better Speech, Etiquette"; Extension credit course, Economics; Extension course, "Feeding the Sow and Litter," A. D. Weber; "Ayrshire and Holstein Cattle in Kansas," W. H. Riddell.

KSD, St. Louis, Mo. (545.1m-550kc), 6:55 p. m., Good Will program, WEAF.

KSO, Clarinda, lowa (252m-1240kc), 12:30-1:15 p. m., farmer dinner concert; 7-7:30, music; farm talk; 7:30-9, Snappy Seven, Mrs. M. B. Russell, director.

KTHS, Hot Springs National Park, Ark, (374.8m-800kc), 9-9:30 p. m., semi-classical selections, Eastman hotel orchestra; 9:30-10:15, New Arlington hotel orchestra; Clyde Foley, soloist; 10:15-10:45, Elmer Menard, planist.

planist.

KYW, Chicago, III. (536m-560ke), 11:35 a. m., table talk, Mrs. Anna J. Peterson; 12:05, Joska DeBabary's orchestra; 4, afternoon frolic; 6-7, dinner music, KDKA; 7:05, bedtime story, Uncle Bob; 7:35, speeches, American Farm Bureau federation; address, A. D. White; Walter B. Remley; 8, musical program, Edwin Borroff, director; 9, hour of music; 10, evening at home, Coon-Sanders Original Nighthawks.

WAMD, Minneapolis, Minn. (244m-1230ke), 12 noon, Jack Malerich, organist.

| WBAP, Fort Worth, Texas (475.9m-630kc), 7:30 p. m., music; 9:30, Euterpean club.
WBBM, Chieago, Ill. (226m-1330kc), 4-6 p. m., Valentino inn orchestra; artists; 8-9, Moutin Rouge orchestra; Phil Fleming, tenor; Jean St. Anne, French baritone; 9. Ziegler Sisters; Moulin Rouge orchestra; Claire Matthews, artists.
WBCN, Chieago, Ill. (266m-1130kc), 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.
WGBD, Zion, Ill. (344.6m-780kc), 8 p. m., Treble Cleff chorus; violin quartet; Mrs. Pihl, Mrs. Bird, vocal duets; Mrs. Luke Ball, soprano; Esther Harwood, vocalist; Mark Whiteside, baritone; John Studebaker, clarinetist; Newcomer, Stewart, cornetists; piano duets. WCCO, Minneapolis-St. Paul, Minn. (416.4m-720kc), 12 m., Dick Long's Dayton trio; 2 p. m., problems of our government; 2:30, arternoon concert, Dick Long's trio; 3:30, "The World of Books," H. A. Bellows; 4, readers' club. Eleanor Poehler; 5:30, children's hour; 6:15, dinner concert, Wesley Barlow's Nicollet hotel orchestra; 7:30, program, WEAF; 7:30-8, Gold Dust Twins; 8-9, Eveready hour; 9-9:30, bridge lesson; 9:30, "Outdoors in Minnesota," Isaac Walton league.
WDAF, Kansas City, Mo. (365.6m-220kc), 3:30-4:30 p. m., The Star's string orchestra; 6-7, the Tell-Me-ars; Eddic Kuhn's orchestra; Billy Adair's orchestra. WDOD, Chattanooga, Tenn. (256m-1170kc), 9-9:30 p. m., bridge games.
WEBH, Chicago, Ill. (370.2m-810kc), 11:30-12 noon, woman's half hour; 3-4 p. m., special features; 7-8.

a-Story lady; Radio piano lesson, Maudellen Littlefield; The Tritanon ensemble; 11:45-1 a. m., Plantation players; Eddie Kuhn's orchestra; Billy Adair's orchestra; WDOD, Chattanooga, Tenn. (256m-1470kc), 9-9:30 p. m., bridge games.

WEBH, Chicago, III. (370.2m-810kc), 11:30-12 noon, woman's half hour; 3-4 p. m., special features; 7-8, Lydla Lochner, contrailo; Oriole orchestra; Kathryn Forbes, soprano; 9-9:45, Dtown theater; 9:45-10, news; 11-12:30, Oriole orchestra; Jack Penewell, Fredpalmirer, Howard Neumiller.

WEBW, Beloit, Wis. (268m-1120kc), 8 p. m., fortnightly concert hour; special Beloit college atumni program; vocal and instrumental numbers; address.

WFAA, Dallas, Tex. (475.9m-630kc), 12:30-1 p. m., Beaumont band; 4:30-5, Cloyd Griswold, song and uke soloist; 6:30-7:30, Don Bestor's orchestra; 8:39-9:30, Southern Methodist university musical faculty recital; 11-12, Cline's Collegians.

WGES, Oak Park, III. (325m-1200kc), 5-7 p. m., flute duo, organ, basso; 8-9, piano, orchestra, organ, tenor; 11-1 a. m., piano, tenor, soprano, organ, features.

WGN, Chicago, III. (302.8m-990kc), 10-11 a. m., good health and training, Mary Murphy; 11-11:30, household hints; 12:30-12:40, "Why Not Sausage for Supper?" Inez S. Willson; 12:40-2:30, luncheon concert, Drake concert ensemble and Edward Benedict, organist; 2:30-3, Lyon and Healy, artist series; 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, organist; 8-9, Eveready program, WEAF; 9-10, popular program; 10-11, dance program.

WHAD, Milwaukee, Wis. (275m-1090kc), 11 a. m., planolog, Andy Hertel: "Getting the First Thou-

program. WEAF; 9-10, popular program.

WHAD, Milwaukee, Wis. (275m-1090kc), 11 a. m., planolog, Andy Hertel; "Getting the First Thousand," Carl Skinrood; 4 p. m., musical numbers; 6:15-7, Bill Benning's Milwaukee Athletic club order.

chestra.

WHAS, Louisville, Ky. (399.8m-750ke), 12-1 p. m., noonday service, Trinity Methodist church, Rev. Dr. John Lowe Fort, pastor; Rev. Dr. Frederick Shannon, speaker; nusic; 1-2, concert, Benson trio; 3-3:30, organ recital, Mrs. Myrtle Fulks Zahn; 4-5, Campus Cracks; Wallace Wilson, saxophonist; Walter Haynes, banjoist; Charles O'Connell, planist; concert, Harry S. Currie's Music Box; readings; 7:30-9, concert, Carl Zoeller's melodists.

Charles O'Connell, planist; concert, Harry S. Currie's Music Box; readings; 7:30-9, concert, Carl Zoeller's melodists.

WHO, Des Moines, Iowa (526m-570kc), 7:30-8 p. m., Raleigh quintet; 8-9, Bankers Life trio, Helen Birmingham, director; 11-12, Bankers Life Little symphonic orchestra, Leon Dashoff, director.

WHT, Chicago, Ill. (399.8m-750kc), 10 a. m., women's club program, Jean Sargent; Borden's health talk; studio music; 11, studio features; (238m-1260kc), 12, organ recital, Al Carney, (399.8m-750kc), 6 p. m., classical program; Al Carney, organist; Grayling's string trio; Eleanor Gilmour, Edwin Kemp, Lillian Knowles, John Rankel; 6:50, Loftis music; (238m-1260kc), 9:15, Alamo orchestra; (399.8m-750kc), 9:30, Hawaiian trio; Chez Pierre orchestra; Si Berg, ukulele; Helen Boise, popular songs; 10:10, dance music; 12, "Your Hour Leegue," Pat Barnes and Al Carney, WiBO, Chicago, Ill. (226m-1330kc), 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 midnight-2 a. m., jamboree.

WIID, Mooseheart, Ill. (370.2m-320kc), 4-5 p. m.
Mooseheart hour, music, younger Mooseheart children; daily assembly of 1,256 children; faculty talks; 6-7, instrumental hour, Howard L. Peterson, organist; the Palmer Symphonic players; Palmer House Victorians; 8-9, Mooseheart children's hour, music, children of all ages, solos, bands, etc.; 10-11 Rushmore ensemble; 12:30, settin'-up hour, Garod studio, Palmer House; Palmer House Victorians; Graymy Children; Graymy Children of Growing Chicks," J. M. Moore; 7:45-8, animal husbandry course, "Types and Breeds of Beef Cattle," G. A. Branaman.

WLIB, Chicago, Ill. (302.8m-990ke), 7-7:30 p. m.
dinner concert; 7:30-8, Gold Dust program, WEAF;

7:30-7:45, poultry course, "Nutritional Requirements of Growing Chicks," J. M. Moore; 7:45-8, animal husbandry course, "Types and Breeds of Beef Cattle," G. A. Braaman.

WLIB, Chicago, Ill. (302.8m-990ke), 7-7:30 p. m. dinner concert; 7:30-8, Gold Dust program, WEAF; 11-12, popular program; 12-1, dance program, WEAF; 11-12, popular program, Tel-1, dance program, WEAF; 11-12, popular program; 6:40, Ratph Emerson, organist; 7, Ford and Glenn; 7:20, Apollo music club.

WLW, Cincinnati, Ohio (422.3m-710kc), 7:30 a. m. healthful exercises, William Stradtman; 8, morning devotions, auspices of the Parkway Y. M. C. A.; 22 m., concert, Hotel Gibson orchestra, Robert Visconti, director; 4 p. m., talk, Ralph Schmidt; 4:10, French lesson, Madame Ida Tcimpidis; 7, musical appreciation series, the Cincinnati Conservatory of Music; 7:20, Crosley popular science series, member of the faculty of St. Xavier college; 7:30, piano memories, Mary Louis Woseczek, the Crosley piano request lady; 7:50, concert, Trirdyn instrumental trio; 8, old-time review, Crosley Burnt Corkers, comedians and instrumentalists; 9, concert, auspices of the Formica Insulation company, Formica concert orchestra, William Stoess, director.

WMAQ, Chicago, Ill. (447.5m-670kc), 2 p. m., shut-in program; 4, "Interior Decorating," G. M. Moritz; 4:30, pupils, Columbia School of Music; 5:15, Topsy Turvy time; 6, Chicago theater organ recital; 6:30, Hotel LaSalle orchestra; 8, Harry Hansen book talk; 8:20, travel talk, Clara Laughlin; 8:49, lecture, U. of C.; 9, "Mikado," O. E. Robinson, director; 9:55, chimes.

8:20, travel talk, Clara Laughlin; 8:40, lecture, U. of C.; 9, "Mikado," O. E. Robinson, director; 9:55, chimes.

WMBB, Chicago, III. (250m-1200kc), 7-8 p. m., Triamon Duo; Genevieve Barry Burnham, operatic soprano; Eleanor Kaplan, violinist; Preston Graves, concert pianist, semi-classical operatic program; talk on finance; 9-11, Trianon orchestra, Dell Lampe, conductor; Woodlawn theater orchestra, Armin F. Hand, conductor; Matts & Donovan, Axel Christensen, Jack Goodwin, Willie Lightfeld.

WMC, Memphis, Tenn, (499,7m-600ke), 8:30 p. m., musical program; 11, frolic, Britling's cafteria Novelty orchestra.

WOA1, San Antenio, Tex. (394,5m-700ke), 8:30 p. m., Gebbardt, musicians.

WOAI, San Antonio, Tex. (394.5m-700kc), 8:30 p. m., Gebhardt, musicians.
WOAW, Omaha, Nebr. (526m-670kc), 12:45 p. m., Gilbert Jaffy and his Little symphony; 6, entertainment; 6:50, orchestra; 9, classical; 10:10, Radio review, Neal Jones; 10:30, Herb Feierman and his Omadala orchestra; 12, Rialto theater alarm.
WOC, Davenport, Iowa (483.6m-620kc), 12:15-12:25 p. m., "How to Manage an Incubator." Prof. A. G. Philips; 3-3:30, Aunt Jane; 5:45-6, climes; 6:30-6:50, sandman; 7:30-8, Gold Dust twins; 8-9, Eveready hour, WEAF; 9-9:30, bridge; 9:30-10:15, travel talk, Dr. B. J. Palmer; 10:15-10:45, Mendelssohn music club.

PHILHARMONIC TRIO TO SING AT WBZ

Tuesday, February 2

WOI, Ames, lowa (270m-1110kc), 9 a. m., "Haying Machinery," J. L. Adams; 10, "Budgetting the Unstable Income," Gertrude Lynn; 11, "Raising Baby Beeves in Jowa," George Godfrey; 12:45 p. m., animal husbandry, Prof. H. H. Kildee; 2:10, "The Homemaker's Assets," Martha Van Rensselaer; 3, "The Farm Women's Contribution to the Community," Neale S. Knowles; "To the Health Clinics," Laura Waite; "To the Woman's Place in the Farm Camps," Fern Lippencott; "To the Health Clinics," Laura Waite; "To the Woman's Place in the Farm Bureau," Mrs. O. L. Stroud; 8, "Costs of Housekeeping," Martha Van Rensselaer: and the Word of the Woman's Place in the Farm Bureau," Mrs. O. L. Stroud; 8, "Costs of Housekeeping," Martha Van Rensselaer: and the Word of the Woman's Place in the Farm Bureau," Mrs. O. L. Stroud; 8, "Costs of Housekeeping," Martha Van Rensselaer: Uok, Chicago, III. (217.3m-1380kc), 4:30-7 p. m., Tearney's Town club orchestra; carl Lorraine's Pershing Palace orchestra; Husk O'Hare's Cocoanut Grove orchestra; Capitol theater program; tudio program.

WOR, Kansas City, Mo. (278m-1080kc), 8-9 p. m., devotional musical program.

WORD, Batavia, III. (275m-1090kc), 7-7:45 p. m., musical program; 7:45-8, questions and answers; 9-9:45-10, reading; 11-11:45. Public Service company program; 11:45. address, Ernest G, Wylam.

WOJ, Chicago, III. (447.5m-670kc), 11-12 m., talk, Mrs. Lillian Russell; talk, Lillian Krauter; 3-4 p. m., "Every Day Lunches," Helen H. Downing; "Suggestions for an Abraham Lincoln Party," Julia M. Deal; 7-8, Rainbo Gardens orchestra; Fontella trio; Kenneth Sterling, baritone; Lavina Price, planist; 10-1 a. m., Jerry Sullivan; Rose Vanderbosch, soprano; Hallansing, ukulele soloist; Everett George Opie, Bert Davis; Merrill Carder, baritone; Will Rossiter; Brundage and Kraemer; Ila Shannabrook, soprano; Romo Vincent, boy baritone; 1-2, Ginger hour, WSAI, Cincinnati, Ohio (325-9m-920kc), 5:30 p. m., twilight musicale, featuring Jack Little and Ray O'Vac twins; 7, Mabley and Carew orchestra, Reuben Lawson, direct WOI, Ames, lowa (270m-1110kc), 9 a. m., "Haying Machinery," J. L. Adams; 10, "Budgetting the Un-

wSb, Atlanta, tat. (420.3m1-700ke), 5 p. m., Lyon and King deliaxe concert; 101.45, program, Mrs. Kell Martin, director, WSM, Nashville, Tenn. (282.8m-1060ke), 10 p. m., frolic, Beasley Smith's orchestra studio, WSUI, 10wa (483.6m-620ke), 12:30 p. m., C. Esco Obermann, tenor; address.

Mountain Time Stations
CFAC, Calgary, Can. (435.8m-688kc), 8:15 p. m., ladies

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

roctan, Talamount meater; 5-6 Ugden Radio dealers program.

KFXF, Colorado Springs, Colo. (250m-1200kc), 8:30-10 p. m., Freeman Dust Absorber musical program.

KOA, Denver, Colo. (322.4m-930kc), 12:15 p. m., Rialto theater musicale; 3:15, relaxing and corrective exercises; 3:30, matinee for housewives; 4, culinary hints; 4:15, fashion review; 6:30, dinner concert, Brown Palace string orchestra, Howard Tillotson, director.

Pacific Time Stations

KFI, Los Angeles, Calif (468.5m-640kc), 5:30-6 p. m., Jose Arlas Mexican orchestra; 6, nightly doings; 6:15, KFI's Seeing California; 6:30, vest pocket program; 6:45, radiotorial period; 7-7:30, Packard Six dance orchestra; 7:30-8, Chinese Gardens dance orchestra; 8-9, Dorothy Conant trio; 9-10, program arranged by Tilda Rhor, Swiss contralto; 10-11, Packard ballad hour of popular songs.

ories 7: 30-8. Chinese Gardens dance orchestra; 8-9. Dorothy Conant trio; 9-10, program arranged by Tilda Rhor, Swiss contratic; 10-11, Packard ballad hour of popular songs.

KFON, Long Beach, Calif. (223m-1290kc), 6-6:45 p. m., organ, Brayton's theater; 6:45-7, KFON gossip and amusement information; 7-8. Investors' hour; 8-9, Press-Telegram program; 9-11, Long Beach Aero club Hi-Jinks, KFWB, Hollywood, Calif. (232m-1190kc), 5-6 p. m., children's hour, Big Brother of KFWB; 7:30, health talk, Dr. W. I. Schuster; 8-9, Hazel Thomas, soprano; Jack Smith's dance orchestra; 9-10, Joe Martin's California serenaders; Henry Kaplan, pianist; Bill Black, tenor; 10-11, Warner Brothers froile, direction Charlie Wellman.

Jack Smith's dance orchestra; 9-10, Joe Martin's California serenaders; Henry Kaplan, pianist; Bill Blake, tenor; 10-11, Warner Brothers frolic, direction Charlie Wellman.

KGO, Oakland, Calif. (361.2m-830ke), 7:15-7:30 a. m. health training exercises, Hugh Barrett Dobbs; 7:45, pep class; 8:30, "Daily Strength"; 11:30-1 p. m., Sherman Clay and company luncheon concert; 4-5:30, concert orchestra, Hotel St. Francis, Vinton La Ferrera, conductor; 5:30, "As a Woman Thinketh," Louise Landis; 6-6:55, dinner concert; 8-9, Eveready hour; Spanish program; William Dehe, cellist; Eva M. Garcia, planist; Marion Vecki, baritone; 9-9:30, Mme. Rose Florence presents Mrs. Henri Bercut, soprano; Martha Jalava, mezzo-soprano; Ira D. Morgan, baritone; Irma Harris Vogt, accompanist; 9:30, auction bridge feature; 10-11, dance music program, Grivin-Deuel's California Collegians.

KGW, Portland, Ore. (491.5m-610ke), 6-7 p. m., dinner concert; 7:45-8, talk, Oregon State Bankers association; 8-10, educational program; book review, J. K. Gill company; bridge; word cartoon on styles; Mc-Elroy string quartet; 10-12, Multnomah hotel, Curt Kremer, pianist.

KHJ, Los Anpeles, Calif. (495.2m-740kc), 6-6:30 p. m., Leighton's Arcade cafeteria orchestra, Jack Cronshaw, leader; 6:30-7:30, history story, Frof. Hertzog; weekly visit of Queen Titania and the Radio Fairies; Lenore Killian, contralto; Charles Leslie Hill, readings; 7:30, "Diamond Mines of Central Africa," E. P. Barclay; 8-10, Pruner orchestra, 15:10, Jose Arias and his Mexican orchestra.

KMTR, Hollywood, Calif. (233m-1260kc), 5-6 p. m., citizenship hour, 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, Turner orchestra, 15:10, Jose Arias and his Mexican orchestra.

KMTR, Hollywood, Calif. (235m-1260kc), 5-6 p. m., citizenship hour, 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, Turner orchestra, 15:10

Ochestra. 1629, 11-12, Ambassador hotel dance Ochestra. 1709, San Francisco, Calif. (428.3m-700kc), 1-2 p. m., Rudy Seiger's Fairmont hotel orchestra; 2:30, matinee program; 3:30-4:30, Cyrus Trobbe's Palace hotel concert orchestra; 5:15-6:15, children's hour stories; 6:40, Waldemar Lind and States Restaurant orchestras; 7-7:30, Rudy Seiger's Fairmont hotel orchestra; 8-9, program, Thirtieth Infantry band, Meyer M. Cohen, director; 9-10, program, Mona Motor Oil company; 10-11, Palace hotel dance orchestra, Gene James, director.

director.

KPSN, Pasadena, Calif. (315.6m-950kc), 8-9:30 p. m.

TAB. Oakland, Calif. (240m-1250ke), 9-9:30 a. m., prayer service, Rev. G. W. Phillips; 9:30-9:40, proper care of household pets, Ansel W. Robinson, 12-1 p. m., luncheon concert; 8-10, studio program.

Wednesday, February 3

Headliners Today

Eastern Central Mountain 8:30 p. m. 7:30 p. m. 6:30 p. m. WBZ (333.1m-900kc) Typolean ladies' WHO (526m-570kc) Four Husketeers.

9 p. m. 8 p. m. 7 p. m. 6 p. m.

WEAF (491.5m-610ke), WEET, WCAP, WWJ,
WCCO, WGR, KSD, WSAI, Ipana Troubadours.
9:30 7:30 6:30

KPRC (286.9m-1010ke) D. O. K. K. fraternal band.
10 9

KFWB (252m-1190kc) Joke contest.
KTHS (374.8m-800kc) Pan-American program.
WEAF (491.5m-610ke), WEEI, WTAG, WCAP,
WWJ, WGN, WJAR, Roxy and his gang.
10:45 8:45 7:45

KTHS (374.8m-800kc), Southern Melodies.
11

WSAI (325.9m-920kc) Jack Little, Wendell Hall, Ray
O'Vac Twins.
12 m. 11
10 9

WSAI (374.8m-800kc), Surprise de luxe.

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, WCBD, WEBW, WFAA, WGBS, WGCP, WGST, WHAR, WHAZ, WIP, WJAD, WJAZ, WLWL, WMC, WOAI, WOAW, WOI, WPG, WRC, WREO.

Eastern Time Stations

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

CNRO, Ottawa, Can. (434.5m-690ke), 8 p. m., Chateau
Laurier concert orchestra; Madame Maud Pouget, soprano; Gladys Ewart, pianist; James McIntyre, violinist; dance orchestra.

Havana, Cuba (400m-750kc), 8:30 p. m., genera staff band.

WAFD, Port Huron, Mich. (275m-1090kc), 8-10 p. m.

studio program; 1-2 a. m., studio program.

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

p. m., musical program; 7:30, John Schiller's Moonlight Melodists; 8, Rosalie Wolf, soprano; 8:15, Philip

A. Fey, tenor; 8:30, Jevva Blix, contraits; 8:45, Rosalie Wolf, soprano; 9, Nathan Weinberg, violinist; 9:15,
Jevva Blix, contraito; 9:30, Evan Davies; 10:03, Raymond Maher, baritone; 10:20, Frank LaPiere's Collegians.

lie Wolf, soprano; 9, Nathan Weinberg, violinist; 9:15.
Jevva Blix, contralto; 9:30, Evan Davies; 10:03, Raymond Maher, baritone; 10:20, Frank LaPiere's Collegians.

WEZ, Springfield, Mass. (333.1m-900kc), 6:30 p. m., Little symphony orchestra; 6:45, Hotel Kimball dance orchestra; 7:30, Radio nature league, Thornton W. Burgess; 8, Daniel Kuntz and his Repertory theater orchestra; 8:30, Tyrolean ladies' quartet; 9, "Browning's Love Point of View," Dr. D. M. Staley; 9:15, Henry Volk, violinist; Ernestine Harding Wilcox, soprano; Paul Breger, pianist; 10:05, Leo Reisman's Hotel Brunswick orchestra.

WCAE, Pittsburgh, Pa. (461.3m-650kc), 10:45 a. m., Gold Medal talk; 12:30 p. m., news; 6:30, dinner concert, William Penn hotel; 8, address; 8:30, Davis saxophone octet; 9, concert.

WCAP, Washington, D. C. (468.5m-640kc), 6:45-7:45 a. m., health exercises, WEAF; 7-11, addresses; U. S. Army band; Davis saxophone octet, WEAF; Ipana Troubadours, WEAF; Roxy and his gang, WEAF; MCAU, Philadelphia, Pa. (278m-1080kc), 6:45 p. m., Parodians dance orchestra; 7:30, N. Snellenburg and company concert; 8, health talk; 8:10, Papa Bailey and his bunch; 8:50, "The Adventures of the Ethical Onion," T. Ronald Allen; 9, Rigo's Royal Gypsy band; 9:30, Jones' Jolly Four; 10, chat, Murray Elgart; 10:05, Lew Chapman's Inter-Fraternity dance orchestra; 10:45, Frank Cook, songs of yesterday; 11, Artie Blittong's Cheer-up club.

WCX, Detroit, Mich. (5:6.9m-580kc), 4 p. m., news and markets; 6, dinner concert, Book-Cadillac hotel; 8, program from studio.

WEAF, New York, N. Y. (491.5m-610kc), 10:45 a. m., Betty Crocker; 11:35, Elsie Harmon, soprano; Sophie Zeitz, contralto; 11:39, home management, Columbia university; 4 p. m., Ray Nichols Recording orchestra; 4:30, comedy songs, Dick Hughes; 4:45, "Modern European Fiction," Prof. Dorrothy Brewster; 6, dinner music, Rose room, Hotel Waldorf-Astoria; 7, synagogue service; 7:30, Gania Zielinska, soprano; Gluseppe di Benedetto, symphonic instrumental quartet, WEAF, WOO, WIAR; 8:30, Davis Saxophone

WGN. WJAR; 11-12, Hughie Barrett and his orchestra.
WEAO, Columbus, Ohio (293.9m-1020kc), 4 p. m., story hour, Prof. Sada Annis Harbarger; 4:30, music; 8, "The Goal of Effective Speaking," Hayes Yeager; 8:15, music; 8:30, "Psychology and Personal Efficiency," Prof. H. E. Burtt; 8:45, music; 9, orchestra concervity, Prof. H. E. Burtt; 8:45, music; 9, orchestra concervity, Prof. H. D. Burtt; 8:45, music; 9, orchestra concervity, Prof. H. D. Burtt; 8:45, Jeanne Adair, Servity, Prof. M. Y. (273m-1100kc), 8 p. m., Balconnades Ballroom orchestra; 8:45, Jeanne Adair, Soprano; 9, Michele Bontempo, operatic baritone; Amalia Perrucci, accompanist; 9:15, Ben Ruty, Michael Savaino, Hawalian guitarists; 9:30, Busoni's Neopolitans.
WEEI, Beston, Mass. (348.6m-860kc), 6:45 a. m., tower health exercises; 7:45, morning watch, Estey organ; 3 p. m., Johnnie Bowles and his orchestra; 5:15, Joe Rines and his Hunters' Cabin orchestra; 7, big brother club; 7:30, musical; 7:45, Peerless tours, Joe Toye; 8:30, Davis saxophone octet; WEAF; Ipana Troubadours, WEAF; 10, musical program, Roxy and his gang, WEAF.

dours, WEAF; 10, musical program, Roxy and his gang, WEAF; 10, musical program is gang, WeAF; 10, musical program is gang, wear, 10, musical program is gang, 10, musical program; 10, mus

7, orchestra; 7:30, Kennedy Harmony group; 8, Charles and Henry Tobias; 8:15, Charol de Thome, concert

7, orchestra; 7:30, Kennedy Harmony group; 8, Charles and Henry Tobias; 8:15, Charol de Thome, concert planist.

