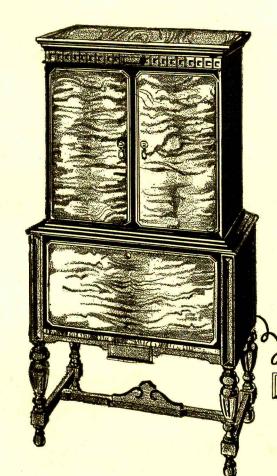


acids
trouble
batteries
water
excuses
makeshifts

THE Makeshits A STATE OF THE S

The cabinet of model G-5, illustrated here, is without a doubt one of the finest that ever housed a radio set. It is panelled entirely of the most carefully selected genuine burl Walnut. Contains a large cone-speaker of great volume and superb tone. Truly a masterpiece of the cabinet makers art.



This all electric Freshman Equaphase embodies many new features—

- four tuned circuits for selectivity.
- Equaphase system of stabilization prevents all oscillations.
- single drive just one-control.
- drum type illuminated dial for beauty—calibrated inwavelengths for efficiency.

Always Ready— Always Right Your light socket supplies all the power.

\$250

Complete
Ready to Operate

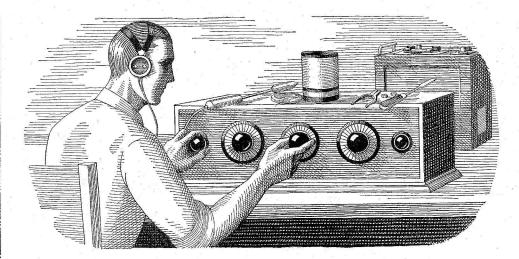
A Freshman development—licensed under patents; RCA—General Electric Co.,—Westinghouse Electric & Mfg. Co. and American Tel. & Tel. Co.

Freshman EQUAPHASE

Sold on Convenient Terms

by Authorized Freshman Dealers Only

CHAS. FRESHMAN Co., INC., FRESHMAN BUILDING, NEW YORK CHICAGO LOS ANGELES



If all the Radio sets I've "fooled" with in my time were piled on top of each other, they'd reach about halfway to Mars. The trouble with me was that I thought I knew to so much about Radio that I really didn't knew the first thing. I thought Radio was a plaything—that was all I could see in it for me.

I Thought Radio Was a Plaything

But Now My Eyes Are Opened, and I'm Making Over \$100 a Week!

\$50 a week! Man alive, just one year ago a salary that big would have been the height of my ambition.

Twelve months ago I was scrimping along on starvation wages, just barely making both ends meet. It was the same old story—a little job, a salary just as small as the job—while I myself had been dragging along in the rut so long I couldn't see over the sides.

If you'd told me a year ago that in twelve months' time I would be making \$100 and more every week in the Radio business—whew! I know I'd have thought you were crazy. But that's the sort of money I'm pulling down right now—and in the future I expect even more. Why only today—

But I'm getting ahead of my story. I was hard up a year ago because I was kidding myself, that's all—not because I had to be loudd have been holding then the same sort of job I'm holding now, if I'd only been wise to myself. If you've fooled around with Radio, but never thought of it as a serious business, maybe you're in just the same boat I was. If so, you'll want to read how my eyes were opened for me.

WHEN broadcasting first became the rage, several years ago, I first began my dabbling with the new art of Radio. I was "nuts" about the subject, like many thousands of other fellows all over the country. And no wonder! There's a fascination—something that grabs hold of a fellow—about twirling a little knob and suddenly listening to a voice speaking a thousand miles away! Twirling it a little more and listening to the mysterious dots and dashes of steamers far at sea. Even today I get a thrill from this strange force. In those days, many times I stayed up almost the whole night trying for DX. Many times I missed supper because I couldn't be dragged away from the latest circuit I was trying out.

I never seemed to get very far with it, though. I used to read the Radio magazines and occasionally

a Radio book, but I never understood the subject very clearly, and lots of things I didn't see through at all.

So, up to a year ago, I was just a dabbler—I thought Radio was a plaything. I never realized what an enormous, fast growing industry Radio had come to be—employing thousands and thousands of trained men. I usually stayed home in the evenings after work, because I didn't make enough money to go out very much. And generally during the evening I'd tinker up a little with Radio—a set of my own or some friend's. I even made a little spare change this way, which helped a lot, but I didn't know enough to go very far with such work.

And as for the idea that a splendid Radio job might be mine, if I made a little effort to prepare for it—such an idea never entered my mind. When a friend suggested it to me one year ago. I laughed at

"You're kidding me," I said.

"I'm not," he replied. "Take a look at this ad."

He pointed to a page ad in a magazine, an advertisement I'd seen many times but just passed up without thinking, never dreaming it applied to me. This time I read the ad carefully. It told of many big opportunities for trained men to succeed in the great new Radio field. With the advertisement was a coupon offering a big free book full of information. I sent the coupon in, and in a few days received a handsome 64-page book, printed in two colors, telling all about the opportunities in the Radio field and how a man can prepare quickly and easily at home to take advantage of these opportunities. Well, it was a revelation to me. I read the book carefully, and when I finished it I made my decision.

What's happened in the twelve months since that day, as I've already told you, seems almost like a dream to me now. For ten of those twelve months, I've had a Radio business of my own! At first, of course, I started it as a little proposition on the side, under the guidance of the National Radio Institute, the outfit that gave me my Radio training. It wasn't long before I was getting so much to do in the Radio line that I quit my measly little clerical job, and devoted my full time to my Radio business.

Since that time I've gone right on up, always under the watchful guidance of my friends at the National Radio Institute. They would have given me just as much help, too, if I had wanted to follow some other line of Radio besides building my own retail business—such as broadcasting, manufacturretail business—such as broadcasting, manufactur-

ing, experimenting, sea operating, or any one of the score of lines they prepare you for. And to think that until that day I sent for their eye-opening book, I'd been wailing "I never had a chance!"

Now I'm making, as I told you before, over \$100 a week. And I know the future holds even more, for Radio is one of the most progressive, fastest-growing businesses in the world today. And it's work that I like—work a man can get interested in.

Here's a real tip. You may not be as bad off as I was. But think it over—are you satisfied? Are you making enough money, at work that you like? Would you sign a contract to stay where you are now for the next ten years—making the same money? If not, you'd better be doing something about it instead of drifting.

This new Radio game is a live-wire field of golden rewards. The work, in any of the 20 different lines of Radio, is fascinating, absorbing, well paid. The National Radio Institute—oldest and largest Radio home-study school in the world—will train you inexpensively in your own home to know Radio from A to Z and to increase your earnings in the Radio field.

Take another tip—No matter what your plans are, no matter how much or how little you know about Radio—clip the coupon below and look their free book over. It is filled with interesting facts, figures, and photos, and the information it will give you is worth a few minutes of anybody's time. You will place yourself under no obligation—the book is free, and is gladly sent to anyone who wants to know about Radio. Just address J. E. Smith, President, National Radio Institute, Dept. 1P, Washington, D. C.

J. E. SMITH, President,
National Radio Institute,
Dept. 1P, Washington, D. C.

Dear Mr. Smitl

Please send me your 64-page free book, printed in two colors, giving all information about the opportunities in Radio and how I can learn quickly and easily at home to take advantage of them. I understand this request places me under no obligation, and that no suberman will call on me.

Name	***********	2	 	
Address			 	
			Ö.	



An entirely NEW type by FARRAND

The wanted BASS tones captured as never before!

Another Farrand advancement—the Farrand Concert Speaker -attaining a new, deep-reaching tonal radius, with all the pleasing treble retained as heretofore—virtually next year's model presented today! See and hear it, at your dealer'sand be thrilled by its matchless, all-around performance.

The unusual outward beauty of the Farrand Concert Speaker, together with its superlative performance, will increase your desire to own one. Designed in the

S. L. Rothafel - Leader of "Roxy's Gang"



WHEN the Radio made its appearance one of the greatest forces for good the world has ever known came into being. Probably no single medium of communication now holds so much significance as our invisible network of information, education and entertainment that covers every corner of the globe. In a very few years the Radio has developed from an experimental method of signaling—and for amateurs, a mere toy—into a public instrument of such limitiess scope that a contemplation of its future makes you hold your breath in awe.

The foregoing paragraph may seem rather formal, but it is a statement of fact, and when we say the Radio future makes you hold your breath in awe mean that you and I and whole communities are

ROXY SAYS

going to be so linked up in it that perhaps even our very habits may be changed. This is no idle talk either. Even nations may be much affected by the Radio.

Indeed, already we hear of a case in Sweden. One section of the country is in a "blind spot" so that the natives cannot hear the Swedish stations. However, they can hear the English stations very well. As a result of this, the children as they grow up are learning the English language faster than they are their mother tongue. This is bound to have a

profound influence on the youth of that district when they reach maturity.

This power of the Radio to play an important part in the lives of individuals and nations has been brought home to many of us very forcefully. It has seemed to me to be one of the very pleasantest-activities one could imagine.

It seems funny to look back six years on the time when the thought first came to me of broadcasting my theater program. The idea was placed before Radio officials, with the added plan of giving a studio recital as well with members of the theater forces as soloists. They liked it, and almost before we knew it we were presenting a regular Radio feature.

(Continued on page 35)

COUPON BALLOT

World's Most Popular Orchestra Contest

POPULAR ORCHESTRA Editor, Radio Digest, 510 North Dearborn Street, Chicago, Ill.

Please credit this ballot to:

City..... State......

NOMINATION BLANK

World's Most Popular Orchestra Contest POPULAR ORCHESTRA Editor, Radio Digest, 510 N. Dearborn St., Chicago, Ill.

I Nominate....(Orchestra's Name)

of Station.....(Call Letters)
in the World's Most Popular Orchestra
Contest.

Chicago Studios Cater to Farmer

National Midwest Net Planned for Rural Service and Chains Across Continent

HEN the National Broadcasting company studios in Chicago are completed this month, Midwest United States will have its own Radio central switching point enabling programs originating in Chicago to be distributed to all parts of the Blue and Red chains. This does not mean that New York programs will be denied the Chicago stations. It merely means that more Chicago programs will be broadcast over the entire chain just as the Chicago Civic opera is being broadcast now.

The time element makes a Chicago studio a necessity for the National Broadcasting company. When the New York studios sign off the chain broadcasts at 10:30 p. m. Eastern time, it is only 9:30 p. m. Central time in Chicago and adjacent territory. With the completion of the Chicago studios the company will be able to give another hour of entertalment to listeners in the Central time belt.

With the New Year the National Broadcasting company plans to feature special daytime programs for the farmer. Such programs would find no listeners in the East because New York is in the industrial part of the country. Chicago, however, is in the centre of the farm belt and the logical center for such broadcasts. This is one of the chief reasons for making Chicago the center of a midwest network.

Manager Is Farm Expert HEN the National Broadcasting com-

Manager Is Farm Expert

ing Chicago the center of a midwest network.

Manager Is Farm Expert

The manager of the Chicago office, Frank E. Mullens, who is also the agricultural director of the National Broadcasting company, understands the Raddo farm situation because he did ploneer agricultural broadcasting for three years at KDKA and was the first to realize what dally market eports would mean to the Firmer. He instigated this service at the Pittsburgh station. Fr. a short time Mr. Mullens represented the Automal Broadcasting company at KPKX, Hastings, Nebraska. In selecting Mr. Mullens as director of the Chicago office the company chose a man acquainted with this section of the United Statics. Mr. Mullens comes from the Middle-west and received his college degree from Iowa State college where he took agricultural journalism.

The two studios being completed in the Chicago offices of the National Broadcasting company are to be built like those in New York. No occupant of this big building will ever hear a sound from either studio. In fact no one outside of the studios will hear a sound from either studios will hear a sound from either studios will hear a sound from either studios are distinct and apart from the building structure itself. Even the plaster is treated acoustically. Each studio has a little observatory room overlooking it so that the control man will have a full view of the studio through a sound proofed observation window.

O. B. Hanson, manager of operations and engineering for the company is in charge of the constructing studios. He was with WEAF when it first hegan hroadcasting and has been in charge of the engineering side of the Radio game since the National Broadcasting company began to operate.

Overseas Programs Soon?

PLANS and operations are said to be maturing rapidly for the rebroadcast of British programs. It is possible that the first experiments may be made by the early part of January. Relay stations are heing established on both shores for short wave transmission. This reception will be wave transmission. This reception will be carried over the usual chain land wires for rebroadcast from the NBC stations. Such a program may suddenly come over the air unannounced, should atmospheric and other conditions warrant,

KOA Claims Most Beautiful Artist

Eunice Johnson of Digest Cover Called Prettiest Entertainer to Be Heard on the Air

Heard on the Air

Penver is simply overwhelmed with national Radio honors. That city's Miss Agnes Davis captured the national singing contest down at New York and now comes Freeman H. Talbot, director of KOA, demanding awards for the national beauty contest. That is, supposing there was one.

"So you want a beauty for your Radio Digest cover," he said as he solemnly stalked across the sanctum and halted in front of the editor's desk.

"Sure do, Mr. Talbot."

He pulled a carefully wrapped packet from a brief case and placed it on the desk. It revealed half a dozen poses of Miss Eunice Johnson, whose smile greeted you as you opened this January issue.

"I brought them here myself, and if she isn't the most beautiful young lady on the air today anywhere all this side of Kingdom Come then there isn't any such thing as beauty. That's my challenge. She came within one of being 'Miss Denver' for Atlantic City in the Rocky Mountain News contest, but one of the judges got faint when she stepped up and didn't vote."

Another beauty was in the process of paragrating when Miss Lehrence were tried.

vote."

Another beauty was in the process of engraving when Miss Johnson came tripping in on Mr. Talbot's toes. The editor didn't faint so he was able to present her to you this very January day. Do you agree with Mr. Talbot? Are there any other directors willing to take his challenge?

(Call Letters)

Miss Johnson is still in her teens, but she sings and talks to her audience like an old timer.

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Looking Ahead

What Was Accomplished by the International Radio Conference? A survey of

What Was Accomplished by the International Radio Conference? A survey of what happened after the smoke (cigar) rolled away by an eye witness. Significant facts for peace of nations. The next Radio Digest.

Tune in Hawaii and Enjoy a Radio Hula Hula. Special pictures and story direct from islands of perpetual springtime, for the next Radio Digest.

How to Make and other Interesting Features for the Radio fan who likes wires and screws with his wireless.

World's Largest Gallery of Radio Artists and Personalities found in every issue of Radio Digest ILLUSTRATED. Two full pages of pictures besides the feature story pictures.

feature story pictures, atch the Developments of the World's Most Popular Orchestra contest. It's

getting hot. Votes are coming by the thousands in every mail. Another one of Radio Digest's enterprises to bring the listeners and artist into closer relationship. Vote for your favorite. Ballots in every issue.

Special articles about broadcasting stations and artists, with photographs, are desired. No manuscripts accepted unless typewritten and prepaid, or returned without return postage being inclosed. All manuscripts are sent at owner's risk.

Newsstands Don't Always Have One Left

Every Month New Wave Changes in the Official

Radio Digest

BY SUBSCRIBING NOW

SEND IN THE BLANK TODAY

SHORT WAVES

By Marcella

Frank's Hobby Chickens; Eddie and Fannie Mystery Solved; How WTAM Got Harold; Where Is Harry Snodgrass; WOC An-nouncer Affects Hearts; Pat Prefers Mike to Kleig Lights; Pord and Glenn Come Home; Chester Marries.

RACIOUS! How the time does fly! Here RACIOUS! How the time does fly! Here it is 1923 and this etherial world of ours is almost eight years old. Of course, most of us didn't tune in much before 1924 or 1925, but WWJ did open in 1920. Just imagine! Wouldn't you miss not hearing your favorite announcer's voice on the air? Here's to a wonderful new Radio year!

My dears, I've got a terribly big piece of news. You never can guess it. Ford and Glenn are coming back to WLS. Of course, the first of the month they will take a little trip. You can't expect that pair to settle down long. They will visit WSB, WFAA and WMC. But they will be back

Now here's the surprise of Marcella's life. You remember how Chester Gaylord gave me to understand he was heartwhole and fancy free and rather indifferent to girls! If it had not been for the kindness of "A Listener" I would still be believing it. But she sent me a picture of the girl Chester married last mouth. Her name is Oiga E. Mitchell and she looks awfully sweet. Don't you hope they will be terribly happy?

After everybody had asked me about Frank Lane and I had written I can't tell you how many letters and had decided that Frank must be acranky old bachelor of fifty winters

that Frank must be acranky old bachelor of fifty whiters or more, I received the lovellest letter from WDOD of Chattanooga and discovered that all my other letters are still circulating somewhere between KVOO and WDOD and never reached him at all. However, let Frank speak for himself. "I am just a boy from the wide open spaces, claiming Oklahoma as my home. I have seen twenty-two summers and the same amount of winters. Went to work for KFRU at Bristow, Oklahoma, when that station opened in 1925 and stayed with them when the call letters changed to KVOO. Was with them about two and one-half years. I came to WDOD at Chattanooga in June of this year as director and amouncer. As far as my looks are concerned. I will let my picture speak for me, for it flatters me very much. My hobby is chickens; however, of the feathered variety, because I am promoting a fruit and poultry farm in Oklahoma, which so far has been mostly promotion." Doesn't he sound like a regular he-man, Marion.

If just love to write to Matty of KYW. He always has a come-back of some sort or other. Here he claims that my letter to him asking all about Eddie and Fannie arrived on his birthday. Many happy returns, Matty dear. Here's his letter. You wanted to know about Eddie, Fannie. Bless their hearts. I am not sure that they wish the Radio audience to know it, but they are man and wife. Very much married Eddie bows to the Slightest wish of the frau and she in turn hies and tags along with her Beau Brummel Eddie where'e and anon he may go. Thus, where one is seen, a second glance locates the other—and so the story goes. I never was good at giving much detail about facial appearance. Anyway the easiest way home is the most direct—so—they look kindly. I have not examined their hair but presume it is all right. As for their eyes, they run rich in friendliness. Eddle and Fannie are plnch-hitters for Uncle Bob when the big Boy is stepping out amongst his Radiichildren." Thanks a lot, Matty.

Miss South Richmond certainly knows her Bedie stare.



children." Thanks a lot, Matty.

Miss South Richmond certainly knows her Radio stars. This attractive young Harold Gallagher who announces midnight programs at WTAM is a witty young man of Irish extraction. That's why he says so many funny things. Did you ever notice how hast he talks sometimes? That certainly comes in handy for Harold when he is announcing a football game. He is only twenty-one years old and he is not married as yet, nor even interested. Oh, Harold! I can't believe that! He says he is just bound up in his work. It seems that Mr. Gallagher has been with three broadcasting stations and still has never changed stations. Doesn't that sound queer? Well he was with WJAX which turned into WEAR which now belongs to WTAM. There you are; the stations he works for change hands and call letters but they always throw in Harold with the rest of the works.

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SEVEN ACES TOP ORCHESTRA DECK

'HAPPY NEW YEAR" PROSPECT FOR 1928

RADIO LEADERS BELIEVE NEW SURPRISES IN STORE

Scientific Discoveries Expected to Make Better Transmission and Clarify Reception

WHAT of the Radio year 1928? One, Two. Three

WHAT of the Radio year 1928?

One, Two, Three, Four—the hand of time creeps around the twelve months of the year—and where will Radio be when it comes to rest on 1929?

Many active leaders of 1927 have already expressed the opinion that the new year will witness many important and surprising achievements. Some of our neighbors across the sea are particularly optimistic. Comments by Marconi and Eckersley are published on page 10 in this issue. Inventors, broadcasters, manufacturers, artists, and perhaps listeners are hoping for the new and wonderful surprises that Radio seems to release from an inexhaustible storehouse from time to time.

"I hope some of the cats and dogs that fight and wail on the hetrodyne fence will be exterminated for one thing," writes a weary fan from Virginia.

weary fan from Virginia.
"It can't be done in a day," writes another contributor from Minnesota, "the commission tackled a giant and made as creditable an attack as could be expected. They have found out some things that cannot be done by peaceful overtures, perhaps in 1928 they will get a stronger grip and press a little harder."

Seepoling With County of the property of the pro

in 1928 they will get a stronger grip and press a little harder."

Grappling With Giant

But while constituted authority is grappling with the Giant Chaos the manufacturer and the research man have been delving into the hidden mysteries, and bringing out new accessories, new controls and conveniences to protect the listener from the malign influences of weather and jangling waves.

"What does the manufacturer consider as an outstanding achievement of 1927, and what does the expect for 1928?" was asked of Mr. Powel Crosley, Jr.

"I think the outstanding achievement of 1927 was the development of the AC tube," he replied promptly. "It has brought the ordinary household alternating current right down to the householder's pet receiver. A small and convenient transformer now replaces storage battery, charger or trickle-charger to make the ordinary type vacuum tube do its duty. The AC tubes have more rugged filaments or heaters. Taken directly from the lamp socket they have greater emission, and greater ability to perform efficiently with broader latitude for volume without distortion. This is just one phase of many changes that will mean larger replacements and generally better reception in 1928."

Broadcast Public Service

What do you consider as outstanding

ments and generally better reception in 1928."

Broadcast Public Service

"What do you consider as outstanding achievements of 1927 and the promise for 1928?" was asked of Miss Judith C. Waller, director of the Chicago Daily News station, WALAQ. She replied:
"As I look back the Mississippi flood stands out as a milestone of service on the part of WMAQ, and of course many other broadcasting stations throughout the nation. When we called on our listeners for aid for the sufferers the response was simply astounding. Within a month from the first appeal one hundred thousand dollars had poured into our station for relief. We had received \$114,000, considerably more than a tenth of the quota for the whole city of Chicago. Contributions from our listeners for various causes totaled \$150,000."

Miss Waller called attention to the fact Miss Watter carled attention to the fact that each week for some time one of the forty-eight state governors had given a Radiologue to WMAQ listeners, achieving a record visiting list of governors for its station album. Sports have received a great deal of attention, football and Major J. Andrew White's broadcast of the Tunney-Dempsey fight.

For the future permanent wires are

PAY \$1,000 A MINUTE FOR DODGE PROGRAM

A COST of \$1,000 per minute will probably mark the high water mark to date for Radio broadcasting when the inaugural program for the Dodge Bros. supplementary chain series takes the air for one hour the evening of January 4. In fact, it is expected the cost will exceed that amount. Will Rogers will act as master of ceremonies from Hollywood, Fred Stone will entertain from Chicago, Paul Whiteman's band will be heard from New York and Al Jolson, New Orleans.

HIRED HAND'S TEXAS STARS LEAD IN GOLD PLAQUE RACE

Last Hour Nominations Swell Total Candidates to 423-Maurie Sherman's Boys Nosed Out by P. Christensen, WHO

SNAPPY KDKA "ALL SOLOIST TRIO"



Bureau of Standards Experiments Continuously in Radio Development

experiments, according to the annual re-port of Dr. George K. Burgess, director of the bureau. In connection with Radio frequency measurements and standards and Radio wave phenomena, Doctor

Distandards, Department of Commerce, spent approximately \$50,000 in Radial experiments, according to the annual re-

spent approximately \$55,000 in Radio highest possible accuracy, the aim being experiments, according to the annual resource of visiting list of governors for its station album. Sports have received a great deal of attention, football and Major J. Andrew White's broadcast of the Tunkey-Dempsey fight.

For the future permanent wires are being mistalled for the Columbia chain. They are expected to be ready for operation next month. She said this service is being established for all Columbia stations to afford twenty-four hour service through, out the year. Great plans are being made for the national presidential conventions.

Rural Radio Growth

"What does the turn of the year in Radio mean to the farmer?" was asked of Edgar L. Bill, director of WLS, a station founded primarily for service to the rural listener, and a ploneer in that field of endeavor. To this Mr. Bill replied:

"Government estimates now six months old place the number is doubtless." (Continued to name 21)

WORLD'S MOST POPULAR RADIO ORCHESTRAS

Leading America

West

Seven Aces, WBAP..... 4 494

By Districts

No. 1 East, Vincent Lopez, WEAF. 2,178
No. 2 South, Chas. Dornberger, WTHS. 1,033
No. 3 Midwest, Paul Christensen, WHO. 3,637
No. 4 West, Royal Fontenelle, WOW. 2,507
No. 5 Far West, Max Dohn, NBC. 2,508
No. 6 Canada, Irvin Plumm, CNRW. 1,600

SEVEN Aces, WBAP, take all.

That's the story in five words of the third round of the Radio Digest ballot competition for the world's most popular contents.

December saw Maurie Sherman's WLS

December saw Maurie Sherman's WLS air squadron taking the national lead. But you never can tell what's going to happen when those long, lean Texas scrappers start out for an objective.

"We knew those Fort Worth Aces were right on our tail the minute we hit the ceiling," said Harold Safford of the Sears Roebuck cohorts. "But we gave them a battle and we're really just getting warmed up. Why, we heard the Hired Hand right through all Chicago's sixty-odd station maelstroom telling the Southwest folks to get behind those WBAP Seven Aces. But we have lots of friends down in that territory too. They will have hard work holding that position when it comes to the final show-down."

Christense Looms

While WLS is getting into position Paul

Christensen Looms

While WLS is getting into position Paul Christensen's orchestra at WHO, Des Moines, plopped over a big barrage of votes that brought them within speaking distance of the Texas filers—a total of 3,637—int \$87 votes behind the 4,494 of the Hired Hand's stalwarts.
But Christensen's men have stirved up WOC's Little Symphony at Davenport, Analyzing the situation the Iowa City Press-Citizen says:
"We see a red hot race between Paul Christensen's WHO organization and WOC's Little Symphony orchestra. It would be hard total which has the most friends at this stage of the game. The contest promises to prove interesting to those who listen to both orchestras and it ought to help the quality of programs in general."

There's a strong aggregation behind the Royal Fontenelle orchestra at WOW, Omaha. It may be the Woodmen of the World are backing these artists in a solid

line.

It was Donald P. McIlvane, 902 W. Broadway, Fort Worth, who led the assault on the WLS supremacy in the North.

Watch WLS Chaps

sault on the WLS supremacy in the North.

Watch WLS Chaps

"Can't let these Chicago chaps get away with anything that rightfully belongs to our boys, and everybody knows there couldn't be anything more popular than the WBAP Seven Aces. We just naturally want the rest of the world to know it, that's all."

Mr. McIlvane discussed the proposition with a few friends with the result that 3,500 votes came through the mail at one swoop.

3,500 votes came through the mail at one swoop.

Paul Christenson's friends were inspired with a similar idea as they gathered around in a circle in the lobby of the Fort Des Moines Hotel and discussed strategic operations. By mobilizing some of the units nearest to the WHO studio they scurried over the top for first place in the Third District with 2,500 votes in one smash. This move dropped Haurie Sherman to second place in the district.

All along the line the many orchestras have their ardent supporters for the final honors. R. H. Roberts, program director of CNRW, writes from Winnipeg:

"A number of CNRW listeners have asked me to forward to you the enclosed 1,200 votes for Irvin Plumm and his Jasper Park Lodge orchestra. This orchestra broadcasts from the Fort Garry Hotel,

PICTURING BROADCAST ACTIVITIES



DOROTHY HEYWOOD REEDY and her piano classics put the polished touch in KVOO programs at Tulsa.



THAT spotted bow tie denotes the true artist type found in Walter Johnson, chief announcer, WTIC, Hartford.



GOVERNOR A. HARRY MOORE of New Jersey frequently reaches his fellow citizens by aid of the microphone, as shown above.



CHANCES are you have this Indian's face in your pocket right now. He is Chief Two Gun White Calf, original for the Indian nickel. He is with Charles H. Meester, WCBS, St. Nicholas hotel, Springfield, III.



M AY and June, Ideal Home team of WCFL, Chicago, take brick, trowel and hammer in hand to do a little construction work at Lombard ceremonies. They gained their first renown at WLS, Sears Roebuck station.



PUT your finger down anywhere in California and you'll find a beauty. This is Annamae Morgan, KWTC, Santa Ana.



"S WEET ADELINE." these are the exact words issuing from the lusty throats of this Super-Six of Twins at WJR, Detroit. From left: Rayovax, Russ Wildey and Bill Sheehan; Lullabye, Ford and Glenn; Monamotoroil, John Wolfe and Ned Tollinger.

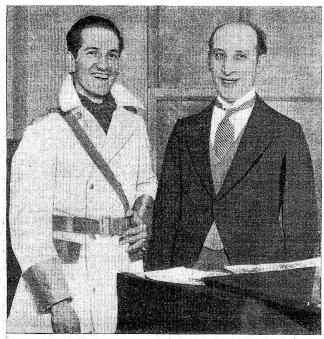


CHARLES H. GABRIEL, JR., son of the famous gospel song writer, is program director for the Orange net of the NBC.

RADIO PERSONALITIES AND EVENTS



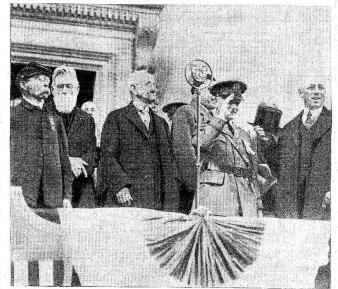
SO'S your Uncle Wip of WIP, Philadelphia; and after Santa Claus he's next for the little Pennsylvanians.



O'N top of Chicago's premier movie palace, the Chicago, is a private theater called the "Little Chicago". Rehearsals and broadcasts are made from here through WMAQ. Two famous artists are Jules Buffano (left) and Leopold Spitahy.



IF you have wondered about the lady with the soft and fascinating voice on the Columbia chain, she's Miss Elizabeth Lennox, contralto.



PEARSON S. CLINE, 84; H. M. Guyer, 90, and Wm. S. Burk, 84, Civil War veterans, were three venerable broadcasters to participate in ceremonies dedicating the new \$1,500,000 - Scottish Rite Massonic temple in Philadelphia,



REMEMBER this lady's face? Of course you do-Irene Rich, one of the Warner Brothers KFWB stars.



CHARLIE CARLAND is always a popular artist wherever he goes; just now he is being announced from WBBM.



THIS is Bobby Griffin, director-announcer of WJBT, Chicago, who made a reputation in France, Iowa and Oklahoma.



A LL set for a ziggity deal by Arnold's Seven Aces of WWNC, Asheville, N. C. "And they're the pick of the deck," said W. Arnold Summey, "when it comes to popular dance music". This Carolina station has forged to the very front of Eastern broadcasters.

LA FOUNT ARRIVES

th n b a: r th a: r

th bl B: ci so to to by cc ra M as the ev

hi th bl eh bl ar kr th hi

ar he a ba pi-la: in; th wl se-

he do da fie ly! for fri a ne an di: an to he la!

FIRST LAP WON BY MAURIE'S PLAYERS



Maurie Sherman's WLS Victory Smile.

Death of Two Radio Commissioners Changes Complex of Federal Board

Arduous Work in Effort to Straighten Wave Tangles Believed to Have Weakened Heart of Admiral Bullard, Who Died in Sleep—Lafount Takes Office

By L. M. Lamm

ATE seems to decree that the federal TATE seems to decree that the federal Radio commission shall not have all of its members sitting at one time. Rear Admiral W. H. G. Bullard, chairman of the commission died quite suddenly, leaving another vacancy on the commission, in addition to the filling of the vacancy left by the late Colonel John F. Dillon, by Harold A. Lafount, to represent the Fifth Zone. These changes have been made within one month.

Admiral Bullard, sometimes called the "father of Radio," and at any rate having had considerable to do with its development, left the commission one day, apparently in the best of health, and died that night in his sleep. It is supposed that he had an attack of heart disease. Since taking office as a Radio commissioner, the Admiral Bullard appeared before the appropriation committee of the House urging adequate funds that the Radio Act

of 1927 might be properly administered.
Admiral Bullard was a great friend of the amateur operators and he guarded their communication with religious care. To them he attributed much of the progresses of Radio in the United States and he offered with the states and he offered with the states and he offered with the would keep this country in the foreground of Radio development.

It was Admiral Bullard, among others, who suggested the organization of the Radio Corporation of America following the World War in an effort to keep certain Radio patents in the United States. President Wilson, at the request of officers of the Radio corporation, detached Admiral Bullard from his naval duties in order that he might sit on the board of directors of the new company for a time.

Despite the fact that Radio is among the newest of the sciences, Admiral Bullard had been actively connected with it for the results of the sciences of the remarkable development from the days of its infancy in the late '90's until now. His text book on Radio communications, written in the early days of Radio, is still standard and is used at the Naval Academy.

Lafount Open Minded
Commissioner Lafount, who came here

early days of Radio, is still standard and is used at the Naval Academy.

Lafount Open Minded
Commissioner Ladount, who came here to fill the vacancy left by the death of Colonel Dillon, has just recently taken his cath of office. He is a business man of Sait Lake City, Utah, and is assuming his new office without any axes to grind.

While disclaiming any special technical knowledge about the Radio field, for years Mr. Lafount has been intensely interested in Radio and has watched its development with keen interest. He reports that Radio reception in the Pacific coast states has been materially improved during the administration of the Radio commission, although there are some rough spots to be ironed out in that section of the country. At the present time Mr. Lafount has no new policies to lay before the commission. Generally speaking, he said, he is in full accord with the basic principles laid down so far designed to clear up interferences and to improve Radio reception as mapped out by the commission.

HAROLD A. LAFOUNT (above) has been welcomed at Washington, where he took the oath of office to fill chair for Fifth Zone, left vacant by the late Col. John F. Dillon of California, Commissioner Lafount is a Salt Lake City business man.



'Give Us Watts on Any Old Cycle," They Plead

MEMBERS of the federal Radio commission received a distinct shock received an application from broadcasters asking to be assigned the lowest waves in the band. Commissioner Caldwell of New York, who has been on the firing line of the battle of the "Kill O'Cycles" and "Kill O'Watts" since the first gun was fired, threw up his hands and called for help. "Gire no the Watts and we'll take care EMBERS of the federal Radio com-

"Give us the Watts and we'll take care of the Cycles," said WTFF of Mount Vernon Hills, Va., the new Ku Klux Klan station. It has 1,480 kilocycles (202.6 meters), which seems quite all right if the commission will consent to power of 10,000 watts. The present assignment is 50 watts. 50 watts.

50 watts.

Practically the same proposition is submitted by WHBN of Gainesville, Fla., willing to share time on 1,480 kilocycles if it can get 5,000 watts. This power has already been granted, as well as the permit to WTFF to build a 10,006-watt station. The latter is hoping later to get use of 50,000 watts on this wave.

The other two stations desiring the low vave are WCSH, Portland, Me., and WKEW of Buffalo willing to take anything from 1,400 to 1,500, but already operating on 1,380. The provision is made that both be assigned lower on condition they can raise their power to 5,000 watts each.





MAURIE SHERMAN and members of MAURIE SHERMAN and members of his orchestra are shown here in a specially posed picture for friends who put them over for the leaders in the first lap of the Radio Digest contest for world's most popular Radio orchestra. They hope to win back leadership that slipped slightly for January.

Phelps Practices Own Philosophy

KMTR Director Does His Stuff by Announcing While Confined With Leg in Cast

ALLISON PHIBLPS, manager and night amounter of KMTR. "Your Priend in Hollywood," has been known for nearly five years in Southern California as "The Radio Philosopher." He has delivered more than Ilcutures in which he has admonished people never to permit discouragement to grip them, to always be cheerful and not allow circumstances or conditions to overcome them. Recently when an old injury to his right knee developed seriously and he was forced to go to bed with his entire leg in a plaster-of-paris cast he decided to put his own philosophy to work. He had the Los Angeles telephone company install a "loop" between his bedroom and KMTR, connected a Western Electric 13-C Amplifier to the lines and went on the air via remote control and declared a follow might be knocked down but could never be knocked out until he, himself, permitted it. He invited people to send in jokes and wisecracks to write on his plaster leg and he has received hundreds of letters from every part of the United States and Canada.

Each night at 6:15 o'clock Mr. Phelps starts announcing the evening programs

44T VEN if old Shank's horse is stalled in a paster cast there is much to be thankful for," C. Allison Phelops, announcer-philosopher at KMTR, declared as he pulled the microphone a little closer, "all five toes are out and setting a good look at the world. Ever realize hiew cooped up they are most of the time? It takes a stunt like this to get acquainted with them; hey, Little Feller? Little Feller nods, folks."

Phelps' microphone and he makes his next announcement. The system works so effi-ciently that no one listening would sus-pect that there was anything unusual about the broadcast unless they were told about it.

Can Live Philosophy

but could never be knocked out unit nethimself, permitted it. He invited people to send in jokes and wisecracks to write on his plaster leg and he has received hundreds of letters from every part of the United States and Canada.

Each night at 6:15 o'clock Mr. Phelps starts announcing the evening programs of KMTR from his bed. In a small lounging room adjoining the main studio of KMTR a loud-speaker has been installed through which the artists can hear Mr. Phelps announcement the operator in the operating room switches from Mr. Phelps announcement the operator in the operating room switches from Mr. Phelps installed the main studio of the station, miles away, limmediately the artists start playing. On a dresser near Mr. Phelps' bed is another clud-speaker through which he hears the program. As soon as a number is concluded the operator switches back to Mr.

QUIN TAGS FOUR BIG HITS FOR WGN



GH, HUM," sighed Quin Ryan of WGN, Chicago, "wonder who would be a good feature for this day's program?"

Just then in blew Floyd Gibbons, war correspondent and author of "Red Kuight" fame. Then he lined up Count Felix Von called in the "photog."

CKY Pursues "Gorilla" to Trail's End

Radio Leads Greatest Man Hunt in Canadian History and of ands Woman Killer in Winnipeg Prison

WELL, Radio Station CKY got its me and everybody along the Canadian border from the Great Lakes west is glad except the man. You could scarcely call the creature who cowers in the murky cell at Winnipeg as the "Gorilla" or the "Strangler" for his heard that the is known otherwise as the "Gorilla" or the "Strangler" for his bench twisting his hard muscular hands and waiting for the footsteps of the hangman who will come shortly to lead him to the little door that drops with a clatter and lets a murderer out of this world to reckon with the next.

Dumbly he sits there, his hard gray flecked eyes peering about now and them as a caged animal seeking some small crevasse or flaw through which he can simple matter for him to pick the locks and flee from the cell in the little jail that held him before they brought him to Winnipeg. The kinky hair and thick lips tell

By G. Carlyle Allison Radio Editor, the Winnipeg Tribune

door that clangs at the end of the corridor. A few more days and it will be January 13th. That will be the end of Earle Nelson, the Gorilla, the Strangler!
Rewards have been posted for his arrest across the United States and Canada. Scarcely a week passed but he left the strangled and broken body of an innocent woman or little girl along his ghastly trail, a predatory animal seeking the fair-est to satisfy his lust and killing them with iron talons that closed about their throats. Twenty-two such deaths have been many more. The last two were in Winnipeg—a young mother and a little school girl. At Winnipeg the powers of

Mrs. Morgan prepared a good meal for the fellow whose eyes shifted about a great deal. Morgan managed casually to slip out of the room for a moment and whispered his suspicions to his neighbor, Albert Dingwall, who promptly communicated with Constables Sewell and Gray at Killarney, 18 miles away. The Gorilla quickly finished his meal—he had seemed half famished and desperate—and mumbling a sort of thanks told his host he would have to be on his way. Dingwall watched him leave. It was only a few miles to the international border. The two Wakopa men followed him to a slough two miles outside the town, where Nelson seemed inclined to hide for the night.

The constables had informed Winnipeg and broke all records driving from Killarney to Wakopa. Morgan and Dingwall directed them to the slough. The Gorilla was surrounded and surrendered without a fight. Better go along easy, he figured; it wouldn't be hard to slip these country jailers, and, over the boundary,



the strain of the degenerate Negro in his blood. He wandered out, from the old Barbary coast underworld of San Francisco less than a year ago. Perhaps in his solitary musings he wonders how he came to be caught, why it was that he seemed to be recognized and regarded with fear by the people he met. His flight had become a nightmare of terror. He evaded railway lines and took to the highways. Motorists scanned his features when he asked for a lift, they noted his cap, his tie, the color of his clothes, his shoes, even though he changed them time and again.

Recognized Everywhere

Recognized Everywhere
The instinctively felt that they knew him, his terrible crimes, his very thoughts, though they said little. He saw checks blanche at sight of him. Women and children peered at him from behind drawn blinds as he found farmhouse doors unanswered and botted against him. He knew they were there and he ran for fear the man of the house was stealing up on him in the darkness with a loaded shot-gun.

him in the darkness with a loaded anoughus.

Ferhaps he does not yet know how his approach seemed to be heralded from every house—yes literally every house top. For a bit of shining wire from house gable to barn gable or in the near vicinity had picked up the voice of Franklin E. Rutland, announcer at CKY, Winnipeg, detailing every bit of information received from the roadways and villages and towns where the dreaded Gorilla had last been seen.

seen.

How hungry he had been! Rarely did he find conditions favorable for a back door hand-out. The towns bristled with danger. He foraged tender corn from the fields. Occasionally a berry patch or outlying vegetable garden furnished him with food. Once he snared a young chicken from a hole he had dug into the side of a field stack. Before he could wring its neck with his expert fingers it squawked and a dog barked at the farmhouse a little distance away. He dropped the chicken and field through a grove of maple trees toward a road he knew not of, but which he surmised must cross his way sooner or later.

later. Waste No Sympathy

However, waste no sympathy on this creature. He does not know the meaning of the word in his own behavior. He would show you no atom of pity were your conditions reversed, and you an innocent human. Anyway he is making up now for the meals he lost. He is gorging himself and putting on fat for that last short walk he will take to the scaffold and the little



"Gorilla" Nelson takes last look at day-Al lett: "Gorilla" Nelson takes last look at dayleight, his strangling hands manacied, as he
shown below. Center: Franklin Rutland, who followed him with detailed Radio descriptions as he
fled. Extreme right, L. H. Morgan, Wakopa storekeeper who recognized Nelson by Rutland's
description, and Albert Dingwall who aided in
capture. Both received \$300 rewards.

Radio broadcasting were put upon his trail

Radio broadcasting were put upon his trail to bring his career to a speedy end.

It was the tenth of last June that William Pattersen came home from his work and found the house open but no cheery little wife to meet him. At first he was only slightly concerned. He called her name a few times then inquired about her from the neighbors. She had not been seen. Patterson became alarmed. He had read about the Gorilla in other towns. Being a devout man he was in the habit of taking his troubles to his God. So he knelt at his bedside and asked for Divine guidance. As he started to rise his glance caugnt a bit of fabric he knew belonged to his wife's gown beneath the bed. He jerked at the bed covering that concealed it. In a moment he had uncovered the dead body and distorted features of his wife. She had been profaned and tortured—the work of the Gorilla!

Gorilla Rents Room

Earle Nelson had arrived in Winnipeg. Perhaps an hour before this shocking crime had been discovered he had appeared at a Smith street rooming house. There may have been something suspicious in his manner or appearance to make the housekceper glance at him hesitatingly. But he immediately became affable and smilled with a plous smirk.

"I want a room," he said, "where I will not be disturbed in my religious reflections."

She gave him a room that seemed to fill the requirement. It would seem that

shot be distarted in my retigious renections."

She gave him a room that seemed to fill the requirement. It would seem that the Gorilla immediately set forth for another victim whom he could torture at his leisure. His eye fell on little Lola Cowan, 14 year old flower girl who was finding a great market for her luscious June roses and a few flowers she gathered from the wildwood, which she visited with the larks early in the morning.

Three days passed in the frantic search for little Lola Cowan. The Gorilla became nervous and did not return to his lodging on Smith street that Sunday afternoon.

for little Lola Cowan. The Gorilla became nervous and did not return to his lodging on Smith street that Sunday afternoon.

Rutland had already announced the evening devotionals. Bible reading, worship and song were floating out over the city and country side from the CKY antenna. Good folks who enjoy these services in their own homes, folks who live far from church, feeble old folks, sick folks in the hospitals were thus in the midst of their communion with Providence when sud-

Those may not be the exact words with which he put all within range of CKY on guard and alert for the fugitive, but it is the essence of his message. He described the clothing, issued warning to admit no stranger and to summon police to investigate every vagrant answering the describtion of the Gorilla. Like baying bloodhounds in every direction the messages swept with speed faster than lighting though every street, highway and lane.

lane.

It was the greatest man hunt in the history of Canada. Every farmhouse was armed and ready to capture or kill. Chief of Police Chris H. Newton, Detective Chief George Smith and Inspector Phillip Stark kept Rutland posted with every good tip that came in from all sections of the province.

that came in from all sections of the province.

Rides by Day

When Rutland announced that the Strangler seemed to be making his way in a certain direction from cumulative reports every person in that vicinity kept in touch with the local peace officers. But the Strangler hid by day and sneaked through the cordons by night until he reached the outskirts of Regins, Saskatchewan, 355 miles distant. From that point he doubled back, a tortuous stubborn trail.

Rutland was hot after him down through western Manitoba. At Wakopa, close to the boundary, L. H. Morgan was about to close up his general store for the night when a shabby unshaven man peered for a moment through the door and then stalked in. Little pouches saged under his eyes. A yellow pallor survived the roughening effect of a long tramp in the open. His hands, big and nervous, hung ape-like at his sides.

"What's the chances for a bite to eat?" he asked Morgan stanger rest the server.

their powers would end. Sullenly he submitted to their commands and they put him behind bars with a double lock on the door.

Jaller Alone with Gorilla
Morgan and Dingwall went away satisfied they had accomplished a big night's work. The jailer was alone with his only prisoner. It was a big day for him too, The biggest man hunt in Canada had driven the quarry to his bailtwick. Hed smoke his pipe and—matches, he was out off at the part of the him. He'd smoke his pipe and—matches, he was out off matches. Not a match him the whole jail. It would take but a minute to go out and get some. So the Gorilla had the jail to himself for five minutes. Five minutes was all he wanted for that jail. The strangling fingers manipulated a nail file against the cell door lock. It pushed open. When the jailer came back the Gorilla was gone.

A few minutes later the whole community was aroused. People had begun to come into town anyway from hearing Rutland's message over the air. Soon an army of citizens swarmed through the community, but the fugitive could not be found. There was one place they had missed. That was the dark hole under the railroad station platform.

In the morning a train with a special carload of police approached from Winnipeg. A furious mob had assembled, eager for the blood of the Gorilla; but there was no Gorilla. He had crawled like a snake into a pile of brush close to the tracks. The police train drew near. Ignorant of its nature the man sprang from his hiding place and ran for the step.

Constable W. A. Renton of the border patrol saw him first and started in pursuit. As the mob caught sight of the murderer they began to yell "Kill him! Kill him!" But Nelson was collared and yanked onto the train before he could be dealt with summarily by the angry civilians.

The trial was a clean cut case. The Gorilla had been so graphically described that E. P. Gibson of the Winnipeg Tribune staff had drawn a picture of the man extend the master of other women will be avenued by score of the more staff had drawn a pict

as it could have been had the man actually posed.

One week from next Friday little Lola Cowan, Mrs. William Patterson and a score of other women will be avenged by the law of Manitoba. The Gorilla will be no more. His fate was broadcast to the CKY listeners as the doom had been prenounced by the judge. CKY got its man, living up to the traditions of Canada's famous mounted volice.

"Radio Still in Swaddling Clothes," Says Marconi in Visualizing Future

Deplores Neglect of Short Wave Development Recently Discovered to Have Unsuspected Qualities for Distance Transmission Great Field Open for Future Experimentation

DURING his recent visit to the International Radio conference at Washington Guglielmo. Marconi, "father of Radio," responded to a number of interviews volich indicated his continued intense activity along the lines that brought him deathless fame. He regretted that he did not have more time than there are hours in the day to carry on his endeavors to perfect long distance transmission, especially the development of the short wave. He scorned the tendency of many who "let down" after a certain measure of success, and give up the idea of hard and persistent work. He revealed many personal characteristics of America's own electrical genius, Thomas A. Edison.

What is Marcom doing today? Let us go over what he has just said.—EDITOR.



Senatore Marconi and Bride in America

By Guglielmo Marconi

CANADA HOPES FOR SHORT WAVE RELAY

XORBITANT charges on the part of long distance telephone lines has greatly hampered the growth of chain broadcasting in Canada, according to Sam J. Ellis, Radio supervisor in Ontario. But relief during the year 1928 is anticipated by the Marconi improvements in the use of the

year 1928 is anticipated by the Marconi improvements in the use of the short wave.

"For the recent British hook-up, which was received in Montreal by Marconi beam," said Mr. Ellis, "the telephone company demanded \$480 for use of the line from Montreal to Toronto for the two hours service. It is only 120 miles from Buffalo to Toronto but even that short stretch calls for a toll of \$200 an hour.

"We are very much interested in the progress being made in many American stations by use of the short wave in conjunction with their regular broadcasts," continued Mr. Ellis. "A number of the leading stations in the Dominion are making plans to pick up these programs through short wave receivers and rebroadcast on their regular waves. The cost of the new installations will be insignificant compared to the toil costs."

far as I can ascertain, in regard to the application of very short waves to Radio

purposes.
Research along such lines did not appear

nurposes.
Research along such lines did not appear promising—short waves were not easy to produce or to detect with the means then at our disposal, and up to recent times the power that could be put into them was small. This, together with the erroneous but general belief of the high attenuation of the waves over even short distances, deterred experimenters from entering this new field of research.

Some years ago, during the great war, I could not help feeling that we had perhaps got into a rut by confining all our researches and all our tests to long waves; that is, to waves of hundreds of thousands of meters in length, especially as I realized that, in accordance with theory, it would be practically possible only by the use of short waves to project the radiation in narrow beams in any desired direction instead of allowing it, as has always been done, to spread and dissipate in every direction.

done, to spread and dissipate in every direction.

An Age of Radio
This is a Radio age. The world is coming more and more to doing everything by Radio. So far it is only communicating and amusing by it. It will soon be educating its people and regulating all its life by it.

Radio will, furthermore, acquire a larger and larger share in the life of all people as it will become more and more widely appreciated that as a science it is yet in its swaddling clothes. The utilization and properties of short waves is still practically unknown—at least compared to what I believe we will finally be able to discover as to how to bend them to our will.

In the enlightenment of the world as to the possibilities of this medium I will continue to do my part. Radio is by now my second nature, and I sometimes regret that other duties are often placed upon me, which I cannot, nor indeed would not cyade, which curtail the available time for research.

By Guglielmo Marconi

NLY the feeble-minded or the premitterly old stop and abandon their
life's interest for the sake of ide
ress. I have laboratories wherever I go
along to fally in England, and now the
Radio Corporation of America has put at
my disposal its plants for any experimontal I may want to make. In additionmoved from the calls that are always
made upon me on land. I have my yacht,
the Electra, which is completely equipped
with apparatus for my researches.

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ECKERSLEY THINKS BEAM NEXT "SUPER"

CANT CENTRAL STATION TO CIRCLE GLOBE

glish Engineer Foresees New Spaced" Aerial System as Answer to Fading and Distance

A NOTHER British expert with strong faith in the future of beam Radio is Capatain P. P. Eckersley, chief engineer of the British Broadcasting company. In a recent interview with the New York Times he pointed out that the beam has mot only achieved distance records but also overcome much of the atmospheric conditions that have hindered heretofore. By using spaced aerials in a new station being erected at Chelmsford he said the problem of fading seems in a fair way of solution. The spaced aerials make it possible to tune in a number of receivers of corresponding aerial lengths which receive the same transmission simultaneously and by combining the reproduction compensate for signals that fade.

A diggest of the Times interview states: "I visualize the time when a giant station somewhere in the heart of England will broadcast to the empire," he said. "Beams will radiate to Canada, South Africa, India and Australia, there to be received by spaced aerial systems spread over miles of territory. Local stations will then relay to listeners in the Dominions, and empire broadcasting will be an aecomplished fact.

"But," he added with a twinkle in his cye, "do not quenches a saying that this dream is possible at once. Our present afforts at an empire service may end in complete failure for a your or two. Britain's experiments toward empire bradeasting have materialized in the erection of a 20-kilowatt station at Chelmsford to work on 24 meters in conjunction with American short-wave stations.

"While in America I was in close touch with Dr. A. N. Goldsmith of the Radio Corporation of America, and specific reciprocal tests have been arranged across the Atlantic both in transmission and reception. It should be explained that 5SW at Chelmsford is not a beam station. It



Capt. P. P. Eckersley

Capt. P. P. Eckersley
has been erected for the purpose of collecting data on the subject of reception from both America and the Dominions.

"A spaced aerial system is also being built at Chelmsford, and when results in reception demonstrate a definite advance international programs will be relayed to British listeners through the British stations. The Americans have a different scheme for improving reception, a more complicated one, but Britain is at present pinning her faith to the spaced aerial.

"In the meantime the British Broadcasting Corporation is carrying out a series of relays from 2FC Sydney, Australia, using the orthodox methods, and a considerable measure of success hus been achieved. The relays usually take place on Sunday between 5 P. M. and 7 P. M., Greenwich Time, and one of the most amusing features is that British listeners have to realize that it is the following morning in Australia."

ENGLISH WANT MORE

WHILE American listeners are compared by plaining that there are too many stations, our Bnglish cousins complain that they should have more stations in order to afford a wider selection of programs. There are 2,000,000 Radio listeners on the British Isles. An advisory committee of listeners unanimously declared in favor of a greater number of stations. Only one station may be heard in any single territory. But crystal sets are still used.

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ha bei W. Lithithe

AMERICAN STATION BEST-E. A. DAVIES

WIP DIRECTOR WRITES OF EUROPEAN TOUR

Judges Popularity by Comparing An-tennas He Saw on Homes in Various Nations

By Edward A. Davies Director of WIP

By Edward A. Davies
Director of WIP

And now, about my little trip to Europe. I traveled through France, Germany, Holland, Belgium and Switzerland, and flew from Paris to London. To say that I had a great thrill would be putting it mild.

I had an excellent opportunity of studying Radio conditions of each individual country. The most progressive, to my way of thinking, was Germany. On or about September 1st they opened one of the most powerful transmitting stations in the world. I was given to understand that it has a maximum capacity of one lundred fifty thousand watts. The type of apparatus used in the building of this station was absolutely foreign to me. It was entirely different from anything I have been used to seeing in America. Their towers are considerably over five hundred feet from the ground. They were using the usual L shaped antenna. From what I could learn they are figuring on using all the great musical centers throughout Germany to feed the concerts through this super-power key station.

France, apparently has not as yet awakened to the possibilities of Radio. The most remarkable condition I found in Paris was that in my eight-day sojourn I saw only two shops that dealt in anything pertaining to Radio, and both these shops sold their Radio apparatus in conjunction with talking machine records and apparatus.

Reminded of Home

Various cities throughout Holland made one think of our own American cities, in so far as the Radio antenna was concerned. Amsterdam, Rotterdam and the Hague all showed the tremendous interest evidenced in Radio by the row upon row of house tops crowned with the inevitable Radio antenna was concerned. Amsterdam, Rotterdam and the Hague all showed the tremendous interest evidenced in Radio by the row upon row of house tops crowned with the inevitable Radio antenna, The station in Amsterdam broadcast some very beautiful concerts. Belgium is taking to Radio very fast. I found great interest in Antwerp, but particularly in Brussels. Switzerland is taking Radio rather matter of

England has her Radio entirely stabilized, being under government control, and each concert under entire government (Continued on page 12)

"Jenny Lind," WRVA



A MODERN Jenny Lind, is Miss Mary Bowe Sims, coloratura soprano, who has been addinded by Radio listeners the best singer in Virginia. She appears at WRVA, Richmond, in a series of Jenny Lind programs, and by the time you read this you may have heard her over one of the New York about.

Michigan Enacts Radio Law

Michigan Enacts Radio Law
Through legislative action Michigan
authorized the state public utilities commission to regulate Radio operation in
the peninsular state. Listener organizations throughout the commonwealth were
invited to the capitol to consider phases
of the proposed bill to be enacted. Although the blooping muisance has been
largely abated, the bill provides legal
basis for its suppression. The commisston expects to have one man whose sole
duties will be to advise on public Radio
problems.

It was stated as the aim of the new
control law-to cooperate with the federal
commission and assist in enforcing regulations calculated to be of greatest good.

LET "OFFICIAL" CALL BOOK BE YOUR GUIDE

DID you read about MacDonald in California logging 616 stations?
He's scientific, and you can bet he doesn't just go about it blindly to make such a record. He knows what he is going after and he's doing it according to Hoyle—as you might say in this game, "according to the Official Call Book." Radio Digest publishes each month a complete, corrected-to-date directory of broadcasting stations. It comes with the magazine—nothing extra.

MAID OF COEUR DE ALENE THRILLS LISTENERS WITH SPIRIT OF VIOLIN



ONE of the most beautiful places in America is Craur de Alene, Idaho, a limpid mountain Iake with mammoth trees to the very edge, a typical little western town struggling between the modern and the primitive; this was the home of Mary, Chainey (above) heard over the Red Net-

Kiley Backs Davies in U.S. Radio Superiority

Bigger Selection and Better Qual-ity of Programs Here—N. Y. Has 2,500 Hours Monthly

Has 2,500 Hours Monthly

ORE than twenty-five hundred hours of entertalment were offered Radio tisteners in New York City by stations in New York during the recent autumn, according to a statement by George H. Kiley, vice president of the Farrand Manufacturing Company and an authority of Radio conditions.

American listeners are particularly fortunate in comparison with listeners in England and other countries, Mr. Kiley explained, pointing out that the majority of British Radio listeners, for example had only two or three broadcasting station programs to choose from, while listeners in New York City had from ten to thirteen stations on the air at the same time, all within the range of their receivers, exclusive of stations out of town that cannot be brought through the locals on most receiving sets.

clusive of stations out of town that cannot be brought through the locals on most receiving sets.

American listeners have more than five times as much program material offered them than do listeners in any other country, with the quality of the programs

To R some reason or other the Radio as they once did. For almost every special occasion, Christmas or Halloween, Pat throws a party for his small riends the very popular Chicago station, WHT. At least that is what these little folks building to overflowing. That's Pat him think as they swarm about Pat Barnes, since the programs winner of the Radio Digest popularity an author now, too. He has published a

Delights KGO Fans



WHEN the Hearsts at San Simeon or the Barkleys at Hamilton want to tune in an especially good singer from San Francisco they look up the hour when Miss Gail Taylor is to be heard at KGO.

Fame Passes But KFKX Carries On

No Longer DX Goal Hastings Station Moves to KYW Home and Serves Farmers by Daylight

Moves to KYW Home and Serves Farmers by Daylight

OLD KFKX, at one time the most popular DX station in America, has moved from Hastings, Nebr., to Chicago and settled down on the roof of the Congress hotel, where it nestles alongside its more elegant sister, KYW, of the Westinghouse family.

For a time this old stalwart with faded glory seemed to be lost, but KYW needed someone to share that 526m-570kc allocation—someone within the family. So KFKX picked up its tubes, antenna, "mike" and other paraphernalia and moved into the Chicago Westinghouse Radio residence. It's down Michigan boulevard just a little way from Bill Hay of WGN, whose voice used to be the KFKX voice everybody tried to hear.

In those early days KFKX was the passion of the DX fiends. Every man made his own set. Ruby Holmes in Chicago would invite his friend George Ayerover to hear the new neutrodyne he had put together. Smith, up stairs, had a regenerative set that blooped like sin, but between bloops Holmes got KFKX, and Radio certainly was wonderful.

Don't worry, KFKX won't interfere with any of the swell chain programs KYW broadcasts at night. But the farmers always were her best friends. At 9:30 in the morning she swings off to the blue with the farmer's program and service information. Eack to Nebraska and other states west of the Mississippi she goes with live stock reports from Omaha, Kansas City, East St. Louis, St. Joseph, Chicago, Sioux City, St. Paul and a few points East. At 5:30 the final summary is given and then she leaves a clear track for KYW and her dinner dances, fancy studies of the Mississippi she goes with diversing the open.

POPULAR ORCHESTRAS

(Continued from 5)
Winnipeg, during the winter months, and goes to the famous Canadian National Railways summer resort, Jasper, during the summer months. Besides to the regular listeners they play especially for passengers aboard the Radio-equipped train, Transcontinental Limited, and the National." (Continued from 5)

Following are the standings of the or-chestras December 15th:

DISTRICT No. 1-EAST

Crosley WEAF

Vincent Lopez's orchestra, WEAF ... 2.173
Crosley Moscow Art orchestra, WEAF ... 1,805
Palais D'Or orchestra, WEAF ... 1,658
Palais D'Or orchestra, WEAF ... 1,658
Palais D'Or orchestra, WEAF ... 1,908
Roxy's symphony, WJZ... 983
Al Steele's Musicale Vagabonds, 925
A. and P. Gypsies, WEAF ... 822
KDKA little symphony, KDKA ... 813
Club Worthy Hills orchestra, WTIC. 794
Jack Albins, WEAF ... 618
Red Nichol's Charleston Chasers, Columbia chain ... 627
Ben Bernie's orchestra, WEAF ... 618
Red Nichol's Charleston Chasers, Columbia chain ... 600
Paul Whiteman's orchestra, WEAF ... 572
Waldorf-Astoria, WTIC ... 516
Cliquot Club Eskimos, WEAF ... 515
Meyer Davis' La Paradis orchestra, WEEF ... 508
Meyer Davis' Swanee syncópators, WCC ... 507
Century orchestra, WMAK ... 507
Century orchestra (Robert E. Golden), Director), WOO ... 503
Charlie Woodward's Gondollers, WNAC 500
Meyer Davis' Hotel Biltmore orchestra, WLSI ... 500
Maxwell House orchestra, WJZ ... 500
Savoy Plaza concert orchestra, WJZ ... 500
Maxwell House orchestra, WJZ ... 500
Maxwell House orchestra, WJZ ... 500
Maxwell House orchestra, WJZ ... 497
Jack Morey's Singing orchestra, WBZ ... 497
Jack Morey's Singing orchestra, WBZ ... 497
Jack Meyer's Musical Architects, WFAN ... 482
Jack Meyer

KIch's Serenading Shoemakers, WJZ
Art Coogan and his Dance orchestra,
WIP
Markel's orchestra, WJZ...
Ernie Andrew's troubadours, WBZ...
Ernie Andrew's troubadours, WBZ...
Golden Dragon orchestra, WFAN...
Joe Rines and his Elk's Hotel orchestra, WNAC
Waldorf-Astoria orchestra, WEEI...
Bamberger's Little symphony, WOR.
Cinderella orchestra, WLSI.
Granadas, WJZ
Jacques Renard and his Cocoanut
Grove orchestra, WNAC
Bay State Aces, WOR...
Parker House orchestra, WFAN...
Leo Dreyer and his New York orchestra, WNAC
Seville Troubadours, WOR...
Seville Troubadours, WOR...
Seville Troubadours, WOR...
Continentals, WJZ
Continentals, WJZ
Mayflower Dance orchestra, WTAG
Strand Ball Room orchestra, WTAG
Mayflower Dance orchestra, WHAN.
Leo Reisman and his Hotel Brunswick
orchestra, WNAC
VIIIa Venice orchestra, WGR
Jeddo Highlanders, WJZ
Elwood Anderson and his orchestra,
WFI
Goodrich Zipper orchestra, WEAF...
Henderson's Roseland orchestra, WOR...

Hotel Chelsea Concert orchestra,
WPG
WPG
Jardin Royale orchestra, WOR.....
Hotel Burlington orchestra, WRC....
Atlantic City Casino dance orchestra,
WPG
Will Oakland's Chateau, WHN...
Bennie Gulch and his Rainhow orchestra, WKBO
20th Century orchestra, WCGU...
Lucky Roberts and his Society entertainers, WGBS
Wardman Park Hotel orchestra, WFAC
Club Madrid orchestra, WFAN...
Cathay orchestra, WCAU...
Jimmie Gallagher and his orchestra,
WNAC

WNAC

Johnny Johnson and his Pennsylvanians, WTIC....

