Drilling and Assembly Layouts for "Traveler"; How to Put up Aerial Masts; Last Minute Play-by-Play Football Schedules; WJR, at Detroit, in Pictures

Vol. XV

SATURDAY, OCTOBER 17, 1925

No. 2

# ERECT POWERFUL AERIAL

# MANY SILENT NIGHT **REASONS ARE GIVEN**

WRITER POINTS OUT NEEDS FOR PERIODS OF REST

Stations Would Benefit Along with Fans If Suggested Plans are Fol-lowed, Is View

Editor's Note.—The following manuscript, "Why the Silent Night," by Pierson W. Banning, was submitted prior to the practical settlement of the Chicago the practical settlement of the Chicago silent night question, when all Chicago area stations, with the exception of WOK, the Neutrowound Radio company tion, agreed to keep silent every Monday night. However, the argument here presented is worth consideration in other localities, such as New York city, where congestion demands a silent night.

#### By Pierson W. Banning

NTIRELY different reasons are given here for the need of a silent night on the air.

So many stations means too strenuous competition among stations, requiring

competition among stations, requiring placing of the same artists and talent on the air, altogether too often for their own good, and the fullest enjoyment of the listening public.

This tension causes program managers to grow stale. This likewise applies to announcers and the technical staff, who become mechanical, losing their finer qualities of execution. Under these conditions no station can continue indefinitely to maintain the constantly increasinitely to maintain the constantly increasing tension and interest, the majority of patrons require, to continue to hold their

It means that the concerns financing (Continued on page 2)

Radio becomes more interesting to the men every day. Especially is this true when they hear voices of stars they know are as pretty as the three pictured here. In the center is Tillie Urkov, a contralto on the regular WTAS, Elgin, staff. To the left is Ina Mitchell Butler, Holly-wood queen, a regular at KFWB, the motion picture broadcaster of Warpictured here. In the cente wood queen, a regular at LTW of, one motion picture broadcaster of War-ner Brothers. Vera Meyers, right, is leading lady in the Proctor Players and she has pleased many with musi-cal comedy offerings from WHAZ, Rensselaer Polytechnic Institute at Troy, N. Y.

# **RUGBY MASTS** WILL RISE UP 820 FEET HIGH

Towers Weigh 300 Tons

Trials of British Transatlantic Commercial Telephone Station to Begin in November

LONDON.-In the new year Britain will be able to talk to the world without any intermediaries. The Radio station at Rugby is then scheduled to open.

at Rugby is then scheduled to open.

Meanwhile trials start in November.

Everything at Rugby station has been planned on a gigantic scale. The aerial masts weigh 300 tons each, and are the tallest in the British empire—820 feet high, nearly as high as the Woolworth building.

Never before has the height of the Eiffel tower aerial been so nearly approached, and although that is 900 fee' the tower's aerial lines run from the summit to the ground, and do not maintain the high level of the Rugby aerial throughout their length.

The Rugby aerial will be one and one-half miles long and one-half mile wide, and the twelve giant masts, of which the tops are often veiled with Louds, span the countryside. Within the next year Britain will be in the front rank among the European powers in the matter of world-wide Radio communications. Every continent will be conducted up to (Continued on page 2)

(Continued on page 2)

# RADIO OPERA STARS PROGRAM APPROVED

GOVERNMENT HEADS VOICE VIEWS ON KENT TIE-UP

Hoover Believes Future of Broadcasting Depends on Improvement of Programs in This Manner

WASHINGTON .- Gratification over the washington,—Gratification over the announcement by A. Atwater Kent, Radio manufacturer of Philadelphia, that the world's leading grand opera soloists and concert artists will be heard over the concert artists will be heard over the Radio in a series of Sunday evening concerts this winter, is expressed by government officials who are fostering the development of Radio broadcasting.

The concerts are strongly in accord with Secretary Hoover's appeal for better Radio programs, it was said at the department of commerce here.

The department has given much thought

ment of commerce here.

The department has given much thought to the improvement of programs that go out on the air. Secretary Hoover is said to feel that in view of the millions of individuals it reaches, Radio should not be regarded simply as a luxury and something to play with, but that it should render a distinct public service in the character of programs it carried into the home, and that the influence should be uplifting. Expressions of approval are heard in many quarters that influence different phases of our national life.

Dr. John J. Tigert, United States commissioner of education, expressed the belief that the bringing of the best class of music into homes, which the series will do, would be of great educational value to Radio audiences.

do, would be of great educational value to Radio audiences.
Dr. J. C. Gilbert, of the bureau of agricultural economics, of the department of agriculture in Washington, said he thought the new program would probably mean more to the farmer than to the city man. Through the county agents of the department of agriculture, Dr. Gilbert has made a survey of Radio on the farm, and he knows the farmer's attitude.

#### SILENT NIGHT REASONS

(Continued from page 1)

these programs all too frequently do not hold their audiences in a way they would wish. This is evident from the way various large concerns have discontinued to broadcast. This indicates there is a growing feeling that there is far less pulling power to many programs using the same talent so often, when used as an adver-tising medium. This applies to practically every large broadcast station in the country.

A continuance of this means the loss by discontinuance of many fans these stations originally counted on to such an extent, especially from among the classes who have money to spend with their ad-

Psychologically the whole thing is in responding the stations, if they will now cease in surfeiting their audiences, and instead withhold from them regularly each week one entire night's entertainment. What is good for the audience is good for the stations as well.

And again it normits DX hounds an

And again, it permits DX hounds an opportunity to reach out for programs elsewhere. The psychology of this again works in favor of the local stations, for by allowing these DX hunters the opportunity they seek, it will make them stronger boosters for the local stations which they receive with rewhich they receive with so much better quality than elsewhere. This tends to add these distance seekers to the list of local prospects as potential customers for the concerns presenting local programs.

#### Bedridden Are Considered

For those who are bedridden, one silent night a week, while it will be missed, will not prove fatal especially as the stations can bend their efforts towards giving each of you that much better programs the remainder of the week. This will be your contribution towards helping obtain the best possible programs for everyone. Each Radio district by agreement might

Each Radio district by agreement might divide its stations into two classes; those above a certain halfway wave length and those below that halfway wave length. The stations above the dividing wave length would, on the silent night, remain off the air from 6:30 to 9:30 to 9:30 clask one week. Those below the dividence week. o'clock one week. Those below the dividing wave length, would remain off the air the same hours of the same night the next week. This would permit distance hunters a brief time to reach out. yet permit programs by half the stations just the same. This would be a makeshift and to use only to try out the other suggestions offered.

Local stations have nothing to lose but everything to gain by adopting a uniform silent night. Stations—don't kill the interest of your audience by overdoing your artists and talent. By killing the interest of your broadcasting audience in your programs you lessen your broadcasting value as an avertising medium for

### WHEN OPERA RECOGNIZED RADIO



A historical scene in the annals of Radio is portrayed by the above picture, in which noted opera stars are seen signing contracts to broadcast on the Sunday night Atwater Kent programs from WEAF and linked stations. Twenty-five of the world's best singers and musicians have thus been made available to the listening audience through the philanthropy of A. Atwater Kent. Left to right, the photo shows Anna Case (signing), Mme. Louise Homer, Renauld Werenrath, A. Atwater Kent, Tosca Seidel and Hilda Lashenska, all of whom, among others, are signing the contracts with Mr. Kent.

your patrons. That automatically works against your securing the continued support of your present business houses and others.

Your aim should be to try to whet, not dull the appetite, and interest for your programs. Already the interest is rapidly dulling among many you cannot afford to lose from a financial standpoint. Self-preservation should dictate what your first interest should be in this matter. first interest should be in this matter.

S.S. Malolo Boats Have Radio

PHILADELPHIA—The S.S. Malolo, which is to be the largest and fastest large passenger steamship ever built in the United States, will carry as part of her lifeboat equipment two 30-foot steel motorboats fitted out with the most up-to-date Radio transmitting and receiving sets. The apparatus will consist of a 500-watt transmitting set and a sensitive long distance receiver.

# CONTENTS

Radio Digest, Illustrated, Volume XV, Number 2, published Chicago, Illinois, October 17, 1925. Published weekly by Radio Digest Publishing Company, 510 N. Dearborn Street, Chicago, Illinois. Subscription rates, yearly, Five Dollars; Foreign Postage One Dollar additional; single copies Ten Cents. Entered as second class matter at the post office at Chicago, Illinois, under the Act of March 3, 1879.

All the Live News of Radio..... Station WJR, Detroit, "Where Joy Reigns".... Advance Programs for the Week..... Following Sports Through Mike.... Editorials, Indi-Gest and Condensed by Dielectric.... The Do's and Don'ts of Antenna Construction, Part III—Construction of Outdoor Masts, by William Fenwick. "Traveler" Doughnut Coil Tuned R.F. Receiver, Part II—Drilling and Assembly, A. B. C. Course in Radio Fundamentals, Chapter XXX—Applications of the Electron Tube Oscillator—Continued, by David Penn Moreton.

Complete Data for British Circuit

Operations and Approximations of the Electron Tube Course of the Electron Course of th Questions and Answers Questions and Answers

Directory of Radiophone Broadcasting Stations, Part III 23

# Looking Ahead

The Days of Wild Goose Chases around the dials are fast disappearing. Radio fans now pick their selections in much the same manner that they formerly chose a record to play on the talking machine. To aid the fans in their selection of the numbers there will be a new program index system installed in the next issue. This will tell you exactly at what hours and where you can hear women's talks, dance music, including the orchestra's name, and classic and popular concerts and who gives them and popular concerts and who gives them.

We Dimly Remember Milwaukee having been made famous by something other than a broadcasting station, but what it was has slipped our mind. However, the fame of the past is being supplanted by that brought on by Station WHAD of the Milwaukee Journal and Marquette university. The persons who make it go and the things with which they make it go will be described in picture and story next week.

Super-Heterodyne Fans Will Be Pleased with the Grand Prix receiver to be de-Is in It and Why," will be printed in next week's edition. Watch for this series, and if you wish a set that will reach out for real DX, be prepared to built the Grand Prix.

The Five Tube R.F. Fans will be told how to wire the "Traveler," John G. Ryan's contribution to the deluxe sets of the year. Different colored covered wire and numbers on each wire and connection will insure you against hooking up wrong.

Newsstands Don't Always Have One Left

WHEN YOU WANT

YOU WANT IT!

BE SURE OF YOUR WEEKLY COPY BY SUBSCRIBING NOW

#### SEND IN THE BLANK TODAY

Publisher Radio Digest, 510 N. Dearborn St., Chicago, Illinois.		
Please find enclosed check (Six, Foreign) for One Radio Digest, Illustrated.	M. O. Year's	for Five Dellar Subscription to
Name		***************************************
Address		
City	State	************************

#### Radio Trust Probe Is to Start October 20

WASHINGTON. — The Federal Trade commission has set October 20 as the date

commission has set October 20 as the date on which to begin hearings in New York city in connection with its case against the Radio Corporation of America and others as an alleged monopoly.

Edward L. Smith will be chief attorney for the commission and David H. Sibbett will sit as examiner in the case. It is expected that the taking of testimony in New York will take several weeks, following which hearing will be held in other cities which have not yet been decided upon.

A naval officer connected with the Radio service of the navy department has been requested by Secretary of the Navy Wilbur to attend the Federal Trade commission's hearings in New York. The commission has requested the secretary to make such information available to it as seems desirable. Both the army and navy are more or less interested in these hearings inasmuch as it has been con-tended by officials of the Radio Corporation of America that the organization was originally begun at the request of the navy department at the conclusion of

#### New Toronto Air Voice to Divide Time with Old One

TORONTO.—New call letters from Toronto were heard recently when CKNC, Canadian National Carbon company, took the air for the first time. A splendid program was prepared for the inaugural, including selections by the CKNC Salm orchestry, a veed quartet, an instrumental

including selections by the CKNC Salm orchestra, a vocal quartet, an instrumental trio and a number of soloists.

The station in the future will use part of the time schedules allocated to CHNC, Toronto Radio Research society. CHNC's studio and station is located in the Canadian National Carbon company's plant. Mr. Combs, who directs CHNC, will also direct CKNC.

#### GIANT BRITISH STATION

(Continued from page 1)

the tapping key under the finger of a

the tapping key under the finger of a man at the general post office.

Five other stations are being built in Britain simultaneously with Rugby. They are Bodmin, Bridgewater, Skegness, Grimsby and Dorchester.

Under a recent arrangement the government is keeping in its own hands all communications with the colonies, while allowing private enterprise to link Britain up with foreign countries.

A novel program illustrating the growth of ragtime from the syncopated negro spiritual and song up to the present day was transmitted from Station 2LO. Old favories like "Alexander's Ragtime Band," and "Whistling Rufus" were broadcast.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912,

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912,

Of Radio Digest, Illustrated, published weekly at Chicago, Ill, for October 1, 1925.

State of Illinois, County of Cook, ss.—Before me, a notary public in and for the State and county aforesaid, personally appeared E. C. Rayner, who, having been duly sworn according to law, deposes and says that he is the publisher of the Radio Digest, Illustrated, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the direculation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443. Postal Laws and Regulations, printed on the reverse of this form, to-wit:

1. That the names and addresses of the publisher, editor, managing editor, and business manager are: Publisher, E. C. Rayner, 2335 Commonwealth Ave., Chicago, Ill.; Editor, Evans E. Plummer, 934 Lawrence Ave., Chicago, Ill.; Managing Editor, None; Business Manager, V. E. Huffer, 5220 Cornell Ave., Chicago, Ill.

2. That the owner is: (If the publication is owned by an individual his name and address, or if owned by more than one individual the name and address of each, should be given below; if the publication is owned by a corporation the name of the corporation and the names and addresses of the stockholders owning or holding one per cent or more of the total amount of stock should be given,) E. C. Rayner, 2335 Commonwealth Ave., Chicago, Ill.; F. T. Ryan, 510 N. Dearborn St., Chicago, Ill.; Joseph Seaman, 200 Frifth Ave., Chicago, Ill.; Joseph Seaman, 200 Frifth Ave., Chicago, Ill.; Joseph Seaman, 200 Frifth Ave., Chicago, Ill.; Desph Seaman, 200 Frifth Ave., Chic

xork, N. X.; V. E. Huller, DZZU Cornell Ave., Chicago, Ill.

3. That the known bondbolders, mortgages, and
other security holders owning or holding 1 per cent
or more of total amount of bonds, mortgages, or other
securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the
names of the owners, stockholders, and security holders
if any, contain not only the list of stockholders and
security holders as they appear upon the books of the
company but also, in cases where the stockholder or
security holder appears upon the books of the company
as trustee or in any other fiduciary relation, the name
of the person or corporation for whom such trustee is
acting, is given; also that the said two paragraphs
contain statements embracing affiant's full knowledge and
belief as to the circumstances and conditions under which
stockholders and security holders who do not appear
unon the books of the commany as trustees, hold stock 

E. C. RAYNER. (Signature of publisher.) Sworn to and subscribed before me this 2nd day of October, 1925. A. C. McKITRICK.

(SEAL.)
A. C. McK
(My commission expires October 1, 1928.)

## **KDKA ADDS COURSES** TO ITS AIR COLLEGE

MORE LIKE UNIVERSITY AS SCHEDULE GROWS BIG

Poultry Raising, Physics, Crime, Radio, Travel, All to Be Covered in Special Courses

PITTSBURGH .- Radio colleges are not uncommon on the air nowadays, but Station KDKA here, can now qualify for the name of "university of the air" as it is broadcasting work in different collegiate lines on regular schedule. A series of courses especially designed for those of courses especially designed for those interested in agriculture and home economics are given in cooperation with the Pennsylvania State college and the National Stockman and Farmer. Other series, prepared by faculty members of the University of Pittsburgh, will deal with physics, criminology, travel, and Padio.

Poultry Comes First

Poultry keeping will be the first of the Radio courses to be offered in cooperation with the State college and the Stockman

and Farmer during the coming winter.