WGHP, Detroit, Mich. (270m-1110kc), 6 p. m., dinner concert, Hotel Tuller; 7, farm program; 8, classical concert; WGHP Little symphony orchestra; male quartet; Madame Gizi Szanto, pianist.

WGR, Buffalo, N. Y. (319m-940kc), 2:30 p. m., WGR's afternoon program; 6:30, Joe Armbruster's orchestra; 8:30, jointly with WEAF, Davis Saxophone octet; Ipana Troubadours; 10, A. Nusbaum presents a baritone and plano program; 10:30, novelty program, Jack Bishop; 11-1 a. m., supper dance music, Vincent Lopez Hotel Statler dance orchestra, Harold Gleser, director, and Arthur Melgier at the organ.

WGY, Schenectady, N. Y. (379.5m-790kc), 6:30 p. m., children's program; 6:45, dinner program, Bastman theater orchestra; 7:30, "Sook of Knowledge," program; 8:05, musical program, WHAM.

WHN, New York, N. Y. (361.2m-330kc), 7-7:30 p. m., Ted Lewis and his orchestra; 7:30-8, Akradyne entertainers; 10-10:30, Roseland dance orchestra; 11, Silver Slipper orchestra; Lew Brown and Sidney Claire; 12-12:30 a. m. Cotton club orchestra; 12:30-1, Harry Richman and his entertainers.

WIP, Philadelphia, Pa. (508.2m-590kc), 6:45 a. m., setting-up exercises; 7, setting-up exercises; 10:30, reducing exercises; 7, setting-up exercises; 10:30, reducing exercises; 7, setting-up exercises; 6:05, Benjamin Franklin concert orchestra; 7, Uncle Wip's bedtime stories.

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

Wikaa, San Juan, P. R. (340.7m-880kc), 6-8 p. m., municipal band.
WLIT, Philadelphia, Pa. (394.5m-760kc), 12:02 p. m., daily almanae; Stanley theater organ recital; Arcadia cafe concert orchestra; 2, Arcadia cafe concert orchestra; 2, Arcadia cafe concert orchestra; 8, recital; 7:30, Dream Daddy's bedtime stories; 8, recital; 9, concert; 10, Arcadia cafe dance orchestra.
WMBF, Miami Beach, Fla. (384.4m-780kc), 7-9 p. m., Fleetwood Radio orchestra; Whyte, New York, N. Y. (526m-570kc), 6:20 p. m., piano selections; 6:30, Elementary and Advanced Spanish lessons, V. Harrison Berlitz; 7:35, Bernard's New York Six; 8:30, William Lang, violinist; 9:15, song recital; 9:30, instrumental program; 10:10, lecture.

song recital; 9:30, instrumental program; 10:10, lecture.

WOO, Philadelphia, Pa. (508.2m-590kc), 11 a. m., organ recital; 12:02 p. m., Golden's Crystal tea room orchestra; 4:45, organ recital; 7:30, Hotel Sylvania dance orchestra; 8, U. S. Army band; 8:30, Davis saxophone octet; 9, WOO American male quartet; 9:25, address, Rev. Forest Dager; 10, Fox theater studio program; 10:30, Hotel Sylvania dance orchestra.

WOR, Newark, N. J. (405.2m-740kc), 3 p. m., magazine review; 6:15, "Words Often Mispronounced"; 6:17, Bill Wathey, sport editor; 6:30, Jacques Jacobs ensemble; 7:30-7:45, Zit's Central Park Casino orchestra, stopics of the day, Spencer Armstrong; 8:15, Ballia and Race, piano duo; 8:40, Sam Siegel, mandolin virtuoso; 9, Ballin and Race, piano duotitists; 9:30, Sam Siegel, mandolin, virtuoso; 11-12 midnight, Katinka orchestra.

WRC, Washington, D. C. (468.5m-640kc), 10 a. m., women's hour, WJZ; 12 noon, organ recital, Gertrude Smallwood; 1, Lee House trlo, Sam Udrin, director; 4:15, Meyer Davis' Le Paradis band; 5, musical program; 5:45, "Things Talked About," Mrs. Nina Reed.

WRVA, Riehmond, Va. (256m-1/70kc), 8:11 p. m.,

4:13, Meyer Davis' Le Paradis band; 5, musical program; 5:45, "Things Talked About," Mrs. Nina Reed.

WRVA, Richmond, Va. (256m-1170kc), 8-11 p. m., Burkeville Booster club; Pledmont Sanatorium Negro chorus; 10, orchestra; 11, Carry Me Back to Old Virginny.

chorus; 10, orchestra; 11, Carry Me Back to Um virginny.

WTAG, Worester, Mass. (268m-1120kc), 10:30 a. m., musical selections; 10:45, talk to housewives, Mrs. Lyda Flanders; 12:05-2 p. m., noon-day luncheon music, WTAG; 3-5, Tea Dansant music; 7, talk, Robert K. Shaw; 7:15, "The Twinkle Twinkle Story Teller"; 7:45, Spanish lesson, Mrs. John De La Parra; 8:30-9, Davis saxophone octet, WEAF; 10-11, Roxy and his gang, WEAF.

WTIC, Hartford, Conn. (475.9m-630kc), 6:30 p. m., dinner music, Hotel Bond tric; 8, studio concert; 9, talk, "Life Insurance—The High Spots," B. H. Camp; 9:15, piano recital, compositions of Cecile Chaminade, Laura C. Gaudet; 9:30, organ recital; Esther A. Nelson.

Nelson.

WWJ, Detroit, Mich. (352.7m-850kc), 7:30-8 a. m., setting-up exercises, R. J. Horton; 9:30, "Tonight's Dinner," talk, woman's editor; 10:45, home service talk, Betty Crocker; 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.

concert; 8, News orthestra and soloists; 9, dance program; 10, Roxy and his gang.

Central Time Stations

CKY, Winnipeg, Can. (384.4m-780ke), 7:30 p. m.,
CNRW.

CNRW. Winnipeg, Can. (384.4m-780ke), 7:30 p. m.,
bedtime story, Aunt Grace; 7:50, Fort Garry hotel
orchestra; 8:45, Gladys Senior, harpfst; Helen Tennent, soprano; Jean Campbell, reader; Jean Campbell,
bagpipe selections; John Barrie, tenor; 10, Fort Garry
hotel orchestra; selections, Al Kilgour.

KFAB, Lincoln, Nebr. (340.7m-880kc), 10:30 a. m.,
"Revelations of a Clothes Closet," Ella Cushman; 8:05
p. m., "Tactors Affecting the Gasoline Mileage of
Automobiles," C. W. Smith; "Our Future Beef Supply," H. J. Gramlich; 8:30-10:30, Belshaw's orchestra; Olive Fletcher, Ruby Teater; Raiph Hall, banjoist; Lincoln guitar orchestra; Slick Merriman.
KFH, Wichita, Kan. (268m-1120kc), 9-10 p. m., National
Savings Life Insurance company orchestra.

KFMQ, Fayetteville, Ark. (299.8m-1000kc), 7:30 p. m.,
university alumni night; talks, music, university glee
club, orchestra and band; stunts, student organization.

KFRU, Columbia, Mo. (499.7m-600kc), 9-11 p. m., musical program.

KFUO, St. Louis. Mo. (545.1m-550kc), 9-11 p. m.

sical program.

KFUO, St. Louis, Mo. (545.1m-550ke), 9:15 p. m.,

'Does Science Conflict With the Bible?' Prof. Th.

"Does Science Conflict With the Bible?" Prof. Th. Graebner; music. (252m-1190ke), 9-9:45 a. m., music; current topics, G. H. Van Houten; 11:30-12:30, noonday rural program; music; sarden talk, Earl May, 6-7, domestic science talk, Le Ona Teget; news items; music; 9-11, songs and clog dance, Bobbie and Babe Riddle; Scotch program, Mr. Forbes, director, KPRC, Houston, Tex. (296.9m-1010ke), 12 m., Lions' club luncheon program, I. C. Timmins, president; 5430

p. m., Uncle Judd's kiddies' hour; 7:30, E. W. Rodgers, tenor, and his uke; 8:30, D. O. K, K. fraternal band, V. Kucera, director; 11, Palace theater orchestra, Charles McBlain, conductor.

KSAC, Manhattan, Kans. (340.7m-880ke), 9-9:25 a. m., music, inspirational talks, agricultural primer, calistenies; 9:55-10:25, readings, backyard gossip, question box, planning today's meals; 12:35-1:05 p. m., readings, question box; "Selection and Care of Breeding Flock," J. H. McAdams; "Pruning Apple Trees Before They Bear," L. C. Williams; 4:30-5, basketball lectures; 6:30-7:30, sports, inventions; Extension credit course, "Planning the Road System," M. W. Furr; "Cold Weather Hints for Automobile Operation," Ray Flags.

"Cold Weather Hints for Automotics Operation, Flagg.

KSD, St. Louis, Mo. (545.1m-550ke), 7 p. m., fur hour; program, Hotel Statler orchestra; 8, Ipana Troubadours, WEAF.

KSO, Clarinda, la. (242m-1240ke), 12:30-1:15 p. m., farmer dinner concert; 7-7:30, music; health talk, Dr. F. H. Clark; 7:30-9, First Presbyterian church choir, Mrs. Leo Humphrey, director, KTHS, Hot Springs National Park, Ark. (374.8m-800ke), 12:30-1 p. m., orchestra; 9-9:45, Pan-American program Spanish announcement, Leon Numainville; 2:45-

KTHS, Hot Springs National Park, Ark. (374.8m-800kc), 12:30-1 p. m., orchestra; 9-9:45, Pan-American program, Spanish announcement, Leon Numainville; 9:45-10, Southern melodies, Lawson Reid; 10-10:15, W. C. Brown, baritone; Arthur Platz, accompanist; 10:15-11, dance frolic, Southerners Maiestic hotel orchestra; popular vocal numbers, Mrs. Harry A. Jones; 11-11:45, surprise de luxe feature.

KYW, Chicago, Ill. (536m-560kc), 11:35 a. m., table talk, Mrs. Anna J. Peterson; 12 m., Commonwealth Edison company; 1 p. m., Joska De Babary and his orchestra; Coon-Sanders Original Nighthawks; 6-7, dinner music, KDKA, WBZ, KYW, KFKX; 7, bedtime story, Uncle Bob; 7:30, half hour of music; 8, Congress hotel musicale; 10-12:30 a. m., midnight revue; Paul Ash and his orchestra; Coon-Sanders Original Nighthawks; 1, Insomnia club.

club.
Minneapolis, Minn. (244m-1230kc), 12 noon, DorwAMD, Minneapolis, Minn. (244m-1230kc), 12 noon, Dorothy Vanesek, soprano; Ted Johnson, violinist; Oscar Westlund, accompanist; trio; 7:10, Rose Schaettgen, violinist; Edna Weese, soprano; Charles Sandberg, baritone; Don Harris, pianist. WBBM, Chicago, III. (266m-1330kc), 4-6 p. m., Valentino Inn orchestra; artists; 8, string trio; Moulin Rouge orchestra; Sunset quartet; 12-2, artists; Two Jays.

tino Inn orchestra; artists; 8, string trio; Moulin Rouge orchestra; Sunset quartet; 12-2, artists; Two Jays.

WBCN. Chicago, Ill. (266m-1130kc), 10-10:30 a. m., Penny Wise, the shoppers' 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, bartione.

WCCO, Minneapolis-St. Paul, Minn. (416.4m-720kc), 10:45 a. m., "Do You Entertain Easily," Betty Crocker; 2 p. m., woman's hour; 2:30, afternoon concert; 4, readers' club, Eleanor Poehler; 5:30, children's hour; 7, mid-week church service; 8, program, WEAF, Ipana Troubadours; 9, traffic safety talk, M. R. Bass; 10:05, dance program, Emmet Long's Golden Pheasant orchestra; 11:30, organ recital, Eddie Dunstedter.

WDAF, Kansas City, Mo. (365.6m-820kc), 10:45-11 a. m., Betty Crocker, home service talk; 6-7 p. m., the Tell-Me-a-Story lady; address, Ralph E. Herrick; The Trianon ensemble; 8-9, "Beauty and the Jacobin," WDAF players; 9-10, classical musical program, The Star's string ensemble; 11:45-1 a. m., Plantation players; Eddie Kuhn's orchestra.

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

WEBH, Chicago, Ill. (370.2m-810kc), 11:30-12 noon, woman's half hour; 3-4 p. m., speedal features; 7-8, Oriole orchestra; Emerson Military band; 9-10, Oriole orchestra; Emerson Military band; 9-10, Oriole orchestra; 11-12:30 midnight, Oriole orchestra; 11-13.0 mi

Coyne serenaders, comedian, organ, tenor, plano, orchestra,
VGN, Chicago, III. (302.8m-990kc), 10-11 a, m., public
service period; 11-11-39, household hints; 12:01-12:30
p.m., Walter Murray; 12:40-2:30, luncheon concert,
Drake concert ensemble and Edward Benedict, organist; 2:30-3, Lyon and Healy artists; 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, organist; 5:30-5:57, Skeezix time;
6:30-7, dinner concert, Drake concert ensemble and
Edward Benedict, organist; 8-9, Hamilton club chorus;
9-10, Roxy and his gang, WEAF; 10-11, dance program.

9-10, Roxy and his gang, WEAF; 10-11, dance program.

WHAD. Milwaukee, Wis. (275m-1090ke), 11 a. m., pianologue, Andy Hertel; the Housewife; 4 p. m., "With the Humorists," John R. Wolfe; Mrs. Marie Welss, pianist; Linda Hering, saxophone; 6:15-7, Arthur Richter, organis; 10:30-11:30, popular dance hits, Dexter's Wisconsin and Elger's Creole roof orchestras; 11:30-12:30 a. m. Edmund Flitch, organist, WHAS, Louisville, Ky. (399.8m-750kc), 1-2 p. m., concert, Barney Rapp's orchestra; 3-3:30, organ recital, Myrtle Fulks Zahn; 4-5, concert, Harry Currie's Music Box; readings; 7:30-9, concert, Royal Peacock orchestra. WHO, Des Moines, lowa (526m-570ke), 6:30-7:30 p., Reese-Hughes orchestra; 7:30-9, Kate Miller, whistler; Maude Hughes, accompanist; Harry Lewis, popular songs; Leonard Kirkwood, pianist; Four "Husketeers"; Norman Jackson, Hawaiian guitarist; 9-12, dance program.

Norman Jackson, Hawaiian guitarise; 3-12, dance paygram.

WHT, Chicago, III. (399.8m-750kc), 10 a. m., women's
club, Jean Sargent; Borden's health talk; music; 10:45,
home service, Betty Crocker; 11, Drama league talks;
11:15, one-act play; 12 m., organ recital, Al Carney;
6-7:30 p. m., Jean Carison; Peter Porstner; Pauline
Peebles; Grayling's string trio; Edwin Kemp, teno;
(238m-1260kc), 7:45-9:15, Alamo orchestra; (399.8m750kc), 9:30, organ recital, Al Carney; Hickey and
Johnson, Hawaiian harmony; Manoloff Russian string
quartet; Ray Lawson, tenoy; Chez Pierre orchestra;
Ruby Rossinia, popular songs; 10:10, Ray-O-Vac entertainment; 12, "Your Hour League," Pat Barnes and
Al Carney.

Ruby Rossinia, popular songs; 10:10, Ray-O-Vac entertainment; 12, "Your Hour League," Pat Barnes and Al Carney.

WIBO, Chicago, III. (266m-1330ke), 10-11 a. m., shoppers' bureau, Grace Viall Gray; 2-4 p. m., popular shut-in program; 6-8, dinner concert, Walter Preston; WIBO trio; Florence Osterman, contralto; Christopher Hendra, tenor; Hicky and Johnson, Marle Wright.

WJD, Mooseheart, III. (370.2m-820kc), 4-5 p. m., Mooseheart hour; music, younger children; daily assembly of 1,256 children; faculty talks; 6-7, instrumental hour, Howard L. Peterson playing Geneva organ; Palmer symphonic players; Palmer House Victorians; 8-9, Mooseheart children's hour, music, children of all ages, solos, band, etc.; talk, Matthew P. Adams; 10-11, R. V. Thomas, bass; John Rankel, tenor; 12:30-1:30, a. m., settin'-up hour, Garod studio, Palmer House; Palmer House Victorians.

WKAF, Milwaukee, Wis, (261m-1150kc), 10-11 p. m., Campus Skylarks; Harmony duo.

WKAR, Lansing, Mich. (285.5m-1050kc), 7:15-8 p. m., horticultural course, "Training the Young Fruit Tree," H. D. Hootman; "Economy and Efficiency in Spraying," H. A. Cardinell.

WLIB, Chicago, III. (302.8m-990kc), 7-8 p. m., dance program.

WLS, Chicago, III. (344.6m-870kc), 12 m., Ford and

concert; 11-12, popular program; 12-1 a. m., dance program.

WLS, Chicago, III. (344.6m-870kc), 12 m., Ford and Glenn; 6 p. m., R. F. D. program; WLS studio trio; 6:40, Ralph Emerson, organist; 7, Ford and Glenn; 7:15, WLS studio trio; 7:45, Rodeheaver's program; 8:15. Ernest Moller, pianist; 8:30. Ford and Glenn; 9, WLS theater; 9:30, Pan Candy Boys trio; 10, Garrett male glee club; 10:40, Goldie Gross, cellist; 11, WLS circus program.

WLW, Cincinnati, Ohio (422.3m-7/0kc), 7:30 a. m., healthful exercises, William Stradtman; 8, morning devotions, auspices of the Parkway Y. M. C. A.; 12:05 p. m., musical novetties, Irene Downing, player-



Five prominent Memphis musicians comprise the Cortese ensemble which will give classical programs at WMC, each Monday and Thursday night at 8:45 p. m. Central time. Members of the group are: Angelo Cortese, harpist; Joseph Cortese, violinist; John Cortese, flutist; Santa Pappalardo, cellist and Fausto Gaitan, pianist.

WGY SUPERPOWER TESTS JANUARY 30-31

Wednesday, February 3

roll artist; 3, Kroger cooking chats, Judith Anderson, shut-in program, directed by William Duning; 7, concert, Hotel Gibson orchestra, Robert Visconti, director; 7:30, address, representative of the Ohio Farm Bureau federation; 11, "The Boys from Home," Ronald West James Buchanan, popular songs; 11:15, musical news, Johanna Grosse, editor and organist; 11:40, planologs, Newport, Carl Bamberger.

WMAQ, Chicago, III. (447.5m-670ko), 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, pupils, Starrett school; 5:15, Georgene Faulkner; 6, Chicago theater organ recital; 6:30, Hotel La Salle orchestra; 8, lecture, Northwestern university; 8:25, birthstones, Fred M. Lund; 8:35, Lester Mather, pianist; 9, Chicago Association of Commerce talk; 9:20, WMAQ players; 9:55, chimes.

WMBB, Chicago, III. (250m-1200ke), 7-8 p. m., Trianon duo; Sascha Corado, concert baritone; Elizabeth Moritz, pianist; Veronica Krebs, contralto, semi-classical program; 9-11, Trianon orchestra, Armin F, Hand, conductor; Woodlawn theater orchestra, Armin F, Hand, conductor; Cecil and Esther Ward, Hawaiian guitars; Billie Allen Hoff, Nina Smiley, Wilson & Davis, popular program.

WOAI, San Antonic, Tex. (394.5m-700kc), 3 p. m., Radio Trades association concert; 8:30, Army night program, WOAW, Omaha, Nebr. (326m-670ke), 12:45 p. m., Phylis Griswold, organist; 4:10, Felerman and Abbott.

WOC, Davenport, Iz. (483.6m-620ke), 12:15-12:25 p. m., "Dairy Day," C. M. Long; 4-4:45, musical program, iuveniles, Elizabeth Gimbel, director; 5:45-6, chimes; 9-10, Erwin Swindell, organist; Agnes O. Bodeen, contratto.

9-10. Erwin Swindell, organist; Agnes O. Bodeen, contratio.
WOI, Ames, Ia. (270m-1110ke), 10 a. m., "Trend of the Horse Industry," Carl Kennedy; 12:45 p. m., poultry husbandry, Prof. H. A. Bittonbender; 2, "Every Day Courtesies," Ruth Lindquist; "Home as the College Student Views It," Dr. O. H. Cessna; 2:45, "Influence of Sunlight on Hatchability of Eggs," L. F. Payne; 4:30, address, Dr. W. H. Burr; 8, address, Hon. Sam R. McKelvey.
WOK, Chicago, III. (217.3m-1380kc), 4:30-7 p. m., Tearney's Town Club Twillight dansant; Capitol theater organ; Lillian Knowles, contratic; 10-1:30 a. m., Tearney's Town club orchestra; Carl Lorraine's Pershing Palace orchestra; Husk O'Hare's Cocanut Groev orchestra; Capitol theater program; studio program. WORD, Batavia, III. (275m-1990kc), 7 p. m., program, North Shore line; 7:45, reading from, "The Harp of God", 9-10, I. B. S. A. Chorai singers; lecture, C.

God", 9-10, I. B. S. A. Choral singers; lecture, C. H. Swingle.

Wel, Chicago, III. (447.5m-670kc), 11-12 m., "Child Welfare." Dr. Lena K. Sadler; 3-4 p. m., "Dishes on the Side," Helen H. Downling; Lavina Price, planist; "Dish That Is Not Fishy," Jean K. Rich; 7-8, Rainbo Gardens orchestra; Evretit G. Mitchell, bartone; Maude Shapton Couse, soprano; Doris Gross, reader; 10-1 a. m., Rainbo Skylarks; Melodians; Clarence Theders, tenor; J. Edwin Peterson, bass; George Thurn, kazoo soloist; Oxford girls; Thelma Pefferle, soprano; 1-2, Ginger hour.

WSAI, Cincinnati, Ohio (325.9m-920kc), 7 p. m., Ray O'Vac twins; 7:30, Davis Saxophone octet, WEAF; 8, Ipana Troubadours, WEAF; 9, program, Jack Little; 10, talk, Prof. V. H. Doufner; 10:15, Congress Playing Cord string quartet; 12, Jack Little and Ray O'Vac twins.

WSB, Atlanta, Ga. (428.3m-700ke), 10:45 p. m., Bilt-

WSB, Atlanta, Ga. (420.011-100.01), 10/130 p. m., sammore hotel orchestra.

WSM, Nashville, Tenn. (282.8m-1060ke), 6:30 p. m., concert, Francis Craig's orchestra; 7, beddime story interlude; 8, program, Dutch Erhart's syncopators; 10, frolic, Joe Combs, tenor and Eric Nissen, pianist.

WSUI, 10wa City, 10wa (483.6m-620ke), 9 a. m., High School assembly program; 12:30 p. m., Anna Diller Starbuck, pianist; address; 7:30, musical program.

Mountain Time Stations

Mountain Time Stations
CFAC, Calgary, Can. (435.3m-688kc), 4 p. m., Red
Cross address; 8, St. David's society.
KFWA, Ogden, Utah (26im-1150kc), 4-5 p. m., organ,
Paramount theater; 5-6, Ogden Radio dealers' program;
9-10:30, music, Paramount theater; 10:30-12, Oile
Reeves and his orchestra.
KOA, Denver, Colo. (322.4m-930kc), 12:15 p. m., Rialto
theater musicale; 6:30, dinner concert, Brown Palace
string orchestra, Howard Tillotson, director; 7:30, Book
of Knowledge; 8, instrumental program; 8:15, studio
program; vocal selections; Apollo male quartet; Helen
C. Shoectaft, soprano; tenor solos, Elmer Grundy and
Dr. L. F. Reynolds; characterization of "The Raven,"
E. J. Reed; R. O. Butcher, bass solo; Miscellaneous
readings, Bertha Van Norman Jones; Carl G. Schulken,
plano solos; instrumental trio selections, James H.
Adair, violinist; Carl G. Schulken, pinnist, A. J.
Greiger, cellist; violin numbers, James H. Adair, and
instrumental music, KOA orchestra.

Pacific Time Stations

(Fi, Les Angeles, Calif. (468.5m-640kc), 5:30-6:30
p. m., popular song 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, Pasadena Athletic and Country club quintet; 10-11, Patrick-Marsh dance orchestra,
Betty Patrick, soloist.

string quartet; 9-10, Pasadena Athletic and Country club quintet; 10-11, Patrick-Marsh dance orchestra, Betty Patrick, soloist.

KFON, Long Beach, Calif. (233m-1299kc), 6-6:45 p. m., Oygan, Brayton's theater; 6:45-7:15, KFON gossip and amusement information; 7:30-8, Long Beach Municipal band; 8-9, Press-Telegram program; 9-10, studio program.

KFWB, Hollywood, Calif. (252m-1190kc), 5-6 p. m., children's hour, Big Brother of KFWB; 7-7:30, Mutual Motors joke contest; 8-9, program, John Wright, the Right Tailor; 9-10, Bill Hatch's Oakmont Country club dance orchestra; Frank Stever, baritone; 10-11, Warner Brothers' frolic; direction Charlie Wellman.