Hotel Ambassador concert orchestra, WPG

Hotel Ambassador concert orchestra, WPG
Bob Fallon's orchestra, WEAF.
Adelphia Whispering orchestra, WFI
Peter Vitton Heart of the Berkshires
orchestra, WHAZ
Morey Pearl and his orchestra, WNAC
Sunrise Serenaders, WAAT.
Sturrise Serenaders, WAAT.
Sturrise Serenaders, WAAT.
Staffordians, WNAC.
Staffordians, WNAC.
Staffordians, WNAC.
Staffordians's Statler orchestra, WGA
St

POLAR BEARS IN ARCTIC FROLIC



string orchestra, WGBS
New York Philharmonic orchestra
WOR
Parody Club orchestra, WOR.
Club St. Marks orchestra, WOR.
Club St. Marks orchestra, WRC.
Kentner's El Patio dance orchestra,
WIP
WTAG little symphony, WTAG.
Snellenburg Salon orchestra, WGAU.
Cotton Club Dance orchestra, WHAC.
Harbrecht's orchestra, WHAC.
Harbrecht's orchestra, WHAZ.
Benjamin Pranklin orchestra, WIP.
Perley Stevens and his orchestra,
WNAC
Hotel Manger orchestra, WJZ. 168 DISTRICT NO. 2—SOUTH WNAC
Hotel Manger orchestra, WJZ....
Hotel Mayflower orchestra, WRC.....
Fletcher Henderson's Roseland Dance
orchestra WHN
Arcadia Ballroom orchestra, WMAK.
Emerson Gill's orchestra, WTAM...
Lou Klayman and his orchestra,
WNAC
Statler's Pennsylvanians, WEAP.....
Jacques Jacobs' Hotel Shelton ensemble, WOR
Campus Screnaders, WHAZ...
Silver Silpper Supper club dance or-65 ble, WOR
Campus Serenaders, WHAZ...
Silver Slipper Supper club dance orchestra, WPG
Jannsen's Hofbrau orchestra, WEAF.
Carborundum Band, WMAK.
Orientals, WCAU
Pepper Pto orchestra, WOR.....
Lecland Dance orchestra, WHN...
U. S. Army Band orchestra, WRC...
Remington Band, WPG
Shepard Colonial Luncheon concert
orchestra, WNAC
WBAL Dance orchestra, WBAL...
Vanderbilt hotel string ensemble,
WGBS
Sidney and his Hotel Mayflower orchestra, WRC
Calvary Philharmonic orchestra,
WNAC
WBAL Salon orchestra, WBAL...
Calvary Philharmonic orchestra,
WNAC
George Hall's creaters, WBAL... Mediterraneans, WJZ ocw's New York theater orchestra, WHN .cnsselaer Polytechnic Institute Stu-dents Band, WHAZ...... 370 Rens 368

New Departure orchestra, WTIC...... Bolton's Band, WMAK....

Bolton's Band, WMAK.
Jimmie Hooley's orchestra, WNAC.
Jimmie Hooley's orchestra, WNAC.
Jimmie Hooley's orchestra, WNAC.
Dinham Radioliers, WCAU.
WBAL Dinner orchestra, WBAL.
Virginia Vetter's entertainers, WHAS
Blue Hill's Plantation orch, WBAF.
Cathay concert orchestra, WFAN.
Sylvania Foresters, WJZ.
Hotel Van Curler orchestra, WGY...
Rensselaer Polytechnic Institute Students Symphony orchestra, WHAS
Hotel Traymore concert orchestra,
WFG
Loew's 86th Street theatre orchestra,

Dreamland, WMC 1

DISTRICT NO. 3—MIDDLE WEST

Comprising: Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Jowa and Missouri.
Paul Christensen's orchestra, WHO. 3,637
Maurie Sherman's orchestra, WJS. ... 2,724
Chief Razzberry's orchestra, KOIL. 1,049
Crosley Cosacks, WLW 1,007
WENR Studio orchestra, WENR. 938
Fred Hamm's Victor orch, WLIE. 881
Kansas City Nighthawks, WDAF. 838
Dell Lampe, WOK. 751
Ted Fiorito and his orchestra, WSAI 549
Kentucky serenaders, KYW. 535
Paul Ash's Merry Mad Musical Gang, WGN 558
McKinney's Cotton Pickers, WJR 499
Verne Buck's Fifteen Piece orchestra, WIBO 535
McKinney's Cotton Pickers, WJR 450
Merre Buck's Fifteen Piece orchestra, WIBO 545
Hotel Winton concert orch, WHK 450
Red Peppers, WCFL 450
Stevens Hotel orchestra, WMAQ 450
Bandbox Boys, WLW 347
Bobby Meeker's Drake Hotel orch.
WLIB 347
Gerald Marks orchestra, WGHF 342
Jean Goldkette's Blue Room orch, WJR 328

Jean Hammond's Elks Club Tune
Tinkers, WTMJ
Sammy Watkins' Claremont Tent orchestra, WHK
Ben Pollack's orchestra, WBBM
Dan Russo's orchestra, WWBM
Jesse Boone, KWUC
Jesse Boone, KWUC
Sweeney Syncopators, WHB
Earl Hoffman's Chez Pierre orchestra,
WJAZ
WJAZ Car Department orchestra, KFAB..... (Continued on page 21)

Northland serenaders, WHO,

U. S. STATIONS BEST

supervision. It seems almost in-comprehensible that seven hundred sta-

supervision. It seems almost incomprehensible that seven hundred stations could operate successfully at one time, that they could be accommodated in the limited number of bands that we have, and the great amazement of all was expressed in the fact that we had enough artists to supply the tremendous demands of this number of stations.

A rather interesting incident occurred in Frankfort, Germany, where I had gone upon hearing the humor that they were going to broadcast their performances of opera. In talking with one of the Radio officials, he informed me that it was seriously considered, as the idea had been taken back to Germany in 1924 by their State Opera Company as performances had been broadcast while in Philadelphia. You can imagine his amazement when I informed him that my station had been the station that broadcast the German State Opera Company's performances from the Metropolitian Opera House in Philadelphia.

I had the pleasure of renewing my Philadelphia.

Philadelphia.

I had the pleasure of renewing my acquaintance with several of the artists who were appearing in Frankfort at that time, and who had been with the German company in Philadelphia in 1924.

To sum the whole thing up, while I enjoyed every minute of my trip to Europe, and was interested in observing their method of operating their broadcasting business, I was firmly convinced that the American broadcasting station is superior to any in the world.

Simple Explanation of Broadcasting

Part II-How a Station Creates Radio Waves and Sound Rides Them Over Land and Sea



That you will not have to dig up your last month's copy of Radio Digest, in case you have mislaid it, let me recall to your mind that we first took up the creation of a voice wave in the singer's throat, explained how it traveled forward with part of it reaching the microphone, then considered the speech amplifier which increased the power of the electrical impulses through several speech amplifier units. We were then ready to put our created as 50 mats capacity. This form and then a tube of 250 watts capacity lakes units. We were then ready to put our created as 50 mild first which 700,000 waves will be sent rippling pulses set up and, finally, followed the impulses through several speech amplifier units. We were then ready to put our created as 50 mild first which 700,000 waves will be sent rippling announcer at KFT advises that, by the same authority, they are using "a fre-ated as 50 mild first which 700,000 wates will be sent rippling announcer at KFT advises that, by the same authority, they are using "a fre-ated as 50 mild first which 700,000 wates will be sent rippling announcer at KFT advises that, by the same authority, they are using "a fre-ated as 50 mild first water and putting their power into the antenna, was considered a first class station. Now such tubes are merely a stage of power amplifier and, farthest to the right in Figure 4, we have two huge rubes of 10,000 wates cach working together and putting their power into the antenna, was considered a first class station. Now such tubes working together and putting their power into the antenna, was considered a first class station. Now such tubes working together and putting their power into the antenna, was considered a first class station. The power into the antenna, was considered to the working together and putting their power into the antenna, was considered to the power into the antenna, was considered to the first in Figure 4, we have two huge rubes of 10,000 wates cach working together to give Energy its final pushes. This would give a 20

station—yet WGY has used tubes in banks or groups to create a final push of 50,000 watts.

The question might well be asked, "Why start with the little tube and work up through the intermediate sizes to the big ones? Why not cause the largest size to the big ones? Why not cause the largest size to the constitution of the con

fully and delicately.

Crystals Control Frequency

Every so often they must be removed from the grinding holder and tested as to

that it will cause the tube to create only the frequency for which the crystal was ground. This cannot vary. We come now to Figure 5. At the left we have the two 10,000 want tubes swinging energy with the little Piezo crystal holding up its hand for them to slow down a little as they are swinging Energy too fast. These huge tubes would merely laugh at the little crystal, run right over it and destroy it. At the right, however, the crystal has tackled the little 5 watt tube which is no larger or more powerful than it is and this tube must obey.

That is the reason for the series of amplifier tubes. We can accurately control the little fellow and then build up its output through larger ones, each of which must swing Energy at the rate of the tube ahead. Neat? It most certainly is. Now please don't misunderstand and get the impression that every large broadcaster uses tubes in just the capacities mentioned. Those stees are merely named for illustration. The Eellmore station of the National Broadcasting Company uses a 7½ watt tube followed by another one, then a 50 watt, two of 50 watts capacity, one of 1,000 watts, one of 20,000 watts operating at about 5,000 and, finally, a

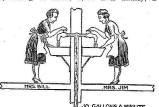


Figure 7

bank totaling 50,000 watts. The Bound Brook station also starts with a 7½ watt oscillator, and then has a single 250 watter, two 250 watt tubes, and then a group of large ones totaling 40,000 watts. "Squeezing" a Wave This truly terrific power is then placed across the huge condenser formed by the antenna on the one side and the ground on the other. Between these two surfaces there is an electrical pressure set up at each alternation of the current which, seemingly, tends to squeeze a wave mowhat frequency they possess at that stage. seemingly, tends to squeeze a wave mo-The amateur can buy crystals for his tion out into space. You will recall that transmitter, that are reasonably close to wave motion was explained in Part I the desired frequency for as low as \$15.00. as Energy being passed onward through



Figure 4

Now a Radio telephone transmitter, as used by the first class broadcasting station of today, is quite an imposing affair. Probably a great many readers have seen the neat little transmitters as seen the neat little transmitters as exeenbled by a Radio amateur and have that in mind as a Radio transmitter. A great many have, by now, visited a broadcasting plant and seen an outfit of, let us say, 500 to 1000 watts power. That's the way they're rated; by the number of watts (units) of electrical energy they can throw out into the air.

The really large, nationally known broadcast transmitters are nearly beyond the conception of anyone who has not actually inspected such a plant. The generator room has become a moderate size building, or a large part of a large building. Where two control panels of about the first of the size o

How Amplifiers Work

How Amplifiers Work

Taking up now the oscillator and power amplifier. We start things with a tube but little larger than the ordinary IV-201-A, one which muny fans now use as the second audio tube in their sets—the UX-210. We connect it to coils and other parts in such a way that it now does Just the opposite duty that a detector tubed does in your receiver. In your receiver, it is the function of the detector to take in Radio frequency currents, which change their direction of travel in the wire from 500,000 to 1,500,000 to times a second, and turn out direct current which travels only in one direction. When we apply the 210 tube as an oscillator in our broadcast outfit, we apply direct current to it, and it produces alternating current which starts in one direction and then comes back, anywhere from a half million to one and one-half million times a second. These frequencies of alternation are called Radio frequencies but they are not as yet Radio waves. five feet by three feet dimensions used to be ample front for the equipment, a long row of much larger upright panels is now used. They form a solid wall about seven feet high and twenty to thirty feet long. Meters by the score dot this wall, and almost as many huge wheels and knobs.

Behind this wall of black panels, is a series of structures of angle fron and braces and shelves in which the myriad square metal boxes, bird cage-like coils, gleaming tubes and parallel rows of wire are carefully placed. To reach into some of these sections would produce merely a tickling sensation, into others a sting from which we'd recoil with a grimace of pain, while touching parts in those at one end would be instant death. The power required to toss Radio waves from coast tooast would light a good size building.

Apparatus in Two Groups
This high priced assembly of carefully made apparatus divides itself into two distinct groups, each having a different purpose. Most of us have, by now, heard station WLW announce that "we are broad-lator. Now, the power amplifiers come and the come amplifiers come?"

The first produces a stemating are called Radio frequencies but they are not as yet Radio waves.

Refer now to Figure 4. Here we have a semi-carron depicting Energy being given a gentle swing by a small tube, the UX-210, which is rated as a 5 watt tube. Being a little tube, it can reach the bar at the ends of each swing only up to a certain point, but—it has started the swing. For that reason it is called the oscillator. Now, the power amplifiers come?

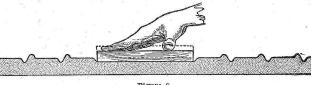


Figure 6

The broadcasting station, being a commercial enterprise and therefore expected to be on an assigned frequency, must pay many times that for a crystal which has been brought to just the frequency wanted. For use in controlling the frequency of a station, this little thin plate is mounted in a special holder to get just the right amount of pressure on it.

It can now be so connected into one of the circuits about the 210 oscillator tube

sa; alr ma ore

proto to ing sec ida Mi lu Hi pri ah se e pro an pe: ti voing Raai ke ity du the

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Facts About That New Christmas Receiver

A BOUT the only exact figures the Radio commission probably cannot get that pertain to Radio are those on the number of new sets that went into operation between December 23rd and 27th. From the business the Radio departments and Radio stores did during December, as good a guess as any would be 300,000. That many families, at least, will find themselves faced with an electrical and mechanical triumph of science that has been brought down to considerable simplicity in the matter of operation but still remains a device for handling energy in such minute quantities as were hardly dreamed of not many years ago.

To get trouble-free operation from it, and the results which the advertisements claimed were possible for the machine, takes al little practice and some study of what happens when various symptoms occur. You had to learn a few things about your car, its switches, chokes, gauges and breaks, so have the same patience with your Radio—and give it as much thought.

Most of the receivers sold this year will probably be installed either by the dealers

Most of the receivers sold this year will probably be installed either by the dealers who sold them or by service men, so it is hardly necessary to explain to the new set owner how to connect up the various accessories with the main cabinet. Earlier in Radio's history, each purchaser of a set had to be his own installer, service man and trouble-shooter, but those days are about over. There are many points in connection with ownership of a Radio set, however, that will make for much more enjoyable operation, and these we propose to give here as one who is somewhat familiar with Radio talking to the newcomer.

Study Instructions Before "Ricking" Most of the receivers sold this year will

to give here as one who is somewhat familiar with Radio talking to the newcomer.

Study Instructions Before "Kicking" First of all, new member of the Lodge of, Listeners, read over the instructions carefully. Doubtless right now you can just flip the switch and hear a few stations, and get them with a beauty of reproduction that cheers your soul and makes you think of many wonderful evenings at home. But, you'll find that some stations have a tendency to tune pretty close to others and maybe there is a faint background of one mixed in with the louder music of a station you wish to hear. Do you know how to adjust and tune to eliminate the unwanted broadcaster? It's highly probable that there are several paragraphs in the instruction book about what to do to improve selectivity, or get around a too powerful nearby station.

The remedy may be a little knob just inside the top cover which changes what is called "coupling," or a couple of small knobs at one side of the panel that "sharpen" the tuning a bit or, yet again, you may have too long an antenna for your location. If the book don't help you, after careful study, discuss the matter with your dealer.

On the other hand, perhaps you get dis-

after careful study, discuss the matter with your dealer.

On the other hand, perhaps you get distance without trouble, but rather faintly in the speaker and not sufficiently loud that you can sit over in the arm chair and enjoy those far away programs. The book or your dealer, if you approach him pleasantly on it, can solve the difficulty nine times out of ten.

How to Ture

antiy on it, can solve the difficulty nine times out of ten.

How to Tune

Success with a Radio outfit depends on learning it—thoroughly. For instance, once you learn the numbers on the dial where certain nearby stations come in very loudly, you'll tune with one hand on the tuning dial and one on the volume control. And then, when you go across the scale, you'll back up a little with your "Volume" when approaching those numbers, and advance "Volume" when in between them. That way, you won't have programs blasting forth at you one moment and a dead silence the next. This procedure makes a great many stations come out with practically equal volume, whether near or faraway. But that little stunt is not "in the book."

It is not probable that anyone told you.

It is not probable that anyone told you It is not probable that anyone told you that your cone speaker was a little temperamental or fussy as to where it was to be placed. True, it will work anywhere you may hang or set it, but it is liable to sound a great deal better if hung either across a corner of the room or away from a wall. Presuming it is the kind with a base, the natural tendency is to place it on the set and shove it back close to the wall. Cones, most of them, do not fare well in that location; better to keep a cone speaker well forward on the set or, better yet, place it somewhere else and away from walls, since quite a few Radios create within themselves an unpleasant howl or steady whistle with a speaker resting on the cover.

steady whistle with a speaker resting on the cover.

Practically all speakers, either cones or horns, are adjustable. It is possible that your dealer's clerk did not have time in the rush to explain this to you. Also, most of them have instruction sheets on this point. If you haven't one, a note to the maker will bring it. Cones, such as Western Electric, have a little nut on the tip for adjusting to your set and its voltages. A few have this inside a removable back grill-work. Horn speakers have a

FOUR Radio Digest expert tells here some of the Y secrets inside the new Christmas Radio set you are just beginning to understand. Of course, if your are a novice, there is a great deal of mystery about the whys and wherefores of the little jiggers that make it work, and if anything should go wrong you never, never would know why—unless someone who does know would sit down and explain. Sit down and go over this summary with Dr. Tommy.

little lever on the side just below the neck, or underneath the base, and inside.

little lever on the side just below the neck, or underneath the base, and inside. Power Supply Units
Power Supply Units
Power Supply Units
Possibly you didn't feel in a position to invest in a power supply unit at this time, or the giver felt that batteries were O. K. Batteries, especially if of the large heavy duty type, should run your set for several months—they should last until summer. This refers to "B" batteries. You can get a power-from-the-socket "B" unit at that time; get your money's worth out of those batteries now. If you did get power supply units, they too should have instruction sheets enclosed or pasted in the cover.
There are two types of these socket units for supplying "B" energy to sets; that which has a tube and that which uses little jars of liquid. There are two types of tubes; if you find something on the unit or its instructions about "Raytheon" or "Q.R.S." it is quite alright if the tube does not light up. It's not supposed to, although it may get warm and even hot, which is O. K. If the tube turns out to be a "213" or "280" it should light up when in operation. Tube type "B" units need no attention after being installed.

The power units for giving one "A" current, to light up the tubes in the set, are of four types. There is one kind, completely dry, and the elements in them last indefinitely. If the sheet lists nothing to be done in the way of maintenance, yours is that kind. Then there are dry ones, that use a cartridge, which should last about a year. The replacement of the cartridge which should has about a year, the application in the ectifier cell, which should be covered in the operating sheet. The fourth variety, and that in most general use, is the one containing a storage battery, a rectifier (either wet or dry) and a power switch.

The battery in this kind will need water every so often, but there cannot, from this type, be a "hum" in the renreduction.

The battery in this kind will need water the battery in this kind will need water every so often, but there cannot, from this type, be a "hum" in the reproduction. If there is an adjustment to be made of the charging rate from the rectifier, study the "dope" on this operation carefully.

Adjusting "B" Unit

The socket power devices for "B" current should be put into use with the help of a "high resistance voltmeter." The ordinary meter, such as you or your friends may have tested batteries with, will not do. The "B" eliminator is, like the cone speaker, a little temperamental on one or two points. If your dealer did not adjust this unit with such a meter on installation, you should borrow one from a friend or the dealer. Weston makes such a meter and so do Jewell, the type number of the latter being No. 116.

To quote from the Jewell instruction sheet: "A B' eliminator should be tested under load. To adjust it to a radio set the 'B' eliminator should be connected so that the set is operating normally. The negative (—) terminal of the 'B' eliminator and the other lead attached to the 250 volt terminal of the 'B' eliminator and the other lead attached to the 250 volt terminal of the instrument. This should be touched in turn to the several binding posts (plus) of the 'B' eliminator and the true voltages applied to the Radio set will be indicated on the 250 volt cale.

"Adjustments should be made where nossible, so that the voltages on any tap are those required for the proper operation of the Radio set as indicated on it, If the receiver merely has instructions for the number of 'B' batteries to be supplied, an equivalent voltage to these 'B' batteries should be supplied by the 'B' power unit."

Now most Radio sets require 45 volts (1 battery), 90 volts (as supplied by

unit."

Now most Radio sets require 45 volts (1 battery), 90 volts (as supplied by 2 batteries) and "Power" which can be either 135 or 180 volts (3 or 4 batteries). As a rule the colored leads from the set are identified with little metal tags that indicate the voltage each wire should get, in relation to the minus wire, so you can readily adjust the knobs on the "B" unit so that the meter readings at each plus wire are as required.

Ground Is Important

Ground Is Important
All sets, except those which operate
from a loop aerial, require a ground con-

ing of an antenna is more trouble, consider nection. Most people, because the erecthe antenna of a great deal more importance and let almost anything go as a "ground connection." This connection is just as important and, in those days of A.C. tubes, it is even more necessary because it is the ground connection that eliminates much of the possible "num."

If a friend volunteers to put in your set and wants to just wrap a piece of scraped wire around the radiator pipe or water pipe, let him go ahead to save argument, but you drop into a Radio store and purchase, for a quarter, a ground clamp which looks like a very small carpenter's clamp and has a threaded screw, pointed, that you can force to dig into the pipe a fraction of an inch. Then just fasten the bared wire under the screw on the clamp, but if on the pipe and tighten up. That's the only decent ground connection this writer has yet seen, next to soldering with a blow torch.

the only decent ground connection this writer has yet seen, next to soldering with a blow torch.

Loop aerials, such as are used with super-heterodyne receivers, and a few shelded tuned Radio frequency sets, are another type of accessory that is a little finicky about where it is placed. If you put the set on a table in front of a nice tall mirror and want the loop on the set, take the mirror away. Or put the loop somewhere else. The silvering on the mirror is a very effective shield against stations in that direction and, when the loop is parallel to it, will "kill" signals perceptibly. Radiators, too, should be avoided by several feet with a loop aerial. If your apartment has those very solid metal doors, finished in walnut or mahogany, don't expect the loop to do "its stuff" 100 per cent with the door swung back close to it. Just below a wall bracket containing lights, with the possibility of wires running in the wall straight down from it, is a good place to avoid with a loop.

Tube Precautions

from it, is a good place to avoid with a loop.

The Precautions

If the set was installed hurriedly, it may help a great deal to switch tubes around a little—providing you watch your step on which tubes you switch. In storage battery type sets, or rather, those using storage battery type tubes, there are 201A, 200A and either 112 or 171 tubes. The 201A variety are the ones to be tried out in the different sockets that take these tubes; there is likely to be only one 200 or 200A, which must stay where it is, and only one 112 or 171, that must stay where it is. There may not be a 200A, in which case all but the 112 or 171 will be 201A. Tubes do not run quite uniform in their characteristics due to the delicacy of their construction and some are better amplifiers in what we call the "Radio frequency stages" than others, while the one that shows up poorly at that point may make a whale of a tube in the "first audio stage."

Or, it might make a great detector in sets not supplied with the 200A type for that

Or, it might make a great detector in sets not supplied with the 200A type for that

purpose.

The AC tubes seem to vary even a little more, and here the trying of different tubes in the various sockets will almost surely prove of value. Remember, however, that tubes of the 226 type must be put only in the sockets intended for them. If you put one in the socket intended for the 112 or 171 you'll be "out" a tube. You cannot mix the 226 and the 227 type because the number and placing of pins is different, but the 228 will go in the sockets intended for the power tubes 112 and 171—with disastrons results. Keep the 226 bulbs in their correct sockets and playing around with them will prove of value. Regard.ess of which kind you have, 201A or 228, have one or two extra ones. In the first place, you have more to try out for extra good ones, and second, if one "goes" during an interesting program, it is only a matter of a minute to put in the extra. Just like having a spare tire on your car only less trouble to replace. An extra power tube is good too. It can burn out, (Continued on page 35) The AC tubes seem to vary even a little

(Continued on page 35)

WHK IS FOR MEN-MALE QUARTETTES



CLEVELAND is famous for its good male voices, and here are a couple of quartettes that have done their share. Both are with the WHK broadcasting station. The upper group is known as the Underwood Battery Male Quartette and the lower, The Fifth City Four. Letters from the fans indicate that the voices of both fours have been heard simultaneously on the Atlantic and Pacific Coasts.

"WHK has no quarrel with the women," said the program director, "but experience has taught us that men are preferred for the air entertainment. We are for men all the time. We take great pains to provide male voices that please, and are pround of these two quartettes."



Hidden Minerals Answer Radio's Call

New Scientific Tests Indicate Subterranean Ores Respond to Ether Waves Operated by Prospectors

Calling Up Ore

"Ello, 'ello, 'ello Ore, are you there?"
"Um-um-um-huh-huh, I'm here," comes
the answer to the engineer at the receiver
with the headphones over his ears.
"Good, Old Top, and I say how far do
you extend yourself down there?"
"You hear me now, don't you? Well
keep going until I fail to answer."
So the Radio prospector picks up his

Reep going until I fail to answer."

So the Radio prospector picks up his apparatus and moves on a little further and makes another inquiry. He keeps on testing while his assistant marks off the area into charted squares or circles where the responses are most clearly audible and where they fade.

where they fade.

Finally the whole field is laid out, even to the approximate depth at which the pay ore may be found and never a pick or shovel or drill is used except to clear the ground sufficiently to set up the tripods. Does this process sound absurd? Woll, just hold your smile, it has been worked out. President Mason described all the technical details to the open mouthed engineers. When he had finished the theory seemed perfectly clear and Radio prospecting was accepted as one of the new miracles of modern science.

"The fundamental procedure is to shout

ing was accepted as one of the new miracles of modern science.

"The fundamental procedure is to shout down questions in the hope that the ore body will hear and answer back," said President Mason, "A large part of the expert's study must relate to the kind of questions best suited to the temperament and intelligence of the ore bodies."

Best results have been obtained working at a depth of 100 feet or less, he said, and was skeptical of working at depths of 500 feet or more. The greatest uncertainties are those met in the exploration of virgin lands for new ore bodies.

He stated that with his associates practical surveys have been made of nine different mineral regions, four known to contain ore. In each case results agreed with ore known to exist. Only one of the remaining five areas has since been drilled. Ore was found there in paying quantities and the cost of survey was found to be between \$5 and \$7.50 an acre.

Others Interested

"The experiments conducted at the Caribou mine tend to confirm the view that radiation passes through the rock with, of course, much attenuation.

It is known that Radio signals will just penetrate through a conductor like sea water to a maximum depth of about fifty or sixty feet, and there is no reason why radiation should not penetrate to ten times that distance through a poor conductor like dry rock."

This expresses the unfailing conservatism of Uncle Sam and his bureaus. Doctor Mason expresses a broader assurance. He states unequivocally that prospecting by Radio has, is being and will be done with assured success. His word is unimpeachable. When he speaks he speaks with authority. conducted at the



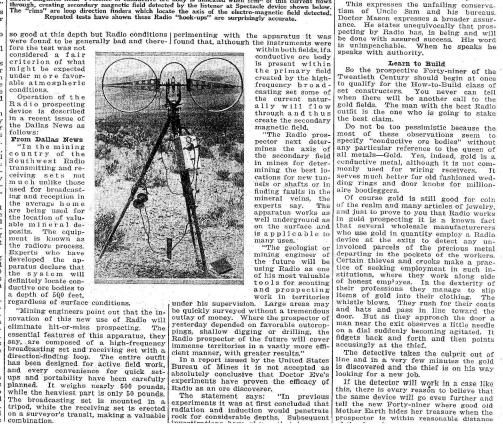
PRANSMITTING and Receiving apparatus used in prospecting for hidden ores. Upper photo a hows transmitter ready to send down alternating current of high frequency with large primary and the property of this current flows electro-superior and the property of the current flows through, creating secondary magnetic field detected by the listended the property of the current flows through, creating secondary magnetic field detected by the listender of the current flows through creating secondary magnetic field detected the axis of the electro-magnetic detected.

The "rims" are loop direction finders which locate the axis of the electro-magnetic detected. The property of the property

He stated that with his associates practical surveys have been made of nine different mineral regions, four known to contain ore. In each case results agreed with ore known to exist. Only one of the remaining five areas has since been drilled. Ore was found there in paying quantities and the cost of survey was found to be between \$5 and \$7.50 an acre.

Others Interested

Experiments of this nature have been carried on not only through physicists connected with the University of Chicago but also by other educational interests and as been experimenting in Colorado. He



Broadcasting of Interest to Home Makers

Directs Programs for Listeners of Two Nets

RIENDS of Bertha Brainard, the new program director RIEDNDS of Bertha Brahnard, the new program director of the National Broadcasting company, are not surprised that she has been made supervisor of all the programs staged by the two New York 'key'' stations. They know that in every way she is qualified for such a possition



New Dishes for the Careful Hostess To Add to Her Bridge Supper Recipes

By Mildred D. Terman-KDKA Cooking Expert

DURING the long winter evenings nothing is pleasanter than an evening of bridge played to the soft accompaniment of the Radio. In fact Radio and bridge are closely connected, since the bridge lessons broadcast during the past two years have made a knowledge of scientific bridge universal.

the past two years have made a knowledge of scientific bridge universal.

If the hostess is to enjoy the game, her mind must be at ease about the supper she will serve when the game is over. She must feel that her menu is attractive and incorporates some new idea. If she does not have a maid, she must plan so that everything can be prepared to a large extent in advance. A two-dish supper is an excellent choice and may be composed of a salad or entree with sandwiches rhot bread or rolls, pickles, olives, celery or radishes, and a dessert with a beverage. All linen, dishes and silverware should be ready and waiting, of course. Many hostesses place the supper cloth over the bridge cover, which serves as a silence cloth. A teacart is invaluable to help bring in the linen, silver and plates on which the first course has been placed. It is used to remove these dishes and to bring in the dessert and coffee.

Bertha Brainard, N. B. C.

Although Miss Drainard is lovely to look at with her expressive eyes and her Titian hair, it is her energetic personality which impresses the interviewer. She has definite and interesting ideas on every part of her broadcasting work from the mechanical methods of reproducing the human voice to the dramatic handling of each program. She is continually thinking about her vast invisible audience.

New Jersey claims Miss Brainard because she was born in South Orange and graduated from the South Orange High School and the Montclair Normal school. It was during her school days that she

Mosaic Sandwiches

Cut crusts from one loaf white and one loaf graham bread. Cut in ½-inch slices, having an equal number of each color. Butter two slices of white bread and place a slice of dark bread between them. Now butter two slices of dark bread and place a slice of dark bread hetween them. Continue until all is used. Cut these sandwiches of three slices of bread into slices ½ inch thick. Butter a slice and put it with another slice so that a dark strip is against a white. Put three of these together. Wrap a damp cloth around them—place a flat weight on them—cut in ½-inch slices. This makes a nine-cubed sandwich with alternating colors.

If a hot bread is desired to serve with a salad, butterscotch rolls are interesting and easy to make and are enjoyed by everyone.

everyone.

Butterscotch Rolls

Butterscotch Rolls

Sift 3 cups flour, 4 teaspoons baking powder, ½ cup sugar and 1 teaspoon salt. Cut in 1½ tablespoons shortening, then add 1 beaten egg to which 1 cup sweet milk has been added. Roll out into a rectangular shape. Spread with melted butter, granulated sugar, and sprinkle with cinnamon and broken pecan meats. Roll lengthwise like a jelly roll and cut in ½-inch slices. Melt 1 teaspoon butter and 1 tablespoon brown sugar in each compartment of muffin pans. Place the slices of the roll in the muffin pans, cut side down. Place in refrigerator until twenty minutes before baking, then take them out to let rise. Bake in a hot oven (375 degrees F.) 20 to 25 minutes. Turn rolls out and serve hot.

An unusually attractive salad with much color is:

An unusuan,
much color is:
Song Salad

Scoop pulp out of bright red apples, allowing 1 apple for each serving. Cut the apple pulp into small pieces. To each cup of apple add the following: Cut finely I cup stoned dates, I cup English walnuts and I stalk celery. Chill thoroughly. Add boiled salad dressing to moisten. Fill apple cuts with the mixture. Place on a crisp lettuce leaf. On the edge of the apple balance a bird made of cream cheese, as follows: Cream the cheese and moid

the body of the bird first. Then mold on the head and wings which have been made separately. Use cloves for eyes and beak.

A different mayonnaise for fruit salad is often desired, and the following recipe makes an unusually delicious dressing.

Whipped Cream Dressing

Whipped Gream Dressing
Heat ½ cup pineapple juice in a double
boiler. Add very gradually to 2 beaten
eggs, to which ½ cup of sugar has been
added. Return to double boiler and cook
until the mixture coats a spoon. Add ½



Mildred D. Terman, KDKA

cup each of orange juice and lemon juice. Let cook a few minutes longer. Remove from fire, cool. Before using add ½ cup whipped cream.

WOMAN'S PROGRAM INDEX (Daily Unless Indicated)

Household Economics, Women's Hour, Etc.

Women's Mour	,		
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WBAR (270.1m-1110kc), Moder	n House	keeping	
hour, less work in the Americ WCSH (365.6m-820ke), ex Sat.	can home		
WBAR (270.1m-1110kc), Moder hour, less work in the Americ WCSH (365.6m-820kc), ex Sat. WHT (365.9m-980kc), Home ho WIP (348.6m-860kc), Tues, Thur WLW (428.3m-700kc), Woman's 16:15 9:15 8:1	ur. s. Sat. n	enu.	
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11:45 10:45 9:4 WREN (254,1m-1180kc)	5	8:45	
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WOI (447.5m-670kc), Calumet 1	e Penny.		
12 11 10 WEBH (365,6m-820kc), Prudenc WOJ (447,5m-670kc), Calumet I WTMJ (293,9m-1020kc), Housel 12;30 p. m. 11:30 10:5	nold hint	9:30	
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WMAQ (447.5m-670kc), Calume 12:45 11:45 10:4	t hour,	9:45	
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1 12 11 VIV (220 0m 1250ha) 11		10	
11 (339.9m-1250kc) KGW (491.5m-610kc), Househol KPO (422.8m-710kc)	ld helps,		
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1:30 11:3 KNX (336.9m-890kc), ex Fri, KOMO (305.9m-980kc), Totem (WGY (379.5m-790kc), Economic	cooking s	chool.	
WGY (379.5m-790ke), Economic 2 1 12	es talk.	11	
KFRC (454m-660ke), Mon, Wes KOIN (319m-940ke), Housewiv WGIIP (277.6m-1080ke), Home	d, Fri. es' hour	0.0	
WGHP (277.6m-1080kc), Home 2:05 1:05 12:0	hour. 95	11:05	
2:05 12:05	nus. 15	11:15	
KOII, (319m-940kc, Shoppers' a	id.	11:30	
	ane, Moi	Wed,	
Fri. WGY (379.5m-790kc), Tues,			

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4	3	2	1
WOC. (374	.8m-800kc), F	Aunt Jane	
4:30	3:30	2:30	1:30
KEOA 14	17.5m-670kc).	Daily ex Su	r. Mon.
£.20	C+30	4.30	3.30
KOA (32	5.9m-920kc),	Question be	ox, culinary
hints, T	ues, Fri.		
8:20	7:20	6:20	5:20
KUOA (29	6.9m-1010kc)		00 (000
		6:45	5:45
WHA (333	.1m-900kc), F	Iome econom	ics.
10:45	9:45	8:45	7:45
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10.45	9:45 0.1m-1110kc),	8:45 Tues, Thurs,	7:45
	"Aunt S	Sammy"	
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WIR (440	.7m-680kc), M	Ion, Wed, Fri.	
			7:30
WCSH 63	65.6m-820ke)	WHO (535,4m-	560kc).
WIBX (2	38m-1260kc)	40.00	7:45
10:45	9:45 88.3m-1040kc)	8:45	1:40
WIDDO 12	50,5HI-1040KC)	9	8
WEAD (2	10 82,8m-1060kc)	00	-
WEW (35	2.7m-850ke) 20,4m-1360ke)		
WKBH (2	20,4m-1360kc)		
WOS (42)	2.3m-710ke) 5.9m-630kc)		
WSB (475	10:10	9:10	9:10
11:10 EUOA (2	96.9m-1010kc),	9:10	2:10
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WOS (42)	2.3m-710kc). N	Ion, Tues, We	d. Thurs,
Eri			
12	11	10 Mon. Wed. Fr 10:15	9 .
KFSD (44	(0.9m-680kc)	Mon Wed Fr	
WDVA 12	54 1m-1180kg)	Mun Wed, II	
12:15 n	m. 11:15	10:15	9:15
WAMD (222.1m-1350kc)		
1	12	11	10
KTHS (38	34.4m-780kc)	44.00	10:30
1:30	12:30	11:30	10:30
WADI (2	40.7m-9801-c)	17-1	
7.45	361.2m-830kc) 40.7m-880kc), 12:45	11:45	10:45
WDAF (370.2m-810kc)		
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2	1	12	11
KOIL (3)	9m-940kc)		
WASH	9m-940kc) 461.3m-650kc) 256.3m-1170kc)		
3:30	2:30	1:30	12:30
WHK (26	55.3m-1130kc).		100
4		2	1
	4.8m-800kc)	2:10	1:10
4:10	3:10 67,7m-1120ke)	2:10	1.10
4:15	3:15	2:15	1:15
WDAY (545.1m-550kc)		
4:30	3:30	2:30	1:30
KOIL (3)	9m-940kc) 2.3m-710kc), 7	Thurse	
6.30	5:30	4:30	3:30
KMA (39	4.5m-760kc)	- COD	0.2
9	8	7	6
KOW (29	6.9m-1010ltc)	N. S H. S.	

Fashions and Sewing

Eastern Central Mountain Pacific 11:390 a.m. 10:300 9:500 10:3				
WCAE (461.3m-650kc), Styles, Tues, Fri. 16130 Fm. 12:30 Ili:30 Ini. 16130 KThurs, 267.7m-1120kc), Fashion hints, Missenson Landson, Fashion hints, Missenson Landson, Ili:35 Ili:	11:30 a. m	. 10:30	9:30	8-30
RFWI (267.7m-1120kc), Fashion hints, Mo Thurs. Eastern Central 1:35 10:35 10:35 KPO (422.3m-710kc), Brasinian ritic, Fri. WGBS (349m-850kc), Dressmaking lessons, Fri. WOS (422.3m-710kc), Wed. WGBS (342.3m-710kc), WGBS (3	WCAE (461	.3m-650kc).	Styles, Tues.	Eri
RFWI (267.7m-1120kc), Fashion hints, Mo Thurs. Eastern Central 1:35 10:35 10:35 KPO (422.3m-710kc), Brasinian ritic, Fri. WGBS (349m-850kc), Dressmaking lessons, Fri. WOS (422.3m-710kc), Wed. WGBS (342.3m-710kc), WGBS (3	1:30 p. m	. 12:30	11:30	10:30
1:35 10:35 1	Thurs.	7.7m-1120kc)	. Fashion h	ints, Mon,
1:35 10:35 1	Eastern	Central	Mountain	Pacific
WGBS (349m-860kc), Dressmaking lessons, Fr 5 WOS (422.3m-710kc), Wed.	1:35	12:35	11:35	10:35
WOS (422.3m-710kc), Wed. 3 2	KPO (422.3	m-710kc), F:	shion critic.	Fri.
WOS (422,3m-710kc), Wed, 6:45 5:45 4:45 KOA (325,9m-920kc), Fashion review, Tues,	WGBS (349	m-860ke), D	ressmaking k	essons, Fri.
6:45 5:45 4:45 3:45 KOA (325.9m-920kc), Fashion review, Tues.	WOS (422.3	m-710kc). W	ed.	2
KOA (325.9m-920kc), Fashion review, Tues.	6:45	5:45	4:45	3:45
	KOA (325.9	m-920kc), F	ashion reviev	v. Tues.

Health and Beauty Central Mountain

WGBS	(349m-860kc)	Lessons in 1	oveliness.
10:15	9:15 (461,3m-650k 9:30	8:15	7:15
WCAE	(461.3m-650k)	c). Health tal	k.
10:30	9:30	8:30	7:30
KDKA	(315.6m-950kg). Tues. Bear	ity hints.
10:45	9:45	8:45	7:45
WLW	(428m-700kc),	Beauty talks.	Tues, Fri.
11	10	9	. 8
WEEL	(508.2m-590kc	Mon. Thurs	
WOR	(422.3m-710kc)	. Lessons or	Loveliness.
Mon.	,		
1 n.	m. 12	11	10
KMTR	(526m-570kc)	. Beauty talk	s. Tues.
1:30	12:30	11:30	10:30
KEON	(241.8m-1240k	c). Physiology	of beauty.
KEWI	(267.7m-1120k	c). Beauty him	ts. Tues. Fri
KYA (309,1m-970kc)	Diet and He	alth. Tues.
WTAN	(399.8m-750k	c). Beauty tal	k. Tues
2:30	1:30	12:30°	11:30
KIR (348.6m-860ke), 2:40	Health talk.	
3:40	2:40	1:40	12:40
KGA (260.7m-1150kc). Dietetic tal	c. Wed.
9:20	8:20	7:20	6:20
KERC	(454,3m-660kc	Thurs, Mad	ame Marie.
10.45	9:45	8:45	7:45
KNY	(336.9m-890kc)	Dr Robert	T. Williams
TTO	(ooo.sii osone,	, Dr. LODGE	-,

Interior Decoration

		Pacific
#2 7m 950lsa)	Sat 7:30	6:30
9:30	8:30	7:30
428m-700kc),	Furniture talks,	10
526m-570kc),	Tues. Talk,	W. Crafts
	8:30 (52.7m-850kc), 9:30 428m-700kc).	8:30 7:30 52.7m-850kc), Sat. 9:30 8:30 428m-700kc), Furniture talks, 12 11 526m-570kc), Tues, Talk,

Gardening

Eastern	Central	Moun	tain		Pacific
1:20 p. m.	12:20	11:	20		10:20
KFI (468.5m	-640kc), "H	ow and	What	to	Plant.

Easte	מרו	Centr	al	Mountain	Pacific
WIP	(348,6)	3:15 n-860ke		2:15 Gardening,	1:15 Mon.
5		m-740kc).		3	2

News

Eastern Central 7:30 a. m. 6:30 WLAC (225,4m-1330kc)	Mountain 5:30	Pacific 4:30			
10 a. m. 9 WGN (416.4m-720kc)	8	7			
10:30 9:30 WCCO (405,2m-740kg)	8:30	7:30			
11:30 10:30 WHAS (322,4m-930ke)	9:30	8:30			
11:55 10:55 WTIC (535,4m-560kc)	9:55	8:55			
12 11 WMAK (545.1m-550kc) WTAG (516.9m-580kc)	10	9			
12:45 11:45 KOIL (319m-940ke)	10:45	9:45			
1 12 KGW (491,5m-610kc) WTAG (516,9m-580kc)	11	10			
2:30 1:30 KFON (241.8m-1240ke) WGBF (236.1m-1270ke)	12:30	11:30			
3:30 2:30 WFAA (545.1m-550kc)	1:30	12:30			
3 2 KGA (260.7m-1150kc)	1	12			
WGY (379.5m-790kc) WHAS (322.4m-930kc)	3	2			
6:50 5:50 KOIL (319m-940kc)	4:50	3:50			
KFON (241.8m-1240kc) KOA (325.9m-920kc) WTAG (516.9m-580kc)	5	4			
7:15 6:15 WCSH (365,6m-820kc)	5:15	4:15			
7:30 6:30 KFOA (447.5m-670kc)	5:30	4:30			
7:40 6:40 WDBO (288.3m-1040kc)	5:40	4:40			
8 7 KOA (325.9m-920ke)	6	5			
8:55 7:55 WDBO (288,3m-1040kc)	6:55	5:55			
9 8 KJR (348.6m-860kc) KOIN (319m-940kc) KOMO (305.9m-980kc) WTAG (516.9m-580kc)	7	6			
9:20 8:30 KOA (325.9m-920kc)	7:20	6:20			
10:01 9:01 WBZ (333.1m-900kc)	8:01	7:01			
10:30 9:30 WTAG (516,5m-580kc)	8:30	7:30			
10:50 9:50 KFWB (361,2m-830kc)	8:50	7:50			
11 10 WEBH (365.6m-820kc) WTIC (535.4m-560kc)	9	8			

Dorothy Thinks Morgan Ace Announcer

He Exerts Perfect Self Control Although Sub Tenor Tears His Soul to Bits by "Waugh-Waugh" Blasting

Station after our first visit to the National Broadcasting company's studios at 195 Broadway, something over a year ago, we were hailed by an acquaintance who is an ardent Radio listener, with the breathless query, "Oh, did you meet Mr. McNamee?" "No," we returned Mr. McNamee?" "No returned Mr. McNamee?" "Well, there are a lot of highly necessary people around there you've never heard of," we told her. "With some of them announcing is a side issue when they are not busy with other duties. But something tells me there is a time coming when you are going to hear more of Arnold Morgan."

Whether it was some unusual intuition, or the impression made by our short contact with him, when our common sense told us we were not talking with the



By Dorothy Brister Stafford



A RNOLD MORGAN, above, who has forged ahead as dependable NBC announcer. Norman Clark, left, and Leslie Joy, right, tenor and announcer who are becoming known to the millions who listen to the music of the chains.

usual, garden variety of announcer, we have been gratified in the past year to see our impulsive prophecy come true, for the phrase. "This is Arnold Morgan speaking from New York," has been coming in with increasing frequency for the past several worths.

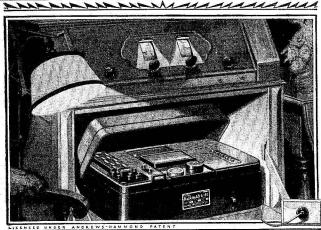
primate prophers come true, for the plants several speaking phrase. "This is Arnold Morgan speaking morteland" assistants at a funeary and the remarking that it was all very allow the contractions of the plant several speaking frequency for the plant several state of the prophers broadcasts, and Mr. Carlin now lovely engaged with the manifold duter on the propher broadcasts, and Mr. Carlin now lovely engaged with the manifold duter of everal of the microphone acting as his chief assistant, in the course of everal of the microphone acting as his chief assistant, in the course of everal of the microphone acting as his chief assistant, in the course of everal of the microphone acting as his chief assistant, in the course of everal of the microphone acting as his chief assistant, in the course of everal of the microphone acting as his chief assistant, in the course of everal of the microphone acting as his chief assistant, in the course of everal of the microphone acting as his chief assistant, in the course of everal of the microphone acting as his chief assistant, in the course of everal of everal of the microphone acting as his chief assistant, in the course of everal of everal of the microphone acting as his chief assistant, in the course of everal of everal of the microphone acting as his chief assistant, in the course of everal of everal of the microphone acting as his chief assistant, in the course of everal of everal of the microphone acting as his chief assistant, in the course of the everal of everal of the microphone acting as his chief assistant, in the course of the everal of everal of everal of the ev mortician's assistants at a funeral, and we stayed patiently put for about five minutes. Then remarking that it was all very nice, but we could be doing just as well six hundred miles away, we asked one of the young ladies if we might not stand where we could see the singer through the glass door.

Diva Fears Observers

"Oh, I am afraid not," she fluttered. "It's her first broadcast, and she is very nervous and temperamental, and we are afraid she wouldn't like being stared at."

Such an idiosyncrasy on the part of a public artist, who was accustomed to facing Metropolitan audiences sounded ridiculous to us, and we inquired who the lone man might be who was enjoying the privi-

He had a good laugh at the "discovery" we had made that practically every member of the National Broadcasting company, no matter what his official capacity, is prepared to "double in brass" at short notice. We told him one expected to find nusicians among announcers and program directors, but we had been considerably amazed that noon while having a business chat with Mr. G. W. Johnstone, the genial manager of the Press Relations department to have one of the hostesses stick her head in at the door and say,
"Oh, Johnny won't you come and play



The clearest and truest Electric Radio

Is a standard radio set equipped with Balkite Electric "AB"



Balkite "A" — Exactly like Balkite "AB" but for the "A" circuit only. Enables owners of Balkite "B" to make a complete light socket installation at very low cost. Price \$25.



Balkite "B"—the accepted, tried and proved light socket "B" power supply. The first Balkite "B," after 5 years, is still rendering satisfactory service. Three models: \$22.50, \$35, \$42.50.



The standard charger (whether trickle or high-rate) for radio "A" batteries is Balkite. Noiseless. Can be used during reception. Three models: \$7.50, \$9.50,\$17.50.

There are special models for 25-40 cycle current at slightly higher prices.

Prices are higher West of the Rockies and in Canada.

Of course you want an AC electric receiver. For its convenience. Now you can have it, without the uncertainty of untried apparatus, and without sacrificing quality of reception.

Simply by adding Balkite Electric "AB" to your present radio set. Balkite Electric "AB" replaces both "A" and "B" batteries and supplies radio power from the light socket. It contains no battery in any form. It operates only during reception. It makes any receiver an electric set.

This method makes possible the use in electric reception of standard sets and standard type tubes. Both are tried and proved, and give by far the clearest and truest reproduction. With this method there is no waiting for tubes to warm up. No difficulty in controlling volume. No noise. No AC hum. No crackling or fad-

ing of power. Instead the same high standard of reception to which you are accustomed.

In this method there is nothing experimental, nothing untried. It consists of two of the most dependable products in radio—a standard set and Balkite. And if you should already own a radio set, the cost of equipping it with Balkite is only a fraction of the cost of a new receiver.

By all means go to AC reception. Its convenience is the greatest improvement in radio.

But be as critical of an AC receiver as you would of any other. Let your AC receiver be a standard set equipped with Balkite Electric "AB." Then it will be as clear and faithful in reproduction as any receiver you can buy.

Two models, 135 volts, \$64.50, and 180 volts, \$74.50. Ask your dealer. Special model for 25-40 cycles, \$74.50.

Chicago Civic Opera Balkite Hour Every Thursday Evening

Now Balkite brings you an entire season of one of the world's greatest opera companies. Balkite Hour, Thursday Evenings, 10 o'clock and 10:30 o'clock Eastern time. Over WJZ and fifteen associated stations on the Blue Network of the National Broadcast Chain.

FANSTEEL PRODUCTS COMPANY, INC., NORTH CHICAGO, ILLINOIS

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Balkite ELECTRIC AB



How to Build New Karas AC Equamatic

A Famous Circuit Adapted to the '26 and '27 Tubes

By John G. Ryan

IN THESE days of Sonorous Sixes, Snappy Sevens, Aching Eights and Naughty Nines it is hard to imagine a five-tube receiver that will really step out and give a performance that astonishes anybody, let alone blase Radio editors, experts, writers and what have you. Yet the Karas AC Equamatic does just that and more; it surpasses many, many super-heterodynes in both sensitivity and sharp tuning and puts out reproduction that really has the "purity of tone" the ads all tell about.

What it has proven it can do is usually

that really has the "purity of tone" the ads all tell about.

What it has proven it can do is usually pretty convincing. Mr. A. L. Kafka of 909 Foster Avenue, Chicago, has had one on test for some time. That address is on the lake and programs from the west must pass through all of Chicago and, since the aerial is on the east side of his hotel, must pass through his own steel building as well. Mr. J. L. Bright of 6211 S. Carpenter Street, Chicago, was present on the evenings of September 21st and November 12th while Mr. Kafka was tuning around. So we have a witness to the set's performance AND verification cards. Just look at the coast stations on this list: WBZ, WCAE, WEAF, WFAA, WGY, WJZ, WLW, WMAK, WOW, WRC, WRR, WSAI, WSM, WWJ, KDKA, KFI, KFIR, KFIR, KFWB, KGO, KGW, KJR, KMTR, KNTR, KOA, KOMO, KLX, KFSD, CFCA, CHIC, CNRT and CKNC.

Through the Locals

Through the Locals

Those evenings were not silent nights and the Chicago stations were all with us. One was a Wednesday and the other a Sunday night. Since there are 69 stations in the metropolitan area varying between 15 and 15,000 watts, those two evenings of tuning are really something to cheer about. Location is not responsible, as that hotel boasts some high priced, multi-tube receivers that are perfectly satisfied to stick to locals every night. This was not headphone reception either; all were brought in on the loud speaker. And unless they were clear and clean of interference they didn't count. There are other samples of performance that might be quoted, but in this case we had both a witness present as to the set used and full list of verifications—either letter or card.

Arrangements have been made now so that you can buy both front and sub-panel for this set, all drilled and engraved, ready for use. Ladying out and drilling these pieces is the nuisance of Radio. Their cost, ready for assembly, is but slightly higher than if one bought them plain. The Equamatte, either in its original form for storage battery tubes or this new development for the AC type, is unusual in that you get a constant and equal transfer of energy at all wavelengths between each stage. Most tuned Radio frequency sets have the objection that they are sensitive only at one narrow band in the range of 200 to 600 meters and rather "dead", elsewhere.



Equamatic System Unique

The primary and secondary windings of the Equamatic System are entirely separated from each other. The primaries are mounted on the extended shafts of the condensers so that they turn with the turning of the condenser dials. Each secondary coil is mounted on the subbase and is adjustable both as to the distance from its primary and for angular relation with respect to the primary at any setting. There, I believe, is the secret of this sets superiority. Adjustments are made when the set is first put into use, such that individual differences in wiring, "B" power, etc., are compensated for, and one can get that equal transfer of energy and equal sensitivity at any broadcast wave length.

When these easily made adjustments have been determined and set, the result is a variable coupling between primary and secondary, which automatically varies at exactly the proper rate to maintain, the tubes at their highest point of efficiency while the dials are revolved clear from zero to one hundred. By reason of this design, the Equamatic does away with the necessity of any losser methods, such as high variable resistances in the plate circuit, potentiometers, designs which Involve coil absorption, etc. By a very simple adjustment of the first primary coil the AC Equamatic automatically compensates for any length of aerial.

Construction Is Basy

This receiver is not hard to build, as

Construction Is Basy

This receiver is not hard to build, as really unusual work has been done to simplify the layout and cover every detail so that it may be constructed even by those who have never before attempted such a thing. A picture wiring diagram is provided, each wire is numbered, each hole in both panel layouts is numbered, and the instructions cover fully the placing of each wire, indicating if the wire goes through a hole and the number of the hole when it does. Complete hardware, including screws for mounting every piece of apparatus in the entire set, is supplied with the control system.

Before proceeding to the mounting instructions, a reminder will be in order. In the sub-panel layout and wiring diagram will be sub-panel is shown dotted as above the sub-panel is shown dotted as love the sub-panel is n

though you were looking through it. Bear in mind also that the apparatus is reversed with respect to the ends of the set from the way they appear in a top view. Whes and parts below the sub-base are shown in solid lines, while wires and apparatus above are in dotted lines. You can determine the top of your sub-base purchased drilled by the three white engraved lines.

Mounting Parts Below Sub-Base

Using two %%-inch 6-32 oval head nickel plated machine screws, supplied with the sub-panel brackets, mount BRI through countersunk holes Nos. 20 and 23, making sure that the hole in the bracket

are toward hole No. 17. Bend the mounting strips on the 2,000 ohm Electrad fixed resistor, R3, at the bottom of the soldering lugs, at right angles and away from them. Now mount this resistor in hole No. 33 with an 14_0 -inch round head screw. A soldering lug is to be attached as per the diagram and screw is fastened on 100 with a hex mut. Now put on the 6-32 terminal ant, which completes binding post B2.

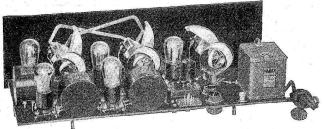
post B2.

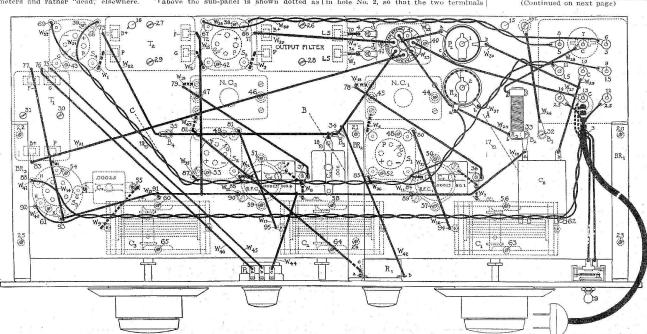
See the diagram for the placing of binding post B1 in hole No. 32, noting the soldering lug. Binding post B3 is mounted in hole No. 34 with a soldering lug bent at right angles; likewise, B4 is mounted in hole No. 35. With a soldering lug slipped over it, the antenna binding post is then secured in hole labeled "ANT."

is then secured in hole labeled "ANT."
The 1 mfd. Carter fixed condenser, C8, is mounted through hole No. 62 with a 4."
6-32 round head screw. Now remove the mounting bracket and cardboard index of the Yaxley cable plug and mount from above in holes Nos. 40 and 41 with two 4."
6-32 round head screws. Replace the cardboard index on the bottom side of the cable plus underneath the sub-panel.

Apparatus Above Sub-base

Mount socket No. 1 with two 11/16" 6-32 round head machine screws through holes





Ja

AC EQUAMATIC

(Continued from page 19)

condenser, NC2, is secured at holes Nos. 46 and 47 with the terminals at hole No. 47. Audio transformer, T1, is mounted with the round head screws supplied with it, through holes Nos. 30 and 31. The "P" terminal is to be just over the "P" post on socket S2.

on socket S3.

The other audio transformer, T2, is mounted at holes Nos. 27 and 29 with the "P" terminal nearest the "P" terminal on socket S4. Through holes Nos. 26 and 28, mount the output filter, and so that its "P" connection is close to the "P" terminal or according to the property of the content of the property of the property

"P" connection is close to the "P" terminal on socket \$5. Take one of the Type 17 variable condensers which we will call Cl, and secure it through holes Nos. 58 and 63 with two of the 4" 6-32 round head screws. The low end is toward BRI. Likewise mount another Type 17 (C2) by means of holes Nos. 58 and 64, and the other one, C3, through holes Nos. 60 and 65. Radio frequency choke, RFCI, is mounted with two 4" 6-32 round head screws through holes Nos. 50 and 57. RFC2 is mounted in the same manner at holes Nos. 51 and 59. Now

At this stage you install the front panel nsing the 3 gold screws supplied. There is a 5" piece of sleeve on wire 42, 7%" length on W43 and a 10½" piece on W45. There is another 10½" length on W46. Pull out the small wire of the AC Former as far as it will go. Remove the plug from the extension cord and pass both of these wires through hole No. 3. Cut the small wire in the center and attach the ends to the two terminals of the 110 volt switch. Now replace the plug on the extension cord. The set is now completely wired and we are ready to install the Equamatic coils and the control system.

Before proceeding, loosen the bearing nut on the condensers so that the plates will just drop of their own weight. Then remove the shafts in condensers C1 and C3 and replace them with the long shafts provided with the control system. Apply one of these in C1 so that the shaft protrudes from the back of the condenser %. Now loosen the sets erews on condenser C2 and push the shaft far enough back to allow for the uninsulated end of the control system. Now push the shaft forward so that it protrudes from the back of the sets of the set of the word of the control system. Now push the shaft forward so that it protrudes from the back of the condenser %. Now loosen the set screws on condenser C2 and push the shaft far enough back to allow for the uninsulated end of the control system. Now push the shaft forward so that it protrudes from the back of the sets of the set and the word socket they inserting them in the wrong socket there is a possibility of their being burned out. The aerial is next attached to the X-L binding post at the back of the set and the speaker they placed in the two tip jacks, where the set is a possibility of their being burned out. The aerial is next attached to the X-L binding post at the back of the set and the speaker they placed in the two tip jacks.

receiver to counteract the period of the aerial. It is sometimes necessary to provide maximum coupling on the first end at the low wavelengths due to the aerial. This is an adjustment which can be made only under the particular conditions under which the set is operating.

SIMPLE EXPLANATION

SIMPLE EXPLANATION

(Continued from page 13)
sure between our top and bottom plates. While you cannot see it, a pressure of an electrical nature has been created between the antenna and ground and a stendy stream of waves is radiated. Because it carries the program to its thousands of destinations, you frequently see this referred to as the "carrier wave."

Having created this wave, we must now get the program impressed on it. As mentioned before, the modulation equipment is provided to accomplish this. In our sample chain of power amplifiers we ended up with two 10,000 watt tubes working together. Very well, to place music on the wave they throw into the aerial circuit, we must have two more 10,000 watters working with them. The system of modulating, universally used and about to be described, is called the Heising method because first devised by an American inventor of that name. It has proven far superior to anything else for this purpose, Heising Modulating Method
Figure 7 illustrates how it is done. Let Mrs. Bill at the left represent our first mentioned two large tubes which are the last stage of power amplification. We will say that Mrs. Jim at the right is our pair of modulator tubes and of equal size. The power supply which is common to both pairs of tubes is here represented by

pair of modulator tubes and of equal size. The power supply which is common to both pairs of tubes is here represented by the water pipe coming up through the wall and going to the fancet of both Mrs. Bill and Mrs. Jim. There is a steady, unvarying flow to the water of 10 gallons a minute, while, in our Radio parallel, there is 5,000 volts pressure and 8 amperes possible.

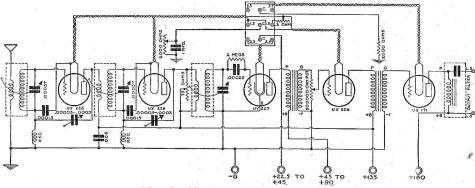
5,000 volts pressure and 8 amperes possible.

If Mrs. Bill and Mrs. Jim both have their faucets about half open, each gets, we'll say, 5 gallons a minute. But, if Mrs. Jim (the modulators) opens hers a little wider she gets 6 and Mrs Bill gets only 4. This latter lady calls out that she needs a little more and Mrs. Jim turns her faucet back and cuts her flow of water to 3 gallons. Then Mrs. Bill (the big amplifier tubes) gets 7. Now, in our Radio transmitter, we cause the amount of current (amperes) to vary in our modulator tubes by talking or playing and, since the amount supplied is 8, the current possible to the amplifier tubes will vary above and below 4.

If the Mrs. Jim, modulator tubes take

below 4.

If the Mrs. Jim, modulator tubes take 4½, the other pair get but 3½ white if they draw but 3½ amperes, the Mrs. Bill, power tubes can have 4½—and take it. So it goes. As we talk or sing into the microphone we cause little impulses to tear through the speech amplifiers, building up strength as they go, which in turn so affect the modulator tubes that they draw more or less current and permit the powerful amplifier team to get varying amounts.



Schematic Wiring Diagram of Karas A C

remove the terminal nuts and washers from the Karas AC Former and mount through holes Nos. 6 to 14 inclusive by placing so that terminal screws go down through these holes and the 5 volt filament supply posts are in holes Nos. 6, 7 and 8.

Apparatus on Front Fanel
The front panel is not as yet secured to the sub-base; we'll do that later on. The 75-ohm Carter potentiometer, RI, is mounted in the hole marked "Control" and so that terminals "a" and "o" are toward the center of the panel. The 500,000-ohm Electrad potentiometer, PI, is secured through the hole marked "Volume" with soldering lugs toward the bottom of the panel. The 10 volt Carter switch is mounted in the hole at the extreme left end of the panel. We are now ready to wire the Equamatic.

Wiring Suggestions
Wiring can be done almost entirely with the picture diagram but a few pointers on things not entirely clear on the picture will help. One side of the grid condenser, C4, touches "G" post of socket S3 and these should be soldered. Likewise the "F" post of socket S3 and the "B" terminal of transformer T1. Wire 7, running from condenser C1 to RFC1, is soldered to the lug at hole 36. The same with wire 8 and the lug at hole 37. Where wire 10 passes under hole S9, a short piece of wire W11 connects it to the terminal just above hole 30, and W13 connects W10 to the terminal of condenser C3 just above hole 31 through that hole. A 2" piece of sleeving or spaghetti is slipped on 10 where it passes bracket BR2.

Wire W14 is looped around and soldered to W10 just where W10 bends to go up through hole 33. There is a 5% "piece of sleeving on W15, a 3%" piece on W19 to insulate it from W15, a 5" piece on W20 and a 14" piece on W21. will see on W22. w22 is soldered to B4 and between that point and its being soldered to B3, there is a 6" sleeving to W14 to be connected by W24 to the yellow post of cable plug shere is a 3\%" piece on W22 and a 14" piece on W21. W24 passes to reach the brown post. Fut a 4%" sleeve on W24. The piece on W27 is cut 6\%". There is a 2\%

2½" length on W29 and the piece on W30 is 3½".
W33 and W34 are flexible Celatsite, the first being 24" long and the other 30". They are twisted about 8 times between holes 69 and 87. W23 makes connection with minus of socket 2 at hole 86 and minus of socket 1 at hole 84. Sen continues to the lug at hole 11. W34 makes connection to the plus of 82 at hole 87 and plus of S1 at hole 85 and goes to "a" of R2. They are stripped of insulation at those holes and connected up through with short lengths. A 6" piece of Celatsite connects "b" of R2 to the lug at hole 3. Wires 38 and 39 are 18" strips of Celatsite twisted. Wires W40 and W41 are 30" pieces of Celatsite twisted.

condenser % and tighten the set screws. Place the other long shaft through condenser C3, through the insulated end of the control system and through the panel, so that it also protrudes by % at the back. Now with the control system up against the panel, the condensers all the way in, and the control as far in that same direction as it will go, tighten the set screws. If the system does not work easily, something is out of alignment and should be rectified. This can often be done by loosening the condenser mounting condenser %" and tighten the set screw: y loosening the condenser mo crews and shifting the condensers mounting

screws and shifting the condensers about slightly. The dials can now be applied.

Mounting the Coils

The hardware includes three spring clips, and three 8-32 screws with nuts, for providing a slip adjustment for the secondary coils. These spring clips are assembled with the screws into holes Nos. 17, 18 and 19, with the lock nut on the bottom of the sub-panel. Tighten these so that the secondary coil, when put under the spring clip, with the little notches riding in the slot of the secondary bracket, will just slip casily.

slot of the secondary bracket, will just slip easily. Now apply the primary coils. When the condensors are turned entirely in, the bracket across the primary coil should be horizontal and the part which slips over the condenser shaft should be slipped over to within ½m from the end of the conden-ser bearing adjustment, but should not touch.

ser bearing adjustment, but should not touch.