A member of the college correspondence department will explain the course and give instructions for enrolling at the October 15 farm program from the Stock-man and Farmer studio, and the lectures will begin the following week. This course will extend over eight weeks. It will be given by the different poultry specialists at the college, one instructor giving a lecture on feeding, another on diseases, and still another on other subjects that will Another course wil be given as soon as

the poultry course is finished. Various specialists of the college are now engaged in preparation of the Radio cor-respondence lessons. Each of the talks presented in the courses will be written and given by an authority on the particular subject.

The Physics Series
The Physics department, University of Pittsburgh series, will be broadcast as

Tuesday, October 20: "The Nature of X-Rays," Dr. Worthing.
Tuesday, October 27: "Crystal Structure," Dr. Sieg.

Tuesday, November 3: "Structure of the Atom," Dr. Sieg.

Tuesday, November 10: "Relativity," Dr. Sieg.

Criminology Series Too "Criminology" is the subject of the second series. Dr. W. T. Root, Jr., will give this series treating the subject from the point of view of the causes, control

nd treatment of crime.
The remaining lectures are:
Wednesday, October 21: "The Cause of Wednesday, October 28: "The Feeble-

wednesday, October 28. The Feeble-minded Offender."
Wednesday, November 4: "Historical
Development of Penal Institutions, Re-form and Punishment."

Wednesday, November 11: "The Essen

tials of Prison Reform."

A university travelogue will be broadcast on Thursday evenings during Octo-

An added feature to the university An added reature to the university broadcasts this year will consist of Radio chats to be given every other Friday night by Prof. George A. Scott, who conducts the Radio courses given by the department of physics at the university. The purpose of Professor Scott's talks will be to instruct in fundamentals of will be to instruct in fundamentals of Radio and to discuss in a popular way the general problems connected with it.

The university studio will continue its

policy of issuing, at the conclusion of a series, Radio publications containing the talks just as they have been given over the Radio, together with lists of suggested reading references for those who may wish to do further study.

#### Oklahoma City Plans Large New Broadcasting Station

OKLAHOMA CITY.—The prospect that Oklahoma's voice will soon be on the air again louder and more powerful than ever loomed bright here recently, when directors of the Oklahoma state chamber of commerce, meeting here, voted to inaugurate a campaign to finance the \$200,-000 budget needed to give the state a 5,000-watt station equal to the best Radio broadcasting centers in the country.

#### New Amateur Call Book

WASHINGTON, D. C.—The Radio section of the department of commerce has just published a list of amateur and spe cial land Radio stations as of June 30. These may be secured from the government printing office for 25 cents in coin or money order.

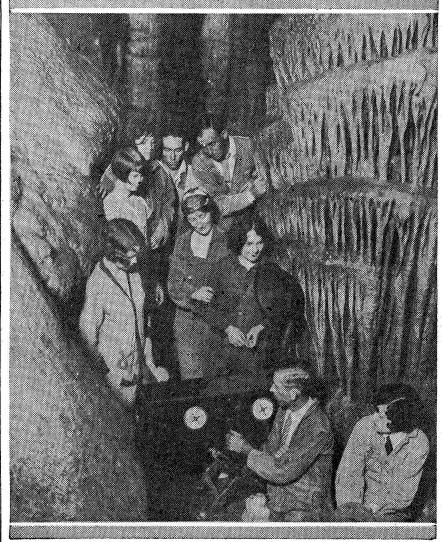
#### WHOA, ORGAN, WHOA IS OFT HEARD ORDER

HICAGO.—"Whoa, Organ, stand still," is the command often given to the studio organ by Frank Westphal, director of the All-American station, WENR, here, while filling a request number on this popular instrument. The swelling notes of the mighty organ that Radio fans enjoy come from an instrument no larger than an ordinary suitcase. In fact, the instrument is intended for portable use and when Mr. Westphal pedals vigorously, the organ starts to move across the studio.

#### COYOTE HEARS CALL OF WILD OVER RADIO

ENVER.—And now KOA, the Rocky Mountain broadcasting station, has had a coyote added to its host of listeners. Kenneth Buchanan, a university student in Salt Lake City, has informed the station that he and his pet coyote (named Oscar for some undisclosed reason), are regular listeners to this station. Kenneth says he and Oscar are reminded of their home in the wilds of western Colorado every time they tune in on a program and that Oscar begs to go back home again.

#### LISTENERS HEAR 1,000 FEET DOWN



OT SPRINGS, Ark.—Breaking into the silence of the centuries, strains of Radio music and the voice of the announcer of KTHS, the New Arlington hotel, Hot Springs National Park, on the night of October 10, furnished a weird thrill to a Radio party grouped around the loud speaker 1,000 feet underground in the famous Diamond Cave, near Jas-per, Ark.

The special test program was put on by the New Arlington hotel station in co-operation with Mr. J. A. Cantrell, dean of Radio fans of that section, who has the distinction of having owned one of first two sets operated in Arkansas.

The photograph showing the members

of the Radio party tuning in to Hot Springs was taken a mile and a half back of the entrance and 1,000 feet down. The assembling of the equipment and placing it for the test was a difficult undertaking, as in some places there is barely room for one person to walk. Mr. Cantrell is shown in the foreground tuning in.

He took tests from several sections of the cave after the Radio party broke up, and expects to compile his observations for general and scientific use.

Diamond Cave is considered by many experts to hold first place in this country for beauty. The test was arranged through the cooperation of Burton Bunch of Lead Hill, Ark.

#### New Stations

to its already overflowing quota. WJAZ, a 1,500-watt broadcaster owned by the Zenith Radio corporation, has its superpower station at Mt. Prospect. The wave length is 322.4 meters. The William Gusharl Dry Goods store at Decatur opens a 500-watt station operating on 270 meters.

Detroit added another superpower station to its list last Saturday night, when WGHP went on the air with 1,500 watts. On a wave of 270 meters, once again the voice of C. D. Tomy, long famous as chief of the Red Apple club and manager of WCX, may be heard. He is the chief announcer of this new station.

Tex., 10 watts, 227 meters; WPRC, Harrisburg, Pa., 100 watts, 215.7 meters.

KFBU of Laramie, Wyo., recently reported off the air, has renewed its license. WFKB, a 100-watt Chicago station which has a good record for distance, has in-creased in power to 400 watts. The Uni-versity of South Dakota has the new call, KUSD.

KFRU, the 500-watt station located at Bristow, Okla., has changed ownership. Stephens College, Columbia, Okla. wave length is 506.

Crosley Heads International Week

CINCINNATI.—Powel Crosley, Jr., has been appointed chairman of International Radio week. Tests will be conducted in broadcasting between Europe and Amer-ica in the week beginning January 26. Other new broadcasters of the week are:
KTBR, Portland, Ore., 50 watts, 263 meters; WDCH, Hanover, N. H., 100 watts,
256 meters; WFRL, Brooklyn, N. Y., 100 watts, 205.4 meters; KFXM, Beaumont, made by Mr. Crosley.

# 'ARCTIC FROM AIR' IS MACMILLAN SPEECH

SEVEN STATION LINK TO GIVE EXPLORER'S TALK

Will Tell of Extensive Airplane Trips Over Frozen Near-Pole Snowclad Lands

NEW YORK.—Capt. Donald B. Mac-Millan, who represented the United States in his recent expedition to the far north, will give his thrilling lecture, "The Arctic From the Air," on Sunday, October 18, at 7 p. m., eastern time, from WEAF, New York, and six other stations. This chain will consist of WEEI, Boston; WCAP, Washington; WJAR, Providence; WWJ, Detroit; WCTS, Worcester, Mass., and WCAE, Pittsburgh, Pa.

The name of Donald B. MacMillan is familiar to all who read the newspapers or use the Radio. Since his first trip

familiar to all who read the newspapers or use the Radio. Since his first trip with Peary, he has repeatedly returned to the north and many thousands have heard his thrilling stories and have seen his motion pictures taken at the top of the world. During his winter in Baffin Land in 1921-22 and in North Greenland in 1923-24, he was the first Arctic explorer to use Radio and thousands of members of the Amateur Radio league of America listened in for his massages.

of the Amateur Radio league of America listened in for his massages.

Used Planes Extensively.

The MacMillan expedition this last summer made extensive use of the airplane in exploration. Throughout the entire time they were in touch with civilization by means of their Radio equipment, giving detailed descriptions from time to time of their adventures. The expedition which left Wiscasset, Me., in June had for its purpose the exploration of the vast unknown space between the north pole and Alaska.

It was under the auspices of the National Geographic society with the cooperation of the U. S. navy department, the latter furnishing three giant planes of the new amphibian type with pilots and mechanics to man them. These were carried north by the S. S. Peary, MacMillan's new ship which was built in France for a mine-sweeper, but never used for this purpose. It was accompanied by the schooner Bowdoin, used in MacMillan's two previous trips. The Radio audience have a treat in store for them in the explorer's first talk since his return.

#### NOVEMBER 9 IS DATE SET FOR RADIO MEET

Hoover Calls Conference on Principal Broadcast Problems

WASHINGTON, D. C .- The fourth annual Radio conference has been officially called by Secretary of Commerce Hoover to convene in this city on November 9. "The conference has been called," says

the secretary, "for general discussion and consideration of matters affecting Radio communication in the United States from the viewpoint of the public interest. The conference will include representatives of all Radio activities. While consideration will be given to Radio activities generally, the principal problems will be those affecting broadcasting."

#### WFAV Former Programs Heard from Station KFAB

Heard from Station KFAB LINCOLN, Neb.—The Buick station here is now operating its new 1,000-watt transmitter. Another item of interest is the discontinuance of WFAV of the University of Nebraska and the broadcasting of all university programs through KFAB. This includes five daylight programs and one evening program. The evening program is scheduled for Tuesday. The most important feature of fall broadcatsing will be the play-by-play broadcast of all University of Nebraska football contests.

Sports Editor Teacher of WSB Radio Sunday School

ATLANTA, Ga.—Since The Atlanta Journal station, WSB, here, began relaying the Agoga class program every Sunday morning at 9:30 from the Baptist Tabernacle, Sunday schools throughout the daylight range of "The Voice of the South" have begun calling off their own programs and tuning for the Atlanta exercises, which are led by Morgan Blake, Journal sports editor and evangelist.

KTCL Specializes on Parades

SEATTLE, Wash.—KTCL, "The Charmed Land" broadcasting station here, have taken it upon themselves to broad-cast parades. Both the Fourth of July and the Knight Templar's parade were broadcast by KTCL. They were veted successes, especially by listeners from sick beds, who had not heard parade music for years.

## **NEWS BRIEFS FROM** THE BROADCASTERS

SARAGOSSA SEA ANIMALS SUBJECT OF LECTURE

Texas Comes to Georgia; Galaxy of Stage Stars to Be Heard from KOA Soon

Strange animals met on the Beebe expedition to the Saragossa sea will be described from KDKA by J. F. W. Pear-son of the University of Pittsburgh and a member of the expedition, on two Thursdays, October 15 and 22. The Sara-gossa sea has long been the mystery spot of the Atlantic.

Fans tuning in for WSB lately were surprised to hear the "Hired Hand" of WBAP announcing. He also amazed Atlanta by arriving at the head of a delegation of 500 Texans, all wearing fivegallon sombreros and armed with cowbells.

A galaxy of stage professionals under the auspices of the widely known Denver Community players will appear at KOA Friday, October 23, in a headliner program of dramatic presentations. They are E. J. Reed of Mrs. Fiske's company; John Conneroy, who played with John Barrymore in Hamlet; Katherine Ommanney dynamic scele at North Deaven high Barrymore in Hamlet; Ratherine Ommanney, dramatic coach at North Denver high school; Jessie Pringle, formerly with Frank Bacon in "Lightnin'," and Roy Bankson and Sidney Morris, ex-motion picture directors. The plays to be given are: "The Man in the Stalls," "The Wonder Hat" and "Her Tongue."

Lambdin Kay of WSB is not only popu-Lambdin Kay of WSB is not only popular with listeners but he is also liked by other announcers. The week of October 12 he was heard in St. Louis. Monday, October 19, he hopes to arrive in Chicago and take charge of George Hay's microphone at WLS while the latter is spending the week with Ford and Glenn at WFAA, Dallas. Texas. Dallas, Texas.

The Sunday schedule of WOC has been changed so that the Atwater Kent opera program at WEAF may be included. WOC church services commence at 6:30 p. m., central time, instead of 8. The concert by the Little Symphony orchestra now begins at 9:45.

The Burroughs Adding Machine company has anonunced another special concert Wednesday evening, October 21, from WJR, the Detroit-Pontiac station. Many unusual vocal, orchestral and harp combinations will be heard.

The pleasing music of the Marshall Field and company string quintet heretofore only heard by late shoppers in the tea rooms of this big department store may now be enjoyed by fans tuning for WGN, Chicago, between 4 and 4:30, central time

Eight characters of the city and ten people from a small town, all members of the KGO dramatic players, will tell the story of "The Fortune Hunter," Winchell Smith's famous stage play, before the KGO microphones Thursday night, October 22, between 8 and 10 p. m., Pacific time.

The Rev. Dr. S. Parkes Cadman, pastor of the Central Congregational church of Brooklyn, N. Y., has resumed his popular Brooklyn, N. Y., has resumed his popular sunday afternoon series of addresses at the men's conference in the Bedford branch, Y. M. C. A., in Brooklyn. The program begins at 3:45 p. m., eastern time. The addition of WEEI, Boston; WCTS, Worcester, Mass.; WCAE, Pittsburgh, and WSAI, Cincinnati, to WEAF means a great extension of Dr. Cadman's audience.

From WOR comes announcement of the addition to their regular Monday evening programs of Frances Williams and Al Wohlman who are now featured in conjunction with a half hour of concert music from 7:30 to 8 p. m., eastern time, by Eddie Elkins' Ciro orchestra playing direct from the Smart Supper club on West Fifty-sixth street, New York city.

\* \* The 1925-1926 season opens up at West.

The 1925-1926 season opens up at Westinghouse Station KYW with a number of attractions that appeal to the listener in. One of the stellar features that will be an exclusive one with KYW is the Loos Brothers harmony pair, whose singing and playing in the past has never failed strike the responsibe chord of their Radio audience.

Archie Slater's Palais D'Or orchestra has opened its fall and winter season at WOR and will be heard regularly again on each late Monday evening program.

In order to satisfy the fans who found his verses given over the Radio real in-teresting, Eugene Konecky, WOAW poet laureate and announcer E-K, has had them printed in book form.

#### RADIO HYMN CHEERS MAN NEAR TO DEATH

HICAGO.—As the strains of the hymn, "Safe in the Arms of Jesus," floated through the Radio in a home in Benton Harbor, Mich., on a recent Sunday, George Leroy Miller, 40 or involid for sixteen years in a a recent Sunday, George Leroy Miller, 40, an invalid for sixteen years, in a wheel chair fourteen years and for nine years blind, passed on to the great beyond. The last words of the dying man were of thanks to the Lord that made Radio an instrument of service even in death. Shortly before he sensed that the end was near he requested his nurse to notify the Chicago. he sensed that the end was near he requested his nurse to notify the Chicago Gospel Tabernacle of Station WHT and request the choir to sing his favorite hymn. The choir was immediately assembled and with all the fervor and feeling at their command sang the hymn. After it was finished Chaplain Paul Rader preached a short benediction, but Mr. Miller heard no more.

#### But How About Yodelers?

PITTSBURGH.—Did you ever hear of location which in midsummer is free of static; where in the middle of July one may listen in on distant stations as undisturbed by this pest of Radio reception as on the most favorable winter night? as on the most favorable winter night:
Such a Utopian place actually exists.
The place is on the slope of the famous
Jungfrau mountain in Switzerland, a peak
of the Bernese Oberland mountains.

### Souvenirs Swamp KOA Radio Plant

Fans Reward Favorites with Everything from Toy Balloons to Gold Nuggets for Programs

DENVER .- Found! A souvenir hunter's

paradise!
For instance, if your hobby is nicknacks such as toy balloons, pin cushions,
foreign coins, pencils, pictures of bathing
beauties or blotters—get a job at a broadcasting station.
On the other hand, yours may be a
desire for complimentary tickets to dog
shows, picnic resorts, theaters, cafes,
dances, rodeos and county fairs. Still,
however, the answer is simple—get a job
at a broadcasting station.
Finally, if your souvenir hearding

at a broadcasting station.