KGO, Oakland, Calif. (361.2m-830kc), 7:15-7:30 a. m., health training exercises, Hugh Barrett Dobbs; 7:45, pep class; 8:30, "Daily Strength"; 8:45, Mme. Elfrieda Wynne, inspirational songs; 11:30-1 p. m., Pacific States Electric company luncheon concert; 3-4, speech; Edna Linkowski, pianist; James Rhea, tenor; Mrs. Bacon, mezzo-soprano; 4-5:30, concert orchestra, Hotel St. Francis, Vinton La Ferrera, conductor; 5:30, Mr. Fix-it; 6-6:55, dinner concert.

KGW, Portland, Ore. (491.5m-610kc), 6-7 p. m., dinner concert, Olds, Wortman and King company; 8-9, concert, Seventh United States Infantry band; 9-10, concert; Seventh United States Infantry band; 9-10, concert, Seventh United States Infantry band; 9-10, concert; Steventh United States Infantry band; 9-10, concert, Seventh United States Infantry band; 9-10, concert; Steventh United States Infantry band; 9-10, concert, Seventh United States Infantry band; 9-10, concert; Steventh United States Infantry band; 9-10, concert, Seventh United States Infantry band; 9-10, concert; Steventh United States Infantry band; 9-10, concert; Steventh United States Infantry band; 9-10, concert; Steventh United States Infantry band;

Art Studio.

KHJ. Los Angeles, Calif. (405.2m-1740ke), 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; Glenn Fitz and Vivian Marple; 8, Dr. Mars
Baumgardt, scientific lecturer; 8:30-10:30, program,
Stewart-Warner products.

KLX Calkard Calif. (598.2m.550kh) 4-5 p. m. propro.

Baumgardt, scientine lecturer; 8:30-10:30, program, Stewart-Warner products.

KLX, Oakland, Calif. (508.2m-590ke), 4-5 p. m., women's hour; 5-5:30, Aunt Elsie's sunset matinee; 6:30-7, Athens Athletic club orchestra; 8-9, educational program; 9-10, studio program.

KMTR, Hollywood, Calif. (238m-1260kc), 5-6 p. m., home bour, Mammy Simmons and pupils of Geraldine Kasal, Irene Bennet, Louise Trosper; 8-10, The Turner orchestra, direction Loren Powell; 10-11, Starr Plano company studio.

Piano company studio, (KNX, Hollywood, Calif. (336.9m-890kc), 5-5:30 p. m., Sunny Jim's talk; 5:30, First Presbyterian church organ; 5:55, Town Tattler; 6:15, travel talk, W. F. Alder; 6:30-7, Awater Kent concert orchestra; 7-8, Ambassador hotel concert orchestra; 8-9, feature program; 9-10, program, John A. Vaughn corporation with Riviera orchestra; 10-12, Ruth Roland and G. studio. Calif. (336.9m-890kc), 5-5:30 p. m.

KOAC, Corvallis, Ore. (280.2m-1070kc), 7:20 p. m., musical selections; 7:30, "Selection of Hats," Gladys Peterson; 7:45-8, "Posture and Relaxation," Doris

M. Thornely.

(PO, San Francisco, Calif. (428.3m-700kc), 1-2 p. m., Rudy Seiger's Fairmont orchestra; 2:30, matinee program, James Lono's Hawaiian orchestra; 3:30, fashion talk; 5:15-6:15, chidren's hour stories; 6:40-7, Waldemar Lind and States Restaurant orchestra; 7-7:30, Rudy Seiger's Fairmont hotel orchestra; 8-9, program, Atwater Kent artists; 9-10, dance music, Goodrich Silvertown Cord orchestra; 10-11, Waldemar Lind and States Restaurant orchestra.

(PSN, Pasadena, Calif. (315.6m-950kc), 8-9:30 p. m., Star-News.

and States Restaurant operations. KPSN, Pasadena, Calif. (315.6m-950ke), 8-9:30 p. m., Star-News.

KTAB. Oakland, Calif. (240m-1250ke), 9-9:30 a. m., prayer service, Rev. G. W. Phillips; 12-1 p. m., luncheon concert; 8-10, program, Kiwanis club or-

chestra.

KWSC, Pullman, Wash. (348.6m-860kc), 7:30-9 p. m., piano solos, Bernice Metz; vocal solos, Paul Christen; violin solos, Jerry Satola; "What Is a Mechanical Engineer," Prof. A. C. Abell; farm erops; reading, Loyt Pound; book reviews, Alice Lindsay Webb.

Thursday, February 4

Headliners Today

Eastern Central Mountain 7:30 p. m. 6:30 p. m. 5:30 p. m. WEAF (491.5m-610kc) Smith Brothers. 8 7 6

WBAL (246m-1220kc) Sidney Lanier Memorial concert.
WEAF (491.5m-610kc), WEEI, WGR, WWJ, WFI,
WTAG, WOC, WCCO, KSD, WCAE, WEAR,
Larkinites.

Larkinites. 9 8 7 6

WBZ (333.1m-900kc) Philharmonic trio.
WNYC (526m-570kc) Plano recital.
9:30 8:30

CKY (384.4m-780kc) Simpson's hour.
11:10 10:10 9:10 8:10

KTHS (374.8m-800kc) Opera group.
11:15 9:15 3:15

WSAI (325.9m-920kc) Jack Little, Wendell Hall,
Ray-O-Vac Twins.

Thursday, silent night for: CHIC, CKNC, CNRA, CNRE, CNRO, CNRR, CNRT, CNRV, CNRW, KFAB, KFAU, KFOM, KFUE, KFWA, KFOM, KFUE, KFWA, KGW, KLDS, KLX, KOA, KOAC, KOB, KWSC, PWX, WAFD, WAHG, WCAP, WCEB, WEBW, WHAD, WHAZ, WJJD, WLIT, WOAI, WOR, WSM, WSUI, WTAM.

Eastern Time Stations

Eastern I ime Stations

CKAC, Montreal, Cain. (410.7m-730kc), 4:45 p. m.,
Windsor hotel dance orchestra; 7:30, CNRM.

CNRM, Montreal, Can. (410.7m-730kc), 8:30 p. m., Viola
Benoit, soprano; George Ferguson, tenor; Goldie Bertels Geiger, violinist; "Unknown Canada," C. Price
Green.

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

WBAL, Baltimore, Md. (246m-1220kc), 6-6:30 p. m.,
"Songs and Stories of Why and When," Hazel Knox;
6:30-7, Peabody Conservatory of Music; 7-8, WBAL
dinner orchestra; 8-9, Sidney Lanier Memorial concert, Johns Hopkins orchestra, Charles H. Bochau, conductor; Helen Broemer, cellist; Fred Gottlieb, flutist;
William G. Horn, baritone; Howard R. Thatcher,
organist.

William G. Horn, baritone; Howard R. Thatcher, organist.

WBBR, New York, N. Y. (273m-1100kc), 8 p. m., Hawaiian music, Eric Howlett, Donald Haslett and Alhert Koons; 8:10, Alice Merrill, soprano; 8:20, Bible lecture, "The Dead to Return to Earth." S. M. Van Sibma; 8:40, Alice Merrill, soprano; Hawaiian music.

WBZ, Springfield, Mass. (333.lm-900kc), 6:30 p. m., Little symphony orrhestra; 7, Hotel Krimbail dance orchestra; 7:45, Mass. Aggle Radio forum; 8, Noyes Bulek company program, Leo Reisman's orchestra; 9, Madame Tosi and Philharmonic trio; 9:30, Arthur Clifton, organist; 10:65, McEnelly and his Victor Recording orchestra.

WCAE, Pittsburgh, Pa. (461.3m-650kc), 12:30 p. m., news; 4:30, sunshine girl; 6:30, dinner concert, William Penn hotel; 7:30, children's period; address; 8, Larkin period; 8:30, Hires Voyageurs; 9, Cliequot club entertainers; 10, concert, Silvertown Cord orchestra.

WCAP, Washington, D. C. (468.5m-640kc), 6:45-7:45

club entertainers; 10, concert, Silvertown Cord orchestra.

WCAP, Washington, D. C. (468.5m-640kc), 6:45-7:45
a.m., health exercises, WEAF.

WCAU, Philadelphia, Pa. (278m-1080kc), 6:30 p. m.,
Billy Hayes and his Cathay Tea Garden dance orchestra; 7:30, concert, N. Snellenburg and company; 8,
Michell Gondoliers; 8:15, Michael Fonticoli, operatic
tenor; Virginia Klein, planist; 8:45, Kandy Kids; 9,
Barry O'Moore, Irish tenor; 9:30, Musical Chefs; 9:45,
burlesque lesson, Professor Doolittle; 10, Sesqui-chennial hour; 11, Parodians dance orchestra; 11:30,
Club Cadix revue.

Club Cadix revue.

WCX. Detroit, Mich. (516.9m-580kc), 4 p. m., news and markets; 6, dinner concert, Book-Cadillac hotel;

WCX, Detroit, Mich. (516.9m.580kc), 4 p. m., news and markets; 6, dinner concert, Book-Cadillac hotel; 8, studio program.

WEAF, New York, N. Y. (491.5m.610kc), 11 a. m., Pauline Watson, violinist; 11:30, "Cookery," Columbia university; 4 p. m., Mario Alvarez, Spanish baritone; 4:15, Nichols instrumental trio; 6, dinner music, Hotel Waldorf-Astoria; 7, mid-week hymn stins; 7:30, Smith Brothers; 8, Larkinites, WEAF, WEEI, WGR, WWJ, WFI, WTAG, WOC, WCCO, KSD, WCAE, WEAR, 8:30, Hire's Harvesters, WEAF, WEEI, WF, WCAE; 9, Clicquot Club Eskimos, WEAF, WEEI, WF, WIAF, WTAG, WT, WCAE, WSAI, WEAR, WGR, WWJ, WOC, WCCO, KSD, WGN; 10, Silvertown Cord orchestra, WEAF, WEEI, WGR, WWJ, WFI, WTAG, WOC, WCO, KSD, WGAE, WJAR, WADC, WLIB; 11-12, Vincent Lopez and his orchestra.

WEAO, Columbus, Ohio (283.9m.1020kc), 1:15 D. m., "Why and Wherefore," Prof. L. M. Montgomery; 8, "How to Select the Breeding Flock," Prof. E. L. Dakan; 8:15, children's hour, Uncle Al; 8:30, "Moving Pictures and Vision," Prof. Howard D. Minchin; 9, physics lecture; 10, orchestra concert.

WEAR, Cleveland, Ohio (389.4m-770kc), 11 a. m., home service talk; 7 p. m., Hotel Statler concert orchestra; 8, Larkinite Four, WEAF, 8:30, Workrite Radio artist; 9, Cliequot Club Eskimos, WEAF; 10, Vincent Percy Organ recital.

Percy organ recital.

WEEI, Boston, Mass. (348.6m-860kc), 6:45 a. m., Tower health exercises; 7:45, morning watch, Estey organ studio; 1 p. m., assembly luncheon, Chamber of Comerce; 3, Lou Klayman and his orchestra; 6:15, Dick Eisenbourg and his Sinfonians; 7, Big Brother club; 7:30, talk, "Twenty-three Years of Betalling Drugs; 8, Larkinites, WEAF; 8:30, Hire's Voyageurs, WEAF; 9, Clicout Club entertainers, WEAF; 10, Silvertown Cord orchestra, WEAF.

9, Clicquot Club entertainers, WEAF; 10, Silvertown Cord orchestra, WEAF,
WFI, Philadelphia, Pa. (394.5m-760kc), 1 p. m., Tea Room ensemble; 3, Temple Women's club; 6:30, Bellevue-Stratford concert orchestra; 7, Bellevue-Stratford dance orchestra; 7:15, beauty culture talk, Madame Rubinstein; 8, Larkinites; 8:30, Hire's Harvesters; 9, Clicquot Club Eskimos; 10, Silvertown Cord orchestra.
WGBS, New, York, N. Y. (315.6m-950kc), 10 a. m., timely talks; T. Edgar Schewe, pianist; 10:20, "Better Homes and Gardens," Allee Clark Barnhill; 10:40, Hazel Lee, reader; 1:35 p. m., Crescent City trio; 3-4, Woman in the Home program; 6, Uncle Geebee; 7:30, "Tour of the Galleries." Henriette Weber; 7:45, Crystal Palace orchestra; 8:30, talk, Oliver Sayler; 10:30, Vanderbilt hotel orchestra.
WGCP, New York, N. Y. (2325-1190kc), 3 p. m., Elvita Rosa Geiger; 3:20, Davis and Gallaci; 3:30, Nat Osborne and Johnny Tucker; 3:45, studio program;

4:10, Harold Glenn, whistler; 4:30, White Rose Melody boys; 5:10, Sylvia Schatz, pianist; 8:30, Strickland's orchestra; 9, Piotit, Val and Lloyd; 9:15, Eva Rothenberg, pianologist; 9:30, Judith Roth, soprano; 9:45, Max Heltt, violinist; 10, Ruby Cowan, entertainer; 10:30, Strickland's orchestra.

WGHP, Detroit, Mich. (270m-1110kc), 6 p. m., dinner concert, Hotel Tuller; 7, farm program; 8, Dodge Brothers band, Eugene La Barre, conductor; 10, popular program; Skylark dance band; Charlie Mitchell, Wolverine quartet; George Lamb, Mildred Pickard; Everett Fifer, old time fiddler.

WGR, Buffalo, N. Y. (319m-940kc), 2:30 p. m., WGR's afternoon program; 6:30, Vincent Lopez's Hotel Statler dance orchestra, Harold Gleser, director: 8, jointly with WEAF, Larkinites; 9, jointly with WEAF, Cliequot Club Eskimos, Goodrich Silvertown Cord orchestra, Joseph Knecht, director.

WGY, Schenectady, N. Y. (379.5m-790kc), 2 p. m., music; talk, "Keeping Little Children Well," Dr. Helen Zillmer; 6:30, dinner program, Ten Ekck concert tric; 7:30, book chat, L. L. Hopkins; 7:45, program, WFBL; 9, Royal Salon orchestra hour, WIZ; 10, WGY orchestra, Claude Adams, violinist; Eugene Moses, pianist, and Vina Adams, accompanist; 11:30, organ recital, Stephen E. Boisclair.

WHAR, Atlantic City, N. J. (275m-1990kc), 2 p. m., Seaside hotel tric; 7:30, lecture period; 8, Seaside hotel tric; 7:30, lecture period; 8, Seaside hotel tric; 7:30, korchestra; 11, dance orchestra; 8-8:30, Will Oakland's Chateau Shanley; 10:30-11, Club Kentucky orchestra; 11, Swaee entertainers; 11:30, Everglades orchestra; 12-12:30 a. m., Ted Lewis and his orchestra.

orchestra; 11-12:30 a. m., Ted Lewis and orchestra

Si30, Will Oakland's Chateau Sanahey; 10:30-11, Chus Kentucky orchestra; 11, Swanee entertainers; 11:30. Everglades orchestra; 12-12:30 a. m., Ted Lewis and his orchestra.

WIP, Philadelphia, Pa. (508.2m-590kc), 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, artist recital, Philips Jenkins Studio; 6:05, Pagoda cafe orchestra; 7, Uncle Wip's beddime stories; Margaret Keenan, songs; 8. "The Sesqui-Centennial," talk, Hon. Harry A. Mackey; S:15, Laserow quartet; 9, "Teaching of Art in Public Schools," Theo. M. Dillaway; 9:10, First International Sequi-Centennial Athletic meeting; 10:05, real estate talk; 10:15, Al Lentz and his Versatile entertainers.

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

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

WMBF, Miami Beach, Fia, (384.4m-780kc), 7-9 p. m., Fleetwood Radio orchestra: 10-1 a. m., Gene Foodick and his orchestra; Fleetwood Radio orchestra: WNYC, New York, N. Y. (526m-570kc), 7:10 p. m., dance program; 7:35, dance program; 8-8:45, piano recital; 10:10, lecture, Dr. Sydney N. Ussher.

WOO, Philadelphia, Pa. (508.2m-590kc), 11 a. m., organ recital; 10:20 p. m., Golden's crystal tea room orchestra; 4:45, organ recital; 7:30, A. Candelori's concert orchestra.

WOR, Nowark, N. J. (405.2m-740kc), 2:45 p. m., talk, Dr. George Watson Little; 6:15, "Words Often Mispronounced"; 6:17, sports, Bill Wathey; 6:30-7:15, Jacques Jacobs' ensemble.

WRC, Washington, D. C. (468.5m-640kc), 10 a. m., organ recital; 7:79, p. m., and p. m.,

theater. WRVA, Richmond, Va. (256m-1170kc), 9:30-12:30 a. m., Edgewater Party night; 12:30, Carry Me Back to Old

Virginmy,

//AG, Worester, Mass. (268m-1120ke), 10:30 a. m.,
musical selections; 10:45, falk, Marjorie Woodman;
12:05-2, luncheon music, WTAG; 4:30, entertainment
for WTAG inchoor sports; 5:15, "The Twinkle Twinkle
Story Teller"; 8-8:30, the Larkinites, WEAF; 8:30,
travel talk; 9-10, Clicquot Club Eskimos, WEAF; Story Teller"; 8-8:30, the Larkinites, What; 8:30-3 travel talk; 9-10, Clicquot Club Eskimos, WEAF 10-11 The Silvertown Cord Orchestra, Joseph Knech

WTAM, Cleveland, Ohio (389.4m-770ke), 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. (475.9m-630kc), 6:30, "Twenty
Minutes in Happy Land," Mrs. Edna K. Heath; 6:50,
dinner music, Hotel Bond tric; 7:35, talk, "February
Stars," Prof. Frederick Sloeum.
WWI, Detroit, Mich. (352.7m-850kc), 9:30 a. m., "Tonight's Dinner"; talk, woman's editor; 12:05 p. m.,
Jules Klein's Hotel Statler orchestra; 3, Detroit News
orchestra; 8, concert, WEAF.

Central Time Stations

Central Time Stations

CKY, Winnipeg, Can. (384.4m-780kc), 8:30 p. m., Simpson's hour. Princess Pat's band.

KFAB, Linceln, Nebr. (340.7m-880kc), 10:30 a. m., "The New Homemaker," Jane Hinkley; 8:30-10:30 p. m., male glee club, Kearney Normal, Prof. George H. Allen, director.

KFH, Wichita, Kan. (268m-1120kc), 9-10 p. m., American Legion quartet; 12:15-1:15 a. m., dance program. KFMQ, Fayetteville, Ark. (299.8m-1000kc), 8 p. m., University Extension lectures; "The King of the Skies," A. M. Harding; "Some Effects of Increased Means of Transportation and Communication upon Small Towns," J. A. Dickey; "Gothic Architecture," W. B. Allen; "Measuring Equipment," D. G. Carter; "The Little Theaters," V. L. Jones; "Interviewing the Prospective Employee," G. S. Fracker; 8:45, program of piano music, Loraine Allen.

KFRU, Columbia, Mo. (499.7m-600kc), 8:45 a. m., public school convocation program; 9, educational talk; 6:15, dinner program; 7, Radio school.

KLDS, Independence, Mo. (440.9m-680kc), 8 p. m., "The Problems of Society," M. A. Etzenhauser; 8:15, studio program.

Problems of Society, M. A. Edzemmauser, 6.7.6, supportant program, KMA, Shenandoah, Iowa (252m-1190ke), 9-9:45 a. m., music; current topics, G. H. Van Houten; 11:30-12:30 p. m., noonday zural program; music; horticultural talk, Earl E. May; news tiems; May's flower lady, Lina Ferguson; 2-3, travelog, Ella Murphy; Lina Ferguson; music; 4-5, talk, G. H. Van Houten; 6-7, program, Federated Women's clubs; news items; 9-11, P. M. Delmonico hotel orchestra, Walter Nixon, director.

GIRECTOR.

KPRC, Houston, Tex. (296.9m-1010kc), 12 m., Optimists' club luncheon program, Jerry Allen Mitchell, president; 5:30 p. m., Uncle Judd's kiddies' hour; 7:30, Blanchard's dance orchestra; 8:30, Edna Adams; Mrs. E. E. Sawyer, planist; 9:15, Mrs. Elsie McCullom, violinist.

KSAC, Manhattan, Kans. (340.7m-880kc), 9-9:25 a. m., music, inspirational talk, agricultural primer, calis-

KPRC, Houston, Tex. (296.9m-1010kc), 12 m., Optimists' club luncheon program, Jerry Allen Mitchell president; 5:30 p. m., Uncle Judd's kiddies' hour; 7:30 p. m., Violinist.

KSAC, Maninattan, Kans. (340.7m-880kc), 9-9:25 a. m., music, inspirational talk, agricultural primer, calisthenics; 9:55-10:25, readings, backyard gossip, question box, planning today's meals; 12:35-1:05 p. m., readings, question box; "Serious Soil Problems," E. B. Wells; "Brambles to Include in the Nursery Order," W. R. Martin; 4:30-5, botany; 6:39-7:30, music; Extension credit course, Educational Psychology; Extension credit course, Good Will program, wEAF; (100.0mm) program; (100.0mm) progra

12:30-1 p. m., orchestra; 9-9:10, accordion noveltics, Joe Kuntz; 9:10-9:30, opera group, Eastman hotel ensemble; 9:30-10:15, New Arlington hotel ten-piece orchestra; 10:15-10:45, Mrs. Natalle Arnoux, violinist. KYW, Chicago, III. (536m-550ke), 11:35 a. m., table talk, Mrs. Anna J. Peterson; 12:05-1, noonday concert, Commonwealth Edison company; 1, Joska DeBabary's orchestra; Coon-Sanders' Original Nighthawks; 2:35-4, afternoon frolic; 6, dinner music, KDKA; 7:05, bedtime story, Uncle Bob; 7:33-7:53, "The Forstry Clubs," A. L. Ford; "More Adventures of Paul Bunyan," E. W. Meeker; 8. "Twenty Minutes of Good Reading," Rev. C. J. Pernin, 8:25-9, musical program; 9, an hour of music, Comnonwealth Edison company; 10-11:30, evening at home, Coon-Sanders' Original Nighthawks; 1, Insomina club. WAMD, Minneapolis, Minn. (244m-1230ke), 12 m., Whitey Nightengale; Mrs. James Barrett, soprano; 6:15 p. m., George Osborn's Hotel Radisson orchestra; 7:05, talks.
WBAP, Fort Worth, Texas (475.9m-630ke), 7:30 p. m., Electra Rotary club; 9:30, Christian university; 11, Pantages theater.

Walf, Fort Worth, 16x8s (47.9.m-63086), 7.39 p. m., Electra Notary cub; 9.30, Christaian university; 11. WBBM, Chicago, III. (266m-13308c), 4-6 p. m., Valentino Inn orchestra; singers; 8-10. Tip trio; Zigeler sisters; Moulin Rouge orchestra; 10-12, Moulin Rouge orchestra; artists and stars.
WBCN, Chicago, III. (266m-11308c), 10-10.30 a. m., Penny Wise, the schoper's ready helper, shopping talk; from a second built, and the mount of the mount of the control of the con

Wife," Mrs. Gordon Warren; "Raising the Dairy Calf," O. E. Reed; "Developing the Dairy Heifer," W. D. Burrington.

WLIB, Chicago, III. (302.8m-990kc), 7-8 p. m., dinner concert; 11-12, popular program; 12-1, dance program.

WLS, Chicago, III. (344.6m-870kc), 12 noon, Ford and Glenn, R. F. D.; 6 p. m., R. F. D. program, WLS studio trio; 6:49, Ralph Emerson, organist; 7, Ford and Glenn fullaby time; 9:15, Salvation Army band.

"JUST FOLKS" WEEK'S COMEDY AT WGY

Thursday, February 4

Woodlawn theater orchestra, Armin F. Hand, conductor; Lucille O'Hare, Bob Duffy, Tommie Hughes, popular program.

WMC, Memphis, Tenn. (499.7m-600kc), 8:45 p. m., Cortese ensemble.

Cortese ensemble.

WOAW, Omaha, Nebr. (526m-670ke), 12:45 p. m., Gilbert Jaffy and his Little symphony; 6, entertainment; 6:20, Manna Kea trio; 6:50, Randall's Royal Fontenelle orchestra; 9, classical; 10:30, Herb Feierman and his Omadala orchestra; 12, midnight jubilee.

WOC, Davenport, Iowa (483.6m-620kc), 12:15-12:25 p. m., "What Folks Say About It," Prof. W. L. Burlison; 3-8:30, Aunt Jane; 5:45-6. chimes; 6:30-6:50, Sandman; 7-7:30, Larkinites, WEAF; 7:30-8, Harry Yeazelle Mercer, tenor; 8-9, Clicquot Club Eskinso; 9-10, Goodrich Stivertown Cord orchestra; 11-12, Le Claire hotel orchestra; Peter MacArthur, bartione.

WOI, Ames, Iowa (270m-f110kc), 9 a. m., "Red Clover."

Hotel orchestra; Peter MacArthur, bartione.

WOI, Ames, lowa (270m-1110ke), 9 a. m., "Red Clover," Prof. H. D. Hughes; 10, "The Future of the Hog Market," E. N. Wentworth; 10:30, "Marketing Helps for Homenakers," Ruetta Day; 11, "Agricultural Legislation," B. H. Hibbard; 12:30 p. m., chimes; "Corn Yield Test Winners," Joe L. Robinson; 1, "Minerals and Sunshine for Hogs," J. M. Evvard; 2, "New Facts in Dairy Cattle Feeding," F. B. Morrison; 3, "Developing Individuality," Mrs. E., S. Allen; 3:30, "Recreation," Mrs. Mignon Quaw Lott; 4, Brown Brothers quartet; 4:15, address, B. H. Hibbard; 7:15, wrestling tournament, Oklahoma-Ames; 7:45, "The Corn Crop," Prof. H. D. Hughes.

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

theater program; studio program.

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

WORD, Batavia, III. (275m-1090ke), 8 p. m., Webster hotel concert trio; 8:15, international Sunday school lesson; 8:30, program, Glenn Dillard Gunn school of music; 9:45, world news digest, J. L. Roy.