The black lead of the first primary should be attached to binding post No. 1. and the green lead to binding post No. 2. The black lead of the second primary coil should be attached to the "P" binding post of socket No. 1, and the green lead attached to binding post No. 3. The black lead of the third primary coil should be attached to the "P" binding post of socket No. 2. The green lead goes to binding post No. 3. The black lead of the third primary coil should be attached to the "P" binding post of socket No. 2. The primaries should be set cross-wise to the white engraved lines just below them.

The secondaries are now slipped under their respective spring clips with the secondary brackets parallel to the white lines. The black lead of the first secondary should be attached underneath the screw terminal of the frame connection of C1 and the green lead should be attached to the grid terminal of socket No. 1. The black lead of the second secondary coil goes to the screw terminal of the frame connection of C2. The green lead goes to the grid terminal of tube socket No. 2.

The black terminal of the third secondary should be attached under the screw

The black terminal of the third secondary should be attached under the screw terminal on the frame connection of C3. The green wire goes to the screw which holds the nearest clip of the grid condenser C4. Now insert the 2 megohm grid leak.

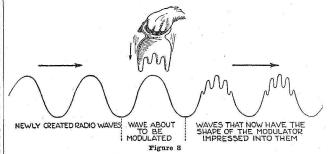
Attaching the "B" Supply

Connect the brown or ground connection to a water pipe with a ground clamp, or solder securely. Connect the "B" minus, or yellow connection of the cable plug, to the minus of the "B" voltage supply.

also at the back of the set. It is possible to operate this receiver on a fifty foot aerial; a longer aerial however, will give better results. It is good practice to have just as long an aerial as is consistent with your location, so that the nearest local does not interfere too much. We are now ready to make the final adjustment.

Grid Bias

The negative bias on the two RF and the first audio tubes is provided by the voltage drop in the variable resistance P2 applied at the exact electrical center of the 1.5 volt filament supply. At 90 volts, this resistance will provide 6 volts negative bias at full 2000 ohms and proportionately less depending upon the setting of the rheostat. This rheostat should be varied until the best operation is obtained. The UX 227 tube requires a positive bias for the heater identified the process of the results of the requires a positive bias for the heater identified the receiver of the real set in the receiver the the receiver in the content of the receiver in the receiver of the receiver.



turn up R2 and turn the dials back and possible for the little third speech ampliforth across the point at which the station was tuned in. If the receiver still oscillates, make a slight adjustment on the thumb screws. A point will be found on these condensers at which the receiver will fiers similar to the series of amplifiers of these condensers at which the receiver will Radio frequency currents that followed not oscillate when R2 is turned entirely up

these condensers at which the receiver will not oscillate when R2 is turned entirely up and the dials are turned over the entire broadcasting range. It is possible in adjusting these condensers to go too far, however.

The only other adjustment that need be made is on the first primary coil; this should be varied, depending on the length of the aerial used in connection with the

NEW RADIO YEAR

(Continued from page 5) actually 1,500,000 now and constantly increasing. The Radio farm and market service already has gone far in solving the age-old problem of market gluts, with resulting demoralization or prices and wrecking of values, WLIS has found. Tens of thousands of farmers or their wives now hear and tabulate the market returns every day on the particular product in which they are interested at the time and plan their marketing accordingly. This helps to maintain or increase values, or at least to stop disastrous breaks. Livestock truckers within a radius of 100 miles of their market can decide after hearing the morning's estimates and review of conditions whether that is the day to sell or whether to wait for more favorable news. Scores of thousands of livestock shippers act on these reports daily and the same is true of the grain and other market reports. "WLS feels that this service is so important and has such a big plece in the (Continued from page 5)

true of the grain and other market reports.

"WLS feels that this service is so important and has such a big place in the Radio field that it has extended the farm programs to other stations until now the WLS farm service is conducted regularly on programs over station WSB at Atlanta, Ga., WMC at Memphis, Tenn., and WFAA at Dallas, Tex. And the response to these programs is proving as great in comparison as those at WLS.

"Now as to the actual dollars and conte

son as those at WLS.

"Now as to the actual dollars and cents value of this service. A casual intimation by the farm program director at WLS. Fred L. Petty, recently that he wondered if the market information as broadcast was being used by listeners brought a 5,000 letter response in which the specific instances of definite gains and savings to the writers on account of Radio market reports from WLS totaled into tens of thousands of dollars. Typical is the case of an Indiana farmer who followed the livestock report summaries and on one shipment alone added \$500 to the price received on a large shipment of cattle."

Voice of Chain Station

Voice of Chain Station

As a typical and pivotal chain station
reaching every class of listener from the
Pan Handle to Newfoundland WGN, Chicago Tribune, was consulted as to the general program situation. The following
statement was submitted in reply:
"Howite beautiful Dayle of the chain of the control of the contr

statement was submitted in reply:
"Having brought the Radio year of 1927
to a successful close with a series of spectacular Christmas broadcasts, WGN, Chicago, is planning new delights for Radio
listeners who follow the fortunes of the
station during the coming twelvemonth.
Programs are to be enlarged and improved; the cream of the New York chain
features will be continued, and mechanical
conditions are already of the finest.

conditions are already of the finest.

"The year 1927 proved a remarkably successful one for WGN. A steady stream of excellent programs was furnished to listeners, and so many special features were broadcast, often at great expense, that the station probably exceeded the efforts of any one individual broadcaster in this field. The list of celebrities presented on WGN reads like a page from "Who's Who," and the fine educational programs were enjoyed by every listener.

Indianapolis Race

Indianapolis Race

Indianapolis Race

"Among the top-notchers presented by
WGN during 1926 were the broadcasts
of the Indianapolis 500-mile auto race,
the Kontucky Derby, the Dempsey-Tunney fight, all of the season's baseball
games played in Chicago, a record list of
important football games, both collegiate
and professional, and many other interesting individual items. For the listener who
likes to meet prominent people on the
Radio there were interviews with Count
Felix von Luckner, the famous German
sea raider, with "Tex" Rickard, the boxing
promoter; with Red Grange and Benny
Friedman, football stars, and a host of
others.

"The year 1928 will see a continuation."

others.

"The year 1928 will see a continuation of feature broadcasts from WGN. The Indianapolis auto races and the Kentucky Derby will both be presented again, and the station plans a resumption of its baseball broadcasts throughout the year. It will be the station's endeavor to bring as many great events to listeners as present themselves, making it more than ever a force for public service.

"Bigger and Better"

"Bigger and Better"
"Improved musical programs, with larger orchestras and a greater amount of variety in vocal music, together with many new musical novelties, are the WGN musical plans for 1928. The station's staff continues the same as in 1927, with Bill Hay as manager and chief announcer; Henry Selinger, musical and program director; Quin Ryan, director of features, and sports and feature announcer."

Broadcasters from New York to the Pacific have expressed every confidence that 1928 is going to be the banner year—that programs are to be better, reception better and the listeners happier with the results of their Radio pleasures. It has been hinted that international programs will be a common feature for every listoner before the next New Year' comes around. We are told Radio listeners may expect

We are told Radio listeners may expect to hear London programs almost any day over the National Broadcasting Net sta-tions.

"VIVA LINDY!" REMEMBER THE DAY WHEN YOU HEARD HIM COME HOME?



HERE'S your real and only Air Hero—on the wave or on the wing—and now that he's gone and done it again you might like to one think. he's gone and done it again you might like to see this latest photo. You can hear

that staccato voice, boyishly dignified:

"I am sorry that those waiting for me had such a long time under the hot sun, but J was just as anxious to come down as they were to have me. The entire trip was made in the face of some difficulties which, I think, show conclusively the importance of cross-country training in flying."

DISTRICT NO. 4—WEST
Comprising: North and South Dakota,
Nebraska, Kansas, Oklahoma, Texas, Mon-
tana, Wyoming, Colorado and New Mexico.
Seven Aces, WBAP4,494
Royal Fontenelle orchestra, WOW 2,507
Ernest Loomis' Victor Recording
orchestra, KOA1,066
Joe Willrich's orchastra KPRC 1 002

LIST OF PARTS FOR KARAS AC EQUAMATIC

Karas Electric Co., 4040 No. Rockwell St., Chicago, III.

Chicago, III. | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.350 | \$1.35

Yaxley Mfg. Co., 9 So. Clinton St., Chicago, Ill.

I Cable Plug Electrad, Inc., 175 Varick St., New York City 1 Fixed Resistor, B-20, 2000 ohms 1 Royalty Variable Resistance, type E

Benjamin Electric Mfg. Co., 120 So. Sanga-mon St., Chicago 4 Sockets, type 9040, Red Top @ \$0.75 1 Socket, type 9036, Green Top

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Suggested 'B' Eliminator Model T
Raytheon Unit 21.00

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4.00

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Club orchestra, WFAA...... Red Peppers, KVOO.....

Rules and Conditions

Rules and Conditions

1. The contest starts with this issue of Radio Digest, November 1, 1927, and ends at midnight, April 10, 1928. All mail enclosing ballots must bear the postmark on or before midnight, April 10, 1928.

2. Ballotting will be by means of coupons appearing in each monthly issue of the Radio Digest and by special ballots issued only when requested at the time of receipt of paid in advance mail subscriptions to Radio Digest when received direct and not through subscription agencies according to the schedule given in paragraph 4.

in paragraph 4.

3. When sent singly, each coupon clipped from the regular monthly issue of Radio Digest counts for One vote. BONUS votes given in accordance with the following schedule:

For each two consecutively numbered coupons sent in at one time a bonus of five votes will be allowed.

For each three consecutively numbered coupons, a bonus of fifteen votes will be allowed.

allowed. (Continued on page 34)

Radio Digest

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Vol. XXII

January, 1928

Crystal Control or Quit!

RADIO engineers agree that practically all the hetrodyning between stations on the same or nearby wave lengths can be eliminated by the use of the inexpensive Piezo electric oscillators by broadcasters. These magne crystals, when properly calibrated by the Bureau of Standards, hold the signal on the assigned wave length.

Although practical and endorsed by all experts, yet

the assigned wave length.

Although practical and endorsed by all experts, yet there are many broadcasting stations that are not yet equipped with this device. While the Federal Radio Commission is perspiring under the job of assigning a few wave lengths among seven times too many applicants, many plants are going on the air daily without using the Piezo crystal—thus mussing up receiving conditions. It is time that the Federal Radio Commission issue a mandatory order for all stations not equipped with crystal control to stop broadcasting until so equipped.

With the constant shifting of wave lengths and the

until so equipped.

With the constant shifting of wave lengths and the slowness of the Bureau of Standards in calibrating crystals, we would suggest that the commission compel each broadcasting station when changing bands to surrender its calibrated Piezo oscillator for its old wave to Washington. In turn the commission could send the surrendered crystal to the station assigned that band. Proper credit arrangements could be made.

The ideal way of working out this plan would be for the commission to have a stock of Piezo electric oscillators calibrated by the Bureau of Standards for each wave band and ship the crystal with the renewal license for the new allocation. All stations would thus be crystal controlled by law.

Put Chain on One Band

B EFORE the climination of stations by the Federal Radio Commission, as announced by Commissioner Pickard, is resorted to that body owes to the public its serious considerations of placing station members of chains on one wave band during a chain broadcast. The time thus made available on the freed wave length could be assigned to other local and worthy stations. worthy stations.

worthy stations.

The plan is practical as demonstrated by WBZ and WBZA. Dr. Goldsmith and Commissioner Caldwell have both gone on record publicly that the idea is technically correct. WHT, Chicago, worked on two different waves during the evening, thus indicating there would be no difficulty in the local non-chain station stepping up or down to use the freed band of the chain station.

Messrs. Commissioners, any listener who has found chain programs all over his dial when he wanted to listen in to a local or nearby event, is interested in this logical and inevitable one-wave-for-the-chain plan. Every broadcaster who divides time or is eliminated from the free air is entitled to demand the reason for the favoritism shown in the wastage of wave bands

The broadcasting fraternity must be Democratic in politics, judging from the number of state righters before the Radio Commission. A broadcasting channel for each senator would leave only WEAF and WJZ in New York state with nothing for the (in) de-

The parable of the loaves and the fishes might be of help to the perplexed Radio commissioners in satisfying the multitude.

Leaving the heir: "My boy, bumpers on automobiles are not for the protection of pedestrians."



THE READER'S VIEW

Vega's Petition

A PETITION to the President of the United States of America and to the Chairman of the House and President of the Senate of the U. S. A. and to the Radio Commission, Washington, D. C., and to the Radio Digest, Chicago, Ill., or to Whomsoever Else this may come, Greeting:

Greeting:

We, the undersigned Radio Listeners, wishing to daily use our Radio Receiving Sets, beg to submit some conditions and stern facts, which we are continuously runing up against, and which cause us much annoyance and considerable profanity. We have coolly given much time and thought as to the cause and remedy of this untimely and fleree interference, with the following conclusions: We believe that the Radio Commission has not given due consideration to the wishes and needs of the listening public, but on the other hand has given overdue consideration to some of the big financial broadcasters and have given them much more control of the air than is beneficial to the general public. We do not know if this SUPER-POWER given to the big financial stations is a product of the wealth of said stations or not, but WE DO KNOW that it is not what is wanted by the PUBLIC, for reasons as follows:

We do not object to chain programs, on the other hand,

by the PUBLIC, for reasons as follows:

We do not object to chain programs, on the other hand, are glad to have them, but we want all of the stations of the same chain to be on the same meter. I.B.: Let each station that is on the chain have its own meter for its own private programs, but for the chain programs, let each chain station use the SAME METER as the mother KEY station uses. Let these meters be somewhere from 300 to 400, then any ordinary receiving set can get them, and we will not be compelled to listen to them unless we want to do so. We believe that the only way any station has any right to compel us to listen to them would be that they put on programs that would compel our attention.

5,000 Watts Enough

After several years at the RECEIVING end, we would further say FIRMLY that FIVE THOUSAND WATTS is as much as should be allowed to any station, and WE are of the opinion that 1.000 watts would fill the needs of any station and through the chains reach any hamlet in the U. S. A. and at the same time do very much toward clearing up the air.

ward clearing up the air.

We would further state that we are not in favor of discontinuing any of the stations now licensed, but we DO. KNOW that there are too many stations now on the air to broadcast continuously and do any of them any good, or the public either, therefore we would suggest that stations on the same or near the same meter in the same part of the country be required to divide time; properly allocated, this can easily reduce interference at least FIFTY PER CENT.

at least FIFTY PER CENT.

We would further request that the members of the Radio Commission or some representatives of said commission, visit remote and various parts of the United States, and listen in, on common Radio sets on average nights from seven to eleven p. m. and be informed of the INFERNAL HOWLS that come from almost every mark on the dial. And we would then DEMAND that said commission take proper steps to correct this continual interference.

If composition should develop to the reasonableness of

If opposition should develop to the reasonableness of this petition, then we may well be sure that those ob-jecting are in some way financially interested in the big Canacial stations which are principally responsible for the disturbance.

In submitting this petition, we are asking the Radio Digest to publish same, with the hope that every community in the U.S. A. may either take this petition literally as it is, or draw one of a similar nature and have it signed by the listeners of each community and forward the demand to the Radio Commission at Washington as we have done.

Keep Politics Out

Keep Folitics Out

The author of this petition is a northern man, a Republican in politics, living in the South, and in sympathy with the present administration, but this is not a political issue, it is not North nor South, neither East nor West, and we want POLITICS kept out of it, but if the people cannot have re-dress in that the air we breathe be kept free, then we had better take stock of our present conditions.

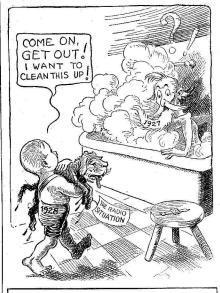
This petition is being mailed to each of the above, addressed, and in addition, to Fields, at KFNF, to Baker at KTNT, to Henderson at KWKH, and to Gish at KGRS, with the wish that each person concerned will do every HONORABLE thing possible; that each and every broadcaster may have a fair DEAL, and that the public may be enabled to enjoy their Radio sets.

Signed,

Vernon Shields
Herb. Ballard
J. E. Scott
J. C. Campsey
C. M. Raley
F. A. Collins
F. H. Krahn
J. H. Jones
John Rector
E. Wiseman
Baln Wiseman
H. L. Morris
S. E. Green
A. C. Klein
R. C. Godwin
A. A. Kirkpatrick
Allen Staggs
T. M. Blagkber O. H. LOYD and John Heisleman Lulu M. Löyd Merle Wood W. A. Williams Vega Drug Store D. E. McKendree E. B. Harris George Funk Bob Ballard George Fulia
Bob Ballard
B. L. Freeman
W. A. Jinks
Mrs. C. Williams
O. L. Jinks
F. J. Smith
C. E. Slutz
H. R. Shields
A. D. Glava
E. L. Krahn
F. P. Smithy
Lynn Smith
A. M. Miller
J. O. Murrey
Chas. Ingram
C. E. Campsey
C. H. Roark
L. W. Landrum
R. Harwell
F. E. Walker John VanMeter Jack M. Roberson Merle Morgan W. P. Ballard W.P. Ballard Henry Creitz W. O. Denny D. M. Voyles Col. J. T. Owen W. E. Klein H. Murphy C. L. Morris W. N. Miller J. E. Murrey Otts McCall H. G. Green C. E. Winder J. A. Campsey E. H. Bales J. C. McDonald J. A. McGowan A. A. Kirkpatric Allen Staggs T. M. Blacklock Roy N. Ivy Rex McNabb Wayne Dyer
J. M. Hobbs
O. O. Slutz
John Dunn
(All of Vega, Tex.)

The above petition speaks for itself and is submitted without alteration of any kind as an expression of the people of this Texas community. Similar petitions have been received from other sections of the country. This one is typical.—EDITOR

No Soap!



RADIO INDI-GEST

God's Radio

I sit in the gloom of my lonely room Far from the noise of the town Like the deadly doom of a voiceless tomb The stillness holds me down

And yet this I know I have but to go To a magic chest near by
With a touch or so and I'll hear the flow
Of raptures from the sky.

Oh I wonder, dear, perhaps you can hear— In that Somewhere over There— Ah—to tune that Sphere, and to keep you near, God's Radio to share!

Iowa City Wins Bean

R OSCOE! Roscoe! Come hither! Bring forth the golden key to the Vault of the Sacred Saccharine and out of the crystal treasure select the Bluest and Purest Jelly Bean. Make haste and do not linger in the Royal pantry. See to it that the Jelly Bean is securely boded and directed by special messenger at once to J.E.R., winner of the Forty-ninth Word Steeple Chase. We might quibble on his o in out but otherwise the tale is well told.

The course, the faithful will remember, was as follows:

The course, the faithful will remember, was as to Resistance Microphone Soprano Tenor Duet

The epistle from J.E.R. of Iowa City follows:

The epistic from J.E.R. of Iowa City follows:
"Camping, a few months ago, on the shores of the Iowa river, I grew disgusted with the insects. I could drive off bugs and bectles, but simply couldn't resist arts. I decided to telephone to town for a taxi. The nearest station, however, was across the river. I had no boat, but camping near was a genial Irishman. To him said I: "Mike, row, phone, and call a taxi." "Nothin doin unless you pay me \$10," retorted Michael. I flattered him a while, but 'twas futile, and finally, when my 'soft sopp' ran out, I drew forth a "tenner," and said: "All right; do it"—and he did.

Get set for the next course. Here it is—Circuit, unit, eliminator, ampere, static.

Good Steeplechase Sport

C. M. GOULD of Wann, Okla., pulled a Prince of
Wales for the jolly old Jelly Bean, but gave us
a peach of a line in his letter. He said:
"I call the Digest the Wish Book. You wish you
could get the programs you read about."
Then he slips us a nice little posy.
"I don't see how any one could use a receiver and
get half what they should from it without the Radio
Digest. It's improved wonderfully. I notice that my
friend who runs the drug store at Copan is selling
more of them now. I bought my first Radio Digest
from him." from him."

Thanks a lot, Mr. Gould. We sure'd like to send you the jelly bean for "them kind words" but the jelly bean "ain't even been thunk up yet" that could do justice to your letter.

My Goodness What Crowds!

TLORENZ ZIEGFELD'S "Rio Rita" which, it is reported, has been seen by more than five thousand persons in New York City will be broadcast in part direct from the stage. . . . "

—From National Broadcasting Co. Publicity.

By this time we may safely assume that all of six thousand people have seen that wonderful show! That's the Big Town for you!

The Crosley & Bandbox is the leading radio of today-because

A T LAST! The radio tube that needs no batteries! Here it is functioning quietly, smoothly, powerfully in this new Crosley 6 tube receiver—the A C Bandbox. Now, the Crosley A C Bandbox needs no more attention than you pay the electric

lamp that lights your home.

This is what the world has anticipated and many have imitated. Crosley offers it to you at the WORLD'S LOWEST PRICE—\$110 without tubes.

Combined with the Crosley facilities for economical manufacture is the patent situation of which Crosley has full advantage. Licensed to manufacture under the patents controlled by the electrical and radio industries, the Crosley Bandbox is a NEW receiver incorporating latest radio developments, the most advanced ideas of radio reception as well as sound reproduction. This outstanding engineering job

is best understood when you consider its features are such as are found in radios twice and more its price.

Complete shielding of all elements.

2. Absolute balance (genuine Neutrodyne).

3. Volume control.

4. Acuminators for sharpest tuning.

5. Single cable connections.

6. Single station selector.

7. Illuminated dial.

. Adaptability to ANY type installation.

The set is solidly mounted on a stout steel chassis. As all controls are assembled together in the front, cabinet panels are easily cut to allow their protrusion. The metal escutcheon is screwed on over the shafts and the installation has all the appear-

ance of being built to order.

Two large furniture manufacturers have designed console cabinets in which the Bandbox can be superbly installed (Showers Bros. Co., of Bloomington, Ind., and the Wolf Mfg. Industries of Kokomo, Ind.). Powel Crosley, Jr., has approved them mechanically and acoustically and has seen to it that the famous Crosley Musicones are built in them so that the best type of loud speaker reproduction may be insured.

The Bandbox is housed in a brown frosted crystalline finished metal case which

is easily removed for console installation.

See the new Crosley A C Bandbox at your dealer's NOW! Hear first hand its delightful performance! Enjoy the best in radio at the least cost! Write Dept. 49 if you can't locate a dealer!



Crosley is licensed only for Radio Armateur, Experimental and Broadcast Re-

The CROSLEY RADIO CORPORATION Powel Crosley, Jr., President Cincinnati, Ohio

SUPER

MUSICONE

ontana, Wyoming, Colorado, New Mexico and West, prices slightly higher

of these wonderful tubes



The amazing new RCA alternating current tubes—the UX 226 and UY 227—utilize for their filaments and their heating regular house-lighting current. Current is stepped down through transformers. Rectifiers are not used.

the radio patents of these industries



The research and development work of these great industries—the Radio Corporation of America, The General Electric Co., The Westinghouse Co., The American Telephone & Telegraph Co., and The Hazeltine and Latour Coporations—are available to Crosley engineers in the constant advancement of radio design.

and the amazing capacity of this MERSHON *Electrolytic* CONDENSER



This is one of Crosley's great features. It is an exclusive Crosley device. It is self-healing —will last indefinitely—neven needs attention and eliminates the danger of blown out paper condensers which are causing so much trouble in electrically operated sets.

DIRECTOR OF NORWEGIAN STATION EX

HIGH LIGHTS OF THE AIR

OA, DENVER, is not going to wait until some other station acquaints its listeners with the works of Denver composers. Friday evening, January 6, some of the composers themselves will appear. IEstelle Phillie, who wrote the music to "Out Where the West Begins," Burrill Phillips, H. Everett Sachs, Edwin L. Stringham. Francis Hendricks. J. Stringham, Francis Hendricks, Grace Mays, and Jean Allard Jeancon will broadcast their own composi-

A regular Saturday feature of KFI is the "Media Hora Espanola" or Spanish half hour. Felipe Delgado, baritone, explains the meaning of the song in English and then sings it in

Spanish.

Listeners of the Chicago Sunday Evening club will reserve January 29 to hear Dr. Harry Emerson Fosdies speak. Other speakers during the month are Bishop Edwin H. Hughes, January 1; Dr. Charles M. Gordon, January 8; Dr. Alfred E. Stearnes,

January 15, and Dr. Albert Parker Fitch, January 22.
This is the season of the year when basketball fans tune in. WIBO will describe the games played at Northwestern this year. January 7 Michigan meets Northwestern; January 30, Minnesotta.

gan meets Northwestern; January 30, Minnesota.

The musical biographies being given by Don Malin from WLS have been creating a favorable impression with the audience of this station. Tuesday, January 3, Mr. Malin discusses Jules Massenet; January 10, Georges Eizet; January 24, Glacoma Puccini and January 31, Johannes Brahmes.

Puccini and January of, someones Brahmes.
Olaf T. Holst, director of the Bergen Broadcasting company's stations at Bergen, Norway, has planned the program which will be given from WBAL. January 22. This "All-Norwegian" program Mr. Holst exchanged with Mr. Huber for an "All-American" program planned by the American station.

PACIFIC Coast Radio fans are enjoying the weekly concerts given ever over KPO by the Abas string quartet. This quartet, which is compose Brodetzky, violinist; Michel Penha, cellist, and Romain Joseph Verney doing unusually fine group work. Smiling Stan Lee Broza, left, is the pWCAU, Philadelphia. He not only announces but directs the productive Paley, a young coloratura soprana, who frequently appears at WGBS, seventeen she has appeared in "The Vagabond King" and has starred of Rudolf Friml.



SUNDAY, JANUARY 1 Headliners

Eastern Central Mountain Pacific 3 p.m. (422.3m-710ke), WEAN (275.1m-100ke), WEAN (275.1m-100ke), WSAC (461.3m-450ke), WFIL (235.5m-1100ke), WALC (236.1m-110ke), WALC (236.1m-110ke), WALC (236.1m-110ke), WALC (236.1m-110ke), WALC (236.1m-120ke), WALC (236.1m-12

Boys, WFAN (224m-1340kc) James LaRue, baritone, WIBO (305.9m-980kc) Gems of Music,

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Regular Sunday Features

With State of the Committee of the Commi WGY Schenectady, N. Y. (375,5m.790kc) 10:30 a m. service; 4. organ; 7:20, Capitol theater; 9:15, WHN New York, N. Y. (394,5m.760kc) 6 p, m. program; 11, organ; 11:30, club orchestra, WiP Philadolphia, Pa. (348,5m.660kc) 9:30 p. m. WHN, S. G. T. S. P. S. S. College, 10, organ, WJR-WCX Detroit, Mich. (440,9m.660kc) 10 a. m. First Bantist church; 2. WJZ, 6, twilight hour; 30 f Fontiac, 10, song service, First Bantist church; 2. WJZ, 6, twilight hour; 30 f Fontiac, 10, song service, First Bantist church; 2. WJZ, 6, twilight hour; 30 f Fontiac, WGZ, 2 Key, WJZ, KDNA, XXW, WKC, WCX, WJZ, KDNA, XXW, WKC, WCX, WJZ, KDNA, XXW, WKC, WCX, WJZ, KDNA, XXW, Y, organ; 7:30, misical literature, WBAL, 8:15, Col-

lier hour, WBZ, KDKA, KYW, WJR, WCCO, WDAP, KSD, WLW: 9:15. Vibrant Metodies, WHAM, KDKA: 9:45. Singers, KDKA, WHAM, 10, hme, WJZ, WHAM, KDKA: 10:15, Don Amaizo, WLIT Philadelphia, Po. (405.2m-740kc) 11 a, m, service; 2: p, m, orchesta; 10:15, orchestra; WLW Cincimant, Ohio (428.3m-700kc) 7:15 p, m, service; 3:15, WJZ; 9:15, orchestra; WLW Cincimant, Ohio (428.3m-700kc) 7:35 p, m, service; 9. Columbia chais; 10. Columbia chais; WNAC Boston, Mass. (461.3m-650kc) 7:30 p, m service; 9. Columbia chais; 10. Columbia chais; WOO Philadelphia, Pa. (348.6m-650kc) 2:30 p, m, ex-WOO Philadelphia, Pa. (348.6m-650kc) 2:30 p, m, ex-WOO Philadelphia, Pa. (348.6m-650kc) 2:30 p, m, ex-WOO Newards, N, J. (422.3m-710kc) 3-5 p, m, Columbia Chais; D, Columbia Chais WOO Philadelphia, Pa. (348.6m-860kc) 2:30 p. m. exercises; 6, orizen; 7:30, service.

WOR Newark, N. J. (422.3m-710kc) 3-5 p. m. Columbia chain; 7:45, Sunday evening musicale; 9, Columbia chain; 7:45, Sunday evening musicale.

Gallantic City, N. J. (272.6m-1100kc) 4:15 p. m. community recital; 5:15, twilight hour; 9:10, evening program; 10, Sunday evening musicale.

WRC Washington, D. C. (468.5m-640kc) 11 a. m. service; 1 p. m. WIZ; 2, orchestra; 4, Washington WRC Washington, D. C. (468.5m-640kc); 10; WEAT, 10:15, WEAT; 10:15, WEAT; 10:15, WEAT; 10:15, WEAT; chimes; 8:15, time; 8:15, program; 9:15, WEAF; 10:15, WEAF, WSEA Norfolk, Va. (263m-1740kc) 7 p. m. dinner WSEA Norfolk, Va. (263m-1460k) 7 p. m. dinner WTAG Worcester, Mass. (516.5m-580kc) 7:30 p. m. STAG Wordend, O. (399.5m-750kc) 3 p. m. musicalis program, WTAM Cleveland, O. (399.5m-750kc) 3 p. m. musicalis 15, WEAF 10:15, (353.5m-550kc) 5:30 p. m. musicalis 15, WEAF 10:15, (353.5m-550kc) 5:30 p. m. musicalis 16, WEAF 10:15, (353.5m-550kc) 10:30 a. m. services; 7:20, WEAF 20:15, WEAF WEAF 20:15, WEAF

Service.

Central Time Stations

KFAB Lincoln, Neb. (319m-940kc) 11 a. m. service; 9 p. m., symphony.

KLD3 Independence, Mo. (270.1m.1110kc) 8.30 a. m. operation of the string operation of the stri KFMC HOUSION, 16x (233-33m-twents) 2.530 h m. KSD St. Louis, Mo. (585.1m-550kc) 6.20 p, m. WEAF; 8:15 WEAF, Mational Park, Ark. (384-4m-KV00 Tules, Observed to the state of t wbbM Chicago, Ill. (389.4m-770kc) 12 mid., Nutty Company (1987) (9.45 a. m. services; 10:50, services; 4:10 p. m. House of Hope Presbyterian church; 7:15, WJZ; WCFL Chicago, III. (483.6m-620kc) 7:45 p. m. service; 9:15, musicale, city. Mo. (370.2m-610kc) 7:15 p. m. WDD Chattanoo, T. Tem. (243.6m-1230kc) 11 a. m. service; 5. Bible form; 7:30, service; 9:30, concert. WEBH Chicago, III. (368.6m-230kc) 10:30 a. m. Service; 5. Bible form; 7:30, service; 9:30, concert. WEBH Chicago, III. (368.6m-230kc) 10:30 a. m. Service; 5. Bible form; 7:30, service; 9:30, concert. WEBH Chicago, III. (288.3m-1040kc) 9:30-11 p. m. service; 5:30, form; 6:15, Edgewarte Beach III. (408.5m-400kc) 9:30-11 p. m. WEBH Chicago, III. (288.3m-1040kc) 9:30-11 p. m. WEBH Chicago, III. (388.3m-1040kc) 9:30-11 p. m. wers hour, musical; 6:7. Bible class; 8:15, WEAF; 11:12, orchestra. WENN Chicago, III. (116.4m-720kc) 6:20 p. m. Punch and State 10:30, form; 10:10, Sam n. WHO Chicago, III. (282.6m-890kc) 10:0 n. m. service; 5:20, WEAF; 9:15, orchestra. WENN Chicago, III. (385.6m-890kc) 6:30 p. m. Radio service; 11:15, org. (385.6m-890kc) 6:30 p. m. sered concertago, III. (385.6m-890kc) 7:10 p. m. pro-creates, III. (385.6m-890kc) Pro-creates, III. (38 concert.
WIBO Chicago, Ill. (305.9m-980kc) 7:10 p. m. program; 10, concert.
WJAZ Chicago, Ill. (263m-1140kc) 7-9 p. m. studio wjbt Chicago, Ill. (389.4m-770ke) 2:30-12 mid. Paul Rader, WJJD Chicago, Ill. (365.6m-820kc) 9 p. m. opera com-WLAC Nashville, Tenn, (226m-1330kc) 6:30 p. m. WLAC Nashville, Tenn, (226m-1330kc) 6:30 p. m. service; 9:15, sacred marzolec) 5-5:30 p. m. mersone Chicago, H. (416.4m-720kc) 5-5:30 p. m. m. string quintet. mersone 5:50 sones. Tommy Coates; 6. string quintet. mersone 5:50 sones. Tommy Coates; 6. wLS Chicago, H. (344.6m-870kc) 1:30 p. m. chapel service; 6. WLS Little Brown church, MAQ Chicago, HL (447.5m-870kc) 7 p. m. Chicago Sunday Evening club; 9:15t. Columbia chain; 10, De Sunday Evening cuto; Sunday Evening cuto; Sunday Evening cuto; Sunday Chicago, III. (252m-1190kc) 3-6 p. m. orchestra: 7:40, Fifth Church of Christ Scientist; 9, pop-fra: 7:4 ular program.
WMBI Chicago, III, (263m-1140kc) 5 p, m, gospel Songs Memphis, Tenn. (516.9m-580kc) 6:20 p. m. WEAF; 8:15, WEAF. WOAI San Antonio, Tex. (499.7m-600kc) 7:30 p. m.

service.

WOC Davenport, Ia. (374.8m-800kc) 7 p. m. service;
8:15. WEAF; 9:15, program
WOW Omaha, Neb. (508.2m-590kc) 9 a. m. services;
5:30 p. m. Bible hour: 8:15, WEAF; 9:15, music.

Political description of the property of the prop

WSB Atlanta, Ga. (475.8m-630kc) 5 p. m. vesper;
6:20. WEAF, 8:15, WEAF.
WSM Nashville, Tenn. (386.6m-890kc) 6:20 p. m.
WEAF 8:15, WEAF.
WSM Nashville, Tenn. (386.6m-890kc) 6:20 p. m.
WEAF 8:15, WEAF.
WSM Nashville, Tenn. (281.9m-1020kc) 6 p. m. dinner concert; 7, organ; 9:15, WJZ.
Mountain Standard Time Stations
CFAC Caleary, Can. (434.8m-630kc) 7:10 p. m. service, Scho, Genny, 7.6m. (325.9m-420kc) 11 a. m. church service; 5:30, organ; 7.4m (386.6m-640kc) 6:30 p. m. concert; 7:30, service; 3:30 studio programage network; KFOA Senttle, Wash. (447.5m-670kc) 6:30 p. m. symphony, hour, p. (486.5m-640kc) 6:30 p. m. symphony hour, p. (486.5m-660kc) 5 p. m. symphony hour whony hour. KFRC San Francisco, Calif. (454.3m-660kc) 5 p. m. organ: 6:30, twilight recital; 8:30, orchestra; 11 Lorden 16:30, twilight recital; 8:30, orchestra; 11. orchestra; 11. orchestra; 18:30, orange network, m. service; 7:30, orchestra; 18:30, orchestra; 1

Sunday, silent night for: KSFD, KLX, KMA, KOB, WFLA, WSMB, WRVA, WTAG.

MONDAY, JANUARY 2 Headliners

Headliners

Eastern Central Mountain Facific 7:30 p.m. 6:39

K7:30 p.m. 6:

NSD (4/3/3/1-004/2) 101 8:15 7:15 6:15 WYNC (296,9m-1010kc) Happiness Girls. 8 WEI (468,5m-640kc) Gene Johnston's Music Box Dawley. 10:45 9:45 8:45
WSB (475.9m-630kc) Charlie Trout Melody Art-

1 a.m. 12 11 10 WSUI (475,9m-630kc) Pastime Theatre program.

Regular Monday Features

Eastern Time Stations
Pittsburgh, Pa. (315.6m-950kc) 7:30 p. m. WJZ; 9, WJZ.
WAIU Columbus, O. (282,8m-1060kc) 7:15 p. m. service: 10. Columbia chain.
WBAL Baltimore, Md. (285,5m-1050kc) 6:30 p. m. dinner orchestra; 7:30, WJZ; 9, staff concert; 10,

WAIU Columbius, O. (282,8m-1050kc) 7:15 p. m. service: 10. Columbia chain.

WEAL Baltimore, Md. (285,5m-1050kc) 6:30 p. m. dinner orthestra; 7:30, WZ; 9, staff cuncert; 10.

WEZ Springfield, Mass. (333,1m-900kc) 7:30 p. m. wild: 7:30 p. m. studio WZS Springfield, Mass. (333,1m-900kc) 7:30 p. m. studio WZAE Pittsburgh, Pa. (641,3m-550kc) 8 p. m. studio WZAU Philadelphia, Pa. (261m-1150kc) 6:30 p. m. orchestra; 9, chain.

WCAU Philadelphia, Pa. (261,3m-150kc) 6:30 p. m. drum feature; 8:30, WEAY; 9:30, P. m. studio musicale; 10, dance orchestra. WEAY; 9:30, WEAY; 9:3 WTAG Worcester, Mass. (516.9m-580kc) 8 p. m. program. WTAM Cleveland, Ohio (399.8m-750kc) 6 p. m. orches-tra; 8:30, WEAF, 10:30, studio program; 11:30, organ WTIC Hartford, Conn. (\$35.4m-560kc) 6:30 p. m. pro-gram; 8, New Departure orchestra; 8:30, WEAF; 10:30, orchestra. WWJ Detroit, Mich. (352.7m-850kc) 5 p. m. WEAF; 8:30, WEAF; 10:30, WEAF.

DANCING

DANCING
Central Time
Monday
8, Wlac: 8:45, Wla;
9, Whal; Wlw; 9:15,
Wr; 9:30, Wee, Wg;
10, Weau, Weat, Wri;
10:05, Wmak, Wnac,
Wor: "11:15, Wga; 11;
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Tuesday

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ON EXCHANGES PROGRAMS WITH WBAL

joying the weekly concerts given every Friday evening from 9 to 10 p. m. artet. This quartet, which is composed of Nathan Abas, violinist; Julian, cellist, and Romain Joseph Verney, viola solioist, bas a reputation for Smiling Stan Lee Broza, left, is the genial voice heard over the air from announces but directs the productions as well. To the right is Nellie, who frequently appears at WGBS, New York. Although she is only ie Vagabond King" and has starred in vaudeville. She is also a protege of Rudolf Friml.



WWNC Asheville, N. C. (296,9m-1010kc) 7 p. m. din-ner music; 9, old-time music

Ceitral Time

Monday

8, Wlac; 8:45, Wfla;
9, Wbal; Wlw; 9:15,
Wir; 9:30, Wsec, Wpa;
10:08, Wmak, Wine,
Wor; 11:15, Wng; 11. Koll; 11:45, Wdaf; 12,
Kfrc,

Tuesday

S. Winx: 8:30, Koa.
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Winx: 8:45, Vofa.
Winx: Winx: 8:45, Vofa.
Winx: W

Thursday
8:30, Wehn, 8:45, Wfa;
9, Whb, Wre; 9:40, Wbz,
Whb, Wre; 9:40, Wbz,
Weat, Wfa, Weat,
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Wam; 10:55, Wmak,
Wnan, 10:55, Wmak,
Wnan, 10:55, Whysh
10:30, Keilt, Kyw, Weac,
Wip, Wtml; 11:45, Wdaf;
12, Kirc, Kgo; 12:10,
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Friday

6:10, Wilw; 8, Wiax; 8:45, Wila; 9, Wbal; 9:30, Wig, Wrc, Wwi; 9:45, Waam; 10, Kon, Weac, Wico, Weat, Wisan, Witch, Wild, Wor; 10:15, Wbg, 10:36, When, Koli, Kyw, Wbbm; 11, Kfab; 11:45, Wdai; 12, Kirc, Wilb.

ner music; 7, old-time music, stations

KFAB L Central Time Stations

KFAB L Glim-40lkc), 5:30-6:30 p. m. Hotel Lincoln, Neb. (313m-40lkc), 5:30-6:30 p. m. Hotel Lincoln, Neb. (314-50lkc), 7 p. m. music; 9:10:30 p. m. music; NoIL, Council Bluffs, Ia, (313m-940kc) 6 p. m. engalor, 10:30 p. m. music; NoIL, Council Bluffs, Ia, (313m-940kc), 8 p. m. engalor, 10:30 p. KSD St. Louis, Mo. (545.1m-550kc) 9:30-10:30 p. m. music. KSO Clarinda, Ia, (227.1m-1320kc) 7:30 p. m. or-KSO Clarinda, Ia, (227.1m-1320kc) 7:30 p. m. orchestra.
KTHS Het Springs National Park, Ark, (384.4m780kc) 3 p. m. vocal numbers; 8:30 p. m. feature
KVOO Tulsa, Okla. (348.5m-860kc) 6:30 p. m. orchestra; 8:30, WEAF,
KYW Chicusco, Ill. (3525m-870kc) 6:32 p. m., orchestra; 5:30, WEAF,
KYW Chicusco, Ill. (3525m-870kc) 6:32 p. m., orchestra; 7:30, WEAF,
WMMD St., Toul-Minnespolis, Minn. (22.2.1m-1350kc)
7:30 p. m. prosyram; 11:15, organ.
WBAP Ft. Worth, Tex. (493.7m-600kc) 6 p. m. orchestra; 8, program; 10, prosyram; 11:30, theater.
WBBM Chicago, Ill. (389.4m-770kc) 7 p. m. trio; 9.
WCCO Minnespolis-St. Paul, Minn. (495.2m-740kc)
6:30 p. m. dinner concert; 3:30, WEAF,
WCOA Pensacola, Fla. (249.5m-1200kc) 8 p. m. proWCAP Ft. word for the concerns of the con WCOA Pensacola, Fia. (249.5m;-autosa, p. p. M. Right) 10, organity, M. (270.2ms.2tube) 6 p. m. school, Fiancia, Fiancia, M. (270.2ms.2tube) 6 p. m. school, Fiancia, WHAS LOUISVIES 25.

FERRIT (2.03, N. B. C. V. Mo. (340.7m-880kc) 7-8 p. m.

WHO Des Moines, Ia (355.4m-860kc) 6:30-10:30, WEAF; 11:15, organ, WBT Chicago, III, (388.4m-770kc) 10 p. m. Canadian, WLS Chicago, III, (344.6m-870kc) 7 p. m. Scrap book; 7-80. programs. WLS Chicago, III. (344-58m-870kc) / p. m., Scrap book; 7.30, hrggram, 111. (447.5m-670kc) 6 p. m., dinner Westerland, 5 program, (516.5m-850kc) 8 p. m., farm falk; 8:30, WEAF; 9:30, orchestra, WOC Davenport, Ia. (37.45m-850kc) 8:30, wear, Ia

| WOS | Jefferson City, Mo. (422.3m-716kc) 8 p. m. program. | WOW Omena. Nebr. (508.2m-590kc) 6:30 p. m. WJZ; WSB Atlanta. Ca. (478.5m-630kc) 6:30 p. m. WJZ; 8; farm program; 8:30, WEAF; 10:45, artists. WSM Nashville, Tenn. (336.6m-880kc) 6:30 p. m. WJZ; 8; music; 8:30, WEAF; 10:45, artists. WSM Nashville, Tenn. (336.6m-880kc) 6:30 p. m. WJZ; 8; music; 8:30, WEAF; 9:30, frolic. WTMJ Milwaice, Wis, (293.5m-1020kc) 7:30 WEAF; 8:30, WSAF; 9:30, frolic. Mountain Standard Time Stations CNRC Calgary, Can. (434.8m-690kc) 9:30 p. m. pro-KOA Denver. Colo. (325.5m-220kc) 8 p. m. Scheuer, KOA Denver. Colo. (325.5m-220kc) 8 p. m. Scheuer, KOA Denver. Colo. (325.5m-220kc) 8 p. m. Scheuer, KOA Denver. Colo. (325.5m-220kc) 8 p. m. Scheuer, CoA. (325.5m-220kc) 8 p. m. Scheuer, CA. (325.5m-220kc) 8 p. m. Scheue

CNRC Calgary, Can. (434.8m-890kc) 9:30 p. m. pro-Krain. K. C. Cale (1988) and 1988 p. m. Schung-man's Colorado orchestra; 8:15. studio program; Pacific Standard Time Stations KEX Portland, Ore. (239.8m-1250kc) 7 p. m. program; 8, studio program. KFI Los Angeles, Calif. (488.5m-640kc) 7.8 p. m. 10, program, kTO;

music; 8-9, orange network; 9-10, program, 10, program, 10, program; 10, program; 8, Orange chain; 16:30, frolic.

KFOA Seattle, Wash. (447,5m-670kc) 6:30 p. m. studio program; 8, Orange chain; 16:30, frolic.

Cecitians; 8, Jamboree; 10, frolic.



KGA Spokane, Wash. (260.7m-1150kc) 6:45 p. 13. program; 10. dance music. KGO Oadland, Galii. (384.4m-780kc) 6:6:55 p. m. KGW Fortland, Ore (31.5m-610kc) 8. National KGW Fortland, Ore (31.5m-610kc) 9. pp. m. Lake (LIX Oakland, Callii. (508.m-580kc) 91. pp. m. Lake (KPO San Francisco, Calli, (422.3m-710kc) 6:30-7 p. m. organ; 8-9, orange chain; 9-10, studio program; 10-11, program.

Monday, silent night for: CFCA, CKCL, KFDM, KLDS, WFI, WGBS.

TUESDAY, JANUARY 3 Headliners

Eastern Central Mountain Pacific
7.30 pm. (440,0m:680kc) "The Dreamers"—
Auther Magnes Madrigal Mixed quartet,
WGY (479,5m:790kc) Madrigal Mixed quartet,
WKAR (277,6m:1080kc) Child Study 20urse,
Catherine Miller,

Connering Miller, September 2018 Study Source, September 2018 Study Stud

man, baritone. 8:30 7:30 6:30

WTIC (535.4m-560kc) Coombs Bouquet. 8

KFI (468.5m-640kc) Shirley Mirkin, European Olarist. planist.

KRLD (461.3m-650kc) Leland Johnson-Talking
Baritone-Feature.

WMAQ (447.5m-670kc) Kent College of law debate, 11:05 10:05 9:05 8:05 WHAM (280.2m-1070kc) "The Homesteaders" from Odenbach Restaurant.

Regular Tuesday Features Eastern Time Stations CKCL Toronto, Can. (356.9m-840kc) 7-12 mid, pro-

RTAIN.

KDKA Pittsburgh, Pa. (315.6m-950kc) 8-10 p. m.

WIZ.

WBAL, Baltimore, Md. (285.5m-1050kc) 6:30-7:30 WBAL, Baltimore, Md. (285.5m-1950kc) 5-10 p. m. WBAL, Baltimore, Md. (285.5m-1950kc) 5-20-7-30 p. m., dinner music 7;30, quartet; 8, WJZ; 9, en semble; 10, dance music 7;30, quartet; 8, WJZ; 9, en semble; 10, dance music 72: 9, musicale; 10;30, dance music 72: 9, musicale; 10;30, dance music 72: 9, musicale; 10;40, dance music 72: 9, which was the work of the work

sicale.

WGR Buffalo, N. Y. (302.8m-990kc) 6:30 p. m. ororchestra; 7:45, science news; 8:11, WEAF,
WGY Schenectady, N. Y. (379.5m-790kc) 7:30 p. m.
musicale; 8. WEAF; 8:30, WEAF; 9, WEAF; 10,
WEAF; 10:30, WEAF,

WIP Philadelphia, Pa. (508.2m-590kc) 7 p. m. recital; 10, weekly movie; 11:30, orchestra,

10, weekly movie; 11:30, orenesia, WJAX Jacksonville, Fla, (340.7m.880kc) 8 p. m. din-ner music; 9, recital; 10, dance music, WJR-WCX Detroit, Mich. (440.9m.680kc) 7 p. m. orchestra; 10, Red Apple Club, (440.9m.680kc) 7 p. m. orchestra; 10, Red Apple Club tra; 10, Red Apple Club.

WJZ New York, N. Y. (454.2m-680kc) 7 p. m. dog talk; 7:15, orchestra; 7:30, Cook's travelog; 8, Stromberg-Carlson hour, WBZ, KDKA, KYW, WBAL, 9, Continentals, WBZ, KYW, WBAL; 10, artists; 11, slumber music, KYW, WBAL; 10, artists; 11, slumber music, WLW Cincinnati, Ohio (428.3m-700kc) 7:30 p. m. orchestra; 9, Formica concert; 11, done music

FARMERS' PROGRAM INDEX

Special Farm Features

Weather Local Time

Weather
Local Time

KDKA, 10:10 a. m., 10 p. m.

KFH, 8:30 p. m.

KFH, 8:30 p. m.

KFH, 8:30 p. m.

KFKX, 10:55 a. m., 11:55 p. m.

KFKX, 10:55 a. m., 11:55 p. m.

KFKY, 10:30 a. m., 12:40 p. m.

KFKY, 10:30 a. m., 12:40 p. m.

KGA, 6 p. m.

KGO, 12:30 p. m., 7:03 p. m.

KGW, 10 a. m., 7:03 p. m.

KMM, 19:30 a. m., 12:30 p. m.

KMM, 19:30 a. m., 12:30 p. m.

KMM, 19:30 a. m., 12:30 p. m.

KMM, 19:30 a. m., 5:45 p. m.

KOMO, 12:13 p. m., 8 p. m.

KOMO, 12:13 p. m., 8 p. m.

KOMO, 12:13 p. m., 8 p. m.

KPO, 12 n.

WAAM, 7:15 p. m.

WOSH, 7:10 p. m.

WOSH, 7:10 p. m.

WOSH, 7:10 p. m.

WELL, 11:40 p. m.

WELL, 11:40 p. m.

WELL, 11:40 p. m.

WELL, 11:30 p. m.

WELL, 11:30 p. m.

WILL, 20 p. m.

WILL, 20 p. m.

WILL, 20 p. m.

WOL, 12:30 p. m.

WOL, 12:30 p. m.

WOL, 12:30 p. m.

WOL, 13:30 a. m., 2p. m.

WOL, 13:30 a. m.

WOL, 10:30 a. m.

WOL, 10:3

Monday ntral Mountain 9 a. m. 8 7 KMMJ (285.5m-1050kc), Poultry talks.

1:20 12:20 11:20 10:20
WEAO (282.8m-1660kc) Timely hints to farm version of the control of the c

Tuesday Central Mountain | Tuesday | Pacific | Paci

| Easter | Central | Mountain | Pacific Science | Control | Mountain | Pacific Science | Control | Control

SOW (296.0m-10)(idec), U. S. Farm talks, 6:20
KOA (325.9m-920kc), Farm Question box,

Wednesday
Eastern Central Mountain Pacific
11:40 a. m. 10:40 9:40 9:40
WEH (365.5m-120kc), Farm fasters,
WHK (265.3m-130kc), Parm fasters,
WHK (265.3m-130kc), Parm fastes,
WHK (265.3m-130kc), U. S. Farm fastes,
WHK (265.3m-150kc), Parm fastes,
WHK (265.3m-150kc), Varm fastes,
WHK (265.3m-130kc), U. S. Farm fastes,
WHK (265.3m-130kc), U. S. Radio farm talks,
WHK (265.3m-130kc), U. S. Radio farm talks,
WHK (265.3m-150kc), Parm fastes,
WHK (265.3m-150kc),

\(\text{Vol.} \frac{126}{365.3m-1130kc}, \text{ } \frac{1146}{31045}, \text{ } \frac{1146}{31m crops}, \text{ } \frac{121}{12} \text{ } \

Friday Stral Mountain Central

WMAK Buffalo, N. Y. (545.1m-550kc) 6:15 p. m. dinner music; 8:30, theater program; 10, program; dinner music; 8:30, theater program, sv, program, 12, organ, 12, organ, 28, organ; 8:30, Op'ry House; 9:45, quarter; 10, symphony; 11:05, dance music.

WOR Newark, N. J. (422.m-710kc) 6:15-11:05 p. m. musicale.

WPG Altantic City, N. J. (272.6m-1100kc) 6:45 p. m. organ; 8:15, concert; 10:30, musical romance; 11:30, m Manne orchestra, D. C. (468.5m-640kc) 6 p. m. N. R. C.; 7, orchestra; 8-11:30, N. B. C. WSAI Cincinnati, Ohlo (361.2m-380kc) 7 p. m. children's hour; 7:30, talk; 9-11:30, WEAF; 11:30, orchestra dren's hour; 7:30, tark, 9-11-30, chestra, WSEA Norfolk, Va. (263m-1140kc) 6:45 p. m. dinner cuncert: 8. musicale: 10. dance music

St. Petersburg, Fla. (516.9m-580kc) 8:32 program; 10, dance orchestra. Worcester, Mass. (516.9m-580kc) 7:30 p. m. WIAM Worksham Min (1998-1997) WIAM (1994) WIAM (1994) Min (1998-1997) WIAM (1994) Min (1998-1997) WIAM (1994) Min (1998-1997) Min (1994) Min (1 music; 9, concert; 9.200, studie programs; vos. chestra.
WWJ Detroit, Mich. (352.7m-850kc) 6 p. m. dinner concert; 8, WEAF; 9, WEAF; 10, WEAF.
WWNC Asheville, N. C. (295.9m-1010kc) 7 p. m. dinner music; 10, bridge.
Central Time Station

Central Time Stations
KFAB Lincoln, Neb, (319m-\$40kc) 6:30 p. m., Good
Will program; 7:30, U. of Neb: \$, orchestra; 9, Jr.
KMA Shenandon, In. (38-5m-760c) 6; n. m. proraKMA Shenandon, In. (38-5m-760c) 7; n. m. proraKMA Shenandon, In. (38-5m-760c) 7; n. m. proraKMA Shenandon, In. (38-5m-760c) 7; n. m. proKMA Shenandon, In. (38-5m-760c) 7; n. m. proKMA Shenandon, In. (38-5m-760c) 7; n. m. proKMC Houston, Tex. (293.9m-1020c) 7:30 p. m.
Jance music; 8:30, studio program,
Shella Louds, Mo. (485.1m-550c) 7-9 p. m. muShella Louds, Mo. (485.1m-550c) 7-9 p. m. mu-KSD St. Louis, Mo. (548.1m-550kc) 7-9 p. m. mu-KTHS Hot Springs National Park, Ark. (384.4m-780kc) 8 p. m. program. KYOO Tulso Okta. (384.6m-860kc) 6 p. m. dance KYW Chicaspo, III. (328m-870kc) 6:32-7 p. m. dinner program 7, WHZ. 2-10:55, musicale Westerra, 5, Unete Superior. WBBM Chicago, III. (384.6m-770kc) 7-10 p. m. pro-WBBM Chicago, III. (384.6m-770kc) 7-10 p. m. pro-WBBM Chicago, III. (384.6m-770kc) 7-10 p. m. pro-WBBM Chicago, III. (385.6m-170kc) 7-10 p. m. pro-WBBM Chicago, III. (285.3m-1040kc) 7 p. m. popular program. WBGM Catteago, III. (234.5m-1900c) 7 p. in. popular WGBD Zion City, III. (344.6m-870kc) 8 p. m. chorus, celestial bells. WCGD Zino City, III. (344.6m-870kc) 8 p. m. chorus, celestial bells. WCCO Mineapolis-St. Paul, Minn. (405.2m-740kc) 7 p. m. musicale; S. WEAF; 9;30, musical program. WCFL Chicago, III. (428.5m-620kc) 6 p. n. jabor bour; 7;35, mogram; 8;12, frolic. Warmers, Science, Fla. (424.9m-1200kc) 10 p. m. Foot-warmers, warmers, see warmers.
WDAF S. program; 11:45-1, Nightlawk frolic.
WEAF 9. program; 11:45-1, Nightlawk frolic.
P. D. program; 11:45-1, Nightlawk frolic.
WEBH Chicago, III. (365,6m-820kc) 7-8 p. m. or-chestra, artists; 9-11, Uptown theater stage prechestra, artists; 7-11, Uptown inecates assage pro-WENR Chicago, III. (228, 3m. 1-940ke) 6 p. m. organ) 8, classical program; 9:30, popular program, WFAA Dallas Tex, (485, 15m. 550ke; 7 p. m. WEAF; 1000, musicale: [1-12, musicales] 6:10, p. m. Pench and Judy; 8, WEAF; 9, musicale; 9:30, regital; 10; Sam n' Henry; 10:20, music hox; 10:40, Salernos, WHAS Louisville Kr. (222, 1m. 930ke), 7:30 p. m. WHB Kansas City, Mo. (340,7m. 980ke) 8 p. m. studio program. | WJBT Chicago, Ill. (339.4m-770kc) 10-1 a, m, popular program. | 1. (360.m-820kc) 6-7 p, m, dinner WJDD Chicago, Ill. (360.m-820kc) 6-7 p, m, dinner Victorians, Carroll and Grady. | 1. (28m-1300kc) 9 p, m, soprano; 10, studio program. | 2. (28m-1300kc) 9 p, m, soprano; 10, studio program. | 2. (28m-1300kc) 9 p, m, soprano; 10, studio program. | 2. (28m-120kc) 7 p, m, dinner concept; 11-12:30, front | 1. (28m-120kc) 7 p, m, orchestical (1. (28m-120kc) 7 p, m, orchestical (1. (28m-120kc) 6 p, m, orchestical (1. (28m-140kc) 6 p, m woc Davenport, Ia. (374.8m-800kc) 8 p. m. WEAF; WOK Chicago, III. (232m-1190kc) 11-12:20 a. m. pot-ular program; 6:50, Randall's Royal Fontenelle orches-tral; 8, poultry talks; 9, WEAF. WSB Alama, 6a. WEAF. WSB Alama, 6a. (156, orchestra, 6:30 p. m. orches-westernessed for the control of the control of the WSB Chicago, III. (232-4m-1290kc) 5-7 p. m. Hugh Swift and his Serenaders; dinner concert; 9-1 a. m., popular program.

popular program.
WSM Nashville, Tenn. (336.8m-850kc) 7 p. m. WEAF;
8. WEAF; 9. WEAF; 9:30, program,
WTMJ Milwaukee, Wis. (293.9m-1020kc) 7-12 mid.,

KFRC San Francisco, Calif. (494.3m-60002) p. m. dilmner concert? 8, movie club; 9, studio program; KFWB Hollywood, Calif. (361.2m-830kc) 4:45-12 midnight, program; 10, diame; music, KGA Spoleane, Went, (23.0-2m-1150kc) p. m. proc. (20.0-2m-16000) p. m. proc. (20.0-2m-16000) p. m. proc. (20.0-2m-16000) p. m. proc. (20.0-2m-16000) p. m. proc. (20.0-2m-6000) p. m. direct concert; 8-8-30, Cathedral Echnes; 9-10, National Breadensing communy; 10, 4, m. directional proc. (491.3m-6100) p. m. characteristic proc. (491.3m-6100) p. m. characteristic proc. (491.3m-6100) proc. (491.3m-6100) p. m. cricestra; 8-9, program; 9-11, orange chain.

Tuesday, silent night for: CFCA, KFH, KLX, WAIU, WLIT, WOS, WSMB,

WEDNESDAY, JANUARY 4 Headliners

Eastern Central Mountain Pacific 5:30 p.m. 5:30 will 230 p.m. 5:30 will Dinner Group. 6:50 kg. 10 kg WGHP (27).0m-1080ke) Entity Knetts Symposisy talks, WGY (379.5m-790ke) Remington Rand band—Edwin L. Daniels, WSUI (475.9m-650ke) Second Semester French. Prof. A. J. Dickman. 6:33 5:36 5:36 FCO (357m-840ke) Schubert Centenary program. CA (357H)-560ke School Carlot Calcium, Flogram (378,6m-560ke) Bess McLennan Hughes. HAM (280,2m-1070ke) "Musical Vistas." (BO (365,9m-980ke) "Highlights from Light and Trand Opera." 9 8 7 6 WCFL (491.5m-610kc) Robert Hawkes, impersona-

(CFL (491.5m.-610kc) Robert Hawkes, impersonations (280, 200m.) (Colored Robert Hawkes, impersonations) (191.5m.-100kc) (191.5

Columbia chain,
WR (422, 3m-7,0kc), WEAN (275,1m-1,00kc),
WMAC (461,3m-6,50kc), WFBL (288,5m-1,160kc),
WMAK (564,13m-6,50kc), WCBU (288,5m-1,160kc),
WMAK (565,1m-8,50kc), WCAU (266,7m-1,150kc), WABC (270,1m-1,150kc), WABC (270,1m-1,150kc), WABC (470,5m-7,00kc), WBBC (477,5m-7,00kc), WBBC (477,5m-7,00kc), WBBC (277,5m-1,800kc),
WMAC (447,5m-7,00kc), WOW (228,5m-1,00kc), WOW (228,5m-1,0

Eastern Central Mountain Pacific 1310kc), WCAO (243.8m-1230kc), Columbia | Muller, | W.-LD | 120-36lit key game. 11:05 10:05 9:05 8:05 JIAM (289.2m-1070kc) Organ Recital, J. Gordon Baldwin. | Baldwin. | 10:30 | 9:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | 8:

Regular Wednesday Features

Eastern Time Stations
CFCA Toronto, Can. (356.5m-840kb; 7 p. m. orchesKEA, 33.6 p. porsera.
KEA, 34.6 p. porsera.
KEA, 35.6 p. por dauce music.
 WBZ Springfield, Mass. (333.1m-900kc) 6:30 p. m. ensemble; 8, WJZ; 8:30, WJZ; 9, WJZ; 10, artists; mentioners, S. W. T. 2088, S. S. 2011.30, p. m. 1935, orthostra, 1935, ort

WFLA Clearwater, Fla. (\$16.9m-580kc) 8:30 p. m. Central Standard Time Stations open house; 10, dance program (August 1998) 10 p. m. KFAB Lincoln, Neb. (310m-840kc) 5:30-6:30 WFLA Clearwater, Fla. (516.5m-560kc) 8:30 p. m. open house; 10. dance program.
WGBS New York, N. Y. (348.5m-560kc) 6:30 p. m. WGHP Detroit, Mich. (277.5m-1600kc) 6 p. m. dinner concert; 9; Columbia chain.
WGHS New York, N. Y. (369.5m-560kc) 7:45 p. m. piano MGR Buffalo, N. Y. (309.5m-560kc) 7:45 p. m. piano MGR Buffalo, N. Y. (309.5m-560kc) 7:45 p. m. piano MGR Buffalo, N. Y. (309.5m-560kc) 7:30 p. m. program; WGY Schemectady, N. Y. (379.5m-760kc) 6:30 p. m. WGAR; 9:30, police hour; 10. studio program, m. prochestra; 11.30, Silver Silper or correctstra; 12. Feivolity club.
WJR. WGY Schemectady, N. Y. (379.5m-760kc) 8:30 p. m. werenad with the control of the farm radio council talk; 8, WEAF; 10:01, organ; 11, orchestra; WMAK Buffalo, N. Y. (848,m-850kc) 6:15 p, m. dinner music; 8, band; 9, Columbia chain; 11:05, WMCA New York, N. Y. (370,2m-810kc) 6:30 p, m. orchestra; 10, musicale; 12:30, frolic club WNAC Boston, Mass. (461,3m-850kc) 7:30 p, m. program; 9, Columbia chain; 11:05, dance music. program; 9, Columbia chain; 11:05, dance music. WPG Atlantic City, N. J. (272,6m-1100kc) 7:05 p, m. dinner music; 9:30, feature; 10, band; 11:15, dance music.

WCOA Pensacola, Fla. (249.9m-1200kc) 8 p. m. pro-WDAF Kansas City, Mo. (370.2m-810kc) 7:30-9:30 p. m. WEAF; 9:30, Cavaliers; 11:45-1 a. m., Nighthawk frolic, WDOD Chattanooga, Tenn. (243.8m-1230kc) 7-10 p. m.