Finally, if your souvenir hoarding fancy runs to metallurgy, gold nuggets, tin whistles, brass paper weights or galena crystals, then, according to the school of experience at Denver—KOA—get a job at a broadcasting station.

Persist in Showering Station

There are no ifs or ands about it according to the school of the scho

station boasts a trunk full of listeners' station boasts a trunk full of listeners' tokens. Most valuable of these, it is said, is a gold nugget, believed to be the first souvenir of its kind ever sent to a broadcaster. Accompanied by an unsigned California letter yesterday, this nugget was extended "as a token of appreciation for KOA's fine programs."

for KOA's fine programs."

Meanwhile, members of the Denver broadcasting staff admit they are in a quandary to know what disposition to make of an increasing flow of Radio keepsakes which includes flowers (waxed, artificial, cut and pressed), "good luck" stones, old coins, chewing gum, road maps, scenic views and a host of photographic snapshots showing listeners, their homes, receiving sets, canoes, dogs and children.

#### Lost Twenty Years; Found By Radio Music Programs

NEWARK, N. J.—Broadcasting of the Hotel Shelton dinner music is safely entrenched as a feature of WOR programs each evening during the "music while you dine" period from this New Jersey station.

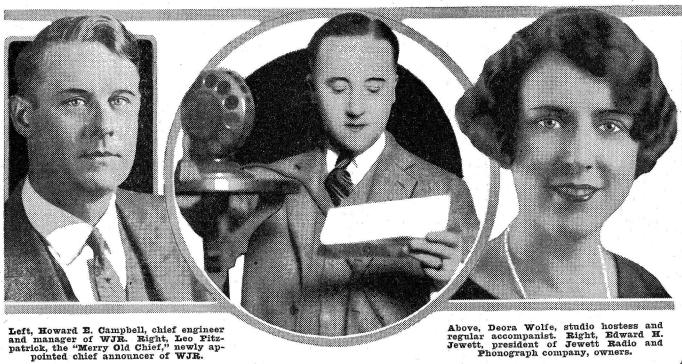
Leagues Jacobs director of the ensem-

Jacques Jacobs, director of the ensemble, brought to light an unusual story when he visited the WOR studio recently. Harry Jacobs, a nephew of the orchestra director, has been lost from his family for more than twenty years. Through the widespread influence of the Radio announcements of his uncless present the state of the state There are no ifs or ands about it, according to Radio experts. As long as broadcasting stations continue serving the public, listeners, they say, will continue singling out and awarding their favorite ethereal voice with a memento of one kind or another.

After ten months on the air, the Rocky Mountain General Electric broadcasting



# Station WJR, Detroit, "Where Joy Reigns"



Radio and Phonograph company, has been on the air just two months, yet it has made many friends in the Radio audience. It expects to make many more. It has plans for the winter months that will undoubtedly make many more friends.

The station started broadcasting on August 15, a very unsatisfactory time to make any great impression upon the listening public. Even with this handicap, the station has been heard from coast to coast, and it is becoming one of the old reliables.

Just recently, Leo Fitzpatrick, who is known to hundreds of thousands of the Radio audience as the "Merry Old Chief," joined the staff of WJR as program conductor. Since then, his cheery voice and appropriate pleasantries have been heard regularly from the station. His ability and originality will always be an asset to the station's broad-The policy of the station has been to give the casting. public what it wants, when it wants it and the way it wants it. The mail received from the Radio audience has been the barometer of the program construction and the building of features since the station opened, and it will continue to be the guilding hand.

The station operates on a wave length of 517 meters—a wave length that is advantageously removed from other

1111

JR, the 5,000-watt broadcasting station of the Jewett bands on which high-powered stations operate, which, course, facilitates in tuning in and giving the Radio public a chance to relax from the real careful tuning that is required on many of the wave lengths in the broadcasting band. The equipment used by the station is the latest 5,000-watt design. No detail has been neglected, either in the construction of the station, the remote control rooms in the Book-Cadillac hotel, Detroit, or the studios, which might make for greater ease and

precision in handling the broadcasting which is sent out daily.

The manager and chief engineer of WJR is Howard E.

Campbell, a man who has had many years of experience in both the commercial and broadcasting branches of Radio. He is an engineer of recognized standing. The assistant manager and program director is Corley W. Kirby, who was formerly Radio editor of a metropolitan newspaper and associated with

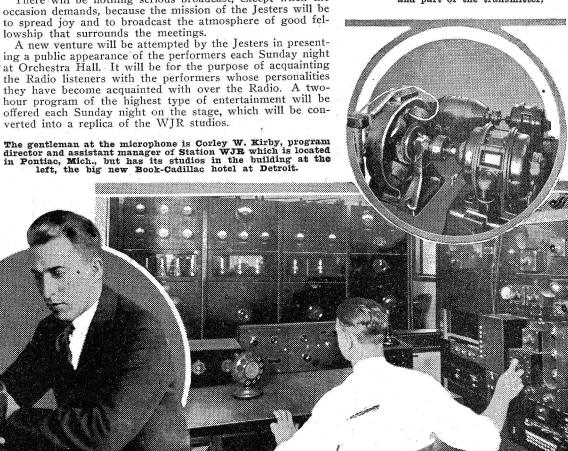
one of the country's pioneer broadcasting stations.

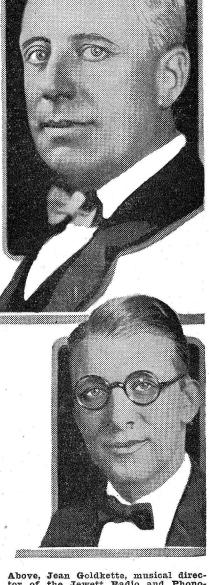
Jean Goldkette, musical director of the station, has had a great deal of experience in arranging musical features for broadcasting stations, and has at his command the best musical talent available in or near Detroit. Miss Deora L. Wolfe, studio hostess and accompanist, is a thoroughly trained musician, a sympathetic accompanist and a pleasing personality around the studio.

For the benefit of the late listeners, WJR will inaugurate a ror the benefit of the late insteners, with manufurate a midnight program in the near future, to be known as "The Jewett Jesters." It will be broadcast three nights each week—Monday, Wednesday and Saturday—with "The Merry Old Chief," the master of ceremonies, presiding over the microphone with his customary informality and wit which have made his midnight programs females. grams famous.

There will be nothing serious broadcast, except when the

at Orchestra Hall. It will be for the purpose of acquainting the Radio listeners with the performers whose personalities they have become acquainted with over the Radio. A two-hour program of the highest type of entertainment will be offered each Sunday night on the stage, which will be converted into a replica of the WJR studios.





Above, Jean Goldkette, musical director of the Jewett Radio and Phonograph company's station, WJR, also director of his own orchestra. Below, two of the motor generators required to furnish power to the transmitting tubes, which are located in the room farther below, where you see the operator's desk, speech input equipment and part of the transmitter,

## LONG RELAY TAKES **GENEVA TO ENGLAND**

LEAGUE OF NATIONS TALK HEARD IN BRITISH ISLES

Land Lines and Radio Plants Hook Up to Carry Political Talk All Over Europe

LONDON, Eng.—The first experiment in all-Europe broadcasting has just been carried out with singular success. Through the enterprise of the British Broadcasting company the most important of the proceedings at the present meeting of the League of Nations are being broadcast throughout Europe. This constitutes a unique record, and marks the beginning of an era which may place Radio in the forefront as a powerful influence in yet another sphere—that of international politics.

The first item broadcast from Geneva

was M. Painleve's address. At Paris, the Eiffel Tower station broadcast the speech. This was again picked up at the B. B. C. experimental post at Hayes, sent by land line to 2LO and 5XX, and rebroadcast to listeners—a remarkable feat. In London it was possible to understand nearly every word of the talk.

#### Difficulties on Land Line

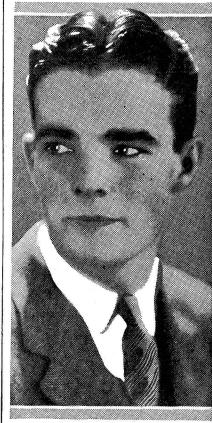
Difficulties in relaying on the long land line between Geneva and Paris were encountered, but recent experiences support the conclusion that relaying over long distances can have satisfactory results. For example, on August 23 the new Swedish station at Boden was relayed by land line to all Swedish stations, but also as far away as Copenhagen. Despite the distance the transmission had to travel by land line (1100 miles) the recention was land line (1,100 miles), the reception was

M. Painleve's address was also relayed to German and central European stations.

#### Scandinavian Hams Organize

COPENHAGEN.—The Radio amateurs in Scandinavian countries now possess an international organization covering the Baltic area, the S. R. R. L., or Scandinavian Radio Relay league, with headquarters in Stockholm. Membership is open to all amateur senders in Scandinavian

#### FORSAKES MIKE FOR FOOTLIGHTS' GLARE



THE footlights have claimed another Radio favorite! Vernon (Tex) Rickard, popular tenor and assistant announcer at WGN, the Chicago Tribune station, for many moons, has forsaken the "mike" for grease paint and powder box, and as "George Shelby" is scoring a hit in the Duncan sisters' show, "Topsy and Eva."

Vernon, so charmed the "Duncs" with his singing of "Rememberin'," and others of the favorite songs from "Topsy and Eva" that they made "Tex" a full-fiedged thespian. Rickard went through his first performance like a veteran, and the Dun-

### Home Economics Course by Radio to Busy and Active Western Housewives

three ways by family responsibilities, business cares and club activities, the modern woman may shortly resort to Radio as first aid in solving her culinary and home economics problems.

This belief, as expressed by the broadcasting staff of KOA, General Electric station at Denver, is based on recent observations in connection with a newly in-augurated series of table talks for house-

The discussions are designed to provide timely hints on cooking and are heard as the closing feature of KOA's

Tuesday, Thursday and Friday matinees. Will Tell Art of Entertaining Following widespread requests from women in many western cities and rural

sections, announcement is made that the housewives' discussions will likely be enlarged before fall to include expert advice on entertaining in the home. Such a course would prove of special value during the winter social season, it is said.

Courses in cookery over KOA are ar-

can sisters proclaimed their "find" from the housetops. He is now with the show making cities in the middle west.

making cities in the middle west.

Rickard was one of the most popular of the WGN artists. He proved himself equally at home in jazz, songs from light opera and musical comedy, and sensational ballads. His pleasing voice soon earned him a large personal following among Radio enthusiasts and requests like "let's have more Rickard" were found in every mail at WGN. The recognition accorded him by the Duncan sisters will doubtless be applauded by his large audience of listeners. He will probably broadcast from Radio stations in the cities where "Topsy and Eva" shows.

don't need B'Batteries if you use the **FRESHMAN** MASTER"B" Battery Eliminator 

Connects from any electric light socket right to your radio set;that's all there is to it.

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

A. C. Model \$20.00 for alternating current Freshman Rectifying Tube is required for operation of the A. C. Model. Price \$2.50

D. C. Model \$17.50

Costs less than one-tenth of a cent per hour to operate. Sold by AUTHORIZED FRESHMAN DEALERS only

Chas. Freshman Co. Inc. FRESHMAN BUILDING
240-248 WEST 40TH ST.-NEW YORK NY
CHICAGO OFFICE — 2626 W. WASHINGTON BLVD.

ECAUSE her daylight hours are split | ranged by the Morey Mercantile company of Denver. They are given under the personal supervision of a prominent society and club matron of Denver, whose name, for the present, is being withheld and who speaks under the "Nom de Radio" of "Clara Hoover."

#### Radio Culinary Hints Define Cooking

"Culinary hints by Radio will do much to remove guesswork from cooking, if numerous comments from women are any criterion," Mrs. Hoover declares. "They will help the western housewife to cut down the number of hours she spends over a range or in a hot kitchen. Likewise they should prove a valuable aid in conserving energy and balancing menus—all without inflating the family budget."

Mrs. Hoover emphasized that her table talks were to be regarded by women as a supplement to text books and other publications devoted to cooking and domestic economics.



# For EVERY Radio Set

A stunning piece of furniture that restores order in the room where you have your Radio! No more cluttered table-tops, nor litter of equipment un-

der-foot.

No unsightly horn in evidence, either! This console has its own loudspeaker, inbuilt. It's out of sight, but with very apparent tonal superiorities. For it has the highest-developed type of which which defeats vibration.

Non-Vibrant Geramic Horn

The clearest tone producer on the market. Made of special composition which defeats vibration.

unit. With horn built of special non-vibrating, extra-hard, ceramic material. Produces clear non-vibrant tone.

There's ample room for everything; space for largest A and B wet batteries—or battery eliminator—required for any home set; and for a big charging outfit, too.

Finished in mahogany, or walnut color. Dainty design of parqueterie on two front panels. Top, 38 in. x 18 in. Substantially built; the product of a 40-year-old furni-

The price, forty dollars, is for the complete console and includes the loudspeaker horn and unit. Thousands of dealers are showing this artistic addition to home radio equipment.

Rear View-Set Hooked Up





Your set is capable of far more than you are getting out of it! Five minutes of tuning after you have equipped your set with Dialogs prove this.

prove this.

Smooth, easy vernier control, such as only Dialog can give, permits adjustment to the minute capacity variation necessary to successfully separate close stations. And there is nothing in Dialog to wear out! No extra drilling to install on any set.

\$1.25 with black bakelite knob and black dial plate.
\$1.25 with black bakelite knob and silvered dial plate.
\$1.50 with brown bakelite knob and gold finished dial plate.

\$-1.00 or 100-0 dial readings.

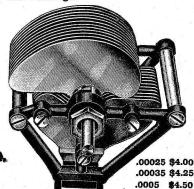
#### —And the new WALNART Station Selecting CONDENSER

The Walnart Condenser is not a straight line wave length nor a straight line frequency—but, a station-selecting condenser! Exactly what you have hoped for. Uncrowds all the stations you have hoped for. Uncrowds all the stations making it easy for anyone to turn to the right condenser setting for any station.

Put Walnart Station-Selecting Condensers in your set. Radio will mean more to you—from that day on.



308 So. Green St. CHICAGO "Makers of Good Goods Only"



# FARMER TO BENEFIT BY NEW WLS CHANGE

LESS TIME ON AIR, BETTER PROGRAMS, NEW PLANS

Sears-Roebuck Foundation to Open 5,000-Watt Plant Soon to Serve Rural Districts

CHICAGO.—Less time on the air but better and stronger farm programs during the time on, is the keynote of the winter schedule of WLS, Sears-Roebuck station

schedule of WLS, Sears-Roebuck station here, according to an announcement by Edgar L. Bill, director.

With its new 5,000-watt station ready for use within a month, the American farmer will receive an agricultural Radio service such as neither WLS nor any other station has been in a position to render heretofore, says Mr. Bill.

Better Market Reports

Market reports and weather forecasts will be greatly enlarged in the cold weather season, and only leaders in entertainment and farm information will find places on the station's winter program, designed mainly for the farmer.

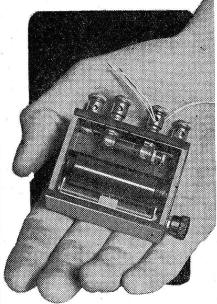
A full-time staff of seven, assisted by suggestions and criticisms of the membership of the Radio Farmers Democracy,

suggestions and criticisms of the member-ship of the Radio Farmers Democracy, will build and execute this plan. So popular has the idea of the organization become that a branch of the democracy has been organized southwest of the cot-ton belt where the agricultural founda-tion broadcasts through Station WFAA

at Dallas, Tex.

To Have New Studios

Simultaneous with the opening of the new superpower WLS at Crete, Ill., the station will also move into its new head-quarters in the new Hotel Sherman. Here will be "twin" studios, a little theater and reception room for visitors, as well as the Hardly a Handful



Women, too, entered sets in the prize contest for amateur set builders during the New York Radio World's Fair. This interesting miniature crystal set was built by Helen Giles, and it worked.

#### So This Is Venice

VENICE.—Radio amateurs in Venice have hit on a particularly bright idea; many of them, fortunate possessors of private gondolas, have fitted them up with receiving sets, and with small loud speakers, go floating about the canals of a moonlit night.