WQJ, Chicago, III. (447.5m-670ke), 11-12 m., "Parties for the Party Month," Erna J. Bertrams; 3-4 p. m., "Valentine Party Plans," Helen H. Downing; "Common Sense Care of the Feet." Dr. Frank Furch; "Cessons in Golf," Ralph G. Thorn; 7-8, Rainbo Gardens orchestra; Clement Laskowski tenor; Marryl Larson, soprano; 10-1 a. m., Rainbo Skylarks; Dr. Carl Bertschinger, pianist; Jerry Sullivan; Rose Vanderbosch, soprano; Hal Lansing, ukules soloist; Bert Davis; Ralph Keim, pianist; Anne Keim, soprano; Lew Butler, Giant of the Radio; Ray Lawson, teno; 1-2, Ginger hour.

WSAI, Cincinnati, Ohio (325.9m-920ke), 7 p. m., program; 8, Clicquot Club Eskimos, WEAF; 9, Silvertown Cord orchestra, Joseph Knecht, director; 10, Jack Little and Ray O'Vac Twins.

WSB, Atlanta, Ga. (428.3m-700ke), 8 p. m., Dr. Charles A. Sheldon, Jr., organist; 10:45, concert. WSUI, lowa (ity, lowa (483.6m-620kc), 12:30 p. m., organ numbers, Mrs. Preston C. Coast; address.

Mountain Time Stations

CFAC, Calgary, Can. (435.8m-688kc), 7 p. m., bedtime story; 9-11, CNR orchestra.

KFWA, Ogden, Utah (261m-1150kc), 4-5 p. m., organ recital, Paramount theater; 5-6, Ogden Radio Deal

KFXF, Colorado Springs, Colo. (250m-1200ke), 9-10:30 p. m., Rosemary Gardens dance program.

(KOA, Denver, Colo. (322.4m-930kc), 12:15 p. m., Rialto theater musicale; 3:15, relaxing and corrective exercises; 3:30, matinee for housewives; 4, culinary hints; 4:15, fashion review; 6:30, dinner concert. Brown Palace string orchestra, Howard Tillotson, director.

Pacific Time Stations

KFI, Los Angoles, Calif. (468.5m-640kc), 5:30-6 p. m., Bamboo Gardens dance orchestra; 6, nightly doings; 6:15, KFI's Seeing California; 6:30, vest pocket program; 6:45, Radiotorial period; 7-8, program, students, University of Southern California; 8-9, program, Clarabelle Patten Wallace, contraiti; 9-10, program, Clarabelle Patten Wallace, contraiti; 9-10, program, Clarabend hand

FON, Long Beach, Calif. (233m-1290ke), 6-7 p. m., KFON gossip and amusement information; 7-8, in-vestors' hour; 8-8:15, Hewitt's chat for book lovers; 8:15-9, Long Beach municipal band.

FWB, Hollywood, Calif. (252m-1190ke), 8-9 p. m., Bill Blake, tenor; Hy Kasch and his dance orchestra; Lou Parker, ballads; 9-10, program, Don P. Smith, Inc., Diana-Moon dance orchestra; Sol Hoopli's Hawaiians; Ashley sisters; 10-11, Warner Brothers frolic, featuring Charley Ilch's Sunset Canyon Country club dance orchestra.

dance orchestra.

KGO, Oakland, Calif. (361.2m-830kc), 7:15-7:30 a. m., health training exercises, Hugh Barrett Dobbs; 7:45, pep class; 8:30, "Daily Strength"; 11:30-1 p. m., Sherman Clay and company luncheon concert; 4-5:30, concert orchestra, Hotel St. Francis, Vinton La Ferrera, conductor; 5:30-6:30, George W. Ludlow and Jane Isabel Curtis, sea stories; 8, "Thirty-nine East," comedy in three acts, KGO players, Wilda Wilson Church, director; music, Arion trio; 10-11, dance music, Hotel St. Francis, Girvin-Deuel's California Collegians. Collegians. KGW, Portland, Ore. (491.5m-610ke), 12:30-1:30 p. m.

KGW, Portland, Ore. (491.5m-610kc), 12:30-1:30 p. m., concert, Oregon Radio Trades association; 6-7, dinner concert, Olds Wortman and King company; 7:45-8, lecture, Catholic Truth society.
 KHJ, Los Angeles, Calif. (405.2m-740kc), 6-6:30 p. m., Leighton's Arcade cafeteria orchestra, Jack Cronshaw, leader; 6:30-7:30, history story. Prof. Hertzog; Dickie Brandon, screen starlet; Charlotte Palen, Jeanne de Bard, Joyce Coad, Helen Frances Levy with Uncle John; 7:45, talk on health, Dr. Phillip M. Lovell; 8-10, program, Clevelin Realty company.
 KMTR, Hollywood, Calif. (238m-1260kc), 5-6 p. m., home hour, Mammy Simmons and pupils of Carter Weaver in continuity program; 6-7, Starr Piano company studio; 8-10, Turner orchestra, direction Loren Powell.

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Friday, February 5

Headliners Today

Eastern Central Mountain Pacific 8 p. m. 7 p. m. 6 p. m. 5 p. m. WAHG (315.6m-950kc) Fourteenth Great Artist re-

oital.
8:15 7:15 6:15 5:15
WGY (379.5m-790kc)
8:30 7:30
WBZ (333.1m-900kc)
WNYC (526m-570kc)
NSC (526m-570kc)
NSC (526m-670kc)
NSC (526m-670kc

WNYC (526m-570kc) Kessier ensemble.

9 8 7 6
WEAR (389.4m-770kc) Wingfoot male quartet.
WMAQ (447.5m-670kc) Kent-Marquette debate.
WHO (526m-570kc) Green County band.
9:15 7:15 6:15
WCCO (416.4m-720kc) Apollo club.
9:30 8:30 7:30 6:30
WCAU (278m-1080kc) Sea Isle City Golden Gulls.
WMC (499.7m-680kc) Atwater Kent program.
10 9 8 8
WEBH (370.2m-810kc) WEBH light opera company.
11 10 8 9 8 WSM (282.8m-1060kc) Scarritt college student pro-

12 m. 11 10 9 WMC (499.7m-600kc) Charles Lucy's jazz boys.

Friday, silent night for: CFAC, CHIC, CKNC, CKY, CNRC, CNRM, CNRO, CNRR, CNRW, KFAU, KFEQ, KFKU, KFMQ, KFWA, KEXF, KGO, KFAU, KPRC, KUOM, PWX, WBBR, WGAD, WCBD, WEAS, WGBS, WGBS, WGBS, WGBS, WGBY, WHAZ, WIP, WJAZ, WKRC, WLW, WLWL, WNAD, WRC, WREO, WRVA, WSAI, WSUI, WSMB, WTAM.

Eastern Time Stations

CKAC, Montreal, Can. (410.7m-730ke), 1:45 p. m. Windsor trio.

CNRT, Toronto, Can. (356.9m-840kc), 6:30 p. m., Luigi
Romanelli and his King Edward hotel concert orchestra; 8:30, Trinity United church; 10, Hart House
string quartet; 12, Luigi Romanelli and his King
Edward hotel dance orrebestra.

WAFD, Port Huron, Mich. (275m-1090kc), 8-10 p. m.,
old-time dance music

old-time dance music.

WAHG, Richmond Hill, N. Y. (315.6m-950ke), 12:03

p. m., musical program; 7:30, Sylvia Baylin, pianist; 7:45, Prof. Richard E. Mayne; 8, Fourteenth Great Artist recital, Lynwood Farnham, organist; 9, soloist; 9:15, Francine Vyde, soprano; 9:30, Shell Beach trlo; 10:03, Francine Vyde, soprano; 10:15, Bernie Fletcher's orchestra.

Artist recital, Lynwood Farnham, organist; 9, soloist; 9:15, Francine Vyde, soprano; 19:30, Shell Beach trio; 10:03, Francine Vyde, soprano; 19:30, Shell Beach trio; 10:03, Francine Vyde, soprano; 10:15, Bernie Fletcher's orchestra.

WBAL, Baltimore, Md. (246m-1220ke), 6:30-7:30 p. m., WBAL dinner concert; 7:30-8, WBAL male quartet; 8-9, Mary Knox Fliz, pianist; Geneva Fitz, pianist; John Mealy, whistler.

WBZ, Springfield, Mass. (333.1m-900ke), 6:30 p. m., Little symphony orchestra; 7, Hotel Lenox ensemble; 7:30, "Appredation of Music," Prof. John A. O'Shea; 8, MeEnelly and his orchestra; 8:30, Rollstone male quartet; 9, "Whatdoyoucallit Cub."

WGAE, Pittsburgh, Pa. (461.3m-650ke), 10:45 a. m., Gold Medal talk; 6:30 p. m., dinner concert, William Penn hotel; 7:30, children's period; 7:45, address, current motor topics; 8, Cliequot quartet; 9, studio concert, Kishians' orchestra.

WCAP, Washington, D. C. (468.5m-640ke), 6:45-7:45 a. m., health exercises, WEAF; 8 p. m.-12 midnight, dinner hour concert; Sir Hob Goblin stories, WEAF; dance music.

WCAU, Philadelphia, Pa. (278m-1980ke), 7:30, N. Snellenburg and company, recital; 8, "Our Own Agnes"; 8:15, Chiropractic talk; 8:30, Singing Ground-hog; 8:45, Carolyn Thomas and "437" American Radio trio; 9:15, Dwight Strickland, the poetician; 9:30, Sea 1sle City Garden Gulls; 10, Willie Horowitz, songs and jests; 10:30, Jack Myers musical architects.

WCAV, Detroit, Mich. (516.9m-580ke), 4 p. m., news and markets; 6, dinner concert, Book-Cadillac hotel; 9, concert; 10, dance music, Graystone ballroom.

WEAF, New York, N. Y. (491.5m-610ke), 10:45 a. m., Betty Crocker; 11:05, Minnie Well, planist; 11:30, practical bousehold arts, Columbia university; 4 p. m., Lenore Aldrede, contralto; 4:15, Radio instrumental trio; 6, dinner music; 7, Bessie Booth Dodge, soprano; Mozelle Bennett, violinist; Nana Frances, reader; 7:30, "Sir Hobgoblin Discovers Something," WEAF, WOO, WCAP, WCAE, WGR, WJAR, WEAR, WTAG; 7:45, Ethel and Dorothea Ponce; 8, Happiness Candy boys; 8:30, Eagle Ne

prano; Nino Ruisi, bass; 11-12, Ben Bernie and his orchestra.

WEAR, Cleveland, Ohio (389.4m-770kc), 11 a. m., home service; 7 p. m., Cleveland Auto show; 7:30, children's program; 7:45, talt; 8:15, Doris Quinn; 9. Wingfoot male quartet; 10, instrumental ensemble, WEBJ, New York, N. Y. (273m-1100kc), 7 p. m., Blenheim theater ensemble, Sol Klein, director; 7:45, Milton Yokeman, tenor; Norman Hennefeld, accompanist; 8, Carrie Cohen, concert pianist; 8:15-9, Al Ciccones' Harlem Tea Garden orchestra.

WEEI, Boston, Mass. (348,6m-860kc), 6:45 a. m., Tower health exercises; 7:45, mortning watch. Estey organ studio; 3 p. m., talk, Harry J. Broughton; 5, Frankie Ward and his orchestra; 6:16, Joe Rines and his Hunters' Cabin orchestra; 7, Big Brother club; 7:30, Whiting's Grade A contest; 8, Sager's half hour of hospitality; 8:30, Neapolitan Ice Cream company program; 9, Hohner Harmony hour, WEAF; 9:30, Carter's Ineas; 10, Scotty Holmes and his orchestra; Imperial marimba band.

WFI, Philadelphia, Pa. (394.5m-760kc), 1 p. m., tea room ensemble; 3, Josh Saddler's serenaders; 6:30, Bellevue Stratford concert orchestra; 7, Bellevue Strat-ford dance orchestra.

room ensemble; 3, Josh Saddler's serenaders; 6:30. Bellevue Stratford concert orchestra; 7, Bellevue Stratford doneert orchestra; 7, Bellevue Stratford doneert orchestra; 7, Bellevue Stratford dance orchestra.

WGBS, New York, N. Y. (315.6m-950kc), 10 a. m., timely talks; 10:10, 10:30, 10:50, Mary Miller, pianist; fashion talk, Bertram Taylor; 1:35 p. m., Atlastring trio; 3, "The Modern Hamlet"; Hilda Bergvall, mezzo-soprano; Dorothy Herzig; 6, Uncle Geebee; 6:30, Anzell's orchestra.

WGCP, New York, N. Y. (252m-1190kc), 3 p. m., Samuel Weber, blind pianist; 3:20, Hugo Angelo, tenor; 3:45. Charol de Thome, pianist; 4:10, Sherman and Neal; 4:30, Ruby Cowan, entertainer; 4:45, Clarence Profit, pianist; 7, Janssen's orchestra; 7:30, studio program; 8, orchestra.

WGHP, Detroit, Mich. (270m-1110kc), 6 p. m., dinnsconcert, Hotel Tuller; 7, farm program; 10, popular concert; Skylark dance band; Motortown trio; Heck and Mac, Eddie McGrath.

WGR, Buffalo, N. Y. (319m-940kc), 2:30 p. m., WGR's afternoon program; 6:30, Clef trio; 7:30, jointly with WEAF, Blanche Elizabeth Wade, story teller for G. R. Kinney company; 9, jointly with WEAF, Hohner Harmony hour; 9:30, classical program, directed by W. Miles Thomas; 10:30, Hewitt Humorists, Hewitt Rubber company; 11-1 a. ml, supper dance music. Vincent Lopez's Hotel Statler dance orchestra, Harold Gieser, director, Arthur Melgier at the organ.

WGY, Schenectady, N. Y. (379-5m-790kc), 2 p. m., Asia restaurant orchestra; 2:30, music; "Health Notes," Dr. C. W. Woodall; 6:30, International Sunday school lesson; 7, dinner program, Eastman theater, WHAM; 7:30, health talk; 7:40, "French by Radio," Leon A. Huguemont; 8:15, comedy, "Just Folks," Ten Eyck Clay, director; 10:30, WGY orchestra and Caryl Marshall, soprano.

WHAR, Atlantic City, N. J. (275-1090kc), 2 p. m., Seaside hotel trio; 8, Seaside hotel quartet; 11:15, Strand theater organ recital.

WHN, New York, N. Y. (361.2m-830ke), 6-6:30 p. m., Littmann's dinner music; 6:30-6:45, Daddy Dingle and his Jingle Machine; 6:45-7, Littmann's dinner music; 7-7:30, Harry Richman and his entertainers; 7:30-8, Lew Brown and Sidney Claire; 10-10:30, Roseland dance orchestra; 12-12:30 a. m., Silver Slipper or-chestra.

chestra.

VIP. Philadelphia, Pa. (508.2m-590kc), 6:45 a. m., setting-up exercises; 7, setting-up exercises; 1 p. m., setting-up exercises; 1 p. m., Climbel tea room orchestra; 3, "Genius," lecture by Dr. Charles W. Burr; 6:05, Benjamin Franklin concert orchestra; 7, Uncle Wip's bedtime stories; William Wenzel, ten-year-old planist.

Wenzel, ten-year-old pianist.

WKAQ, San Juan, P. R. (340.7m-880ke), 6-8 p. m., talks, Porto Rican Atheneum.

WLIT, Philadelphia, Pa. (394.5m-760ke), 12:02 p. m., daily almanae; Stanley theater organ recital; Areadia cafe concert orchestra; 2. Areadia cafe concert orchestra; 2:30, playlet, students National School of Elocution and Oratory; 4:30, recital; 7:30, Dream Daddy's bedtime stories; Sunbeam party; 8, sports talk; 8:30, recital; 10, Morning Glory club concert; Arcadia cafe dance orchestra; 10:30, Rufus and Rastus. Arcadia cafe dance orchestra; 10:30, Rufus and Rastus. Fleetwood Radio orchestra; Al Wohlman and Dave Bernite.

Bernie.

WNYC, New York, N. Y. (526m-570kc), 6:20 p. m., piano selections; 6:30, elementary and advanced French lessons, V. Harrison Berlitz; 7:35, resume of meeting of Board of Estimate; 8, concert programs; 8:30, Kessler ensemble; 9:15, recital talk, Herman Neuman; 9:45, song recital; 10:10, Prof. Carter Troop, lecture service.

man; 9:49, Sous Icutea, 10:12,

symphony orchestra; 10, organ recital; 11, Ritz-Carlton dance orchestra.

WOR, Newark, N. J. (405.2m-740kc), 3:45 p. m., talk, B. P. Adams; 6:15, "Words Often Mispronounced"; 6:17, sports, Bill Wathey; 6:45, Jacques Jacobs' Hotel Shelton ensemble; 7-7:15, Man in the Moon stories.

WRC, Washington, D. C. (468.5m-640kc), 10 a. m., women's hour, WJZ; 12, organ recital, Otto F. Beck, 1 p. m., Meyer Davis' New Willard hotel orchestra; 3:30, concert, United States Marine band, Captain William H. Santelmann, leader; 5, W. Spencer Tupman's Hotel Mayflower orchestra; 5:45, book talks, Mrs. Nina Reed.

WRVA, Richmond, Va. (256m-1170kc), 7 p. m., Hotel Richmond orchestra; 8:10, entertainers, Hartshorn school; 9:30, Virginia Union university; 10, Virginia Union university; 10, wirginia Union university; 10:30 a. m., musical selections; 10:45, food hints, Mildred C. Thomas; 12:05-2, luncheon music, WTAG, Will Hardy, director; 3-5, tea dansant music, WTAG; 7:10, "The Twinkie Twinkie Story Teller", 7:30-7:45, stories, Blauche Elizabeth Wade, WEAF; 7:46, mechanics of speech, Mota B. Wade; 8, current events for sightless people and shut-ins, Gwendoline Atbee; 8:15, concert program.

WTAM, Cleveland, Ohio (389.4m-770kc), 12:15-1:15, p. m., Guy Lombardo and his Royal Canadians; 6-7

8:15, concert program.

WTAM, Cleveland, Ohio (389.4m-770kc), 12:15-1:15
p. m., Guy Lombardo and his Royal Canadians; 6-7,
Carl Rupp and his Hotel Hollenden orchestra.

WTIC, Hartford, Conn. (475.9m-630kc), 11:30 a. m.,
housewives' forum, Mrs. J. M. Dean; 12:05, luncheon
music; 6:30, dinner music, Hub trio; 8, talk; 8:15,
community night program, West Hartford; vocal solos,
duets, French horn, trumpet, piano, girls' glee club,
talks.

talks.

WWI, Detroit, Mich. (352.7m-850kc), 7:30-8 a. m., setting-up exercises, R. J. Horton; 9:30, "Tonight's Dinner"; talk, woman's editor; 10:45, home service talk, Betty Crocker; 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

KFH, Wichita, Kan. (268m-1120kc), 9-10 p. m., Lambert Crystal Radio boys.
KFMQ, Fayetteville, Ark. (299.8m-1000kc), 7:30 p. m., basketball game, University of Arkansas vs. University

KFMQ, Fayetteville, Ark. (299.8m-1000kc), 7:30 p. m., basketball game, University of Arkansas vs. University of Texas.
KFRU, Columbia, Mo. (499.7m-600kc), 6:15 p. m., dinner program; 7, Radio school with agriculture talk; 12-2 a. m., musical program, Quadrangle orchestra.
KMA, Shenandah, Iowa (252m-1190kc), 9-9:45 a. m., music; current topics, G. H. Van Houten; 11:30-12:30 p. m., noonday rural program; popular musical numbers; news items; travelog, G. H. Van Houten; 2-2:45, b. Travelog, G. H. Van Houten; 2-2:45, w. M. Mitchell, director.
KPRC, Houston, Tex. (296.9m-10100kc), 12 m., Frank Tilton, blind boy pianist.
KSAC, Manhattan, Kans. (340.7m-880kc), 9-9:25 a. m., music, inspirational talks, agricultural primer, calisthenics; 9:55-10:25, readings, backyard gossip, question box, planning today's meals; 12:35-1:05 p. m., readings, question box; "The Sweet Clover Seed-bed," L. E. Willoughby; "Control of Round Worms in Poultry," D. J. Taylor; 4:30-5, lessons in color and design; 6:30-7:30, travelog; Extension credit course, Vocational Education; Extension course, "Insurance as a Profession," Leo Spurrler; "Safety and Efficiency of Radio Installations," E. R. Lyon.
KSD, St. Louis, Mo. (545.1m-550kc), 7 p. m., orchestral program and stage specialties; 8:30, concert, Y. M. H. A. orchestra.
KSO, Clarinda, lowa (242m-1240kc), 12:30-1:15 p. m., farmer dinner concert; 7-7:30, music; farm talk; 7:30-9, popular songs, Hawleyville trio; 9-9:30, Baker and Anderson.
ATHS, Hot Springs National Park, Ark. (374.8m-800kc), 12:30-1:30 p. m., farmer dind chauqua; 9-9:30, Lon. Classy, violimist; Salvatore Julian, trombonist.

9, popular songs, Hawleyville trio; 9-9:30, Baker and Anderson.
KTHS, Hot Springs National Park, Ark. (374.8m-800kc), 12:30-1:30 p. m., farmers' Radio chatauqua; 9-9:30, Lon Chassy, violinist; Salvatore Julian, trombonist; 9:30-10:30, Phil. Baxter and his singing orchestra; Jack-o'-Lantern Night club.
KYW, Chicago, Ill. (536m-560kc), 11:35 a. m., table talk, Mrs. Anna J. Peterson; 12:95-1, concert, Commonwealth Edison company; 1, Joska DeBabary and his orchestra; Coon-Sanders Original Nighthawks; 4-5, woman's hour, Mary Casey, director; 6, dinner hour, KDKA, WBZ, KYW, KFKX; 9, hour of music, Commonwealth Edison company; 10-12:30, midnight revue, Faul Ash and his orchestra; Coon-Sanders Original Nighthawks; Henri A. Keates, organist; 1, Insomnia club.

Nighthawks; Henri A. Keates, organist; 1, Insomnia club.

WAMD, Minneapolis, Minn. (244m-1230kc), 12 m., Hazel West, soprano; Beata Hansen, violinist; Mrs. Hansen, accompanist; 7:10, p. m., public school hour; 8, Reception Five program; 11, Skyrocket frolic.

WBAP, Fort Worth, Texas (475.9m-630kc), 7:30 p. m., Decator band; 9:30, minstrel show; 11, Panther Hawaiian trio.

WBBM, Chicago, Ill. (226m-1330kc), 4:6 p. m., Valentino Inn orchestra; artists; 8-10, Tip trio; Moulin Rouge orchestra; artists; 8-10, Tip trio; Moulin Rouge orchestra; artists.

WBCN, Chicago, Ill. (266m-1130kc), 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," teoro and songwriter; Harold Johnson, boy xylophonist; 11-12, request program; Midway Dancing Gardens orchestra; Eddie Matts and Billy Donovan, tenor and planist; West End Harmony boys, instrumental duo; Ed Dempsey, "The Silken-Voiced Tenor," Alice McMahon, contralto; "Big Boy" Yagel, pianologist.

WCCO, Minneapolis-St. Paul, Minn. (416.4m-720kc)

instrumental duo; Ed Dempsey, And Sandard Tenor, Alice McMahon, contraito; "Big Boy" Yagel, pianologist.

**WCCO, Minneapolis-St. Paul, Minn. (416.4m-720ko), 10:45 a. m., "Gold Medal Luncheon Suggestions," Betty Crocker; 12 m., Dick Long's Dayton trio; 2 p. m., woman's hour; 2:30, afternoon concert, Dick Long's Nankin cafe orchestra; 4, readers' club, Mrs. Walter Stevens; 5:30, court of Gold Medal; 6:15, dinner concert, Dick Long's Nankin cafe orchestra; 7:45,

farm lecture; 8, health talk; 8:15, concert, Apollo club; Oscar Seagle, baritone; 10:05, Dick Long's Nankin cafe orchestra.

WDAF, Kansas City, Mo. (365.6m-830kc), 10:45-11 a.m., Betty Crocker, home service talk; 6-7, the Tell-Mea-Story lady; address; The Trianon ensemble; 8-9:30, musical program; 11:45-1 a.m., Plantation players; Eddie Kuhn's orchestra.

WDOD, Chattanooga, Tenn. (256m-1170kc), 6:30-7 p.m., organ music, Tivoli theater; 7-8, Hotel Patten orchestra; 8:15, special features and program; 11, popular request.

organ music, Tivoli theater; 7-8, Hotel Patten orchestra; 8:15, special features and program; 11, popular request.

WEBH, Chicago, III. (370.2m-810kc), 11:30-12 m., woman's half hour; 3-4 p. m., special features; 7-8, Oriole orchestra; Pauline Sachs, soprano; Eleanor Kaplan, violinist; 9-9:45, WEBH light opera company; 9:45-10, news; 11-12:30 a. m., Oriole orchestra; Irene Beasley, Fred Palmiter, Jack Penewell.

WFAA, Dallas, Tex. (475.9m-630kc), 12:30-1 p. m., Sunday school lesson, Dr. Horace M. Whaling; 3:30-4, Sears-Roebuck Agricultural Foundation homemaker's program; 4:30-5, woman's hour, book reviews; 6:30-7:30, Alphonso Trent's orchestra; 8:30-9:30, Schubert Choral club recital.

WGES, Oak Park, III. (250m-1200kc), 5-7 p. m., duo, mezzo-soprano, quartet, organ; 8-9, orchestra, pipe organ, soprano, tenor, pianist; 11-1 a. m., banjo riends, organ, Coyne orchestra; comedian, "Uke Girl."

WGN. Chicago, III (302.8m-990kc), 10-11 a. m., public service period; 11-11:30, household hints; 12:01, Walter Murray; 12:40-2:30, luncheon concert. Drake ensemble and Edward Benedict, organist; 2:30-3, Lyon and Healy artists; 3:25-4:15, Port. of Missing Men; 4:30-5, organ recital, Edward Benedict, 5:30-5:57.