WHI Lies Moines, Is. (838-4m-8900c) 7-11:39 p. m. WHI Chicago, III. (395-4m-890c) 8:30 p. m. musicale, WHBO Chicago, III. 305-3m-3800c) 7:10 p. m. program; 10, musicale, WHBA Chicago, III. (265m-1140le) 7 p. m. program; 9, studio concert. WJJD Chicago, III. (365-6m-8200c) 3-9 p. m. children's musical hour; 11:12, Victorians, WLAC Nashville, Tenn. (226m-13300c) 7 p. m. classical transportation of the concern of the concern



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WMAQ Chicago, Ill. (447.5m-670kc) 7 p. m. North western university; 8, Columbia chain; 10, Steven hatel orchestra, WMBB Chicago, III. (252m-1190kc) 6 p. m. dinner musici 7.10/30, program, WMBI Chicago, III. (252m-1140kc) 8 p. m. orchestra, WMC Memphis, Tenn. (516.3m-580kc) 8 p. m. WIZ; 9, WEAE; WOAI San Antonio, Tex. (499.7m-600kc) 9-10 p. m. Ulzin brusera. WOAI San Antonio, 1ex. (499.7m.+000c) 9-10 p. m. Urah program. La. (348.m-900ke) 7-30 p. m. WOO. Let's 19-30, WEAP; 9-30, talks. WOS Lefferson City, Mo. (422.3m-710ke) 7 p. m. Farm school; 8, program. (242.3m-710ke) 7 p. m. WEAF; 8 WOW Omaha, Neb. (508.2m-890ke) 7 p. m. WEAF; 8 W. M. WOW Omaha, Ca. (475.9m-630ke) 8-10, WEAF; 10:45, WEAF; 10:

D. m., WEAF, W. WEAF, D. W. WEAF; 10:45, WSB Adhato, G. (475.9m-630kc) 8-10. WEAF; 10:45, WSB Adhato, G. (475.9m-630kc) 8-10. WEAF; 10:45, WSB Adhato, G. (475.9m-630kc) 7-15 p. m. dinner concert; 8. WEAF; 8:130, WEAF; 9:130, mrs. (9:40, organ. 19:40, org

Wednesday, silent night for: CKCL, WCBD, WFAA, WFI, WGBF, WGBS, WIP, WJAX.

THURSDAY, JANUARY 5 Headliners

Eastern Central Mountain Pacific 7:15 p.m. 6:15 WKAR (277.6m-1080kc) "Makers of Agricultural History," History, 6:30 5:30 4:30 WGY (379.5m-790kc) "The Lives of Some Com-mon Animals," Part 111—Mammals, Prof. Robt. & Enders. Mon Animals," Fart L. K. Enders, "R. Enders, "R. Enders," R. K. Enders, "R. K. K. Enders, "R. K. K. Enders, "R. K. K. L. (461.3m-650kc) Alexander Skavenna, violinist—Marie Jensen, planist, "R. K. K. L. (1888) Andrigat Mixed quartette, "R. C. (188

KRLD (461.3m-550kc) Alexander Skavenna, violinist-Marie Jensen, pinistel, Mixed quarrette,
WHAM (280.3m-1070kc) Malrigal Mixed quarrette,
WSU (455.3m-650kc) He Short Story in Verse,
1815. 5115. 61

Tierre orchestra, 10 9 8 7 WTIC (535.4m-560ke) Clum Worthy Hills orchestra KUOO (348.6m-860ke) Marie M. Hine, organist. 10 9 8 CFCA (357m-840ke) London Versatile Canadians, KFI (468.5m-640ke) Drana program, direction of Kirl (468,5m-640kc) Program of Modern Classical musics.

Regular Thursday Features Eastern Time Stations

Eastern Time Stations
CFCA Toronto (358,9m-840ke) 11 p. m. Canadians,
KDKA Pittahurgh, Pa. (315.6m-950kc) 7 p. m. skeich;
S:30, W1Z; 9:30, W1Z;
WBAL Baltimore, Md. (285.5m-1650kc) 6:30 p. m.,
dinner orthostra; 7:30, musicate; 8:30, W1Z; 9,
W1Z; 10, ensemble,
WBZ Springfeld, Mass. (333.1m-900kc) 8, W1Z; 9,
WCAE Pittshoop, Palestill 3m-850kc) 7 p. m. dinner
concert; 8, WLAY; 10, WEAF; 11:30, club revue.
WCSH Portland, Me, (365.6m-820kc) 7:30 p. m.
WFAF

WMAK Bulfalo, N. V. Clearun-Solke) 6:15 p. m. dinemer music; 7:30, talk; 9, popular program; 11:05, hallroom.
WNAC Buten, Mass. (461.3m-Solke) 6:30 p. m. dinemers music; 11:05, orthostra.
WNAC Buten, Mass. (461.3m-Solke) 6:30 p. m. dinemers music; 11:05, orthostra.
WOR Newart, N. J. (422.3m-710kto 6:15 p. m. en-windight; 11:05, orthostra.
WOR Newart, N. J. (422.3m-710kto 6:15 p. m. en-windight; 11:06, orthostra.
WOR Newart, N. J. (422.3m-710kto 6:15 p. m. en-windight; 11:06, orthostra.
WOR Newart, N. J. (422.3m-710kto 6:10.20, Grab bag; 11:30, darber orchestra.
WRC Washington, B. WUAF; 10:30, band, WRC Washington, B. WUAF; 10:30, band, WRC Washington, B. WUAF; 10:30, band, WRA Richmond, Va. (224.1m-1180kc) 8, m. p. m. poems; 10:30, WEAF; 11:30, Carry Ma Back to Old Virginary.
WSAI Chadimated Oline (361.2m-830kc) 7, p. mogram; 10:30, WEAF; 11:30, orthestra.
WSEA Norlolk, Va. (283m-110kc) 6-55 p. m. dinner 10:30, WEAF; 11:30, orthestra.
WTAG Worcester, Mass. (516.3m-830kc) 8, m. orthestra; 10, orthestra. (338.3m-450kc) 6 p. m. orthestra; WTAG Worcester, Mass. (338.3m-550kc) 6:30 p. m. dinner worther worth of the worth of

Central Standard Time Stations

Ia. (394.5m-760kc) 7-8:30 p. KMA Shenandonh, Ia. (394.5m-760kc) 7-8;30 p. m. Mandoiin Musicians. KOIL Council Bluffs, Ia. (319n-940kc) 9 p. m. revue; Il. ambassadors; 12. Pow-Wow. KPRC Houston, Tex. (293.9m-1020kc) 7:30-9;30 p. m. studio concert. studio concert.

KTHS Hot Springs National Park, Ark. (384-ma-780kc) 8 p. m. polo program; 9, dance frolic,
VOOT blass, 96ka, 586-mes68kc; 0 p. m. instru-KYW Chicago, Ill. (526m-570kc) 7-8 p. m. program; 8-10, W12-1, 0, program, 10-32, Congress carnival; 6-10, W12-1, 0, program, 10-32, Congress carnival; chestra; 8, WEAF; 10, musicale; 10-45, concert; 11315, organist. m. companist. 11:15, organist.
WBBM Chicago, Ill. (389,4m-770kc) 7-11 p. m. program; 11. Hank and His Gang.
WBCN Chicago, Ill. (288,3m-1040kc) 7 p. m. pro-WCBD Zion, III, (246.53n-1900kt) / p. iii. pro-WCBD Zion, III, (246.45m-570kt) 8 p. m. Cornet quartet, vocal solos, trio. VCCO Mineapolis-St. Paul Minn. (405.2m-740kc) //33 p. m. WEAF, 9. WEAF, 9.30, WJZ. WEAF, 19.30, WJZ. Jan. 19.10, 19.1 frolic, the GH; (, WEAF; 11:45-1, Nighthawk | WEBH Chicago, Ill, (365,6m-820kc) 7-10 p. m. N.B.C.; | 10:15, orchestra.

den.
WHAS Louisville, Ky. (322,4m-930kc) 7:30 p. m.
WEAF; 9, studio concert.
WHB Kansas City, Mo. (336,9m-880kc) 7 p. m. dinner flour organ; 8, evening concert; 9:30, dance ner nour visans v. music.

WHO Des Moines, Ia. (535.4m-560kc) 6;30 p. m. diner concert; 7, WJZ; 9, program; 9;30, WEAF.

WHT Chicago, III. (305.9m-980kc) 8;30-10 p. m. evening program.

WIBO Chicago, III. (305.9m-980kc) 7:10 p. m. musicale; 10, popular program.

WJAZ Chicago, III. (263m-1140kc) 9:30 p. m. studio WJAZ Chicago, Ill. (285m-1140kc) 9:30 p. m. studio WIOSTATICHEGO, Ill. (385.6m-820kc) 8:9 p. m. chil-dere's hour; 11-12, Victorians. WLAC Nashville, Tenn. (285m-1330kc) 9 p. m. pro-gram; 10-11, orchestra. WLB Chicago, Ill. (416.4m-720kc) 7 p. m. ensemble; 111 a. m. organ. 112 a. m. organ. 113 c. m. organ. tone hour.

WMAQ Chicago, Ill. (447.5m-670kc) 7 p. m. U. of
Chicago lecture: 8, orchestra; 9, WMAQ players;
10, Chicago theater.

WENR Chicago, III. (288.3m-1040kc) 8, orchestra, artists; 9:30, popular program.

WFAA Dallas, Tex. (685.1m-550kc) 7 p. m. musical units; 7:30, WEAF; 9, program.

WON Chicago, III. (186.4m-720kc) 6:10 p. m. Punch and July; 6:35, ensemble; 8, WEAF; 10:10, Sam n Lamry; 10:20, Mitsel Rost, 10:40, Carrell and Gas WEAF; 9, WEAF; 10:40, Mark 10:4 WAC Marphort, Ia. (374.8m-800kc) 7:30 p. m. Kel-vinator hour. (374.8m-800kc) 7:30 p. m. Kel-vinator hour. (374.8m-800kc) 7:30 p. m. Kel-winator hour. (374.8m-800kc) 7:30 p. m. WOC Davenport, 1a, 1676,6111-500000, 7,500 p.m., N. B. C.
WOW Omaha, Neb. (508,2m-590kc) 6 p. m. organ; 7, WEAF; 7:30, WEAF; 9:30, WIZ.
WQJ Chicago, Ill. (447,5m-670kc) 11:30 p. m. orchestra. WSB Atlanta, Ga. (475.9m-630kc) 8 p. m. WIZ: 10:45. WSB Atlanta, Ga. (478.9m-630kc) 8 p. m. WJ 2; 10:45, organ, WSB WSB Atlanta, Ga. (478.9m-630kc) 7:30, WEAT; WSB New Orleans, La. (296.9m-1010kc) 8:300-10:30 p. m. program, WTMJ Milwatkee, Wis. (293.9m-1020kc) 8, WJZ; 9, old favorites; 10, dance orchestra.

Mountain Standard Time Stations CNRA Calgary, Can. (434.8m-650kc) 9 p. m. CNR program.

Pacific Standard Time Stations KFI Los Angeles, Calif. (468.5m-640kc) 7 p. m. University of S. C.; S. drama hour; 9, orange network

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KFRC San Francisco, Calif. (454m-660kc) 6:20 p. m. beauty talk; 7, musicale; 9, studio program; 10, benty Talk; 7, musicale; 9, second dance orchestra,
KFWB Hollywood, Calif. (361,2m-330kc) 6-7 p, m,
dinner concert; 7:50, news; 8-9, features; 9-10, program; 10-11, trolles. (3844m-760kc) 6-6:55 p, m.
Stanisha Hen's Little symphony; 8, drama hour;
9-10, orange network; 10, orchestra.
KGW Portland, Ora. (491,3m-610kc) 6-7 p, m, dinner
concert; 8, concert; 10, National Broadcasting com-Pany Day Angeles, Calif. (416.4m-720kc) 6:30-7:30 kpany m, children's hour; 8-10, string quartet. PP San Francisco, Calif. (422.3m-710kc) 6:30-7 p, m, organ; 8-9, program; 9 N. B. C.; 10, quartet. Thursday, silent night for: KFAB, KLX, KOA, WAIU, WDOD, WEAO, WEMC, WLIT, WOO, WOS.

FRIDAY, JANUARY 6

Esther A, Nelson, B Austin Organ Recital—R KRLD (461.3m-650kc) Ruth Muse, Buster Dees, KSAC (333.1m-900kc) The Dees, KSAC (333.1m-900kc) Bill Salling.

SKAC (333,m-900kc) The Pageant-Asst, Prof. Oscool Hall Burr.
WHYAY (379,m-750kc) Fro-Joy Hour.
WHAA (280,2m-1670kc) Yawman and Erbe "Cur-WHAA (280,2m-1670kc) Tawman and Erbe "Cur-WHAA (280,2m-1670kc) Tawman and Erbe "Cur-WHAA (280,2m-1670kc) Fro-Joy Hour.
WHAA (280,2m-1670kc) Fro-Arth Schamberger Arth Schaehe University of the Company of the Com Regular Friday Features

Regular Filiary Features

Eastern Time Stations

KDKA Pittsburgh, Pa. (315.5m.-950kc) 8, WJZ; 8:30, WJZ; 9:00, R. V. B. trio, 9, Columbia chain; 10:30, Bernelosko; 8 p. m. trio; 9, Columbia chain; 10:30, Bernelosko; 7:30-10, WBAL Baltimore, Md. (285.5m.-1050kc) 7:30-10, WBAL Baltimore, Md. (285.5m.-1050kc) 7:30-10, WBAL Baltimore, Md. (285.5m.-1050kc) 6:15. p. m. WBAL Springfield, Mass. (333.1m.-900kc) 6:15. p. m. Chair S. S. WBAL Springfield, Mass. (333.1m.-900kc) 6:15. p. m. Chair S. S. WBAL Springfield, Mass. (333.1m.-900kc) 6:15. p. m. Chair S. WBAL Springfield, Mass. (333.1m.-900kc) 6:15. p. m. Chair S. WBAL Springfield, Mass. (333.1m.-900kc) 6:15. p. m. Chair S. WBAL Springfield, Mass. (333.1m.-900kc) 6:15. p. m. Chair S. WBAL Springfield, Mass. (333.1m.-900kc) 6:15. p. m. Chair S. WBAL Springfield, Mass. (333.1m.-900kc) 6:15. p. m. Chair Springfield, Mass. (333 WHA Springment Amass, (333,1m-900ke) 6/15 p. m. 3113, strens-113, grom WGR Buffalo, N. Y. (302.8m-990kc) 6:30-7:30 p. m. dance orchestra; 8-11:30, WEAF WGY Schenectady, N. Y. (373.8m-790kc) 7:30 p. m. dumer music: 9, WEAF; 9:30, players; 10, WEAF, WF Philadelphia, Pa. (348.6m-880kc) 7 p. m. beddimer music: 9, WAAY: 9:30, hayers 10, wLPt-Mine story, phila, Pa. (348.m-860kc) 7 p. m. bed-time story, phila program; 13, WZ.

WJAX Jacksonville, Fla, (340.7m-880kc) 8 p. m., popular program; 3, WZ.

WJX New York, N. Y. (440.8m-880kc) 8 p. m., popular program; 3, WZ.

WJZ New York, N. Y. (485.2m-860kc) 8 p. m. Re-Told tales, KI)KA, KYW, WJR; 8:30, Royal Stemographers, WJZ, KINEA, KYW, WJR, STEMOGRAPH,

Central Time Stations KFAB Lincoln, Nebr. (319m-940kc) 5:30-6:30 p. m. Hotel Lincoln orchestra; 8-10:30, program; 11-1,

Hotel Lincoln orenestra; 8-10:30, program; 11-1, KMA Shenandan, In. (38.8-m-folke); 7 p. m. band, KOIL Council Bluffs, Ia. (319m-840kc) 7 p. m. program; 9, artists; 12, Pow-Wow.
KSD St. Louis, Mo. (548.1m-850kc) 6 p. m. WEAF; 8:30, dance music; 11, orthestra. KTHS dot Springs National Fark, Ark. (384.4m-87); 11-1, 11 Touse() 5 p. m. specializes; vov. 5 p. m., concert; corchestrias, Odia, (348.6m.860kc) 6 p. m., concert; 7, WEAF; 8, musicale.
KYW Chicago, III. (526m.870kc) 7-9 p. m. WJZ; 9-10:30, carnival; 10:30-11:55, musicale.
WBAF Fort Worth, Tex. (489.7m.600kc) 6 p. m., or-with the concern t program.

WCCO Minneapolis-St. Paul, Minn. (405.2m-740kc)
7 p. m. WEAF; 9, musicale; 10:05, dance orchestra.

WCFL Chicago, Ill. (483.6m-620kc) 10-12, mid. pro-WCOA Pensacola, Fla. (249.9m-1200kc) 8 p. m. pro-WDAF Kanasa City, Mo. (370.2m-810kc) 7 p. m. WEAF; 8, program; 8:30, WEAF; 9, musicale; 9:30, dunes hour; 1:145-1 a. m. Nighthaws frolic. Wb. m., music. wogs, Tenn. (243.8m-1220kc) 7-10 p., music. WEBH Chicago, III. (285.8m-220kc) 7-8 p. m. artists; 8, WEAF; 9-11, orchestra. WEAF, p. m. artists; 8, WEAF, p. 18, m. artists; 8, wear, p. 18, m. artists; 9-11, orchestra. wear, p. m. artists; 9-11, orchestra. wear

8. classical program; 9:30, studio program.
WFAA, Dallas, Tex. (\$45.1m-550kc) 7 p. m. music;
WFAA, Dallas, Tex. (\$45.1m-550kc) 7 p. m. music;
WGN, Dictago, III., (416.4m-720kc) 8 p. m. WEAF;
8:30, Paul Asl; 9, Arabian Nights; 10:10, Sam in;
Henry; 10:20, Music Box; 10:40, program.
WHB Kanasa City, Mo. (340.7m-880kc) 7:30 p. m.
studio concerte, Ky. (262.4m-390kc) 7:30 p. m.
wHB Kanasa City, Mo. (340.7m-880kc) 7:30 p. m.
wHB C beach Molines, Ia. (353.4m-560kc) 6:30 p. m. or-chestra; 8:30, N. B. C.
WHT Chicago, III. (365.8m-890kc) 7:10 p. m. dinner
WHZ Chicago, III. (365.8m-890kc) 7:10 p. m. dinner
WHZ Chicago, III. (365.8m-890kc) 7:20 p. m. dinner
WHZ Chicago, III. (365.8m-890kc) 7:20 p. m. Duo;
10. Showboat; 11-12, popular
WHZ Chicago, III. (474.8m-870kc) 7:20 p. m. Duo;
10. Showboat; 11-12, popular
WMAQ Chicago, III. (474.8m-870kc) 6 p. m. chimes;
WMAQ Chicago, III. (474.8m-870kc) 6 p. m. chimes;
WMAQ Chicago, III. (475.8m-190kc) 6 p. m. chimes;
WMAQ Chicago, III. (475.8m-190kc) 6 p. m. chimes;
Concert; 7, ensemble; 8:30, Trianon orchestra.
WMG Memphis, Tenn. (516.3m-580kc) 8:30 p. m. program, WQJ Chicago, Iil. (447.5m-670kc) 10 p. m. orchestra, WOAI San Antonio, Tex. (499.7m-600kc) 9 p. m. pro-

WCG Davenort, Ia. (374.8m-800kc) 7 p. m. yto-WCC Davenort, Ia. (374.8m-800kc) 7 p. m. WEAF; 8:30, WEAF, WCS Jefferson City, Mo. (422.3m-710kc) 7 p. m. U. S. Radio farm school; 8, program, WCW Omaha, Nebr. (862.2m-850kc) 6 p. m. Hugo WCW Omaha, Nebr. (862.2m-850kc) 6 p. m. Hugo Hugon, marithus, Emil Hofman, planist; 9, WEAF, Hugon, marithus, 18-3m-800kc) 8 p. m. program; 10:45, concert, (478.5m-800kc) 8 p. m. program; WSB Atlanta, Ga. (475.8m-630kc) 8 p. m. program; 110.45, concept. Tenm. (336.3m-890kc) 8 p. m. program; 110.45, concept. (10.45, concept. 10.45, concept. (233.5m-10.20kc) 7 p. m. classical program; 8, hour of classics; 10, WEAF, Mountain Standard Time Stations KOA Denver, Colo. (325.3m-20kc) 7:30 p. m. S. S. lesson; 8, musicale; 10, dance orchestor, KOB State College, N. M. (394.4m-760kc) 7:30 p. m. or Phanife Stations.

orchestra.

Pacific Standard Time Stations

KFI Los Angeles, Calif. (468.5m-640kc) 7 p. m.
organ; 8, program; 9, orange network; 10, musicale, KFI

KFOA Seattle, Wash, (447.5m-670kc) 9-10, chain program; 10:30-12, KGW, KFRC San Franctices, Calif. (484.3m-660kc) 6:30 p. m. KFRE San Franctices, Calif. (484.3m-660kc) 6:30 p. m. KFWB Hollywood, Calif. (361.3m-830kc) 7 p. m. or chestra; 7:50, News; 8-11, 00:300 (190.3m-60) 6:35 p. m. KGO Oakland, Calif. (364.3m-630kc) 6:455 p. m. KGO Oakland, Calif. (364.3m-630kc) 6:455 p. m. Stondard, Calif. (368.3m-630kc) 6:70 p. m. dinner concert; 8-9, concert; 9, National Broadcasting Company orchestra; 10, orchestra. KGW Fortland, Ore. (491.3m-620kc) 6:70 p. m. dinner concert; 8-9, concert; 9, National Broadcasting KGW Fortland, Ore. (491.10:30, Hoof Outle, KMU, KFOA, KM, Concert; 10:30, Hoof Outle, Calif. (480.3m-630kc) 6:30-7:30 children shour; 8-10, popular program; 9:30-10:30, Altens Athletic club orchestra. KLX Oakland, Calif. (562.3m-590kc) 8, m. special program; 9:30-10:30, Altens Athletic club orchestra. KLX Oakland, Calif. (562.3m-590kc) 8, m. special program; 9:30-10:30, Altens Athletic club orchestra. KPO San Francisco, Calif. (422.3m-710kc) 6:30 p. m. States Restaurant orchestra; 8-9, orchestra; 9-11, string trio.

Friday, silent night for: CFCA, CKCL, KPRC, KPSN, WCBD, WFI, WIP, WLAC, WLIT, WPG.

SATURDAY, JANUARY 7

Headliners
Eastern Central Mountain Pacific (St. R.L.) (461.3m-650) Buster Dess, Margaret San-615 (8.15 | Total | Peature | Si15 | Si20 | Si2 vs. Michigan. 9:30 8:30 7:30 6:30 WMAQ (447.5m-670kc) Pratt and Sherman, song cycle, 10 WJR.WCX (440.9m-680kc) Charlotte Meyer and Mary Tudor, the "WJR's Personality Girls," WSM (336.9m-890kc) Regular Barn Dance program, 10:30 8:33 8:33 KFI (468.5m-640kc) Felipe Delgado, Spanish baritone. 10 9 10 9 18 KOA (325,9m-900ke) Chief Gonzales and his Arabian Room orchestra. 9:05 8:05 WHAM (280,2m-1070ke) Hughie Barrett's Sagamore hotel orchestra. 10:10 9:30 KOII. (319m-940ke) Red Hends, 12 11 KFI (468,5m-640l KFI Minter Folic, Los Angeles The Dept. prefer Minter Folic, Los Angeles The Dept. prefer Minter Folic, Los Angeles The Dept. prefer Minter Folic.

Regular Saturday Features

K! K(

Eastern Time Stations
CFCA Toronto, Can. (357m-840kc) 8 p. m. talk; 9 CECA 10 round, Can. (35/m-990kc) 8 p. m. tink; y Exemplication of the control of musicale; 8:10, program; 10:20, Hotel Statler or-chestra.

WEAF New York, N. Y. (491.5m.610kc) 6-12 mid. High-linkers; Old Gold on Broadway; orchestra.

WEEI Boston, Mass, (508.2m-590kc) 7:20 p. m. or-chestra; 8: WEAF; 10, crusing the air: 10:05, news.

WFI Philadelphia, Pa., (405.2m-740kc) 8 p. m., pro-gram; 10, orchestra,



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Don't pay exorbitant prices for batterin-the SERPA "B" ELIMINATION COSTS TO MANUAL TO SERVICE AND THE SERVICE AND

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With Library (1997) and the second of the se WIR SUMMAN DAVISH Hadinac Callidan, 1981bc) 7 p. m. orchestra; 8, W1/Z, 10, Personality (Girls; 1015; Corton Fickers; 11:30, orchestra; Million (Girls; 1015; Corton Fickers; 11:30, orchestra; Million (Girls; 1015; Corton Fickers; 11:30, orchestra; Million (Girls; 1015; Corton Fickers; 10:30, orchestra; Million (Girls; 10:30, orchestra; 10:30, WRC Washington, D. C. (468.5m-640kc) 7 p. m. Bible talk; 8, U. S. Army band; 9, WJZ; 10, or-Hible talk; 8, U. S. Army band; 9, WJZ; 10, or-chestra.
WSAI Cincinnati, Ohio (361.2m-630kc) 7:30 p, m, program; 10, WEAF,
WSEA Norfolk, Va. (263m-1140kc) 6:45 p, m, dinner concert; 8; rectial; 11, dance orchestra.
WJZ; 10, orchestra.
WTAM Cleveland, Ohio (399.8m-750kc) 6 p, m, orchestra; 7, studio concert; 8, Indians; 10, minstrel; 11, dance orchestra.
WWJ Detroit, Mich, (332.7m-850kc) 8:30, WEAF; 10, program,

Central Standard Time Stations

KFAB Lincoln, Nebr. (319m-940kc) 5:30-6:30 n. m. Hotel Licelin orchestra; 8-9, orchestra; 9-10, Chamler of Commerce programs—8-9, orchestra; 9-10, Chamler of Commerce programs—760kc) 7 n. m. string quarter; 11, Ambassadors; 12, Pow-Wow, KPRC Houston, Tex. (293,9m-1020kc) 7:30 p. m. dance orchestra; Nathan Park, Ark. (384-4m-780kg) 8 p. m. semi-classical gemes; 8:30, musicale;

780kc) 8 p. in, som 9, dance concert. KVOO Tulsa, Okla. (348.6m-860kc) 6:45 p. m. popu-lar songs; 8, WIZ; 9, concert.

KYW Chicago, III. (526m-570kc) 6:33-7, p., djimer KYW Chicago, III. (526m-570kc) 6:33-7, p., djimer concert; 7-9, W1Zr; 9-10:32, Congress Carnival; WEAP Fox technistra. WEAP Fox (1993/m-600kc) 6 p. m. or-chestra; 8, W1Zp. WBBM Chicago, III. (389.4m-770kc) 7 p. m. or-chestra; 10, studio program; 12, jazz program. WPD Chicago, III. (389.4m-100kc) 7 p. m. or-chestra; 10, studio program; 12, jazz program. Program, Calssical

program.

WCCO Minneapolis-St. Paul, Minn. (405.2m-740kc)
6:15 p. m. dinner concert, Wesley Barlow's Nicollet
hotel orchestra; 8, WIZ; 10:15, dance program.

WCFL Chicago, III. (483.6m-620kc) 7-12 mid, enter-

taniment.

WDAF Kansas City, Mo. (370.2m-810kc) 8 WJZ; 910. popular program; 11:45-1 a. m., Nighthawk froite.
WEBH Chicago, III. (365.6m-820kc) 7 p. m. classical hour; 11-12, orchestra.
WENR Chicago, III. (288.3m-1040kc) 6 p. m. organ; 8, classical program, 9:30, popular program.
WFAA Dallas, Tex. (354.1m-530kc) 7-8 p. m. artists; 5-11, musicale; 11-11:30, orchestra; 11:30-12:30 a, m. riake: Biotect Faiture; organ recital.

WGR Buffalo, N. Y. (303m-990kc) 8 p. m. WEAF; 9:30, WEAF; 11:305, support.
WGY Schneetady, N. Y. (3(798.5m-790kc) 7:30 p. m. WEAF; 11:408 masses of the support of the supp N. B. C. WHT Chicago, Ill. (305.9m-980kc) 8:30-10 p. m. pro-WHATM.nenge, II., (308.5m.+890kc) 8;30-10 p. m., pro-WHOO chicago, III. (308.5m.+890kc) 7:10 p. m. musi-cale 10, popular program. WJAZ Chicago, III. (363m.+1100kc) 7 p. m. dinner concert; 9, studio. WJJD Chicago, III. (365.6m.+820kc) 6 p. m. symphony; 8-11, Palmer House program. WJAC Nastville, Tenn. (226m.+1330kc) 7 p. m. chil-dren s period; 8-9, program. WJAC Mastvolle, Tenn. (226m.+1330kc) 7;30-1 a. m. barn WJAC Mastvolle, III. (344.6m.+870kc) 7;30-1 a. m. barn Was Chicago, Ill. (447.5m-670kc) 8, photologue; WA.A.Chicago, Ill. (447.5m-670kc) 8, photologue; Chicago, Ill. (252m-1190kc) 6 p. m. dinner con-cert; 7-8:30, Trianon ensemble; 8:30-10, popular wMC Memphis, Tenn. (516.9m-580kc) 8 p. m. WJZ; 9. urchestra.
WOC Davenport, Ia. (374.8m-800kc) 7-8 p. m. musicule; 8. WIZ.
WOW Omaha, Neb. (508.2m-590kc) 6 p. m. program;
8. WIZ; 9. program.
WOZ Chicago, III. (447.5m-670kc) 9:45 p. m. popular BTOKTAM. WSB Atlanta, Ga. (475.9m-630kc) 8 p. m. WJZ; 10:45, WSM Nashville, Tenn. (336.9m-890kc) 8-9 p. m. N. R. C. : 9-11:30, burn dance.
WSMB Nashville, Tenn. (336.9m-800kc) 8:30-10:30 p. m. Public School of the Air program; organ p. m. Public School of the Air program; organ solos. WSUN St. Petersburg, Fla. (516.9m-586kc) 7 p. m. Flordia theater program; 10. Ed and Majua; 11, dance orchestra. WTMJ Milwaukoe, Wis. (292.9m-1020kc) 8 p. m. WJZ; 9. Engles.

WTMJ Milwaukoe, Wis. (223.9m-1020kc) 8 p. m. WJZ; 9, Engles.

3F1 Los Angeles, Calif. (468.5m-640kc) 7;30 p. m. program; 8.9, orange network; 9-10, N. B. C.; 11-KFRC, San Franchsco, Califf. (464.5m-660kc) 6:30 p. m. program; 8.9, orange network; 9-10, N. B. C.; 11-KFRC, San Franchsco, Califf. (464.5m-660kc) 6:30 p. m. San Geolians; 8-10, ordestra; 10-12, dance music. KFRC San Hybrod, Califf. (463.4m-760kc) 9:5 p. m. Martinal Broadcasting company; 9-10, musicale; 10-11, program, KGO Oakland, Califf. (484.4m-760kc) 9: p. m. dimedial Broadcasting company; 9-10, musicale; 10-12, dance orange or

Saturday, silent night for; KFDM, KGA, KLX, KOB, WBAL, WCBD, WCSH, WGBF, WGHP, WICC, WJAR, WOAI, WOS. WRVA, WTIC, WWJ.

SUNDAY, JANUARY 8 Headliners

| Central | Mountain | Pacific | Sci | Princip | Mountain | Princip | Sci | Princip | Mountain | Princip | Princip | Mountain | Princip | Princip | Princip | Princip | Princip | Mountain | Princip | Pr

Eastur Contral Mountain Pacific WGL (302.8m.990kc), WCC (374.8m.990kc), WCC (374.8m.990kc), WCC (374.8m.990kc), WCC (374.8m.990kc), WFL (408.2m.740kc), WCC (436.6m.990kc), WFL (408.2m.740kc), WCC (498.2m.740kc), WCC (498.2m.74 8:30 7:30 6:30 (384,4m-780kc) Mrs. George Fletcher,

Soprano. 9:45 7:45 6:45 KTHS (384,4m-780kc) Edward Barry, tenor. 10 9 7

KTHS (384.4m-780kc) Edward Barry, tenor, 10 kg/lon-50ke) Willard Muse, tenor, 10 kg/lon-650ke) Willard Muse, tenor, 11 kg/lon-650ke) Willard Muse, tenor, 11 kg/lon-650ke) Willard Muse, tenor, 12 kg/lon-650ke) Williard Muse, tenor, 12 kg/lon-650ke) Willia

MONDAY, JANUARY 9

| Company | Comp Headliners Thayers, WSM (336.9m-890ke) Frolic including Tom, Joe and Jack, WSM ministrel men, and an analysis with the same of the property of the pence, and the property of the pence, and the property of the pence, and the pence of the pence, and the pence of WJR-WCX (440,9m-680kc) "Along Tin Pan Alley."
11:30 10:30 9:30 8:30
11:30 12 11
WSUI (475.9m-530kc) Pastime Theatre program,
Elaine Blair, organist.

TUESDAY, JANUARY 10 Headliners

Headliners

Table 1. Mountain Pacific

Table 1. Mountain Pacific

Table 1. Mountain Pacific

Table 1. Mountain Pacific

Table 1. The Director of Mountain

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Central Mountain Pacific | Section | Sect

WEDNESDAY, JANUARY 11 Headliners

| Central | Mountain | Pacific | Tp.m. | Central | Tp.m. KV00 (148,6m-86/lkc) Wednesday Morning musical chib, WMA0 (147,5m-670kc) "Human Life and Human Science," Dr. E. E. Sissoni.
WHAM (147,5m-670kc) "Human Life and Human Science," Dr. E. E. Sissoni.
Wham (147,5m-670kc) "Second Semester French, 158,30" (147,30") 5130
WHAM (280,2m-1070kc) "Musical Vistas." 6
WCHL (491,5m-610kc) Harold O'Haldrora, 158,30" (148,30") 1130
WTHS (384,4m-780kc) Perry Dring and his ukcelet.
KOHL (319m-940kc) Prof. Heinrich Schultzenheim and his Borsonic Hayar Choral Society.
WES (344,5m-870kc) Hayar Choral Society.
WHAM (140,2m-870kc) Hayar Choral Society.
10:15 Favonic Soprano. 3
WHAWCX (440,2m-680kc) Muriel Magerl Kyle.
KTHS (384,4m-780kc) Organ recital by Miss Margaret Glass. 10:39
WMM (336,2m-890kc) Rob Stark's Tennesseans garet Glass. 11:30 9:30 8:30 WSM (336.9m-890kc) Bob Stark's Tennesseans orchestra.

THURSDAY, JANUARY 12

| HURSDAY, JANUARY 12 | Headliners | Central (4:30 p.m. 15:30 | Mountain (5:30 p.m. 15:30 p.m. 15:30 | Mountain (5:30 p.m. 15:30 p 11 10 9 8 KNX (336.9m-890ke) Calmon Luboviski, master KNX (336.9m-890ke) Calmon Luboviski, master violinist. WMAQ (447.5m-670ke) Hemilitonians. WMAQ (447.5m-670ke) Hemilitonians. WYNC (256.9m-1010ke) Phaza theater frolie, 98.30 State of the State of Tenkel, organist, 12 m KRLD (461.5m-650ke) All Dallas hour.



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Town.....State....

Name Address".... FRIDAY, JANUARY 13 Headliners

Central Mountain Pacific. m. 6:15 5:15 4:15 277.6m-1080kc) "Animal Life of the Jun-River," G. W. Bradt, WKAR (27.6m-1080kc) "Animal Life of the Jungles and River," G. W. Bradt.

KRID (461,3m-650ke) Ruth Muse, Buster Dees,
Bill Salim,
WKAG (2607,7m-1150kc) Freihofer hour,
WHAM (260,2m-1070kc) Yawaman and Erbe "CurWSUI (478,3m-630kc) Recent Discoveries in Child
Nutrition, Amy L. Daniels,

KYOO (248,6m-860c) Princess Pakanili and Chief
Rearing Thunder,
WCII (491,5m-630kc) Res grahama, basso,
WTIC (535,4m-580kc) Ress Tabama, basso,
WTIC (535,4m-580kc) Ress Tabama,
State Sta

SATURDAY, JANUARY 14 Headliners

| Head|| | H 11:30 10:30 9:30 8:30 WJR (440.9m-680kc) Jean Goldkette's Bluc Room 3 a.m. 2 KNX 336.9m-890kc) The Midnight Express.

SUNDAY, JANUARY 15 Headliners

| Central Mountain | Pacific | Sp. | Pacific | P (491.5m.-6.00c) WEEL (508.2m.-590kc), 32 (469.5m.-600c) WEEL (508.2m.-590kc), 32 (469.5m.-600c) WRC (508.5m.-600c), 409.5m.-600c), WRC (508.5m.-650kc), WRC (508.5m.-650kc), WRC (509.2m.-950kc), WVJ (352.7m.-850kc), (509.2m.-950kc), WVJ (352.7m.-850kc), 348.6m.-650kc), 348.6m.-650kc)

NEAA (545.1m-550ke), WCCO (405.2m-740ke), WCK (379.5m-790ke), WCS (475.9m-630ke), VST (258.5m-160ke), WMC (516.9m-580ke), VST (258.5m-160ke), WMC (508.2m-590ke) Atwater Kent hour, Paul tochanski,

Kochanski. 9:30 8:30 7:30 6:30 KTHS (384.4m-780kc) Music Lovers Hour, Arlington Hotel concert ensemble. ton riotel concert ensemble.

11 10 9 8

KTHS 384,4m-780kc) Organ recital, Thomas Avey.

MONDAY, JANUARY 16

Headliners
Central Mountain Pacific
6 p.m.
5 WCFL (491.5m-610kc) Twilight Organ request concert, 6:30 5:30 4:30 3:30
WSUI (475.9m-630kc) Current Events, Prof. John E. Briggs,
WTIC (535.4m-560kc) Dinner Concert, Hotel Bond trio | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 1.15 | 8:40 7:40 6:40 (384,4m-780kc) Mrs. Thomas Avey, so-KTHIS (384.4m-780kc) Mrs. Thomas Avey, su-brano, WEMC (483.6m-620kc) Ben King and Old St. Joe. KILD (461.3m-650kc) A. A. DeMond, violinist, Achilles Tallaferro, pianist, KITIS (384.4m-780kc) Dance frolic with Ray Mil-KITIS (384.6m-870kc) Dales band, WLS (344.6m-870kc) Dlackhawks-Fitisburgh, hoc-bey Janue. WLS (344,601-6/UKC) DIRCKRAWKS-PITTSDUTGR, ROK key game. 11:30 9:30 8:30 W)R-WCX (440.9m-680kc) The Good Will trio.

TUESDAY, JANUARY 17 Headliners

| Head | WCFI (491.5m-610ks) Earl Hoffman's Chez Pierre orchesya.
WTIC (535.4m-550kc) Manning-Bowman Concert.
T130 6:30
KRII (338.4m-780kc) Civie program from Little Rock, arranged by Mrs. H. A. Tune.
TVIR-WCX (440.9m-650kc) The Red Apple clab.
II (461.3m-650kc) Leland Johnson Talking baritone.

WEDNESDAY, JANUARY 18 Headliners

Mountair

Central

Eastern Central Mountain 3: 6:30 p.m. 5:30 4:30 3: WTIC (535,4m-560kc) Sea Gull Dinner Group. WGAU (260,7m-1150kc) Club Madrid orchestra. KVOO (349,6m-860kc) Hyechka club. 8:30 5:30 KVOO (348,6m-860kc) Bess McLemnan Hughes and artists. recital. WTR-WCX (440.9m-680kc) Joe Higgins' Old time WLS (344.6m-870ke) U. of Chicago choir,



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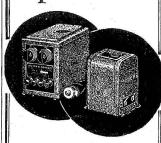
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Eastern Central Mountain Pacific 10:45 9:45 8:45 7:45 WLS (344-6m-870kc) Hockey game, Blackhawks-Detroit 12 mid. 11 10 KO11, (319m-940kc) Ambassadors, KPO (422,3m-710kc) Abas string quartet, 9

THURSDAY, JANUARY 19 Headliners

Eastern Central Mountain Pacific 7:15 p. m. 6:15 WKAR (277.6m-1980kc) "The Dardenelles Expedition," II, DeWeerd, pedition," 11, DeWeerd,

8 7 6

KSAC (333,1m-900kc) Debate: The United States
Should Materially Reduce Her Tariff on 1m-| National Color | Nati

FRIDAY, JANUARY 20

Headliners
Central Mountain
Pacific
WCAO (260,7m-1150kc) Picadiliy orchestra. 4
KRID (461,3m-650kc) Ruth Muse, Buster Dees,
Bl. Salines. 8 KKLID (461,3m-650kc) Ruth Muse, Buster Dees, Bill Saling.

WCFL (491.5m-610kc) Haynes & Ferris.

6:39

KTFLS (384.4m-780kc) Muse Ettel Wilson, pinnist.

WTIC (385.4m-560kc) Pete Phillips, tenor,

YTIC (385.4m-780kc) Pete Phillips, tenor,

KIIIS (384.4m-780kc) Walsel common services of the services of

SATURDAY, JANUARY 21

| Headliners | Eastern | Central | Mountain | Pacific | 6:30 p.m. | 6:30 | Mrs. | E. Gertrude Day, 4:30 | WCAU (260.7m-1150kc) | Cathay tea garden. | CFL (997.5m-650kc) | Stable Defaut, Peter Grosso. WXII (475.5m-650kc) | Pardue-1owa Basketball sane.

Sane. 9:30 8:30 7:30 6:30 KTHS (384,4m-780kc) Natalie Arnoux, violinist. 10 WDAL (285,5m-1050ke) Municipal Band of Baltimore WJR-WCX (440.9m-680kc) Charlotte Meyers and Mary Tudor, "WJR Personality Girls." WSM (336.9m-890kc) Regular Barn Dance pro-gram,

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AGENTS Sell Inkographs, Make bigger profits, more sales, without invest

Eastern Central Mountain Pacific 10:15 9:15 8:15 7:15 WMAM (447.5m-670kc) Chicago theater revue, 9:45 8:45 7:45 VIS 3344.6m-870kc) Hockey game, Blackhawks-Baston, 11:05 10:05 9:05 8:05 WHAM (280.2m-1070kc) Hughie Barrett's or-chestra,

SUNDAY, JANUARY 22 Headliners

astern Central Mountain Pacific
7 p.m. (440.9m-680kc) Dimer Music by Jean
Goldkettle's Venetian Ensemble.
7,330 6:330 5:39 4:30
VOO (348.6m-860kc) Dorothy Heywood Reedy,
pianist, 7:45 6:45 5:45 4:45
KRLD (461.3m-650kc) Dallas Athletic Club or-WCAU (260.7m-1150kc) Edward Nimble-Thimble WCAU (260.7m-11.90gc) Edward Allow-Boys, WMAQ (447.5m-670kc) Chicago Sunday Evening club, Dr. Albert Parker Fitch. 5-15 WHAM (280.2m-1070kc) Rochester string quarter, 9:15 8-15 7:15 WEAF (491.5m-610kc), WEEI (598.2m-590kc), WCAE (461.3m-650kc), WGAI (361.2m-830kc), WTAM (399.8m-750kc), WGN (416.4m-720kc),
 Bastern
 Central
 Mountain
 Pacific

 KSD
 (4841m-350kc)
 WGC
 (465.m-640kc)

 WGR
 (302.8m-990kc)
 WGC
 (465.8m-640kc)

 WFI
 (327.m-810kc)
 WWJ
 (327.m-850kc)

 WFI
 (455.2m-240kc)
 KVOJ
 (336.6m-850kc)

 WGY
 (379.8m-900kc)
 WSB
 (475.9m-560kc)

 WSM
 (336.9m-890kc)
 WMC
 (516.9m-560kc)

 WBT
 (288.8m-1160kc)
 WHO
 (33.4m-60kc)

 WOV
 (508.2m-990kc)
 Atwater Kent hour Louise

 BURNING
 (384.4m-780kc)
 Thomas Avey, organist

 KTHS
 (384.4m-780kc)
 750
 8.26

 KTLA
 (4m-760kc)
 760-8-Doodle-Doo orchest
 9:30

 KUL
 (319m-940kc)
 Ambassadors
 9:30

MONDAY, JANUARY 23

Headliners
Eastern Central Mountain Pacific
KRILD 1461.5m.650kc) Ruth Musc-Feature
WJR-WCX (1965) Capar J. Lingeman
2115 6.16 Minstreis. 5:15 4:15
WAR (277.6m-1080kc) "Art Principles Applied
KRoom Arrangement," Mrs. Marion Hoffman.
8
WSUI (475.9m-630kc) Radio Chamber orchestra.
WTIC (535.4m-550kc) New Departure band. | Eastern | Central | Mountain | Pacific | 8115 | WNNC (296.5m=1010kc) | Happiness Girls. | S130 | WLS | 344.6m=870kg-9 | Harmony Girls. | S145 | WNNC (296.5m=1010kc) | Old time nusic. | S145 | WNNC (296.5m=1010kc) | Old time nusic. | S145 | WNNC (296.5m=1010kc) | Old time nusic. | S145 | WNNC (296.5m=1010kc) | B10s | Singer. | S145 | WNNC (483.6m-620kc). | We lit of Scidentific | S145 | WNNC (483.6m-620kc). | We lit of Scidentific | S145 | WNNC (483.6m-620kc). | S145 | We lit of Scidentific | S145 | WNNC (483.6m-680kc) | Dance troilis, Ray Miller's orchestra. | S145 | WNNC (483.6m-860kc) | Gustav Brandborg, bartione, WNNC (496.6m-860kc) | Gustav Brandborg, bartione, S12 | WNNC (496.6m-860kc) | Wose and Charlie. | S145 | WNNC (496.6m-860kc) | Wose and Charlie. | S145 | WNNC (496.6m-860kc) | Wose and Charlie. | S145 | WNNC (496.6m-860kc) | Wose and Charlie. | S145 | WNNC (496.6m-860kc) | Wose and Charlie. | S145 | WNNC (496.6m-860kc) | Wose and Charlie. | S145 | WNNC (496.6m-860kc) | WNNC (496.6m-8

TUESDAY, JANUARY 24

Headliners
Eastur Central Mountain Pacific
(7p.m. 440,9m-650kc) The Annis Trappers,
7:30 (840,9m-650kc) The Annis Trappers,
8:30 (840,9m-650kc) Stories for Children (840,9m-650kc) Stories for Children (840,9m-650kc) Stories for Children (840,9m-650kc) Stories for Children (840,9m-650kc) Personalities in missic,
(840,9m-850kc) Personalities in missic,
(840,9m-850kc



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 Eastern (1970)
 Central (1970)
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 Pacific (1970)

 STBS (384.4m-780kc)
 Little Rock Civic concert, WMAQ (447.5m-670kc)
 Brokers Convention ban-matein

The state of the s baritone, 12:30 a.m. 11:30 10:30 9:30 KOIL (319m-940kc) Maxxon Webb, organist.

WEDNESDAY, JANUARY 25

Eastern Control Mountain Pacific MULVL (370.2m-810ks) "Common Sense in Religion."
6:30 3:30
WSUI (475.9m-639kc) The Origin and Rise of the Nervous System, Dr. G. L. Houser.
6:36 WBZ 333.1m-900kc) nature league, Thoruton W. Burress. Will (277.6m-180kc) Detroit Service program.

Ky00 (348,m-860kc) Wednesday Morning mus-

AVID (343.6m-860bc) Wednesday Morning mus-ical program (150ke) Felin's Frolickers.

KTIIS (384.4m-780kc) Toe Tapping time with Ray Miller and his band.

7:30 6:30 KTIIS (384.4m-780bc) The Melody Boys in song and novelry.

WJR-WCX (440.9m-680kc) Joe Higgins old time song revue, song revue. 9:15. 8:15
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1 recital, 11:30 10:30 9:30 8:30 WSM (336,9m-890kc) Bob Stark's Tennesseeans orchestra.

12 mid. 11

KPO (422.3m-710kc) Abas string quartet.

WLS (344.6m-870kc) popular program.

1 a.m. 12

KOIL (319m-940kc) Indian Pow-Wow.

THURSDAY, JANUARY 26

Headliners

Eastern Central Mountain Pacific
Typ.m.

KYOO (348.6m-860kc) Barney Breene, songs.
KYOO (348.6m-860kc) Barney Breene, songs.

WGIIP (277.6m-1080kc) Indied Tuller orchestra.
WKAR (277.6m-1080kc) "The Strife of Races,"
T. T. Caswell.

7. 30.

7.30 (27.001-1090); The Strite of Races, 7.30 (27.001-1090); The Strike of Rac

FRIDAY, JANUARY 27

Headliners

Eastern Central Mountain Pacific

7.00.

WMA0 (447.5m-670ke) Chicago theater orga

7.15 5.15

WKAR (227.6m-180ke) Third Life of the Jungle

WKAR (227.6m-180ke) Sellenburg concert. 5

8.00

WCAU (200.7m-1150ke) Snellenburg concert. 5

8.00

KSAC (333.1m-900ke) Theater Asst. Prof. II.

Miles Helerer.

Eastern Central Contral Report Contral Report Contral Report Repo

| 103-4,00-4,000 | Spanish favorites by Arling-| 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30 | 103-30

SATURDAY, JANUARY 28 Headliners

| Central Mountain | Pacific Size | WHALL (285.3m-1050ke) Municipal Band of Balti-WIR-WCX (440.0m-830ke) Charlotte Mayers and Mary Tudor, The "WJR's Personality Girls" WTIC (535.4m-560ke) Itale Bond Dance orchestra, 10.15 (187.5m-670ke) Chicago the Corporation of the WIR-WCX (187.5m-670ke) Chicago the Corporation of the KVOO (348.6m-860ke) Theodora Pittenger, vio-lonist, | No. | No.

SUNDAY, JANUARY 29 Headliners

| Headliners | Central | Mountain | Pacific | W5 Rd. | (447.5m.c700k. | Mountain | Central | W5 Rd. | (447.5m.c700k. | Mountain | Central | W5 Rd. | (447.5m.c700k. | Mountain | Central | W5 Rd. | (447.5m.c700k. | Central | Mountain | Central | W5 Rd. | (447.5m.c700k.) Patit Adams. Piano school. | W10.00 Rd. | W10.0

MONDAY, JANUARY 30 Headliners

Eastern Central Mountain Pacific 7:30 p.m. 6:30 5:30 4:30 WFI (405.2m-740kc) Adelphia Whispering orchestra.

Central Mountain 8 7 6 8 WCAU (260.7m-1150kc) Hornung hour, WLS (344.6m-870kc) Tony's Scrap book, WTIC (335.4m-560kc) New Departure Dance or-WNC (296.9m-1010kc) Studio program, Blanche E. Loftain, E. Loftain, 9 KTHS (384.4m-780kc) Plantation hour by the Rosnoke Harmony Kings, negro quartet: WIBO (305.9m-920kc) Basketball, Northwestern vs. Minnesota, WSUI (475.9m-630kc) Creighton-Iowa Basketball game, 9:15 WWNC (296.9m-1010kc) Happiness Girls. 9:40 9:40 WEMC (483.6m-620kc) "Down the Rhine." 7 KAA (132.5m-9.29 kc) Scheuerman's Colorado orKoll (131-5m-9.00 kc) Scheuerman's Colorado orKoll (131-5m-9.00 kc) Linde Josh KRLD (1461.3m-650kc) A. A. DeMond, violinist, KRLD (1461.3m-650kc) A. Benson hotel orchestra. 101.30 (139m-940kc) Benson hotel orchestra. 1 a.m. 12 11 10 KPO (422.3m-710kc) KPO Variety hour.

TUESDAY, JANUARY 31 Headliners

Eastern Central Mountain Pacific
6.p.m. 4
WLWL (370.2m.810kc) Catholic World hour.
7:45 6:45 5:45 4:45
WIIAM (280.2m.1070kc) "History University of
Rochester," Mr. Carl Lauterfach, KSAC (333.Im-900kc) Music, Mrs. Earl Litwiller and Mrs. H. J. Wylie. 8:30 7:30 6:30 5:30 WLS (344.6m-870kc) Personalities in Music, "Jo-hannes Brahms." 9:30 8:30 7:30 6:30
KTHS (384.4m-780kc) Little Rock Civic concert, presenting all star cast, presenting all star cast, 10 to 10 t chestra. 10 9 8 8

KPO (422,3m-710kc) Gypsy and Marta.

KRLD (461,3m-650kc) Leland Johnson Talking 12 mid. 11 10 9 KOIN (319m-940kc) Studio vaudeville feature.



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pleasant work.)

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One Dial RADIO

re's our offer. Put any one of our 21 new 1928 els in your home on 30 DAYS 'TRIAL User it 9 days at our risk. Test it for distance, 10 days at our risk. Test it for distance, 10 days at our risk. Test it for distance, 10 days at our risk it for distance of the 10 days at the distance of the distance 10 days distance of the distance of the distance 10 days distance of the distance of the distance 10 days distance of the distance of the distance of the distance 10 days distance of the distan

\$47 to \$72 Retail Prices

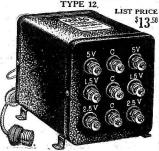
Discount to Agents. Now WESTGALE offers the last word in Radio at lowest prices. Our tone system gives amazing reproduction. On control, latest shielded construction pars West

24 Styles to Choose From 5. 6 and 7 Tube Sets Don't buy any radio until you as our big FREE Catalog shows complete line in 5 tube, 6 tube an models and 24 styles. A beautif of table o'vies. comodes, and o e styles, consoles, and de luxe type cabinets. Get our FREE and 30 Day Trial Offer at once. our it today.

> WESTGALE ELECTRIC COMPANY 1751 Belmont Ave., Chicago, III.

Why Not Be Our Agent?

KARAS A-C-FORMER FILAMENT SUPPLY TYPE 12.



NO HUM:

At last you can siep down your 110 volt Å, C. house current to operate your set with standard A cut these such as Cunningham, RCA and CeCo, the control of the such as Cunningham, RCA and CeCo, and the control of the



New Way to Renew Tubes



Algonquin Buys Circuit

EO POTTER, president of the Algonquin Electric Co., Inc., with offices at 245 Frifth Avenue, and a large factory at Poughkeepsie, recently purchased for the sum of \$170,000, from Fred A. Jewell, the well-known Radio engineer, a Radio circuit known as the Super Hilodyne, which Mr. Jewell developed after over five years of research with more than 2,000 circuits.

This new circuit is said to be entirely immune from patent litigations and to function more satisfactorily than the basic circuits over which there is so much dispute in the courts.

Make Interesting Model

Make Interesting Model
Miniature Ship Models, Inc., have placed
a very interesting loud speaker on the
market. The Melody Ship is to all appearances a handsomely decorated ship model
with sails of an intricate net work of rigglings, rope ladders and guides. The diaphragm of a loud speaker is concealed in
the main sail. Behind the diaphragm a
loud speaker unit is fastened to the main
mast. Two slender wires running from
the unit is the only indication that the
ship is anything but a replica of an historical vessel.

Alfred P. Sloan, Jr., president of General Motors, has expressed great satisfaction in the use of Radio broadcasting as a means of reaching the public. The General Motors opening program over the WEAF net was presented November 7 from New York.

To Cure Corrosion

Corrosion of A battery connections may be avoided by soldering short pieces of wire to the terminals and attaching the receiver clips to the ends of these wires.



Super-Selective! Assures perfect reception. Eliminates noise and reduces static. Its single-point mounting is quickly installed—no, wires, poles or cross-sticks. The Stanley Aerial is sold with a money back guarantee. You're sure of satisfaction! Send check or money order now for \$12.30 and we will ship immediately.

Full information and circulars on request.

STANLEY ENGINEERING, INC. 161 Devonshire St. . . Boston, Mass.

Modernizes Old Set

Modernizes Uld Set

By means of a new device just introduced, it becomes possible to modernize
the old set without the use of tools or the
performance of a major operation. In
fact, not a single wire within the set is
altered; not a thing is changed; not a
single practical fact need be known about
Radio; yet the old set is instantly transformed into a modern set so far as efficient and simplified operation is concerned.

Briefly, the new device is the Amperite

cient and simplified operation is concerned.

Briefly, the new device is the Amperite Adapter, comprising a base with clips to take two standard Amperite units complete, which are thereby connected in parallel so as to obtain their combined current-carrying capacity. The Amperite units are selected in order that the combination may provide the desired ampeerage for the group of tubes in the receiver is started or stopped by means of a single switch. The longest life is age for the group of tubes in the receiver is started or stopped by means of a single switch. The longest life is age for the group of tubes in the receiver is started or stopped by means of a single switch. The longest life is age for the group of tubes in the receiver is started or stopped by means of a single switch. The longest life is age and the group of tubes in the receiver is attend to record the group of tubes in the receiver at all times.

from the simple three-tube layout with-out power tube, to the six-tube layout with power tube.

The Amperite Adapter may be mounted within the cabinet or at the rear or again near the external storage battery, accord-ing to preference. It is connected in the minus A lead, between storage battery and receiver. No tools are required. The wire ends clip into place. The only remaining step is to turn the rheostats of the set full on. If there are individual resist-ances or so-called ballasts, these are short-circuited.

The set is now ready to operate with

135 Volt "B" Eliminator



HINK of it! A 135-volt "B" Battery Eliminator. This wonderful new invention, using a special filter circuit, developed after months of experimenting, gives a uniform and constant flow of power that you cannot get from batteries. Can be plugged into any lighting socket and is adapted for any kind of set up to seven tubes.

Works perfectly on ordinary house current, either alternating or direct. Gives power up to 135 volts, using the full wave of the power supply.

Operates Perfectly on Any Set -Hooked Up in Sixty Seconds

No matter what make or size of set you have, you may use this amazing new invention that makes "B" batteries entirely unnecessary, does away with "frying" noises, assures sharper tuning and gives more power because of the steady, intense flow of current through the tubes. This Perfect costs less than a set of cells and it ends plate current troubles forever. It's by far the lowest priced dependable eliminator on the market, and does the work of devices costing two and three times as much. No mechanical knowledge necessary to connect the "Perfect" Eliminator, Hook it up just as your old batteries were connected. And then sit back, and get the greatest radio thrill you've had in years. Nothing to do but enjoy the music.

90-Volt

Model 195

A good, dependable Eliminator at

a very low price. Similar in con-

Similar in construction to our 135-volt model, but not so powerful. Suitable for sets up to 5 tubes. Send \$1.00 with order; balance C. O. D., \$3.95 plus few cents postage.

VOLUME-DISTANCE WITH THE AMAZING

EESONATOR

TRADE MARK

TRADE MARK

The Reesonator is an instrument designed to balance the antenna to the receiving set and increases the volume and selectivity of your machine. It will enable you to play with dance volume stations which are barely audible of the selectivity of your machine. It will also describe the selection of the selectivity of distance is considered to the selection of the selectivity of distance is required. It is attached externally to the machine and can be attached by any one in a minute. Reesonator as illustrated is especially designed for Atwater-Kent Models 30-32-35. Radiola Models 16-17 and Crosley Bandbox Radios. When ordering, state type of machine on which Reesonator is to be used. Equivalent to two extra tubes in your machine. General Reesonator is considered to the selection of the

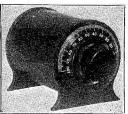
What Some of Our Users Say TESTIMONIALS

Gentlemen: Your Reesonator received and sure does all if not more than you claim for it. Please ship me at once, by C.O.D. parcel post, six more of the same kind. I cannot say enough for this unit. Respectfully yours, Yincent Walker, Bruce, Wis.

Dear Sirs: I have given your Reesonator a thorough test on single dial machines, and find a streat improvement to them. On distant stations it will more than double the volume Yours truly, Peterson & Larson Elec. Co., Fargo, N. Dak,

D. Gentlemen: Please send another Recsonator C. O. It is worth five times your price. Absolutely does all you claim for it. Would not be without one. Sold mine to a neighbor and he is delighted with same. Smoretty, I. J. Rankin, Lamesa, Texas.

F & H Radio Laboratories



Not a wave trap but a wave booster (Pat. Pend.)

\$475 COMPLETE

TESTIMONIAI S

Gentlemen: I have thoroughly tested out your Reesonator and I believe it to be the best attachment made for a radiu, regardless of price. Yours truly, C. W. George, M. D., Corydon, Iowa.

C. W. George, M. D., Corydon, Jowa,

Dear Sirs, Sometime ago I mychaed a Resonator
from you. It is very good and works fine, grant
set distant stations when all New York City radio
stations are broadcasting.

The station of the stations that were all recived from the stations that were all recived from WAK, WOC KIVA. WIL, WCAU

WELA, KIVAC, WOR, WIR, WSM, WICC,
WELA, KIVAC, WOR, WIR, WSM, WICC,
WILL, WILL, WILL, WCAU

WYTC, WBEM, WSB, KMOX, WMB, WCX,
WVILE, WILL, WHAM, WEAL, WCCO, WTAM,
tons could not be w. WSP, K.WKL. These stations could not be w. WSP, K.WKL. These
stations of the station of

WE GUARANTEE SATISFACTION
Try one for three days at our risk, If not thoroughly satisfied your money will be cheerfully
refunded,

one. Sold mine to a construction. Lamesa, Texas, with same. Sincerely, I. D. Rankin, Lamesa, Texas.

To Whom Is May Concern: I tried for distance with the resonator last night and here are my stations logged for one night through Philadelphia with the property of the pro

Dept. 105 REFERENCES:
First National Bank Fargo National Bank | Address State

Completely Equipped-No Extras to Buy

Our amazingly low price of \$7.95 covers everything. The Eliminator comes to you completely assembled and ready to plug in on any lighting socket. No moving parts—nothing to break or wear out. It's a solidly built, permanent addition to your set that will give you no end of pleasure.

pleasure.

Don't put up with battery troubles another day. Send at once for YOUR "Perfect" Eliminator and realize the genuine pleasure that comes only through absence of hattery bother. This new 1928 model "Perfect" Eliminator is one of the big sensations in the radio field. You can fully realize its wonderful advantages only after a trial in your own home.

10 DAYS' TRIAL Send Your Order NOW!

Pin a dollar to the coupon and mail it to us today. The postman will deliver your "Perfect" Eliminator within a few days. Pay him the balance due, \$6.95, plus a few cents postage, (or \$3.55 plus postage if you want the 90-volt model). Plug in the Eliminator, and use it. If not more than satisfied with results, return it within 10 days and get your money back. Act NOW and get double enjoyment from your set.

Perfect Eliminator Co. R28 National Theatre Building Cincinnati, Ohio

Perfect Eliminator Co., R28 National Theatre Bldg., Cincinnati, Ohio.	Check Model Wanted
I enclose \$1.00. Please send new model 135-volt "Perfect" Eliminator to me C. O. D. for balance (\$6.95 plus a few cents postage).	I enclose \$1.00. Please send new improved 1928 model "Perfect" Eliminator to me C. O. D. for balance (\$3.95 plus a few cents postage).
Name	

Town..... State.....

Effarsee Art Panels Make Novel Aerials

INSIDE aerials in the form of tapestry effect art panels are among the interesting aerial instruments now on the market. The Fishwick Company has made these Effarsee aerials on a design which involves a patent construction that is new

ORCHESTRA STANDING

(Continued from page 21)



"The Nymph"— This is one of sev-eral Greek mythological representations tha used on the Effar see Antennae art panels.





Just out with
All the Latest Changes Direct
From Radio Trade Commission
Exclusive copyrighted arrangement for quick and
accurate timing by kilocycles, wave lengths or call
spiring, annes of owners,
Most recent and authentic information on

Chain Broadcasting

Continued from page 21)
For each four consecutively numbered coupons a bonus of twenty-five votes will be allowed.
For each five consecutively numbered coupons a bonus of thirty-five votes will be allowed.
For the complete series of the six consecutively numbered coupons sent in at one time a bonus of fifty votes will be allowed. onderful programs now being browd to miss. The Red Book is the gre the programs you want and obtain tent from your set, regardless of No advertising pages to wade thro ple and convenient to use, yet, so cor

"B" Power Unit Aids In Radio Operation

The "B" power unit is rapidly becoming recognized as the logical source of "B" Radio current. This has made it necessary that any "B" power unit, in order to be successful, must be capable of performing satisfactorily with a variety of Radio sets whose electrical characteristics and requirements differ greatly. The plate current for the receiver must be direct, and it is the function of "B" power units to produce this current. In compliance with these requirements, the Modern engineers have built a "B" compact that is the source of constant and dependable power. The Modern "B" compact uses Raytheon type B or BH tubes. The internal compartments are shielded to prevent line disturbance and intercircuit, and the large capacity con-

When in

THIS magnificent Apartment Hotal overflooks Central Park, faces the May Fark, faces the May Fark was the May Fark was the May Fark Ave. and the Shopping and theatre centers. The rooms are uniquely large and furnished with luxurious refinement, An ideal summer residence for families.

During the Spring and Summer months a Special Discount is offered to transient and permanent guests. Send for Illustrated Booklet and Rates

Standish Hall

45 W. 81st St. New York

New York ~ Reside where the New Yorkers ful Standish Hall densers are carefully insulated. All compartments are sealed against moisture. Large size overwindings capable of withstanding heavy overloads, two variable controls and provision for reducing the voltage output from the last tap make the Modern "B" compact a high quality product. product.



Matched.

An amazing value that can't be beat!

Latest 6-tube tuned radio frequency circuit. Extremely selective, marvelous sensitivity. Three stages of radio frequency detector and two stages of low frequency, detector and two stages of low word of the control. Straight line frequency condensers. All metal chassis. Skielded. Chear and realistic reception metal chassis. Skielded. Chear and realistic reception gold. Metal panel and sub-panel. Complete chassis. No extra parts to buy. All parts mounted. Simply condidated to the control of the

Tested and Approved

oratory tests have proved the remarkable of this set. verywhere are sending us letters praising

Simple Wiring Directions

ery easy to wire this set with the instructions we furnish, ust connect a few, wires. All you have to do is to follow numbers. That is all. Can be wired in a few minutes by anyone. No radio knowledge needed. Make money by wiring these sets in your spare time and selling them to your friends.