#### Kansas College Gives Credit in Air Course

High School and University Subjects Are Broadcast Regularly

MANHATTAN, Kan.—Station KSAC, the mouthplece of the Kansas State Agricultural college, a pioneer institution in the harnessing of Radio for disseminating higher education, went on the air October 5 with an education program, a prediction of which would have appeared visionary which would have appeared visionary a few years ago.

a few years ago.

A rural schools program is scheduled at 9 o'clock each morning. It consists of opening exercises, a music lesson, talks on nature study, travel, lives of great men, books to read and current events. Five minutes are devoted to an agricultural minor discussing in turn poulting. tural primer, discussing in turn poultry, crops, dairying, horticulture and live-stock. Calisthenics concludes the pro-

gram.

High school credit courses are broadcast regularly, in addition to a football
lecture course. A year's college credit
may be earned through the courses which may be earned through the courses which include general psychology, business English, community organization, educational psychology, economics, English literature, journalism, sociology, vocational education and educational sociology. Radio lectures are supplemented by home study and regular examinations are taken by the students under the direction of county superintendents.

the students under the direction of county superintendents.

Forty extension courses, covering the fields of agriculture, engineering, home economics and general science are given without college credit. Lecturers answer questions phoned to the station. Telephone exchanges have agreed to give their subscribers a certain number of free calls and the complete telephone conversation is broadcast.

Give the set a weekly sun bath to keep out the moisture

### RADIO TO HELP IN 'IRONSIDES' DRIVE

Station WEAF to Present Special Program to Assist During Constitution Week

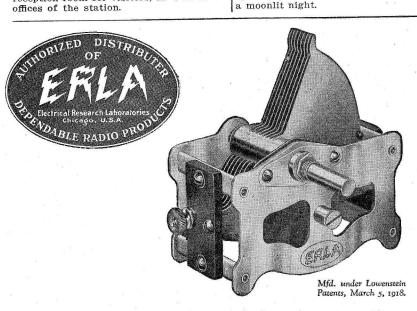
NEW YORK.—In an effort to preserve the historic "Old Ironsides," the famous ship of the American Revolution, and to celebrate Constitution Week, WEAF will celebrate Constitution Week, WEAF will present an old Ironsides program on Saturday preceding (October 17) in which Robert Hilliard, distinguished Shakespearian actor and tragedian, and Secretary of the Navy Wilbur will make speeches in Washington, D. C., which will be heard from WEAF, New York, via direct lines. Robert Hilliard is one of the best known actors of the old school and stage, and his recitation of the famous poem, "Old Ironsides," should stir the heart of every American.

"Old fronsides," should stir the heart of every American.

Secretary Wilbur will make an appeal to the American people for funds to pre-serve for posterity the most famous ship in American history, which, at the present time, is rotting away in Boston navy yard.

"John Speaks for Himself" and Is Accepted via Radio

CAMBRIDGE, Mass.—A romance which spanned two continents and resulted in a Radio proposal and Radio acceptance culkadio proposal and kadio acceptance cul-minated recently with the announcement of the marriage in Maine of John Alden, Jr., a Cambridge newspaper man, and Miss Margaret Thomas, daughter of the Rev. and Mrs. George H. Thomas of Chi-cago. Last week, while the steamship Samaria was heading toward Boston from Samaria was heading toward boston from Europe, young Alden, who is a son of the late John Alden, author, sent a Radio proposal of marriage to Miss Thomas. Miss Thomas sent acceptance winging



# Equi Space Gives Ideal Tuning at all Wave Lengths

Spreads low wavelength stations without crowding those from 50° to 100°. Lightweight and compact in style.

HERE is a new con-denser that surpasses all present-day types. The conventional straight line frequency condenser spreads stations on the low wavelength proportions on the dial but it also brings stations between 50 and 100 too close together. On the higher wavelengths are many highpowered stations that are extremely difficult to sepa-

The Erla \*Equi Space makes allowance for this.

It gives maximum spreads between over the entire range of the dial. Specially designed plates make this possible.

Now all stations, low frequency as well as high frequency, are spaced on the dial to insure the best results. Tun-ing is made far sharper. Sensitivity is greatly increased, reducing losses to an unprecedented minimum. Plates of special spring brass are scientifically special. and give maximum conductivity. Scientific tests show a resistance far lower even than costly laboratory types.

Special Erla Features

Minimum capacity only 10 m.m.f. Ratio of maximum to minimum capacity 35 to 1. capacity 35 to 1.
Total resistance of only 3 ohms at 1000 cycles.
Four riveted cross members supporting stator plates provide rigidity unapproached.

Single-hole mounting makes it easy and quick to attach. easy and quick to attack. Light weight plates of special spring brass appreciably reduce bulk and weight, and tremen-dously reduce tendency toward misalignment from rough usage.

Go to any radio store and see this amazing con-denser today. It will make a striking difference in any

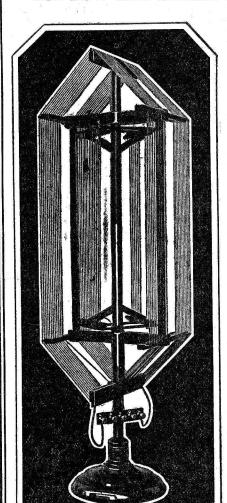
ing extreme rigidity be-cause of four riveted cross

Equi Space is small and compact, requiring little space. Very light but hav-

Send your name and address today and we will mail free, news of the latest radio discoveries and inventions.

stations \*Trade Mark R Electrical Research Laboratories CHICAGO, U.S.A.

2500	cal Rese	Grove .	Ave.	Chicago,	111
	me what				
Name					****
Addre	ss		***********		400481
City					*****



\$12.50 Beautifully finished in mahogany.

Dimensions 30 in. x 8 x 7 in.

# It's open season all the year

-for new and distant stations-with the

whole radio world your preserve when you make

# AERO-**LOOP**

### your trail-blazer and path-finder

Now is the time to replace obsolete equipment with the "Loop-within-a-Loop" that is everywhere giving such marvelous results.

The stationary inner loop acts as a "booster" while the outer loop is adjusted by rotation.

Used with—or to replace—out-

Sells for \$12.50. Askyour dealer. If he does not carry it yet, we will ship direct, express prepaid, on receipt of price. Be sure to specify the set with which it is to be used and please give dealer's name.

Write for 12-page Descriptive Diagramma-

#### SCOTT SALES COMPANY

National Distributors 443 SOUTH SAN PEDRO STREET LOS ANGELES, CALIFORNIA

UTT-WILLIAMS ELECTRICAL PRODUCTS CO SANTA ANA, CALIFORNIA

# FRENCH-SPANISH NIGHT AT PWX, HAVANA

#### Saturday, October 17

Saturday, silent night for: CFCA, CHIC, CHNC, CNRA, CNRC, CNRE, CNRM, CNRR, CNRT, CNRV, CNRW, KFAU, KFDM, KFMQ, KFMX, KLDS, KOA, KOB, KTAB, KUOM, KWSC, WBAP, WBZ, WCAU, WCTS, WCX, WEAO, WEBJ, WGCP, WHAD, WHB, WHO, WHO, WJAR, WKAQ, WLIT, WOS, WSMB, WSUI, WTIC, WWJ.

#### Eastern Time Stations

CNRO, Ottawa, Can. (435), 8 p. m., Chateau Laurier concert orchestra; 9, Marjorie Carr, soprano; Phil Bova, harmonica soloist; Richard Pentland, tenor; Louis Durocher, saxophonist; Edna Dunning, contralto; S. J. Daly, reader; Chateau Laurier dance orchestra.

Louis Durocher, saxophonist; Edna Dumning, contrainto; S. J. Daly, reader; Chateau Laurier dance orchestra.

K DKA, Pittsburgh, Pa. (309.1), 8:30 p. m., Westinghouse band; Griffith Welsh quartet, PWX, Havana, Cuba (400), 8:30-11 p. m., concert; song, Gustavo Aragon; Nena Castellanos, Elodia Rivero, Nena Canal, artists; Spanish talk; duet, Luis Diaz and Nestor de la Torre; Cuca Moran, Dulce Maria B. de Cardenas, Natalia Arostegui de Suarez, artists; talk; quartet.

WAHG, Richmond Hill, N. Y. (315.6), 12-1 a. m., Benton Harbor orchestra.

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

WBZ. Springfield, Mass. (333.1), 3 p. m., Harvard-Holy Cross football game.

WCAE, Pittsburgh, Pa. (461.3), 6:30 p. m., dinner concert, WGX, Detroit, Mich. (517), 6 p. m., dinner concert, WGX, Detroit, Mich. (517), 6 p. m., dinner concert, Moore's Melody Maids.

WGBS, New York, N. Y. (315.6), 6-6:30 p. m., Uncle Geebee; 6:30-7:30, Dulcimerians orchestra; 9-9:15, Rosella Sheiner, violinist; 9:30-10:30, program, Warner's theater; 10:30-11:30, Arrowhead Inn orchestra.

WGY, Schenectady, N. Y. (315.6), 3-5:30 p. m., Nayy vs. Notre Dame St.15 Avnur occoled the reconstructions of the program.

Program.
WGY, Schenectady, N. Y. (379.5), 3 p. m., Navy vs.
Notre Dame; 8:15, Army school bank program, Major
Gen. Charles P. Summerall, commander; 9:30, Hotel

Notre Dame; 8:15, Army school bank program, Major Gen. Charles P. Summerall, commander; 9:30, Hotel Van Curler orchestra.

WGR. Buffalo, M. (219), 2:45 p. m., Army-Notre Buffalo, M. (219), 2:45 p. m., Army-Notre Dame football game, WEAF, 7:30 p. m., lecture period; 8. Seaside Potel tricore, 7:30 p. m., Dal Ruch and his Arcadians; 6:05, Benjamin Franklin concert orchestra; 8. Sports' to World; 10:05, Benjamin Franklin dance orchestra; 11:05, organ recital, Ger-mantown theater orchestra; 11:05, organ recital, Ger-mantown theater, M. (2002), 7. p. m., Jean Goldkette orchestra; 9, Jean Goldkette's serenaders; 10, Jean Goldkette's victor Recording orchestra.

WLIT. Philadelphia, Pa. (394.5), 2:30 p. m., Agnes Land, sopranc; F. G. Barock, baritone, Marcella Charles, Arew York, N. Y. (340.7), 6-7 p. m., Olcott Vail and his Hotel McAlpin string ensemble; 11:12, Ernie Golden and his Hotel McAlpin orchestra.

WMCA, New York, N. Y. (326), 7-7:39 p. m., Chatheau Four; 8:30-33 poilice alarms; 7:35-8, Chatheau Four; 8:35-9, violinist; 9:15-9:30, instrumental novelty; 9:30-10, police quartet; 10:10-10:30, talk, board of education, Philadelphia, Pa. (508.2), 7:30 p. m., Hotel

of education.

WOO, Philadelphia, Pa. (508.2), 7:30 p. m., Hotel Adelphia Roof Garden orchestra.

WOR, Newark, N. J. (405.2), 6:15-7:15 p. m., music hour, Hotel Shelton; 7:15-7:30, sports talk, Bill Wathey; 7:30-8:30, Zit's Casino orchestra; 11-11:30, Ciro's orchestra.

WPG, Atlantic City, N. J. (299.8), 6:45 p. m., Arthur Scott Brook, organist; 7, Hotel Traymore dinner music; 8, program; 9, Chalfonte-Haddon hall evening concert; 10:30, the Silver Slipper.

WRC, Washington, D. C. (468.5), 2:30 p. m., Navy-Princeton game; 7:30, Hotel Washington orchestra; 8, Bible talk; 8:15, musical program; 10:30, Crandall's Saturday Nighters.

WREO, Lansing, Mich. (285.5), 10-12 midnight, Speed-

Wagon serenaders.

WTAM, Cleveland, Ohio (389.4), 9-12:30 p. m., novelty program, Ev Jones and Coo Coo club; Joe Ferte, tenor,

WWJ, Detroit, Mich. (352.7), 3 p. m., Detroit News orchestra.

#### Central Time Stations

KFAB, Lincoln, Nebr. (340.7), 5:30-6:30 p. m., Buick Little symphony; Belshaw's orchestra; 8:30-9:30, pro-gram, Schmoller and Mueller Piano company. KFNF, Shenandoah, Iowa (266), 7 p. m., Scotch trio. KFVE, University City, Mo. (240), 10 p. m., dance night, Gene Witachker's orchestra.

KMA, Shenandoah, Iowa (252), 6-7 p. m., popular concert, chimes, William Howie; 9-11, program.

KPRC, Heuston, Texas (296.9), 5:30 p. m., Bible class, Rev. Claud L. Jones; 7:30, twilight organ concert, Mrs. E. G. Rountree; S. Ralph and Virginia Helm Pulley; 8:30, Angleton fiddlers.



Phil Baxter is the director of a singing orchestra. When Phil and the orchestra are going full swing at KTHS, Hot Springs National Park, a frolicsome Sunday 2 vening is enjoyed by southwestern fans. He plans to be at KTHS the director of

KSD, St. Louis, Mo. (545.1), 7 p. m., Grand Central

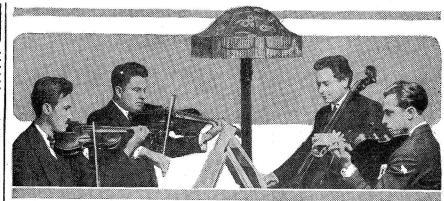
KTHS. Hot Springs National Park, Ark. (374.8), 9:10-9:20 p. m., Lawson Reid, organist; 9:20-9:30, Mrs. Harry A. Jones, soprano; 9:30-10, 10-piece New Arlington hotel orchestra; 10:10, Louis Davis, baritone; Dick Powell, tenor; Princess King, pianist; 10:40-11, dance tunes.

KYW, Chicago, III. (536), 7-7:30 p. m., dinner concert, Congress hotel; 8-9, Arthur Wellington, baritone; Sallie Menkes, pianist.

Sallie Menkes, pianist.

WAMD, Minneapolis, Minn. (243.8), 7 p. m., Fred
Roble, Robert Melchor, uke duo; Julia Barr, soprano;
Merle Fuller, pianist; 10:30, Radisson Rondevoo.

WBBM, Chicago, III. (226), 8-11 p. m., Samovar orchestra; Sunset male quartet; Blue Deuces; M. L.
Jones, coleste bells; Babbe and Barr; Jinmy Eggert;
11-1, Jim Gleason, character singer; Lew Russell;



The Hart House string quartet has recently been engaged by the Canadian National Railways to sing during the autumn and winter from the C. N. R. stations. October 26 they may be heard at CNRT.

Paul Small; Marie Morgott, harpist; Clem Dacy; Joseph Raieff, planist; Harmony Girls; George Mar-bach, tenor; Pete Kulles; 1-2, Hotsy Totsy hour; Samovar orchestra; Charlie Garland; Eddie Loftus, Nate Caldwell.

Nate Caldwell.

WCCO, Minenapolis-St, Paul, Minn. (416.4), 2:15 p. m., football game, Minnesota vs. Wabash; 6:15, dinner concert; 8, fireside philosophies, Rev. Roy L. Smith; 8:15, musical program; 10:05, St. Paul Community chest song; 10:10, dance program.

WDAF, Kansas City, Mo. (365.6), 6-7 p. m., piano tuning-in number on the Duo-Art; address, Reger W. Babson; Trianon ensemble; 11:45-1 a. m., Merry Old Chief, Plantation players; Johnnie Campbell's Kansas City club orchestra; Earl Coleman's orchestra; Eddie Kuhn's Kansas City Athletic club orchestra.

WEBH. Chicago, III. (370.2), 7:30-8:39 p. m., Oriole orchestra; Howard Neumiller, pianist; 9:30-10:30, Oriole orchestra; Marie Kelly, reader; Kay Ronayne, songster; 11:30-1 a. m., Oriole orchestra; Frank Grief, tenor; Blanche and Rudi Baie; Wayne Myers, reader.

tenor; Blanche and Rudi Baie; Wayne Myers, reader.

WENR, Chicago, III. (266), 6-7 p. m., Rauland lyric trio; S-10. All-Amercian Pioneers; James Beaumont, banjoist; Walter Peterson, Kentucky Wonder Beau; 12-2 a. m., midnight frolic, Frank Westphal and his All-Amercian Pioneers; Tommy Smith, tenor; Hal Laige, saxophonist.