Skeezix time; 6:30-7, dinner concert. Drake concert ensemble and Edward Benedict, organist; 8-9, music hour; 9-10, popular program; 10-11, dance program.

WHAD, Milwaukee, Wis. (275m-1990kc), 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.

6-7, Arthur Richter, organist; 7, Bill Juhre's Radio cartoon game; 8:30-10, Wisconsin theater revue; 35-piece Wisconsin theater concert orchestra; Dexter's Wisconsin roof orchestra.
WHAS, Louisville, Ky, (399.8m-750kc), 1-2 p. m., concert, Royal Peacock orchestra; 3-3:39, organ recital, Mrs. Myrtle Zahn; 4-5, concert, Harry S. Currie's Music Box; readings; 7:30-9, concert, Southern Bapitst Theological seminary, J. H. Drake, director.
WHO, Des Moines, Iowa (526m-570ke), 7:30-8 p. m., Myrtle Williams, soprano; Stewart Watson, baritone; 8-9, Greene County band, Prof. Irvin, director; 11-12, Bankers Life Corn Sugar orchestra.
WHT, Chicago, Ill. (399.8m-750kc), 10 a. m., women's club, Jean Sargent; studio features; 10:45, home service, Betty Crocker; 11, special features; 12, organ recital, Al Carney; Grayling's string trio; Genevieve B. Burnham; Helen Rauh, pianist; Ginner organ recital, Al Carney; Grayling's string trio; Genevieve B. Burnham; Helen Rauh, pianist; Al Carney, organist; 10-10:30, Loftis music; 11:30, Chez Pierre orchestra; 12, "Your Hour League," Pat Bames and Al Carney, will be sured to the sure of the sured or the sure

WLIB, Chicago, III. (302.8m-990ke), 7-8 p. m., dinner concert; 11-12 midnight, popular program; 12-1, dance program.

WLS, Chicago, III. (344.6m-870kc), 12 noon, R. F. D. program; 6 p. m., Ford and Glenn; 6:40, Ralph Emerson, organist; 7, Ford and Glenn; 7:15, WLS studio trio; 7:45, Ruth Eltin; 8, Bethany choir; 8:30, Ford and Glenn; 9, Westleyan brass quartet; 9:30, Little Caruso and his operatic quartet; 10, Ford and Glenn; 11, Paul Ash and his gang.

WLW. Gineinati, Ohio (422.8m-710kc), 7:30 a. m., healthful exercises, William Stradtmen; 8, morning devotions, auspices of Parkway Y. M. C. A., 12:05 p. m., organ concert; 12:30, concert, Hotel Gibson orchestra, Robert Visconti, director.

WMAQ, Chicago, III. (447.5m-670kc), 12:25 p. m., Y. M. C. A. forum; 1, Radio farm school; 2, shut-in program; 4, preschool child; 4:15, musical program; 4:30, "Foibles of the Moment," Mrs. Graham Aldis; 4:45, child life story; 6, organ; 6:30, Family Altar league; 6:30, Wide-Awake club; 8, Kent-Marquette debate; 9:15, lecture, U. of C.; 9:30, program, Messis. Foster, Jilbert; 9:55, chimes.

WMBB, Chicago, III. (250m-1200kc), 7-8 p. m., Trianon due; Frank Chaplin; Preston Graves, pianist; 9-11, Trianon orchestra, Dell Lampe, conductor; Woodlawn theater orchestra, Armin F. Hand, conductor; Eddie Matts and Billie Donovan, William Lightfeld, Walter Duffy, Earl Smith, popular program.

WMC Memphis, Tenn. (499.7m-600kc), 8:30 p. m., Awater Kent program; 11, froile, Charles Lucy's jazzo Wood.

WMC. Memphis, Tenn. (499.7m-600ke), 8:30 p. m., Atwater Kent program; 11, frollc, Charles Lucy's jazza boys.

WOAI, San Antonio, Texas (394.5m-700kc), 8:30 p. m., San Antonio Express Evening news program.

WOAW, Omaha, Nebr. (526m-670kc), 12:45 p. m., Sunshine Sunday dinner meni; 1. Randall's Royal Fontenelle orchestra; 6, music review, Hester Bronson Copper; 6:20, Francis Potter's Banjo orchestra; 6:50, Gilbert Jaffy and his little symphony; 9, classical; 10:15, Frank Hodek and his Nightingale orchestra; (6:50, Gilbert Jaffy and his little symphony; 9, classical; 10:15, Frank Hodek and his Nightingale orchestra; 6:30-6:50, Sandman; 8-9, VIIIa de Chantel, conservatory of music; 9-10, travel talk, Dr. B. J., Palmer. WOI, Ames, lowa (270m-1110kc), 9 a. m., "1926 Crop Problems," Prof. H. D. Hughes; 10, "Canned Goods in Relation to Health," Dean R. E. Buchanari, 10:30, "Heating the Home," Prof. R. H. Holbrook; 11, "St. Lawrence Waterway," Hugh J. Hughes; 12:45 p. m., agricultural economics, Prof. C. L. Holmes; 2, "Recreation," Mrs. Mignon Quaw Lott; 7:30, boxing tournament, Notre Dame-Ames.

WOK, Chicago, III. (217.3m-1380kc), 4:30-7 p. m., Tearney's Town Club Twillight dansant; Capitol theater organ; studio program; 10-1:30 a. m., Tearney's Town Club Twillight dansant; Capitol theater program; studio program. Studio program.

WORD, Batavia, III. (275m-1990kc), 7 p. m., North Shore line program; 7:45, Uncle Dan and WORD study club; 9, recital, Rudolph Magnus, tenor.

Shore line program; 7:45, Uncle Dan and WORD study club; 9, recital, Rudolph Magnus, tenor.

WQJ, Chicago, Ill. (447.5m-670kc), 11-12 mon, Sunday dinner menu, Ted Wilmes; 3-4, domestic science lesson, Helen H. Downing; "The Valentine Party," Julia Deal; 7-8, Rainbo Gardens orchestra; Henrietta Nolan, violinist; song biography, H. W. Bundy; Margaret Cade, soprano; 10-1, Rainbo Skylarks; Dr. H. Lucille Long, harmonica player; Melodians; Dean Terrill, baritone; Merrill Carder, baritone; Mary Wade, soprano; Rome Vincent, boy baritone; 1-2, Ginger hour.

WSB, Atlanta, Ga. (428.3m-700kc), 8 p. m., concert; 8:45, Nunnally Miniature symphony orchestra.

WSM, Nashville, Tenn. (282.8m-1060kc), 6:30 p. m., concert, Francis Craig's orchestra; 7, bedtime story inter-

(Continued on page 30)

Radio Digest

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Congress Stages Comedy

OUR Washington correspondent writes that two important facts have been established by the hearings in congress on the Dill and White bills which would give the secretary of commerce additional authority to properly regulate Radio. One is that the Radio industry, the broadcasters, and the general public all favor the general principles of the regulatory measures proposed.

The second fact emphasized is that George M. Cohan has a new and serious rival in the comedy producing field—congress. The hearings have brought out, to-gether with many laughs, the fact that the average congressman does not know enough about Radio to discuss it intelligently, much less legislate toward its regulation.

But we can't expect our senators and representatives to have considerable knowledge concerning such a highly technical subject. And the congressmen admit

Major Maubourgne, of the U. S. signal corps, at one of the house hearings, was asked a question by Rep. Frank Reed, of Illinois. The major did not understand the question, which was queer and hardly absorbed insoftences as Radio technicalities are experned. coherent insofar as Radio technicalities are concerned. He informed Representative Reed he did not under-

stand the question.
"Well, you haven't got anything on me," non-chalantly retorted Mr. Reed. "I don't understand it

At the senate hearings, Judge Stephen Davis, acting secretary of commerce and Herbert Hoover's righthand aide on the subject of Radio, was forced to spend one whole morning explaining the difference between a wave length and a band of wave lengths. Then he had another hard one when he told the senators the difference between wave length in meters and frequency in kilocycles.

At the conclusion of one of the hearings in the senate interstate commerce committee, which was discussing the Dill Radio bill, one of the experts representing a Radio company, telegraphed an associate as

'Come to Washington immediately. You are missing one of the best comedies I have seen in a long time." The lack of Radio knowledge on the part of the congressmen, as we have noted, is excusable, but if these same congressmen take it into their heads that the situation calls for large doses of the amendment medicine which they so dearly love to apply to most measures, the Radio bills, badly mutilated and full of holes, may emerge in such a form as to be wholly unacceptable and actually harmful.

Write your senators and representatives to "never mind what it's all about," but vote for the Radio bills as proposed by Senator Dill and Representative White. They are what is wanted by everybody, immediately,

Does WIR Spoil Your Reception?

OO late received to be included as a hint for In-

TOO late received to be included as a hint for International Radio Week, comes a communication from a reader who is bothered by interference from a commercial station, WIR, at New Brunswick, N. J.

This plant is a 20,000-watt experimental telegraph station operated on 74 meters, supposedly, by the Radio Corporation of America. The interference from this source is so strong that it spreads clear over the broadcast wave bands, from 200 to 545 meters.

The complaining listener lives in Pittsburgh, a good

The complaining listener lives in Pittsburgh, a good distance away, but says the interference is still terrible. Even local reception is badly mutilated. Complaints from Ohio also report WIR as interfering. Interference of this kind is hardly a good thing for

the Radio industry. If one must experiment, let the experimental station be so located and so designed as to create a minimum of trouble for the broadcast listeners. Perhaps the experiments could be scheduled at such

an hour in the morning as to disturb no one.

Cannot something be done to prevent WIR from crashing all over the ether? If not, it should be closed down. The public must be served. The attention of Supervisor of Radio Batchelor, of the second district, is remanded to this nuisance.

Stop it, Mr. Batchelor!

RADIO INDI-GEST

Listenin In

Daddy called me down the cellar When Mama was away. "Now be sure that you don't tell her A single word I say, Because I'm not wantin' her to know, Or she'll get mad as sin— Sh-h-h- gonter get a Radio An' you can listen in."

My mama's mind runs most to clothes, The fashions and the style, But when it comes to Radios She says they ain't worth while. When daddy gets the thing set up, An' some speaker wags 'er chin, I'll bet a doughnut to a pup Ma's first to listen in.

Barney Lee

Hirsute Harmony

"Trade" and "Mark," the famous "Smith Brothers" are singing every week over WEAF. The program is sponsered by the Smith Brothers Cough Drop company. This feature should be broadcast over KOA, Denver, or KFXF, Colorado Springs.

Dear Little Mother

"When her only daughter reached the mature age of three, she found her offspring had inherited her mother's talent."—From story in WOR Studio News.

The Third Alarm

When I wake up and stretch, and slowly yawn, And marvel at the fleetness of the night So quickly overtaken by the dawn I wonder what impetus had their flight.

"There surely must be some mistake," I moan, "Why should I be so tired and rum-dumb? Then suddenly I'm mindful I am prone To stay up late when programs start to come

Helen Maria!

Dear Indi: Since the institution of microphones in the Dear Indi: Since the institution of microphones in the House of Lords it has been discovered that the most intimate conversations are broadcast through the chamber. Recently the Archbishop of Canterbury (a peer by right of his office) heard another peer speak of him to a neighbor member as, "What a fool this old fossil is." Unless the installation can be tuned down, it is said the peers will demand the removal of the instruments. They insist on their rights to swear in privace.

'S funny, Fog. Really, old topper, m'lord should be elected, doncher know. F'rinstance like our senators. By the time he went though a few campaigns, a good cussing, exquisitely frilled, would fail to jar his monocle. He might not even bluster if he was threatened with becoming the groundwork for a fossil.

> Symphony in Minors Slim and Red and Spud and me Built us a reg'lar station. We're gonna broadcast music, too, And Slim's school-day oration.

We built it up in Red's hayloft, With a seive for mikrofone, And padded up the place with quilts To pertect our music's tone.

We use a clothesline for the thing To send the waves a-bouncin', And we're all set to thrill the world, With Spud to do the 'nouncin'.

Slim got his mother's roastin' pan An' I swiped our wash basin, And Red an' Spud each got a pail-Tune in and get our station.

Will O. Wisp

For Peruvian Sheiks

We noticed in the program from OAX, Lima, Peru that a camel-trot was included. And right away that a camel-trot was included. And right away Blooper piped up and wanted to know why they had that in Peru, as they don't have to go eight dances without a drink. But anyway, we hope the graceful dancers we saw in Lima several years ago are not humping over now like our American Charlestoners.

> Gotta Blame "Blooper" I KNOW OF AN ANNOUNCER WHO'S A PEST UPON THE AIR— IF I CAN GET A BOUNCER

Say Folks, there's a little freckled-faced kid here that does everything from pester us in the morning to pester us at night. He's a good kid, but he'd meddle in H. R. H. Davie Windsor's love affairs or any other trifling matter, if he could, so we have nicknamed him "Blooper." He He wanted to help Indi for this issue by writing a poem. He handed the above in and said there were so many things he would do to a pesty announcer he couldn't get them all in one line. Indi wants the worst thing that could be done put in that line. Can you help him out with a suggestion? An autographed heterodyne squeal with a rubber string attached will be sent to the one who submits the best line. He handed the above in and said there were so many

Your Program's Coming In Fine Will one of the chain gangs please sing "The Prisoner's Song?" The News of the Week



Condensed BY DIELECTRIC

Fortunately for Radio listeners one did not have to be a resident of Allentown, Pa., to hear a beautiful number, "Ecstasy," rendered by a string quintet. This number presented through Station WSB, Atlanta, was a feature in the Lion and King program and dedicated to someone in the town mentioned above. Whether the prince was prisplaced with reference to the prince was prisplaced with reference to the prince. the piano was misplaced with reference to the mike, or just played too loud, the result was a prominence which tended to upset an otherwise excellent ensemble. A later feature of considerable interest was provided by carrying listeners about from one to another theater in the city, thereby introducing a variety of acts and musical selections.

That quiet, southern-accented voice of Wendall Hall, set off by his engaging chuckle, has a very competent pair of wings attached—or so it would seem. Not so long ago, he has perfectly at home before a mike in Chicago and more recently we heard him from the studio of KOA, Denver. By the time he reached the latter city several new jokes had come to his mind which he unhesitatingly proffered for our benediction. Some of them received anything but that, while others would make even the stern lines on Bernard Shaw's face relax. Everybody likes his uke-ing.

Let's see how many of the broadcasting stations we can commend for omitting undesired material in their announcing or including such things as the Radio audience deems essential to satisfactory reception. The station to be mentioned at this time is WTAM, operated by the Willard Battery company, Cleveland. Throughout the playing of a dance program at this station there was announced between each number merely the station call, city and selection to follow, amounting to the least interruption one might wish for. There are others to note.

Just as Station WJJD, Mooseheart, Ill., reached that part of an evening program where a native Eskimo was presented, our dials tuned them in. This gentleman of the far north country has succeeded in mastering pianoforte execution in a manner thought improbable for one of his birthplace. The recital was given from the Palmer House, Chicago, and was consistently interesting. Yet the playing of this pianist stood out prominently, due to skill in execution and expression.

. Should you hear the Boswell Sisters, from Station WSMB, New Orleans, you will readily understand why they have been retained on the broadcast programs of that station ever since its inception. They are clever performers on their chosen instruments and might fit-tingly be included in the galaxy of artists' likenesses appearing in this paper. Another observation should be made, which is to the effect that announcing is done slowly, distinctly and pleasantly.

Station WPG, Atlantic City, developed an anniversary program of merit including awarding of prizes to listeners—a customary proceeding switching by remote control from the new Elks home at that seashore resort to other points in the city where entertainment was available. Both the participants and listeners spent a lively evening together.

There is one group of songs to which music lovers never tire of listening—the Indian love lyrics. A tenor with good vocal equipment rendered one of these songs before the mike of KFI, Los Angeles. Another feature worthy of comment was the violin playing of Samuel Gardner.

ABC Radio Fundamentals for Everybody

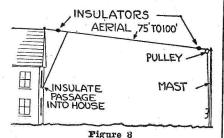
Chapter IV—How Sound Waves Are Received

By Milo Gurney

T IS obvious that if we are to intercept the Radio waves, which have been thrown into space, a substance is so connected as to do double duty.

In order that the waves may be concept the Radio waves, which have been thrown into space, a substance must be provided in a form which has a marked affinity for such waves. In addition, there must be a means for converting them into the such waves. ing them into audible frequencies, together a mechanical arrangement will make the output understandable.

To meet the first requirement, an antenna, which may be either in the form of an elevated copper wire, or in the



shape of a coil or loop is used (see figures 8, 9 and 10). Each type has its advantages, but coil or loop antennas do not supply nearly as strong signals as do the single wire antennas, placed 30 or 40 feet above earth, and well away from objects which might act as a counterpoise. A counterpoise acts practically the same as a ground, and when antenna is not coras a ground, and when antenna is not correctly installed, consists usually of metal roofs or like objects. This result holds true, even though the loop possesses an equal length and size of wire.

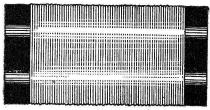
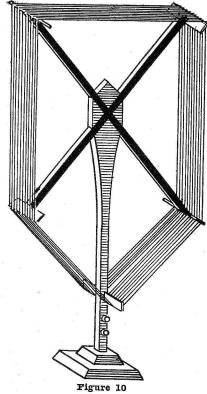


Figure 9

To furnish a definite reason for such varying signal strength would carry my discussion well into the mathematics of Radio, assuredly an angle which would not be of general interest to my readers. It is, however, quite easily proven that within certain limits the distance from the earth at which either type of antenna is placed has a marked influence upon its is placed has a marked influence upon its efficiency as an energy collector, insofar as signal strength is concerned.



If signal strength was our only concern, then a single wire antenna, or a multiple of such wires, placed in a horizontal plane would undoubtedly be pre-ferred. But very often, because of its directional characteristics, the use of a loop is advisable, if not imperative. In order to compensate for its lack of signal strength, an additional tube is employed in the receiver, or advantage is taken of a wiring process, or circuit arrangement.

This circuit!

or process is such that the tube, or tubes is so connected as to do double duty.

In order that the waves may be converted into audible frequencies after interception they must be passed on from the antenna to a tuner, whose function is that of making possible the selection of the station whose program we may desire to listen to and from this tuner on to a detector, or converter, which is a better word. The part taken by the detector is to convert the waves which have reached it in the form of radio frequency to that of audible frequency. As explained in a previous article, they are converted to a frequency which is within the capability of the human ear to hear. As both the tuner and the detector are of more than casual interest and, further, as their method of operation is distinctly novel, each will be given their deserved attention through separate treatment.

The tuner, or station selector, as used in Radio receivers, is not the complex mechanism that many would have you believe. Rather it borders upon the ridiculously simple when viewed as the complete unit. Persons knowing little about the principles involved regarding the design of a tuner, have brought to the gullible purchaser a multiplicity of them. It is the early days of Radio, it slowly declined until its name was seldom mentioned in polite Radio circles. Of late, with the advent of a great many circuits using what is known as a stage of radio frequency preceding regeneration, the three-circuit tuner is once more coming to the front, even if it does not now hold a gullible purchaser a multiplicity of them. the design of a tuner, have brought to the gullible purchaser a multiplicity of them, some worthy but most of them an object of pity. Yet each is backed with a promise that included everything which the maker felt would answer your questions and attract another dollar from your pay envelope. Out of this maze of maybe's, three distinct twee stand out as being the product of the stand out as the product of the stand out the st pay envelope. Out of this maze of maybe's, three distinct types stand out as being fundamental in conception, and in general use today. They are known as single (figure 11), double (figure 12) and three-circuit (figure 13) as pictured in the drawings shown. Of the three, the double or two-circuit tuner is the type most preferred, and while the three-circuit tuner passed through a wave of popularity in

with the advent of a great many circuits using what is known as a stage of radio frequency preceding regeneration, the three-circuit tuner is once more coming to the front, even if it does not now hold a very strong position in the field.

Later on in this series, the advantages of each will be explained, while for the present I shall only use the single-circuit type without variations in order that the layman may not be confused.

layman may not be confused.

Using figure 11 as our example, the Radio waves from all stations which are powerful enough to reach your antenna powerful enough to reach your antenna are passed on and down through a wire from this antenna to a coil within the receiver, and through it to earth. As the transmitting station is also connected to earth, the electrical circuit is thereby completed. Connected to this coil is a (Continued on page 24)

Genuine Balkite Battery Charger Fansteel Balkite Battery Charger No Bulbs Noiseless Down, On Easy Radio Fans! Auto Owners, too! You Monthly may now own a Genuine Fansteel **Payments**

Balkite Battery Charger on a most amazing, easy payment offer. The famous Balkite is acknowledged the most efficient, the most fool-proof and trouble proof storage battery charger on the market. No tubes, no bulbs and no noise. Will charge your battery while using your radio. To get the most efficiency and greatest enjoyment out of your radio, you need the Balkite Battery Charger

in your home. And, on this offer, we'll send it to you for only \$1.00 with the coupon on

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The Balkite comes to you completely wired, ready to attach to your light socket and battery. No extras to buy. Use it whenever necessary for 30 days. See how much it adds to the convenience and enjoyment of your radio. See how much it saves in battery charging cost. See how simple and easy to use. After 30 days trial, if you're not convinced that you need the Balkite Battery Charger, send it back at our expense and we'll refund your \$1 plus transportation charges.

\$250 a Month

If you decide to keep the charger, start making the small payments of only \$2.50 a month until you've paid the total price of only \$19.50. That's the price others ask for spot cash. We give you the lowest cash price on easymonthly payments you'll never feel. The money you save in charging your battery at home will almost take care of the payments on this offer.

For Radio and Automobile Batteries

The Balkite Battery Charger is based on a new principle, the use of "Balkite" a rare metal developed for this purpose. It will charge the ordinary 6 volt radio "A" battery or automobile battery from 110-120 AC, 60-cycle current. It will also charge radio "B" batteries of the lead type without added attachments in multiples of 6 cells.

No Bulbs—Noiseless The "Balkite" metal changes the AC current, commonly used for lighting, to the DC current necessary for charging batteries, without the use of fragile bulbs or vibrators. This makes operation practically devoid of any disturbing hum or noise of any sort.

Easy to Operate The Balkite delivers a taper charge and cannot damage the battery by overcharging. Cannot discharge or short circuit the battery. It will charge even a completely discharged battery. It cannot fail to operate when properly connected to the battery and line current. Is unaffected by temperature or fluctuations in the line current. It is simple, efficient and indestructible. Has no contact points, bulbs, vibrators or moving parts. Cannot deteriorate through use or disuse. Requires no attention other than filling with distilled water. Has nothing to adjust, break or get out of order.

Operates While Using Radio The Balkite can be used while the the set or its operation and without disturbing noises. Its operation does not create disturbances either in your set or your neighbor's.

Charger comes completely wired, ready to attach to your electric light socket and battery. No extras to buy—no fuss, no delay. Measures 8 inches high, 6 inches wide, 6½ inches deep. Shipping weight about 22 lbs.

Order by No. Y8306NA, \$1.00 with coupon; \$2.50 a month; total price, \$19.50

Don't miss this opportunity to get the famous Balkite Battery Charger at the rock bottom cash price on small

monthly payments. Send only \$1.00 with the coupon now, while this offer lasts. No risk. No obligation; 30 days' trial, then decide. And you are always protected with Straus and Schram's money-back guarantee of satisfaction. Send now.

Straus & Schram, R9411 Chicago

IRAM, Dept. R9411	Chic
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Charger, No. Y8306NA	. \$19.50.

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	HRAM, Dept. R9411 ospecial advertised Balkite ree trial. If I keep the sh not satisfied. I am to re a are to refund my money Charger, No. Y8306NA

mechanical and electrical device which is termed a condenser, shown in figure 11 as that portion of the drawing containing the arrow. It is the shaft of this condenser which passes through the front panel of your receiver and to which the tuning dials are fastened.

Figure 11

Figure 12

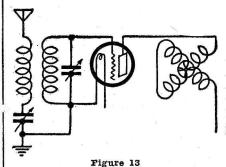
The purpose of this condenser is to so vary its electrical characteristics, by turning the dial, as to allow only the station to which we desire to listen to pass through it and on to the detector or converter. An apt analogy may be cited if we but consider this condenser as an adjustable sieve through which all of the several wave lengths are clamoring to pass through, but which are retarded because the openings have been adjusted by the operator to a degree wherein only the wave suitable to our pleasure can pass. The question may arise in your pass. The question may arise in your mind at this point as to why it is that very often, in addition to the waves of the desired station passing through, apparently others also pass, because we can hear other stations, though with a lesser signal strength? As an explanation concerning the cause of this is worthy of a spherota article it shell be deferred until separate article, it shall be deferred until later in this series.

It is then of interest to remember that as both the antenna and the tuning coil within your receiver have an affinity for the interception of Radio waves, and as they are conductively connected, they are therefore not, in their service to you, unlike the electrical current in your home,

ABC'S OF RADIO SETS the electrical and mechanical means employed. A condenser is also required, and attached to a coil. An exception is that mechanical and electrical device which is termed a condenser, shown in figure 11 collector agency is represented as a loop, and unless such a loop is converted to a form of antenna, no connection to earth

> While this series of articles is directed primarily to those interested in the learning of the Why's and Wherefore's of Radio, my correspondence for a considerable period has indicated that altogether too few experimenters understand how a loop functions as an energy collector. cannot, therefore, pass the subject without clarifying this much mooted question Later on the construction of an efficient loop will be outlined together with the

> As a loop receptor has no connection to earth, it is obvious that it does not pass an electrical circuit to earth which re-turns to the transmitting station. Hence it must rely upon another means. In



this instance a loop is influenced through being within the field of the electro-magnetic waves which are transmitted, and which permeate the atmosphere. If we should change the electro-magnetic waves to heat, and assume that such heat is being radiated from a radiator, then objects placed near the heat will absorb a portion of it, in direct ratio as the square of the distance and its area. A square of the distance and its area. A loop therefore, when placed in the electromagnetic field of a transmitting station, functions also as an absorber of electromagnetic waves, which induce a replica of the modulated waves within it.

which is ever a service to the lamps and only awaiting one to turn them on.