SEND NO MONEY

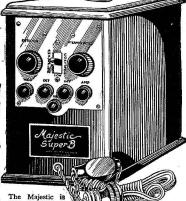
RADIO EQUIPMENT CO.

Stop Using "B" Batteries Your Radio!

Startling reduced price offer on a highest grade, nationally known "B" Eliminator. Seize this opportunity. Get constant 100% efficiency in "B" current for your radio direct from your light societs. Stop using the old style, inefficient and costly "B" batteries.

1-Year Guaranteed Majestic Super "B" Eliminator





The Majestic is connected to your radio just like "B" batteries and at tacked to an ordinary electric socket. (For 1 to 12 tube radios.)

Resplaces "B" batteries entitleries entitleries. Entitrely noiseless. Operates from 110-120 AC, 50-60 cycle current.

Attaches to Any Electric Light Socket

Cabinet finished in rich black crystal enamel. Dimensions: 10¼ in. deep by 5¼ in. wide by 9 in high. Weight: 20 pounds net; 25 pounds packed. Bakelite Panel. Complete with extension cor and attachment plug. One majestic Super-Power "B" Rectifier. Packed in individual padde wire-bound wood cases. Guaranteed for one year against electrical and mechanical defects.

\$450 a Month If Satisfied Free Trial

Send Coupon! Street, R. F. D.

Send coupon now while this offer lasts. Order by No. Y8789JA. \$1.00 with coupon: \$4.50 a month; total price \$29.50.

Only \$1.00 with the coupon below brings the Majestic Super "B" Eliminator to your home on trial. Try it out thoroughly before you pay another penny. See how it improves reception. See how much more convenient than using batteries. Judge for yourself how it will save you money and make your radio set more enjoyable. Then, if not satisfied, send it back at our expense and we'll refund your \$1.00 plus all transportation charges. If you decide to keep the Majestic Super "B" Eliminator is the properties of the prope Shipping Straus & Schram Chicago, III. Married or Single. Nationality or color Married or Single. Nationality or color II you want UNLY our free catalog of bome furnishings mark X bere Q

be allowed.

For the complete series of the Sia North Secutively numbered coupons sent in at one time a bonus of fifty votes will be allowed.

4. Special ballots will be issued only when requested at the time of receipt of paid in advance mail subscriptions, old or new, to the Radio Digest when received direct and not through subscription agencies according to the following voting schedule:

1.-year paid in advance

2.-year paid in advance

2.-year in advance in the standard log book and directory or actions in the standard log book and directory or actions in the standard log book and directory or actions in the standard log book and dir schedule:
1-year paid in advance
mail subscription.......\$ 3.00
2-year; two 1-year paid
in advance mail subscriptions direct 6.00 The Wayne Andrews Co., Inc. 101 Central Bldg., Ft. Wayne, Ind. 325 votes | . Satisty yourself 30daystriai Completely Shielded Genuine Licensed Circuits Manufactured under license grants of **Radio Corporation of America** and affiliated companies

The set that's the talk of the radio trade. Acknowledged as the greatest radio valve. A Con-Rad six tube completely shielded chassis with sing illuminated dist output of the completely shielded chassis with sing illuminated dist output of the companies CON-RAD SINGLE-DIAL CONTROL Prove It Yourself-30 Day Free Trial Quality and price are what you are most interested in. A Con-Rad receiver is ready to undergo any test you demand. Try it in your home on our 30 day Free Trial offer and be satisfied. If you are not, return the receiver to us and your money will be refunded. You must be TUBE 6 SETS Completely tsshed!

BIG DISCOUNTS TO AGENTS AND DEALERS
Demonstration set sent on Free Trial. Make big money working full
or spare time taking orders for Con-Rad Radios, Write today for
special prices and proposition. assembled MAIL COUPON NOW! Write today for complete information. Our catalog gives full details of the Con-Rad line of 1928 and our liberal 39 day Free Trial offer.

Dept. 181 4721 Lincoln Ave. Chicago, Ill.

CONSUMERS RADIO CO., 1272 Chicago, Ill. Gentlemen: Please send me full particulars and catalog of the Con-Rad Line of 1928 and your 30 day Free Trial offer. No obligation. Name Street City State

THAT CHRISTMAS SET (Continued from page 14)

THAT CHRISTMAS SET

(Continued from page 14)

and will eventually, and is just as necessary as the others. It will not deteriorate in a drawer and you'll need it sooner or later—maybe sooner.

A Breat many people find that they would like to have a speaker in the dining room, at the end of the hall, after the set is installed in the living room. This is perfectly fensible and is not hard to put in: the diagram at the start of this article will give one the layout for accompilshing this. The added parts needed are three Carter portable jacks, type 12, and 3 Carter 'One-Way' Plugs. Yaxley probably makes miliar fems but these are the Carter identifications.

If you set has two little holes into which you'll also need two Carter 'Imp' Plugs. 'One-Way' Plugs are 'A' and portable jacks. 'B.' A piece of fine insulated flexible wire, 4 feet long, is cut into one-foot lengths, and the insulation removed at both ends of each piece for about one-half inch. Take one of these pieces and insert an end into one of the "Imp' plugs. Do the same with another piece and the second plug. The 'Imp' plugs can be inserted in the holes in the set where the speaker tips went. The third one-foot length is now applied by wrapping one of its bared ends around the bared end of the first one just where it goes into the plug, making two wires which are connected to the plug. If a friend has a soldering iron, solder it.

Wire 4 is now wrapped around the bared end of wire 2 where it enters its plug, so we have two leads from this plug also. We will call wires! and 3 high we wree which are connected to the same with another of the portable jacks and run one wire of pair X into it and one from pair X. Do the same with another of the portable jacks and run one wire of pair X into it and one from pair Y. Do the same with another of the portable jacks we now have two speaker on the speaker; put a "One-Way" plug on the speaker; put a "One-Way" plug on the speaker of the second speaker can now have a "One-Way" applied to its cord tips—and there you ar

ORCHESTRA STANDING

(Continued from page 34)

(Continued from page 34)
the "EAST," will include the states of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, and District of Columbia. District number two, known as the "SOUTH," will comprise the states of Virginia, West Virginia, North and South Carolina, Georgia, Plorida, Louisiana, Mississippi, Alabama, Tennessee, Arkansas, and Kentucky. District number three, known as the "MIDDLE-WEST," will inolis, Michigan, Wisconsin, Minnesota, Iowa, Missouri. District number four, known as the "WEST," will comprise the states of North and South Dakota, Nebraska, Kansas, Oklahoma, Texas, Montana, Wyoming, Colorado, and New Mexico. District number five, known as the "FAR WEST," will consist of the states of Idaho, Arizona, Utah, Nevada, California, Washington, and Oregon. District number six, known as Canada, will comprise the entire Dominion of Canada.

6. The orchestra polling the highest number of votes of all six districts will be declared THE WORLD'S MOST POP-ULAR ORCHESTRA and will be awarded

ROXY SAYS

(Continued from page 3)

The studio party every week soon had the effect of cementing the various artists into a family. They knew each other before and were friendly enough, but something about getting together each week for the Radio made a homeiness that brought us all into closer relationship. This is how "Roxy's Gang" came into being—the result of the Radio and the millions of listeners-in. The folks who heard of us took a personal interest in our doings and in the different members of the Gang. They made each singer and player a household word all over the country.

You would be surprised at the number of well-known artists who have "arrived" by way of the Radio and the motion picture houses. Four of my own people have realized a singer's greatest ambition, that of singing at the Metropolitan Opera

Michael Carlo

Send Order Today yourname and address on a allp of paper—pin a one dollar bill to it and mail today. We will ship same day order is received for \$1.75 C. O. D. \$76 discount for cash with order. Remember you are the judge and are fully protected—so send order

WORLD BATTERY COMPANY

Stocker Power

only Down

a golden plaque. After the grand prize winner is eliminated the orchestra polling the highest vote in the district in which they are registered will be declared to be the MoST POULAR of their district and each awarded a silver plaque. No orchestra is to receive more than one prize.

7. In the event of a tie for any of the prizes offered, prizes of identical value will be given to each tying contestant.

8. Any question that may arise during the contest will be decided by the Contest Editor, and his decision will be final.

ROXY SAYS

(Continued from page 3)

The studio party every week soon had the effect of cementing the various artists into a family. They knew each other before and were friendly enough, but something about getting together each week for the Radio made a homeiness that brought us all into closer relationship.

This is how "Roxy's Gang" came into being—the result of the Radio made a homeiness that brought us all into closer relationship.

This is how "Roxy's Gang" came into Boing—the result of the Radio and the millions of listeners-in. The folks whe heard of us took a personal interest in our doings and in the different members of the Gang. They made each singer and player a lonusehold word all over the Madden's Prayer" and others of the Gang and interest in our doings and in the different members of the Gang. They made each singer and player a lonusehold word all over the same sort were about all some of the folks who heard of us took a personal interest in our doings and in the different members of the Gang. They made each singer and player a lonusehold word all over the long the properties of the Gang. They made each singer and player a lonusehold word all over the long the properties of the greatest blessings "and the folks of the Gang and in the order than one of the greatest blessings ever known. Before broadcasting came along the general public had practically no lote of good music.

The Maiden's Prayer" and others of the language of the good of the content of the content of the content

The Radio has been the means of intro-ducing the great mass of people to music of a higher order. Do they like it? Do they? Well, you'd think they did it you saw the mail we get after each week of broadcasting. At first we used songs and orchestral music that were well known— at least to a majority of folks, but now it is possible to play music of quite an advanced order. And the listeners-in like that, too.

In other words, they are getting an edu-

advanced order. And the listeners-in like that, too.

In other words, they are getting an education—getting it painlessly. If the ordinary man is offered an education in so many words, he will run as if pursued by a tiger, but the Radio is teaching him many things without him knowing it, because entertainment is always acceptable. Understand, we are not running a musical appreciation Radio hour—our object is to entertain. But, honestly, sometimes in the course of a good show you can get some mighty useful knowledge, and knowledge never hurt anybody very much. But the uplift and educational side of broadcasting is incidental. Our greatest "comeback" is due to the fact that we know our programs reach thousands of people who otherwise would not hear any kind of musical entertainment.

Warren "B" Supply

Cash with order, f. o. b. Peoria, Ill. Complete with tube. Money back guarantee with every unit. (Formerly \$35.00)

Guaranteed output—180 volts at 50 mils, on 110 volt, 60 cycle, AC. Will operate any set with 1 to 12 tubes.

WARREN ELECTRIC CO.

PEORIA · ILLINOIS



DEPT, RD

1219 South Wabash Avenue Dept. 62 Chicago, Illinois el Station W. S. B. C., owned and operated by World Battery Company

90-Day

Guarantee

Operates Off Your"B" BATTERY or ELIMINATOR

MASTER CRAFT PRODUCTS CO.

ON N. Clark St. Dept. M. Chicago, III.

POST or ELIMINA LOR

tires no electric light current. Simply connect to 223/2

B" battery tept. Insert the tube and the job is done.

B" state yet the interest that the and the job is done.

Consider the interest that the state of the properties of th

WANTED!

Radio Dealers **PROFESSIONAL**

> Set Builders and Radio Fans

N EVERY community to introduce and become our factory representative on the newest, most revolutionary radio development in the history of the industry . . . The SUPER HILO-DYNE Circuit, a radio circuit that is modern and independent. See December issue of Radio News.

The SUPER HILODYNE is a new basic circuit employing nine tubes. Its all around performance will amaze you. You can help repeat Radio History and make money by representing us in your community in your full or spare time. Write TODAY for details. Dept. RD-128.

THE SECOND

ALGONQUIN ELECTRIC Co., Inc. 245 Fifth Ave. New York City

Aerial Easily Installed

What will, no doubt, he stalled by Radio users as a distinct relief from antenna troubles is the Stanley Aerial, a compact, single-mounting unit of tin-dipped copper wire, manufactured by the Stanley Engineering and Sales Company of 70 Monroe Street, Lynn, Mass.

Where formerly it was necessary to clutter backyards and apartment house roofs with innumerable entangling wires, the Stanley Aerial offers alleviation of all



such conditions. It has been particularly effective for apartment house use inasmuch as its super-selectivity eliminates interference and all neighborhood noises that raise havoc with all good reception.

A&B Battery & Charger ONLY

SATISFACTION GUARANTEED

Charges any typo of storage A or B battery, using a few cents worth of ordinary house either atternating or uncer. Cannot indure battery. Complete directions enclosed. Anyone can operate. No expensive "extras" to buy. Why pay \$10.00 to \$15.00 for a charger when you can get this splendid GUAR-ANTEED R. B. Charger by maithing us two dol-

R. B. SPECIALTY CO.

Dent. 800-T. 308 East Third St. Cineir

Most Amazing in 25 years Cleans Up for Agents



Men, here is a wonder—the most sen-sational invention of the age! If you're looking for a rapid fire seller—an item that nets you men and dear an item that sell itself to 7 out of 10 men and dear the property of the inverse of the amazing new vest pocket adding machino!

Sells for \$2.95-You Make \$1.65 Sells for \$2.29.—YOU WERE \$1.00
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Get Your Machine FREE
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can be locked in any direction desired. An interesting feature in connection with its origin is the fact that it was conceived and designed by a former General Electric engineer. Since its introduction two years ago it has been in constant use by thousands of Radio enthuslasts, and in every instance has given more than satisfactory service, obtaining greater clarity, volume and signals, with less static and electrical interference. These features, together with

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In addition to this, its one-point mounting prevents the usual property damage that accompanies the installation of antennas. A few minutes only are required to erect the Stanley and interesting feature in connection with its entire in connection with its entire in the Radio operator of the U. S. Galveston and Mr. Waiter Myers, chief anwith the surface in the Radio operator of the U. S. Calveston and Mr. Waiter Myers, chief anwith its entire in the Radio operator of the U. S. Calveston and Mr. Waiter Myers, chief anwith its entire in the Radio operator of the U. S. Calveston and Mr. Waiter Myers, chief anwith its entire in the Radio operator of the U. S. Calveston and Mr. Waiter Myers, chief anwith its entire in the Radio operator of the U. S. Calveston and Mr. Waiter Myers, chief anwith the Myers, chief anwith the Myers is the fact that it was the fact that it was the Radio operator of the U. S. Calveston and Mr. Waiter Myers, chief anwith the Myers, chief anwith the Myers is the Myers in the Radio operator of WEEI, both of whom have is receiving from Radio experts, bid fair used one ever since its initial appearance and are highly enthusiastic regardance and are highly enthusiastic regardance.



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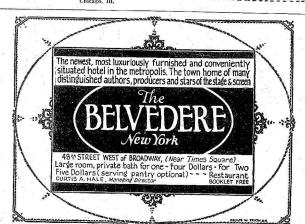
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OFFICIAL CALL BOOK AND LOG

-Corrected Every Issue-

KDKA

E. Pittsburgh, Pa., 315,6m-950kc, 59,600 watts. Westinghouse Elec, & Mig. Co. Daily ex Sun. 10 am., 12 n, 45 pm, 6, 8 Thes, 7 pm., Wed, Fri., 7 pm., 715, Fri, 11:30 pm. Blue chain program. Mon. 7:30-10 pm. Thes; Wed. Fri., 8-10 pm. Thurs, 8-41 pm. Sat, 8-10. Sun, 10:45 am, 4 pm, 4:45, 6, 7. 8:15. Eastern

Devils Luke, N. Dak. 230,6m-1300kc, 15 watts. Radio Elec. Co. Announcer, Harold Serumgard Bert-Wick, Daily ex Sur 7-8:30 am, news, music 12-12:30 pm, weather; 6-6:30, markets. Mon. 9:30-1225. Central.

KDYL

c City, Utah. 258-5m-1160kc, 100 watts, tain Broadcasting Corp. Announcer, Philip Slogan, ''On the Air-Goes Everywhere.' Sun, 10:30 am, 2-5:15 pm. Mon, Wed. pm. Tues, Thurs, Sat, 6-12 mid. Sat, Mountain.

KELW

Burhank, Calif. 228-9m-1310kc. 250 watts. Earl L. White. Daily ex Sun, 11-2 pm, 5-10. Wed, 11-2 pm, 5-7 pm, 9-10. Last Sat, in month 10-1 am, trolic. Pacific.

KEX

Portland, Ore. 239.9m-1250kc. 2,500 watts. Western Broadcasting Co. Amouncer, Jack Barnet. Daily ex Sun, 9:15-3 pm, 5:30-12 mid. Sun, 6:30-10 pm. Pacific.

KFAB

Lincoln, Neb. 319m-940kc. 5000 watts. Nebraska Buick Auto Co. Announcer, Gayle Grubb. Daily, 9-10 am, 11:45-12:30 pm, 2-3, 4-5, 6-7, 8-9, 10-11. Founded Dec. 4, 1924. Central

Phoenix, Ariz. 272.6m-1100kc. 500 watts. Electrical Ennip. Co. Announcer, Arthur C. Anderson, Slogan, "The Voice of Phoenix." Daily ex Sun, Mon, 3-4 pm, 6-9, Thee, Wed, Sat, 10-11 pm, Daily ex Sun, Mon, Sat, 2-3 pm, Sun, 11 am-12-30 pm, 8-9. Founded Oct. 30, 1921. Mountain.

Boils, Maho, 283, 5m-1050kc, 4000 warts 6 am-6 pm, 6000 watts. Independent School Dist, of Boise, Mon, Tues, Wed, Thurs, Fri, 12:30-1 pm, weather, markets, U. S. program, Tues, 7:30-8 pm, children's hour: 8-10, music, Thurs, 8-10 pm, Sun, 3-4 pm, 7:30-9 pm, Founded Oct. 1921. Mountain,

KFBB

Havre, Mont. 275.1m-1090kc. 50 watts. F. A. Buttrey Co. Announcer, E. A. Baer. Daily ex Sun. 12:30-1:30 pm, music, markets, weather reports. Wed. 7:30-9 pm, Sun, 1-3 pm, Founded 1921.

San Diego, Calif. 247.8m-1210kc. 100 watts. Bal-boa Theater Bldg. Daily ex Sun, 9:30-10:30 am, 12:45-1:45 pm, 5-10. Sun, 10-12 am, Bible lesson.

Sacramento, Calif. 535.4m-560kc. 100 watts. Sacramento Bee, Kimball-Unson Co. Announcer, R. K. Clark, Tues, Sat, 7:30-10 pm. Thurs, S-10:30 pm. Founded 1921. Pacific.

KFBL

Everett, Wash. 223.7m-1.340kc. 50 watts. Lesse Bros. Daily ex Sun, 10-11 am, 4-5 pm, 6-7. Sun, II-12n. Tues, 10:30-12 mid. KFBU

Laramic, Wyo. 483m-620kc, 500 watts. Bishop N. S. Thomas, Announcer, W. J. Reed. Sunday services, Daily 11 am, 7:30 pm. Mountain.

KFCB

Phoenix, Ariz, 243.8m-1230kc, 125 watts. Nielsen Radio Supply Co. Announcer, E. A. Nielsen, Slogan, "Kind Friends Come Back," Mon. Thurs, 8-9 pm. Sat, 8-10 pm, Sun, 9-11 am, Mountain.

KFCR

Santa Barhara, Calif. 211.1m-1420ke, 50 watts Santa Barhara Broadcasting Co. Daily ex Sun, 18 July 19 July 19

Beaumont, Tex. 483.6m-620kc. 500 watts. Mar-nolia Petrolcum Co. Announcer, "Static." Signatic." Signatic." Signatic." Signatic." Signatic." Signatic. Tucs. Fr. 12:30-12:55 pm, band concert; Tucs. 8-10 pm; Fri. 8:30-10:30 pm; Sun. 8-9 pm. Founded Oct. 1, 1924. Cen-

Shreveport, La. 236.1m-1270kc. 250 watts. First Baptist church. Aunouncer, John S. Ramond. Wed, 9-10 pm. Sun, 10:50-12 n., 7:45-9. Founded 1922.

KFDY

Brookings, S. D. 545.1m-550kc. 500 watts. State College of Agriculture and Mechanical Arts. An-nouncer, Albert Krauz. Daily ex Sun, 12:30-1:15 pm. Tucs. Thurs, 7:30-9 pm.

KFDZ

Mirneapolis, Minn. 215-7m-1390kc. 10 watts, Harry O. Iverson. Sat, 8 pm. Central.

Portland, Ore. 214.2m-1400kc, 50 watts. Meier & Frank Co., Inc. Announcer, R. E. Hartzog, Daily ex Sun, 12-1 pm, weather, music; 4-5 pm, music, 6-7.

KFEL

Denver, Colo. 247.8m-1210kc. 250 watts. Eugene P. O'Fallon, Inc. Announcer, I. H. Hathaway, Daily ex Sun. 7:15 am. gym; 10, 11, 2, 4, 5, Tues, Thurs, 8 pm. Tucs, 10 pm. Fri, 11 pm. Sun. 8:30 am. 10, 2:30 pm. 4:30. Mountain.

St. Joseph, Mo. 230.6m-1300 kc. 1000 watts. J. L. Scroggin. Announcer, Clarence Koch. Daily ex Sun, 8-45 am, 9, 10, 11, 12, 2, markets; 5 music; 6:30, music, 8:30-10. Mon, 11-12 mid, Sun, 11-12 n. KFEY

Kellogg, Idaho. 232.4m-1290kc. 10 watts. Unior High School Station. Announcer, Walter C. Clark Slogan, "Voice of the Cocur D'Alenes," Mon. Thurs. 7-8 pm. Sun. 11 am, 7:30 pm. Pacific. **KFGQ**

Boone, Iowa. 209.7m-1430kc. 10 watts. Boon Biblical school. Founded April 1923.

Wichita, Kan. 245.8m-1220kc. 500 watts. Hotel Lassen, Announcer, J. L. Fox. Daily ex Sun, 8:30 am, 9, 10, 11, 1-2 pm, markets; 1:15, music, 7:30-9, Sun, 9:30 am, 7:30 pm. Founded Dec. 1, 1925. Central

KFHA

Gunnison, Colo. 254.1m-1180kc. 50 watts. Western State College of Colorado. Announcer, E. Russell Wightman. "Where the Sun Shines Every Day." Tues, Fri, 7-9:30 pm. Founded May 1922 Mountain.

KFHL

Oskaloosa, Iowa. 212.6m-1410kc. 10 watts. Penn College. Announcer, Donald Haworth. Tues, Fri. 7 pm. Fri, 9:45 am. Sun, 4 pm. Central.

KFI

Los Angeles, Calif. 468.5m-640kc, 5000 watts. Earle C. Anthony, Inc. Announcer, Leslie Adams, Slogan, "A National Institution," Daily ex Sat, Sun, 5:30-11 pm. Sat, 5:30-2 am. Sun, 11 am, 5:30-11, Installed Spring, 1920. Pacific.

KFIF

Portland, Ore. 214.2m-1400kc. 50 watts. Ben-son Polytechnic School. Announcer, Albert Skei. Omar Bittner. W. Hollensted. Tues, 8:15-9:15 pm. Pacific.

KFIO

Spokane, Wash. 245.8m-1220kc. 100 watts. North Central High School.

KFIU

Juneau, Alaska, 225.4m-1330kc. 10 watts. Alaska Elec. Light & Power Co. Announcer, O. E. Schoem-bell. Mon, Wed, Fri, 6-7 pm. Alaskan time.

KFIZ

Fond du Lac, Wis. 267.7m-1120kc. 100 watts. Fond du Lac Commonwealth Reporter. Daily ex Sun. 5 pm. news, markets, weather. Central.

KFJB

Marshalltown, lowa 247.8m-1210kc. 100-250 watts. Marshall Electric Co. Announcer, E. Pickett. Slogan, Marshalltown the Heart of low. 7 July 100 pm. State Co. 100 pm. State Co

NE DOLLAR will be paid to the Radio fan submitting the most errors in any one station's listing in this Official Call Book and Log. Letters must reach Radio Digest office not later than a month from date of issue corrected. Readers are not limited to correcting one station, but such corrections must be certified by the stations themselves, and NOT by

the stations themselves, and NOT by

comparison to other so-called accu-rate broadcasting directories and lists. Readers also must live in same state

Readers also must live in same stace or province as stations corrected are located. Station verifications must accompany corrections. In case of tit duplicate awards will be paid. Until the wave leugths and watts are permanently assigned these cannot be counted in the challenge.

Kirksville, Mo. 225.4m-1330kc. 15 watts. State Teachers College. Announcer, F. M. Henry, Mon. 8:30-9:30 pm. Thurs, 8-9 pm. Founded 1923. Central.

KFLV

Rockford, Ill. 267.7m-1120kc. 100 watts. Swedish Evangelical Mission Church. Announcer. Oscar Olson, Paul Bodin, Mon. 8:15 pm. Sun. 10:45 am, 9:30 pm. Founded Oct. 1923. Central.

KFLX

Galveston, Texas, 270,1m-1110kc. 100 watts. George

KFMR

Sioux City, Iowa. 232.4m-1290kc. 100 watts. Morningside College. Daily ex Sun, Sat, 11:40-12:30 pm. Tues, Wed, Thurs, Fri. 7:30-8:30 pm. Founded 1924. Central.

KFMX

Northfield, Minn. 236.1m-1270kc. 500 watts, Carleton College. Daily ex Sun. 10:30 am, time. Fri. 8:15 pm, lecture, 8:45, 10, Sun, 7 pm, Central.

KFNF

Shenandoah, Iowa 461,3m-650kc. 2000 watts. 6 am-7 pm. Henry Field Seed Co. Announcer, Henry Field, Slogan, "The Friendly Farmer-Station." Daily ex Sun, 6-830 am, 10-11, 12-2:30 pm; 3, ladies, hour; 5-7. Sun, 8:30-9-30 am, 10-15 am, 2 pm, 3-4 services; 6, Golden Rule, church service. Founded Feb., 1924, Central.

KFOA

Seattle, Wash. 447.5m-670kc, 1000 watts. Rhodes Dept. Store. Announcer, Arthur W. Lindsay. Mon. 10 am. 10 pm. Tues, 12-10 pm. Wed, 10 am. 11 pm. Thursday, 12-10 pm. Fri. 10 am. 12 mid. Sat. 12n. 10 pm. Sun, 5:30-6:30 pm. Pacific.

KFON

CHALLENGE!

Long Beach, Calif, 241.8m-1240kc, 500 watts. Nichols & Warinner, Inc. Announcer, Hal G. Nichols, Slogan, Piggly Wiggly Station, Daily and Sua, 9:30 am-12 mid. Founded March 1924, Pacific

tions and their employes are barred

from this offer.

In this issue is a complete alphabetical arrangement according to

In this issue is a complete alphabetical arrangement according to wave lengths, a wave length index, and a state, city index of stations. The information contained in each station data listing is given in the following order: Call letters, city, state, watts antenna input, owner's name announcer's name, slogan used, if say, name of listener in 'club,' s' 'lule of operating hours, and kind time used, as "Central," "Mounin," etc.

Each issue of Radio Direct rives

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Call Book and Log obtainable. This
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KFQU
Holy City, Calif. 249.9m-1.200kc. 100 watts. W. E. Riker. Announcer. Arthur I. Landstrom. Daily ex Sun. 6:30-7:30 pm. Tues. Fri. 9:30-11 pm. Wed. Thurs. Sat. 9-10 pm. Sun. 11-12 n. 10-11 pm. Pa

KFQW

Seattle, Wash, 217.3m-1380kc, 100 watts. KFQW. Inc. Facilic. Daily ex Sun, 10-11 am, 12-1 µm, 2-3, 4:30-5:30, 5:30-6, 6-7, 8:30-10, 10-11. Sun, 4-5 µm. KFQZ Holtwood.

Hollywood, Calif. 232.4m-1290ke, 100 watts. Tait Radio Company, Announcer, Allan Fairchild. Daily ex Sun, 12-1 pm, 5-6 pm, 6-11. Sun, 7-11 pm.

San Francisco, Calif. 454.3m-660kc, 1,000 waits. Don Lee, Inc. Announcer, Harrison Holliway, Daily ex Sat, Sun, 7-9 am, 10-12 n, 12-1 pm, 4:30-12 mid. Sat, 7-9 am, 10-12 n, 12-1 pm, 4-12 ntid. Sun, 10-1 pm, 2-4, 5-12. Pacific

KFRU

Columbia, Mo. 249.9m-1200kc. 500 watts. Stephens oblighted Anouncer, La Von Rall, Stogan, "Where Friendliness Is Broadcast Daily," Daily ex Stin, 83.09-1115, am. 3 pm, 6:30, Wed. 7:30-10 pm. Thurs. 7:30-11 pm. Sun, 7:30 am. 9:20, 10:45, 4 pm, 5, 7:30. Founded October 25, 1928. Central.

San Diego, Calif. 440.9m-680kc. 500 watts. Airfan Radio Corp. Daily ex Sun, 10-11 am, 6-10 pm. Sun, 11 am, 2-4 pm. Pacific.

KFSG

Los Angeles, Calif. 275.1m-1090ke. 500 watts. Angeles 'lemple. Daily ex Sun, Mon, 10:30-11:30 am. 11:30-12:30, organ; 2:30-3:30 pm. programs. 3:30-4:30, vesper; 6:30-7:30. Tues, 7:30-9:30 pm. Weet Sxt. 5:30-9:30 pm. Thurs, Fri. 7:30-11 pm. Eun, 10:30-12:30 pm. 2:30-4:40 pm, 6:30-11 pm. Pacific. KFUL

Galveston, Texas. 258.5m-1160kc, 500 watts. Thomas Groggan & Bros. KFUM

Colorado Springs, Colo. 282,8m-1060kc, 1000 watts, Corley Mountain Highway, Announcer, Howard Brown, Mon, 5-7 pm, 10-12. Tues, 8-10 pm, Thurs, 8-12 mid. Fri, 10-12 mid. Sat, 8-10 pm.

St. Louis, Mo. 545,1m-550kc, 1000 watts. Concordia Theological Seminary (Lutheran). Announcer, Herm. If. Hological Seminary (Med. Fri. 6 pm. Sun. 3 pm., 3:30, 9:15. Founded Dec. 14, 1924. Central.

KFUP

Denver, Colo. 227.1m-1320kc, 100 watts. Fitz-simons General Hospital, Educational and Recrea-tional Dept. Daily ex. Sat. and Sun, 10-11 am. Tues. Thurs. Fri, 7:30 pm. Mountain.

Ogden, Utah, 225.4m-1330kc, 500 watts. Peery Building Co. Tues, Thurs, Sat, 9:50-11:50 pm, dance music. Mountain.

Oakland, Calif. 256.3m:1170kc. 50 watts. The Gospel Radio. Stogan, "The City of Opportunity." Mon, Wed, Fri, 10-11 am, Wed, Fri, 8-9 pm, Sat, 1:30-2:30 pm, 6:30-7:30. Sun, 9-10 am, 11-12n. XFUT

Lake City, Utah, 249.9m-1200kc. 50 watts.

Venice, Calif. 208.2m-1440kc. 250 watts. C. I. McWhinnie. Announcer, Mary Elizabeth Carter, Daily ex Sun, 9:30-12 n, 4:30-6 pm, 9-12 mid. Wed, 12-2 am. Founded April 1925. Pacific.

Independence, Kan. 225.4m-1330kc. 50 watts: First Methodist Episcopal church. Amouncer, R. W. Elliott, Slogan, "The Voice of Southeastern Kaussa from Independence, the Pluckle on the Ref. Policy Commission of the Pluckle on the Policy of the pen Stn, 10:55 am, 7:30 pm. Founded Mar.

Houston, Texas, 238m-1260kc, 50 watts. KFVI Broadcasting Company, Announcer, Harry Waters, Daily ex Sun, 1-2 pm. Mon, Wed, Sat, 8-9:30 pm. KFVS

Cape Girardeau, Mo. 223,7m-1340kc, 50 watts. Hirsch Battery & Radio Co. Announcer, W. W. Watkins, Slogan, "The City of Opportunity." My ex Sun, 12-15 pm, news, markets, 6:45; mustc. Prompter July, 1925.

KFWB

Hollywood, Calif. 361.2m-830kc. 500 watts, Warner Brothers, Announcer, William Blil' Ray, Mon, Tues, Thurs, Fri, 10-10-40 am. 12-2:30 pm., 4:45-12 mid. Wed, Sat, 10 am, 12n-12 mid. Sun, 7:30-10 pm.

KFWC

Pomona, Calif. 222.1m-1350kc. 100 watts. L. E. Wall. Announcer, Bert Elise Wall. Daily ex Sun, 4-6 pm, 7-11. Pacific.

St. Louis, Mo. 214,2m-1400kc, 250 watts. St. Louis Truth Center, Slogan, "The Voice of Truth," Announcer, Rev. Charles II, Hartmann, Thurs, 10:45 am, 7:45 pm, Sun, 9 am, 10:45, 7:45 pm, Founded 1925, Central.

San-Francisco, Calif. 267-7m-1120kc. 500 watts. Radio Entertainments, Inc. Mon, 8 am-11 pm. Tues, Wed, Thurs, Fri, 7 am-11 pm. Sat, 7 am-12:30 am. Sun, 7:50-11 pm. Pacific. KFWM Oakland, Calif. 236.1m-1270kc. 500 watts. 1000 6 am- 6 pm. Oakland Educational Society, Announcer, G. R. Pollock, Mon. Tues. Thurs, Fri. Sat., 640 pm. Thurs, 12-30-115 pm. 24- Tues. Stat., 640 pm. Tues, 12-30-115 pm. 24- Tues. 92-30-11 am., 12-30-230 pm., 730-9, 10-11. Facilic.

KFWO

Avalon, Calif. 299.8m-1000kc. 250 watts. Major Lawrence Mott-Signal Corp. Slogan, "Katalina for Wonderful Outings." Daily, 12:30-1:30 pm, 7:30-9. Tues. Pri, Sun, 5-6 pm. Pacific.

Jerome, Idaho. 204m-1470kc. 15 watts. KFXD Inc. Daily ex Sun, 12 n. Wed. Sat, 8-10 pm. Sun, II;30-12:20 pm.

Denver, Colo. 282.8m-1060kc. 250 watts. Colorado Radio Corp. Announcer, M. E. Gorman. Slogan. "The Voice of Denver." Mon, Tues. 6-10 nm. Wed. 6-12 mid. Pri, Sat, 6-12 mid. Sun, 8 pm. Mountain.

That's just how sure Radio Digest is that this Official Call Book and Log is correct! To make the challenge fair for everyone, broadcasting sta-

Clip. Okla. 272.6m-1100kc, 750-1000 watts. National Radio Mig. Co. Amouncer, Tired Hand. Slogan. "Radio Headquarters of Oklahoma City—The City of Opportunity." Daily es Sun, 9 am. music; 10, sacred music; 10,30, markets 124:130 µm, music; 71.0. Sun, 9 am. n. B. S. A. Ol, Men's Caless i 11, services; e, services. Central

Astoria, Ore. 249.9m-1200kc. 15 watts. E. E. Marsh and Liberty theater. Announcer. E. E. Marsh. Wed, 11-11:30 pm. organ. Sun, 12:39-1:30 pm. Pacific.

Grand Forks, N. D. 333.1m-900kc, 100 watts. University of North Dakota, Daily, 12 m, 6 pm. Sun, 10:45 am, 12:30 pm, 4:30, 6. Founded Oct, 1923. Central.

KFJR

Portland, Ore. 282.8:m-1060kc. 100 watts. Ashlet C, Dixon & Son. Announcer, Ashley C. Dixon, Sr Mon, Tues. Wed, Thurs, S-6 pm, 7-8. Mon, 9-1 pm, Tues. 9-11:30 pm, Fri, 4-6 pm, 7-8. 1213 Sat_{1,1}-6 pm, 7-8, 9-10. Founded Sept. 23, 1213

KFJY

Fort Dodge, Iowa. 232-4m-1290kc. 100 watts. Tunwail Radio Co. Announcer: Carl Tunwail. Daily ex Sun, 10:30-11:30 ann, 5:45-7 pm. Tucs, 10-11:30 pm. Thurs, Fri, 8:30-9:30 pm. Wed, 3-4 pm. Sun, 11-12:30 pm. Founded Oct. 1923. Central.

Fort Worth, Texas, 249.9m-1200kc, 50 watts, W. E. Branch, Announcer, Jack Fralia, Daily ex Wed. Sun, 7-8 pm, 9-10, 7-8, 9-10, Sun, 1-3 pm, 6-7. Central KFKA

Greeley, Colo. 249.9m-1200kc, 200 watts, Colorado State Teachers' College. Announcer, H. E. Green. KFKB

Milford, Kan. 241.8m-1240kc. 2500-1500 watts. J. R. Brinkley, M. D. Dally ex Sun, 10:15-10:30 am. 13:1.3m. District Sun, 241. 3-4 pm. 5:30-10. KFKU Lawrence, Kan. 254.1m-1180kc. 500 watts. University of Kansas, Announcer, Ellsworth C. Dent. Mon. Thurs, 7-8 pm. Founded Dec. 15, 1924. Central

Chicago, Ill. 526m-570kc. 2500 watts. Westing-house Elec, & Mfg. Co. Daily 10:05 a, m. Daily ex Sun, 2 pm, 5:30 pm, 10:55. Central.

KFOR Lincoln, Nebr. 217.3m-1380kc. 100 watts. Howard A. Shuman, Daily ex Sun, 12;30-1;30 pm, 2-3;15, 6-7, 8-10. Fri, 11-1 am, Central. KFOX

Omaha, Nebr. 258.5m-1160kc. 100 watts. Board of Education. Technical High. Daily ex Sun. Sat, 12-1:30 pm. Tues, 7:39-9 pm. Central. St. Paul, Minn, 222.1m-1350kc, 250 watts. Beacon Radio Service. Announcer, M. G. Goldberg: Daily ex Sun, 9 pm. Mon, 7 pm. Founded Mar. 1924.

Dublin, Texas, 275.1m-1090kc, 15 watts. C. C. Baxter, announcer. Mon, Thurs, 8 pm. Sat, 11 pm. Sun, 7:30 am; 1:30 pm. Central, KFPM Grenville, Texas. 230-6m-1300kc, 15 watts. The New Furniture Co. Announcer, Dave Ablowich, Ir. Stogan, "The New Furniture Co, the Home of Good Furniture," Located at Greenville, Texas, Where You Find "The Blackest Ladd, the Whitest People," Daily ex Sun, 1 pan, music. Mon. Wed, Fir, & Sun, 1 pan, services, 7.30 pm, irregularly. Central.

KFPR

Los Angeles, Calif. 232.4m-1290kc. 250 watts. Los Angeles Co. Forestry Dept. Irregular schedule KFPW Aregular schedule

Mr. F. Guurch, S. Slogan, "Keeping Poee with Christ
Means Progress," Daily ex Sun, 6:30-7 am, 2:30-3

KFPY

Sockers

Spokane, Wash. 245.8m-1220kc. 250 watts. Symon Investment Co. Announcer, E. B. Craney, Daily ex Sun, Sat, 9:45-11 am, 3-9 pm, 6-10:30. Fri, 3-1 pm, Sat, 10:30-11 am, 2:30-3 pm. Sun, 7:40-9 pm

KFQA St. Louis, Mo. 234.2m-1280kc. 1000 watts. The Principia. Sun. 8 pm. Founded May 9, 1924. Cen-KFQB

Fort Worth, Tex. 333.1m-900kc, 1000 watts, Lone Star Broadcast Co. Announcer, Zack E. Hurt. Daily ex Sun, 8:30-9:30 am, 12:30-1:30 pm, 7:30-8:30, 9:30-11, Wed, 8:30-9:30 am, 12:30-1:30 pm, 5:30, 10:30-11 pm, Sun, 11-12n, 6-7 pm, 7:30-11. Cen-

KFQD

Anchorage, Alaska. 344.6m-870kc. 100 watts. Anchorage Radio Club. Announcer, Frank O. Berry. Mon, Fri, 8-10 pm. Sun, 7:30-9 pm. Alaskan time.

KFXJ

Edgewater, Colo. 215.7m-1390kc, 50 watts, R. G. Howell. Slogan, "America's Scenic Center," Daily ex Sun, 2-4:30 pm, 5:30-9. Sun, 9-10 pm. Mountain

KFXR

Oklahoma Exchange City, Okla. 223.7m-1340kc. 50 watts. Ave. Baptist church. Mon, Wed, Fri, n, services.

KFXY

Flagstaff, Ariz. 205.4m-1460kc. 25 watts. Mary M. Costigan. Announcer, Cecil J. Walters. Tues, Thurs, Sat, 10:15-11:15 pm. Mountain. KFYO

Breckenridge, Tex. 211.1m-1420kc. 15 watts. Kirksey Brothers Battery & Elec. Co. Daily ex Sun. 10:30-11:30 am. 12-1 pm. 8-10. Sun. 8-10 pm.

KFYR

Bismarck, N. D. 249.9m-1200kc. 250 watts. 500 6 am-6 pm. Hoskins-Meyer, Inc. Announcer, C. F. Dirlam. Daily ex Sun, 12:30-1:30 pm. 6:30-8:30 pm. Tues, Thurs, 10-11 pm. Sun, 10-30-12 n, 1-3 pm. Founded Dec. 1925.

KGA

Spokane, Wash, 260-7m-1150kc, 2,000 watts. Northwest Radio Service Co. Daily ex Sun, 9, 11 am; 12, news; 12:15 pm, 5:30, kiddies program; 6, time; 6:15-10 pm. Sun, 11 am, 7:30. Pacific

Tucson, Ariz. 234.2m-1280kc. 100 watts. Tucson Citizen. Announcer, Flarold S. Sykes. Daily ex Sat, 7-9 pm. Sun, 11 am. Installed June 1926.

KGBU

Ketchikan, Alaska. 228.9m-1310kc. 500 watts. Alaska Radio K Service Co. Announcer, Jack Ryno. Slogan, The Voice of Alaska, Buly ex Wed, 11-1 pm, 7-8-30. Thes, Thurs, 8:30-10 pm. Set, 10-12 mid. Alaskan time. KGBX

St. Joseph, Mo. 288.3m-1040kc, 100 watts. Foster-Hall, Inc. Announcers, R. D. Foster, R. L. Hill. Daily ex Son, 7-8 am, 12-1 pm, Mon, 5-6 pm, Mus-5-7 pm, Tues, Thurs, Bri, 6-10 pm, Sun, 7:30 pm, Founded August 11, 1926. Central.

KGBY

Columbus, Neb. 222.1m-1350kc, 50 watts. Thelen and Laddiken. Tues, Sat, Fri, 12:35-1:15 pm, 8-9:15.

KGBZ

York, Neb. 212,4m-1410kc 250 witts, Amouncer, Cornell & Miller Stagm, Teen Your Horse Del George B Miller Stagm, Teen Your House Tri, Sat, 5:30 am, 112:30 am, music, 12:30, 2:30, 7:30, Thirs, Sat, 10:30-11:30 pm, music, Alternate Sun, 1 am, 7:30 pm, service Opened Aug. 1926. Central.

KGCA

Decorah, Ia. 247.8m-1210kc. 10 watts. Bar Clothing Company. Announcer, Charles Gree Daily, 12:30-1 pm. Wed. 7-8 pm. Sun, 2-4 Central.

KGCB

Oklahoma City, Okla. 215,7m-1390kc. 50 watts Wallace Radio Institute.

KGCH

Wayne, Nehr. 293.9m-1620kc, 250 watts. Wayne Hospital, Announcer Merrill Shum, Slogan, "Re-member Us When U. R. III." Daily ex Sat. Mon, 6:30 pm. Tues, Thurs, 4-5 pm. Founded Aug. 1926. Central.

KGCI

San Antonio, Texas. 220.4m-1360ke, 100 watts. Liberty Radio Sales.

Senttle, Wash, 230.6m-1300kc. 50 watts. Louis Wasmer, Archie Taft, Announcer, Herman Ricce. Mon, Wed. Thurs, 6:30-7:30 pm, 8:30-11. Tues, Fri, Sat, 3-7:30 pm, Pacific,

KGCN

Concordia, Kan. 208.2m-1440kc, 50 watts. Concordia Broadcasting Co. Daily ex Sun, 12:30-1:30 pm, 7-9. Founded Aug. 1926. Central.

KCCR

Brookings, S. D. 208.2m-1440kc. 15 watts. Cut-ler's Radio Broadcasting Service, Inc.

KGCU

Mandan, N. D. 239.9m-1250kc. 100 watts. Mandan Radio Assn. Announcer, H. L. Dahners. Daily ex Sun. 7-8-390 am, 12-1:30 pm, 6:30-8. Sun, 11-12 n, 4:30-6:30 pm. Mountain.

KGCX

Vida, Mont. 243.8m-1230kc. 10 watts. First State Bank of Vida. Announcer, E. E. Krebsbach, Daily ex Sun, 12u, Sun, 11 am, 2-4 pm. Mountain.

Dell Rapids, S. D. 254.1m-1180kc. 6 am,-6 pm. 15 watts. Home Auto Co. Sun, 10-11 am, 1:30-5 pm. Central.

KGDE

Barrett, Minn. 205.4m-1460kc. 50 watts. Jaren Drug company. Daily ex Sun. 12:30 pm, musicale; 1. news, weather, markets; 4:30-7, musicale p0:30-3 pm, 6.8. Licensed Sept. 15, 1926. Central.

KGDM

Stockton, Calif. 217.3m-1380ke. 10 watts. Peffer Music Co. Daily ex Sun, 10-11:30 am, 2-3 pm. Thurs, Sat, 8-10 pm. Central.

KGDP

Pueblo, Colo, 223.7m-1340kc. 10 watts. Boy Scouts of America. Tues, 8 pm. Thurs, 9 pm. Mountain.

KGDR

San Antonio, Texas, 206.8m-1450kc, 15 watts. Joe B, McShane, Announcer, Joe B, McShane, Daily ex Sun, 4:30-5:30 pm, Thurs, 9-10 pm, Cen-

Humboldt, Nehr. 293.9m-1020kc. 100 watts. Frank J. Rist. Announcer, C. M. Hecht. Mon. Sat. 7:30 pm. Tues, Wed. Fri. 11:30 am. Thurs. 8:30 pm.

KGDX

Shreveport, La. 212.6m-1410kc. 250 watts. William Erwin Antony.

KGDY

Oldham, S. D. 206.8m-1450kc, 15 watts. J. Albert Loesch. Thurs, 7:45-11 pm. Central, Founded Dec. 26, 1926.

KGEF

Los Angeles, Calif. 263m-1140kc. 500 watts, Trinity Methodist church. Daily ex Sat. 6-10 nm. Sun. 10:45-12:30 pm, 5-6, 7-10:30. Pacific, Founded Dec.

KGEH

Eugene, Ore. 2011.2m-I490kc. 50 watts. Eugene Broadcast Station. Daily ex Sun. 9-10 am. 12:15-12:50 pm, 6:30-8. Sun. 9:45-10:30 am. 6:8 pm. Fri, 10:12 mid. Pacific. Founded Jan. 1, 1927.

KGEK

Colo. 263m-1140kc, 10 watts. 7 am-7 pm Electrical Equipment Co. KGEN

El Centro, Calif. 225,4m-1330kc. 15 watts. E. R. Irey and F. M. Bowles. Daily ex Thurs, Sun 12:15-115 pm. Mon, Wed, Fri, 5:30-6:30 pm. Tues. Sat, 8-9 pm. Thurs, 9-11 pm. Pacinc. KGEO

Grand Island, Nebr. 205.4m-1460kc. 100 watts. Hotel Yancey. Mon, Wed, Sat, 8-9 pm, Tues, Fri, 12:25-12:55 pm. Sun, 2-4 pm. Central,

Fri, 12:25-12:55 pm. Sun, 2-4 pm. Central, KGEQ

Minneapolis, Minn. 204m-147/10c. 50 years, Fred weed, 6:30-313 pm. 75 pm. Weed, 6:30-33 pm. 75 pm. Rices, 9:30-11:45 pm. Weed, 6:30-33 pm. 75 pm. St. 3-5:30 pm. Central KGER

Long Beach, Calif. 215.7m-1390kc, 100 watts, C. Merwin Dobyns, Daily ex Sun, 9 am-1 am, KGES

204m-1470kc, 10 watts. Cen

ntral City, Neb. 1 Radio Elec. Co. KGEU

Lower Lake, Calif. 227.1m-1320kc. 50 watts. Lotowana Lodge. Mon, Wed, 7:30-9:30 pm. Fri, 7-9 pm. Sun, 1:45-2:45 pm, 8-9. Pacific. Founded Dec., 1926.

KGEW

Fort Morgan, Colo, 213.8m-1370kc 100-200 watts. City of Fort Morgan, Announcer, Glenn S. White. Thus, State State States of the Morgan Markets, Tues, The States of the Morgan States of the States of

Denver, Colo. 201.2m-1490kc. 250 watts. J. W. Dietz. KGEZ

Kalispell, Mont. 293.9m-1029kc, 100 watts. Flathead Broadcasting Assn. Daily and Sun, 12-1:30 am. Thurs, 7:30-9 pm. Sun, 11 am, 7:30 pm. Mountain. Founded Feb. 20, 1927.

Iowa City, Iowa. 223,7m-1340kc. 10 watts. A. G. Dunkel. Daily ex Sun, 12-12-30 pm, 6-6:30. Mon, Thes. Wed, Thurs, Fri, 11-12 mid. Central.

Oklahoma City, Okla. 215.7m-1390kc. 50 watts, Full Gospel Church,

KGFH

La Crescenta, Calif. 223.7m-1340kc. 250 watts. Frederick Robinson, Announcer, Formosa H. Robin-son, Slogan, "Voice of the Sierras." Mon, Tues, Wed, Fri, 8-10 pm. Founded Feb. 7, 1927. KGFI

San Angelo, Tex. 220.4m-1360kc. 15 watts. M. L. Eaves. Daily ex Sun, 9 am, 12n., 3 pm, markets, weather, 8-11. entertainment. Central. KGFJ

Los Angeles, Calif. 208.2m-1440kc. 100 watts. Ben S, McGlashan, Slogan, "Keeping Good Folk: Joyful." Daily ex Sun, 6:30-9:30 am, 124-430 pm 6-9, Daily ex Sat, 12-6:30 am, Sun, 9 am-2:30 pm Facilic. Founded Jan. 18, 1927.

KGFK Hallock, Minn. 223.7m-1340kc. 50 watts. Kitts County Eenterprise. Founded May, 1927. KGFL

N. M. 222.1m-1350kc. 50 watts. KGFN

KGFO

KGFP

KGFW

Pierre, S. 6 pm. Da KGGF D. 254.1m-1180kc. 200 watts. 6 am-na McNeil.

Picher, Okla. 206.8m-1450kc. 100 watts. Dr. D. L. Connell. Daily ex Sun, 7:30-8:30 pm, 8:30-9:30. Central. On air Sept. 1, 1927. Cedar Grove, La. 212.6m-1410kc. 50 watts, Bates Radio & Elec. Co.- Announcer, A. J. Bates, Mon, Wed, Fri, 7-9 pm. Central. Founded Sept. 15,

KGGM

Inglewood, Calif. 204m-1470kc, 100 watts. Jay Peters, Portable, Daily ex Sun 6-10 pm. Sun, 12-2 pm. 8-12. Pacific.

KGHB

H. I. 227.1m-1320kc, 250 watts, Radio

Sales Co. KGHC Slayton, Minn. 209.7m-1430kc. 15 watts. Hegstad

Pueblo, Colo, 20 7m-1439kc. 250 watts. Philip G. Lasky & J. H. Albert.

Hardin, Mont. 263m-1140kc. 50 watts. American Legion, Hardin Post, No. 8.

Oakland, Calif. 384.4m-780kc. 5000 watts. Gen. Elec. Co. Announcer, Howard I. Milholland, Daily ex Sun, II.30 am. 1 pm. weather, stocks; 6-655. dinner concert; 6-55, reports. Mon, 4-5 mm. Mon, 9 am. book review. 5-50, kidner chiev. 7-0, and 9 am. book review. 5-50, kidner chiev. 7-0, and ready hour; 10-11, Hits and Bits; Wed. 6-35 pm. ready hour; 10-11, Hits and Bits; Wed. 6-35 pm. fram; 8-9, vaudeville; 9-10, drams; 10-12, dance musto, Thurs. 5-6 pm. Boy's hour; 8-9, 9-10, 10-11, II-12, Sat. 8-9 pm. Fri. 5-30-6 pm. 2-9, 9-10, 11-11, 11-12, Sat. 8-9 pm. 4, vesper, 5-30-6:30, 6-30-7:30, 9, 9-10. Tacific.

KGRC

San Antonio, Texas. 220.4m-1360kc. 100 watts. Paramount Radio Co. Announcer, L. G. Weber. Daily ex Sun. 8:30-9:30 am, 2-3 pm. Mon. Sat. 8:30-9:30 pm. Wed. 9:30-10:30 pm. Fri, 7:30-8:30 pm. Sun, 1-2 pm. Central. Opened Jan. 31, 1927.

KGRS

Amarillo, Texas. 243,8m-1230kc. 250 watts. Radio Service. Announcer. L. B. Cornelius. ex Sun. 6:30 am, 7, 10, 21:45, 6:30 pm, 7, 8 Wed, Fri. 9 pm. Sun, 11 am, 8 pm. Central.

KGTT

San Francisco, Calif. 206.8m-1450kc. 50 watts. Glad Tidings Temple and Bible Institute. Daily ex Sun, 12:30 pm, scripture reading. Tues, Wed, Fri, 8-10 pm. Wed, 2:30-4 pm, Divine healing service. Sun, 2:30-3 pm, Sunday school, 3-5, service; 7:30-10, service. Pacific. Founded Nov. 1925.

KGU

Honolulu, Hawaii. 270,1m-1110kc. 600 watts, Marion A. Mulrony, Announcer, Homer Tyson. Daily ex Sun. 12-1:15 pm, 4:30-5:30. Mon, Tues, Thurs, Fri, 7:30-9:30 pm, Sat, 12-5 pm, Sun, 6-9:30 pm, 1575, meridian. 2½ hours earlier than Pacific

KGW

Portland, Ore. 491.5m-610ke. 1000 watts. Gregorian Philipshing Co. Announcer: Dick Haller. State of the Philosophia Philipshing Co. Announcer: Dick Haller. State. 11:30 am, town circle; household Dailys 67, concert, 7-10. Mon. 9-12 mid. Tues. 9:45-10 am, exercises; 2-3 pm. 7, travelog; 9-11 pm. Wed. 9-10 pm. 10-12. Thurs. 7:30-7:45 pm., amusement guide: 7:30-8, 9-12 mid. Sat, 10-12 mid. Facine. KCY

Lacey, Wash, 243.8m-1230kc, 50 watts, St. Martins College. Announcer, Sebastian Ruth, Slogan, "Out Where the Cedars Meet the Sea." Sun. Tues, Thurs, 8:30-9:30 pm. Pacific,

KHAC

Pacific Coast. 204m-1470kc, 50 watts. Flying Broadcasters, Inc.

KHJ

Los Angeles, Calif. 416.4m-740kc. 500 watts, Don Lee, Daily ex Sun, 12:30 pm, markets; 6 dinner music; 6:45, 7, 9-10. Wed, 2:30-3 pm, Sun, 10 20, 11.00, 7-10 pm, Pacthe.

Harlingen, Tex. 236.1m-1270kc, 100 watts, Harlingen Music Co, Daily ex Sun, 2-4 pm, Mon, Wed, Fri, 7-9 pm. Sat, 8-10:30 pm. Central, Founded Feb., 1927. KHQ Spokane, Wash. 370.2m-810kc. 1006 watts. Louis Wasmer, Inc. Announcer, C. P. Underwood, Slogan, "Tells the World." Daily ex Sun, Wed, 12:30-1:30 pm, 3-4, 6-12 mid. Wed, 7-10 pm. Sun, 10:30 am, 11, 2-10 pm. Pacific.

Siltipoc, Minn, 422,3m-710kc, 500 watts. Steele Co. Slogan, Far from the Maddening Crowd." Mon, Wed. Fri, 7-8 pm. Sun, 2-3 pm. Central.

Red Oak, Iowa, 322,4m-930kc, 100 watts. Atlantic Automobile Co. Operated by Walnut Grove Products Co. Announcer, H. A. Marshall, Daily ex Sun, 11:50-12:30 pm, question box, markets. Daily ex Sun, 7:45-5 pm. Founded 1923. Central. KJBS

San Francisco, Calif. 220.4m-1360kc. 5 Julius Brunton. & Sons Co. Anouncer. Ca-tiansen. Daily ex Sun. 9-12 n. 1;30-5 p. Wed. 8-10 pm. Tues, 8-12 mid. Thurs, Fit, 8-11 pm. Sun, 1:30-5 pm. Pacific. Jan., 1925. KJR

Seattle, Wash. 348.6m-860kc, 2500 watts. Northwest Radio Service Co. Announcer, W. C. Gordon, Daily ex Sun. 9 am-12 mid. Sun. 9 am., 10, 11, 230 pm, 6:15-7:15, 7:15, 7:30, 9. Pacific, KKP Seattle, Wash. 265.3m-1130kc, 15 watts. City of Seattle, Daily, 10 pm, Pacific, KLCN

seville, Ark. 285,5m-1050kc. 6 am-6 pm. 50 s. Edgar G. Harris. KLDS Independence, Mo. 270,1m-1110kc, 1500 watts. Reorganized Church of Jesus Christ of Latter Day Charles Church Church Ches. 6:30 am, 7, 6:45 pm, 7:30, 8. Thurs, 6:45 pm, 8: Fi. 6:30 am, 7, Sat. 8 pm. Sun, 8:30 am, 9, 11, 3 pm, 6, 9:15. Central. Founded

KLIT

Portland, Ore. 206.8m-1450kc. 10 watts. Lewis I.

KLS

Oakland, ner Bros. Slogan, 10-11 am. Calif. 245.8m-1220kc. 250 watts. War-Radio Supplies. Announcer, Ralph Moore, The City of Golden Opportunity." Sun, Pacific.

Dakland, Calif. 508.2m-590kc. 500 waits. Onkland Tribinus. Announcer. Charles. Libryl. Slogan. "Where Rail and Water Meet." Daily see Shora 10 am, woman hour; 11:30, luncheon concert; 1, 4:30, 5:30, 6:30, dinner concert; 7, news; 8, program. Pacific. Founded Nov. 20, 1922. am, wo 5:30, 6 Pacific, KLZ Denver, Colo., 296.9m-1010kc, 1000 watts, Reynold Radio Co, Announcer, Julian C, Riley, Slogan "Pioneer Broadcasting Station of the West." Daily and Sun, 9:30 am, 1, 6, Mon, 6:10 pm, Tues, 6:1, pm, Wed, 6:10 pm, Thurs, 6:7 pm, Fr, 6:11 pm Sat, 6:12 mid, Sun, 9:30 am, 7:11. Mountain Founded 199 as 9ZAZ.

KMA

KMBC

Kansas City, Mo. 270.1m-1110kc. 1500 watts. Midland Broadcast Central. Announcer, Arthur B. Church. Daily ex Sun, 9 am, 12 n, 4 pm, 7, 9, 10. Sun, 7 pm, 7:45. Founded 1921. Central.

KMED

Medford, Ore. 249.9m-1200kc. 50 watts, W. J. Virgin, Daily ex Sun, 10-11 am, 12:15-1:15 pm, 6:15. Mon, Tues, Wed, Fri, 10 pm, Thurs, 11 pm, Sun, 11-12 n, 8-9:15 pm, Pacific. Founded Dec. 22, 1926.

KMIC

Inglewood, Calif. 223.7m-1340kc. 250 watts, J. R. Fouch. Mon. Tues. Wed. Fri, 7 am-8 pm, 10-12. Thurs, Sat, 7 am-12 mid. Sun, 11-12:15 pm. 8-9:15. Pacific. Founded Jan. 10, 1927. **KMJ**

Fresno, Calif. 365.6m-820kc, 50 watts, Fresno Bee, Announcer, W. F. Bragg, Mon, Wed, Fri, 7:15-10 pm. Tues, Thurs, 9-10 pm. Sat, 9:15-12 mid. Pacific, Founded Oct. 1, 1922,

KMMJ Clay Center, Neb. 285.5m-1050kc, 250-500 watts. M. M. Johnson Co. Daily ex Sun. 7:30 am, 10, 11, 12:30. L. S. livestock market; 1:30 pm, 7, 8, Sun. 9 pm, Tues, stient, Founded 1925. Central,

KMO

NIVIO

Tacoma, Wash, 254.1m-1180kc, 250 watts, KMO, Inc. Announcer, Carl E. Haymond, Mon, Tues, Wed, Thurs, 10-11 am, 2-3 pm, Mon, 7-9:30 pm, Use, 9-12:30 am, Wed, Thurs, Fri, 8-10 pm, Sat, 10-11 am, 2-3 pm, 6-7, 9-11, Fri, 10-11 am, 2-3 pm, Sn, 10:30-12 mid, 6-7, 7:30-9, Pacific, Founded Aug, 25, 1926.

KMOX

NATULUS MO. 299, 8m, 1000 fc. 200 wests. The Stolete St. Louis, Announcer, Ceorge Junkin. Baily ex Sun, 9;40 am, markets; 10;45 pm, talks; 13m, orders; 23,0, studio program; 5, markets; 6, chilled the state of the

KMTR

Los Angeles, Calif. 526m-570kc. 500 watts. KMTR Radio Corp. Daily ex Sun 7-7:30 am, exercises; 7:30-8:30, 8:45-9, time: 12 pm, 1:30-2:30, 5:30-11. Installed June. 1925.

KNRC

Santa Monica, Calif. 374.8m-800kc. 500 watts. Keirulff & Ravenscroft Co. Daily ex Sun, 1:30-4:30, Tues, 4:30-5 pm. Sun, 10:45 am, 2:30-4 pm, 5-9, Installed 1921, Pacific.

KNX

Angeles Calif. 335 9m-8906. 500, witts Lo-Logeles Eventing Express, Announcer, Town Crier; Daily ex Sun, 6:48 am, exercises; 8, prayer; 8:55, time; 9, news; 10, Town Crier; 10:30, economics; 1:30 pm, book talk; 2-4, 4:55, narkets; 5, 5:30, 1:30 pm, book talk; 2-4, 4:55, narkets; 5, 5:30, Tues, Wed, Thurs, Fri, 7:12 midnight, Sat, 7:2 am, Sun, 10:42:39 pm, church service; 12:45:1:45, 2-4, 6:39-9, 3-9:10.50, Installed Oct, 11, 19:4, Pacific.

KOA

Denver, Colo. 325-9m-920ks, 2500 watts, 6 ampm, 500 watts, General File. Co. Aunouncer,
round reports, and round for the color of the

Corvallis, Ore. 270.1m-1110kc. 500 watts. Oregor Agricultural College. Announcer, W. L. Kadderly. Mon, Tues, Wed, Thurs, Fri, 7 pm. Pacific. Founded Dec., 1922.

KOB

State College, N. M. 394,5m-760kc, 7500 watts, 6 am-6 pm, 5000 watts, N. M. College of Agri, & Mech. Arts, Amouncer, Robert Stewart, Slogan, 12:30 pm, time, weather, markers, road reports, news; music 9:55-10:10, time, weather, road re-ports, Mon. 7:30-8:30 pm, farm program, Wed, 731-73-90-8:30 pm, music, Founded 1320, Moun-

KOCH

Omaha, Neb. 258.5m-1160kc, 250 watts. Central Radio School, Announcer, C. H. Thompson. Mon, Tues, Thurs, 7-10:30 pm. Sat, 12 midnight. Sun, 3:30 pm. Founded 1923. Central.

KOCW

Chickasha, Okla. 252m-1190kc, 250 watts, Okla. College for Women. Tues, Thurs, 8 pm, music. Daily ex Sun, 121-130 pm, Sun, Mon, Wed, Thurs, 10:15 am, Mon, 10-1:30 am, musicale, Central. KOIL Council Bluffs, la. 319m-940kc, 5000 watts. Mona Motor Oil Co. Announcer, Bob Hall. Daily ex Sun, 7-9 am, musicale; 10-11. Annt Sammy; 12:30-2 mm, musicale; 3-4, 5-7.30, 5:30-6, 7-3, 9-10, 11-12, 12-1. Cantral, Founded July 10, 1923.

KOIN Portland, Ore. 319m-940kc, 1000 watts. KOIN, Inc. Daily ex Sun, 9-10 am, 10 am, 11 am, 12 n, 3, 5:15, 6, 7, 7:30, 8-9, Sat, 11-1 am, Mon, Wed, Fri, 10-11 pm, Sun, 3-4:30 pm, 6-7 pm, 7:50, 9, Pacific. Founded April, 1926,

KOMO

Scattle, Wash. 305.9m-980kc. 1000 watts. Fisher's Blend Station, Inc. Announcers, G. Donald Gray, George Nelson, Daily es Sun, 10 am-12:30 am, 10, inspirational; 10:15, health exercises; 10:30, home organ; 1:15, orchestra; 2.1, form talks; 12:15, 5:45, stocks and bends; 6. news; 6:15, orchestra; 9, N. B. C.; 10, program; 10:30, news; 10:15, done orchestra, Sun, 10:12:30, am, 2:3 pm, 5:30-6:30, 7-9, 9:10. Pacific, Founded Dec. 31, 1926.