WFAA, Dallas, Texas (475.9), 6:30-7:30 p. m., Ford and Glenn, Solemn Old Judge; 8:30-9:30, Mozart choral club; 11-12, Adolphus hotel orchestra.

WGES, Oak Park, III. (250), 7-9 p. m., Frank Greif, tenor; Franklin Horstmeier, bass; Bryce Talbot, baritone; 11-2 a. m., Kampus Kollegians orchestra; Phill Wilcox, Erwin Schmidt, Parrish and Ward, Phil Fleming, Lew Butler.

WGN. Chicago, III. (370.2), 6:30-7:30 p. m., Drake concert ensemble, Blackstone string quintet; 8-9, WGN string trio; 10-11, jazz scamper program, Jack Chapman's and the Blackstone dance orchestras.

WHAD, Milwaukee, Wis. (278), 6-7 p. m., Arthur Richter, organist. Richter, organist.

WHAS, Louisville, Ky. (399.8), 4-5 p. m., Music Box studio; 7:30-9, concert, Mrs. Harry R. Moore, Mrs. Dora Blandford.

WKRC, Cincinnati, Ohio (422.3), 10 p. m., Marion McKay and his orchestra.

MLS. Chicago, III. (344.6), 7 p. m., lullaby time; 7:25, national barn dance; 10, dance music, Hotel Sherman orchestra; 11, Joe Brens minstrels, Grace Wilson, WLS studio trio; Ideal quartet, Tony Corcoran, Ralph Emerson.

WLW, Cincinnati, Ohio (422.3), 7 p. m., Johanna Grosse, organ soloist; instrumental trio, violin, cello and plano; 7:35, Seckatary Hawkins; 8, organ and trio concert.

trio concert.

WMAQ, Chicago, III. (447.5), 2 p. m., football; 6,
Chicago theater organ; 6:30, Hotel LaSalle orchestra;
S, Daw and Pratt; 8:30, "The Salvation Army Around
the World," Col. Damon; 9, Chicago theater review.

the World," Col. Damon; 9, Chicago theater review.

WMBB, Chicago, III. (250), 7-8 p. m., Trianon duo;
Beatrice Teller, Lindsey McPhail, M. Morgan, Hazel
O'Neil, Jean Ballard, Paul Cadieux, John Everett;
9-11, Trianon orchestra, Dell Lampe, conductor; Edward Hines, Jimmy Eggert; Woodlawn theater orchestra; Armin Hand, conductor; Clyde Hager, Dave
Williams and Elsie White; gala-syncopation program.

WMC, Memphis, Tenn. (499.7), 8:30 p. m., program
sponsored, Hugh Sandidge.

WOAW, Omaha, Nebr. (526), 6 p. m., Rialto orchestra; 7, orchestra; 7:30, speakers' hour; 9, program,
Omaha Printing company; 11, Arthur Hays, organist.

WOK, Homewood, III. (217.3), 6-7 p. m., Robert York,

WOK, Homewood, III. (217.3), 6-7 p. m., Robert York, tenor; Harriet Doty, contralto; Banks Kennedy, organist; LeRoy North, planist; 10-1, Fred Witmer, planist; Harold Morava, tenor; Herman Sinaiko, violinist; WOK string trio; Harriet Lee, contralto;

Ada Tilley, soprano; Bill Hay, bass; Banks Kennedy, organist; LeRoy North, pianist; Sandy Meek, tenor; Harry Sosnik, pianist; Carl Karmeyer, violinist; Mr. Conover, cellist.

WORD, Batavia, III. (275), 8-10:30 p. m., Webster hotel

Conover, cellist.

WORD, Batavia, III. (275), 8-10:30 p. m., Webster hotel concert.

WOC, Davenport, Iowa (483.6), 9-10 p. m., Robert Lynch, bartione; Howard A. Carroll, tenor; Herbert Silberstein, violinist; L. Emery Wass, reader; 11-12, LeClaire hotel orchestra; Peter MacArthur, baritone.

WOS, Jefferson Gity, Mo. (440.9), 2:30 p. m., Rolla-Missouri football game.

WOJ. Chicago, III. (447.5), 7-8 p. m., concert, Ralph Williams and his Rainbo Gardens orchestra; Maria Dueprova, Russian soprano; Everett Mitchell, baritone; Kane McDuffee, whistler; 10-3 a. m., Ralph Williams and his Rainbo Skylarks; Jorry Sullivan; Rose Vanderbosch, soprano and planist; Hal Lansing and his uke; Bert Davis; Melodians; Everett Opie, character reader; Clarence Theders, tenor; Sandy Meck. Scotch tenor; Harry Sosnick, planist; Williamson Brothers, steel gultarists; artists.

WSAI, Cincinnati, Ohio (326), 7:45 p. m., children's stories, WSAI Story lady; 8, chimes, Robert Badşley; 8:15, Bicycle Playing Card sextet; popular song, Jack Little.

WSUI, lowa City, lowa (483.6), 2:30 p. m., Jowa-Illinois.

### Mountain Time Stations

KFWA, Ogden, Utah (261), 9-12 midnight, Olie Reever and his orchestra.

#### Pacific Time Stations

KFOA, Seattle, Wash. (454.3), 8:30-9:30 p. m., program; 9:30-11:30, Eddie Harkness and his orchestra. KFWB, Hollywood, Calif. (252), 7:30 p. m. incrophone brevities; 8-9, Mildred Masser, female bartione; Margaret Grewar, soprano; Henry Lord, basso; Fred Hayn, flutist; 9-10, Warner Brothers, syncopators; Lavonia Somes, whistler; Bill Blake, tenor; 10-11, Warner Brothers frolie, direction Norman Manning.

KGO, Oakland, Calif. (361), 4-5:30 p. m., concert orchestra, Hotel St. Francis; 8:10, Sherman, Clay and company, "Barber Shop Ballads," Joseph Henry Jackson; California male quartet; "The Music of South America," Mrs. J. Del Valle, pianist; Virginia Graham, soprano; Pasmore instrumental trio; 10-12, dance music, Hotel St. Francis.

KGW, Portland, Ore. (491.5), 10-12 midnight, Indian Grill.

KHJ, Los Angeles, Calif. (405.2), 5:30-6:30 p. m.

Grill.

KHJ, Los Angeles, Calif. (405.2), 5:30-6:30 p. m., Leighton's Arcade cafeteria orchestra, Jack Cronshaw, leader; 6:30-7:30, history story, Prof. Walter Sylvester Hertzog; Jack Searle, screen juvenile; E. K. Barnes; 7:30, Sizer instrumental trio of Long Beach; 8-10, Coast Enameling and Plating company program; 10-11:30, Art Hickman's Biltmore hotel dance orchestra, Frank Ellis, leader; 11:30-2 a. m., Lost Angels of KHJ with Walter Biddick, E. K. Barnes, O. G. Pirie and Lost Angel orchestra.

KJR, Seattle, Wash. (384.4), 8:30-10 p. m., L. C. War-ner company studio program.

ner company studio program.

KNX, Hollywood, Calif. (336.9), 5:30-6:15 p. m.,

Wurlitzer pipe organ studio, Town Tattler; 6:15, travel

talk, W. F. Alder; 6:30-7, Atwater Kent Radio

orchestra, Paul Finstein, leader; 7-8, Wurlitzer pipe

organ studio; 8-10, program, Westlake Business Men's

association; 10-11, Ray West's Coccanut Grove dance

orchestra from Ambassador hotel; 11-2 a. m., Holly
wood night featuring some of the screen's famous

people.

people,
KPO, San Francisco, Calif. (428.3), 6:35-7:30 p. m.,
Waldemar Lind and the States Restaurant orchestra;
8-12, Cabira cafe orchestra.
KTCL, Seattle, Wash. (305.9), 6:50-7:15 p. m., Hermie
King and his super-soloists; 8:30-12, Uncle Hal and
his stars of Radio.

#### Sunday, October 18

Sunday, silent night for: CHIC, CHNC, CNRA, CNRC, CNRE, CNRM, CNRO, CNRR, CNRT, CNRY, CNRW, KFAB, KFAU, KFMQ, KFOA, KFWA, KOB, KSD, KWSC, WAHG, WBAP, WCAU, WCEE, WC, WDAF, WEAO, WEBJ, WFI, WHAD, WHAS, WJR, WLIT, WMC, WOK, WOO, WOR, WORD, WRC, WSAI, WSMB, WTAM, WTIC.

#### Eastern Time Stations

KDKA, Pittsburgh, Pa. (309.1), 4 p. m., Dr. Charles Heinroth, organist; 4:45, vesper service, Shadyside Presbyterian church; 6:30, Pittsburgh Athletic asso-ciation; 7:45, church service.

WBBR, New York, N. Y. (272.6), 9 p. m., I. B. S. A. choral singers; 9:10, Watchtower violin choir; 9:20, I. B. S. A. choral singers; 9:30, Bible lecture, Judge Rutherford; 10, I. B. S. A. choral singers; 10:20, Watchtower violin choir; 10:20, I. B. S. A. choral singers; Notice of the watchtower violin choir; 10:20, I. B. S. A. choral singers.

singers,

WBZ. Springfield, Mass. (333.1), 10:55 a. m., Trinity
church; 8, farm talk, Dean Roscoe Pound.

WGAE, Pittsburgh, Pa. (461.3), 2:45 p. m., People's
Radio church; 3:45, pr. S. Parker Cadman; 6:30, dinner concert, William Penn hotel; 7:20, Capitol theater
eane.

gang.

WCTS, Worcester, Mass. (268), 3:45-5:30 p. m., men's conference, Bedford branch Y. M. C. A.; Dr. S. Parkes Cadman; 7-7:20, "The Artic from the Air," Donald B. MacMillan; 7:20-9:15, Major Edward Bowes and the Capitol gang.

Bowes and the Capitol gang.

WCX, Detroit, Mich. (517), 10:30 a. m., services, Central Methodist Episcopal church.

WEAF, New York, N. Y. (491.5), 2-3:45 p. m., "Sunday Hynn Sing," Federation of Churches, 3:45-5:30, men's conference, Bedford branch, Y. M. C. A. 7-7:20, "The Arctic from the Air," Donald B. Mac-Millan; 7:20-9:15, "Capitol Gang," Capitol theater; 9:10-10:15, Atwater Kent Radio hour.

WEAR. Claysland Chic (380.4) 12:01 c. m. First

9:10-10:13, Atwater Kent Radio hour, WEAR. Cleveland, Ohio (389.4), 12:01 a. m., First midnight concert, Goodyear concert orchestra; 3:30 p. m., Goodyear concert orchestra; 7, Stillman theater orchestra; 8, WEAR mixed quartet; Francisci instrumental quartet.

WEEI, Boston, Mass. (348.6), 3:45 p. m., men's conference, Y. M. C. A.; Dr. S. Parkes Cadman; 7:20, Major Bowes and his Capitol theater family; 9:15, musicale.

MGBS, New York, N. Y. (315.6), 3:30-4:30 p. m., program, Warner's theater; 8-9, opera in conjunction with Corriere D'America.

WGCP, New York, N. Y. (315.6), 8-11 p. m., musical program.

Rev. John P. Sala, University Church of Christ; 7:45, Central Presbyterian church service, Rev. John Richelson, D. D. 59:15-10:13, jointly with WEAF Atwater Kent Radio artists, featuring Madame Louise Homer.

#### Central Time Stations

KFAB, Lincoln, Nebr. (340.7), 4-5 p. m., vesper service. KFDM, Beaument, Texas (315.6), 8-9 p. m., sacred

KFDM, Beaument, Texas (315.6), 8-9 p. m., Sacred program.
KFMX, Northfield, Minn. (337), 7-8 p. m., college vesper service.
KFNF, Shenandoah, lowa (266), 10:45 a. m., First M. E. church; 2:30 p. m., Golden Rule song service; 3, mer's gospel team; 6:30, Golden Rule Circle; 7:30, Christian church services.

Mrs. George Mrs. George Spaulding is a member of the Seed House bunch presid-ed over every evening by Henry Field, evening by
Henry Field,
the most popular announcer of the West.
Mrs. Spaulding sings oldfashioned songs in an
old-fashioned
way at KFNF,
Shenandoah.



KFVE, University City, Mo. (240), 10 p. m., sermon, "Friendship," Rev. C. W. Davis, Bethlehem Congregational church; sacred selections.

KLDS, Independence, Mo. (441), Il a. m., Stone church services; 9, Pauline Becker Etzenhauser, organist; Vina May Jenner and Arthur Kochler Campbell, planist; sermon, Dr. Frederick M. Smith.

KMA, Shenandoah, Iowa (252), 4-6 p. m., vesper service. KPRC, Houston, Texas (296.9), 11 a. m., South End Christian church; 8 p. m., Trinity Lutheran church; 9:30, Julian Paul Blitz and his Hotel Brazos crchestra. KTHS, Hot Springs National Park, Ark. (374.3), Il a. m., 12:30 p. m., services, Central Methodist church, Rev. J. J. Stowe, pastor; Arthur Platz, organist; 9-10, DeLuxe orchestra concert, Meyer-Davis ensemble; Lon Chassy, conductor; cornet, violin and cello solos and duets; 10-11, frolic, Phil Baxter and his Original Slinging orchestra.

(Continued on page 9)

(Continued on page 9)

### Headliners of the Week

PWX announces a program of French and Spanish music Satur-French and Spanish music Saturday night. Operatic selections from Lucia Di Lammermoor, Carmen and La Boheme will be sung by Nena Canal, Mrs. Sofia Barreras de Montalvo and Mrs. Natalia Arostegui

Through the courtesy of the Atwater Kent company, musicians of international reputation will be heard from WEAF and linked stations this winter. Mme. Louise Homer, who as a member of the Metropolitan and Chicago Civic opera companies, is well known to music lovers, will be the artist this Sunday. WDAF, the Kansas City Star station, goes up in power to 1,000 watts and dedicates the new equipment Sunday. Herbert Hoover will be the speaker of the evening.

"What an artist means by art is always a problem to the layman. The lecture on "International Art," by Homer Saint-Gaudens, director of the Fine Arts at Carnegie institute, at KDKA will contain many little hints on understanding masterpieces. KGO listeners will hear some interesting things about the origin of lighthaired and dark-haired people when Roscoe D. Wyatt discusses Monday, "Why It Pays to Analyze Character."

A hand-shaking vocal duet best describes what Bob Groenske and Jim Mischler, Hello Boys, will do to en-tertain Tuesday night at WLW, Cin-

Wednesday is an important day in the history of science for this is the day the great Edison was born. WGY, WJZ and eighteen other broadcasters throughout the country will transmit electric night pro-

Opera now has its definite place in Radio. It is no longer a question of whether jazz or classical music shall be featured. Both have their ening is night at WBZ. Madame Vinello-

Johnson is sponsoring the program.
WTIC invites you to listen in Friday night to a popular half hour for distant listeners. The farther away the more urgent the invitation be-comes. Graduates of the University of Minnesota will not need to be reminded that WAMD is broadcasting a football "Pep" fest on Friday, at 8 p.m. central time.

# HEAR LOUISE HOMER ON WEAF CHAIN

#### Sunday, October 18

(Continued from page 8)

KYW, Chicago, III. (535.4), 11 a. m., Central church service; Rev. F. F. Shannon, pastor; musical program, Daniel Protheree, director; 4, concert, Edwin Harper, director; 7, Chicago Sunday Evening club; choir of 100 voices.

WAMD, Minneapelis, Minn. (243.8), 6 p. m., George Osborn's orchestra; 9:30, Marion Latta, contralto; Merle Fuller, pianist; Eldridge Meagher, musical swa soloist; George Donavan, tenor; 10:30, Radisson Rondevoo.

Soloist; Gourge Donavan, conv. Totoly Rondevo.

WBBM, Chicago, Ill. (226), 4-6 p. m., Harmony Girls; Edith Carpenter, Grace Ingram, Frank G. King, Jr., and his Yankee band, Charlie Garland, Nate Caidwell, Eddie Lottus, Corrine Jordan, Blue Deuces, Harold Anderson; 8-10, Frances Ingram, Metropolitan opera contralto; Joseph Raieff, duo art planist; Jeanee St. Anne, French baritone; Ted Coleman, cellist; Sunset male quartet; 12-2, Nutty club.