Tuning, wherein a loop is used rather than an outside antenna, is identical in tor's Note.)

Turned waves where it is to the modulated waves waves where it is to the modulated waves waves waves waves where it is to the modulated waves waves where it is to the modulated waves waves where it is to the modulated waves waves waves waves waves waves where it is

(Continued from page 6)

the advantage of a powerful Radio station and a voice in the Radio assembly of cities and states commensurate with its standing as the home of a great university, the Johns Hopkins, . . . its patronage of the arts, especially music; its rapidly growing importance as a great sea port; the industrial center of the Atlantic coast—the Port of Opportunity and as the newest

of the old cities of our great country."
And to prove his sincerity Mr. Wagner added, "It is my privilege to dedicate this new Radio station to Baltimore and Maryland and to the service of their people in such ways as may be found most useful to them. The station is to be known as Baltimore. It will be so designated and referred to in our future announcing and operation. After tonight, the name of the company will not be heard in the announcements of this station, nor is it proposed to commercialize its operation."

The governor and the mayor responded, heartily thanking Mr. Wagner and his company for their generous contribution to the commonwealth.

"Many times since I have been mayor of Baltimore," said Mayor Jackson, "have I been importuned to establish a municipal broadcasting station, and little did I think that when I postponed these matters from time to time that the initiative would be taken by the Consolidated Gas, Electric Light and Power Company of this city."

There are two studios, one large and one small, the larger one being capable of handling a full symphony orchestra. In the reception room there is a loud speaker for the benefit of those visiting the studio.

WBAL is located about 20 miles from the center of Baltimore on a knoll 700 feet

the center of Baltimore on a knoll 700 feet above Baltimore mean tide level, and connected by cable to the studio in the Lexington building in Baltimore's business center. It is operating at present at 1,000 watts on a wave length of 375 meters and will so continue until otherwise ordered by the United States department of com-

Frederick R. Huber, a distinguished figure in the musical life of Baltimore, is director of broadcasting. Mr. Huber has director of broadcasting. Mr. Huber has been manager of the Baltimore symphony orchestra ever since its inception ten years ago, in addition to which he is also managing director of the Lyric theater, Baltimore's largest music hall, and municipal director of music. These various activities have given him a wide experience

BALTIMORE HAS VOICE in musical affairs and make him one of the most highly qualified of broadcasting directors

The studio manager is Stanley W. Barnett, who was called to WBAL from WOC, at Davenport, Ia., where he served in a similar capacity. Mr. Barnett has had considerable Radio experience, being familiar with every detail of its operation.

George Bolek, pianist, and Gustav Klemm, composer, are program supervisors. Mr. Bolek is a well-known figure on the concert stage, where he has appeared with many distinguished artists. Mr. Klemm is conductor of the WBAL orchestra which broadcasts twilight concerts every. Sunday, evening from 6:30 to 7:30 every Sunday evening from 6:30 to 7:30

o'clock. Vocalists also are to be included on these orchestral programs.

Of importance in connection with the work of this station is the operation on a work of this station is the operation on a weekly schedule. Mr. Huber has provided that lovers of novelty and music of a lighter character may have their place on the programs each week. Friday has been set aside as "novelty" night and from 9 to 10 o'clock unusual features that will have a distinct appeal to all will be broadcast. a distinct appeal to all will be broadcast.

Monday and Thursday nights will be concert nights". The programs will run from 8 to 10 o'clock; the program from 9 to 10 o'clock Thursday evening will feature members of the WBAL staff. Tuesday will be "ensemble night" when vocal and instrumental quartets, trios and duets will be heard. Sunday, between 6:30 and 7:30 o'clock, there will be "twilight" concerts featuring well-known vocalists and the WBAL orchestra, of which Gustav Klemm is director.

is director.
Wednesday and Saturday nights are

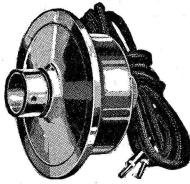
Headphones Are Delicate

Head phones, when well made, are delicate instruments, and should be handled just as carefully as a fine watch. One should never let them drop, or handle them roughly, any more than one would willingly let a glass tumbler fall on the floor. Though head phones will often stand considerable rough treatment with stand considerable rough treatment with-out serious damage, strict adherance to the rules of care outlined here is the best assurance of good reception.

Fading experienced by Radio fans has been traced frequently to sagging aerials that were being swung back and forth by the wind. When the slack was taken up the fading was eliminated.

Big Price Reduction

FULTONE LOUD SPEAKER FOR YOUR PHONOGRAPH



Fits Any Make Now Only

The unit will be shipped on a

satisfaction or money back basis on receipt of price in money order or currency.

\$300

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 tions of carefully chosen steel.

Use on Your Phonograph Edison Adapter.....25c Columbia or Pathe.....20c Brunswick30c

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Tear Off, Fill in, Mail Now HALL & WELLS, Inc., 4600 Lincoln Avenue, CHICAGO, ILL. NAME . ADDRESS

RAYTHEON

The new rectifier that perfects the B-battery eliminator

PURE, resonant, clear tone—reserve power—freedom from worries of all kinds—aren't these the things you have always looked for in a B-eliminator? The things you have never been able to realize?

to realize?
Here, then, is a tube that makes all these possible—that has immeasurably long life, uniform quality, ample power to run a ten-tube set. The RAYTHEON Rectifier is the result of prolonged experimentation and scientific research. It is the last word in the perfection of the B-battery eliminator, developed by an organization that is in the forefront of the engineering field, and sponsored by radio editors and leading manufacturers.

Complete B-eliminators or parts, specially designed for use with RAY-THEON tubes, are manufactured and

Acme Apparatus Co., Cambridge, Mass, All-American Radio Corp., Chicago, Ill. Dongan Electric Mfg. Co., Detroit, Mich. General Radio Co., Cambridge, Mass. Jefferson Electric Mfg. Co., Chicago, Ill. Mayolian Radio Mfg. Co., New York, N. Y.
Modern Electric Mfg. Co., Toledo, O.,
Thordarson Elec. Mfg. Co., Chicago, Ill.
Tobe Deutschman Co., Boston, Mass.
Webster Company, Chicago, Ill.

You can buy these B-eliminators, parts, and RAYTHEON Rectifying Tubes at your dealer's. Price of tube, \$6.



Reserve Power Economy

Raytheon Manufacturing Co. CAMBRIDGE, MASS.

TONE

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 demonstra-tion. Your eyes and your ears will tell you that APEX stands at the high point of perfection in both performance and appearance. \$80
—without accessories.



OPERATING AND TROUBLE SHOOTING

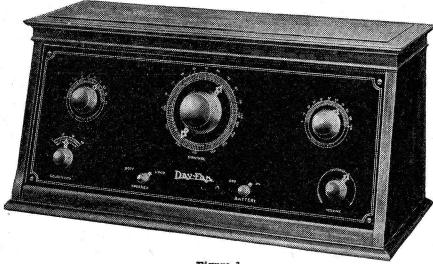
OPERATING and Trouble Shooting, is a Radio Digest feature, the purpose of which is to give practical information on the operation, care and cure of simple troubles in every kind of receiver. Standard Radio receivers of wide distribution and use are studied from the standpoint of instructions for installing 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 Day-Fan Five Receiver

MANY have tried, but few have succeeded, as have the designers of the Day-Fan 5, in producing a Radio receiver of such remarkable sim-

Its semi-sloping panel in black and gold, relieved by a housing of handrubbed mahogany, in effect accentuates the one dial major tuning control, which is this propingly acceptable. is this receiver's outstanding feature. Through slowly turning this dial, and an occasional slight adjustment of the small

two additional controls are provided at the opposite lower corners of the panel, If this is impossible, your next choice



which function as aids for additional se-This completes the panel assembly with the exception of a centrally located battery switch of neat design, which is used to either turn on or off the set.

The interior assembly of parts, together with the evidence of careful workmanship, is in keeping with that which one expects from manufacturers of repute, the total receiver expressing the thought of keeping well abreast of Radio's rapid advancement.

Antenna and Ground

As the construction of an efficient antenna and ground are of vital importance, our experience with the Day-Fan indicated that the antenna should be number 14 single strand copper wire, from 80 to occasional slight adjustment of the small vernier dials at either side of the major one, we were able to not only separate each of the Chicago stations, but receive satisfactory reception from outside stations, which speaks well for the selectivoity of any make of receiver.

In addition to the controls mentioned, the selective of the controls mentioned, the selective of the sel

may be an equal length of rubber covered number 18 copper wire, strung along the picture moulding of an upstairs room, or

located in an attic.

The ground connection should be as short as possible, the size of wire used to be the same as for the antenna, while it need not be insulated. Run this wire from the receiver as direct as possible to a cold water pipe, to which it should be fastened by means of a ground clamp, purchasable in all electric or Radio sup-ply stores. If such a clamp is not available, it is then permissible to file or scrape a portion of the pipe and to wrap approximately two feet of the bare ground wire tightly around the cleaned portion of the pipe. When completed cover this wrapping well with ordinary tin foil, and over it and the wire fastened

the foll, and over it and the wire fastened to the pipe place a wrapping of tape.

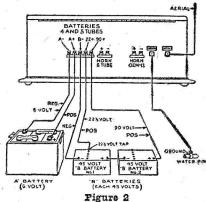
Should no cold water pipe be available, a galvanized iron pipe about six feet long, to which the ground wire has been secured in the same manner as outlined for fastening to a cold water pipe, may be used. This should be driven its full length into moist earth length into moist earth.

As no receiver is any better than its weakest link, it is of importance that only proven accessories should be used. Look well then to the quality of the tubes, batteries and loud speaker which you purchase. Price is not a criterion of goodness, while reputation is.

Accessories

You will require five 201-A or 301-A type tubes, two 45-volt B dry batteries, the heavy duty type being preferred, and one 6-volt wet storage A battery, for this receiver. In addition a suitable loud speaker will, no doubt, be required.

In purchasing the A wet battery, as well



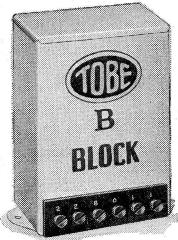
as the B dry batteries, secure your dealer's assurance that they are fresh and fully charged. A fully charged wet storage battery should indicate a hydrometer reading between 1275 and 1300, while a 45-volt dry B battery should test with a reliable voltmeter 38 volts or better, in order to be of value.

Connecting the Receiver
Before attempting to connect the batteries and antenna and ground, carefully read the instructions which come with the receiver. The actual making of these connections has been made extremely easy as a 5-wire cable for making the connections to the batteries is furnished and properly connected with the terminals of the receiver. One then has but to place

(Continued on page 26)

The TOBE "B" BLOCK

An essential part of the hum-less B-eliminator



Price \$11.00

CONTAINS in one compact silvered metal case the three filter and two bypass condensers required for the Raytheon "B" Eliminator;—one 8 mfd., two 2 mfd., two 1 mfd. Saves \$2.50 in cost of parts—saves space—saves wiring. Approved by the Raytheon Mfg. Company for use with its Raytheon tube. See pages 27 and 28, this issue of RADIO DIGEST.

Ask Your Dealer for "The Better Condensers" A new TOBE "B" Block is also available with one 8 mfd. and two 2 mfd. condensers for filters in power amplifiers and other types of plate supply work. Price, \$9.50

THE TOBE DEUTSCHMANN HIGH-VOLTAGE BI-PASS CONDENSERS ARE NOW AVAILABLE

Prices:

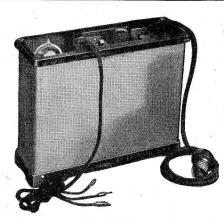
0.1 mfd., \$0.60 0.5 m 0.25 mfd., .70 1.0 m 2.0 mfd., \$1.75 0.5 mfd., \$0.75 1.0 mfd., .90

These condensers are mounted in the standard TOBE shielded metal cases, with silvered finish and are designed for all usual radio by-pass uses and for ordinary "B" eliminators.

The TOBE model high-voltage filter condenser is also announced at our former prices. Each of these is individually tested and stamped with date of test. Accuracy guaranteed within 5 percent of rating. For use where the very best parts are desired, as in power amplifiers and "B" eliminators, for power tubes and for experimental work.

Write us for circuit diagrams of all types of "B" battery eliminators

TOBE DEUTSCHMANN COMPANY Cornhill, Boston, Mass., U. S. A.



The Acme B-Eliminator, shown to left, is made in two types:

Type E-1, (110 volts 60 cycle), \$50 (Type E-1 uses Raytheon Tube) Type E-2, (110 volts, D. C.), \$20

> For those who want to make their own:

Acme B-4 Transformer......\$7 Acme B-2 30 henry Choke...\$5

Acme B-Eliminator gives—

Greater Distance, Greater Volume and Better Quality With no noise—no hum—no distortion

THE big job in finding a method of hooking up house electric current to replace "B" batteries in radio sets has not been to eliminate the hum. That was easy. The problem was to discover a way of overcoming the distortion.

Now, after two years of experimental and research work, we have won. The Acme B-Eliminator has no noise, no hum, no distortion.

You can guess the result. No "B" batteries to quit cold when you need them most. You get permanent reception, better reception, and higher voltage that is constant.

ACME APPARATUS COMPANY Dept. N11 37 Osborn Street Cambridge, Mass.

There is nothing to wear out. The first cost is the last-and the current consumed is trifling.

The new Acme B-Eliminator is highly effective on any set from 2 to 10 tubes. Detector voltage is 0 to 70. See it at authorized Acme dealers.

Those who prefer to assemble the Acme B-Eliminator themselves can easily do so by following a few simple instructions. Send 25 cents with the coupon below and we will furnish you with an actual size wiring diagram together with a copy of our booklet, "Amplification without Distortion" which contains all necessary instructions.

Acm	App	paratus	Comp	oany,	
Enclos size v B-Elin	ed find	25 cents, diagram i and con	stamps for cons	mbridge, Mor coin, fo truction of mplification	r actua
Name.		*************			
Street	************				

OPERATING DAY-FAN 5

(Continued from page 25)

the set well away from radiators or metal objects, which have contacts with the earth, and attach the free ends of the cable to the batteries as indicated in figure 2. The plus, or positive, terminal of the $\bf A$ battery is marked + or painted

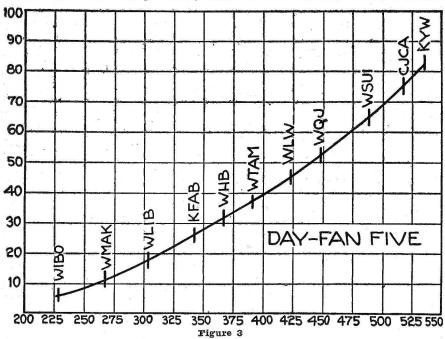
2. Turn the center dial all the way to the left and then all the way to the right, which will line up the tuning condensers

3. Set the large center dial at the num-

ber shown on the wave length calibration chart, sent with the receiver, for the sta-

tion which you desire to hear.
4. Turn the speaker switch to the loud position.

red.
Place the 6-volt storage battery as to left until maximum volume is secured.



close to the receiver as is possible, yet convenient for charging if you have a battery charger. Rubber covered wire battery charger. Rubber covered wire for the connecting of this battery to the receiver should not be smaller than number 16 if the battery location does not exceed six feet from the receiver. If of greater distance, up to ten feet, then a number 14 wire should be used.

It is also advisable to place the dry B batteries convenient to the receiver and at no greater distance than that of the A battery. The connecting wires from the B battery must also be well insulated, although the size may be smaller, though not less than number 18 gauge.

A booklet is included with the Day-Fan 5, in which is a wave length calibration chart, which enables the operator to instantly locate the station desired. This is arranged so that the indicating numerals poincide with the dial reading, and presents a most helpful aid to the novice.

After connecting the receiver, insert the tubes in their sockets, and turn on the battery or loud speaker switch, then proceed as follows:

1. Set the pointers marked "Selectivity and "Volume" so that they are vertical.

6. Turn the volume control well over to the right and then slowly back to the left until the tone and volume is such as to please you.
7. If the volume is still too loud, turn

the speaker switch from loud to soft.

8. Once a station is tuned in, slight

adjustments of the dials to the right and left of the large dial will clear up the

signal.

9. Slight adjustments of the "Selectivity" dial will materially assist in the tuning in of stations which are otherwise hard to separate from interfering ones.

Tuning Chart
As an additional assistance in operating this receiver, and also as indicating our method of checking the claim of the manufacturer relative to one being able to set the main control dial in accordance with their wave length calibration chart, we produce in figure 3 a graph chart of wave lengths against dial settings.

The check was made covering the reception of twelve typical stations which were broadcasting from 244 to 536 meters, and it is surprising to note from this chart how closely it adheres to the manufacturer's claim.



There are many improvements in the new Prest-O-Lite Battery

IN THIS new battery you'll find all the good points and high quality that have made Prest-O-Lite an unfailing aid to better radio. And in addition there are many important refinements and improvements that make it the most attractive, most convenient battery you can buy.

This new battery has a beautiful stippled finish hard rubber case that blends with any furnishings. The case is molded in one piece, giving sturdy, leakproof strength.

To make the battery convenient to carry, the handle has been given a comfortable rubber grip.

The oversize terminal nuts on the binding posts are easy to turn and insure perfect contacts.

Novel rubber insulators completely cover the tops and sides of the cell connectors, preserving the original fine finished appearance at all times and giving protection against accidental short circuits.

No effort has been spared to make this a battery you will be proud to own. Yet, like the rest of the Prest-O-Lite line, it is priced to offer you the biggest value of the day. Ask your dealer to show you this battery and the Prest-O-Lite Chart that helps you select the right battery for your set. Or write Indianapolis for a copy of our interesting handbook on radio storage batteries and how to charge them.

THE PREST-O-LITE CO., Inc., INDIANAPOLIS, IND. New York San Francisco

In Canada: Prest-O-Lite Company of Canada, Ltd., Toronto, Ont.

KFDM "TOOTSIE LINE"

(Continued from page 7)

Suddenly the loud speaker trembles and almost falls off the stand. What's the matter? Gracious sakes! Can it be a

"Oink! Waugheee-er-oof!" Tootsie rears back on her haunches, such as they are. Lubricating Luke and the Claim Agent make a dash for the door. A general medley, amounting almost to a melee follows. lows. Farmer Perkins and the Bathing Beauties get all mixed up and the Flappers and Pete the Passenger tumble out of the Accommodation coach. Just as they are about to emerge on what is expected to be a gory scene a resounding 'Hee! Haw! Haw!" comes chortling through the circuit.

THERE HAVE you heard that voice before? A Missouri mockingbird! Yes sir! No, maybe 'bout it either! And the first strange sound you heard which started all the commotion and stopped the locomotion was kerzactly what you thought you heard—a real live porker!

And don't you ever think "Tootsie" is a fake either. Magnolia Mike sent us an actual photograph of everybody that takes

actual photograph of everybody that takes this trip, only there wasn't quite room enough to include "Mrs. Tootsie," as Pete the Passenger called the Accommodation car. Some listeners have written into the car. Some listeners have written into the station differing with Pete on the precedence of this relationship, whether the Accommodation or "Tootsie" was the "Mrs." You say "There she comes" when you see her coming 'round the curve, meaning the engine. But then, again, suppose it is a mail train, argues Pete.

However, "Tootsie," and all on board finally steam into Beaumont and find the Magnolious Refinery band waiting at the station wearing their starch collars and gold cuff links in their dresser drawers, which is home and has no reference to underwear. And the band with its "squeaky shoes" and all that plays a welcome fit for Old Home. Week. They clamber aboard, being accompanied by three lady passengers and five other men.

Magnolia Mike then gives Castor Oil opportunity.

Clarence the high ball and "Tootsie" is away again. Four of the five new pas-sengers are discovered to be the Scrap Iron Quartet and they begin to call the stations in a way that makes all the pas-

sengers want to keep on riding.

Miss Allie Mae Huitte, one of the accompanying passengers, then unpacks a baby grand from her vanity case and with sweet winged notes assists Miss Richards to waft her voice down to the South American coast. Mrs. Harvey Gilbert also sings to prove that "Tootsie" can carry more than one great singer at a time. While Magnolia Mike is clearing his throat for further announcements, Dick Haynes (for its none other) suddenly burst footh. further announcements, DICK maynes (101 'tis none other) suddenly bursts forth in song and "Tootsie" rumbles along with scarcely a sound from her iron shod heels clicking against the rail ends. The grand finale of this very enjoyable trip comes with a classical thrill from the ten violins of the "Mozart Violin Choir" under the

direction of Miss Gladys Harned.

Here we are, at the end of the lineMagnolia Refining Station. Everybod
out. Do not forget your parcels.

GHOST VIOL WINS FAME

(Continued from page 4)

another and soon the musicians' club became known as the "Kansas City Little Symphony Orchestra."

Their fame spread to other cities and other states. They traveled and the municipality recognized their importance to the fame and acclaim of Kansas City. They were adopted as a city institution. Their numbers increased until when occasion requires, there are sixty mem-

bers now in the ensemble.

Two weeks ago they began a series of concerts for Radio listeners through Station WDAF of the Kansas City Star. The orchestra seems to speak the personality of its leader and with Luigi Bussolari, the concert master, these two sons of a land of song and sunshine have come together to bring the happiness of their inheritance directly into the homes of hundreds of thousands of this new land of

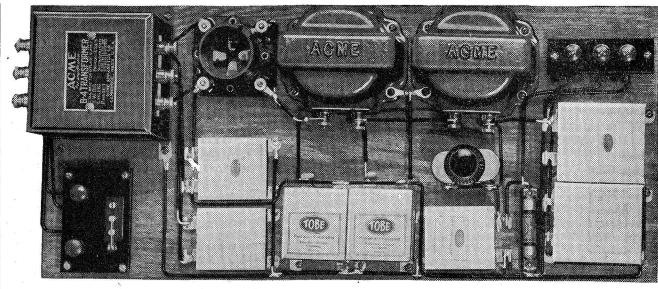
Construction of B Current Power Supplies

Part I—The Acme-Raytheon Type

By George Walters

THEN the vacuum tube first came winto use for Radio work through the inventive genius of Dr. De Forest it was but natural that flashlight cells should be the source of plate current as the current drain was small and the cells were compact. It was but natural also that the makers of flashlight cells would, sooner or later, combine the rows and rows of cells required into compact units such as the Eveready 766. These are units such as the Eveready 766. These are familiar to every Radio fan boasting more than a crystal set and have been in use for a number of years. Almost equally familiar is the storage B battery with its rows of small glass jars and quiet operation. Both of these energy sources is technically just about perfect for the purpose of supplying the plates of vacuum tubes. The current is pure direct current, without hum or ripple, and fairly constant in the matter of pressure or voltage. The only objection to the battery supply from the fan's point of view is that, in the case of the dry cell type, there must be occasional renewal and, in the case of storage cells, the necessity of recharging at frequent intervals.

The Radio public has long desired some means of obtaining current for A power, B power, and even C power, from the lighting system. Civilization has brought us so many conveniences, so many devices to relieve us of responsibility and work. to relieve us of responsibility and work, that even the slight task of replacing batteries, or charging them, seems objectionable. Neither is very hard work, nor very difficult, but the phonograph needs no such responsibility, nor does the mechanical refrigerator. Realizing the demand for a power unit to supply these vertexes in pure direct current form on voltages in pure direct current form, en-gineers by the hundred have been seeking the solution. The result is that we suddenly have scores of B battery eliminators, a few A battery eliminators and even one or two C battery power supplies.



be presented here. In the first place, about 90% of the country having electric light current available receives what is known as alternating current at 60 cycles. This means that the current in the wires changes its direction of travel 120 times per second. It flows first toward one end, then toward the other, completing one cycle, then repeats this performance at the rate of 60 times each second. Now a Radio set requires current traveling in one direction only, without variation or change of quantity.

It is not particularly hard to change

The Problem and Its Solution
The problem to be solved, and some of This process is known as rectification and

the difficulties encountered, can be run it is used as one of the two duties of nating current. The collection of appara-over briefly so that the reader will un-derstand, to some extent, the solutions to fieldly has been to find a device that "filter" and it comprises one or more would be low in cost yet capable of sup-plying sufficient current for a set of seven to nine tubes. As the current comes out of any of the several devices finally found it has what is called "ripple." This is present in the form of surges occurring at the rate of 120 per second or one for each alternation of the original lighting

large coils of wire on iron cores and several large fixed condensers able to hold up under high voltages. The action of the large coils is to choke back any sudden changes of voltage and make everything come through evenly, hence their name of "chokes." The condensers tend to momentarily store the choked back surge and release the excess during

The second big problem was the elimination of this ripple, just as bad for a Radio set as the original "hum" of alterthe following lull. Between the two of them they accomplish this and the output (Continued on page 28)

TRANSFORMERS
Standard on majority of quality sets

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your radio set lacking in clearness and volume? To give it a tone quality comparable with that of

the finest receiving instruments, replace the present audio frequency transformers

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Also choice MacMillan Arctic Expedition KINGHAM

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Chelsea offers superior performing features only found in much higher priced Receivers. Sweet, clear tone, greater volume and good selectivity. Provided with beautiful mahogany finish cabinet with over-size dials for easy tuning. Dust-proof, fool-proof inside panel, hand-soldered connections and many other quality features.

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CHELSEA RADIO CO., Chelsea, Mass.



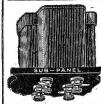
/ill You Hear the Big Victor Programs, or

the other

Headliners

of 1926?

with Thordarsons. Your dealer carries Thordarsons, identical with those used by nearly fifty leading manufacturers whose sets are priced as high as two thousand dollars each. Follow the lead of the leaders—amplify with Thordarsons. Write for interesting literature.



Types and Prices

Thordarson Super Audio Frequency Transformers, sub-panel or top mounting type: 2-1, \$5; 3½-1, \$4; 6-1, \$4.50. Thordarson Power Amplifying Transformers, \$13 pair. Thordarson Interstage Power Amplifying Transformers, \$8 each. Thordarson Autoformers, \$5 each. All Thordarsons are unconditionally guaranteed. If dealer cannot supply, order from us.