Denver, Colo. 247.8m-1210kc. 250 watts. The Associated Industries Broadcasting. Daily ex Thurs, 7-9 pm. Sun, 11-12 n, 6-7 pm, 7:30-9. Mountain. **KPCB** Seattle, Wash. 230.6m-1300kc. 50 watts. Pacific Coast Biscuit Co. Dally ex Sun, 9:39-9:50 am, recipe; 7:30-8:30 pm. Mon, Wed, 5:30-9:50 pm. 6, sports. Tues, 8:30-10 pm. Fr, 8:30-9:30 pm. Sat, 8:30-9:30 pm. Facific. Founded April 1, 1927,

KPJM

Prescott, Ariz. 214.2m-1400kc. 15 watts, Frank Wilburn. Irregular hours, news, sports. **KPLA** Los Angeles, Calif. 252m-1190kc. 500 watts. Pacific Development Radio Co. Daily 11 am-11 pm. Sun, 7-10 pm. Pacific. Founded March, 1927.

KPNP

Muscatine, Iowa. 211.Im-1420kc. 100 watts. Central Radio Co. Wed, 10:15-11:15 pm. Central. **KPO**

KPPC Pasadena, Calif. 228.9m-1310kc. 50 watts. Pasadena Presbyterian church. Wed, 7-9 pm. Sun, 9:45-12:45 pm, 6:45-9. Founded Dec. 25, 1924. Pacific.

Houston, Texas, 293.9m-1020kc, 500 watts. His ton Post-Dispatch. Slogan, "Kotton Port Rail Cer," Announcer, Allred P. Daniel. Daily ex S. 10:55 am, time; 11, weather, markets; 12 noon, tertainment, Paily ex Fr, Sun, 3-4 pm. Daily Sun, Pri, 7:30-9:30 pm. Sun, 11 am, 1 pm. 8 services, Founded May 8, 1925. Central.

KPSN

Pasadena, Calif. 315.6m-950kc. 1000 watts. Pasadena Star-News. Announcers, George Frenger. P. C. Pryer. Daily ex Sun, 12:15 pm, 6 pm, new Tues, Thurs, Sat. 8-9 pm, Sun, 10:30-12:30 am. Installed Nov. 23, 1925. Pacific.

KQV

Pittsburgh, Pa. 270.1m-1116kc. 500 watts. Dou-bleday-Hill Elec. Co. Announcer, Howard E. Clark. Mon, Wed. Fri. 4-5 pm, 6-9. Tues. Thurs, 4-5 pm, 6-7. Sun, 1-2 pm. Eastern.

KOW Sau Jose, Calif. 296.9m-1010kc, 500 watts. First Baptist church. Daily ex Sun, 1-2:39 pm, music; 55:30, children's hour; 5:30-6, studio program; 6. Aum Sandiy school; 6:50, Farmers exchange; 7. news, weather, markets; 7:20, larm topics; 7:30, mail bag; 7:40, talk; 7:55, riddles; 8, program. Sun, 10 am, 7:30 pm. Pacific.

Shreveport, La. 220,4m-1360kc, 50 watts. Caddo Radio Club. Announcer, R. M. Dean,

KRE KRLD

Dallas, Texas. 461.3m-659kc. 500 watts. KRLD. Inc. Announcer, Arthur W. Stowe. Slogan, "Where the Bluebannets Grow." Daily ex Wed, Sun, 12:30 1:30 pm, 7-8:30, 9:30-10:30. Mon, 11-12 mid, Tues. 8-8:30 pm. Thurs, 8-8:30 pm. Sat, 11-12 mid, or-gan, Central. Founded Oct. 30, 1926.

KRLO Los Angeles, Freeman Lan Biddick, Dail 9-12 mid. Pac KRSC Lang, A. B. Scott. Announces Daily ex Sun, 12:30-2:30 pm, Pacific. Founded Feb. 7, 1927.

Seattle, Wash, 211.1m-1420kc, 50 watts, Radic Sales Corp. Announcer, William J. Calsamalia, Daily ex Sun, 9-10 am, 6-7-39 pm, 9-10:30 pm, Mon, Wed, Frj. 3:30-5 pm. Pacific.

Manhattan, Kan. 333.1m-900ke, 500 watts. Kansas State Agricultural College, Announcer, Liste L. Longsdorf. Daily ex Sat, Sun, 9-9:55 am, 9:55, 12:35 pm, 6:30-8, Sat, 12:35 pm, 7:30-8:30. Central. KSBA

Sibreveport, La. 267.7m-1120kc. 1000 watts. Shreveport Broadcasting Assn. Announcer, W. G. Patterson. Dnily ex Sun. 10:15 am. 12:15 pm., 3:15, markets, weather, news; Tues, Wed, Thurs, Fri, 6:30 pm. 8. Mon, 11 pm. Sut, 9 pm. Sun. 11 am. 7:30 pm. Central. Founded March 14, 1922.

Sioux City, Iown, 243,8m-1230ke, 500 watts, 100 fo am-6 pm. Perkins Brothers Co. Daily ex Sun 1545-1545 pm. 155-1545 pm. 155-1545 pm. Mon Thes, Wed. Fri 6 pm. Sun, 11 am, 7:30 pm, serv Feb.

KSD St. Louis, Mo. 545.1m-550kc. 500 watts. Pulitzer Pub. Co. Announcer, W. P. Corwin, Daily ex Sun, 9:40 am, 10:40, 11:30, 12:40, 1:40, 3:40. Mon, Tues, Thurs, Fri, 7-11 pm, Wed, 6:30-11 pm, Sut, 7-11 pm, Sun, 3:45-9:15 pm, Central. Founded June 24, 1922.

KSEI Idaho. 333.1m-900kc, 250 watts. KSEI ing Assu. Announcer, W. J. O'Connor, Sun, 3-4 pm, 6-8, 9-11. Sun, 9-11 pm.

KSL City, Utah. 302.8m-990kc. 1000 watts. ce Corp. of Utah. Announcers, Roscoe I Rogers. Daily ex. Sun. 7-8 am. 10-130 pm. 4-5. Mon. Tues. Wed. 6-11:30 6-30-11 pm. Fri. 5:30-11:30 pm. Sat. Sun. 11-1 pm. 1:55-3, 5-11:30. Moun-Salt Lake Radio Serv

KSMR Santa Maria, Calif. 272.6m-1100kc. 100 watts. S Maria Valley Railroad Company. Announcer, ney C. Peck. Daily ex Sat, Sun, 10-30-11:30 6:30-9:30 pm. Sat, 7:30 pm. markets. Pacific.

KSO Clarinda, Iowa. 227.1m-1320kc. 500 watts. Berry Seed Co. Announcer, Joe Faassen, Stogaan, "Keep Serving Others," Daily ex Sun, 6:30-5 am, 22-1 pm, music talks. Daily ex Sun, 6:30-5 am, 22-1 pm, 120, 5:59 m, Founded Nov. 2, 1925, Contral.

KSOO Sioux Falls, S. D. 209.7m-1430kc. 250 watts Sioux Falls Broadcast Assn.

KTAB Oakland, Calif. 280.2m-1070kc. 500 watts. The Associated Broadcasters. Announcer, Lytton Spaulding. Slogan, "Knowledge, Truth and Beauty." Daily ex Sun, 6:45-1:30 pm, 47:30, 8-11. Sun, 9:45-12:30 pm, 1:30-2:30, 7-8, 8-9:15. Pacific.

San Antonio, Tex. 228.9m-1310kc. 20 watts. Robert B. Bridge, Alamo Broadcasting Co. Slogan. "Kum to America's Playround." Daily ex Sun. 6:30-8:50 am, 10:30-11:30, 12:30-2 pm, 6:30-8, 9:30-10:30. Mon. silent. Sun. 4-6 pm, 9:30-10:30. Central. Founded Sept. 15, 1927.

KTBI Los Angeles, Calif. 288.3m-1040kc, 500 watts. Bible Inst. of Los Angeles, Announcer, H. P. Herdman, Daily ex Sun, 8:45 am, 2 pm, Daily ex Sar Sun, 7:15-9, Sun, 10:45 am, 3, 6 pm, 7:15-9:30.

Portland, Ore. 282.8m-1060kc. 50 watts. M. Brown. Daily & Sun, 6-7 pm. dimer program of the prog KTBR

H. Springs National Park, Ark. 384,4m-780ke, 100 artists. The Arlington bord, Antouncer, C. C. Armoux, Slogan, "Kum to Hot Springs," Mon, 12-1 mm, 7:30, Tues, 6-10-45 pm, Thurs, Sat, 12-1 nm, 8-11, Wed, 7:30-11 nm, Sun, 11-12-30 pm, 8-11;30, Installed Dec. 20, 1924, Central.

KTNT

Muschine, Iown. 256,4m-1176kc. 2000 write, Norman Raker. Slogan, "The Home of the Calliophone man Raker. Slogan, "The Home of the Calliophone Adam Reinemund. Daily ex Sun. 6 am-8 pm. Mon. S pm. 9, 11, Tues, Wed. Thurs, Fri, II pm. Sun. 12 m. 2:30 pm. 8, Central. Founded 1924

Antonio, Tex. 265.3m-1130kc, 2000 watts to Broadcasting Co. KTUE

Houston, Tex. 212.6m-1410kc. 5 watts. Uhalt Elec-tric. Announcer, Bill Arnold. Daily ex Sun, 5;15-6:15 pm. Tues, 8-9 pm. Sat, 8-9:30 pm. Central.

Seattle, Wash. 394.5m-760kc, 1000 watts. F Presbyterian church, Announcer, J. D. Ross, gan, "Hear Ye, Hear Ye, the Gospel," Sun, 12:30 pm, 3-4:30, 7-9:30, church service. Pacific, KUJ

Seattle, Wash. 199.9m-1500kc, 10 watts. Puget Sound Radio Broadcasting Co. Mon, Wed, Fri, 6-9 pm. Sat, 6-12 mid. Pacific. KUOA

Fayetteville, Ark. 296.9m-1010kc. 500 watts. University of Arkansas. Daily ex Sun, 12-1 pm. Sun, Mon, 7-9 pm. Thurs, 7-9 pm. Central.

KUOM Missoula, Mont. 461.3m-650kc, 500 watts. University of Montana. Mon. Thurs, 8-9:30 pm. Sun. 9:15-10:30 pm. Mountain.

KUSD Vermillion, S. D. 483.6m-620kc. 250 watts. Un versity of South Dakota, Announcer, Lynan Ju son. Slogan, "South Dakota University for Sout Dakotans." Mon, Fri, 6:30-7:30 pm. Sun, 9-10 pm Central.

KUT Austin, Tex. 232.4m-1290kc, 500 watts. University of Texas, Announcer, I. G. Adams. Mon Wed, 8 pm. Fri, 8 pm. Sun, 11 am, 7:30 pm Founded 1925. Central.

KVI Tacoma, Wash. 234.2m-1280kc. 50 watts. Puget Sound Radio Broadcasting Co. Daily ex Sun, 8-10 am, 3-5 pm, 6-8. Sun, 11-12:30 pm, 5-5:30, 7:30-9. Pacific.

KVL Seattle, Wash. 202.6m-1480kc. 100 watts. Arthur C. Dailey, Moore Hotel. Mon. Tues, Wed. Thurs, Fri. 6:30-10 pm. Pacific.

KVOO Tulsa, Okla. 348.6m-860kc. 1000 watts. South-western Sales Corp. Daily ex Sun, 11 am, mar-kets. 12-1 pm, 2-45 pm, 3-4, 6-11 pm. Sun, 8:15-12 n, 5-6 pm, 6-9:15, Central. **KVOS**

Bellingham, Wash. 209,7m-1430kc. 50 watts. Voice

KWBS Portland, Ore. 199,9m-1500kc. 15 watts. Schaeffer Radio Co.

KWCR Cedar Rapids, Iowa, 239.9m-1250kc, 250 watts. Announcer, H. F. Paar, Slogan, "The Voice of Cedar Rapids." Daily ex Sun, 6:30 am, 11:30, 3:45 pm, 44:30, 5, 6, 9, 10. Sun, 4 pm, 9:30. Central.

KWG Stockton, Calif. 344.6m-870kc. 50 watts. Portable Wireless Telephone Co. Announcer, George J. Turner, Slogan, "Voice of the San Joaquin Valley," Daily ex Sun, 4-5 pm, news, concert, markets. 5-6 pm, 6-7-30, 8-10, concert, Wed, Thurs, Sat, 10-1 am, dance music. Sun, 7:30-9:30 pm, service; 9:30-10:30, organ, Pacific.

Portland, Ore. 228.9m-1310kc. 50 watts. Wilbur Jerman. Slogan, "The Voice From Broadway." Daily ex Sum. 1-6 pm, 6-8, 8-10-30. Wed, 10:30-12 mid, 12-1. Sun, 12-1 pm. Pacific.

KWK St. Louis, Mo. 234.2m-1280kc. 2000 6 am-6 pm. 1000 watts. Greater St. Louis Broadcasting Corp. Aunouncer, Thomas Patrick Convey, Daily ox Sun, Thurs, 9:30 am-1 pm, Shopper's obb; baseball, studio concert. Thurs, 9:39 am-6 pm, Sun, 11-9 pm. Certral.

KWKC Kansas City, Mo. 222.1m-1350kc. 100 watts. Wilson Duncan Studios. Announcer, Elmer C. Hodges. Slogan. "Keep Watching Kansas City." Tues, Wed, Thurs, Fri. 7 pm, 9. Central.

KWKH Shreveport, La. 394.5m-760kc, 1000 watts, Henderson and Works & Supply Co. Daily ex Sun, Figure 12 mid. Central. Founded Jan. 8, 1925.

KWLC KWSC

KWTC

Santa Ana, Calif. 222.1m-1350kc, 100 watts. Dr. John Wesley Hancock, Mon. Wed, 5:30-7 pm, Tucs, 5:30-7 pm, 8-10. Thurs, 5:30-810 pm, Sat, 5:30-80 pm, Pacific, KWUC

Le Mars, Iowa. 243.8m-1230kc. 1500 watts. Wern Union College, Announcer, Rex Frolkey. Lex Sun, 9:30-11:15 am, 12:30, 4, 5, 7. Wed, 10 pm, Central, Founded 1922.

KWWG Brownsville, Texas, 277.6m-1080kc, 500 watts. Brownsville Chamber of Commerce, Slogan, "Kum to the World's Winter Garden." Daily ex Sun, 12 m. 6 pm. Mon, Thurs, 8:30-11:59 pm. Central.

KXA eattle, Wash. 348.6m-860kc. 500 watts, Ameri n Radio Tel. Co.

Portland, Ore. 220-dm-1360kc. 50 watts, KXI Broadcasters. Announcer, A. R. Truitt. Slogan The Voice of Portland. Daily, 8 am-11 pm. Sat 11-9 pm. Sun. Facinc.

KXRO berdeen, Wash. 227.1m-1320kc. 50 watts. KXRO

KYA San Francisco, Calif. 309.1m-970kc, 500 watts Pacific Broadcasting Corp. Announcer, Edward J Ludes. Daily ex Sun, 10-12 n, 5:30-7:30, 8-11. Tues Fri, 10:30 am, diet talk. Pacific, Founded Dec. 18

KYW Chicago, III. 526m-570kc. 2500 watts. 5000 after 10 pm. Westinghouse Elec. & Mig. Co. Announcer John Clark, Dally ex ym, 6, hedline story; 6:33 dinner concert; 7:9, WIZ: 9:10:30, program; 10:30 weather; 10:33, ornchestra. Congress Carnival, orlar pm. WIZ: 4:50 pm. Sun, 10:30 m. tine; 11:1, Supr. WIZ: 2, 4:40, 7:13, WIZ: 9:11, WIZ: Cen

KZIB Manila, P. I. 249.9m-1200kc, 20 watts. I. Beck Inc. Daily, 8:30-10:30 pm.

KZM Oakland, Calif. 245.8m-1220kc. 100 watts. West ern Radio Institute (Hotel Oakland). Announcer Elbert Cowan. Daily ex Sun, 6:30-7:30 pm, Sun 8-10 pm. Pacific, Founded June 29, 1921.

KZRM Manila, P. I. 413m-726.1kc. 1000 watts. Radi Corp. of Philippines. NAA

Washington, D. C. 434.5m-690kc, 1000 watts. Unite States Navy Dept. Daily 10:05 am, 3:45 pm, 10:09 pm. Daily ex Sun, Holidays, 11:55-12 n, weather 9:55-10 pm, time. Fri, 7:45-8 pm. Eastern, WAAD Cincinnati, Ohio. 230.6m-1300kc, 25 watts. Ohio Mechanics' Institute. Sat, 9:45 pm. Eastern.

WAAF Chicago, III. 389.4m-770kc, 500 watts. Chicago Daily Drovers Journal. Announcer, Carl Ulrich. Daily ex Sun, 8:45 am, 10:50, 11, 12:50 pm. Daily ex Sun. Sat, 4:30, live stock and weather reports. Central. Founded May 22, 1922.

WAAM Newark, N. J. 267.7m-1120kc, 250 watts. I, R. Nelson Company, Announcer, Jack Van Riper, Daily ex Sun, 7-8 an, 11-130 pm, Tues, Wed, 6-8 pm, Fri. Sat, 8-10 pm, Mon, Thurs, 10-12 mid. Sat, 12:30 am-2:30 pm. Expression of Sat, 12:30 am-2:30 pm.

WAAT VAA1
Jersey City, N. J. 245.8m-1220kc, 300 watts. Bremer Broadcasting Cepp. Announcer, Randolph Course, State. Daily ex Sun, 10.30 am, housewives hour; 6 pm, markets; 6:05, dinner music; 6:40, weather; 6:45, sports; 7 time. Mon. 8:11 pm, pm, 6:7, 7:30, 8. Eastern. Founded Nov. 20, 1926.

WAAW Omaha, Neb. 440,9m-680kc, 500 watts, Omaha Grain Exchange, Announcer, James Thompson, Slo-gan, "Pioneer Market Station of the West: Daily ex Sun, 8:30 am, 8:45, 9:15, 9:45, 10:15, 10:46, 8:40, Daily 11:15, 11:45, 12:15, 12:15, 12:40, 8:40, Daily 11:15, 11:45, 12:15, 12:15, 12:40, 8:40, Daily 13:15, 11:15, 12:15, 12:15, 12:40, 8:40, Daily 15:15, 11:15, 12:40, Daily 15:15, 11:15, 12:40, Daily 15:15, 12:40, Daily 15:15, 12:40, Daily 16:15, 12:40, Daily

WABC Richmond Hill. N. Y. 309.1m-970kc. 2500 watts. Atlantic Broadcasting Corp. Daily ex Sun. 11:50-12:50 pm. 1-2. Mon. Wed. Thurs, Fri. 7:30-11 pm. Sun. 10:30-12:45 pm. 8-9. Eastern. WABF

Kingston, Pa. 205.4m-1460kc, 250 watts, Markle Broadcasting Corp. Announcer, E. L. Jones, Silo-gan, "The Voice of Wyoming Valley". Daily ex Sun, 12-1 pm, 6-7. Sun, 10:30-12, 7:30-9, 9-10:30.

WABI angor, Me. 389.4m-770kc. 100 watts. First Uni-ersalist church. Announcer. Prof. W. J. Creamer, Sun. 10:30 am, 7:30-9 pm. Eastern. Founded

WABW Wooster, Ohio. 247.8m-1210kc. 50 watts. The College of Wooster, Dept. of Physics, Announcer A. W. Coven,

WABY Philadelphia, Pa. 247.8m-1210kc, 50 watts. John Magaldi, Jr. Slogan, "Quaker City Sleep Dodgers." Club, "The American Broadcasting Club." Sun, pm., music; 10:30, "Sleep Dodgers' Session." East

WARZ New Orleys, La. 238m-1260kc. 50 warts. The Collegen Place Baptist church. Announcer, Charles B. Pane Stogan, "The Station with a Messace". Sun, 11-12:15 pm, 7:30-9, church service. Central. WADC

Akron. Ohio. 238m-1260kc. 1000 watts. Allen Theater Broadcasting Station. Announcer. George F. Houston. Daily ex Sun, 11-12 noon, 5:30-6 pm. Daily ex Sun, 18-3, 8-11 pm. Sun, 10:30-11:45 am. 12:30-1:30 pm, 3-5, 9-11 pm.

WAFD Detroit, Mich. 230.6m-1300kc, 100 watts, Alber B. Pariet Co. Announcer, Owen F. Uridge, Daily ex Sat, 6:45 pm, dinner music, 7:15, 7:30, 8

WAGM Royal Oak, Mich. 225.4m-1330kc. 50 watts. Robert L. Miller. Announcer, R. L. Miller. Slogau The Little Station With the Big Reputation. Mon. 8-12:30 am. Wed. Fri, 8-12 mid. Founder Oct. 3, 1925. Central.

WAIT Mass. 214.2m-1400ke, 10 watts. A. Co., Inc. Off the air until October,

Columbus, Ohio. 282.8m-1060kc. 5000 watts. American Insurance Union. Announcer, Dru Bernard Daily et al. 2003. and 2004. American Daily et al. 2004. and 2004. American Daily et al. 2004. and 2004. WAIZ

Wis, 227,1m-1320kc. 100 watts. WALK

Willow Grove, Pa. 201.2m-1490kc. 50 watts bert A. Walker, portable. Xt. Paul-Minneapolis, Minn. 222.1m-1350kc. 506 watts. Radisson Radio Corporation. Stanley E. Hubbard. Slogan, 'The Call of the North.' Daily ex Sun, 10:30 am: 10:45, shopping news; 12, weather; 12:01, organ; 5, 5:30, 6:35, farm flashes; 7, weather; 7:01, music, 7:30, 8, 8:30, 9; 10. Sun, 5:55 pm, 6, 9:45. Central.

Auburn, Ala. 340.7m-880kc, 1000 watts. Ala Polytechnic Institute. Announcer, W. A. Yo Daily ex Sun. 12-1. Tues, Thurs, Fri, 9-10 Installed 1922, Central,

WARS

Brooklyn, N. Y. 227.1m-1320kc. 500 watts. Amateur Radio Specialty Co. Daily ex Sun, 4 pm, 12 mid. Sun, 12:30-3 pm. Eastern. WASH

Grand Rapid, Mich. 256.3m-1170kc. 250 watts. Baxter Laundries Inc. Daily ex Sat, Sun. 12.30-130 pm. 53-06. Thurs, 66-630 pm. Daily ex Thurs, Sun. 7-8 pm. Sun, 10-11:30 am. 4-5 pm. 7-8:30. Central. Founded March 13. 1923.

WATT

WBAA W. Lafayette, Ind. 272.6m:1100kc. 500 watts. Pur-due university. Announcer, J. W. Stafford. Daily and the commercial state of the commercial state of the Fig. 2012. The commercial state of the commercial state of the WBAK

Harrisburg, Pa. 299.8m-1000kc. 500 watts. Penn-sylvania State Police. Announcer, A. E. Poorman Daily ex Sun, 10:30 am, 1:30 pm, 4, 7, police report fire protection, farm news. Eastern. Founded 1919 WBAL

Baltimore, Md. 285.5m.1050kc. 5000 watts. Con-solidated Gas Elect. Little to New Co. Amounted States States States. "The Station of Good Music." Daily ex Sun. Sat, 3:30.5 pm, 6:11 good Sat, 6:30-11 pm, Sun, 6:30-8:15 pm, Eastern. Founded Nov. 1, 1923. WBAO

Decatur, III, 267.7m-1120kc. 100 watts. Millikin University. University activities. Mon. Wed, 7-8 pm. Central. Founded 1922.

Vorth, Tex. 499.7m-600kc, 5000 wetts. Fair Worth, Snar-Telagyan, Announce, "The Hard Hand," Daily ex Sun, 8, 9, 10, 11, 2 m, 1 m, 2, 3, "Port of Missing Men," Mon, Tues, Thurs, Fi, Sat, 6-7 pm, 8-9, Mon, Thurs, Fri, 10-12 mid. Sun, 11 am, church; 9:30-11, Central, WBAR

WBAW Nashville, Tenn. 239.9m-1250kc, 500 watts, WBAW Broadcasters, Announcer, Harry Stone, Daily ex Sun, 10-1-115 am, 2:39-3:39 nm, 5-8, 9-10, Tues, 11-12 mid, Sun, 9:30-10:50 am, 11-12:30 n, 7-9. Founded Feb, 24, 1924. Central,

WBAX Wilkes-Barre, Pa. 249.9m-1200ke, 100 watts, John H. Stenger, Jr. Slogan, "In" Wyoming Valley Home of the Anthracite." Tues, 6332-11 pm. Thurs 9-22 am. Sun, 5-9 pm. Eastern. Founded May

WBBC Brooklyn, N. Y. 227.1m-1320kc, 500 watts. Brooklyn Broadcasting Corp. Mon. 10-3 pm, 7-8, 10-12. Tues, 9:30-12 n, 3-7:30, 10:30-12. Wed, 10-3 pm, 6-7, 10-12. Thurs, 10-12 n, 4-6; 7-10. Fri, 10-3, 6-8, 10-12. Sat, 9-10-45 am, 3:30-9 pm, Sun, 9-10 am, 3:8 pm, 10:30-12. Easteru.

Richmond, Va. 234.2m-1280kc. 100 watts, Grace Covenant Presbyterian church, Announcer, W. L. Pierce, Tues, 8 pm. Sun, 11 am, 7:45 pm. Eastern. Founded Feb. 1924.

Chicago, III. 389,4m-770kc. 5000 watts. Atlass Investment Co. Announcer, Nate Caldwell, Daily ex Sun, Mon, 1-2 pm, 7-11. Mon, 1 pm, 6-7 pm, 7-10. Thurs, 11-12 mid. Sat. 12-2 nm, Sun, 12-3 am, Nutly Club, Founded 1922. Central.

WBBP Petoskey, Mich. 239.9m-1250kc. 100 watts. Petoskey High School. Announcer, Carl Bowman. Daily ex Sun. 12-12:15 pm, weather stocks, news. Wed. 6-7 pm, popular program. Central.

WBBR Rossville, N. Y. 256.3m-1170kc. 1000 watts. International Bible Students' Association. Mon. Tues. Thurs, Fri. 2-4 pm. 7-9. Wed. 2-4 pm. 6-7. Sun. 10-12 n. 2-4 pm. 7-9. Founded Feb., 1924. Eastern.

WBBW

Norfolk, Va. 236.1m-1270kc. 100 watts. Ruffuer Junior High School. Amounteer, Lee M. Klinefelter, Slogan. The School You'd Like to Go To." Mon. 8 pm. Fri., 8-9:30 pm. Eastern. WBBY

Charleston, S. C. 249.9m-1200kc, 75 watts. Washington Light Infantry. Slogan, "Seaport of the Southeast." Sun, 10-11 pm. WBBZ
Chicago, 111. 204m-1470kc. 100 watts. C. L. Car

WBCN

Chicago, III. 288.3m-1040kc, 250 watts, Great Lakes Broadcasting Co. Daily ex Sun, Mon, 11 sm, Mrs, Peterson; 1-2 pm, 5-6, 7-8, Mon, 1-2 pm, 5-6, 5-8, Mon, 1-2 pm, 5-6, Sun, 10:30 am, church; 4-6 pm, 7;30-9:30. Central.

Takoma Park, Md. 265.3m-1130ke, 100 watts. Bliss Elec. School, Announcer, Win, M. Johnson, Jr. Fri, 6-7 pm, Eastern.

Medford, Mass, 288,3m-1040kc, 500 watts, Boston Transcript Co. Announcers, Gerard H. Slattery, Wayne H. Latham, Richard D. Grant, Slogan, "The Boston Evening Transcript-New England's Leading Family Daily," Daily 6:30-11 pm. Eastern. WBIS

Boston, Mass. 461.3m-650kc, 500 watts, Boston Information Service, Announcer, Nancy Howe, Daily ex Sun, 8-9:30 am, 2-4 pm, Eastern, Founded Jan.

Brooklyn, N. Y. 199 9m-1800kc. 100 watts, Arthur Faske, Announcer, L. W. Berne, Daily Sun, 12-2 nm, 3-5. Mon, Erf, 8-10 pm, Tues, 10-12 mid, Wed, 12 mid, Thurs, 6-8 pm, Sat, 6-8. Eastern, Founded Nov. 22, 1926.

WBMH Detroit, Mich. 211.1m-1420kc, 100 watts. Braun's Music House.

Union City, N. J. 199.9m-1500kc, 100 watts, George Julius Schowerer, Slogan, "The Voice of Union City". Daily ex Sun. 25.2 Laily as Sun. 8:30-12 mid. WBNY New Vord. 27.2 Lastern.

WENT
New York, N. Y. 236,1m-1270kc, 500 watts. Barychrome Corp. Daily ex Sat. 6-12 mid. Sun, 2:30
pm, 6. Founded 1925. Eastern. WBOQ
Richmond Hill, N. Y. 309.1m-970kc. 500 watts.
Atlantic Broadcasting Co. Tues, 7:30-12 mid. East-

WBRC Birmingham, Ala. 241.80i-1240kc. 250 watts. Birmingham Broadcasting Co. Announcer, Dud Councily, Slogan, 'The Bigsest Little Station in the World' Daily ex Sat. Sun, 1-2 pm. Mon, Tues, Wed., Pri, 8-10 pm. Sun, 10,45 am, service; 6:30 pm. organ; S, service. Eastern.

Wilkes-Barre, Pa. 249.9m-1200kc, 100 watts. Lib-erty State Bank and Trust Co. Announcer, Louis G. Baltimore, Mon, Fri, 12:30-1:15 pm, 6:30-12. Wed. 12:30-1:15 pm, 6:30-11:30. Sun, 9-12 mid.

WBRL Tilton, N. H. 232.4m-1290kc. 500 watts. Booth Radio Laboratories. Tues, Thurs, Sat. 8 pm. Wed, 8:30 pm. Sun, 10:30 am, 7 pm, services. Eastern.

WBRS

Brooklyn, N. Y. 21, 1m-1420ke. 100 watts. North American Broadcasting Corp. Announcer, M. E. Kriegel. Daily ex Sun, 1-2 pm. Mon, Wed, 10-11 pm. Pri, 8-9. Eastern. WBSO

Babson Park, Mass. 384.4m-780kc, 100 watts. Babson's Statistical organization. Announcer, Mar-shall McCarroll Daily ex Sun, 4-5 pm, 12-1 am. Bastern. Founded Jan., 1927.

Charlotte, N. C. 288 5m. 1160kc. 750 1000 waits. 7 am-7 pm. C. C. Coddination, Inc. Announcer, H. W. Burwell, Daily ex Sun, 12:30 pm. 61:30, WEAP: 8. Tues, 3:50 pm, baseball, Weld, 3:50, pm, baseball, Weld, 3:50, pm, baseball, Weld, 3:50, pm, 58, 8:30, FT, service; 8 pm, service; 6:20, WRC. Eastern.

N B.Z.
Springfield, Mass., 333.1n-900kc, 15000 watts
Westinghouse Elec. & Mig. Co. Announcer, Adah
Radjund, Dally nev Sun. 10.93 am, prag. 10.45
Rodington, 10.93 am, prag. 10.45
G. organ, 6:30-10.30, 10.30, baseball, weather, Sun.
2 nm, W12, 7:30, baseball, weather, 7:45, missis
10:50, weather, installed Sent. 19, 1921. Eastern
WRZA.

WBZA Roston, Mass. 333.1m-900kc. 500 watts. Westinghouse Elec. & Mig. Co. Same programs as WBZ.

Mansfield, Conn., 535.4m-560kc, 500 watts. Connecticut Agricultural College. Announcer, Daniel E. Noble. Slogan, From the Nutmer State. Mon. 7-7-45 pm., Wed. 6-45-7 um. Sat. 7-30-8-20 pm. Eastern. Founded June, 1923. Sisilit, Wis. 270.1m-1110kc, 500 watts, Kopp Radio Co. Slogan, "The Station of Northern Wis-consin," Mon. 9-10 pm., Wed, 8-9 pm. Thurs, 7:30-8:30, Sun, 10-11 pm. Central.

WCAD

Canton, N. Y. 243.8m-1230kc. 500-1000 watts, St. Lawrence University, Announcer, Ward C. Priest Slogan, "The Voice of the North Country." Desity, 12:30 pm, weather, reports, talks, music, time. Wed. 8 pm. Eastern.

WCAE

Pitisburg, Fa. 461.3m-650kc. 500 watts. Pitrs burgh Fress. Daily ex Sun, 645-8 am, exercises 8115, 915, 10:15, 12:15, 215 pm, 515; 1:30, 3:40 pm, news; 2:30 pm, organ; 6, dinner music; 7, pop-ular music; 5:30, 7:30, Uncle Kay Bee; 8-10. Sun 6 pm, 7:15-10, WEAF. Eastern.

WCAH

Columbus, Ohio. 234.2m-1280kc. 250 watts. Entre-kin Elec. Co. Daily ex Sun, 12-1 pm; 6-7. Eastern

University Place, Nebr. 379,5m-790kc. 500 watts. Nebraska Wesleyan University. Announcer, 14,50 pm. weather, news. Tuee, Fri. 12 n. organ. Tues. 7:30 pm. Bible study; Tues, 8 pm. class; 9 pm. musiche. Sum. 11 am. services; 4 pm. vesper. WCAL 1:221. Central.

Northfield, Minn, 285.5m.1050kc, 500 watts, Dept. of Physics, St. Olar College, Announcer, Hector Skiffer, Slogan, "The College on the Hill." Dairy St. St. Olar College on the Hill. Dairy St. Olar Minn, Thurs, 9:45 am, Mon, 7 pm; 8:15, Sun, 23.2 m; 3-4 pm, Central, Founded, 1922.

Camden, N. J. 223.7m-1340kc, 500 watts. City of Camden. Announcer, Harry E. Ehrhart. Mon, Wed, Fri, 7:30-10:30 pm. Eastern. Founded Oct. 25, 1996.

WCAO

Baltimore, Md. 243.8m-1230ke, 250 watts, Monumental Radio, Inc. Announcer, Wm. L. Atkinson. Mon, Wed, Fri, 6-11 pm. Sun, 11 am, service; 3-5. Columbia; 3, service; 9-11, Columbia chain. Eastern. WCAP

Asbury Park, N. J. 239,9m-1250kc, 500 watts. Radio Industries Broadcast Co. Announcer, Thomas F. Burkey, Jr. Mon, Tues, Thurs, Sat, Sun, 10-12 mid. Eastern, Founded July 1, 1927.

Rapid City, S. D. 247.8m-1210kc. 100 watts. South Dakota State School of Mines. Announcer, J. D. Kammerman. Daily ex Sun, 9:30 am, 12:30 pm, weather, reports. Thurs, 7:30 pm, concert. Moun-tain WCAU Philadelphia, Pa. 250.7m-1150kc. 500 watts. Universal Broadcasting Co. Announcer, Stan Lee Broza. Sponsan, "Where Cheer Awaits U." Mon, 5:30-11:30 ppn. Wed. 5:30-12 mid. Thors. 5:30-12 mid. Thors. 5:30-12 mid. Thors. 2-11 pm. Eastern.

WCAX Burlington, Vt. 254.1m-1180kc. 100 watts. University of Vermont. Slogan, "The Voice of the Green Mountains." Fri, 7-8 pm. Eastern.

WCAZ

Carthage, III. 249.9m-1200kc. 50 watts. Carthage College. Announcer, Raymond Derks. Daily ex Sat. Sun, 11:40-12:15 pm. Mon, 7-8 pm. Central.

Allentown, Pa. 222.1m-1350kc, 100 watts, Queen City Radio station. Wed. 8:15-11 pm. Fti, 7:30-10:30 pm. Sat, 10-11 pm, dance music, Sun, 10 am, 5:30 pm. 7, church service. Eastern.

WCBD

(N CDD)

344.6m-870kc, 5000 watts. Wilbur Glenn
Voliva, Announcer, J. H. DePew, Slogan, "Where
God Rules, Man Prospers," Tues, Thurs, 8-10.30
pm. concert, Wed, 12:30-1 pm, organ, Thurs, 2:30-345 pm, service, Sun, 9-10:45 am, Bible school;
2:30-6 pm, church, services; 8-10:30 pm. Founded
May, 1923, Central.

WCBE

New Orleans, La. 227,1m-1320kc, 5 watts. Uhalt Brothers Radio Co. Announcer, Joe Uhalt. Slo-gan, "Second Port U. S. A." Dally ex Sun, 11:30-12:30 pm. Daily, 7:30-8:30 pm, dance. Sun, 12:30-3 pm, dinner concert; 9, dance music. Central.

WCBM

Baltimore, Md. 225m-1330kc, 100 watts. Hotel Chateau, Announcer, Harry J. Dobe, Tues, Thurs, Sat, 9:30-11:30 pm, Daily ex Sat, Sun, 12-1 pm. Sun, 6-7:45 pm, Eastern, Founded March 25, 1923.

WCBR

Providence, R. I. 201.2m-1490kc. 100 watts. Charles H. Messter. (Portable.)

WCBS

Springfield, Ill. 209.7m-1430kc, 250 watts. Harold L. Dewing, Charles H. Messter, Slogan, 'Home of Abraham Lincoln.' Mon, 9-11 pm, Tues, Wed, Tfurs, Fri, 8:30-10:30 pm. Sun, 10:45-12 n, 12:30-2 pm, 6-7, 2:30-8. Central. Founded April 8, 1923.

WCCO

Minneapolis-St. Paul, Minn. 405,2m-740kc, 750b. 6 am-6 pm. 5000 watts. Washburn-Crosby Co. Amouncer, L. I. Seymour, Slogan, "Service to the Northwest." L. Seymour, Slogan, "Service to the Northwest." List was the Northwest. The Northwest of the Northwest. The Northwest of the N

Brooklyn, N. Y. 211.1m-1420kc. 250 watts. Italian Educational Broadcasting Co.

WCFL

Chicago, III. 483.6m-620kc. 1500 watts. Chicago Federation of Labor. Announcer, Maurice Wetzel. Slogan, "The Voice of Labor." Daily ex Sun, 10-2 nm, 4-12 mid. Sun, 11-1 pm, 2:30-6:30, 7:30-9:30. Central.

WCGU

Coney Island, N. Y. 218.8m-1370ke. 500 watts. Charles G. Unger. Daily ex Sun, 1 pm. Wed, Fri. 8 pm. Sun, 11 am. Eastern.

WCLO

Kenosha, Wis. 227.1m-1320kc, 100 watts, C. E. Whitmore, Announcer, Glenn G. Balcom, Slogan, "The Gateway of Wisconsin." Daily ex Tues, Thurs, 11;30 am, 2:30-5:30, 7-12 mid, Founded Aug. 4, 1925. Central.

WCLS

Joliet, III. 215.7m-1390kc. 150 watts. M. A. Fel-man Co. Slogan, Will County's Largest Store. Wed, Fri, 7-11 pm. Tres, 8-11 pm. Sat, Sun, 9-11:30 pm. Sun, 9-30-12:30 pm. Wed, Sat, 11-11:30 am. Central. Founded June 1925.

WCMA

Culver, Ind. 260.7m-1150kc, 500 watts, Culver Military Academy. Announcer, C. F. McKinney, Daily ex Sun, 3-4 pm, public service bour, Mon, 8-10:30 pm, Wed, 8-10:30 pm, Fri, 8-10:30 pm, Sun, 1-12:30 pm, chapel service. Founded 1925. Central.

WCOA

Pensacola, Fia. 249.9m-1200kc. 500 watts. Munic inal Broadcasting Station, Announcer, John E. Fren kel. Stogan. Wonderful City of Advantages. B. Proceedings of the Company of the Company

Columbus, Miss. 230.6m-1300kc, 250 watts. Crystal Oil Co. Ainouncer, T. C. Billings, Daily 5-6 pm.
VCOI
Olipamili

Olneyville, R. I. 225.4m-1330kc, 100 watts. Jaceb Com. Announcer, Lewis S, Bellem, Jr. Daily and Sun. 2:304 pm. Daily ex Sun. 8:10 pm. Eastern.

Chicago, Ill. 223.7m-1340kc, 500 watts. Clintor R. White. Announcers, C. R. White. Charles P. Hughes, Miss Josephine. Slogan, For Your En-tertainment. Daily ex Sun, 11:30-1 pm, Daily es Mon, 5-7:30 pm, 9:30-10:30. Central. Founded May

WCSH

VOCAT

Tortland, Me. 365.6m-820kc. 500 watts. Congress Square hotel. Announcers. Thrum, the Square hotel. Announcers. Thrum, the WEAF: 12 n. stocks, weather; 12:10, news; 3, music hour; 4, news; 6, stocks; 7:45, news. Mon. 52:30 pm. 91, 11, Wed. 7:30 pm. 93, 10:30. Thurs, 7:30 pm. Fri, 8:30, 9:30. Sat 8 pm. Sun. 10:30 m. 47:30. Rastern. Founded June; 1935.

WCSO

Springfield, Ohio. 256.3m-1170kc. 500 watts. Wit-tenberg College. Announcers, John D. Kuhus, Les-rowi. Mon. Wed. Fri. 7-9 pm., Tues, 6:30 7:30 pm. Sat, 2-4:30 pm. Eastern, Founded Dec.

WCWK

Fort Wayne, Ind. 214.2m.1400kc, 250 watts. Chester W. Keen. Slogan, "The Home Sweet Home Station." Fri, 7-8 pm. Sat, 8-10 pm. Sun, 11-12 n. 5-5:20 pm. 5:30-6:30, 6:30-7:30 pm. Founded, 1924, Central.

WCWS

Danbury, Conn. 265.3m-1130kc, 100 watts. Danbury Broadcasting Station. Founded Aug. 2, 1926.

Detroit, Mich. 440.9m-680kc. 5000 warts. The Detroit Free Press. Announcer 5000 warts of the property of the press. Announcer 5000 warts of the press. Annou

WDAD

Nashville, Tenn. 225.4m-1330kc. 1000 watts. Dad's Auto Accessories, Inc. Announcer, F. E. Exum. Stogan, 'The Athens of the South.' Mon, Wed, Sat, 11:45 am, 12:45, 3-4 pm, 9-10. Tues, Fri. 11:45 am, 12:45, 3-4 pm, 7-9 pm, Sun, 3-4:30 pm, 6:45

WDAE

Tampa, Fla. 267.7m-1120kc, 500 watts. Tampa Daily Times. Announcer, Bruce Lun, Daily ex Sun, 11:30-1 pm, 4-10, Sun, 11 am-12:30 pm, 7:30-9:30 pm. Eastern. Founded 1921.

Kansas City, Mo. 370.2m.810kc. 100 waits. KanKansas City, Mo. 370.2m.810kc. 100 waits. KanSinghal San Bandan B. Dang Sitter. Clab.
Singhal San Bandan San B. 130 am. 9.30, 103.0,
11.30, 12.30, 11.5 mi, grain quotations. Wed. Fri.
10 am. hetty Crocker. Daily ex Sun, 8 am. Bible
leasure. 2-67. school of the air; 7-10, musicale:
11:45-1. Nighthawk frolic. Sun, 2-3 pm, 7:15-9:15
pm. Founded June 5, 1922. Central.

Amarillo, Tex. 263m-1140kc, 250 watts. I. Laurence Martin, Daily ex Sun, Fri, 12:45-1:45 pm, weather, markets, farm; 9-10:30 pm, music, Fri, 8-10 pm, Sun, 9:45-10:45 am, 7:30-9:30 pm. Central, Founded May 16, 1922.

WDAH

El Paso, Tex. 234.2m-1280kc. 100 watts, Grinity Methodist church. Announcer, Louis Gemoets. Wed. 7:30-8:30 pm. Sun. 9:30-12 n. 7:30-9 pm. Founded Spring 1924. Mountain.

Fargo, N. D. 545.1m-550kc, 250 watts. 500 watts 6 am-6 pm. Radio Equipment Corporation, Announcer, Kenneth M. Hance, Daily ex Sun, 79 am, music; 7:30, news; 10, weather, markets; 10:15, music; 5:30 news; 10:40, entertainment, Mon, Wed, Fri, 7:30-8:15 pm, N. D. Agri, college, Sun, 10:30 am, service; 1-1 pm, service; 4:15-6:15. Central. TOTAL 10:10 pm. 10:20 pm. 10:

Roanoke Va. 230.6m-1300kc. 250 watts. Richardson Wayland Elec. Corp. Announcer J. W. Johnson. Stogan. Roanoke Davidson St

WDRO

WDEL Wilmington, Del. 296.9m-1010kc. 100 watts. Wil-mington Elec. Spec. Co. Announcer, Harvey Smith Slogan. The First Broadcasting Station of the First City of the First State. These, Thurs, Sat. 8-11 pm, Sun, 10-12 mid. Eastern. Founded 1922.

WDGY

Minneapolis, Minn. 285.5m-1050kc, 500 watts, Dr. George Young, Daily 2-5 pm. Mon, Wed, 7-8 pm. 10-12. Tues, 7-12 mid. Thurs, 7-10 pm. Fri, 7-8 pm., 10-12. Sat, 7-8 pm. Sun, 2-6 pm. Central. Founded 1923.

WDOD

Chattanooga, Tenn. 293.8m-1230kc. 500 watts. Chattanooga Radio Co. Inc. Announcer, Frank S. Chattanooga Radio Co. Inc. Announcer, Frank S. Chattanooga Radio Co. Inc. 12-115 mm. 12-115 mm. S. Chattanooga Radio Chattanooga Radio Chattanooga Radio R

New Haven, Conn. 282.8m-1060kc, 500 watts. Doolittle Radio Corp. Announcer, F. M. Doolittle. Daily ex Sat, Sun, 9:30-12 n, 5-10 pm. Sun, 11 am, 3:30-5 pm, 7-8. Eastern. Founded Dec., 1922.

Cranston, R. I. 260.7m-1150kc. 250 watts. Dutec W. Flint, Inc. Slogan, "Quality First." Eastern.

WDZ Tuscola, III. 277.6m-1080kc. 100 watts. James L. Bush. Announcer, G. R. Muir. Daily ex Sun, 9 ann, 9:30, 10, 10:30, 11, 11:30, 12 n, 12:30, 1, 1:15, 1:30, 2:45, grain, markets, livestock, markets. CenWEAF

New York, N. Y. 491.5m-610kc, 50,000 watts, National Broadcasting Co., Inc. Slogan, "The Voice to the Millions." Daily ex Sun, 6:45-8 am, 8-8:45, 11-1:15 pm, 4-12 midnight. Sun, 2-10:30 pm. Eastern, Founded July 25, 1922.

WEAM

North Plainfield, N. J. 263m-1140kc. 250 watt: Borough of North Plainfield, Announcer, H. W. Blacklord, Slogan, "America's Pioneer Municipa Broadcasting Station." Fri, 8-12 pm, concert, talks Sun, 11-12 noon. Eastern

WEAN

Providence, R. I. 275.1m-1090kc, 500 watts. The Shepard Stores. Announcer, Chester H. Miller Slogan, "We Entertain a Nation." Daily ex Sun 12-1 pm, 4-5, music, reports, weather, concert 6:30-10:30. Sun, 10:45-11:30 am, 7:30-8:45 pm 9-11, church service. Eastern. Founded 1922.

Columbus, Ohio. 282.8-1060kc. 750 watts. Ohi State University. Announcer, Robert Coleman Daily ex Sun, 9:45 am. It. 12:30 pm.; Amouncer, Robert Coleman Daily ex Sun, 9:45 am. It. 12:30 pm.; Amouncer, Robert Coleman Daily ex Sun, 9:45 am. It. 11, 12:30 pm.; A Mon, Wed Fri, 10 am. Tues, 7 pm. Wed, 7-8:30 pm; Thurs WEAR

Cleveland, Ohio. 399.8m-750kc. 1000 watts. Wil lard Storage Battery Co. Daily ex Sun, 12:30-1:3 bm, 2-3. Sun, 11-12:30 pm. Eastern.

Superior, Wis., Duluth, Minn. 241.8m-1240kc. 250 watts. Head-of-the-Lakes Radio Station. Daily ex Sun, 1:15 pm, 5, markets; 6, orchestra, Mon, 8 pm, music. Wed, 5, 30 pm, Fri, 9 pm. Sun, 10:40 am, services. Central,

WEBE

Cambridge, Ohio. 247.8m-1210kc. 10 watts. Roy W. Waller. Fri. 7:45-9:15 pm. Sun. 7-8:30 pm. First Sun in month, 2:30-3:30 pm. Eastern.

WEBH

Chicago, III. 485 (nr. 820 kc. 500 Austra. Edgewater Chicago, III. 485 (nr. 820 kc. 500 Austra. Edgewater Boniel. Havin Experiment Chicago, Edge and Chicago, III. 485 (nr. 820 kc. 82

WEBJ

New York, N. V. 256.3m-1170kc. 500 wetts. Third Avenue Railway Co. Amouncer, H. A. Bruin. Slo-gan, "The Red Trolley Station," Wed, 7-11 pm. Fri, 9-11 pm. Eastern,

Harrisburg, III. 223.7m-1340kc. 15 watts. Tate Radio Co. Announcer, Dr. H. J. Raley. Slogan, "The Voice from Egypt," Daily ex Sun, 7.15-7.45 pm. Mon, Thurs, 7:30-9:30 pm. Sun, 11-12 n, 2-4 pm. 7.5. Central. Founded Sept, 1, 1923.

W LIDN

Buffalo, N. Y. 241.8m-1240kc. 200 watts. H. H.
Howell Announcer, Glenn Pickett, Slogan, "We
Extend Buffalo's Regards." Daily ex Sun, 7:458:30 pm. Mon, Wed, Fri. 8:30-11:30 pm. Sat, 9:11
pm. Sun, 12 n. concert; 8-9 pm, church; 10:15-12
mid, organ. Eastern. pm. Sun, 12 mid, organ.

Bloit, Wis. 258.5m.1160kc. .500 watts, Beloit Gelfere, Armounter Arthur Veimer, Sun, 4:30 pm. Central, Founded Oct, 26, 1924.

Chicago, III. 241.8m-1240kc, 500 watts. Emil Denemark, Broad. Station. Daily, 6-7:30, 9:30-11:30. Daily ex Sun, 6:30-7:30 pm, Jewish hour. Fri, 6:30-7:30 pm, Bohemian hour. Central,

WEEI

WELI
Boston, Mass, 508.2m.500kc. 500 watts. Edison
Electric Illuminating Company. Announcers, Robert
Burlen, Cartton H, Dickerman, Walter Myers, Willam Felton, Sloon, The Friendly Voice. Daily
Illuminating States of the Friendly Voice. Daily
Illis home service features. Ill.15-12 Friendly Maids; 12-48-1
Imarket and garden reports; 2-5 varied musical;
12-12-15 news; 12-15-12-45 nm. Friendly Maids; 12-48-1
Imarket and garden reports; 2-5 varied musical;
12-18 reports; 2-5 varied musical;
12-18 reports; 2-5 varied musical;
12-18 Symphony; 1-4 concert; 4-5-30 Dr. Cadman;
12-18 Symphony; 1-4 concert; 4-5-30 Dr. Cadman;
12-18 Symphony; 1-4 concert; 4-5-30 Symphony
1-8 varied for the Friendly Maids; 12-18 Church;
12-18 Symphony; 1-4 concert; 4-5-30 Dr. Cadman;
12-18 Symphony; 1-5 varied for the Friendly Maids;
12-19 Varied for the Friendly Maids;
12-19 Symphony
1-19 Varied for the Friendly Maids;
12-19 Symphony
1-19 Varied for the Friendly Maids;
12-19 Varied for

WEHS

Evanston, III. 215.7m-1390kc. 100 watts. Victor Carlson. Daily ex Mon. 5:45:9 pm. 11-12 mid. Scanston. Carlson. children's hour; 6, sports. 6:30, 8-9.

Berrien Springs, Mich. 483.6m-620kc. 1000 watts. Emanuel Missionary College. Announcer, Wm. A. Wentworth, Sloyan, "The Radic Lighthouse." Daily Wentworth, Sloyan, "The Radic Lighthouse." Daily Strain, Sun, 7:40 am. Central. Tounded to the Council Strain, Sun, 9:10 am. Central. Tounded

WENR

Chicago III. 288,3m-1040kc. 500 watts. Great Lakes Radio Broadcasting Co. Slogan, The Voice Lakes Radio Broadcasting Co. Slogan, The Voice Peterson, 12-1 pm, concert; 2-5, popular resuest 6-7, dinner concert; 8-9:30, classical; 9:30-12 mid Mon, 12-1 pm, 2-5, 6-7. Sun, 2-4 pm, 6-7, 9:30-11

WEPS

Gloucester, Mass. 296.9m-1010kc, 100 watts. Matheson Radio Co., Inc. WEVD

Woodhaven, N. Y. 245.8m-1220kc. 500 watts Debs Memorial Radio Fund. Daily ex Sun, Sat 1-6 pm. Tues, Thurs, 9-12 mid. Sat, 7-9:30 pm Sun, 12-30-4 pm. Eastern. Founded Oct. I, 1927. WEW

St. Louis, Mo. 352.7m-850kc. 1000 watts. St. Louis University. Announcer, C. G. Dahm. Daily ex Sun. 9 am. 10. 2. reports. Tues, Thurs. 5 ym lectures, music. Mon. Wed. Fri. 5. U. S. farm school. Sup. 9:35 am, 11, 2 pm, 5. Founded April 25, 1921. Central.

WFAN

Philadelphia, Pa. 223.7m-1340kc. 500 watts. Keystone Broadcasting Co. Hotel Lorraine. Mon. 5-6-70. Thurs, 5:30-1 am. Wed. 5-6 pm. Fast. 6-7:30 pm. Sun. 11 am-4:30 pm. XIII. Dattern. WFBC Knoxville, Tenn. 234.2m-1280kc. 50 watts. First Baptist church. Announcer, St. John Reynolds, Sun 10:45 am; 7:30 pm, services; 4 pm, sacred music. Central. Founded 1925.

WFBE

VILLE
Cincinnati, O. 245.8m-1220kc. 250 watts. Hotel Garfield Daily ex Sun, 12-1 pm, Mon, 5:30 pm, 9, 9, 10, 11, 12:30, Thurs, 6 pm, 8, 10, 10:30, 11, 12:30, Fri, 5:30 pm, 6:30, 5at, 3-4 pm, 6-8, 9-10, 11, 2:30, Sun, 1-2 pm, 6:30-7:30 pm, 11, 12:30.

WFBG

Altoma, Pa. 267.7m-1120kc 100 watts. The Win-F. Gable Co. Announcer, Roy F. Thompson. Slo-gan, "The Original Gateway to the West." Daily ex Sun, Mon, 11:45 am; 12 n, 3 pm, 6:30, 7:30, 8, 8:30, 10. Sun, 10:45 am, 3:30 pm, 7:30. Eastern. Founded Aug. 28, 1924.

WFBJ

Collegeville, Minn. 272.6m-1100kc. 100 watts. St. John's university. Announcer, Hilary Doerfier. Slogan, "In the Heart of the Landscape Paradise." Wed, 8-9:30 pm. Fri, 4-5 pm. Central. Founded Oct., 1922.

WFBL

Syracuse, N. Y. 258.5m-1160kc. 750 watts. Onon-daga company. Mon. Sat. 6:20-12 mid. Tues, Wed. Fri. 6:20-11 pm. Sun. 2-11 pm. Easteru.

WFBM

Indianapolis, Ind. 275.1m-1090kc, 250 watts. Indianapolis Power and Light company. Announcer, Bailey Fesler. Slogan, "The Crossroads of America."

WFBR

Baltimore, Md. 243,8m-1230kc. 100 watts. Fifth Infantry, Maryland National Gyard, Stogan, "Home of the Star Spangled Banner." Announcer, S. R. Kennard. Tues, Thurs, Sat, evening programs. Eastern. Founded Oct. 1, 1924.

WFBZ

Galesburg, III. 247.8m-1210kc. 50 watts. Knox college. Announcer, George B. Strain. Slogan, "At Old Siwash." Wed, 8-10 pm. Central.

WFCI

Pawtucket, R. I. 241.8m-1240kc, 100 watts. Frank Crook, Inc. Announcer, H. E. Stafford XYZ, Slogan, "The City of Diversified Industries." Mon, Wed, Fri, 8-11 pm. Eastern.

WFDF

Flint, Mich. 272,6m-1100kc. 100 watts. Frank D. Fallain. Slogan, "The Motor City." Mon. Wed, Fri, 8-11 pm. Eastern, Founded May 25, 1922.

WFI

Philadelphia, Pa. 405.2m-740ke, 500 watts, Straw-bridge & Clothier, Announcer, John Vaudersloot. Daily ex Sun, 10:15 am. 1 pm. 3, 6:20, 7:30 pm. Daily ex Sun, Mon, 7:30 pm. Thes, 8:11:30 pm. Thurs, Sat, 8:11 pm. Sun, 10:20 am. 7:30, 4:30 pm. Eastern. Founded March 18, 1922.

WFIW

Honkingville, Ky. 260.7m-1150kc. 750-1000 watts. Acme Mills, Inc. Announcer, Hal Fifer. Mon, Sat. 8-11 pm. Wed, 8-11 pm. Fri, 8-11 pm. Sun, 9:30-10:30 am, 9-10 pm. Daily ex Sun, 12-1 n, 3-4 pm. 6-7. Central, Founded Feb. 12, 193.

WFJC

Akron, Ohio. 227.1m-1320kc. 500 watts. W. F Jones Broadcasting, Inc.

WFKB

Chicago, Ill. 223.7m-1340kc. 500 watts. Francis K. Bridgman, Founded April 22, 1925.

WFKD

Philadelphia, Pa. 247.8m-1210kc. 50 watts. Foulk-rod Radio Eng. Co. Mon, Thurs, 8-11 pm. Eastern. WFLA Clearwater, Fla. 516.9m-580kc, 750 watts. Chamber of Commerce. Announcer, Walter Tison. Daily ex Sun, 7:45-12 mid. Founded Dec. 25, 1925. Eastern.

WGAL

Lancaster, Pa. 652m-1190kc. 15 watts. Lancaster Elec Supply & Onstruction C. Announcers, J. E. Elec Supply & C. Announcers, J. E. dens at Lancaster. Daily ex Sun. 9-915 am. 12-12-15 pm, 5:30-5:48. Tues, Thurs, Sat, 7-10:30 pm. Sun, 11 am. Eastern.

WGBB

H. Carman. Mon, 7-8 pm. Wed, Fri, 7-11 pm. Sun, 10:40-12:30 pm, 4-5:30, Eastern. Founded Dec, 13, 1924.

WGBC

Memphis, Tenn, 228.9m-1310kc, 15 watts, First Baptist church, Announcer, A. L. Cowles, Sun, 9:30 am, 7:30 pm. Central. WGBF Evansville, Ind. 236.1m-1270kc. 250 watts. The Finke Furniture Co. Announcers, Harold Finke, H. L. Thompson, Stogan, The Gateway to the Land Company of the Company of the

WGBI Broadcasters, Inc. Daily ex Sun, 10-12:30 pm, 6 pm, Sun, 7-10 pm. Eastern,

WGBS

Astoria, N. V. 348.6m-880kc. 500 watts. Gimbel Brothers, Announcer, Dailey Packman. Dails ex 10:30 am, 7:30-10 pm. Wed, 10 am, 9 pm. Thus, 10:30 am, 10 pm, Fri, 10 am. Sat, 10:30 am, 7:30-9 mm, 11:30. Eastern. Founded Oct. 26, 1924. WGCP

Newark, N. J. 267.7m.1120kc. 250 watts. Paramount Broadcasting & Artists Service, Inc. Amounter, Bradford Irowner, Tues, Thirty, 11.2 m. artists, 11.2 m. 250. Sat. 9-12 m. 9-12 mid. Sun. 12-6 pm. Eastern, 250. Sat. 9-12 n. 9-12 mid. Sun. 12-6 pm. Eastern, WGES Chicago, III. 241.8m-1240kc. 500 watts. Guyons Paradise Ballroom. Announcer. B. K. Pratt. Tues, Thurs, Sat, 6-7:15 pm, 8-1. Wed, Fri, 6-7:15 pm, 10-1. Sun, 10:15-11:30 am, 11:40-1 pm, 2:30-4. 6-7:15, 8-1. Founded Aug., 1920. Central.

WGHP

Mt. Clemens, Mich. 277m-1080kc. 750 watts. George Harrison Thelps, Inc. Autonomer. Cortes W. Kirby. 9-11 pm. Tues, Thurs, 8-10 pm. Fri. 8-11 pm. Sun, 10-30-12:15 pm. 2:30-5 pm, 9-11. Eastern. Founded Oct. 10, 1925. WGL

New York, N. Y. 293.9m-1020kc, 500 watts, 1000 watts, 7 am-1 pm. International Broadcasting Corp. Daily ex Sun, 10-12 n. 2-4 pm, 6. Mon. Wed, Fri. 9-12 mid. Tues, Thurs, Sat, 5-9 pm. Sup, 7-12 mid. Eastern, Founded Jan, 30, 1927. WGM Jeannette, Pa. 208.2m-1440kc. 50 watts. Verne & Elton Spencer. Announcer, Verne Spencer. Slo-gar. Voice from Glass City. Mon, Tues, Thurs, Fri., 7:30-30 pm. Sun, 1:30-4 pm. Eastern. Founder

WGMS

olis, Minn. 245.8m-1220kc. 500 watts.

WGMU

New York, N. Y. 201,2m-1490kc, 100 watts. At-lantic Broadcasting Co.

WGN

M GN

Elajin, Ill. 416.4m-720kc. 500 watts. Chicago Tribune. Announcers, Bill Hary, Quin Ryan, Frank
Dahm, J. R. Hyson, Tommy Coates, Dally ex Sun,
9-10 am, news; 11-11.30, music; 11.30-11.37, houselold hirts; 11.57-1220, imme; 12.490-255 pm, music;
2:55, baseball; 5-5:57, music; 5:37-6:01, imme; 6:01judy; 6:35-550, music; 6:307, Almanack, Dally
ex Sun, Mon, 8-11 pm, Sun, 12-1 pm, Uncle Walt;
1-2, organ; 2-3, music; 3, baseball; 6:10-6:45,
Punch and Judy; 6:45-11:25, music. Central.

WGOP

Port Washington, N. Y. 199,9m-1500kc. 100 watts. Frederick B. Zittell, Jr. Founded Sept. 15, 1925.

Buffalo, N. Y. 302.8m-990kc. 750 watts. Federal Radio Corp. Announcer, Kenneth Fickett. Daily ex Sun. 6:45-8 am. Daily ex Sun. 8at, 12 v., stoks. 1 pm. 2:30-4:30. Thes, Thurs, 8-11 pm. Mon. Wed Fri. 8-12 mid. Sun. 10:45-12 n. 7:48-9 pm. 9:15-10. Eastern. Founded May 21, 1922.

WGST

Atlanta, Ga. 270.1m-1110kc. 500 watts. Georgia School of Technology. Announcer, Walter W. Mer-kle. Slogan, The Southern Technical School with a National Reputation." Mon. 930-10:30 pm. Thurs, 2-8 pm. Central Founded Jan., 1924.

Milwauke, Wis. 218.8m-1370kc. 500 watts. Radio-cast Corp. of Wisconsin. Amouncer, John Sulli-van. Slogn. "Make Milwauke Mishier." Daily ex Sun. Sat. 10.50-13.30 µm. Mon. 8-10.30 µm. Fri. 5-10.50 µm. Sun, 10-11 am, 6-7

Schenectady, N. Y. 379.5m-790ke. 50,000 watts. General Electric Company. Announcer, Kolin Hager, Slogan, "Good Evening to You All." Daily expenses, 50,000 cm. 51,000 cm. 51,000

Wis. 333.1m-900ke, 750 watts, Univ. of on, Wed, Fri, 7:30-9:30 pm. Central. 1919. Madison, Wis. Mo

WHAD

Milwaukee, Wis. 270,1m-1110ke. 500 watts. Marquette University Cy Foster, Ed Rantt, Harry Friedman, Mon, Tues, Wed, Thurs, Fri, 3;30-4 pm, 7,730-8. Fri, 8-9):30 pm. Sun, 4:30-5 pm. Eastern. Founded Oct., 1921.

Carlstadt, N. J. 236.1m-1270kc. 1000 watts. Defenders of July Society, Inc. Mon. Thurs. 6-9 pt. 11:33-30 pt. Sci. Sci. Pounded May, 1925, Sun. WHAS

VILLOUISVIIIe, Ky. 322,4m-930kc, 500 watts, Courier-Louisviile, Times Co. Daily ex Sun, 3-5 pm, 7-9. Sun, 10 am, service; 2.3, 4:30-5:30, 6:29-8:15, §:15-9:15, Founded July, 1922. Central.