WCAU, Philadelphia, Pa. (277.6), 5 p. m., Hopte Craig Wyncoop, planist; 5:15, Radio church service, Rev. John V. Stockwell; 5:25, Second Gospel book, Rev. John V. Stockwell; 5:55, rectait; 5:45, "Making the Best of Things," Rev. J hn V. Stockwell; 6, Pennsylvania hotel concert ord sitra.

WGBD. Zion. Ill. (344.6), 8 p. m., mixed quartet,

syrvania note: concert orce sura.

WCBD, Zion, Ill. (344.6), 8 p. m., mixed quartet, brass quartet; J. D. Thomas, soprano; M. P. Barton, tenor; Mrs. Thomas, soprano; Mrs. LaRose, contraito; vocal trio; George Beem, Carl Newcomer, marimba duet; Susie Barton-Smith, reader; Josephine Martin, vicetary.

planist.

WCCO, Minneapolis-St. Paul, Minn. (416.4), 10:20 a. m.,
Plymouth Congregational church; 4:10 p. m., House of
Hope Presbyterian church; 8:15, station WEAF, Atwater Kent program; 9:20, classical concert.

WDAF, Kansas City, Mo. (365.6), 4:5 p. m., Orpheus
male quartet; 5:5:30, Sunday school lesson, Dr. Walter
L. Wilson.

WEBH, Chicago, III. (370.2), 7-9 p. m., artist pro-

gram.

WENR, Chicago, III. (266), 2-4 p. m., Rauland lyric trio; Russell Hendrickson, cellist; O. T. Norum, tenor; 9:30-11:30, All American Pioneers.

WFAA, Dallas, Texas (475.9), 6:30-7:30 p. m., Radio Bible class, Dr. William M. Anderson; 8-9. First Methodist Episcopal church; 9:30-11, Durward Cline and his Collegians orchestra.

and als conegians orenesura.

WGES, Oak Park, Ill. (250), 7-9 p. m., John Stamford, tenor; Franklin Horstmeier, bass; Marguerite Ray, contraito; Frances Barge, violitist; Elsie Barge, planist; 11-2 a. m., Eleanor Kaplan, violinist; John Rankel, baritone; Ruth Kalthoff, soprano.

WGN, Chicago, III. (370.2), 1 p. m., program, Chicago theater; 9-10, Drake concert ensemble.

theater; 9-10, Drake concert ensemble.

WHAS, Louisville, Ky. (399.8), 9:57 a. m., organ prelude; 10, Broadway Christian church; 4:30-5:30, Christ church choral service.

WHB, Kansas City, Mo. (365.6), 9:40-10:45 a. m., services; Linwood Christian church; Dr. Burr Jenkins, minister; 8-9:15 p. m., evening services; 11:15-1, organ selections, Morrell Moore; dance music, Gary's School of Dancing.

WHO, Des Moines, Iowa (526), 11 a. m., University church service; sermon, Dr. C. S. Medbury; 7:30-8:30 p. m., Reese-Hughes orchestra.

WKRC, Cincinnati, Ohio (422.3), 6:45 p. m., Walnut Hills Christian church; 10, Gene Schmitt, baritone; Gene Walter Bridge, tenor; Merrell Schwarz, baritone; Gene Parazzo, pisnist.

Hills Christian enurel; 10, deten Schmitt, Sartone; Gene Parazzo, pianist.

WLS, Chicago, Ill. (344.6), 6:30 p. m., Ralph Emerson, organist; 7, WLS Little Brown church.

WLW, Cincinnati, Obio (422.3), 9:30 a. m., school, editorial staff of Sunday school publication, Methodist Book concern; 11, services, Church of the Covenant, Dr. Frank Stevenson; 7:30 p. m., services, First Presbyterian church, Dr. Frederick McMillan, minister; 8:30, concert, H. & S. Pogue concert; Walter Esberger, director; soloist, George Muhihauser.

WMBB, Chicago, Ill. (250), 3-5 p. m., Trianon orchestra, Dell Lampe, conductor; Billie Hoff, Walter Duffy, Geraldine Doyle; Woodlawn theater orchestra, Armin Hand, conductor; 7-8, Trianon duo, J. Bodewalt Lampe, director; Beatrice Teller, Hazel O'Neil, Joel Lay, Florence Rush, semi-classical program; 9-11, Trianon orchestra, Dell Lampe, conductor; Harold Stokes, Charles Agne, M. Alswang; Woodlawn theater orchestra, Armin F. Hand, conductor; WOAW, Omaha, Nebr. (326), 9 a. m., chapel service, Rev. R. R. Brown; 9, chapel service.

WOC, Davenport, lowa (483.6), 6:30-7:30 p. m., church service, Rev. John L. Daleiden; 8:15-9:15, Atwater Kent Radio artists; 9:45-11:45, Palmer little symphony.

service, Rev. John L. Daleiden; 8:15-9:15, Atwater Kent Radio artists; 9:45-11:45, Palmer little symphony (Nord). Batavia, Ill. (275), 9 p. m., hymns and sacred songs, I. B. S. A. choral singers; 9:10, address, B. F. Hollister; 9:30, Lela Hammer, pianist; I. B. S. A. choral singers. Wo.S. Jefferson Gity, Mo. (440.9), 9:30 a. m., Christian church; 7:30 p. m., Presbyterian church. Wo.J. Chicago, Ill. (447.5), 9:30-11:30 a. m., sermon and service, People's church; 100 voice choir; Clarence Eddy, organist; 3-4 p. m., concert; Salda A. Ballantine artists; Elizabeth Green, violinist; Helen Keller, pianist; Bernice Smith, Mezzo-soprano; Paco Escalara, tenor; Garfield Stedner, baritone; Henri Biancai, cellist; Countess Vichy, contralto; Iola Juhl, soprano; 8-10, Ralph Williams and his Rainbo Gardens orchestra; G. B. Roe, baritone; Maude Couse, lyric soprano; Lavina Price, pianist; Sheppard Levine, tenor; Helen Reed, accompanist; Gertrude Quentin, soprano; Frederick Mueller, German tenor; Kathryn Diepenbrodk, pianist and accompanist; Fontella trio. WSAI, Cincinnati, Ohio (325.9), 2:45-4:30 p. m., address, Capt. Donald B. MacMillan, WEAF; 7:45, chime concert, Robert Badgley; 8. sermonette, Rev. J. P. Love; 8:15-9:15, WEAF program, Mme. Louise Mountain Time Stations

Mountain Time Stations

KOA, Denver, Colo. (322.4), 10:55 a. m., First Unitarian society; 4 p. m. First Unitarian society; Mrs.
Faye Roswell, organist; 7:45, First Unitarian society;
KUOM, Missoula, Mont. (244), 9:15 p. m., English
Lutheran choir; talk, Rev. Henry Kumnick.

Pacific Time Stations

KFWB, Hollywood, Calif. (252), 9-11, p. m., late news and Warner Brothers movie frolic; Charles Beauchamptenor; Babe Brown, ukelele; Frank Stever, baritone; Al Myer's Acollans; Frances St. George, the jazz-

tenor: Babe Brown, ukelele; Frank Stever, baritone; Al Myer's Aeolians; Frances St. George, the jazzmania girl.

KGO, Oakland, Calif. (361), 11 a. m., Seventy-fifth anniversary service, First Unitarian church; 3:30 p. m., KGO Little symphony orchestra; 8, First Unitarian church.

KGW. Fortland, Ore. (491.5), 10:25 a. m., First Presbyterian church; 7:25-9, First Presbyterian church; 7:25-9, First Presbyterian church Arcade cafeteria orchestra, Jack Cromshaw, leader; 7-7:30, Arthur Blakely, organist; 8-10, de luxe program, arranged and presented by J. Howard Johnson.

KNX, Hollywood, Calif. (336.9), 2-4 p. m., City of Los Angeles, Westlake park; 7-8, First Presbyterian church, Rev. Stewart P. MacLennan, pastor; 8-9, Ambassador hotel concert orchestra, Josef Rosenfeld, director; 9-10:30, program, Beverly Hills nurseries, Russian string quartet, Calmon Luboviski, concert violinist.

KPO, San Francisco, Calif. (428.3), 5-6 p. m., Marshall Giselman, organist; 6, Waldemar Lind and the States restaurant orchestra; 6:35, concert orchestra, Palace hotel; 8, Palace hotel concert orchestra, as 30-10, Rudy Seiger's Fairmount hotel orchestra.

KTAB, Oakland, Calif. (215), 10 a. m., Bible lecture, Prof. Linsley; 11, church service; 7:45 p. m., church service; 9:30, late concert.

KTCL, Seattle, Wash. (305.9), 7:50-9:10 p. m., First Church of Christ, Scientist; 9:10-10:10, International Bible Students association.



Monday, October 19

Monday, silent night for: CNRA, CNRC, CNRE, CNRM, CNRO, CNRR, CNRV, CNRW, CNRT, KFDM, KFMQ, KFMX, KHJ, KLDS, KTCL, KYW. WBBM, WCBD, WEAO, WEBH, WEBJ, WEAR, WFI, WGBS, WGES, WGN, WHAS, WIP, WKAQ, WLS, WMAQ, WMBB, WOC, WORD, WQI, WRC, WREO.

WEES, WGN, WHAS, WIP, WKAG, WLS, WMAQ, WMBB, WOC, WORD, WQI, WRC, WRED.

Eastern Time Stations

CHIC, Toronto, Can. (356.9), 10 p. m., Queen City Novelty instrumental troupe.

CKNC, Toronto, Can. (356.9), 8 p. m., Charles E. Bodley and his orchestra; Sydney Walsn, tenor; Charles Shearer, baritone.

KDKA, Pittsburgh, Pa. (309.1), 6:15 p. m., dinner concert; 7:45, "International Art," Homer Saint-Gaudens; 9, Spear's happy home hour.

WHG, Riehmond Hill, N. Y. (315.6), 7:30-7:45 p. m., Emma Keller May, soprano; 7:45-8, Heagney and Steele, songs; 8-8-30, Synchrophase trio; 8:35-9, Horace J. Taylor, reader; 9-9:15, Emma Keller May; 9:15-9:30, Heagney and Steele; 9:30-9:45, Trainmen's trio; 9:45-9:55, Synchrophase trio; 10-10:15, Synchro

worts, woreester, mass. (200), o p. m., concer param.

wox. Detroit, Mich. (517), 6 p. m., dinner concert, Book-Cadillac hotel; 8, musical program.

weaf, New York, N. Y. (491.5), 44-115 p. m., Loraine Osborne, contratlo; Winifred T. Barr, accompanist; 4:15-4:39, Margaret Williams, reader; 4:30-4:45, Sylvia D. Lyons, bianist; 4:45-5, "Book Chat." Worton Tewson; 6-7, dinner music, Waldorf-Astoria, 7-7:15, Ernest Wendell Nichel, whistier; 7:15-8:30, program. Mark Strand theater; direction, Joseph Plunkett; 8:30-8:45, Vec Lawnhurst, planist; 8:45-9, Tower health talk; 9-10, music, A. 2nd P. Gypsies; 10-10:39, "Your Hour"; 10:30-11:30, Ben Bernie and his orchestra. Tower health talk; 9-10, music, A. and P. Gypsies; 10-10-30, "Your Hour"; 10-30-11-30, Ben Bernie and his orchestra.

WEAR, Cleveland, Ohio (389.4), 7 p. m., Allen theater

orchestra.

WEEI, Boston, Mass. (476), 6:30 p. m., Big Brothers club; 7:15, musicale; 7:30, John E. Borhek, boy soprano; 7:45, Boston Chamber of Commerce organ recital; 8:30, J. Garfield Stone, tenor; 8:45, Tower health talk; 9, A. & P. Gypsies; 10, Marimba band ored conjecture.

Lopez Hotel Statler dance orcnessia, L. L. Lopez Hotel Statler dance orcnessia, MGY, Schnectady, N. Y. (379.5), 6:30 p. m., Hotel Van Curler orchestra; 7:30, Mary Zoller, xylophonist; Erlau Wilcox, pianist; Henry Gratton, James Willis,

Louise Homer, contralto of the Chicago Civic Opera company, is the guest, Octo-ber 18, of Atwater Kent on the WEAF chain.

Widdemen. B. (275), 7:30 p. m., stories for little folks, Mildred C. Hagan; 8, Seaside hotel 

orchestra.

WOO, Philadelphia, Pa. (508.2), 8 p. m., Mark Strand theater; 8:30, Vee Lawnhurst, planist; 8:45, Walter H. Preston, baritone; 9, A. and P. Gypsies; 10, your hour; 10:30, Ben Bernie and his orchestra; 11, Hotel Ritz Carlton orchestra.

Ritz Carlton orchestra.

WOR, Newark, N. J. (405.2), 6:15-6:17 p. m., "Words Often Mispronounced;" 6:17-7:15, muslc, Hotel Shelton; 7:15-7:30, sports talk, Bill Wathey; 7:30-8, Club Ciro's orchestra; 8:30-9:30, Al Reid's hour; 9:30-9:45, talk, Edward H. Bierstadt; 11-11:30, Archie Slater's Palais D'Or orchestra.

WPG, Atlantic City, N. J. (299.8), 4:30 p. m., Chalfonte-Haddon hall afternoon tea muslc; 6:45, Arthur Scott Brook, organist; 7. Hotel Morton trio dinner muslc; 8, "World-Whide Excursions." Alfred James P. McClure; 8:15, studio program; 9, Hotel Traymore concert orchestra; 10, studio program; 10:30, Silver Silpper, teatret D. C. (465.2), 7, Slever Silpper, teatret D. C. (465.2), 7, Sl

mcclure; 8:10, studio program; 9, Hotel Traymore concert orchestra; 10, studio program; 10:30, Silver Silpper.

WRC, Washington, D. C. (468.5), 7 p. m., Shoreham hotel orchestra; 8, Wurlitzer musicale, WJZ; 9, musical program; 10, "Over the Seven Seas—Life Aboard Ship," WJZ; 10:30, W. Spencer Tupman and his Hotel Mayflower orchestra, WJZ.

WTAM, Cleveland, Ohio (389.4), 8-11 p. m., excerpts from opera, "Pirates of Penzance"; favorite artists; Willard symphony; Walter Logan, director.

WTIC, Hartford, Conn. (475.6), 6:30 p. m., Emil Heimberger's Hotel Bond trio; 7:45, talk; 8, dinner music.

music.
WWJ, Detroit, Mich. (352.7), 3 p. m., Detroit News orchestra; 6, dinner concert; 8, Detroit News orchestra,
A. & P. Gypsies.

Central Time Stations

KFAB, Lincoln, Nebr. (340.7), 5:30-6:30 p. m., Buick Little symphony; Belshaw's orchestra; 8:30-10:30, American Legion program; Belshaw's orchestra; Mart Grauenhorst, banjoist. KFNF, Shenandoah, lowa (266), 7 p. m., Smith-Beld-

ing trio.

KFVE, University City, Mo. (240), 10 p. m., Margaret
Gollhafer, lyric soprano; Miss Netcher, accompanist.

KMA, Shenandoah, Iowa (252), 9-11 p. m., chimes, Wil-

liam Howie; Bobble Riddle, 6 year old singer, clog dancer; program, Mrs. Gertrude May. KPRC, Houston, Tex. (296,9), 7:30 p. m., Record's Ramblers dance orchestra; 8:15, Seger Ellis, Victor record artist; 8:30, Kiwanis glee club; 9:15, Humble Oil and Refining company band; 10, Frank Tilton, pianist. KSD, St. Louis, Mo. (545.1), 9 p. m., Negro music, St. Louis branch.

Louis branch.

KTHS, Hot Springs National Park, Ark. (374.8), 9-9:45
p. m. concert, New Arlington orchestra; violin solos,
Lon Chassy; string quartet; 9:45-10, organ solos, Lawson Reid; 10-11, Bainbow Garden 555 frolic.