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RAYTHEON-ACME B CURRENT UNIT List of Parts

Acme B4 Transformer Acme B2 Choke Coils Raytheon Tube Tobe 4 mfd. Condensers Tobe 2 mfd. Condensers Tobe .1 mfd. Condensers Tobe .5 mfd. Condenser Cler-a-tone Tube Socket Bradlevohm No. 10 Gler-a-tone Tube Socket
Bradleyohm No. 10
Bradleyunit 10,000 ohms
Daven Mounting No. 50
Muter S. P. D. T. Switch
Ensign Binding Posts
Baseboard 7%" by 17½"
Scraps Bakelite (see article)
Miscellaneous, such as screws, pillars, wire,

List of Parts

Acme Apparatus Co., Cambridge, Mass.

Acme Apparatus Co., Cambridge, Mass.

Raytheon Mfg. Co., Cambridge, Mass.

Tobe Deutschmann Co., Boston, Mass.

Benjamin Elec. Mfg. Co., Chicago, Ill.

Allen-Bradley Co., Milwaukee, Wis.

Allen-Bradley Co., Milwaukee, Wis.

Daven Radio Corp., Newark, N. J.

Leslie F. Muter Co., Chicago, Ill.

H. H. Eby Mfg. Co., Philadelphia

Local lumber yard

Local Radio dealer

pillars, wire, etc. \$ 7.00

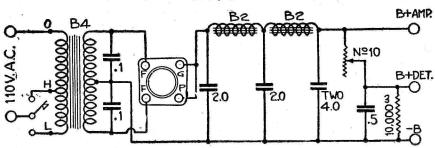
2.00

(Continued from page 27)

is close enough to perfectly pure unvarying direct current for practical use.

There are at this time four feasible types of rectifying devices, the chemical type, the heated filament tube, the nofilament tube and the Tungar bulb. Several different B. current power supply

RAYTHEON ELIMINATOR the apparatus, and a choke, of which two the apparatus, and a choke, of which two are needed, which is rated at 30 henries inductance. These are sturdily built power units in strong protecting cases and clearly marked. On the primary winding there is a tap so that either the tap or the end terminal may be used to give either the higher output voltage of 150 to 180 or the lower voltage of 90. different B current power supply By means of the S. P. D. T. switch, eithe

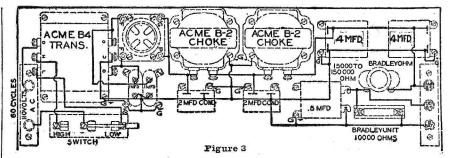


units will be presented in these articles and that which is shown in this article is the one containing the no-filament tube. This rectifier is called the Raytheon tube; it is at present the most popular variety, and it will supply plenty of current for sets up to at least ten tubes, at any required voltages up to 180 volts.

Choice of Parts

voltage may be readily had, but ordinarily this will be set once for the particular set it is used with, and left.

Tobe Deutschmann has developed a set of high voltage condensers of comparatively high capacity for use in B eliminators which are, by now, rather well distributed. tributed. If you cannot get them locally write direct to the manufacturer at Corn-hill, Boston, Mass. In the Allen-Bradley For use with the Raytheon tube, the line of resistances, both fixed and variable, we find two items exactly suited to a transformer to raise the voltage sufficiently to give 180 volts at the output of the sufficiently to give 180 volts at the output of the sufficient of the suffici



is a cartridge of the value of 10,000 ohms. The resistance. When getting the Eby Ensign binding posts, choose two plain ones for connection to the electric light "twisted pair" and one minus B, one plus B 45 and one plus 90.

With the photograph, the cohometic With the photograph, the schematic, keep the hand well away from all wiring and the picture wiring diagram you canas this unit has a most unpleasant kick not go wrong. The baseboard has been if you get a shock. If you want to throw

C BATTERY VOLTAGES WITH RAYTHEON ELIMINATOR C-Battery Voltage for Number of Tubes Used High Voltage Tap C-Battery Voltage for Number of Tubes Used Low Voltage Tap NUMBER OF TUBES 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 Type of Tube: UV 201-A or C 301-A. 19 16.5 15 12 10.5 9 10.5 9 7.5 6 4.5 3 1.5 1.5 |21 18 [15 [13.5]12 [10.5] 7.5 [6.0] 4.5 UV 199 or C 299. 16.5 15 13.5 12 10.5 9 6 1.5 1.5 one UX or CX 112. 19 7.5 6 4.5 3 301-A plus plus one UX or CX 220 13.5 12 10.5 7.5 6 C 299 19 | 16.5 | 13.5 | 12 | 12 | 9 | 7.5 | 6 9 | 7.5 | 6 | 4.5 | 3 | 1.5 | CX 112 or UX 112. [21 | 15 | 12 | 10.5 | 7.5 | 15 | 12 | 7.5 | 6 | 3 | 1.5 | CX 220 or UX 220

made 17½ inches long so that you can put the whole thing in an 18-inch cabinet if you prefer to. An 18-inch panel can easily be screwed to the front edge of the baseboard; the edge close to which we have placed the transformer, socket and chokes is considered the rear Should.

(Continued on page 30) chokes is considered the rear. Should you place this device in a cabinet, you can put the three output binding posts, the S. P. D. T. switch and the Bradleyohm on the panel and bring the 110-volt cord in through a hole in the back of cabinet to the binding posts shown. The small pieces of bakelite are held up away from the baseboard with short

pillars about 34 inch in height but if

FOR CLEAR, QUIET "B" POWER



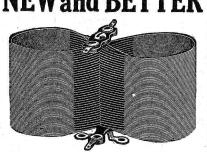
12 Cells Lasts Indefinitely—Pays for Itself ing Pop. Rado Laboratories, Pop. Sci. 1985, Unione. Equipped with Lab., Lefax, Inc., and other important institutions. Equipped with Solid Rubber Case, an insurance against acid and leakage. Extra heavy glass Jars. Heavy ragged plates, Order yours today!

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re of the Famous World Radio "A" Storage Battery
volt, 100 Amp. \$11.25: 120 Amp. \$12.5: 140 Amp. \$14.00.
All equipped with Solid Rubber Case.



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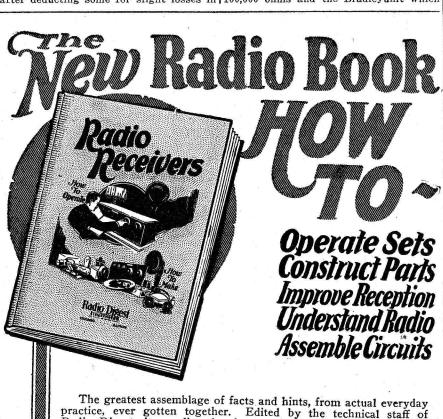
The Bodine Twin-Bight Radio Frequency Transformer is the first coil that combines a very limited Magnetic field with tremendously high amplification. It has extremely low resistance due to almost complete absence of dielectric in the field of coil. Compact, assemble into your set. easy to assemble into your set.

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Order from your dealer, or direct, Price \$9.00 per set of 3 matched coils, or \$3.00 each.

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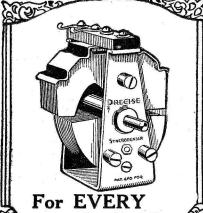
BODINE ELECTRIC CO. 2260 W. Ohio St. Chicago, Ill. Chicago, Ill.



The greatest assemblage of facts and hints, from actual everyday practice, ever gotten together. Edited by the technical staff of Radio Digest, it supplies the demand for a book covering every phase of Radio. Starts at the beginning with simple explanation of Radio reception, with technical explanations of the different parts and loads right on to the more advanced instruction. A complete and leads right on to the more advanced instruction. A complete handbook serving as a ready reference in the Radio field. It gives suggestions on parts and sets which will prove to be a money saver. Blue prints and diagrams are essentially an important part of this book. Special chapter is devoted on "How to Operate," which gives detailed information on the operation of many well known sets.

A general information is vital to the knowledge of anyone interested in Radio. It gives a complete list of all broadcasting stations with a colored map showing their location. The workshop kinks will save you time and money. Now is the time to take advantage of this exceptional offer. Mail coupon today!

RADIO DIGEST, 510 N. Dearborn Street, Chicago, Illinois. Enclosed find \$5.00 for one year's subscription to Radio Digest. The new Radio Book, "Radio Receivers," will be mailed FREE, postage prepaid. This offer only good on subscriptions sent directly to this office, not through agents or agencies. Address



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Unitrola: Single Dial Phonograph Receiver

Part III—Complete Wiring Instructions

By Carl Patterson

design and the slope of the panel. Front panel and baseboard are handled separately for part of the wiring and then the two are secured together for the last few connections. We will take up the front panel

piece to right terminal.
6. Connect one end of a 10-inch piece of flexible wire to lower post on each

HE WIRING of Unitrola must be handled a little differently than is usually the case, due to its peculiar and the slope of the panel. Front len and the slope of the panel of panel are handled are handled severally are handled as handled a little differently than is of panel, attach a 14-inch piece of flexible wire put in previously under operation 7.

14. The fixed condenser of .00025 mfd.

9. Now connect F minus on socket 2 capacity is then connected between G post with F plus on socket 1. A short wire is then put in from F minus on socket 2 to right end of Daven mounting.

rections. We will take up the front panel rest.

7. Considering the socket at left edge of baseboard as number 1, that in center for the upper terminals of both as 2, that at right edge as 3, that in rear binding post on strip.

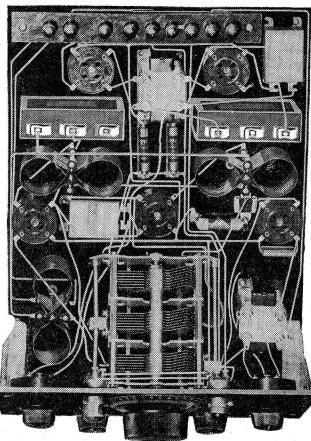
10. A long wire is now put in from put in from POS B post on audio transformer in from right corner, back along edge of baseboard lead is run straight forward from this to rear edge, then to left to B DET plus wire to the front connecting lug on .5 by-pass condenser between sockets 1 and 2.

rear lug on .5 condenser. 15. The B terminal of Bodine coil be-10. A long wire is now put in from hind socket 1 is now connected to B ter-

+B AMP.

16. Now connect P post on socket 1 with P lug on Bodine coil behind it. Then connect P post socket 2 with P lug on Bodine coil behind socket 3.

17. Considering now the Bodine coil in front left corner of baseboard, connect its



rheostats together and continue the wire | left corner as 4 and that at rear right up around the variable condenser to the right to the number 2 terminal on the

2. Connect the number 3 terminal on Pilot Switch to the number 1 terminal on the Dialite.

Connect the number 2 terminal on Pilot Switch to the number 2 terminal on

Pilot Switch to the number.

the Dialite.

4. Attach a 4-inch piece of flexible wire to number 3 post on C-R-L unit at right.

Attach a 3-inch piece to the number 1 terminal and a 13-inch piece to the number 2 terminal

For Alternating Current \$32 The FORD **Buzzless** Supplies any radio set with a steady and uniform flow current from the light socket without noise or hum. Five Day Free Trial Any reliable dealer will install a Ford "B" Eliminator on a five day free trial. Write for Free Booklet

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New York

corner as 5, we can proceed to wire base-board assembly. Connect F plus post on

3 with F minus of 1.8. Connect F minus of 5 with F plus of 4. From this last wire, another runs straight forward just to left of rear audio transformer and Amperites, then to right to F plus post on socket 2. F plus post on 2 is then connected by ½-inch wire to

11. The Plate terminal on that same audio transformer is now connected to P post on socket 3. The fixed condenser of .001 mfd. capacity is then connected from

the P post on that socket to the F plus post on the same socket (see photograph).

12. Connect G terminal of socket 3

Electric Radio Receiver

+B DET.

-B

Figure 6

12. Connect G terminal of socket 3 B lug to GND binding post on rear strip. to right end of Daven mounting to its left.

13. Then connect left end of Daven mounting to F plus post on socket 2.

15. The connect left end of Daven along left edge of baseboard. The P lug mounting to F plus post on socket 2.

(Continued on page 30)

Operates direct from light socket on A. C. or D. C. house current.

ENTIRELY WITHOUT BATTERIES NO CHEMICALS **NO ELIMINATORS**

"Reception as You Want It—When You Want It" Unequalled for Distance and Selectivity

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Your set is no better than your poorest tube. They must be uniform



Pingree Tube Characteristics Plate imped-ance 8500 — 10,000 ohms. Amplification factor 8-9. Filament con-sumption .25 amp. Filament volt-age 5.0 volts.

Plate voltage 16v-90v.

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Each tube is tested rigidly on a Super-radio Dynometer before shipment.

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MACK

(Continued from page 28) Grounding all cases is a most important

part of the construction. You will note by study of the picture diagram that the negative B, or point of lowest potential, is connected to every condenser case, to the choke cases and to the transformer the choke cases and to the transformer case. In grounding this last named unit, scrape a little of the paint away from around the mounting screw hole in the front right corner so that wire and screw make contact. While the picture diagram and the photographic layout are not identical, the picture diagram had to be made this way to show everything made this way to show everything clearly. The front post of the switch is connected to the L or low terminal of transformer primary. If there is a very slight hum or whisper noticeable when not tuned to a station, check over the receiver to see that one terminal of the A battery is crounded.

A battery is grounded.
(In the next issue Mr. Walters will tell how to construct an eliminator of the chemical rectifier type which is even smaller in size than this and uses a liquid that is harmless to hands or clothing. Editor's Note.)

MAKING THE UNITROLA

(Continued from page 29)

on this coil is connected by another long wire kept about ½ inch above the first, back to the ANT binding post on strip.

18. Now connect the front terminals of the Amperite mountings together. Connect rear terminal on right Amperite to F plus lug on socket 5 and rear terminal on left Amperite to F minus or socket 1.

on left Amperite to F minus on socket 4.

19. A wire is then put in from POS B post on rear audio transformer to right lug on the .5 mfd. bypass condenser in rear right corner. The left lug on this condenser is then connected to F minus lug on socket 5.

20. The Plate post on this audio transformer is connected to P lug on socket 5.

Its G post is connected to G lug on

Its G post is connected to G lug on socket 4

21. Under binding post strip connect minus B with plus A. Connect GND post with minus A post. There are two blank posts for speaker; connect right one with B plus AMP binding post. Drop a wire from POS B post on rear audio transformer almost to baseboard, then back to wire connecting speaker post and P plus AMP post.

Connect P lug on socket 4 with the

left speaker binding post on strip.

23. Connect G lug on socket 1 with G lug on Bodine coil in front left corner. Connect G post on socket 2 with G lug on Bodine coil behind socket 1.

24. A long wire is then put in connecting the F lug on Bodine coil behind socket 3 with the F lug on Bodine coil behind socket 1, then forward along left edge of baseboard but at height of coils to F lug

on Bodine coil in front left corner.

25. The front panel can now be secured to the baseboard. The long flexible lead attached to number 2 terminal of right C-R-L unit goes down through hole behind front audio transformer, straight back and up through hole by G lug on

socket 5 to that lug.

26. The flexible wire on terminal 1 of C-R-L unit goes up to NEG FIL post on front audio transformer. The wire from number 3 terminal of C-R-L unit goes to GRID post on front audio transformer. Run a wire up from NEG FIL post on transformer to number 2 post on Pilot Switch.

Switch.

27. The flexible wire on lower post of right rheostat goes to F minus lug on socket 3. The lead from lower post of left rheostat goes to F plus lug on socket 1.

28. Taking up now the C-R-L unit at left, the long lead goes back, under .5 condenser lugs, between the Amperites, to

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RAYTHEON ELIMINATOR the POS B post on rear audio transformer. The shorter lead from the C-R-L unit goes back to front connecting lug on .5 mfd. condenser between sockets 1 and 2.
29. From G terminal of socket 2 bend

a wire to go forward almost to condenser, then to right and forward so it will pass through hole in rear plate of condenser and go through without touching. Cut off about ½ inch in front of rear plate and connect to it the flexible lead from center stator of multiple condenser. Be sure this joint does not come in contact with any parts of condenser.

30. Connect flexible lead from front

stator to G post on Bodine coil in front left corner.

31. The stator of rear condenser has two soldering lugs, Bend up or remove that at left side as it will not be used. From the one at right, put in wire passing about 2 inches to right, then up to level of top of Bodine coils, then back over right end of Daven mounting to G post on Bodine coil behind socket 3.

32. Connect soldering lug at upper left corner of rear end plate on condenser to front end of left Amperite. 33. We now come to the three wires

paralleling the slant of the condenser. The first of these runs down and back from number 1 post of Pilot Switch to from number 1 post of Pilot Switch to minus B binding post on rear strip. The number 2 post on switch connects to minus A binding post on strip and, as it passes front terminal of right Amperite, is connected to that terminal. The third wire goes from number 3 post on switch to the wire connecting F minus of socket 1 with F plus of socket 3 1 with F plus of socket 3.

Place the two C batteries in position with plus terminal to right in both cases. Connect plus terminal of that at right with F plus terminal of socket 5. Connect minus 4½ of this C battery to NEG FIL of rear audio.

35. Put in a wire from F plus post on socket 1, passing under Bodine coil to rear and up beside left C battery to minus 3 clip on it. Put in a wire from plus clip on this left C battery down to the wire connecting the F terminals of the three Bodine coils.

The finishing touch is to take four small pieces of cigar box wood about 1 inch wide and 2 inches long and cover one surface of each with a piece of felt. Then glue the pieces in the four corners of the baseboard on the underside to lift up baseboard so the screws projecting on underside will not scratch bottom of record compartment of the phonograph as unit is slid in or

out.

(This completes the wiring and set is ready for use. In the next issue, Mr. Patterson gives some connecting and operating instructions that will prove most helpful to the beginner, although the experienced Radio set builder can probably proceed with this work himself.—Editor's

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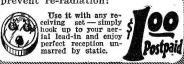
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ADVANCE PROGRAMS

(Continued from page 21)

8, program, Mrs. Henry O. Fulton and asso-artists; 10, Scarritt college student program. lowa City, la. (483.6m-620kc), 12:30 p. m., Mildred Paddock, mezzo-soprano.

Mountain Time Stations
Calgary, Can. (435.8m-688kc), 7-8 p. m., salor

GFAC, Calgary, Can. (435.8m-688ke), 7-8 p. m., salon broadcast.

KFWA, Oyden, Utah (261m-1150ke), 4-5 p. m., organ recital, Paramount theater; 5-6, Oyden Radio dealers' program; 9-10, musical program, J. G. Read and Brothers company.

KOA, Denver, Colo. (322.4m-930ke), 12:15 p. m., Rialto theater musicale; 3:15, relaxing and corrective exercises; 3:30, matinee for housewives; 4, cullnary hints; 4:15, fashion review; 6:30, dinner concert, Brown Palace string orchestra, Howard Tillotsro, director; 7:30, Sunday school lesson review; 8, instrumental program; 8:15, chamber of commerce program, instrumental program; 8:15, chamber of commerce program, instrumental selections, Grand Junction High school band Orpheus sextet; soprano solos, Mary Wilson Grove and Mrs. Audrey Ricks; vocal selections, Katherine Halpin; talk, "A Romance of Gold," Frank Reeds; vocal duet, Lovena Blackwell, soprano; Lila G. Miller, contralto; piano selections; trombone quartet with band accompaniment, Emery Bell, Edmond Daniels, Ormand Newfarmer and Rockwood Cople.

KOB, State College, N. Mex. (348.6m-860ke), 7:30-8:30 p. m., musical program, Margaret Backer.

Pacific Time Stations

Facific 1 ime Stations

KTAB, Oakland, Calif. (240m-1250kc), 9-9:30 a. m., prayer service, Rev. E. L. Spaulding: 12-1 p. m., luncheon concert; 8-10, program, Breuner's, KFI, Los Angeles, Calif. (468.5m-640kc), 5:30-6 p. m., program, Eugene Biscailuz, under-sheriff; 6. nightly doings; 6:15, KFI's Seeing California; 6:30, vest pocket program; 6:45, Radiotorial period; 7-8, Ionian male quartet; 8-9, Aeolian residence pipe organ, Dan L. McFarland, organist; 9-10, program arranged by William MacDougal, Scotch comedian; Mutual Motors joke contest; 10-11, Screen Artists' string quartet; Lee Bolin, tenor.

joke contest; 10-11, Screen Artists' string quartet; Lee Bolin, tenor.

KFON, Long Beach, Calif. (233m-1290ke), 8-6:30 p. m., organ, Brayton's theater; 6:30-7, KFON gossip and amusement information; 7-7:30, program, Wright brothers; 7:30-8, Long Beach municipal band; 8-9, Press-Telegram program; 10-11, Long Beach Elks No. 888 frolic.

No. 888 frolic.

KFWB, Hollywood, Calif. (252m-1190ke), 7:10 p. m., safety first talk, Officer E. G. Brown; 7:20, Jack Boaz, hunting and fishing scout; 7:30, eye-o-log, Dr. H. S. Marshutz; 7:45, microphone brevities; 8-9. Warner Brothers syncopators, Estelle Shake, blues singer; 9-10, Jean Johnson, pfanist; Mrs. Vivian Kidson, soprano; Tom Breneman, baritone; 10-11, Warner Brothers frolic, direction Charlle Wellman. KGO, Oakland, Calif. (361.2m-330kc), 7:15-7:30 a. m., exercises, Hugh Barrett Dobbs; 7:45, pep class; 8:30, "Daily Strength"; 11:10, Prudence Penny, home-making talks; 11:30-1, Pacific States Electric company luncheon concert; 3-4, Duke Kamoku's Royal Hawai-

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ians; Marcella Elliott, soprano; Irma Harris Vogt accompanist; 4-5:30, concert orchestra, Hotel St. Fran-cis, Vinton La Ferrera, conductor; 6-6:55, dinner

cis, vinton La Ferreia, concert, concert, CeW, Portland, Ore. (491.5m-610ke), 12:30-1:30 p. m. concert, Oregon Radio Trades association; 6-7, dimer concert; 8-9, concert; 9-10:30, Sherman, Clay and company, Duo-Art studio; 10:30-12, Hoot Owl frolic.

company, Duc-Art studio; 10:30-12, Hoot Owl frolic. pany.

KHJ. Los Angeles, Calif. (405.2m-749kc), 6-6:30 p. m., Leighton's Arcade cafeteria orchestra, Jack Cronshaw. leader; 6:30-7:30, history story, Professor Hertzog; Richard Headrick, screen juvenile, and Catherine Cotter; 7:30, "Romance of Santa Fe Trail." Gladys De Witt; 8-10, program, Western Auto Supply commen's hour; 5-5:30, Aunt Elsie's Sunset matinee; 8-9:45, studio program; 9:45-10:30, Athens Athletic club orchestra.

KMTR, Hollywood, Calif. (238m-1260kc), 5-6 p. m., Peter Pan hour with Marion Gilmore and Magdalene Schaf-fer, Anna Lee and Barbara Erdman; 7, "Color Pho-tography," Charles W. Beam; 7:30, "Wonders of Nature," Prof. Alfred Cookman; 8-10, Turner orches-tra, direction Loren Powell; 10-11, Starr Piano com-nany studio.

Nat. Hollywood, Calif. (336.9m-890kc), 5-5:30 p. m., Sunny Jim's story; 5:30, First Presbyterian church organ; 5:55, Town Tattler; 6:15, travel talk, W. F. Alder; 6:30-7, Atwater Kent concert orchestra; 7-8, program, Jell-X-Cell company; 8-9, feature program; 9-10, Order of Optimistic Donuts; 10-11, amateur tryouts; 11-12, Ambassador hotel dance orchestra.

Outs; 11-12, Ambassador notel dance orchestra.

KOAC, Corvallis, Ore. (280.2m-1070kc), 7:20 p. m.,

musical selections; 7:30, book chat, Mrs. Evangeline
Thurber; 7:35, "How to Adjust Automobile Brakes,"

K. F. Coulson; 7:45, "Trees, Their Use and Selection for Special Purposes," Prof. A. L. Peck; 8-9,

musical program tion for Special musical program.

musical program.

KPO, San Francisco, Calif. (428.3m-700ke), 12:45 p. m., talk, Commonwealth club luncheon; 1:30-2, Rudy Seiger's Fairmont hotel concert orchestra; 5:30-6, children's entertainment; 6:30-7, Waldemar Lind and States restaurant concert orchestra; 7-7:10, investment talk, J. C. Wilson; 7:10-7:30, Rudy Seiger's Fairmont hotel concert orchestra; 8-9, studio program; 9-10, Palace hotel dance orchestra, Gene James, director: 10-11, Waldemar Lind and States restaurant orchestra.

KWSC, Pullman, Wash. (348.6m-860kc), 7:30-9 p. m., violin sextet, Gladys Anderson, Gladys Fraser, Margaret McLachlan, Evelyn Sparlin, Marjory Field, Olga Kraus; piano solos, Jean Fulmer; vocal solos, Doroth Hutchinson; "Geology of the Northwest," Dr. H. E. Culver; extension work in 1925, W. W. Underwood; general accounting, H. J. Rehn.