6:20-8:15, 8:15-9:15, Founded July, 1922. Central. WHAZ
Troy, N. Y. 305.9m-980ke, 500 watts. Reusseiner Polytechnic Inst. Amounteer, Rutherford Hayner, Slogan, "Transcontinental and International Broad-Science and Engineering in America." Club, R. P. I. students. Mon. 8-12 midnight, concert, educational talks, orchestra, leatures. Founded June 22.

WHB

Kansas City, Mo. 340,7m-880kc, 500 wgtts. Sweeney Auto & Electrical School. Announcer, John T. Schilling. Slogan, 'Heart of America.' Daily ex. 11:55, market reports; 2-3, ladies' hour, Daily ex Sun, Sat, 12:15 pn, 12:30, 12:5, 1:40, stocks. Daily, 7-8, pm. Mon, 8-9 pm. Tues, Thurs, 8-10 pm. Sat, 12:45 pm, 12:30, 1:25, markets, 8-10 pm. Sat, 12:45 pm. Sa

WHBA

Oil City, Pa. 260.7m-1150kc. 10 watts, Shaffer Music House. Tues, 9-10 pm. Eastern, Founded

WHBC

Canton, Ohio. 236.1m-1270ke. 10 watts. Rev. E. P. Graham. Slogan, "Ignorance Is Our Greatest Foe." Mon. 8-8:30 pm. Central.

WHBD

WHBF

Rock Island, III. 222.1m-1350kc. 100 watts. Beards-ley Specialty company. Amounteer, C. L. Beardsley, Slogan, "Where Historic Blackhawk Fought." Daily ex Sun. 12-2 pm. Mon. Wed, 9-11 pm. Sat, 2-4 pm, 7-9. Central, Founded Feb, 1925.

WHBL Chicago, III . 204m-1470kc. 100 watts. C. L. Carable.) Founded, 1925. WHBM

Chicago, III. 201,2m-1490kc. 100 watts, C. L Carroll. (Portable.)

Gainesville, Fla. 202,6m-1480kc. 5000 watts. U. of Florida. Not on air.

WHBP

Johnstown, Pa. 228.9m-1310kc, 250-500 watts. Johnstown Automobile Co. Announcer, J. C. Tully. Stogan: "The Voice of the Friendly City." Dilly sex Sun, 1:15 pm. Mon, 11 pm. Thurs, 10 pm. Sut, 10 pm. Eastern.

Memphis, Tenn. 232.4m-1290kc. 100 watts. Broad-casting Station WHBO. Inc. Announcer, Thomas Thompson. Daily ex Sun, 7-8 pm. Sun, 10:45 am, Central. Founded March, 1925.

WHBU

Anderson, Ind. 220.4m-1360kc. 15 watts. Citizen's Bank. Announcer, A. L. McKee. Slogan, "First Bank on the Air."

WHBW

Philadelphia, Pa. 220,4m-1360kc, 100 watts. D. R. Kienzle. Mon, Wed, Sat, Sun, evenings.

WHBY

West De Pere, Wis. 249.9m-1200ke, 50 watts. St. Norbert's College, Green Bay-De Pere Broad-casting Station, Daily 6.30 pm, weather, markets. 6.30 pm, weather, markets. Prin, 7-8 pm, Sun, 10-11 am, service. Central, Founded Jan, 1925.

WHDI

Mineapolis, Minn. 245,8m-1220kc. 500 watts. Wm. Hood Dunwoody Industrial Institute. Aunouncer, M. R. Bass. Stogan, "Northwest Leading Trade School," Mon. 8-9 pm. Wed, 8:30 pm. Frl, 9-10 pm. Daily ex Sun, 6:57-9:30 am, tme. Central. Founded May 22, 1922.

WHEC

Rochester, N. Y. 254.1m-1180kc. 500 watts. Hick-son Electric company. Inc. Slowan, "The Magazine cas Sun, 12-3 pm, 6-339-10 Sun, 10-30-12 n, 7.30-10 WHFC."

WHFC.

Chicago, Ill. 215.7m-1390kc. 200 watts. Triangle Broadcasters. Daily ex Mon, 8-12 mid. Central daylight.

WHK

Cleveland. Ohio. 265.3m-1130kc. 500 watts. 1,000 watts 6 am-6 pm. Radio Air Service Corp. Slogan. 12 n-1 pm, music; 3:30, bousekeepers' chart: 5:30, 9, 10, 11-12, 5at, 12 n, 6, 8-9, 9-12 mid. Sun, 10 am. 5 pm, 5:15, 6, 7:30, 8:15-9:30, Eastern. Founded 1921.

WHN

New York, N. Y. 394.5m-760kc. 500 watts. Loew's State Broadcasting Station. Announcers, N. T. G. Edward B. Hussing, I. Lewis Reid, Stogan, "The Voice of the Great White Way," Daily ex Sun. 1-2 pm, 6-12:30 am. Sat. 12-11 pm. Sun, 9-11 am. 12:30-3 pm, 5-7:30, 9:45-12 mid. Eastern. Founder March, 1922.

WHO

Des Moines, In. 535.4m.560ke. 5000 watts, Rankers Life Co. Announcer, N. Dean Cole, Daily ex Sun, 8-9 ann, 10, 10:30-12 n. 12:15-115, 22:15-430. 6:30-12, Sun, 11 am. 2:5 pm, 6:30-9:30. Central. WHPP

New York, N. Y. 206.8m-1450kc, 10 watts. Brown WHT

Deerfield, Ill. 305.9m-980kc. 5000 watts. Radio-phone Broadcasting Corp. Announcer, Pat Barnes. Stogan, "Write Home Tonight." Daily and Sun, 10 am-2:30 pm. Daily and Sun ex. Mon, 8:30-10 pm. John Storm Storm Storm Storm

Philadelphia, Pa. 288.3m-1040kc. 100 watts. Howard R. Miller. Slogan, "The Voice from the Birth-place of Liberty." Tucs. Thurs, Fri, 6-12 mid. Eastern. Founded June, 1922.

Ottumwa, Ia. 322,4m-930kc, 100 watts. Poling Blectric Co. Announcer, Frank B. Orf. Daily, 5-6 pm. Central, Founded June 12, 1922.

WIBA

Madison, Wis. 239,9m-1250kc. 100 watts. The Capital Times Strand, theater. Announcer, Kenneth F. Schmitt. Slogan, "Four Lakes City." Mon. 8-1 pm. Wed, 7-9 nm. Fri. 6315-7 nm. Sun. 12-1 pm. Central. Founded June, 1924.

Elkins Park, Pa. 440.9m-680kc, 50 watts, St. Paul's Protestant Episcopal church, Announcer, W. Le Roy Anspach, Sun, 10:55 am, 3:55 pm. Eastern. Founded 1925.

WIBJ

Chicago, Ill. 201.2m-1490kc. 100 watts. C. L. Car-roll. (Portable.)

WIBM

Chicago, III. 201.2m-1490kc. 100 watts. C. L. Car roll. (Portable.) WIBO

Chicago, Ill. 305.9m-980kc. 5000 watts. No Brothers Bond and Mig. Co. Announcer, W. Freston, Stuf Daveson bailey ex Sun, 2:30-6, Sun, 51:48-51, Sun, 51:45-10 Sun, Tics, Wed, 11-12:39 am, Central. For May 20, 1925.

WIBR

Staultauville, Dhin. 249 mn. 1200ke. 50 watts.
Thurman A. Owings. Amountore. Robert Mersyman. Slogan, "Where Investments Bring Results."
Daily ex Sun, 6:30-7:30 pm. Wed. 11;15-12:45.
Mon. Fri. 8:30-10 pm. Sun, 4-5 pm. Founded Jan. 1025. Eastern.

WIBS

Elizabeth N. J. 204m-1470kc. 250 watts. New Jersey Broadcasting Corp. Mon, Wed. Fri, 3-5 un, 6-12:30. Tues. Thurs. 3-5 pm, 6-7:30, 11-12. Sat. 6-11 pp; Sun, 5:30-7:30 pm, Eastern. Founded

WIBU

Poynette, Wis. 217.3m-1380kc. 20 watts. The Electric Farm. Wisconsin State Journal. Mon. 9 pm. Sun. 2 pm. 4. Central. Founded July 10, 1925.

Topeka, Kan. 204m-1470kc. 100 watts. C. L. Carroll, Founded 1926. Announcer, Royd Shreffler, Dailyles Sun, 10:30 am, 5:30-8:30 pm, Mon, 11 pm, Sun, 12:15-6:15 pm. Central.

WIRX

VIDA Utica, N. Y. 238m-1260kc. 150 watts. WIBX Inc Daily ex Sun. 9:30-11 am, shopping four; 12-1, news stocks, markets, music, farm news, 3-4, music, 6-11 Wed, stlent night, Sat, 6-1 am, Sun. 10:30-1 pm 6-11_Eastern. Founded 1923,

WIBZ

Montgomery, Ala. 230.6m-1300kc. 15 watts. A. D.

WICC

Bridgeport Hill, Conn. 285.3m-1130kc. 500 watts. The Bridgeport Broadcasting Station, Inc. An nouncer, Charles W. Selen, Slogan, "The Indus-trial Capitol of Connecticut," Mon. Tues, Thurs, Fri. 8-10 pm. 6.000 nm. Eastern, Founded Aug. 2, 1926.

St. Louis, Mo. 258.5m-1160kc, 250 watts. Benson Broadcasting Co. Announcer, L. A. Benson, Daily and Sun, 9:30-11:30 am, 2:45-5 pm, Daily ex Wed, 8-11 pm, Central, Founded Sept., 1922.

WIOD

Miami Beach, Fla. 247.8m-1210kc. 1000 watts. Carl G. Fisher. Announcer, Jesse H. Jay. Slogan "Wonderful Isle of Dreams."

Philadelphia, Pa. 348,6m-860kc, 500 watts, Gimbe Bros. Announcer, E. A. Davies, Slogan, Watch Its Progress, Dally ex Sun, 1-2 mn, 3-430, 6-7;30 Tues, Thurs, Sat, 10-10:30 am. Tres, Thurs, Sat 8-12 mid, Sun, 10-48-12, n. 9-12 mid, alternate Sun-days, 7:15-12 mid. Eastern.

WJAD

Waco, Tex. 333.1m-000kc, 500 watts. Hotel Raleigh, Mon. Tues. Thurs, 6:30-7:30 pm. Mon. Tues. Thurs, Fri. 8:30-10 pm. 1st and 3rd Wed, 8:30-9:30 pm. Central.

8:309:30 nm. Central.

WJAG

Norfolk, Nehr. 285.5m.1050kc, 250.500 warts. Norfolk Daily News, Announcer, Sart Nefan, Slogan, Folk of the Committee of the Commi

Kokomo, Ind. 234.2m-1280kc. 50 watts. Kokomo Tribune, Daily ex Sun, 11:45 am, chapel, Mon, 7:30 pm, music. Wed, Thurs, 5:30 pm, concert, Fri, 7:30 pm. Founded Sept., 1921. Central. WJAM

Cedar Rapids, Iowa, 239.9m-1250kc, 250 watts. D. M. Perham, Daily ex Sun, 9 am, 9:40, 12:30, 1:20, markets. Mon, Wed, Fri, 7-9 pm. Tues, Thurs, Sat, 9:11 pm. Central. Founded July 29, 1922.

WJAR

YJAAN
Providence, R. 1. 483.6m-620kc, 500 watts. The Outlet Co. Amouncer, J. A. Reilly, Slogan, "The Soutlern Gateway of Jew England," Daily exsured the Company of the Com

WJAS

Pittsburgh, Pa. 270,1m-1110kc. 500 watts. Pittsburgh Radio Supply House. Pickering's Studio. Announcer. Howly Clark. Stogan, "World's Jolliest Stogan, "World's Jolliest Stogan, "World's Jolliest Clark Company of the Park Stogan, "World's Jolliest Clark Clark Stogan, "World's Jolliest Clark Stogan, "As Jolliest Clark Stogan, 10:30 am-2 pm, 8-11, Stin, 11 am-2 pm, 3-4, 9-10. Eastern.

Jacksonville, Fla. 340.2m-880kc, 1000 watts. City of Jacksonville. Daily ex Sun, 11:55-12:05 pm. 7:30 pm. 8-9, 10-11. Eastern. Founded Nov. 26.

WJAY

tieveland. Ohio. 227.1m.1230ks. 500 watts. Clove-land Communication of the Communication of the Communication of the Management of the Ma

WJAZ

Mt. Prospect, Ill. 263m-1140kc. 5000 watts. Zenith Radio Corp. Announcer. George G. Smith. Daily ex Sun, Mon, Thurs, 7-8 pm, 9-11. Thurs, 9-12 mid. Sun, 7-9 pm. Founded 1922. Central.

WJBA

III. 247.8m-1210kc. 50 watts. D. H. Lentz ues, Thurs, Fri, Sat, 7-12 mid. Central. WJBB Sarasota, Fla. 238m-1260kc. 250 watts, Financial Journal. Daily ex Sun, 11:30-2 pm, 4:30-6, 6-7, 9-12. Eastern.

WJBC

La Salle, III. 227.1m-1320kc. 100 watts. Hummer Furniture Co. Announcer, LeRoy Stremlau. 1810-130 pm. Mon. 8-10 pm. Sat. 4-5 pm. Str. 1-1 130 pm. Mon. 8-10 pm. Sat. 4-5 pm. Str. 10-1130 am, 3:304-45 pm. 7:30-9:30 pm. Founded May 4, 1925. Central.

WJBI

Bank, N. J. 263m-1140kc. 250 watts. Rober

WJBK

Ypsilanti, Mich. 220.4m-1360kc. 15 watts Goodwin. Announcer. H. T. Augustus. pm. Thurs, 10-12 mid. Sat, 11-12 mid. Founded Oct. 7, 1925. WJBL

Decatur, III. 212.6m-1410kc. 250 watts. William Gushard Dry Goods Co. Announcer, W. H. Wiley. Mon, 9-10:30 pm. Wed. 9-11 pm. Sat, 9-11:30 pm. Sun, 10:45-12:15 pm. Central. Founded Sept. 24. **WJBO**

Orleans, La. 263m-1140kc, 100 watts. Valde-Jensen, Founded 1922.

WJBT Chicago, Ill. 389.4m-770kc. 500.5000 watts. J. S. Boyd, Inc. Ausumeer, Babby Griffin, Daily ex Wed, Brit, San, 3 ion, 5 alon, 10-11 jun, Tues, Wed, Brit, Sat, 11 jun, Thurs, 12 mid, Sun, 10:30-12n, 2:30-12 mid, Central.

Lewisburg, Pa. 214.2m-1400kc. 100 watts. Buck-nell University. Announcer, A. B. Lauderbaugh, Slo-gan, 'In the Heart of the Keystone State. Thurs, 8 pm. Eastern. Founded 1925. WJBW

New Orleans, La. 238m-1260kc. 30 watts. C. Carlson, Jr. Tues, Fri, 7-8 pm. Sun, 9-10 pm. **WJBY** Gadsden, Ala. 234.2m-1280kc, 50 watts. Electric Construction Co. Mon, Wed, Fri, 8-9 p.m. Central, Founded Aug. 11, 1926.

Chicago Height Roland G. Palm Fri, 7-12 mid.

WJJD

Moosehear, Ill. 365.6m-320kc. 1000 watts. Loyal Order of Moose station. Palmer House, Herald Carlot of Moose station. Palmer House, Herald Carlot of the Moose. Daily ex Sun, 10 am, news; 10:30, organ; 11:12 n., Prudence Penny; 12, music; 4 mn, piano reveries; 4:45, Fuliner house solisists, organ; 10:24, Prudence Penny; 12, music; 4 mn, piano reveries; 4:45, Fuliner house solisists. Sun, Mon. S pm. Thes. Fri, 11:1 am. Wed. Thurs, Sun, Mon. S pm. Thes. Fri, 11:1 am. Wed. Thurs, 11:12 md. Sat, 9:10 pm, 12-2 am, Sun, 7:30-10:30 am, services; 1:30-2 um, lumies; 2-4, Bible classes; Martin Carlot of Moose School of the Moose

Gary, Ind. 232.4m-1290kc, 500 watts, Thomas J. Johnson and Frances Kennedy Radio Corn. Mon. 7-1 am. Thes. 7-9 un, 11-12. Wed, 7-9 pm, 11-1 am. Thurs. 7-9 un, 11-12. Frl, 7-9 un, 11-12. Sat. 3730-5 un, 7-9, 11-1 am. Sun, 330-5 un, 7-9, 11-12. Central. Founded Aug. 16, 1927.

Ashtabula, Ohio. 208.2m-1440kc. 30 watts. J. P. Wilson. Mon. Wed, Fri, 7:45 pm, 8:30-11. Sun, U3-30-12, 73-38-30. Central.

Pontiac, Mich. 440.9m-680kc. 5000 watts. 8xA O, 32 m. The Richards-Oakhand Co, Slogan, The Good Will Station." Announcers, Leo Fitzpatrick, John F, Patt. Daily ex Sun, 12:45-2 pm, 6-12 mid. Mon, Wed, Fri, 10 am, 11. Sun, 10 am, service; 2-4 pm, service; 6-10:30 pm. Eastern. Founded August, 1925c.

WJZ

Bound Brook, N. J. 454.3m-660kc. 30,000 watts R. C. A. Managed by National Broadcasting Co. Announcers, Milton J. Cross, Marley Sherris, Nor-man Sweetser, Curr Peterson, Daily ex Sat. Sun 1-2:40 pm. 4:30-12. Sat. 12:454- pm. 4:30-5:30, 6:12. Sun, 9-10 am, 1-10:45 pm. Founded 1921. Eastern UNIV A.O.

1-2-70 pm, 1-10-70 m, 1-10-70 m,

East Linising Mich. 277.6m-1030kc. 500,1000 East Linising Mich. 277.6m-1030kc. 500,1000 Himebaugh Daily ex Sun, 12-12-130 pm, weather, markets, agricultural topics. 7:15-8, farm school; Wed, 8-5 vm. Music. Eastern. Laconia, N. H. 223.7m-1340ke, 50 watts, Laconia, Radio club. Fri, 7:30 pm, Sun, 5 pm, Eastern. WKBB, Jolies III.

Joliet, Ill. 215.7m-1390kc. 150 watts, Sanders Brothers, Mon. 7-9 pm. Tues, Thurs, 8-12 mid. Mon. 8-10 pm. Sun, 3-5 pm. Central. Birmingham, Ala. 218.8m-1370kc, 10 watts, H. L. Ausley, Tues, Thurs, 5-6:30 pm. Central. Founds, June, 1926.

WKBE

Webster, Mass. 228.9m-1310kc. 100 watts. K. & B. Electric Co. Thurs, Sat, 8-10:30 pm. Eastern daylight. Founded Feb. 27, 1925.

Indianarolis, Ind. 252n-1100kc, 250 watts, Noble B. Watson, Daily ex Sun, 10 an 10:30, 10:40, pm, 7, 7:10, Daily ex Sun, 12 m, Mon, 7:30 pm, 8:30, 9, Tues, 8:30-10:30 pm, Thurs, 7:30-10 pm, Fri, 7:30, 8-9:30 pm, Sun, 10:45 am, 3 pm, 7:30. Founded Oct, 1925, Central. WKBG Chicago, Ill. 201.2m-1490kc. 100 watts. C. L. Carroll. (Portable.)

WKBH

LaCrosse, Wis. 220.4m-1360kc, 500 watts. Callaway Music Co. Dally er Sun, 10 am, Aunt Sammy; Lack Co. Lack Co. S. F. Trunk, 10 am, Aunt Sammy; Lack Co. S. S. S. S. S. S. Mora, S. Mora, S. S. S. Wed. 80m, 15, 730 milks. Mora, S. Sun, 10:30 am, 6:30 pm, Central. Founded 1924.

WKBI

III. 215.7m-1390kc. 50 watts. Fred L. f. Daily, 8-10 pm. Fri. Sat. Sun. 10-12 ral. Chicago, Ill. WKBL

Mich. 205,4m-1460kc. 15 watts. Mon-lio Mfg. Co.

WKBN Youngstown, Ohio. 214.2m-1400kc. 50 watts. Radio Electric Service Co. Daily ex Sun, 7:30 am, exer-cises. Tues, 5:45 pm. Thurs, Sat, 6 pm. Eastern. Founded Sept., 1926.

WKBO

Jersey City, N. Y. 218.8m-1370kc. 500 watts. Camith Corp. Mon. 12-1 pm, 6-9. Tues. 12-1 pm, 6-8. Wed, 12-6 pm, Thurs. 10-1 pm, 6-8. Fet, 12-0 pm, pn, 9-12 mid. Sat, 12n-3 pm, Sun, 2-6 pm, East-ern, Founded Sept, 11, 1926.

Creek, Mich. 212.6m-1410kc. 50 watts. Bat-ek Enquirer and News.

WKBQ

New York, N. Y. 218.8m-1370kc. 500 watts. Standard Cabill (oc. Inc. Announcer, Allan Cabill, Mon. 9-12 n. Tues. 9-12 n. 1-5 pm. 9-12. Wed. 9-12 mid. Thurs, 1-3 pm. 8-12. Frj. 3-5 pm. Sar. 3-8 pm. 3-8 pm. Sar. 3-8 pm. Sar

WANDJ
Galesburg, Ill. 217.3m-1380kc. 100 watts. Permit N. Nelson. Announcer, Paul W. Palmauist. Slogan, "The Mayflower Station in the Renouncel City of Colleges." Mon. Wed. Fri. 10-11 am, 12-30-1 pm, 2:30-3:30, 7-9, 10-31. Sat, 12-30-1 nm, 7-9 nm, 10-31. Sat, 12-30-1 nm, 7-9 nm, 13-05 pm. Central. Founcied Oct. 1256. WKBT

New Orleans, La. 252m-H90kc, 50 watts. First Baptist church. Amounter, W. H. Green, Slo-gan, "We Kast Bible Truth." Sun, 10:45 am, 7:20 pm, service. Central.

Brookville, Ind. 217.3m-1380kc. 100 watts. Knox Battery & Electric Co., Fri, 7-9 pm. Sun, 7-9 pm.

Buffalo, N. Y. 217.3m-1380kc, 500-750 watts, Churchill Evangelistic Assn., Inc. Daily ex Sun, 7:30 pm, Sun, 9:30 am, 10:30, 3 pm, 7-9, 10:15-12 mid. East-ern. Founded 1926.

WKBZ

Ludington, Mich. 199.9m-1500kc. 15 watts. The Toggery. Mon. 8-10 pm. Sun. 10:30-12 n, 7-8:30 pm. Central. Founded Nov. 23, 1926.

WKDR Kenosha, Wis. 247.8m-1210kc. 15 watts. Edward A, Dato.

WKEN Kenmore, N. Y. 204m-1470kc, 250 watts, WKEN, Inc. Bally ex Sun, 11:45 am. Mon. Thurs, 6-12:30 pm. Tues, 8-12 mid. Sat, 6:30 pm. Sun, 9:30 am. 11, 2:30-2:30 pm. 7:30. Eastern. Founded Pall 1925. WKJC

Lancaster, Pa. 252m-1190kc, 50 watts. Kirk Johnson & Co. Mon, Wed, Fri, 6-10 pm. Fri, 11-12 mid. Sun, 10:45-12 n, 7:30-8:30. Eastern. Founded WKRC Cincinnati, Ohio. 245,8m-1220kc. 500 watts. Kodel Radio Corp. Mon, Wed, 6-8 pm, 9-11, 12-2. Tues, 6-7 pm, 9-12 mid. Thurs, 8-10 pm. Fri, 9-11 pm. Sat, 6-7 pm, 9-12. Sun, 11-12 n; 3-5 pm, 7-8, 9-11, 11:30-1. Eastern. Founded May, 1924.

Oklahoma City, Okla. 288.3m-1040kc, 150 watts. WKY Radiophone Co. Daily 10-11 am, 6-7:30 pm. Mon, Wed, Fri, 9-11 pm. Central.

Nashville, Tenn. 225.4m-1330kc. 1000 watts. Life and Casualty. Announcer, Walter N. Campbell. Daily 6:48-7:495 am. Daily ex Sun. 12-25-12:55 pm. Mon, Wed, 6-9 pm. Thes. Thurs. 6-7 pm. 2-11. Sat. 6-9 pm. Sun. 6:30-7:30 pm. 9:15-10:15. Cen-tral. Opened Nov. 24, 1926.

Louisville, Ky. 267.7m-1120kc, 30 watts. 100 watts 6 am-6 pm. Virginia av. Baptist Church, Sun, 11 am, 7:30-8:45 pm. Central.

Minneapolis, Minn. 245.8nr-1220kc. 500 watts, U. of Minnesota. Mon. 7:15-8. Tues. 6-7 pm, 8-9. Wed. 6:15-7 pm, 7:30-8:30. Fri, 4-5 pm, 7:30-8. Central. WLBC

Muncie, Ind. 209.7m-1430ke. 50 watts. D. A. Burton. Slogan. "Muncie, Ind. The Ideal American City:" Wed, 8-12 mid, Thurs, 9-12 mid, Fri. 8-11 pm. Sat, 7-11 pm. Sun, 2-4 pm. Central. WLBF Kansas City, Mo. 209.7m-1430kc, 50 watts. Everett L. Dillard, Slogan, "Where Listeners Become Friends." Daily ex Sun, 9-12 n, 2-4 pm, 7-10:30. Central. Founded Nov. 13, 1926.

WLBG Petersburg, Va. 214.2m-1400kc. 100 watts. R. A. Gamble. WLBH

Farmingdale, N. Y. 232,4m-1290kc. 30 watts. Jos. J. Lombardi, Announcer, H. J. Martin, Daily, 10-11 am, Mon, Wed, Fri, 7:30-11 pm. Eastern.

WLBI Wenona, III. 238m-1260kc. 250 watts. Wenona Legion Broadcasters. Iuc. Mon. 7-12 mid. Wed, Fri, 7-9 pm. Sun, 9 am. Central,

WLBL

Stevens Point, Wis. 333.1m-900kc, 1000 watts. 2000 watts 6 am-6 pm. Wisconsin Dept. of Markets, Stogan, "Wisconsin Land of Beautiful Lakes." Daily ex Sun, 8 am, 9, 10,11, 12 n, weather, markets; 1 pm, news. Thurs, Sat, 8-10 pm. Central.

Cambridge, Mass. 230.6m-1300kc. 50 watts. Browning Drake Corporation.

WLBN

Chicago., III. 204m-1470kc, 100 watts. William Evert Hiler (Portable). Daily ex Sun, 12-1 pm, 5-7, 9-11. Central.

WLBO

Galesburg, Ill. 217.3m-1380kc, 100 watts. Frederick A. Trelbe, Jr. Tues, Thurs, Sat, 9-10 pm. Central. Founded Jan, 16, 1927. WLBQ Atwood, III. 218.8m-1370kc. 25 watts. E. Dale

WLBR III. 247.8m-1210kc, 15 watts, Rock asting Corp.

WLBT

pint, Ind. 247.8m-1210kc. 50 watts, Harok

WLBW
Mansfield, Ohio, 206.8m-1450kc, 50 watts, Mansfield Broadcasting Association, Announcer, Ray Davis, Mon, 6-7 pm, 9-11 pm, Wed, 9-11 ym, Sat, 9:30-12 mid, Sun, 10:30-12 n. Central WLBW

Oil City, Pa. 293.9m-1020kc. 500 watts. Petroleum Telephone Co. Dnily ex Sun, 12:15:1:15 pm. 5:15 pm. Mon, 124:130 am, Mon, 9:30-11 pm. Thure, 10-11:30 pm. Sun, 3:30-5 pm. Eastern. Founded

WLBX

Island, N. Y. 204m-1470kc. 250 watts. Joh WLBY

Iron Mountain, Mich. 209.7m-1430kc. 50 watts. Aimone Electric. Daily and Sun, 12-1 pm. Central. WLBZ

Foxcroft, Me. 208.2m-1440kc. 250 watts. Thomp son L. Guernsey, Irregular schedule.

VILLIACA, N. Y. 247.8m-1210kc, 50 watts, Lutheran Assn. of Ithaca, Announcer, Robert F. Schuetz, Stogan, "The Church at the Gate of the Campus," Sur. 19:45 am, 7:45 pm, Eastern. Founded 1926,

WLEX

Lexington, Mass. 215.7m-1390kc, 50 watts. Lexington Air Station, Daily ex Sat, 8:30-10:30 pm. Sat, 11 pm. Eastern. Founded Oct., 1926,

WLIB

VILID Elgin, III. 416-4m-720kc, 15000 watts, Liberty Magazine, Announcers, Bill Hay, Art Smith, Daily ex Sun, 10:30-11 am, 11:30-11:87, 12:01-12:40 pm 7-8, 11-12:30. Sun, 5:15-6. Central, WLIT

Philadelphia, Pa. 405.2m-740kc. 500 watts. Lit Bros. Mon. Wed. Fri. 13-2 pm, music, 2-3, 4:30, music; 5:30, stories; 7:30-mid. Tues, Thurs. 11 am, Tues, Thurs. Sat. 12u. 2 pm, 4:30, 5:30, 7:30, Eastern. Founded Mar. 18, 1923.

WLOE

Chelsea, Mass. 211.1m-1420kc, 100 waits. William WLS

(VI Lat.)

(Chicago, Chicago, Chicago, Chicago, Chicago, Chicago, Chicago, World's Largest Store, Rochuck & Co. Siogan, World's Largest Store, Popular Chicago, Chica

Pravidence, R. I. 260.7m-1150kc. 250 watts. Lin-coln Studios Inc. Mon, 6:45 pm. Tues, 6:30 pm. Wed, 7 pm. 9 Thurs, 6:30. Fri, 7 pm. Sat, 6:30 pm. Sun, 6:30 pm. Eastern.

William N. Y. 256.3m-1170kc, 250 watts. Voice of Brooklyn, Inc. Mon. 10 am. 5-6 pm, 9-11. Tucs. Wed. Thurs, 4-7 pm, 9-12. Fri, 5-7 pm, 11-1 am. Sat. 4-6 pm, 9-12 mid. Sun, 1-3 pm, 5-6, 9-11.

WLTS

Chicago, III. 483.6m-620kc. 100 watts. Lane Technical High School, Mon. 9-10 am, 2-4 pm, 6-7. Tues, Wed, Thurs, Fri. 9-10 am, 2-4 pm. Central.

WLW

WLVV
Harrison, Ohio, 428.3m-700kc, 5000 watts. 52m-5764kc, 250 watts, The Crosley Radio Corp. Announcer. Fred Smith, Daily ex Sat, Sun, 8 am, exercises: 16, woman's hour; 11-15, markets; 11:55, stack; 62:30, markets; 636; markets; 612, Sat, 10 am, woman's hour; 11-15, markets; 11:55, time; 12 n, weather; 12-45, markets; 2:30-4730, musicale; 6:45, markets, 6:12, Sat, 10 am, 41:30, 7:15-14. Atternate Sun, 5:30 mn, claim, Eastern, Founded Atternate Sun, 5:30 mn, claim, Eastern, Founded

WLWL

New York, N. Y. 370.2m-810kc. 1000 warts. The Paulist League. Announcer, Joseph A. Bier. Slogan. For God and Country. Tues. Thurs, 8-11 pm. Sat. 7.9 pm. Sun, 8-9:15 pm. Eastern.

VIVIAL
Cazenovia, N. V. 225.4m:1330kc. 500 watts. C. B.
Meredith. Announcer, C. R. Jones. Thurs, 12 n.
farm program; 8 pm, popular studio. Founded 1922.

WMAF

Nouth Dartmouth, Mass., 428.3m-700kc. 500 watts. Round Hills Radio Corp.

WMAK

Miffalo, N. Y., 545.1m-850kc. 750 watts. WMAK
Studios, Inc. Announcer, William Fay, Daily ex
Sun, 11 am, menu period; 12n., news; 1215, music, Daily ex, Sun, 615 mi, 7-12, Sun, 10;25 am, 2:30, 315, -11. Eastern, Founded Sept. 22, 1822.

WMAL.

Washington, D. C. 241.8m-1240kc. 500 watts. M A. Leese Radio Co. Daily 6:30 pm. Eastern.

WMAN

Columbus, Ohio, 234.2m-1280kc, 50 watts. First Baptist church, Announcer, John Bohannan, Sun. 10:39-12 n, 7:30-9 pm. Eastern, Founded Sept. 1932

WMAQ

Chicago, III. 447.5m-670kc, 1000 watts, The Chicago Daily News, Announcer, Harry Geise, Daily News, Announcer, Harry Geise, Daily Cw. Sun, 630-11 an, 12 u-2 pm, 4-7, 8-10, 8-9, 10:45-12 n, 7 pm, 8-10, Daily ex Sun, Sat. 12:10-12:25 pm, farm. Central, Founded April 13, 12:26

St. Louis, Mo. 234.2m-1280kc, 100 watts, Kingshighway Preshyterian church, Slogan, "May Every By-Way Hear Kingshighway." Sun, 11 am, 8 pm.

WMAZ

Macon, Ga. 270.1m-1110kc, 500 waits. Mercer University, Announcer, E. K. Cargill, Tues, Wed, Thurs, 8-9:15 pm, Fri, 11-12:18 am. Eastern Pounded 1925.

WMBA

Newport, R. I. 204m-1470kc. 100 watts. LeRoy Joseph Beebe.

Homewood, Ill. 252m-1190kc, 5000 watts. American, Bond & Mortgage Co. Trianon. Announcer, Hugh Aspinwall, Slogan, World's Most Beautiful Ballroom, Daily ex Sun, Mon, 6-10:30 pm. Sun, 36 pm. 70:30. Central, Founded 1925.

Detroit, Mich. 243.8m-1230kc. 100 watts. Michigar Broadcasting Co. Announcer, Gordon Higham. Daily ex Sun, 6-10 pm. Eastern, Founded 1925. WMBD

Peoria Heights, III. 205.4m-1460kc. 250 watts Peoria Heights Radio Laboratory. Daily ex Thurs musicale. Sun, service.

St. Paul, Minn. 208,2m-1440kc. 10 watts. Dr. C. S. Stevens, Mon. Fri, 10-12 n. Wed, 8-10 pm. WMBF

Miami Beach, Fla. 384.4m-780kc. 500 watts. Fleet-wood, Hotel. Daily, 7-8 pm; 7:30-9. Eastern.

WMBG

Richmond, Va. 220.4m-1360kc, 15 watts. Havens and Martin, Slogan, "The Public Be Pleased," Announcer, Wm. K. Sealey, Jr. Daily ex Sun, 2-3 pm 6-10. Eastern.

WMBH

Jopin S. 204m. 170ks. 100 watts. Edwin Dud. Jopin Aber. Announcers. M. E. Jones, E. D. Aber. Slogan, "Where Memories Bring Happiness," Mon. Tues, Wed, Thurs, 12,15-1, pm, 5:30-7:30, 8:30-1:30, pm, 5:30-7:30, Sat, 12:30-1:15 pm, 5:30-7:30, Sat, 12:30-7:30, Sat, 12:30-7:3

WMBI

Chicago, III. 263m-I140kc, 500 watts. Moody Bible Institute. Slogan. "The West Point of Christian Service." Announcer, Wendell Loveless, Daily ex-Sun, 7-7-40 am, 10-30-11-30, 72-2-30-130 pm, 3-30-4-30. Tues, Wed, Fri, Sat, 8-9 pm, Thurs, 7-9 pm, Sun, 3-30-7 pm. Central. Founded July 28, 1926.

WMBJ Monessen, Pa. 232.4m-1290kc, 50 watts. Statheater, Fri, 9:45-11 pm, Eastern.

Memphis, Tenn. 209.7m-1430kc. 10 watts. Seventl Day Adventist Church. WMBO

WMBQ
Brocklyn, N. Y. 204m-1470kc, 100 watts. Paul J. Gollhofer.

WMBR

Tampa, Fla. 252m-1190kc. 100 watts. F. J. Reynolds. Daily ex Sun, 1-2 pm, 2-3, 7-8, 8-9, 10-11. Eastern.

WMBS

(V MLD-)

Lemoyne, Pa. 234,2m-1280kc. 250 watts. Mack's Battery Co. Announcer, W. S. McCabren. Slogan, 'The Voice of the Susquehaman.' Daily versus, 11:30 am, musicale, 12 n, organ; 6, time, 6-11:30 pm, music. Sat. 11:30-5 am, knut Kracker Klub frolic. Sun, 8:30 am-9 pm, Eastern, Founded March I, 1920.

WMBW

Youngstown, Ohio. 214.2m-1400kc. 50 watts Youngstown Broadcasting Co., Inc. Mon, Wed. Fri 2:30-3:30 pm, 6-12. Sat, 10:30-12:30 am. Founder Jan., 1927.

WMC

Memphis, Tenn. S16.9m-S80kc. S00 watts. The Commercial Appeal. Announcer, Francis S. Cham-berlin, Siogan, "Station WMC, Memphis. S. weather, markets, music, Dally, 8 pm, program Sun, 11 am, church service. Founded Jan. 20, 1923. Central,

WMCA

Hobolen, N. a. 370.2m-810kc. 500 wytts. Hotel Hobolen, N. a. monuneur. Speaker Weisel Stogen. McAlpin. Speaker Weisel Stogen. Weisel Stogen. Weisel Stogen. Stogen. Sept. 10:30 am. 1 pm. 2:45, 5, 6:1 am. Sat, 10:30:1 pm. 6:1 am. Sun, 10 am. 12 mid. Esstern.

WMES Boston, Mass. 211.1m-1420kc. 50 watts. Mass. Educational Society. Mon. Thurs, 8-10:30 pm. Sun, 10:45-12 n., 7:45-9:30. Eastern. Founded Aug. 1,

WMPC

Lapeer, Mich. 234.2m-1280kc. 30 watts. First Methodist Protestant Church. Daily ex Sat, 12-1 pm. Daily ex Sat, Thurs, 7:30-10 pm. Daily Sat, 4-5 pm. Sun. 10:30-12 n. 12-1 pm. 4-5:30, 7:30-10, Central, Founded Dec. 6, 19-6.

WMRJ

Jamaica, N. Y. 206,8m-1450kc. 10 watts. Peter J. Prinz. Tues, Thurs, 8-11:30 pm. Sat, 12-2:30 am. Sun, 12-2:30 pm, 9-11:30, Eastern.

WMSG

New York, N. V. 236.1m-1270kc. 500 watts. Mad-ison Scuare Garden. Announcer, Horace E. Beaver, Mon. Wed, Thurs, 9-12 mid. Tues, Fri. 6-9 pm. Sun. 7-9 pm. Eastern.

WNAC

Boston, Mass, 461.3m-650kc. 500 watts. The Shepard Stores, Announcers, Ben Hadfeld, E. Lewis Dunham, Joseph Lopez, Jean Sargent, Daily ex Sun, 7:45 am-12 mid. Sun, 10:45 am-5 pm; 7:30-11. Eastern. Founded July 31, 1922.

WNAD Norman, Okla, 239.9m-1250kc, 500 watts. University of Oklahoma. Mon, Wed, Thurs, 7:15-9:45 pm. Tues, Fri, 12:15-1 pm. Sat, 2-5 pm, Central,

WNAL

Omaha, Nebr. 258.5m-1160kc. 250 watts. R. J. Rockwell. Announcer, Ronald J. Rockwell. Slogan, "Pioneer Station of Omaha," Fri, Sat, 7-9 pm. 9-11 pm. Central. Founded 1921.

WNAT

Philadelphia, Pa. 288,3m-1040kc. 100 watts, Lennig Bros, Co. Slogan, "We Never Are Tired." Wed, 7:30 pm. Sat, 8 pm. Eastern, Founded 1921.

WNAX

VAINTAN, S. D. 277.6m-1080kc. 1000 watts, 6 ampm, 250 watts after 6 pm. Gurney Seed & Nurser; Co. Dally and Sun, 11 am-10 pm. Sun, 11-12 n 2-7 pm. Central. Founded Aug. 22, 1927.

WNBA Forest Park, III. 208.2m-1440kc. 200 watts. Mich ael T. Pafferty, Irregular hours.

WNBF Endicott, N. Y. 206.8m-1450kc. 50 watts. Hewitt-Wood Radio Co. Irregular schedule. WNBH

New Bedford, Mass, 247.8m-1210kc, 250 watts. New Bedford Hotel, Amounter, I, Vermilya, Mon. Pri. 6-10:30 pm. Sun, 11-12:15 pm. 7:30-9 pm. Eastern, Founded 1923.

Knoxville, Tenn. 206.8m-1450kc. 50 watts. Lons dale Baptist Church. Sun, 9:45 am, 10:45, 5-6 pm 7, 9-10. Central,

WNBL Bloomington, Ill. 199.9m-1500kc. 15 watts. Gray, Trimble and Smith Elec. Co. Sun, 2-4 pm. Mon, 8-12 mid. Central.

WNBO

Washington, Pa. 211.1m-1420kc, 15 watts, John Brownlee Spriggs. Daily ex Sun, 2-4 pm, 9-11 pm. Sun, 11 am, 7 pm, services. Eastern.

Sun, 11 am, 7 pm, services. Eastern,
WNBQ
Rochester, N. Y. 205.4m-1460kc. 15 watta. Ger
WNBR

Memphis, Tenn. 228.9m-1310kc, 100 watts. Popular Radio Shop. Daily ex Sun, 6:30 pm. Sun, 2:30

WNBW

Pa. 199.9m-1500kc, 5 watts. Home WNBX Springfield, Vt. 241.8m-1240kc. 10 watts, WNBX Broadcasters.

Saranac Lake, 232.4m-1290kc, 10 watts: WNBZ Broadcasters, WNJ

Newark, N. J. 267.7m-1120kc, 250 watts, Her man Lubinsky, Announcer, W. A. Bingenheimer Slogan, "The Voice of Newark." Tues, Wed, Fri Sat, Sun, 6-6:30 pm, 8:30-12 midnight, dance music

WNOX

Knoxville, Tenn. 265.3m-1130kc. 1,900 watts. Peoples Telephone & Telegraph Co. Mon. Wed. 7-10 pm. Fr. 7-11 pm. Tues, 9-9:30 pm. Central. TVIII

Greenshoro, N. C. 223.7m-1340kc, 500 watts Wayne M. Nelson, Mon, Wed, Fri, 12:30-1:30 pm 6:45-9. Tues, 7-9 pm, Thurs, 7-10 pm, Sun, 11:15 am, 8 pm, services, Eastern, Founded Mar, 24, 1926.

New York, N. Y. 526m-570kc. 500 watts. New York Municipal Radio station. Announcer, Christie R. Bohnsack. Slogan, "Municipal Broadcasting Station of The City of New York." Daily, 7-10 pm,

WOAI

San Antonio, Texas 999,7m,600kc, 500 wajter Southern Equit Compension of the Winter." Daily ex Sun. 9:30 am, weather, marmarkets, news, sports, Marc, 78 mp. Tues, Wed Thurs, Fri. 9:10 um. Sun. 11 am, 7:30 pm, Central, Formed summer 1923.

WOAN

Lawrenceburg, Tenn. 239.9m-1250kc, 500 watts. James D. Vaughan. Announcer, James D. Vaughan. Sun. 11-12 n, 7:30-8:30 pm, Central.

WOAX

Trenton, N. J. 239.9m-1250kc, 500 watts, F. J. Wolff, Slogan, "Trenton Makes; the World Takes." Daily ex Sun, 12:15-1:15 pm. Daily ex Sun, Sat. Wed, 7:30-9 pm. Fri, 7:30-8:30 pm. Sun, 7:30-9 pm. Eastern: Founded March 2, 1923.

WOBR 204m-1470kc. 10 watts. Karl Smith, (Port

WOBT Union City, Tenn. 205,4m-1460kc, 15 watts, Titts worth Radio Music Shop.

WOBU Charleston, W. Va. 267.7m-1120kc. 50 watts. Charleston Radio Broadcasting Corp.

WOC

Davemport, Iowa. 374.8m.800kc. 5000 watts. The Falmer School of Chiropractic. Slogan. Where the West Begins and in the State Where the Tall Corn Grows. Daily ex Sun, 7 am. Happy hour; 9:45. markets, 11, 11;15, 1:57 pm, time; 2 markets, 31, Aunt, Jane. 545. chimes. Mon, 7 pm. musicale: WEAF, Wed. 6:48-9:30. N. B. C. 9:30. tolk: Thurs, 7 pm. 7:30-10, N. Jl. C. Fri, 7:10 pm. N. B. C. Stat. 7:9 pm. WTZ. Sun, 11 am. 12:15 pm. 15:30. N. B. C. 7; 8:15-10:15, N. B. C. Centell. Pounded May, 13:22.

WOCL Jamestown, N. Y. 223.7m-1340kc, 25 watts, A. E. Neroton, Announcer, Bob Page, Tues, Fri, 6:30-7 pm. Sun, 10:30 am, 7-9 pm. Eastern.

WODA NOUPA
Paterson, N. J. 293.9m-1020kc, 1000 watts, C'Dea Temple of Music. Slogan, "A Voice from the Silk City." Daily ex Sun, 9-10 am, 12-2 µm; Mon, 5:30-9 pm, Tues, 4:30-6 pm, 9-11. Wed, 5:30-9 pm, 11-12. Thus, 4:30-6 pm, 9-12. Fri, 5:30-9 pm, 11-12. Sat, 4:30-6 pm, 9-12. Sun, 9 am, 7 pm. Founded April 13, 1925. Bastern.

Ames, Iowa. 265.3m-1130lc. 2590-5000 watts. Iowa. State College. Announcer, A. G. Woolfries, Daily eer Sun, Z an, 7-33, 8-45, 9-30, 10, 19-30, 12-10, 12-15 pm, 12-30, 12-40, 12-45, 1 pm, 130, 9-30. Mon, 7-7, 230 pm, 7-45, 8. Thurs, 7-30, 7-45, 8. \$5,\$\$1, 4-17, 8-1

WOK

Homewood, Ill. 252m-1190kc. 5000 watts. Karzas-Chicago Beach Hotel. Annumeer, Hugh Assinwall. Daily ex Mon, 11-12:30 am. Founded July 20, 1925. Central,

WOKO

Peekskill, N. Y. 215.7m-1390kc, 250 watts. H. E. Smith, Daily ex Sun, 10 am, Daily ex Sun, 10-11 am, 6-8 pm, Sat, 9-11 pm, Sun, 11 am, 12:30 pm, 3:30. Eastern. Founded Warr, 1924. WOKT

Rochester, N. Y. 209.7m-1430kc, 500 watts, Titus-Ets Corp. Autouncer, S. C. Hitchcock, Daily ex Sun, Mon, 11:30 am-2 pm, 6:45-10. Mon, 11:30-2 pm, 6:43-11 pm. Sun, 11-12:30 pm. Eastern. WOMT Manitowoc, Wis. 222.1m-1350kc, 100 watts, The Mikadow theater. Daily ex Sun, 11:50 am-1:10 pm 5:45-7. Mon, 10:30-1:30 am. Central,

woo

Philadelphia, Pa. 348.6m-860kc. 500 watts. John Wannangker. Daily ex Sun, 11 am, organ recital; organ recital; 7.30, police reports; 10.55; title; 11:02, weather. Mon, Wed, Fri, 7:30-11 pm, music, concert. Eastern.

WOOD

Grand Rapids, Mich. 260.7m-1150kc, 500 watts. Walter B. Stiles, Inc. Mon. Tues, Wed, Thurs, Fri, 9-11 pm. Sun, 9-10 pm. Central.

WOQ

Kansas City, Mo. 340,7m-880kc. 500 watts. Unity School of Christianity. Daily ex Sun. 11-11:30 am. Daily ex Sun. 6-7 pm. Mon. 9-10 pm. Wed, Fri. 8-10 pm. Sat, 10-11 pm. Sun, 11-12-30 am, 2:30-3 pm, 7:45-9. Central, Founded 1921.

WOR

Newark, N. J. 422.3m-710ke, 3500 watts, L. Bamberger & Co. Daily ex Sun, 6:45-8 am, 2:30-4 pm. Daily and Sun, 6:15-12 mid. Founded 1922. Eastern, WORD

Batavia, 1ll, 252m-1199kc, 5000 watts, Peoples Pulpit association, Announcer, B. M. Rice, Slogar, Warethrower Station WORD, Daily 6-7:10 pm. WORD, WORD, Daily 6-7:10 pm. WOSD Jefferson City, Mo. 422.8m-710kc. 500 watts. Missouri State Marketing Bureau. Announcer, Jack Heiny, Slogan, Watto Our State. Daily ox Sun, 9 am, 10, 10:30, 11, 12 n, 1 pm, 2 markets; stocks, weather, Both, Tuck, Wed, Hurrs, Fri, 7 mm, markets, bour, Mom, Wed, 8 mm, Fri, 8:15 mm. Central, Founded 1922.

Omaha, Neb. 508.2m-590kc, 1000 watts. Woodmen of the World. Announcer, Lester Palmer. Slogan, "Where the West is at Ir's Best. Daily es Sun, 8:15 an, 8:55, 10:30, 12:30 pm, 1:45, 3:15, 5, markets. Daily es Sun, Sat, 12:45 pm, Daily es Sun, Wed, 6-7:30, 9:11, Sun, 9:10:45 am, 1-1:30 pm, 6-3:12, 2:15, Founded April 2, 19:23, Central.

WOWO

Fort Wayne, Ind. 228,9m-1310kc, 5000 watts, 6-6 pm, 2500 watts after 6 pm, Main Auto Supply Co. Daily ex Sar, Sun, 10:30-12 n, home news, farun flashes, Daily ex Sun, 12-2:30 pm, music, Mon, 6-15-11:30 pm, Wed, 7-11 m., Thurs, Fri, 7-11 pm, Fri, 4-5 pm, Sat, 6 nm, Sun, 4-5 pm, service; 8-10, Cunral, Founded April, 1932.

WPAP

Palisade, N. I. 394,5m-760kc. 500 watts. Palisades Amissement Park. Announcer, Perry Charles. 1. Lewis Bedie, Ref. Sat. 8 pm. Tues. Fri. 8:30 P. Thurs, 9 pm. Eastern.

Chicago, Ill. 223.7m-1340kc. 500 watts. North Shore Congregational church. Announcer, Ralph E. Briggs. Wed. 7:30-8:30 pm. Fi, 7:30-9:30 pm. Sun, 11-12:30 pm, 3:30-5:30, 8-9:30. Central. Founded July, 1224.

WPCH

Hohoken, N. I. 325.9m-920kc, 500 watts, Concourse Radio Corp., Mon. 7-12 mid, Tues, 4-7 pm, Ved. 5-12, 1-12,

Waukegan III. 215.7m-1390kc. 250 watts. Announcer, Maurice Mayer, Siogan, "Washen Pep Stimen, Daily ex Mon, 3-5 pm, 2549, 9.304, Atlantic City, N. J. 272-6m-110%c. 5000 watts.
Mamicipality of Atlantic City. Slogan. "World's
Playgrounds." Daily ex Sun, Fr. J. pm; 6:45-12.39
un. Sun, 3:13 pm, 4:15 pm, 8:15, 9:15, 10:30.

WPRC Harrisburg, Pa. 209,7m-1430kc, 100 watts, Wilson Printing & Radio Co. Sun, 9-11 pm. Eastern. WPSC

State College. Pa. 299.8m-1000kc, 500 watts. Pa. State College. Slogan, "The Voice of the Nittany Lion." Mon, Wed, Fri, 8 pm. Fri, 12 mid. Sat-2 pm, football. Eastern. Founded Nov., 1921.

Philadelphia, Pa. 206.8m-1450kc, 50 watts, Philadelphia School of Wireless Telestaphy, Sloga First Wireless School in America. Wed, From Eastern, Founded 1920, Raleigh, N. C. 545.1m-550kc. 500 watts. Durham Life Ins. Co. Slogan, "We Protect the Family." Mon. Wed. Fri. 6-8 pm. Sun, 11 am, 7:30 pm. Eastern. Founded Oct. 1, 1927.

WQAM

Miami, Pla. 384.4m-780kc, 750 watts, Electrical Equip, Co. Announcer, Frederick W. Mizer, Slogan, The John Co. Announcer, Frederick W. Mizer, Slogan, The John Co. 1148-32-30 pm, 7-9-30. WQAN

Stranton, Pa. 230 for 1300 lcc. 250 watts. Seranton. Pa. Nanouncer, T. V. Nealon. Slogan. "The Voice of the Anthracite." Daily ex Sun, 12:30-1 pm, 4:30-5; news, renorts, sports, music. Tucs. Fri. 8 pm, entertainment. Sat. 6:30-7:15 pm, dance music. Sun, 4-5 pm. Eastern. Opened Jan, 8, 1925.

WQAO Palisade, N. J. 394.5m-760kc. 500 watts. Calvary Baptists church. Announcer, G. R. Witdham, Slogan, "The First Church Owned and Operated Broadcasting Station in the World." Wed, 7:30 pm, church service. Sun. 11:15 am. 3 pm, 7:30, church service. Founded 1922. Eastern.

Tampa, Fla. 238m-1260ke. 250 watts. WQBA Utica, Miss. 218.7m-1290kc, 100 watts, I. R. Jones, Daily ex Sun, 7 am-7 pm, Central.

ksburg, W. Va. 239.9m-1250kc, 65 watts. John

Chicago, III. 447.5m-670kc, 500 watts. Calumet Baking Powder company-Chicago Daily News, Daily ex Sun, 11-12 n, 3-4 pm. Daily ex Sun, Mon, 7-8 pm, 10-1 am. Sun, 10:45-12:30 pm, 2-4, 6-7. Founded May 22, 1924. Central.

m, 10-1 am, May 22, 1924, WRAF

La Porte, Ind. 208.2m-1440kc. 100 watts. Radio Club, Inc. Announcer, Charles Middleton. Slogan, "The Voice of the Maple City." Daily ex Sun, 12-1 pm, 7-9. Sun, 10:45-12:15 pm. Founded April.

WRAH

Providence, R. I. 199.9m-1500kc, 250 watts. Stan-ley N. Read. WRAK Escanaba, Mich. 282.8m-1060kc. 50 watts. Economy Light Company. Announcer, H. E. Flath. Slogan, "The Gateway to Cloverland." Mon. Fri, 8:30 pm. Eastern. Founded 1924.

WRAM

Galesburg, III. 247.8m-1210kc. 50 watts. Lombard College. Mon, 7-11 pm. Founded 1922. Central,

WRAW

Reading, Pa. 238m-1260kc. 100 watts. Avenue Radio & Elec. Shop. Slogan, "The Schuylkill Valley Echo." Announcer. C. M. Chalev, Tues. 9-11 pm. Thurs, 8-12 viid. Sun, 11 am, 3-4, 7:30. Eastern. Pounded Luie 5. 1923.

WRAX

Philadelphia, Pa. 212.6m-1410kc. 250 watts. Berachah Church, Inc. Tues, Thurs, 7:30-9:30 pm. Sun, 11:15-12:15 pm, 4-5, 9-10. Eastern. Founded 1923.

WRBC

Valparaiso, Ind. 238m-1260kc, 250 watts. Immanuel Lutheran church. Announcer, Gerhard Schutes, Slogan, "World Redeemed by Christ." Mon. 7:30 pm, Sun, 7:30 pm, church service. Central. Founded March, 1924.

Washington, D. C. 468.5m-640kc, 500 watts, Ra-dio Corp, of America, Announcer, John B. Daqiel, Stogan, The Voice of the Captiol. Daily ex Ro-6-45 am-1 pm, WEAF; 1-2, organ; 5-11 pm. Sun, 11 am-9:30 pm. Eastern

WRCV

Norfolk, Va. 209.7m-1430kc. 100 waits, Radio Corporation of Virginia. Slogan, The Voice of the Business District. Mon, Tues, Thirts, Fri. 7-8 pm. 10.00-12:15 pm. 7-15-8-45. Eastern.

Memphis, Tenn. Inc. Daily ex Penn. 249.9m-1200kc. 100 watts. WREC ex Sun, 7-8 pm. Sun, 4-5:30 pm. Cen-ded 1924.

WREN

Lawrence, Kan. 254,1m-1180kc. 750 watts, Jenny Wren, Daily ex Sun, Moa, 9-10 pm, Mon, 8-9 pm, Sun, 8-930, 11 am, 9-10:30 pm, Central, WRES

Ouincy, Mass. 217.3m-1380kc. 50 watts. Harry Leonard Sawyer. Thes, Wed, Thurs, Fri, 8-11 pm. Eastern. Founded Nov. 1926.

Tashington, D. C. 322.4m-930kc. 150 watts. Amer-an Broadcasting Company. Daily ex Sun, 10-12 n. 7. Founded 1924. Eastern. WRHM

Minneapolis, Minn, 260,7m-1150kc. 1000 watts. Rosedale Hospital, Inc. Announcer, Troy S. Miller, Daily ex. Sun, 9-10:30 ann, 12-1 mu, 7-5, 6-7, Mon, Wed, Frt, 8-10 pm. Thurs, 10-12 mid. Sat, 6-11 pm., Sun, 9:15 am, 11, 7:45 pm. Central.

Hamilton, Ohio, 205.4m-1460kc, 100 watts, John C. Slade, S. W. Doran, Mon, Wed, Fri, 1-2 pm, 6:45-10. These, Thurs, 1-2 pm, 6:45-2 am, Sat, 2 pm, 2:30-5, 6:45-2:50 am, 10:30. Eastern. Founded 1919.

WRM

Urbana, III. 272.6m-1100kc. 500-1000 watts. Univ. of III. Announcer, John Bayles. Daily ex Sun, 5-6 pm, 7-8 pm, musical. Sun, 3:45-5 pm. Central.

WRMU

New York, N. Y. 201.2m-1490kc, 100 watts. At kantic Broadcasting Corp.

Coytesville, N. J. 325.9m-920kc, 560 watts. Experimenter Puls, Co. Daily ex Sun, 11-1 pm, 2:30-4, 7-11 pm, Sun, 11 am, 1-6:30 pm, Eastern, Pounded June 12, 1925.

WRPI

Terre Haute, Ind. 208.2m-1440kc. 100 watts. Ro. Polytechnic Institute Broadcasting Assn.

WRR

Dallas, Announcer, John Thorwald, Slogard, City of Dallas, Announcer, John Thorwald, Slogard, City of Achievements. Daily ex Wed., 11:30-12:30 pm, 6-7, 8-9, 10-11. Sun, 11-12 n., 7:30-9 pm, 9:30-10:30. Central.

WRRS

Racine, Wis, 247.8m-1210kc. 50 watts. Racine Broadcasting Corp. Announcer, F. G. Leavenworth. Daily ex Sun, Sat, 6-7 pm, news. Mon, Wed, Fri. 12-1 pm, organ; 8-10, Central, Founded Dec. 1, 1926.

WRST

Bay Shore, N. Y. 211.1m-1420kc, 150 watt Radiotel Mig. Co., Inc. Slogan, "Bay Shore, th Garden Spot of Long Island, Daily ex Sun, 12-nn, 4-5, 6-8. Daily ex Sun, Thurs, 12-1 pm, 4-Daily ex Sun, Tues, 12-1 pm, 4-5, 8-12. Eastern Founded 1925,

WRVA

Richmond, Va. 254.1m-1180kc. 1000 watts. Larus & Bro. Co.. Inc. Slogan. "Carry Me Back to Old Virginy." Announcer, J. Robert Beadles, Dally ex Sat. Sun, 12-1:30 pm. Mon, Wed, Thurs, Fri. 7-12 mid. Sun, 11-12 n., 8-9. Eastern.

WSAI

Masou, Ohio. 361.2m-830kc. 5000 watts. United States Playing Card Co. Daily and Sun, 7-12 mid Fri, 8-9 pm. Eastern. WSAJ

Grove City, Pa. 223.7m-1340kc, 250 watts. Grove City College. William L. Harman, activities. regular schedule, Founded April 1920.

WSAN

Allentown. Pa. 222.1m-1350kc, 100 watts. Allentown Call Pub. Co. Announcer, Charles Walp. Tues, Thurs, 8:15 pm. Eastern. WSAR

Fall River, Mass, 252m-1190kc, 259 watts. Doughty & Welch Elec, Co., Inc. Announcer, Bar-ton G. Alhert, Drily 12-1 pm, 5:30-6:30. Founded Jan, 1923, Eastern.

WSAX
Chicago, Ill. 204m-1470kc. 100 warts. Zenith

Chicago, 1 Radio Corp WSAZ

Huntington, W. Va. 249.9m-1240kc. 100 watts. McKellar Elec. Co. Amouncer, F. B. Smith, Daily ex Sun, 12-4 pm, 6-10. Sun, 10-12:30 pm, 3-4, 6-10. Eastern, Founded Feb., 1927. Eastern, WSB

W 3D Atlanta, Ga. 475.9m-630kc. 1000 watts. Atlanta fournal, Amouncer, Lambdin Kay. Slogan, Yandin Kay. Slogan, Market Slid, How 12-1 pm, music, weather; 1, farm service, 2:30, reports; 8-3, concert; 10:35-12, con. weather; 1, farm service, 2:30, reports; 8-3, concert; 10:35-12, con. Wed. 6:15, pm, health talk; 7, WIZ. Sat. 6, pm, STEAR, 8:15, music. Central Research State Stat

WSBC

(Y) DC Chicago, III. 232.4m-1290kc. 500 watts. World Battery Co. Dally ex Sun. Mon. Thurs. 6:30-8 pm. Daily ex Mon. 9-1 am. Szt., 2-4 am. Sun, 5-7 pm. Thurs. 6-7 pm. Central.

WSBF

St. Louis, Mo. 258.5m-1160kc, 250 watts, WSBI Broadcasters, WSBT

South Bend, Ind. 399.8m-750kc. 500 watts. Bend Tribune. Announcer, C. G. Livengood, ex Sun, 6-7 pm. Mon. 9:30-11:30 nm. Thurs, pm. Fri, 10-12 mid. Founded April, 1922.

WSDA

New York, N. Y. 227.1m-1320ke. 250 watts. City Temple. Thurs, 7:45-9:30 pm. Sat, 10:45-1 pm. Sun, 7:30-9:30 pm. Eastern.

WSEA

Virginia Beach, Va. 263m-1140kc. 500 watts. Virginia Beach Broadcasting Co. Announcer, George L. Sutherland. Slogan, The Voice of Tidewater Virginia. Daily ex Sun, 11-1 pm, 1-3, 5-6, 6-3, pm, 7-8, 8-11 pm, 11. Sun, 9:20 ann, 4-5 pm, 7-9,

WSIX

Springfield, Tenn. 249.9m-1200kc. 150 wg.tts. Tire and Vulc. Co. Announcer, George H. Lawr Daily ex Sun. 12.30-11:30 pm. 7-8. Sun. 11 Central, Founded Jan. 7, 1927.

Ray City, Mich. 272.6m-1100kc, 250 watts. World's Star Knitting Co. Announcer, S. F. Northcott. Stogan, "Where the Summer Trails Begin," Daily ex Sun, 12-1 pm, Hardy hour of music, Tues, Thurs, Sat, 9-11 pm, Sat, 12-2 am. Sun, 11 am. Eastern, Founded Jure 15, 1925. WSM Nashville, Tenn. 336.9m-890kc. 5000 watts. Na-tional Life and Accident Insurance Company. An-nouncer, George Hay. Daily ex Sun. Sat. 11:45 and 12:30 pm. 1-1:30, 5:30-6. Mon, 6:15-11 pm. Tues. Wed, 7-11 pm. Thurs, 6:30-11 pm. Sat. 6-11 pm. Sun. 4:30-5:50 pm. 6:20-7:15, 8:15-9:15. Founded 7-5, 19:25. Central.

WSMB New Orleans, La. 96.4m-1010kc, 750 watts. Saen ger Theaters, Inc., and The Maison Blanche Co Dailey ex Sun, 12:30-1:30 pm, 6-7 pm, Mon, Wed Thurs, Sat, 3:30-10:30 pm. Founded April 21, 1925.

WSMK

Dayton, Ohio. 296 9m-1010kc. 200 watts. S. M. Krohn, Jr. Slogan, "The Home of Aviation." Daily ex Sun, Thurs, 90 10 am, woman's hour; 123 pm, 6-11, Thurs, 9 am, 12 pm, 6, 11-3 am. Sun 10:30-12 n, 7-9 pm. Central.

WSOE

Milwaukee. Wis. 270.1m-1110kc, 250 watts. School for Engineering of Milwaukee. Managed by Wiston Communication of Engineering of Milwaukee. Managed by Wiston State Communication of the Land of the Sky-blue Communication of the Land of

WSRO

Middletown, Ohio. 236m-1270kc. 100 watts. Micrown Broadcasting Co. Announcer, Harry W. F. lander. Slogan. We Sell Radio Only. Tuest. 10:30-41 am. 8-10 pm. Sun, 2-4 pm. Cen Founded 1923.