WAMD. Minneapolis, Minn. (243.8), 6 p. m., George
Osborn's orchestra; 7, "A Trip Around the World,
Sweden," Loreta Reitz Lunde, soprano; John Nyborg,
tenor; Lawrence Berg, baritone; 10:30, Radisson
Rondevoo.

Sweden," Loreta Reitz Lunde, soprano; John Nyborg, tenor; Lawrence Berg, baritone; 10:30, Radisson Rondevoo.

WBBM, Chicago, Ill. (226), 6-7 p. m., Stewart-Warner studio, Hattie Bell Shields, cellist; Doris Ryan, planist; Lew Russell; Montmartre orchestra.

WCCO, Minneapolis-S Paul, Minn. (416.4), 6:45 p. m., F. & R. Family; 7:30, Minneapolis Community fund talk; 7:45, poultry raising, lesson 1; 8:15, Hamlin Hunt, organist.

WDAF, Kansas City, Mo. (365.6), 6-7 p. m., piano tuning in number on the Duo-Art; dialect readings, C. M. Ragon; Tell-Me-a-Story lady; Trianon ensemble; 8-9:30, Ivanhoe band, Walter French, director; Ivanhoe glee club; address, Herbert Hoover; 11:45-12, m., Merry Old Chief, Carl Norberg's Plantation players; Ted Meyn, organist; Eddie Kuhn's Kansas City Athletic club orchestra.

WFAA, Dallas, Tex. (475.9), 6:30-7:30 p. m., Artie Collins and his orchestra; 8:30-9:30, Sears-Roebuck agricultural foundation program.

WHAD, Wilwaukee, Wis. (278), 6-7 p. m., Arthur Richter, organist; 8-10, Marquette university studio program.

Richter. organist; 8-10, Marquette university studio program.

WHB. Kansas City. Mo. (365.6), 7-8 p. m., popular music. Sweeney orchestra.

WHO. Des Moines, lowa (526), 7:30-8 p. m., program, advanced students of the Drake Conservatory of Music; 8-9, faculty program, Drake Conservatory; 11-12, Corn. Sugar orchestra.

WKRC, Cincinnati, Ohio (422.3), 6 p. m., Alvin Roehr's Hotel Alms orchestra; 10, Freda Sanker's orchestra; 11, program, Robert E. Bentley Post, American Legion; 12, theaterical stars, Wesley Helvey's Troubadours.

WLW. Cincinnati, Ohio (422.3), 12.15 p. m., noon-day service, Rev. George H. Kase; 4, student recital, classes of Leo Stoffregen; 7, dinner hour concert, Hotel Gibson orchestra, Robert Visconti, director; 8,



Senora Lolita V. de Cintron of Lima, Peru, brings Latin romance with her when she sings at WTIC, Hartford. She wears her native dress and sings Spanish songs.

concert, Crosley Salon orchestra; 8:30, 30-minute program advanced artists; Cincinnati Conservatory of Music; tenor, Howard Hafford.

WMC, Memphis, Tenn. (499.7), 8:30 p. m., Britling's cafeteria orchestra.

WOAW, Omaha, Nebr. (526), 6 p. m., Phyllis Griswold, organist; 6:30, popular song period, Lillian Madsen, director; 7, Randall's Royal Fontenelle orchestra; 9, De Luxe program.

Wok. Chicago. III. (217.3), 6-1 p. m., Jimmy Watson, baritone; Ada Tilley, soprano; Paul Small, tenor; Jimmy Cairns, tenor; Lew Butler, baritone; Herman Smalko, violinist; Harlan Merrill, musical saw soloist; Harry Sosnik, planist; Sandy Meek, tenor; Harriet Lee, contraito.

Lee, contralto.

WOS, Jefferson City, Mo. (440.9), 8 p. m., "Europe As I Saw It," George W. Reavis; Christian college music.

WSAI, Cincinnati, Ohio (325.9), 8 p. m., A. and P. Gypsies, WEAF; 9, Illah Clark, soprano; Richard Gray, bartione; Wilhelmina Bixler, pianist; Truman Boardman, violin.

'SUI, Iowa City, Iowa (483.6), 7:30 p. m., colleg the air, Mahan, Mott, Shimek, Reuter; 9, music.

Mountain Time Stations
KFAU. Boise, Idaho (278), 8 p. m., program, Payette
chamber of commerce.
KFWA. Ogden, Utah (261), 9-10 p. m., music, Fashion

KWA, Oguen, Otan (2017, 5-30 P. m., music, pasinoushop.

KOA, Denver, Colo. (322.4), 6:30 p. m., dinner concert, Herbert White and his Silver State orchestra; 8, scientific football, Herbert White and his Silver State orchestra; 8:10, program, Robert Schumann, Franz Schubert; biographical sketches, May West Owen; Mrs. Button Clamage, pianist; Kathleen Walker, violinist; Mrs. Kate R. Walker, accompanist; Mrs. M. J. Krohn, contralto; Clarence C. Moore, bartione; Betty Gundler and member of KOA orchestra; Mrs. Henry Harrison, reader.

(Continued on page 10)

# HOOVER TO SPEAK SUNDAY AT WDAF



Alice Buresh, dramatic reader at WBCN, Chicago. She not long ago won a gold medal in open competition for the best interpretations.

#### Monday, October 19

(Continued from page 9)

KOB. State College, N. M. (348.6), 7:30-8:30 p. m., "This Year's Cattle Feeding at Tucumcari," Mr. Lantow; "Results of 1925 Club Contest," Mr. Elser; "Forest Five Facts," J. C. Kircher, KUOM, Missoula, Mont. (244), 8 p. m., Missoula City band, Charles Lawrenson, director.

#### Pacific Time Stations

KFOA, Seattle, Wash. (454.3), 6:45-8:15 p. m., Sherman, Clay and company program; 8:30-10, Times studio program

KFOA, Seattle, Wash. (454.3), 6:45-8:15 p. m., Sherman, Clay and company program; 8:30-10, Times studio program.

KFPG, Hollywood, Calif. (238), 5-6 p. m., home hour, Georgia Simmons with the naborhood children; 8-9, Maggie O'Shea, the blarney girl and her vaudeville entertainers; 9-10, Hollywood Athletic club orchestra. KFWB, Hollywood, Calif. (252), 6-7 p. m., children's hour, big brother of KFWB; 7-7:45, question and answer period, K. G. Ormiston, technical editor; J. Stanley Fulbright, tenor; 7:45-8, microphone brevities; 8-9, program, Star Motor Car company million dollar orchestra; Sol Hoopl's junior Hawaiian trio; Ashley sisters, vocal duets; Dave Chudnow, pianist; 9-11, program, Globe Ice Cream company and Weber Baking company, an Eskimo Review; Bob Mayo's orchestra; Rogers' Hawaiian trio; Hollywood string trio; Frank Stever, baritone.

KGO, Oakland, Calif. (361), 3-4 p. m., program, Sherman, Clay and company; 8, "Physical Culture for the Family," Hugh Barrett Dobbs; "Talks on Constructive Selling," B. J. Williams; "Chats About New Books," Joseph Henry Jackson; "It Pays to Analyze Character," Roscoe D. Wyatt; "Preliminary Course in Commercial Law," M. W. Dobrzensky; Arion trio.

KGW. Portland, Ore. (491.5), 8-9 p. m., concert; 9-10,

to Analyze Character," Roscoe D. Wyau; Fremman, Course in Commercial Law," M. W. Dobrzensky; Arion trio.

KGW. Portland, Ore. (491.5), 8-9 p. m., concert; 9-16, Hudson and Essex orchestra.

KNX. Hollywood Calif. (336.9), 5:30-6:15 p. m., Wirrlitzer pine organ studio, Town Tattler; 6:15, travel talk. W. F. Alder; 6:30-7, Atwater Kent Radio orchestra, Paul Finstein, leader; 7-7-30, Mutual Motors mirth contest; 7:30-8, program, Columbia Outfitting company; 8-9, program, L. W. Stockwell company; 9-10, program, Listenwalter & Gough, Elite Irio, Louise Sullivan, soprano, Rola quartet; 10-11, Goodrie Silvertown Cord dance orchestra, Lilyan May Challenger, contralto; 11-12, Ray West's Cocoanut Grove dance orchestra from Ambassador hotel.

KPO, San Francisco, Calif. (228.3), 6:40-7 p. m., Waldemar Lind and the States restaurant orchestra; 8-10, program, Uda Waldrop, organist; 8:45, "How to Gain Weight," Wiley Winsor; 10-11, Waldemar Lind and the States restaurant orchestra.

KTAB, Oakland, Calif. (215), 9 a. m., prayer service, Rev. Spaulding; 4 p. m., women's club notes; 8, program, Western States Life Insurance company, KWSC, Pullman, Wash. (348.6), 7:30-9 p. m., songs, Vay Kerns; Evelyn Sparlin, violinist; "Potato Seed Production West of the Cascades," George L. Zundel.

#### Tuesday, October 20

Tuesday, silent night for: CFCA, CHIC, CHNC, CNRC, CNRE, CNRM, CNRO, CNRW, CNRT, KFAU, KFWA, KOA, KOB, KUOM, KWSC, WAHG, WAMD, WBBR, WEAO, WGCP, WHAD, WKAQ, WLIT, WOR, WOS, WSMB, WSUI, WTAM.

#### Eastern Time Stations

CNRA, Moneton, Can. (291), 7 p. m., juvenile program, Prof. C. M. Wright; 8:45, St. Mary's band; CNRA orchestra; Mrs. J. Clyde Stevens.

KDKA, Pittsburgh, Pa. (309.1), 6:15 p. m., dinner concert; 7:45, "The Nature of X-Rays," A. G. Worthing; 8:30, world crudse by Radio, Ross H. Skinner; KDKA Little symphony orchestra; 9, KDKA Little symphony orchestra; 9, KDKA Little symphony orchestra; 11:10, midnight concert; 11:35, concert, Grand theater.

theater.

9'EZ. Springfield, Mass. (333.1), 6:30 p. m., Leo Reisman's Hotel Lenox ensemble; 7:05, musical program and talk, American Coach company, Inc.; 8:15, Charles R. Hector's orchestra; 9:30, Mary Zoller, xylophonist; 9:45, to be announced; 10, Mary Zoller.

9:45, to be announced; 10, Mary Zoller.

WCAE, Pittsburgh, Pa. (461.3), 6:30 p. m., dinner concert, William Penn hotel; 8, program from New York; 8:30, Gold Dust Twins; 9, Eveready hour; 10, grand opera.

grand opera.

WCAU. Philadelphia, Pa. (277.6), 7:30 p. m., Mildred Matthews, soprano; J. R. Stewart, tenor; Virginia Klein, accompanist; S. talk, Home Building and Loan association; S:10. Philadelphia Radio minstrels, Harry J. Harden, director; 9, "What Does Psychology Teach the Practical Many" Rev. John W. Steckwell; 9:15, Harry Tipping, boy soprano; Frances McLoughlin, pianist; 9:30, Harry Link and Willie Horowitz; 10:30, Billy Hayes and bis Cathay Tea Garden orchestra.

WCTS, Worcester, Mass. (288), 8-8:30 p. m., Ross Gorman and his Earl Carroll Vanities orchestra; 8:30-9, vocal selections, "Long and Broad"; 9-10, Eveready hour; 10-11, WEAF Grand Opera company.

WCX, Detroit, Mich. (517), 6 p. m., dinner concert, Book-Cadillac hotel; 10, The Red Apple club. WEAF, New York, N. Y. (491.5), 4-4:15 p. m., Grace Northrup, soprano; 4:15-4:30, Hazel Gruppe, planist; 4:30-5, women's program; 6-7, dinner music, Waldorf-Astoria; 7-7:10, William J. Fagan, tenor; 7:10-7:30, lecture, Columbia university; 7:30-8, Davis saxophone octet; 8-8:10, talk, Dudley F. Fowler; 8:10-8:30, Ross Gorman and his Earl Carroll Vanities orchestra; 8:30-9, Gold Dust twins; 9-10, "Eveready Hour;" 10-11, "11 Trovatore," WEAF Grand Opera company; 11-12, Meyer Davis' Lido Venice orchestra. WEAR, Cleveland, Ohio (389,4), 7 p. m., Vincent Percy, organist; 8, Lesco entertainers; 9, State theater vaudeville; 10, studio program.
WEBJ, New York, N. Y. (272.6), 7-7:30 p. m., Red Lidon orchestra; 7:45-8, Sara V. Turito, soprano; 8:15-8:30, Sadic Goldfab, planist; 8:30-9, Royal Amphions, direction, W. C. Inlefeld.
WEEI, Boston, Mass. (476), 6:30 p. m., Big Brother club; 7:15, talk, Malcolm E. Nichols; 7:33, Madelyn Verlyn, solicist; 8, Ross Gorman and his Earl Carroll theater orchestra; Gold Dust Twins; Eveready hour; WEAF Grand Opera company; 11, talk, Malcolm E. Nichols; 7:30, Madelyn Verlyn, solicist; 8, Ross Gorman and his Earl Carroll theater orchestra; Gold Dust Twins; Eveready hour; WEAF Grand Opera company; 11, talk, Malcolm E. Nichols.

Nichols.

N'GBS. New York, N. Y. (315.6), 6-6:30 p. m., Uncle Gechee; 6:30-6:50, interview, Noel Coward; 6:50-7, dance lessons, Arthur Murray; 7-8, Arrowhead Inn concert orchestra; 8-9, Y. M. H. A. vocational forum; 10:30-11:30, Arrowhead Inn dance orchestra; 11:30-12, Larry Hart; Richard Rodgers; Herbert Fields.

WGCP. New York, N. Y. (315.6), 3-5:30 p. m., musteal program.

widely rogram. W. 1. (319.0), 2:30-4:30 p. m., mulastical program.
WGR, Buffalo, N. Y. (319), 2:30-4:30 p. m., full Buffalo, Stowers, featuring the Erlenbach for chestra; 6:30-7:30, Vincent Lopez Hotel Statler dance orchestra, Harold Gieser, director; 8-11, jointly with WEAF, including Gold Dust twins, Eveready Hour and grand once a program.

orchestra, Harold Gieser, director; 8-11, jointly with WEAF, including Gold Dust twins, Eveready Hour and grand opera program.

WGY, Schenectady, N. Y. (379.5), 6:30 p. m., dinner program, Hotel Van Curler orchestra; 7:30, "Accurate Measurements of Electrons," Prof. Peter I. Wold; 7:50, program by Poughkeepsie, Charles Gilbert Spross, pianist; Ivan Huff, soprano; Clara Hey, mezzo-soprano; Richard de Sylva, violnist; Hubert M. Spross, whistler; Dr. Henry Noble MacCracken, speaker; Alexander C. Dow, president; Triume Logge quartet; 10, travel talk, "Cruising Life Aboard Ship;" 10:30, Spencer Tupman's Hotel Mayflower orchestra, WRC. WHAR, Atlantic City, N. J. (275), 7:30 p. m., book review, Mrs. James Lord; 8, Seaside hotel trio; 11:15, Strand theater organ recital.

WHN. New York, N. Y. (361.2), 2:15-3:15 p. m., overture and vaudeville, Loews's State theater; 3:15-4:30, Lexington theater orchestra; 4:30-5, Uncle Robert and his pals; 7-7:30, Iceland orchestra; 7:30-8, Will Oakland's Chatheau Shanley; 11-11:30, Caravan club orchestra; 11:30-12, Rodeo club orchestra; 12-12:30 a. m., Club Kentucky orchestra and revue.

WJAR, Providence, R. I. (305.9), 7:30 p. m., musical

Farmer Dinner Concerts

Daily Except Sunday

KFNF, 12:15-1:35 (central time).

Radio Farm School WMAQ, 12:45 (central time); 12:10 on Friday. WOC, 12:30-12:40 (central time). Talks

KMA, 11:30-12:30 (central time). WCCO, 7:45 (central time) Monday and Friday.

WLS, 12 (central time).