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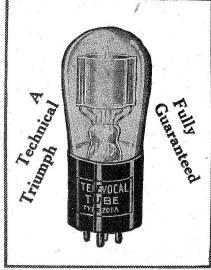
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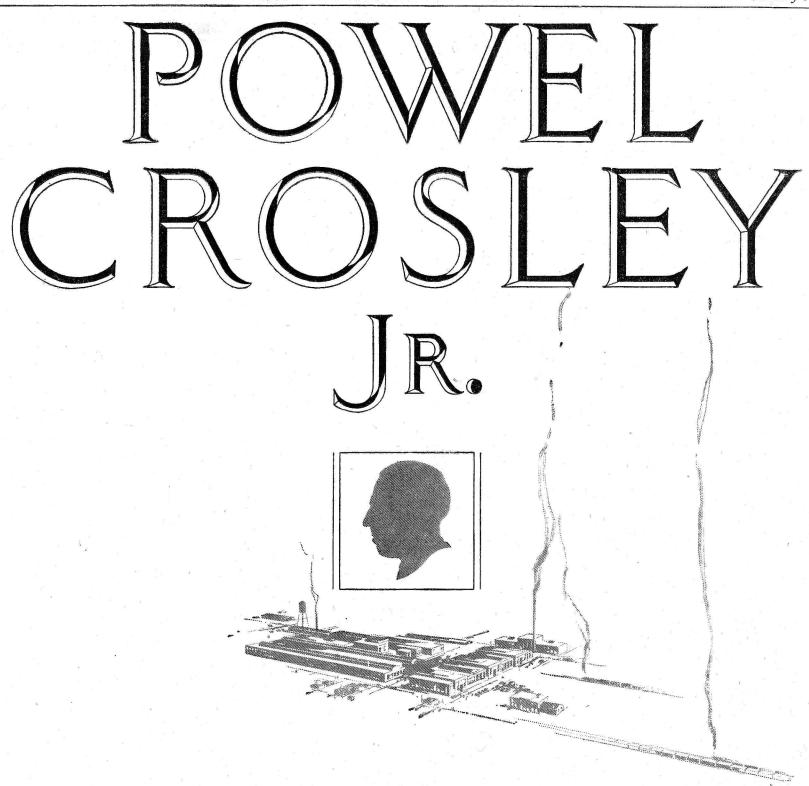


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202.6	1,480	20	KFXB Big Bear LI WEHS Evanston, WIBS Elizabeth,	III.			50 10 5	KMJ Fresno, Calif.			100 20 500	KFWI WAB	H Chico, Calif. C Asheville, N. C. Uni. Place, Nebr.			500 500 50 500	KQV; WAB	Los Angeles, Cal. Pittsburgh, Pa. New Orleans, La. Port Huron, Mich.	475.9	630	1,500 W1 500 W	BAP Ft. Worth, Tex. FAA Dallas, Tex. TIC Hartford, Conn.
205.4	1,460		KFVD San Pedre KFXD Logan, Uta	, Cal.			100 100 10	WGBM Providence, R. I. WHBJ Ft. Wayne, Ind.			15 500 100	WCBA	A Allentown, Pa. Ithaca, N. Y. Baltimore, Md.			500 500 100	WBA	C Harrisburgh, Pa. C Storrs, Conn. D Baltimore, Md.	483.6		5,000 W	OC Davenport, Iowa SUI Iowa City, Ia.
		50 10 30	KFXY Flagstaff, A KFYF Oxnard, Ca WCBR Pvdce., R.	Ariz.	236	1,270	100	KFLU San Benito, Tex.			10 10 100	WFBZ	Galesburg, III. Canton, Ohio Burlington, Ia.			100 500 500	WEAU	J Sieux City, Ia. J Lincoln, Neb. D Milwaukee, Wis.	491.5 499.7		5,000 W 500 KF	GW Portland, Ore. EAF New York, N.Y. FRU Columbia, Mo.
		100 150	W.FRL Brooklyn,	V. Y.			250 10 100	KFVG In'pendence, Kan. KWKC Kansas Cy., Mo.			50 10 500	WIAK	Greentown, Ind. St P't'rsb'g,Fla. D Norman, Okla.			500 500 100	WIAS	R Atlan. City, N. J. Pittsburgh, Pa. Oklahoma, Okla.	508.2	590	500 KL 500 W	MC Memphis, Tenn. LX Oakland, Cal. IP Philadelphia, Pa.
206.8	1,450	500 20 50	KFWM Oakland, WABW Wooster, WJBA Joliet, III.	Ohio			500 500 50 100	WFBI Camden, N. J. WFBJ Collegev'e, Minn.			100 100	WREC	Coldwater, Miss. Fall River, Mass. Osseo, Wis.	. ~		20 100 15 5,000	WMA	Louisville, Ky. Cazenovia, N. Y. Jamestown, N. Y. Datavia, III.	516.9	580	5,000 W	00 Philadelphia, Pa. /CX Detroit, Mich. /JR Pontiac, Mich.
	1,441	250 100	KNRC H'ywood, KDZB Bakersf'd,	Cal.	-		100 100 100	WGMU R'hm'd, H., N.Y. WIBA Madison, Wis.	256	1,170	100 150	KFIQ Kre	Yakima, Wash. Berkeley, Calif.	-		100 250 500	WSBT WSBT	K Arig. Col., N.D. South Bend, Ind. C Dayton, Ohio.	526	570	1,000 W	/HO Des Moines, Ia. NYC New York, N. Y. OAW Omaha, Nebr.
		100 500	KFVU Eureka, C KFXC Santa Mari WBNY New York,	a, Cal. N. Y.	238	1,260	50	WTAD Carthage, III. KFBS Trinidad. Colo.		65	500 500 100	KTNT WBA	W'la W'la, Wsh. Muscatine, Ia. K Wilkes-Ba'e, Pa.	278	1,080	100 50 100	KFDE	New Orleans, La. Boise, Idaho Gd. Forks, N.D.	535.4 545.1		750 W 500 K	YW Chicago, III. HA Madison, Wis. FUO St. Louis, Mo.
			WCWS Providence WIBH New B'df'd, WKBK New York	Mass. N. Y.			100 100 10	KFWU Pineville, La. KFYJ Houston, Tex.			500 500 100 500	WCSH	C Gd. Rpds., Mich. Portland, Me. I Hanover, N. H. Chat'nooga, Tenn.			500 200 500 500	KWC	C'ncil Bluffs, Ia. Vermilion, S. D. Cd. Rpds., Iowa G Brownsvle., Tex.	Ca	nadia		SD St. Louis, Mo.
211.1	1,420		WSBC Chicago, I KFWC S. Ber'ding KFWO Avalon, Ca	, Cal.			500 200 500	WBBP Petoskey, Mich. WCUW Wore'ter, Mass.			100 10 100	WHBF	Johnstown, Pa. Sycamore, III. Detroit, Mich.			200 100 500	WAAR	Chicago, III. Rochester, N. Y. Philadelphia, Pa.		1,210		gths FKC Thorold, Ont. FMC Kingston, Ont.
212.6	1,410	100	WJBQ Lewisburg, KFWV Portland,	Ore.			2,500 10 10	WHBN St.Pet'sb'g, Fla.	050		1000	WRAN	K Escanaba, Mich. A Richmond, Va.			100 100 10 500	WEB	Tuscola, III. Altoona, Pa. Memphis, Tenn. J Fifd. By-Sea, Fl.		1,030	20 CF	FRC Kingston, Ont. FYC New Wstmtr., B.C. FXC New Wstmtr., B.C.
214.2	1,400		WMAL Wash'ton, WWGLR'hm'd HI. KFWF St. Louis	, N.Y.	240	1,250	01 01	KFLX Galveston, Texas	258	1,160	50 250	KFUL KOCH	Carterville, Mo. Galveston, Tex. Omaha, Neb.			100 500 500	WHD	Minneap., Minn. Stevens Pt. Wis			500 CM	JYC Toronto, Ont. NRA Moneton, Can. NRV Vancouver, B. C.
		15 150	KFXR Okla. City WCLS Joliet, III. WKBB Joliet, III	, Ok.			500 10 1,000	KFVE Un'sity City, Mo. KFVI Houston, Texas			150 25 500 50	WAAD	Berkeley, Calif. Cincinnati, Ohio Akron, Ohio Lancaster, Pa.	200.0		50 1,000 500	WRB	Columbus, O. Kansas City, Mo. Valparaiso, Ind.	312.3 329.5		50 CF 500 CF 500 CF	FCY Charlotn., P.E.I. FCT Victoria, B. C. FQC Saskatoon, Sask
215.7	1,390	50 50	KFQW N. Bend, KFUU Oakland,	Wash. Calif.			100 50 500	WABI Bangor, Me. WCAT Rapid City, S. D.			100 100 50	WHEC	Rochester, N. Y. Chicago, III. Omaha, Nebr.	200.2	1,070	1,500 1,500 500 500	KMOX	St. Louis, Mo. St. Louis, Mo. Corvallis, Ore.			200 CH 500 CJ 250 CJ	HUC Saskatoon, Sask. JGC London, Ont. WC Saskatoon, Sask
	*	50 50	KFXJ Colorado (WBBZ (Portable) WHBL Logansp't,				10 500 500	WGBI Scranton, Pa. WHAP Brooklyn, N. Y. WOAX Trenton, N. J.			500 500	WPCC	Chicago, III. New York, N. Y.	282.8	1,060	1,500 750	KFQA	Boston, Mass. St. Louis, Mo. Boise, Idaho	340.7	880	10 CH	CCW Brktn. Jet., Ont. NBS Saskateon, Sask. ICS Hamilton, Ont. OC Hamilton, Ont.
		50 10 100	WIBJ (Portable) WIBM (Portable) WKBG Ch'go, III.	Ptb.)	242	1,240	20 50	WSMH Owesse, Mich.	261	1,150	100 500 100	KFJF KFMF	Boulder, Colo. Okla. C., Okla. Sioux City, Ia.	285.5	1,050	1,000 1,500	WEM	Lawrcebg., Tenn. Nashville, Tenn. Ber. Spgs., Mich.	356.9	840	500 CF 500 CH	CA Toronto, Ont. HIC Toronto, Ont. HNC Toronto, Ont.
217.3	1,380	100 250 50	WPRC Harrisb'g, WRST Bay Shore, KFAF San Jose,	N.Y.			10 10 50 500	KFOJ Moberly, Mo. KFPM Greenville, Tex. KFXH El Paso, Texas KSO Clarinda, Iowa			100 500 500	KFWA	, S.L.City, Utah Ogden, Utah I Shreveport, La.	288.3		500 5,000	KFKX	R E.Lansing, Mich. Lansing, Mich. Hastings, Neb.			250 CH CJ 50 CJ	ISC Unity, Sask. BC Toronto, Ont. CD Toronto, Ont.
		100 500 5,000	WFKB Chicago, I WOK Chicago, III	i.			100 50 50	KZM Oakland, Calif. WABY Philadephia, Pa.			750 50 250 500	WDAY	Haverford, Pa. Fargo, N. D. N. Pl'nf'd, N. J. Milwaukee, Wis.	293.9	1,020	750 500	KTBI	New York, N.Y. Los Angeles, Cal. Columbus, O.			500 CK	SC Toronto, Ont. (CL Toronto, Ont. (NC Toronto, Ont. JRT Toronto, Ont.
218.8	1,370	10 50 10	KFJC Junet'n Cty. KFRW Olympia.	Wash.	w.		001 000 000,1	WCBQ Nashville, Tenn.			500 500 100	WMAZ	Macon, Ga. State College, Pa. Bay City, Mich.		1,010 1,000	500 750 750	KPRC	Columbus, O. Houston, Tex. Fayetty'le, Ark.	384.4	780 730	500 CK 500 CN	CY Winnipeg, Man. IRW Winnipeg, Man. CF Montreal, Que.
		10 50 250	KFVH Manhattan, WHBU Anderson, WIBI Flushing, ! WJBI Red Bank,	Ind.			100 50 500	WHBW Phila'phia, Pa. WTAP Cambridge, III. WWAE Plainfield, III.			100 50 15	WSSH	Boston, Mass. Norfolk, Va. Lamberty'e, N. J.	302.8		1,000 500 1,000	WPG	Salt Lk. City, Utah Atlan. City, N. J. Chicago, 111.	410.7	730	10 CF 850 CH 500 CJ	FCQ Vancouver, B. C. IYC Montreal, Que. KC Burnaby, B. C.
220	1,360	50	WJBP Buffalo, I KFUU Oakland, (I. Y.	244	1,230	100 50	KFBC San Diego, Cal.	263	1,140	50	KFJR	Pertland, Ore. Hought'n, Mich.	305.9		2,500	KTCL	Elgin, III. Seattle, Wash. Providence, R. I.			750 CK 50 CK	(AC Montreal, Que. (CD Vancouver, B. C. (FC Vancouver, B. C.
		100	KFWIS. S'n Frn'co KJBS San Fran'co WIBW Logansp't,	Cal.	8/		500 1,000 50	KUOM Missoula, Mont. WAMD Mi'apolis, Minn. WEBR Buffalo, N. Y.	€		50	KFQB KTBR	Shenandoah, Ia. Ft. Worth, Tex. Portland, Ore.	309.1 315.6		1,000 500	KDKA	Pittsburgh, Pa.	434.5	690	500 CF 1,800 CF	IRM Montreal, Que. AC Calgary, Alta. CN Calgary, Alta. ICM Calgary, Alta.
222	1,350	500 50 100	WQAA Parkesb'g, WBBW Norfolk, WBES Takoma Pk	Va.			100 100	WGBB Freeport, N. Y. WNAX Yankton, S. D. WRAM Galesburg, III.			500 50 500 500	WABR	Newark, N. J. Toledo, Ohio Canton, N. Y. San Antonio, Tex.	319	940	500 500 500 750	WAHE	Pasadena, Cal. Rhmd. Hill, N. Y. New York, N.Y.	e .		250 CH 100 CK	IXC Ottawa, Ont. CCO Ottawa, Ont. IRC Calgary, Alta.
~		20	WHBD Bellef'tain WHBF Rock Island WHBH Culver, In	e, O.	246	1,220	50 50	WSAZ Pomeroy, Ohio KDYL Salt Lk. Cy., Utah KFJI Astoria, Ore.	1		5 100 5	WCBE	New Orleans, La. Amarillo, Tex. Savannah, Ga.	322.4		500 5,000 1,500	KOA	Buffalo, N. Y. New Orleans, La. Denver, Colo.	476	640	500 CN	IRO Ottawa, Ont. KCK Regina, Sask. NRR Regina, Sask.
		100 50 20	WIBC St. Pet'b'g, WIBG Elkins Park WIBU Poynette, W	Fla.			50 500 5	KFJY Ft. Dodge, Ia. KFVW San Diego, Cal. KGY Lacey, Wash.			500 500 100	WHAT	Min'polis, Minn. Henderson, N.C. I Miami, Fla.	325.9		5,000 1,000	WSAI	Chicago, III. Cincinnati, O. Cincinnati, O.	483.6 499.7	620 600	500 CF 250 CF	CU Hamilton, Ont. CH Iroquois, Ont.
224	1,340	100 10	KFBL Everette, V	Vash.			500 5,000 15	WABX Mt. Cle'ns, Mich. WBAL Baltimore, Md. WEBD Anderson, Ind.			100 250 250	WRAV WSDA	Yellow Spgs, O. New York, N. Y. Houghton, Mich.	333.1 336.9	900 890	500 500 500 500	KNX	Springfield, Mass. Northfd., Minn. Los Angeles, Cal.	516.9	580	500 CJ	CK Edmonton, Alta. CA Edmonton, Alta. IRE Edmonton, Alta.
		100 50 10 10	KFUR Ogden, Ut. KFVSC'pe Gir'd'ı WBBR Monmouth, WJBG Charlotte,	, Mo.			50 50 500	WIBR Weirten, W. Va. WQAE Springfield, Vt. WRR Dallas, Tex.	266	1,130	50 100 500	KFPY	Moberly, Mo. Spokane, Wash. Arkadelphia,Ark	340.7	880	500 1,000 500	KFAB	Northfd., Minn. Jacksonv'e, Fla. Lincoln, Nebr. Manhattan, Kan.	C	uban	Station Leng	ns by Wave
		50 250	WKAY Laconia, N WODA Paterson, WRAF Laporte, I	I. H. I	248	1,210		WSOE Milwaukee, Wis. KFBK Sacramento, Cal.		*	250 500 1.000	KLZ D WBCN	enver, Colo. Chicago, III. Chicago, III.	344.6	870	500 500 5.000	WMCA	San Juan, P. R. New York, N. Y.	200	1,500	20 5A2 10 6H	Z Mantanazs S Santa Clara R Camaguey
226	1,330	f0 10	KFGQ Boone, low	t ska			50 100 10	KFCC Heiena, Mont. KFEC Portland, Ore. KFIF Portland, Ore. KFJB Marshallt'n, Ja.			500 100 500	WGHB WHAV WMAK	Clearwater, Fla. Wilm'gton, Del. Lockport, N. Y.	348.6	860	5,000 1,000 500	WLS KOB:	Chicago, III. State Col., N. M. Pullman, Wash.	210 225	1,430 1,333	10 2RI	M Havana W Santa Clara Z Camaguey
			KFKZ Kirksville, KFOB Burlingame KFOR David City,	Cal. Neb.			100 250 10	KFOX Omaha, Nebr. KFRB Beeville, Tex. KFSY Helena, Mont.	268	1,120	500 500	WWI	Fall River, Mass. Dearborn, Mich. Oak, Neb.	352.7	850	500	WEEL	Boston, Mass. Waco, Tex. Detroit, Mich.	230	1,304	15 8F 20 8J	U Santiago Q Santiago W Havana
* 2		50 1,500	KFQZ Hollyw'd, WAGM Ro'l O'k, WBBM Chicago, I WDAD Nashville,	Mich.			10 10 50	KFUZ Virginia, Minn. KFYR Bismarek, N. D. KWG Stockton, Calif.	200	1,120	500 50 10	KFH '	Wichita, Kans. SanFran'co, Cal. Charleston, S. C.	360	833	500 100	KZUY WQA0	Baguio, P. I. New York, N. Y.	235	1,277	10 2AI	B Hayana
		100 100 10	WEBL U.S. (Pert WEBM U.S. (Port WEBQ Harrisburg	able) able)	ma. 2		500 50 100	WAPI Auburn, Ala. WBRC Birm'gham, Ala. WCSO Sp'gfield, Mo.			50 100	WDAH	El Paso, Tex. New Hayen, Conn. Beloit, Wis.	361.2 365.6		3,000 500 1,000 500	WHN	Oakland, Cal. New York, N. Y. Kan. City, Mo.	240 250	1,250 1,200	20 8A2 50 Q21	Z Santiago LC Havana R Santa Clara
227	1 200		WFBE Seymour, I WIBO Chicago, III	nd.	e'		100 10 5	WEW St. Louis, Mo. WGAL Laneaster, Pa. WGBK Johnstown, Pa.		2 3	250 100 500	WFBM WJAM WNOX	Ind'napolis, Ind. Gedar Rp'ds, Ia. Knoxville, Tenn.	370.2		1,500 1,000	M11D MEBH	Kansas City, Mo. Chicago, III. Mooseheart, III.	255	1,176	100 8B	Q Santa Clara Y Santiago B Havana
227	1,320	100 50 10 100	KFQD Anchor'ge, KFVN Welcome, I KFXM Beaumont, WDBK Cleveland,	linn. Tex.			1,000 100 100	WIOD Miami, Fla. WMAY St. Louis, Mo. WNBH Ma'pois't, Mass.		v e	100 500 100	WQAM WRAX WSAX	Miami, Fla. Gloucester, N.J. Chicago, III.	374.8		750 500 500	KV00 KZRQ	Hot Spgs., Ark. Bristow, Okla. Manila, P. I.	260 265 270	1,153 1,132 1,110	200 6B	Y Santa Clara F Havana P Havana
229	1,310	500 200	WOWO Ft. Wayne, KFLV Reckford, I	Ind.	250	1,200	100 10 1,200	KFDX Shreveport, La. KFVY Albuq'que, N. M. KFXF Colo. Sp'gs, Colo.	270	1,110	100 500 500	WTAG	Johnstown, Pa. Worcester, Mass. Laramie, Wyo.	379.5 384.4		5,000 1,000 1,000	WHAZ	Schnectady, N.Y. Troy, N. Y. Seattle, Wash.	275 280	1,090	5 1A2 5 2JL	Z Havana L Havana
		500 50 10	KMMJ Clay C'r, I KPPC Pasadena, WAIT Taunton, M	Nebr. Calif.	e 2		250 100 250	KLS Oakland, Calif. KMO Tacoma, Wash. KUO San Fr'isco, Cal.	O	.,.10	500 100 500	KGU WBA0	Honolulu, Hawaii Decatur, III. Sisiht, Wis.	389.4	770		WAAY WMBI WEAR	/ Omaha, Nebr. Miami Bch., Fla. Cleveland, O.	295 300	1,070 1,016 1,000	100 2HI 100 201	G Havana P Havana L Havana
		50	WBBL Richmond, WCBM Baltimore, WDBJ Roanoke, V	Va. Md.			50 500 10	WFBC Knoxville, Tenn. WGES Oak Park, III. WHBA Oil City, Pa.	100 Ex		100 500 1,500	WDBE WEAN WGHP	Atlanta, Ga. Providence, R.I. Detroit, Mich.	394.5		500 500 500	WFI I	Cleveland, O. Philadelphia, Pa. Philadelphia, Pa.	310 315 320	967 952 937	100 2B	K Havana Y Havana X Havana
		250 100	WGBR Marshf'd, WSAJ Grove City, WSAN Allentown,	Pa.			100 100 500	WIAD Philadelphia, Pa. WLAL Tulsa, Okla. WMBB Chicago, III.	¥		500 200 500	WGST WJAG WJBL	Atlanta, Ga. Norfolk, Neb. Decatur, III.	399.8		2,000 500 3,500	WHAS	San Antonio, Tex. Louisville, Ky. Chicago, III.	338 350		4,000 6K	CW Twinueu G Havana
231	1,300	50 10	KDLR Devils Lk., KFAN Moscow, Id KFDZ Min'polis, I	aho Minn.			001	WNAB Boston, Mass. WNAT Philadelphia, Pa. WQAN Scranton, Pa.			500 10 200	WOWL WRK	Ames, Iowa New Orleans,La. Hamilton, Ohio	405.2		500 1,000 500	WJY I	os Angeles, Cal. Jew York, N. Y. Newark, N. J.	355 360	845 833	400 2EF	R Elia P Havana K Havana
		50 500 500 500	KFOT Wichita, K KFPR Los Angeles, KQP Portland, Or KQW San Jose, C	ans. Cal.	252	1,190	250 50	WWAD Phila'phia, Pa. KFHA Gunnison, Colo.	273	1,100	250 100 50	KFAD KFDY	College Sta., Tex. Phoenix, Ariz. Brockings, S.D.	416.4 422.3	710	1,000 5,000	WKRC WLW	MinnSt. P. Cincinnati, O. Cincinnati, O.	400	750		V Colon /X Havana
		500 100 50	KUT Austin, Tex. WBRE W'kes-Ba'e WCLO Camp Lake.	, Pa. Wis.			50 15 10 500	KFOY St. Paul, Minn. KFPL Dublin, Texas KFUV Sp'gfield, Mo. KFWB Hollyw'd, Calif.			100 50 100 1.000	KFKA	Fend du Lac, Wis. Greeley, Cole. Anita, Iewa Spekane, Wash.	428.3 434.5		1,000 1,000 750	KPO S WSB AT9 F	an Fran., Cal. Atlanta, Ga. ort Bragg, N. C.	M	exicar	n Static	ons by Wave
и и		100	WHBG Harrisburg WHBK Ellsworth, WIBZ Montgom'y, WKBE Webster,	Me. Ala. Mass.			500 200 50	KMA Shenandoah, Ia. KOCW Chickasha, Okla. WBBS New Orleans, La.			100 100 250	WAAB	Spokane, Wash. Manilla, P. I. New Orleans La. W.Laf'ette, Ind.	440.9	680	1,000	NAA I	ladio, Va.	260 265 310	1,153 1,130 967	CY	F Oaxaca, Mex. /A Mexico City, Mex. S Mexico City, Mex.
233	1,290	50 10	WTAX Streator, II KFEY Kellogg, Io	l. Iaho			100 100 100	WCAX Burlington, Vt. WFBL Syracuse, N. Y. WGBX Orono, Maine	e e		500 250 100	WDAE	New York, N.Y. Tampa, Fla. New York, N.Y. St. Cloud, Minn.	447.5		500	WOS J	Providence, R.I. Drtmth., Mass. efferson Cy., Mo. t, Chicago, III.	325	923	CZ	F Chih'u City, Mex. H Mexico City, Mex.
	_ I n	500 10 20 50	KFON Long Beach WDBZ Kingsten, WHBM Ch'go, III. (WHBQ Memphis,	nth.)			500 500 100	WGCP New York, N.Y. WNJ Newark, N. J. WRCO Raleigh, N. C.	- 27	0 0 0	500 250 250	WFBH WHK WILS	New York, N. Y. Cleveland, Ohio	454.3		500 1,000	WQJ (chicago, III. Seattle, Wash. Seattle, Wish.	333 350 380	900 857 790	CZ	X Mexico City, Mex. E Mexico City, Mex. B Mexico City, Mex.
,		- 10	WHBQ Memphis, WJBD Ashland, W WJBK Ypsilanti, I WOKO New York,	Witch.			50 100 10	WRHM Min'polis, Minn. WSRO Hamilton, Ohio WTAL Toledo, Ohio			500 500 250	WRM	Urbana, III. Tarrytown, N. Y. St. Louis, Me.	461.3	650	1,000	MIZ I	lew York, N. Y. Pittsburgh, Pa.	400 480	750 625	CY	Z Mexico City, Mex. L Mexico City, Mex.
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INDUSTRIALIST Pioneer Radio Builder

At a time when products of his manufacturing genius were already known to millions, Powel Crosley, Jr., boldly diverted his energies to the development of radio reception, then scarcely known beyond the laboratory walls.

Pioneering both in engineering trends and manufacturing practices, Mr. Crosley has been a vital factor in making radio and broadcasting as much a part of American life as motion pictures and the motor car.

There is scarcely a milestone in the development of popular radio on which his shadow has not been the first to fall. And his announcement of December 26th concerned a milestone that dwarfed all others in its importance—four entirely new radio receiving sets:

The Crosley 4-29 (4-tube)\$29.00 The Crosley 5-38 (5-tube) 38.00 The Crosley R.F.L.-60 (5-tube) 60.00 The Crosley R.F.L.-75 (5-tube) 75.00

These are now being demonstrated by Crosley dealers and will be completely described in a forthcoming issue.