WSSH

Boston, Mass, 288.3m-1040ke, 100 watts. Tre-mont Temple Baptist church. Announcer, Raymond B. Meader. Fri, 7:30-9 pm. Sun, 10 am, 6:30 pm Eastern. Founded June 3, 1924.

WSUI

Iowa City, Iowa. 475 9m-630kc. 500 watts. Univ. of Iowa. Announcer, Carl Menzer. Daily ex Sup. 9 am, 20:30. Daily ex Sur. Sur. 12:23 pm, 5 pm, 6. Mon. 7 pm, 9, 11. Wed. 7 pm, Mon. 11:15 pm, 11:15 pm, 25 pm, 5 pm, 60 pm, 50 pm,

WSUN

St. Petersburg, Fla. 516.9m-580kc, 750 watts Chamber of Commerce, Announcer, George Schla-gle, Daily ex Sun, 7-12 mid. Eastern. Founder Nov. 1, 1927.

WŠVŠ

Buffalo, N. Y. 204m-1470kc. 50 watts. Senece Vocational School. David Warnhoff, announcer. Slogan, "Watch Senece Vocational School." Wed. Fri, 8-9:30 pm. Eastern. Founded Nov. 9

WSYR

Syracuse, N. Y. 293.9m-1020kc. 560 watts. Clive B. Meredith. Slogan, "Voice of Central New York." Daily ex Sun, Thurs. 6:20-10:30 pm. Sun, 6:20-9:19 pm. Eastern. Founded 1922.

WTAD

Quincy, III. 236.1m-1270kc. 250 watts. 500 watts 6 am-7 pm. Illinois. Stock Medicine Broadcasting Corporation. Siogan. The Voice of Agriculture. Daily ex Sun, 11:30-12:30 pm. Central. Founder Dec. 29, 1926.

WTAG

Worcester, Mass. 516.9m-580kc. 250 watts. Worcester Telegram, Gazette. Amousucer, Chester Gazette. Amousucer, Chester the Commonwealth." Daily ex Sun, Sat, 10:30 am. 12:30, 12:35, 1 km, 7, 2:30, 8, 8;30, 9, 10, 11. Sat, 10:30 am. 10:30

WTAL Toledo, Ohio. 239.9m-1250kc. 250 watts. The Toledo Broadcasting Co. Announcer. Karl Beinke. Slogan, "The Gateway to the Sea." Dails, 8 pm. Sat., 9 pm. Sun, 10:45 pm. Eastern.

WTAM

leveland, Ohio, 399,8m-750kc, 3500 watts, 5000 atts 6 am-6 pm, Willard Storage Battery Co. nnouncer, R. B. Humphrey, Slogan, "The Voice com the Storage Battery," Daily ex Sun, 6-12 di, Sun, II am, 6, 7, 8, 9, 10 pm, Founded Sept. 1, 1923. Eastern,

WTAQ Rao Claire, Wis. 254.1m-1180kc, 500 watts, Gillette Rubber Co. Announcer, C. S. Van Gorden, Slogan, "The Voice of the Wilderness," Mon. 12:15 pm, weather, news, markets; 6:30, 7:30, 10. Thuts, 12 n, 6 pm, 9. Wed, 12:15 pm, 6:30, 7:30, 10. Thuts, 12 n, 6, 8 m, 6:30, 7:30, 10. Exp. 12:15 pm, 6:30, 10. Exp. 12:15 pm, 6:30,

WTAR

WSUF Norfolk. Va. 236.1m-1270kc. 500 watts Reliance Electric Co. Announcer, J. K. Bobannon Slogan, "Down in Old Virginia," Daily ex Sun, 6:3 pm. weather, markets, news. Tues, 8-9 pm. music Eastern.

WTAS

275,1m-1090kc, 3500 watts. Illinois Corp. Chicago, Ill. Broadcasting

WTAW

College Station, Tex. 483.6m-620kc, 500 warts. Agricultural and Mechanical College of Texas, Daily ex Sun, Sat, 12:10 pm. Wed, Fri, 7 pm. Founded 1922, Central,

WTAX

Streator, III. 247.8m-1210kc. 50 watts. Williams Hardware Co., Radio Division. Amounteer, N. B. Williams. Stogan, Pappa Regga Raits. Mon. 2002 pm. Thurs, 9-11 pm. Central. Founded 1922.

Richmond, Va. 220.4m-1360kc. 15 watts. W. Reynolds, Jr., and T. J. McQuire. WTFF

Washington, D. C. 202.6m-1480ke. 10,000 watts Independent Pub. Co.

WTFI Toccoa, Ga. 209.7m-1430kc. 250 watts. Toccoa Falls Institute. Announcer, Kelly Barnes. Tues, Thurs, 7-8 pm. Sun, 9-10 pm. Eastern. Founded Oct. 4, 1927.

Hartford, Conn. 535.4m-560kc. 500 watts. The Travelers Insurance Company. Slogan, 'The Insur-Day's Coll pm. Sun. 4:30-7:30 pm. Founded Feb. 10, 1924. Eastern.

Milwauke, Wis. 293.9m-1020kc. 1000 watts. Mi wauker Journal. Announcers, Fred Jeske, Larr Teich, Slogan. "Voice of Wisconsiin, Land c. Lakes," Mon. Tues, Wed. Thurs, Fri. 10-2 pm, 3-1 mid. Sat, 10-2 pm, 3-11. Sun. 11-10-45 pm. Centra Founded July 25, 1927.

WTRL

Midland Park, N. J. 206.8m-1450kc. 15 watts, Technical Radio Laboratory, Tues, 7-9 pm. Fri, 7-8 pm. Sun, 2-4 pm. Eastern,

Chicago, Ili. 227,1m-1320kc. 500 watts. Dr. George F. Courrier, Daily ex Sun, Mon, 7-9 pm. Central.

Detroit, Mich. 3827m.850kc. 1000 watts. The Detroit News. Announcer, E. L. Tson, F. F. Wallace, Mon. Wed. Fri. 7:10 am. exercises; 5:90-10 bitmed; 12:05-12:35 mm. or control 3:10 mm. or

New Orleans, La. 245.8m-1220kc. 500 watts, Loyola Univ. Announcer, O. L. Abell. Sat, 7:30-8:30 pm. Central. Founded March 31, 1922.

Asheville, N. C. 296.9m-1010kc, 1000 watts, Asheville Chamber of Commerce. Announcee, J. Dale Stentz, Daily ex Sun, 1 pun, 2, 7-8. Mon, 8-12 mid. Thurs, 8-10-45 pm. Sun, 11 am-4 pm, 7:30 pm. Eastern, Founded Feb. 21, 1927.

WWRL

WWVA

Wheeling, W. Va. 516.9m-580kc. 250 watts. Joh C. Stroehel, Jr. Daily ex Sun. 7 am. 8, 11, pm. 6. Men. 7-11 pm. Sat, 11-1 am. Sun, 11 am 1-4 pm. Eastern. Founded Dec. 6, 1926.

Canada

CFAC

CFCA

Toronto, Ont., Can. 356.9m.840kc. 500 watts, Toronto Star Announcer, Gordon W. McClain, Daliy 6, 630-81 m., Wed. 63.0-12 mid. Thurs, 63.0-9 m. 10.30-12 mid. Thurs, 63.0-9 m. 10.30-12 mid. Sat, 6:30-10 pm. Sun, 11 am, 7 pm. 81.5. Eastern. Founded March, 1923. CFCF Montreal, P. O., Can. 410.7m-730kc. 1650 watta. Canadian Marconi C. Announcer, C. Walter Darling. Baily ex Sun, 12:45-1:40-pm, stocks, music. Mon, Fri, 77:30 pm, bedtime stories; 7:30-8:30, music; 9-10, 10:30-11:30, orchestra. Wed, 7-8 pm, orchestra. Eastern.

Iroquois Ralls, Ont. 499.7m-600kc. 250 watts. Abitibi Power and Paper Co., Ltd.

Calgary, Alta., Can. 434.5m-690kc. 1800 watts, W. W. Grant, Ltd. Slogan, "Voice of the Prairies, Ties, 9-10 pm. Wed, 9-10 pm. 1-12. Thurs, 7:45-8:45 pm. Fri. 9-10 pm. Sun, 11 am, 7:15 pm, services, 3 pm. Mountain.

CFCQ

Vancouver, B. C. 410.7m-730kc, 10 watts. Sprott Shew Radio Co. CFCT Victoria, B. C. Can, 329.5m-910kc. 500 watts, The Deaville Station. Slogan, "The Mecca of Tourists." Daily and Sun, 9:30 am. Wed, Fri, 8-9:30 pm. Every second Thurs, 10:30 pm. 12 mld, Night Birds, Mon. 6:30,7:30 pm. Sun, 11 am, 7:30 pm. Pacific. On air Mar, 1924.

Charlottetown, P. E. I. 312.3m-960kc. 100 watts, Island Radio Co. Wed, Thurs, 7-8 pm. Sun, 11 ĊFGC

Brantford, Ont., Can. 296,9m-1010kc. 50 watts. The CFJC Kamloops, B. C. 267.7m-1120kc. 15 watts. N. S. Dalgleish and Sons, Weller and Weller. Mon. Fri. 5:30-6:30 pm. Wed, 8 pm. Pacific.

Ont. 296.9m-1010kc. 50 watts. Radio on of Prescott.

Kingston, Ont., Can. 267.7m-1120kc, 20 watts Monarch Battery Mig. Co., Ltd.

Fredericton, N. B. 247.8m-1210kc. 25 watts. James S. Neill & Sons, Ltd. Saskatoon. Sask., Cau. 329.5m-910kc. 500 watts. The Electric Shop, Ltd. Announcer, Grant Stevenson. Slogan, "The Hub City of the West Where No. 1 Northern Hard Wheat Crows." Daily ex Sun. 9-10 am; 115-2 pm, markets, reports, music. Mon. 6 pm. Wed. 7:30-10 pm. Thurs, Fri, 7:30-8;30 pm. Sun, 11 am, 7 pm, church service. Mounty

CFRB Township of King, York County, Ont. 291.1m. 1030kc, 1000 watts. The Ropers-Batteryless Station. Announcer, Charles Shearer, Sogan, "Just Flug in Then Tune in." Daily ex Saty Sun, it n. Thurs, 8:12 mid. Sun, 11 am, 3 pm, 7. Eastern. CFRC.

Can. 267.7m-1120kc, 500 watts. sity. Announcer, H. J. D. Minter

CFYC iver, B. C. 410.7m-730kc. 500 watts. Inter CHCS

Hamilton Unix.
iliton Spectator.

CHCY

King Edward Park, Edmonton Alta, 516.5m-580kc.

King Edward Park, Edmonton Alta, 516.5m-580kc.

King Edward Park, Edmonton Alta, 516.5m-580kc.

The Christ, Salt, 83-91.0 pm, 501, 0.11 am, 34.4

pm, 9-15-10:30, Mountain. Founded May 11, 1926. Summerside, P. E. I. 267.7m-1120kc. 25 watts, R. T. Holman, Ltd. Daily ex Sun, 12 n. Sun, 11 am, 7 pm. CHIC

Toronto, Can. 356.9m-840kc. 500 watts. Northern Electric Company, Ltd. Announcer, R. W. Low-man. Mon. 8-9 pm., 11-1 am. Sat. 10-11 am, 10-12 mid. Sun. 5-6 pm. Eastern.

CHMA

Edmonton, Alta. 516,9m-580kc, 250 watts. Christian & Missionary Alliance. Sun, 11 am. 1:15 pm, 2:15, 2:30, 5:30, 5:45, 10:30. Tues, Thurs, 6:15-6:45 pm. Sat, 6 pm. Mountain. CHML

Mount Hamilton, Ont. Can. 340.7m-880kc. 50 watts. Maple Leaf Radio Co., Ltd.

Toronto, Can. 356.9m-840kc, 500 watts, Toronto CHNS

Halifax, N. S. 322.4m-930kc. 100 watts, Northern Elec. Co., Ltd. Sun. Mon. Wed, evening program, Atlantic. Founded May 12, 1926.

Vancouver, B. C. 410.7m-730kc. 1000 watts, Central Presbyterian Church.

Quebec, Que. 340.7m-880kc, 45 watts. E. Fontaine.

Unity Sask 26.7 m-1120kc 50 watts H N Control Radio Sales Mon. Thes. With Thurs Fri. 44.5 pm. Thes. The Sales Mon. Thes. With Thurs Fri. 44.5 pm. Thes. 30-9 pm. Thurs Jones Mon. 7:30-8:45 pm. CHUC

Saskatoon, Sask., Can. 329.5ni-910kc. 250 watts, International Bible Students' association, An-nouncer, C. Roberts, Thes, 7:30-10 pm. Tburs, 8:30-10 pm. Fri, 9-10 pm. Sun, 12:45-2:15 pm. CHWC

Regina, Sask., Can. 312,3m-960kc. 500 warts. R. H. Williams & Sons, Ltd. Daily ex Sun, 12-1 pm, 5-6. Wed, Sat. 3-10 pm, Mountain.

Chilliwack, B. C. Can. 247.8m-1210kc. 5 watts. Chilliwack Broadcasting Co., Ltd.

Montreal, Que., Can. 411m-730kc. 750 watts. Northern Elec. Co., Ltd. Announcer, N. S. Richards. Wed, 6-12:30 am. Thurs, 8-8:30 pm. Sun. 11 am, 7 pm. CNRM programs occasionally. Eastern.

CJBC

Toronto, Ont. 291,1m-1030kc, 500 watts. Baptist CJBR

Regina, Sask. 312.3m-960kc. 500 watts, Saskatche-wan Co-operative Wheat Producers, Ltd. Thurs, CJCA

Calgary, Alta. 434.5m-690kc. 250 watts. Radio Service & Repair Shop. **CJCR**

Red Deer, Alta., Can. 356.9m-840kc. 1000 wat:s. The North American Collieries, Ltd.

London, Ont., Can, 329.5m-910kc, 500 watts, Lo, don Free Press, Daily ex Sun, 1-2 pm, stocks, music, Mon, Tues, Wed, Thurs, Fri, 7-9 pm, 1-11-12 midnight, Sun, 11 am, 2-3 pm, 7, church ser ices, Eastern, CJGX Yorkton, Sask. 475.9m-630kc, 506 watts. The Winnipeg Grain Exchange. Daily ex Sun, 9:30 am, 11:30, grain: 1:45 pm. Tues, Fri, 8:30-10 pm. Central.

Sea Island, B. C. 291.1m-1030ke, 100 watts, G. C. CJRM

Moose Jaw, Sask. 296.9m-1010kc. 500 watts. James Richardson & Sons, Ltd. Daily ex Sun, 8:30-10:15 am, 11:35-2:30 pm, weather, markets. Mon, Wed. Fri, 6:30 pm, Sat, 10-12 mid. Sun, 9:30 am, 1:30 pm. Mountain. CJSC Can. 356,9m-840kc. 500 watts. The Eve-

Toronto, Coning Teles Saskatoon, Sask., Can. 329.5m-910kc, 250 watts. Wheaton Elec. Co. Announcer, Martha Bowes. Daily ex Sun, 11:45-1 pm. Mon, 7 pm. Tues, Wed. Thurs, Sat, 6-7 pm. Sun, 3:45-5 pm. Founded Sept.

CJYC Toronto, Can. 291.1m-1030kc, 500 watts, Universal Radio of Canada, Ltd. Mon, 6-12 mid, Tues, 10-12 pm. Wed, Sat, 6-8 pm. Fri, 10-12 mid, CKAC

Montreal, Que., Can. 410.7m-730kc, 1200 watts. La Presse, Announcer, Jacques Cartier. Daily ex Sun, 58t, 4 pm, Mon, Thurs, Frl, 1:45 pm. Tues, Thurs, 11 am. Rues, 7 pm, 7:15, 8:20, 8:30, 9:30, 10:30. Thurs, 4:45 pm. Eastern, CKCD

Vancouver, B. C., Can. 410,7m-739kc, 1000 watts. Vancouver Daily Province. Announcer, W. G. Has-sell. Sloyan, Canada S Western Gateway. Mon, Tues, Wed, 8:30-9:30 pm. Thurs, Fri, 8:30-8:50 pm. Sat, 8:30-10:39 pm. Pacific. CKCI Quelec, Que, 340.7m880kc, 45 watts, Le Soleil, Ltd.

Regina, Sask, Can, 312.3m-960kc. 500 watts, Leader Pub. Co. Announcer, A. W. Hooper, "The Queen City of the West," Mon. Tues, Thurs, Fri, 9:45-10:30 am, 1-1:45 pm, 8-10. Wed, Sat, 9:45-10:30 am, 1-1:45 pm, Sun, 9-10 pm, Mountail CKCL

Trorotto, Can. 356.9m-840kc. 500 watts. The Domindon Battery Co. 1rd. Daily ex Sun, 12:45:1:45. mp. Daily ex Sas, Sun, 10:30 am, 30:58, time: 7 and 30:40. mp. Tropology of the state of th CKCO

tawa, Ont., Can. 434-5m-690kc. 100 watts, Dr. M. Geldert (Ottawa Radio Assn.). Announcer, C. K. Gibson. Slugans. "Ottawa's Radio olee," The Community Voice of Canada's pital." Tues, 8-10 pm. Sun, 7 pm, services; sacred concert. Eastern. Founded March. 1924. CKCR St. George, Ont., Can. 257.7m-1120kc. 25 watts John Patterson.

An Evening at Home With the Listener

IN CEN	TRAL TIME		IN EASTERN TIME										
Call Met. Kc. Watts Saturday Sunday CFCA 356.9 840 500 Silent 7:00-7:1		Thursday Friday	Call Location Met Kc. Watts Saturday Sunday Monday Tuesday Wed. Thursday CFCA Toronto 356.9 840 500 Silent 8:00-10:15 7:15-9:15 Silent 8:00-12:45 7:25-10:30										
ZFCA 356.9 840 500 Silent 7:00-7:1. ZIRM 256.9 100 83 11:30-12:30 7:30-11:90 CKAC 410.7 730 7500 7:15-12:30 2:35-53-6 CKNC 356.9 840 500 Silent Silent Silent CKY 384.4 780 500 7:30-10:30 6:00-9:00 Silent CYH 311 95 200 Silent Silent 9:00-11:00 9:00-11:00 CYH 311 950 200 Silent 9:00-11:00 9:00-11:00 9:00-11:00 9:00-11:00 CYH 315.6 950 500 6:00-9:00 9:00-11:00 1:00-11:10 1:00-1	0 7:30-10:00 Silent 7:30-10:00 Silent 7:15-11:30 Silent 5:00-1:00 Silent 5:00-1:00 Silent 6:00-10:00 Silent 6:00-10:00 Silent 5:00-10:00 S	Silent 7:30-10:00 8:30-9:30 Silent Silent Silent 8:00-9:30 Silent 7:30-9:00 Silent Silent Silent Silent 9:30-10:30		8:30-11:00 Silent Silent Silent Silent Silent 10:30-11:30									
KF AB 313 940 2000 530,110:00 90,01:00 FFD M 333, 523 300 70,00 750,00 7	0 5:30-10:15 5:30-10:00 5:30-10:30 Signet 8:00-10:00 Signet 9:07-30-8:30 7:30-8:30 7:30-8:30 7:30-8:30 7:15-8:30 7:1	Silent 5:30-1:00 Silent 8:30-10:30 7:30-8:30 7:30-8:30 8:15-1:00 8:15-1:00 7:15-8:30 7:15-8:30 5:00-7:00 5:00-7:00 8:30-12:00 8:45-2:00	KFAB Lincoln 319 940 2000 6:30-11:00 10:00-11:00 6:30-11:15 6:30-11:00 6:30-11:30 Silent SFDM Beaumont 483.6 620 500 Silent 9:00-10:00 Silent 9:00-11:00 Silent 9:00-11:00 Silent	6:30-12:00 9:30-11:30 8:30- 9:30 9:15- 2:00 8:15- 9:30									
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XJR 348.6 860 2500 8:00-2:00 9:45-2:24 XLDS 270.1 1110 1500 Silent Silent XLX 508.2 590 500 Silent Silent XLX 508.2 500 500 9:00-10:3 XLX 508.2 500 500 500 XLX 508.2 500 500 500 XLX 508.3 509 500 5:00-10:3 XLX 508.3 890 5:00 5:00-10:3 XLX 508.3 890 5:00 5:00-10:3 XLX 508.3 509.3 5:00-10:3 XLX 508.3 509.3 5:00-10:3 XLX 508.3 509.3 5:00-10:3 XLX 508.3 5:00	5 Silent 8:00 9:00 8:00 2:00 8:00 2:00 8:00 2:00 8:00 8	8:00- 2:00 8:00- 2:00 8:00- 9:00 Silent 9:00-10:30 9:00-10:30 8:00- 9:00 8:00- 9:00 6:00- 1:00 6:00- 1:00	GAR Seattle	Silent 10:00- 1:30 10:00-11:30 9:00-10:00 7:00- 2:00									
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Arkansas Blytheville .KLCN 285.5 1,050 50 — — — — Fayetteville .KUOA 285.9 1,010 500 — — — Hot Springs .KTHS 384.4 780 1,000 — — —	WIBA 247.8 1,210 50	=
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Bridgeport WICC 265.3 1,130 500	Kentucky Hopkinsville.WFIW 260.7 1,150 750 — CarlstadtWHAP 286.1 1,770 1,000 — LancasterWGAL 252 1,190 15 — LancasterWGA	Ξ.
Mansfield	Louisiana HisbotenWMCA 370.2 81.0 500	
Florida Gainesville WHBN 202.6 1,480 10 — — — — — — — — — — — — — — — — — —	Shreveport KFDX 236.1 1.770 256 Paterson WODA 233.9 1.020 1.000 WILL 238.2 1.400 200 Red Lank WURL 238.3 1.200 260 WODA 234.5 880 800 RSBA 257.7 1.20 1.000 Tumino City WDMS 194.9 1.800 100 WPSW 268.8 1.800 600 WPSW 268.8 1.800 1.800 WPSW 268.8 269.8	
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WMABB 222 1,130 5,000 WMBB 222 1,130 5,000 WMBB 283 1,140 550 S	Royal Osk. WAGM 225.4 1,359 59 Saranac Lk. WNBZ 222.4 1,290 10 Amarillo KGRS 243.5 1,230 256 Schenectady WCfY 373.5 799 50,000 Amarillo KGRS 243.5 1,230 256 Schenectady WCfY 373.5 799 50,000 Amarillo KGRS 243.5 1,230 256 Schenectady WCfY 235.5 1,160 250 Schenectady WCfY 235.5 1,230 256 Schenectady WCfY 235.5 235	

Ottawa, Can. 4.
National Railway
ex Sun. 2:57-3-pn
7:15-11 pm. Eas
CNRQ
Quebec City, Can
R. Thurs, 8:30

State and City Index Continued

Diai	c and city in	nuck Contin	ucu
Dublin WFUR 27-11 1-989 10	Action	Cliy Call Meters Key Call Meters Cal	Canada (Continued) City Call Meters Kc. Watts Moose Jaw. CIRM 2969, 1,010 50
C1-		5EV	СҮВ
Canada (Continued from Page 43) CKCV Quellec, P. Q. 340.7m.880kc. 100 watts. G. A. CKCX Toronto, Ont. 291.1m.1030kc. 500 watts. International Bible Students' Asan. Tues. Fri. 8-10 pm. Sun. 9:30-11 am. 1:30-3 pm. 8:15-9:15, 10:15-11:15. EASTER CKFC Vancouver. B. C., Can. 410.7m-730kc, 50 watts. United Churches of Canada. CKCW Bowmanville, Ont., Can. 312.3m-960kc. 5000 watts. Gooderman & Worts, Ltd. CKLCW	CNRR Regins. Sask. Can. 312.3m-960kc. 500 watts. Canadian National Railways. Tues, 8-10 pm. Mountain. CNRS Saskatcon. Sask., Can. 329.5m-910kc. 500 watts. Canadian National Railways. Daily, 2:30-3:30 pm. Mountain. CNRT Toronto, Ont., Can. 356.9m-840kc. 500 watts. Canadian National Railways. Announcer, E. W. Jackson. Fri., 7-8 pm. 9-11. Eastern. First broadcast May 16, 1924. CNRV Vancouver, Can. 291.1m-1030kc. 500 watts. Canadian National Railways. Announcer, C. A. Wright. CNRV Vancouver, Can. 291.1m-1030kc. 500 watts. Canadian National Railways. Announcer, C. A. Wright. Cons. Tues, 9-12-45 am. Thurs, 10-11 pm. Fri, 9-11 pm. Tues, 9-12-45 am. Thurs, 10-11 pm. Fri, 9-11 pm.	Colon, Cuba. 360m-833kc. 5 watts. Leopoldo V. Figueros. Sun, 9-11 pm. Eastern. 6BY Clenfugos, Cuba. 260m-1153kc. 200 watts. Jose Gambuse. 6EV Caibarien, Cuba. 250m-1200kc. 50 watts. Maria Josefa Alvarez. Daily, 10-30 pm. 6HS S. La Grande, Cuba. 200m-1500kc. 10 watts. Santiago Ventura. 6KC Clenfugos. Cuba. 240m-1250kc. 10 watts. Carlos Hermandes. 6KP Sancti Spiritus. Cuba. 195m-1540kc. 20 watts. An-	Mexico City, Mex. 270m-1110kc. 500 watts. El Buen, Tono. Tues, Thurs, Sat, 7:30-9 pm, concert. CYF Oaxaca, Oax., Mex. 270m-1110kc. Federico Zorrilla. "The Voice from South of Mexico." Tues, Thurs, 7-8 pm. Sun, 8:30-10 pm. Mexica. CYG Mexico City, Mex. 300m-1000kc. 1000 watts. Secretara de Guerra y Marina. CYH Monterey, Mexico. 311m-964kc. 1000 watts. Tarnava & Cia. Slogan, The Industrial Center of the Mexican Republic. Daily Sun. 2:100 pm. Montain.
Fed Deer, Alta. 356.9m-840kc. 1000 watts. Alberta Paclific Grain Co., Ltd. Duby ex Sun, 12 n. must care news, seather, markes to the control of the control	CNRW Winniper, Man., Can. 384.4m-780kc. 500 watts. Canadian National Railways. Announcer, R. H. Roberts. Mon, Tues, 6:30 ym. Wed. 10 pm. Thurs. Fri, 6:30 pm. Sun, 9 pm. Central. Cuba PWX	tonio Galguera. 6KW Tuinucu, Cuba. 340m-880kc. 100 watts, Frank H. Jones, Slogan, "if You Hear the Koo of the Cuckoo You Are in Tune With Tuinucu." Daily 11:30- 12:15 am. Eastern. 6L.O	Mexico City, Mex. 410m-730kc. 1000 watts. General Electric Co. Daily ex Sun, 8 pm. Mountain. CYL Mexico City, Mex. 480m-625kc. 500 watts. La Cana del Radio, Announcer, George Marron. Slogan, "The Land of Eternal Summer." Daily ex Sun, 1:30-2 pm, weather, financial reports, nusic. Thes. Fir. 8-930 pm, Sun, 8-9:30 pm, church.
CKNC Toronto, Ont., Can. 356.9m.840kc. 500 watta. Canadian National Carbon Co., Ltd., Announcer, Edward Co., Ltd., Announcer, St., Co., Co., Co., Co., Co., Co., Co., Co	Havana, Cuba, dom-750kc, 500 watts, Ceban Telephone Corp. Wed, Sun, 8:30 pm. music, Eastern. 2CT Havana, Cuba, 350m-855kc, 50 watts, Casimiro Pujadas, 2FG Hershy, Cuba, 200m-999.4kc, 20 watts. Alberto	Catharien, Cuba, 325m-920kc. 250 watts. Manucl Al Alvarez. GRG Santa Clara, Cuba, 200m-1500kc. 20 watts. Rainel Carcia Perez. GXJ Tuinneu, Cuba. 278m-1080kc. 100 watts. Frank H. 100cs. GYR Camaguey, Cuba. 200m-1500kc. 20 watts. Diege liberg.	CYR Mazatlan, Sin., Mex. Rosseter y Cia. CYX Mexico City, Mex. 333m-900kc. 500 watts. Excelsion & new Mexico Revision Announcer, Rafael Boundary, Rogan, "Land of the Attess." Mon. 8-9:30 pm. Mexican.
CKPC Preston, Ont. 247.8m-1210kc. 7½ watts. Wallace Russ. Mon. Fri, 8-11 ym. Sun. 11-12:30 ym. 3-4:30. CKPR Midland, Ont. 267.7m-1120kc. 50 watts. E. O. Swan. CKSH	Havana, Cuba. 192m-1540kc. 5 watts. Francisco Williams. 2HP Havana, Cuba. 205m-1460kc. 200 watts. Cristina V. Vda. Crucet. 2JF 2JT	Camaguey, Cuba. 225m-1333kc. 10 watts. Pedro Moguetas. Mexico CYA Mexico City, Mex. 265m-1130kc. 500 watts. Mon. Fri. 6:45-8 pm. Sun, 4-6 pm. Partido Liberal Avanzado. Mexican.	Mexico City, Mex. 400m-750kc, Liga Central Mexicana de Radio, Mexican. CZA Mexico City, Mex. 70-500-1070 meters, Aviation Dept., War Ministry, Aunouncer, Ricardo S. Bravo, Daily, 12:30-1 pm, time, weather, news; 6:30-7:30, time, markets, music, Mexican,
St. Hyncinthe, P. Q. 312.3m-960kc. 50 watts. City of St. Hyacinthe. CKSM Torouto. Ont. 291.1m-1030kc. 1000 watts. St. Michael's Cathedral. CKUA Edmonton, Atta. 516.9m-\$80kc. 500 watts. U. of Alberta. Announcer, Harold P. Brown. Mon. 4:45 pm. organ; 5:45. dinner music; 6:30, children; 8. Thurs. 3-4 pm; 8:30. Mountain.	Hayana, Cuba. 46m-650kc. 5 watts, Jose A. Terry. ZJL Hayana, Cuba. 294m-1020kc. 5 watts, Jose Leiro. ZMA Hayana, Cuba. 305m-980kc. 50 watts. Modesto Alvarez. ZMF Madruga, Cuba. 100m-299kc. Moises Fernandez.	Jmp'toves- tone fidelity, clarity, sensitivity – by auto- matically keeping tube filament voltage constant, despite "A" battery variations. AMPERITE	FROST-RADIO Osh Your Neighbor DE LUXE APPARATUS
Vancouver. B. C. 410.7m-730kc, 100 watts. Sparks Company, Announcer H. W. Paulson. Daily ex Sun, 117 a. 17.5 m pm., 67.20, 117.30 m. 117.30 m. 117.30 pm., 67.20 pm., 87.20 pm., 87.20 pm., 87.20 pm., 87.20 pm., 87.20 pm., 88.20 pm., 10.150-11 pm., CRIV. Central.	Hayana, Cuba, 284m-1055kc, 20 watts. Manuel Y Guillermo Salas Music Store. Announcer, Roger Morales, Daily 3-4 pm, music. One day each week, 8-11 pm, Eastern, 2MK Hayana, Cuba, 85m-349kc, 100 watts, R. V.	The "SELF-ADJUSTING" Rheastaf eliminates hand rheostats. Simplifies wir- ing, tuning, panel design. Particularly essential with Battery Eliminators. Accept only Amperite. \$1.10 mounted (U.S.A.) FREE—"Amperite Book" of Intest circuits and construction data. Weite Depl., R. D-1.	STANDARD FROST RADIO
CNRA Moneton, M. B., Can. 322.4m-930kc. 500 watts. Canadian National Railways. Announcer, W. V. George. Siogan, "Voice of the Maritimes." Daily ex Sun, 2:30-4 pm. Thes. Fri. 9 pm. Atlantic. Started Nov. 8, 1524. CNRC Calgary, Alta. Can. 434.5m-690kc. 500 watts. Canadian National Railways. Mon. Thurs, 9:30-10:30 pm. Mountain.	20K	Bring Back Original Color to	GEM RHEOSTATS RESISTANCES T5c and \$1 Mail the Coupon below for your FIRED copy of the new Frost booklets, "What Set Shall I Build?" and "For Better Reception," two valuable books you will copy rending. Fill out and
CNRE Edinonton, Alta, Can., 516.9m-580lcc. 500 watts. Canadian National Railways. Mon. 10:30-12 mid. Fgl. 10:30-12 mid. Mountain. CNRM Worteral, Cue., Can. 410.7m*230kc. 1,000-1,650 Montreal, Can. 410.7m*230kc. 1,000-1,650 T. S. McArthur, Thurs. 8:300 pm. Eastern.	Havana, Cuba. 270m-1110kc. 20 watts. Roberto E. Ramirez. 2UF Havana, Cuba. 355m-844kc. 20 watts. Roberto E. Ramirez.	• For MEN and WOMEN Not a dye or henna, Not just a darkener that colors hair down to the scalp then	Address
J. S. McArthur, Thurs, 8:30 pm. Eastern. CNRO Gitwa. Can. 434.5m-690kc. 500 waits. Canadian Nitrod. Railways. Amounter: A. W. Byan. Daily ex Sun. 2:57-1.pm, time; 3-4:30, music. Mon. Thurs, 7:15-11 pm. Eastern. On the air Feb. 27, 1924. CNRO Oweber City. Can. 340 2m-880kc. 100 waits. C. N.	Havana, Cuba. 230m-1300ke, Lecuona Music Co. 2XX Havana, Cuba. 225m-1333ke, 5 watts. Antonio A. 5DW	Nostreaks, NoAtter-diraying at Roots Apply YOUTRAY to scale. Restores original youthful color by replenishing natural color pigment thro hair root quick results will absolutely emaze and satisfy you. FREE TRIAL YOUTHRAY is the true hair color which is with an uncoultied that the property of the prope	FURY-USE Electric MOTOR ATTACHMENT Fustons on Shafe of small motor in silfy. Release 15 499 at the share of small motor in silfy. Release 15 499 STATE SIZE White To YOUR Requirements. UNITED RECTRIC MOTOR CO.





Official Wave Lengths Table

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	Wave length	Frequency (kilocycles)	Power (watts)			Wave length	Frequency (kilocycles)	Por (wa	Call signal	Location	Wave length	Frequency (kilocycles)	Power (watts)	Call signal	Location	Wave length	Frequency (kilocycles)	Power (watts)	Call signal	Location	Wave length	Frequency (kilocycles)	Power (watts)	Call signal	Location	1
	199.9	1,500	15 10 15 15 100 100 100 15 5 250	KGFN Ancta, KUJ Seattle, W KWBS Portland WKBZ L'd't'n, WBKN N. Y., WBMS N. Y., WGOP N. Y., WNBL Bl'm'gt WNBW C'tb'nd WRAH Prydce, WWRLWoodsid	N. D. Vash. d. Ore. Mich. N. Y. N. Y. N. Y. 'n, Ill. 'e, Pa. R. J.	218,8		500 V 25 V	WKBQ WLBQ	F. Mrgn., Col. Coney Is., N.Y. Milw., Wis. Bgmham, Ala. Jsy, C., N. J. N. Y., N. Y. Atwood, Ill. San Ant., Tex.	238	1,260	50 50 1,000 150 250 30 250 250 100 250	KFVI WAB WAD WIBS WJBS WLBJ WCB WRAS WRAS	Houston, Tex. Z N. Orl'ns, La. C Akron, O. Utica, N. Y. Sarasota, Fla. V N. O'l'ns, La. E W'n'a, Ill. A Tampa, Fla. W Reading, Pa. C V'p'raiso, Ind.	263	1,140	50 500 10 50 250 250 250 5,000 250 100	KGEF KGEK KGHP WDAG WEAM	Car'ville, Mo. Los A., Calif. Yuma, Colo. Hardin, Mont, Amarillo, Tex. N. Pinfd., N.J. Mt, Prosp., Ill. Red Band, N. J. N. Orleans, La. Chicago, Ill. Va. Bch., Va.	312.3	960 950	100 15 500 500 5,000 50 50 500 50,000	CHARLE	Ch'rl'tet'n, Can Regina, Can Regina, Can. Regina, Can. Brwmnvle., (St. Hycnthe., C Regina, Can. Pitts'bg, Pa. Pasad'a, Cali	
283 St	201.2	1,490	50 250 50 100 100 100 100 100	KCEH Eugene, KGEY Denver, WALK Will. C WATT Boston, WCBR Prydce, WGMU N. Y WHBM Chicago, WIBM Chicago, WIBM Chicago, WKBG Chicago WKBG Chicago	Ore, Colo.			50 K 50 K 15 W 100 W	RAC S CXL Po VHBU VHBW	Angelo, Tex. San Ant., Tex. San Ant., Tex. San Fran., Cal. Shrevep't, La. ortland, Ore. Anders'n, Ind. Phila., Pa. Yosint., Mich. La Cr., Wis. Richmond, Va. Auburn, N. Y. Richmond, Va.	239.9	1,250	2,500 100 100 250 500 100 250 500 500	KEX KGCU WBBF KWCI WBA WCAI WIBA WJAM WNAI	Portland, Ore, Mandan, N. D. P'l'key, Mich. Codar R., Ia. W. Shallon, V. S. Madison, V. Tenton, N. J. Clksbg., W. Va. L. Toledo, O.	265.3	1,130	500 15 2,000 100 100 500 500 1,000 2,500		Va. Bch., Va. eattle, Wash. Sant Ant., Tex. To'ma P., Md. Brdgpt., Con., Cleveland, O. Sport H., Conn. K'ville, Tenn. mes, Ia.	319	940 930	5000 5,000 1,000	KFAB KOIL KOIN	Lincoln, Nebr Coun. Bluffs, Is Portland, Ore. Halifax, Can. Moncton Atlantic, Ia. Louisville; Ky Ottumwa, Ia. San Juan, P. F Wash., D. C	ί.
	202,6	1,480	100 100 5,000 10,000	WRMU N. Y., KVL Seattle, V WHBN G'nsv'k WTFF Mt.Vn.H	Wash.	222.1	1,350				241.8	1,240	500 65 250 1,500 500 250	WQB. WTAI KFKB KFON WBR	Clrenton, N. J. Clksbg., W.Va. L. Toledo, O. Milford, Kan. L. Beach, Cal. Bmghm., Ala.	267.7	1,120	15 20 500 25 50 25	CFJC I	Kamloops, B.C. Kingston, Can. Kingston, Can. S'm'r'side, Can. Unity, Can. St. George Midland, Can.	325.9	920	2,500 500 500	KOA D WPCH WRNY	enver, Colo. J'r'y C'y,N N. York, N.Y	
	204	1,470	15 10 50 100 100 50	KFXD Jerome, KGES Cen. City KGEQ Mnpls., KGFO Tre, Hte KGGM Inglwd., KHAC Ptble on	Idaho, Neb. Minn. Ind. Calif. 'Plne.			100 K 100 K 500 W 100 W 100 W 100 W	WKC WTC VAMD VCBA VHBD VHBF	St. P'I, Minn. Pomona, Cal. C'I'mb's, Nebr. Raton, N. M. Kans. C. Mo. Satia Ana, Cal. Mupls. Minn. Allent'wn. Pa. Belleintine. O. Rock Isl., Ill. Mntwoc., Wis.			500	WMA	Milford, Kan. L. Beach, Cal. Bmghm., Ala. Superior, Wis. Buffalo, N. Y. Chicago, Ill. Pawtucket, R.I. Chicago, Ill. L Wash, D. C. Spr'gfield, Vt.			50 100 100 500 1,000	KFLV KFWI KSBA	Rockford, Ill. S. Fran., Calif. Shreveport, La.		910	500 500 500 500 250 500	CFCT CFQC CHUC CJGC CJWC CJWC CNRS	Victoria, Can. Saskat'n, Car Saska'tn. Car London, Can. Saskat'n, Car Saskat'n, Car	
			100 100 250 100 250 50 250 100 100	KFXD Jerome, KGES Cen. City KGEQ Mnpls., KGFO Tre, Hte KGGM Inglwd., KHACP Pible on WHBL Chicago, WIBS. Eliz., N WIBW Topeka. WKEN Kenmorv WLBN Chicago, WLBX L. I., N WMBB N kwymor WLBX L. I., N WMBB N Powpor WLBX Chicago, WSVS Buffalo,	III. J. Kan. e, N.Y. III. Y. t, R.I.	223.7	1,340	50 K 50 K 50 K 50 K	FBL I	Allent'wn, Pa, Ev'r't, Wash. . Girard., Mo. Dk. City, Ok.	243.8	1,230	125 10 250 50 500 1,500 500 250	KFCB KGCX KGRS KGY KSCJ KWU WCAI	Phoenix, Ariz. Vida, Mont. Amarillo, Tex. Lacey, Wash, Sioux City, In. LaMars, Ia. Canton, N. Y. Baltimore, Md. Detroit, Mich. Wishite Very	270.1	1,110	250 500 100 30 250 50	WGCP WDAE WFBG WLAP WNJ I WOBU,	Newark, N. J. Tampa, Fla. Altoona, Pa. Louisv'le, Ky. Newark, N. J. Chistn, W.Va.	333.1	900	100 1,060 500 250 15,000 500 750 500 1,000	KFJM KFQB, KSAC KSEI I WBZ S WBZA WHA WJAD	Gr. Fks., N.I. Ft. Wth., Tex Manhat'n, Kar Pocatello, Ida. pringf'd, Mass Boston, Mass Madison, Wis Waco, Tex. Styns.Pt., Wis	
	205.4	1,460	50 100 25	WMBQ Br'klyn WOBR Ohio (I WSAX Chicago, WSVS Buffalo, KFXY, Flagstafi KGDE Barrett, KGEO Grand Ia KGFF Alva, Oh	N.Y. Port.) III. N. Y. f, Ariz. Minn. Neb.			50 K 250 K 500 W 500 W 15 W 500 W 500 W	GFK I MIC I VCAM VCRW VEBO I VFAN VFKB (VKAV	owa City, Ia. La Cres., Cal. Aallock, Mich. nrlewd., Cal. Camden, N. J. Chicago, Ill. H'rrisb'g, Ill. Phila., Pa. Chicago, Ill. Laconla, N.H. Grnsbo, N. C. Instn., N. Y. Chicago, Ill. Lrove Cy., Pa.	245.8	1,220	500 100 100 500 100 250 250 100	WDOI WFBF WMB6 KFH KFIO KFPY KLS KZM	O Chtngo, Tenn. Balt'm're, Md. Detroit, Mich. Wichita, Kan. Spokane, Wash. Spokane, Wash. Oakland, Calif. Oakland, Calif.	270.1		100 600 1,500 1,500 500 500 500 500 500 500	KGU H KLDS KMBC KOAC KQV P WGST WHAD WJAS	G'veston, Tex. tonolulu, T. H. Ind'p'nce, Mo. K. C., Mo. Corvallis, Ore. ttsburgh, Pa. Atlanta, Ga. M'w'kee, Wis. P'tt'burgh, Pa. Macon, Ga. M'w'kee, Wis.	336.9 340.7	890 880	500 5,000	WSM :	Ang., Cali N'shville, Tenr	
	206.8	1,450	250 15 250 15 15 100	KFXY, Flagstafi KGDE Barrett, KGEO Grand Ia KGFF Alva, Ol WABF Kingsto WMBD Monroe. WMBD Peoria I WNBQ Roch't'r WOBT Un. City, WRK Hamilton KGDR San Aut. KGDR Oldbam		225.4	1,330	10 K	FIU Ju	meau, Alaska. Cirksvle., Mo.			500 250 400 500 500 500 500 500	WEVE WEBE WGBE WGM: WHDI WKR(WLB WWL	Wichita, Kan, Spokane, Wash, Spokane, Wash, Spokane, Wash, Spokane, Wash, Oakland, Calif, Oakland, Calif, Oakland, N. J. J. W. dh'n, N. Y. Cincinnatt, O. J. Fr'port, N. Y. M'p'lis, M'nn, Cinct., Ohio, M'p'lis, Minn, N. Orleans, La,	272.6	1,100		recessioners of	Macon, Ga. M'w'kee, Wis. Phoenix, Ariz. Dida., Okla. S. Maria, Cal. W. Laf., Ind. Callegev., Minn. Flint, Mich, tl. City, N. J. Jrhana, III. Bay C'y, Mich.	344.6	870	100 50 1,000 500 1,000 250	CKOC CNRQ WAPI WHB F WJAX WOQ F	Hamilt'n, Car Mt, H'lt'n, Car Mt, H'lt'n, Can Quebec, Can, Quebec, Can, Ontario, Can, Quebec, Can, Auburn, Ala, C.C., Mo. J'k'nville, Fla	
			100 50 10 10 50 10 50 50 50	KGDR San Ant. KGDY Oldham. KGGF Picher, C KGTT San Fr., KLIT Portland. WHPP N. Y., N WLBV Mausfiel. WMRJ Jamaica. WNBF Endicott WNBJ Kn'xv'e, WPSW Pbila., I WTRL Midl. P.	Okla. Calif. Ore. i. Y. d. O. N.Y. Tenn.			15 K 50 W 250 W 100 W 100 W 1,000 W 1,000 W	GEN E VAGM I VCAO E VCBM I VCOT (VDAD VLAC I VMAC	ogden, Utah. Indpdce., Kan. I Centro, Cal. Ryl. O., Mich. Baltimore, Md. Baltimore, Md. Jluvie., R. I. Nshvle, Tenn. Nshvle., Tenn. Cazen., N. Y.	247.8	1,210	25 5 7½ 5 100 250 100 10 250	CFNB CKMC CKPC CKWI KFBC KFEL KFJB KGW	Fred'rict'n,Can. Cobalt, Can. Cobalt, Can. Cobalt, Can. Cobalt, Can. Cobaltiw'k, Can. S. Diego, Calif. Denver, Colo. Marshallt'n, Ia. Decorah, Ia.	275.1	1,090	5,000 500 250 50 15 500 500 250	WPG A WRM U WSKC KFBB KFPL I KFSG I	tl. City, N. J. Jrbana, III, Bay C'y, Mich. Havre, Mont. Oublin. Tex. L. Ang., Calif. Providence, R.I. Indapls., Ind. Chicago, Ill.	348.6	860	2,000	1125 0	Anchrg, Alas. Stockton, Cal. Zion, Ill. hicago, Ill. eattle, Wash. Tulsa, Okia. Seattle, Wash. N. Y., N. Yhiladelphia, Pa	
	208,2	1,440	250 108 50 15 50 100 30	WTRL Midl. P. KFVD Venice. KGFJ Los Ang. KGCN C'nc'rdia KGCN C'nc'rdia KGCN C'nc'rdia KGCN Brik'gs. WGM Jeannette WBZ Chgo. Ht WJPW Ashtabu WLBZ DvFxc. WMBE S. Paul. WNBA For. Fk WRAF La Porte WRPI Tre, He	. N. J. Calif. ., Cal. , Kan. S. D. s. Pa. s., Ill. la. O.	227.1	1,320	100 K 50 K 25 K 500 K 50 K 100 W 500 W	FUP II GEU L GHB H SO Cla XRO A VAIZ A /ARS II /BBC I	Denver, Colo. Wr. L., Cal, tonobulu rinda, Ia. therdeen, Wa. ppleton, Wis. Sr'kl'n, N.Y. Sr'kl'n, N.Y. ken Orl., La. Kenosha, Wis. Akron, O. leveland, O.			50 50 50 100 10 56 59 1,000 50	KWLC WABY WABY WCAT WEBE WFBZ WFKE WIOD WJBA	Fred'rit'n Can- Cobalt, Can, Preston Cobalt, Can, Preston Cobalt, Can, S. Diego, Calif. Denver, Colo, Marshall'n, Ia. Denver, Colo, Marshall'n, Ia. Denver, Colo, Procarba, Ia. Denver, Colo, Procarba, Ia. Denver, Colo, Procarba, Ia. Can, Procarba, Procarba, Vis. Belvidere, III. Crown Pt., III. Crown Pt.	277.G		500 750 100 500 250	KWWG WGHP WDZ T WKAR WNAX	B'ville, Tex. Detroit, Mich. uscola, Ill. E. Lan, Mich. Yankton, S. D.	352.7 356.9	850 840	500 1,000 1,000 500 500 500	WEW WWJ	Phila., Pa. St. Louis, Mo Detroit, Mich. Toronto, Can. Toronto, Can. Toronto, Can. Toronto, Can.	
	209.7	1,430	10	KFGQ Boone, KGHC Slayton,	Ia. Minn.			100 W 250 W 500 W 100 W 250 W 200 W 500 W	VCLO VFJC VJAY C VJBC L VSDA VTHS VWAE	lew Orl., La. Kenosha, Wis. Akron, O. Leveland, O. aSalle, III. N. Y., N. Y. Atlanta, Ga. Chicago, III.			50 50	WRAN	Galesburg, Ill. Racine, Wis.	282.8		100 1,000	KFJR KFUM	Oakl'd, Calif. Roch'er, N.Y. Portland, Ore. Colo. S., Colo. Denver, Colo. Portland. Ore. Columbus, O. N. Haven, Cn. Columbus, O.	361.2	830	500	CJSC T CKCL CKLC CKNC CNRT	Toronto, Can. Toronto, Can. Toronto, Can. Red Deer, Can Toronto, Can Toronto, Can.	
			250 50 250 50 50 50 10 500 100	KGHF Pueblo, KSOO Sx. Falls, KVOS B'linghar WCBS Sprgfld, WLBC Muncie, WLBF Kans. C. WLBY Iron M., WMBM Mphs., WOKT Rchstr., WPRC H'nr'sb'g WRCV Norfolk, WTFI Toccoa, (S. D. n, W. Ill. Ind. ., Mo. Mich. Tenn. N. Y.	228.9	1,310	250 KI 500 KC 50 KI 20 K' 50 K' 15 W 250 W 100 W	ELW I GBU K PPC P: TAP S: WJJ P VGBC I /HBP J /KBE V	Burbank, Cal. C'ch'k'n, Alas. asadena, Cal. an Ant., Tex. ortland, Ore. Myhs Tenn. lohnst'n, Pa. Whstr., Mass. Lakel'd, Fla. Myhs., Tenn. Ft. We., Ind.	249.9	1,200	15 50 200 100 500 50 250 50 20	KFJI KFJZ KFKA KFQU KFRU KFUT KFYR KMED KZIR	Astoria, Ore. Ft. Worth, Tex. Creeley, Colo. H. City, Calif. Columbia, C. M. Bism'k, N. D. Medford, Ore. Manila, P. I. W. Barre, Pa. W. Barre, Pa. Carthage, Ill. Pensacola, Fla. W. defrey, W. My. defrey, W. My. My. defrey, W. Spgfid, Tenn. H'th. W. Va. Spgfid, Tenn. C'k'sha, Olda.	285.5	1,050	30	WKAK	Columbus, O. Esca'ba, Mich. Boise, Idaho Blythev'le, Ark. Clay C., Neb. Bal'more, Md. Nthfld., Minn. Mpls., Minn. Norfolk, Nebr.	365.6 370,2			KMJ F WCSH WEBH WJJD	Cin. resno, Calif. Portland, Me Chicayo, Ill. Mooseht., Ill. pokane, Wash Kan, C., Mo New Y'k, Ill.	
	211.1	1,420	100 250 50 15 100	WRCV Norfolk, WTFI Toccoa, (KFCR S. Barb, KFYO B'k'ridge KPNP Muscatin	Va. Ga. Cal. Tex.	230.6	1,300	100 W 100 W 2,000 W 15 Kl 1,000 K	VMBL VNBR VOWO DLR D FEQ S	Lakel'd, Fla. Mphs., Tenn. Ft. We., Ind. C's Lk., N.D. t. Jos., Mo.			100 75 100 50 500 50 50	WBAX WBBY WBRE WCAZ WCOA WHBY	W. Barre, Pa. Charl'ton,S. C. W. Barre, Pa. Carthage, Ill. Pensacola, Fla. 'W. dePere, Wis.	288.3	1,040			And the same	374.8	800	500 5,000	KNRC WOC I	Sa. Mon., Cal Davenport, la.	
			50 100 100 250 100 50 15 250	KFCR S. Barb. KFYO B'k'ridge KFNP Muscatin KRSC Seattle. WBMH Detroit, WBRS Br'klyn. WCDA Brooklyr WLOE Chelsea, WMES Boston, WNBO Wash. I WRST Bay Sh.,	Wash. Mich. N. Y. D.N.Y. Mass. Mass. Pa. N. Y.			100 W 250 W	AFD D	t. Jos., Mo. t. Jos., Mo. t. Jos., Mo. t. nv'le, Tex. eattle, Wash. Cincutt., O. betroit, Mich. 'l'mb's, Miss. boanoke, Va. cranton, Pa.	. 252	1,190	100 100 150 250 500 10	WIBR WREC WSAZ WSIX KOCW KPLA WFAN WGAL	Steubenv'le, O. Mhps., Tenn. H't'n., W. Va. Spgfid., Tenn. 'C'k'sha, Okla. Los. A., Calif. I.S. Cl'd. Minn. Lancaster, Pa.	F 14 F	V 0	100	WSSH	St. Joseph, Mo Ang., Calif. Chicago, Ill. Medford, Mass. Orlando, Fla. Chicago, Ill. Phila., Pa. kla City, Okla. Phila., Pa. Boston, Mass.	379.5 384.4	780			Lincoln, Nebr Schn'dy, N. Y Vinnipeg, Can Win'p'g, Can akland, Calif. Ht. Sp'gs, Ark 3bsn.Pk. Mass Mi. Bch., Fla Miami, Fla	
J	212.6	1,410	10 250 250 10 50 5 250	KFHL Oskaloos KGBZ York, Ne KGDX Shrevep's KGFP Mitchell, KGGH C. Grow KTUE Houston, WJBI, Decatur, WKBP B'tle C., WRAX Phila., I	a, Ia. br. t. La. S. D. s. La. Tex. III.	232.4	1,290			coanoke, Va. cranton, Pa. l'nt'g'ry, Ala. Cambrg, Mass. Scranton, Pa. Cellogg, Idaho L. Dodge, Ia. os A., Calif.		2 X	50 50 5,000 100 5,000 5,000 250	WKBF WKJC WMBB WMBF WOK WORD WSAR	Spgild., Tenn. C'k'sha, Okla, Los. A., Calif. S. Cl'd. Minn. Lancaster, Pa., Ind'pl's, Ind. N. O'I'ns, La., Lancaster, Pa., Homewood, Ill. Tampa, Fla. Chicago, Ill. Batavia, Ill. Fall R., Mass. Gun's'n Colo		1,030	1,000 500 500 500 500 1,000 500	CFRB 1 CJBC 1 CJOR 5 CJYC 5 CKCX CKSM CNVR	King, Can. Foronto, Can. lea Isl'd, Can. Scarboro, Can. Scarboro, Can. Toronto Vancouver	389.4	770	500 100 5,000 500	WAAF WABI I WBBM WJBT	Chicago, Ill. Bangor, Me. Chicago, Ill Chicago, Ill.	
á	214.2	o . 1000	50 50 250 15 10	KFEC Portland, KFIF Portland, KFWF St. Louis KPJM Prescott, WAIT Taunt'n,	Ore. Ore. Mo. Ariz. Mass.			100 KI 500 KI 500 W 100 W 500 W 30 W 50 W 10 W	FOZ H UT Aus BRL T HBQ M JKS G LBH F MBJ M NBZ S	Cellogg, Idaho L. Dodge, Ia. os A., Calif. ioux City, Ia. 'lyw'd, Calif. stin, Tex. 'ilton, N. H. M'phis, Tenn. aty, Ind. 'mdale, N.Y. fonessen, Pa. rn. L., N. Y. hicago, Ill.	254.1	1,180	50 500 15 200 250 250 100 500	KFHA KFKU KGDA KGFX KMO WABO WCAX WHEC	Fall R., Mass. Gun's'n, Colo. L'wrence, Kan. Dell Dap. S.D. Pierre, S. D. Facoma, Wash. Rochstr, N.Y. B'l'ngton, Va. Roch, N. Y. M'phis, Tenn. L'rence, Kan. Richmond, Va. E. Cl're, Wis. Oakland, Calif	293,9		250 100 100 500 1,000 500 1,000 500 1,000	KGCH KGEZ KGDW KPRC F WGL N WLBW WODA WSYR	Wayne, Neb. Kalisp'l, Mont. Hmbldt., Neb. Jouston, Tex. ew Y'k, N. Y. Oil City, Pa. Paterson, N.J. Sycse, N. Y. Milw., Wis.	394.5		1,000 5,000 1,000 1,000 500 500 500	KMA S KOB St KTW S KWKH KWSC WHN N WPAP WQAO	henandoah, Ia . Col., N. M. eattle, Wash. Shrevep't, La Pullm'n, W'h . York, N. Y Cl'I's'd, N. J Cl'I's'd, N. J	
2	215.7		100 50 100 50	WJBU Lewisb'rs WKBN Y'ngst'w WLBG Petersb'g WMBW Y'ngst'	r, Pa, rn, O. r, Va. n, O.	234.2		500 KI 1,000 K	DYL S. FQA S GAR T	. L. City, U. t. Louis, Mo. ucson, Ariz.	256.3	1,170	750 1,000 500 50 100 2,000	WREN WRVA WTAQ KFUS KRE E KTNT	L'rence, Kan. Richmond, Va. E. Cl're, Wis. Oakland, Calif. Jerkeley, Calif. Muscatine La	295.9		50 50 500 10 500	CFGC 1 CFLC F CJRM M KGFW	Brantf'd Can. Prescott, Can. loose Jaw, Can. Raycona, Neb.	399.8 405.2		500 1,000 500 3,500	PWX C WEAR WSBT WTAM	Cuba Cl'v'l'd, O. So. Bend, Ind Cl'v'l'd, O.	
	3 14	-1000	50 50 100 50 250 5	KFXJ Edgew'r, KGCB Okla, C., KGER Long P KGFG Okla, C., KRLO Los Ang. WLEX Lex'ton,	Colo. Okla. Cal. Okla. Cai. Mass.	٠,		1,000 K 100 W 250 W 100 W 50 W 50 W	WK St BBL I CAH C DAH E FBC K JAK K JBY C	oma, Wash, Louis, Mo. Rchmd., Va. Columb., O. El Passo, Eex. Sw'le, Ts. n. Skomo, Irs. Schom, Ala. Columbus, O. H. Louis, Mo. Lemoyne, Pa. Lapeer, Mich.	258.5		250 1,000 500 500 250	WASH WBER WCSO WEBJ WLTH	E. Cl're, Wis. Oakland, Calif. berkeley, Calif. Muscatine. Ia G. Rap., Mich. R'ville, N. Y. Springfield, O. N. Y., N. Y. Br'klyn, N. Y.			500 500 100 100 750 200	KLZ DE KUOA WDEL WEPS WSMB WSMK	Brantf'd Can. Prescott, Can. Loose Jaw, Can. Ravenna, Neb. Jose, Calif. Inver. Colo. F'ettev'le, Ark. Milm'ton Del. Cloud'er, Mass. New O. La. Dayton, O. Ashev'le, N.C.		730	500	WLIT	MnS. P., A nila., Pa. Phila., Pa. Montreal, Can. Vanc'y'r, Can. Vanc'y'r, Can. Wontreal, Can.	
			150 200 50 150 250 250 100	KFDZ Mnpls., I KFXJ Edgew'r, KGCB Okla. C., KGER Long B. KGFG Okla. C., KRLO Los Ang WLEX Lex'ton. WEMS Jeliet. WEMS Jeliet. WEMS Chicago, WKBI Chicago, WKBB Jollet. II WOKO Pleski., I WPEP Walkegar WQBC Utica, M.	. III. III. III. I. Y. a. III. iss.	2 2		Wi	X SI	hr'v'port, La.			100 500 250 1,000 500 750 250 250	KFOX KFUL KOCH WBT C WEBW WFBL WIL S	Omaha, Neb, G'veston, Tex, Onisha, Neb, barlotte, N. C. Beloit, Wis, Sy'c'se, N. Y. t, Louis, Mo. Omaha, Neb, St. Louis, Mo.	299.8 302.8	1.000	250 5,000 500 500	KFWO KMOX S WBAK WPSC S	Avalon, Calif. St. Louis, Mo. Harrisb'g, Pa. State Col., Pa.	413		50 50 1,000	CKFC CKWX CNRM	Vanc'v'r, Can, Montreal, Can, Montreal, Can, Vanc'v'r, Can, Vanc'v'r, Can, Montreal, Can, Manila, P. I.	
. 1	217,3	1,360	100 100 10 20	KFOR Lincoln, KFOW Seattle, V KGDM Stockton,	Nebr. Vash. Cal				W I W I IY N F E	o kl'nd, Calif. larl'gen, Tex. Norfolk, Va. Y., N. Y. v'sville, Ind.	260.7	1,150	250 2,000 500 500	WSBF KGA S WCAU WCMA	St. Louis, Mo. pokane, Wash, Phila., Pa. Culver, Ind	305.9	980	1,000	комо я	uffalo, N, Y.		720	500 500	KHJ Lo	Manna, P. 1. s Ang., Calif. dicago, III. Chicago, III.	
			100 100 500 100 100	KFOR Lincoln, KFOW Seattle, V KGDM Stockton, WIBU Poynette, WKBS Galesburg WKBV Brkvle WKBW Buffalo, WLBO Galesburg WRES Quincy, I	WIS. Illi Ind. N.Y. Ill. Mass.				0000	J'RI'nd, Calif. larl'gen, Tex. Norfolk, Va Y., N. Y. v'sville, Ind. arlstadt, N.J. anton, Ohio. I. Y'k. N. Y. widdlet'n, O. luiney, Ill. lorfolk, Va.		V	250 750 10 250 500 1,600	WDWF WFIW WHBA WLSI WOOD	pokane, Wash, Phila., Pa. Culver, Ind. Cr'nst'n, R.I. Hpknsvle, Ky. Oil City, Pa. Cr'nst'n, R. I. G. Rap., Mich. M'p'lis, Minn	309.1		5,000	WIBO C	Fran., Calif.			3,500 500	KPO Sar WOR N WOS Je	r Fran., Cal. lewark. N. J. ffn, City, Mo. larrison, O.	
				See - see a See See See						ra, 1			.,oou	WKHM	wo'lis. Minn.			500	WROO	ו יי אי יי ו				menty_E	ewitson, O.	

Wave length	Frequency	Power (watts)	Call signal Location	Wave Jength	Frequency (kilocycles)	Power (watts)	Call Signal Location	Wave length	Frequency (kilocycles)	Call Location	Wave length	Frequency (kilocycles)	Power (watts)	Call Location	Wave length	Frequency (kilocycles)	Power (watts)	Call Location
434.5	690	1,800 250 100	CFCN Calgary, Can. CJCJ Calgary, Can. CKCO Ottawa, Can.	454.3 461.3	660 650	2,000	KFRC S. Fran., Cal. WJZ Bound Br'k,N.J. KFNF Shenand'h, Ia.	483.6	620 500 500 250 1,500	KFDM Beaum't, Tex. KUSD Vermillion,S.D. WCFL Chicago, Ill.	508.2	590	500 500 1,000	KLX Oakland, Cal. WEEI Boston, Mass. WOW Omaha, Neb.	526	570	2,500	KFKX Chicago, Ill. KMTR Los Ang's,Cal. KYW Chicago, Ill. WNYC N. Y., N. Y.
440.9	680	500	CNRC Calgary, Can. CNRO Ottawa, Can. NAA Radio, Va. KFSD S. Diego, Cal. WAAW Omaha, Neb.	3.4		500 500 500	KRLD Dallas, Tex. KUOM Missula, Mont. WBIS Boston, Mass. WCAE Pittsb'gh, Pa. WNAC Boston, Mass. WRR Dallas, Tex.		1,000 500 100 500	WLTS Chicago, Ill.	516.9	580	500	CHCY Edm'nt'n, Can. CHMA Edm'nt'n, Can. CJCA Edm'nt'n, Can. CKUA Edm'nt'n, Can.	535.4	560	100 500 5.000 500	KFBK Sacram'to, Cal. WCAC Mnsfid., Conn. WHO Des Moines, Ia. WTIC Hartford, Conn.
		50	WIBG Elk's Pk., Pa. WJR-WCX Pnc, Mich.	468.5	640	5,000	KFI Los Angeles, Cal. WRC W'shing'n, D.C.	491.5	610 1,000 50,000	KGW Portland, Ore. WEAF N. Y., N. Y.			500 750 500	CNRE Edm'nt'n, Can. WFLA Clrwtr., Fla. WMC Memphis, Tenn,	545.1	550	500 500	KFDY Br'k'gs, S. D. KFUO St. Louis, Mo. KSD St. Louis, Mo.
447.5	670	1,000 1,000 500	KFOA Seat., Wash, WMAQ Chicago, Ill. WQJ Chicago, Ill.	475.9	630	1,000	CJGX Yorkton, Can. WSB Atlanta, Ga. WSUI Iowa City, Ia.	499.7	600 250 5,000 5,000	CFCH Ir'q's F'ls, Can. WBAP Ft. Worth, Tx. WOAI San Ant., Tex.	l. 1		750 250 250				250 500 750 500	WDAY Fargo, N. D. WFAA Dallas, Tex WMAK Lockport, N. Y. WPTF Raleigh, N. C.

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