WBBM, Chicago, III. (226), 6-10 p. m., Samovar orchestra; Fair and Warmer duo; Elue Deuces; George Marbach, tenor; 10-12, Stewart-Warner studio, Montmarte orchestra; Bert Davis, clown of the air; Bernard Gamson, violinist; Corrine Jordan and Vera Gilbert; Devon Comedy Four; Honky Tonk Gloom chasers; Devon Comedy Four; Honky Tonk Gloom chasers; WCBD, Zion, III. (344.6), 8 p. m., cornet quartet; Messrs. Klowann and Studebaker, clarinet duettists; flute, viola and harp trios; Chester Bagg, baritone; Mirlam Hollingshead, flutist; Mrs. Carl Huth, harplst; Esther Rendall, soprano; Carey sisters, vocal duet; Lillian Detienne, reader; Grace Wedekind and Ruth Jones, plano duettists.
WCCO, Minneapolis-St. Paul, Minn. (416.4), 6 p. m., Dick Long's Nankin cafe orchestra; 7:30, program from WEAF, Gold Dust Twins, Eveready hour; 9-10, grand opera.

WEAF, Gold Dust Twins, Eveready hour; 9-10, grand opera.

WDAF, Kansas City, Mo. (365.6), 6-7 p. m., address, Tell-Me-a-Story lady; Trianon ensemble; 11:45-1 a. m., Merry Old Chief, Plantation players; Earl Coleman's orchestra; Eddie Kuhn's Kansas City Athletic club orchestra.

WEBH, Chicago, ill. (370.2), 7-8 p. m., Oriole orchestra; Lydla Lochner, contralto; Uptown theater; 9-10, Oriole orchestra; Songs, Paul Small; 11-1 a. m., Oriole orchestra; Sandy Meek, tenor; Harry Sosnick, accompanist; Jack Penewell, twin guitarist, songs; Paul Small.

WENR. Chicago, Ill. (266), 6-7 p. m., Paulond, byte.

Oriole orchestra; Sandy Meek, tenor; Harry Sosnica, accompanist; Jack Penewell, twin guitarist, songs; Paul Small.

WENR, Chicago, Ill. (266), 6-7 p. m., Rauland lyric trio; 8-10, All-American Pioneers; Loretta Giles, popular songster; Philip Millville, baritone; Burt Davis, the Clown of the Air.

WFAA, Dallas, Texas (475.9), 6:30-7:30 p. m., Baker hotel orchestra; 8:30-9:30, Virginia Wiley, planist; Jack Andrews, marimbaphonist; 11-12, Majestic theater players; 12-1 a. m., Palace theater.

WGES, Oak Park, Ill. (250), 7-9 p. m., Frank Ernest, planist; Norman Kilng, baritone; Harold Weaver, planist; Christine Nisted, violinist; 11-2 a. m., Novelty Broadcasters' orchestra; Phil Wilcox, Clarence Parrish, Pat Ward, Harber trio, Sandy McTavish, Coyne Electrical school serenaders, Marie Wright.

WGN, Chicago, Ill. (370.2), 6:30-7:30 p. m., Drake concert ensemble, Blackstone string quintet; 8-9, WGN string trio; 10-11, jazz scamper; Jack Chapman's and the Blackstone dance orchestras.

WHAD, Milwakee, Wis. (273), 6-7 p. m., Arthur Richter, organist.

WHAS, Louisville, Ky. (399.8), 7:30-9 p. m., Carl Zoeller's Melodists.

WHB, Kansas City, Mo. (365.6), 7-7:30 p. m., organ concert, Linwood theater, Morrell Moore; 8-9, classical program; 9-10, Submarine Hall dance music, popular vocal numbers.

wood numbers.

WHO, Des Moines, lowa (526), 7:30-8 p. m., Raleigh quintet; 8-9, Bankers' Life trio; 11-12, Bankers' Life Little symphonic orchestra.

WKRC, Cincinnati, Ohio (422.3), 10 p. m., George Weber, tenor; Maxim Eastyluck, Russian baritone;

KFPG, Hollywood, Calif. (238), 9:30-10 p. m., Sylvia Szymanski, the blind cook: 5-6, home hour with Georgia Simmons and the naborhood children; 8-9, Harold Hynes, the wandering Jew, and his minstrels; 9-10, Ruth Leonardi's golden melody hour.

KFWB, Hollywood, Calif. (252), 6-7 p. m., children's hour Big Brother of KFWB; 7, Howard Beall, talk on golf; 7:15, Dr. I. W. Schuster, on chiropractic methods; 7:30, fashion talk, Winona of Hollywood Life; 7:45, microphone brevities; 8-9, Joe Martin's Famous Studio Six dance orchestra, Beatrice Igoe, sopranc; 9-10, program, H. L. Crockett Hudson-Essed dealer, featuring H. L. Crockett, buritone; Way Watts and ukulele, Paul Jones, Hawaiian guitarist; Elite trlo; 10-11, Warner brothers frolic, direction Norman Manning.

10-11, Warner brothers frolic, direction Norman Manning,

KGO, Oakland, Calif. (361), 6-7 p. m., dinner concert,
Sherman, Clay and company; 8, "Radio Breezes,"

KCB; 8:10, Theedore Strong, organist; Ellen Corlett,
sopranc; George Kruger, pianist; Joan Ray, contraito;
Folytechnic high school orchestra; James Gerard, tenor.

KGW, Portland, Orc. (491.5), 7:45-8 p. m., Union Savings and Loan association; 8-9, "Sound Investments,"
George H. Burr; style talk, Sage of Yambill county;
Rose City trio; 9-10, General Cord orchestra; 10-12,
Indian Grill.

KHI. Los Appeles. Calif. (495.2), E.00.6:20.

Rose City trio; 9-10, General Cord orchestra; 10-12, Indian Grill.

KHJ, Los Angeles, Calif. (405.2), 5:30-6:30 p. m., Leighton's Arcade cafeteria orchestra, Jack Cronshaw, leader; 6:30-7:30, history story, Prof. Walter Sylvester Hertzog, weekly visit of Queen Titania and Sandman from Fairyland, Chas. Leslie Hill, readings; Louis F. Klein, auto-harp and harmonica; 7:30, talk on dogs, H. M. Robertson; 8-10, program, Universal Craftsmen, Council of Engineers; 10-11, Art Hickman's Biltmore hotel dance orchestra, Frank Ellis, leader: KNX, Hollywood, Calif. (336.9) 5:30-6:15 p. m., Wurlitzer pipe organ studio, Town Tattler; 6:15, travel talk, W. F. Alder; 6:30-7, Atwater Kent Radio orchestra, Paul Finstein, leader; 7-8, Don Clark and his La-Monica ballroom dance orchestra; 8-10, KNX feature program; 10-12, movie night at the Ambassador, Ray Wests Cocanut Grove dance orchestra; 8-10, KNX feature program; 10-12, movie night at the Ambassador, Ray Wests Cocanut Grove dance orchestra; 8-9, 30th M. S. Infantry band; 9-10, Mona Motor Oil trio; 10-11, Jack Coakley's Cabirlans.

KTAB, Oakland, Calif. (215), 8-10 p. m., program, Mutual stores.

#### Wednesday, October 21

Wednesday, silent night for: CHIC, CHNC, CNRA, CNRC, CNRE, CNRM, CNRR, CNRV, CNRW, CNRT, KFAU, KFDM, KLDS, KOB, KTAB, KTCL, KUOM, WBBR, WCBD, WFAA, WFI, WGBS, WGCP, WHAR, WIP, WMC, WOAW, WORD, WRC, WREO.

#### Eastern Time Stations

Eastern Time Stations

CNRM, Montreal, Can. (411), S:30 p. m., Markowski trio; Lucien Labelle, cellist; Oscar O'Brien.

CNRO, Ottawa, Can. (435), S p. m., Chateau Laurier concert orchestra; 9, French-Canadian artists, Rosaire Barrette, director; Chateau Laurier dance orchestra, KDKA, Pittsburgh, Pa. (309.1), 6:15 p. m., dinner concert; 7:45, "Causes of Crime," W. T. Root; 9, Dry Slitz hour of music.

PWX, Havana, Cuba (400), 8:30-11 p. m., concert, Malecon band, Lieut, Armando Romeu, band leader, WAHG, Richmond Hill, N. Y. (315.6), 7:30-7:45 p. m., John von Aspe, tenor; 7:45-8, Emery Deutsch, violinist; 8-8:15, Regina Diamond, sorrano; 8:15-8:30, Emery Deutsch; 8:30-8:45, John von Aspe; 8:45-9, Rogina Diamond; 9-9:55, Nyamoc dub, 9:55-10, time signals and weather report; 10-10:15, Herman E, Fisher, reader; 10:15-11:15, Joe Zimmerman and his orchestra. (WBZ, Springfield, Mass. (333.1), 6:30 p. m., dinner concert, Hotel, Kimball trio; 7:05, W. Edward Boyle's Copley Plaza orchestra; 7:30, Radio nature league, Thornton W. Burgess; 8, Imperial male quartet; 8:45, James B. Nesworthy, harmonica soloist.

WCAE, Pittsburgh, Pa. (461.3), 6:30 p. m., dinner concert, William Penn hotel; 7:30, The Sunshine Girl; 9, address, Pittsburgh Personnel association; 8:30, Pooley period; 9, Waterman's hour.

Pooley period; 9, Waterman's hour.

WCAU, Philadelphia, Pa. (277.6), 7:30 p. m., Lew Chapman and his Hotel Pennsylvania orchestra; 8, stage dancing lesson, Al White; 8:15, Richard Finley, tenor; Kathryn O'Boyle, pianist; 9, Mr. Hill's instrumental tric; 9:30, health talk, Dr. Harry Lowenburg; 9:40, songs, Carl Zoehrn, Archie Fletcher; Micky Marr, pianist; 10:10, Morris Wage; 10:30, Melody Masters.

Worse Worsester Mass. (268), 8 p. m., concert pro-WCTS, Worcester, Mass. (268), 8 p. m., concert pro-

gram.

WCX. Detroit, Mich. (517), 6 p. m., dinner concert, Book-Cadillac hotel; 8, musical program.

WEAF, New York, N. Y. (491.5), 4-4:45 p. m., Ray Nichols orchestra; 4:45-5, talk, Paul V. Kellogg; 6-7, dinner music, Waldorf-Astoria; 7-7:30, services, United Synagogue of America; 7:30-8, concert, United States Army band; 8-8:30, "Huyler's Bon Bon Buddies"; 8:30-9, Pooley Period; 9-10, "Waterman's Points of Progress-Napoleon"; 10-11, plana Troubadours; 11-12, Ben Bernie and his orchestra.

WEAR. Clewaland, Ohio. (389.4), 7, p. m. Hetel Clewal

WEAR, Cleveland, Ohio (389.4), 7 p. m., Hotel Cleveland orchestra.

wEBJ, New York, N. Y. (272.6), 8-8:30 p. m., Aywon Comedy four; 9:15-9:30, Beatrice McCue, soprano; 9:30-10:30, Busoni's Neopolitan orchestra.

WEEI, Boston, Mass. (476), 7:15 p. m., talk, Malcolm Nichols; 7:30, C. B. Collins, tenor; 7:45, Mary Zoller, xylophonist; 8, Huyler's Bon Bon Buddles, New York; 8:30, General Electric; 9, WEAF; 11, talk, Malcolm E. Nichols.

WGRS New York N. V. (435.6), 6:6:20 p. m. Thele

Geebee; 6:30-7, Vincent Sorey's orchestra; 7-7:15, "Movie Sidelights," Norbert Lusk; 7:15-7:45, or-

wGCP, New York, N. Y. (315.6), 3-5:30 p. m., mu-sical program; 8-11, musical program.

Osterhout, pianist, made her Ramade her Radio debut this
year in a recital October
15 at WGY,
Schenectady. Her appearance was so wellapplauded she has been scheduled for another cert to



WGR, Buffalo, N. Y. (319), 2:30-4:30 and 8-9 p. m., Buffalo Radio show program, featuring the Erlenbach orchestra; 6:30-7:30, two piano recital, Gospel Melodists; 9-11, jointly with WEAF, including Waterman's Points of Progress, "Napoleon," and the Ipana Troubadours; 11-1 a. m., Vincent Lopez Hotel Statler dance orchestra, Harold Gleser, director. WGY, Schenectady, N. Y. (379,5), 6:45 p. m., Albany Strand theater orchestra; Floyd H. Walter, organist; 7-45, cleertic night by Radio, WJZ, WBAL, WGY; 8, address, Gerard Swope, president, General Electric company; 8:15, musical selections; 8:30, address, Herbert Hoover; 8:45, address, William N. Jardine; 9, musical numbers; 9:30, WGY orchestra.

(Continued on page 11)

KPRC, Houston, Texas (269.9), 7:30 p. m., Billie Mack Paramount Five; 9:30, Frank Tilton, pianist; 10. Earle J. Shay, tenor; J. Harry Kobusch, pianist. Dr

KTHS, Hot Springs National Park, Ark. (374.8), 9
9:45 p. m., symphonic jazz concert, New Arlingto 9:45 p. m., symphonic jazz concert, New Arlington Meyer-Davis orchestra: 9:45-10, Lawson Reid, or-ganist: 10-10:15, novelties, Meyer-Davis artists; 10:15-10:45, dance numbers.

10:39, dance numbers.

(YW, Chicago, III. (535.4), 6:35-7 p. m., Walter Wilson's bedtime story; 7-7:30, Congress hotel dimer concert; 8-8:20, musical program; 8:20-8:45, "Inexpensive Pork Dishes," Inex Willson, address; 8:45-9:20, musical program; 10-11:30, evening at home program; Applesaue club, Ransom Sherman; Loos brothers, Art Linick, Lee Sims, Bobbie Brown and others.

KTHS, 12:30-1; KYW, 11, 6:02; WCCO, 9:45, 10:30, 11:30, 1:30, 3; WDAF, 5:50; WFAA, 11:30-12, 12:30-1, 1:30-2, 2:30-3; WHAD, 11, 5:50-6; WHAS, 4:50; WHAB, 8:25, 9:25, 10:25, 11:20, 11:56, 12:10, 1:25, 3; WMC, 9:45, 1:30, 8:30, except Wednesday; WOAW, 8:15, 10:30, 12:30, 1:45, 4; WOC, 2-2:10.

Eastern Time (Daily Ex. Sunday)

KDKA, 9:45, 12, 3:20, 12, 7:10;

WCAE, 4:30; WCTS, 11:15; WCX, 2;

WEAR, 11:30, 4:30.

Market Reports and Dairy

Quotations Central Time (Daily Except Sunday)

Index to Farmers' Programs

program, Janet Armour, director; 8:30, Gold Dust twins; 9, Eveready hour.

WIR, Dotroit, Mich. (617), 7 p. m., studio orchestra, Jean Goldkette; 9, 5an 70, 7 p. m., studio orchestra, Jean Goldkette; 9, 6an 70, 7 p. m., 5an 70, 7 p. m., 6an 71, 7 p. m., 7 p. m., 7 p. m., 1 p. m., 2 p. m., 3 p. m., 3

W00. Philadelphia, Pa. (508.2), 7:30 p. m., Dayls Saxophone octet.
W0R. Newark, N. J. (405.2), 6:15-6:17 p. m., "Words Often Mispronounced"; 6:17-6:45, Man in Moon; 7-7:30, music, Hotel Shelton.
WPG, Atlantic City, N. J. (299.8), 6:35 p. m., Arthur Soott Brook, organist; 7, Hotel Morton trio dinner music; 8, Ethel Rattay Fowler's fashion flashes; 8:15, Ceelle Steiner, violinist; Margaret Irwin, planist; 9, Chalfonte-Haddon hall dual trio; 10, Jean, organist.
WTIC, Hartford, Conn. (475.9), 6:30 p. m., Hub Restaurant trio; 7, Thomas McCray; 7:20, dinner music; 8, instrumental music; orchestra; Alice Evans Wagner, contralto; 9:30, organ recital.
WWJ, Detroit, Mich. (352.7), 6 p. m., dinner concert; 8, concert from WEAF.

#### Central Time Stations

KFAB, Lincoln, Nebr. (340.7), 5:30-6:30 p. m., Buick Little symphony; Belshaw's orchestra; 8:30-10:30, University of Nebraska musical program.

KFMX, Northfield, Minn. (337), 9:30-10 p. m., Frederick Locke Lawrence, pianis, F. M., F. Shenandoah, Iowa (266), p. m., H. S. Symphony orchestra; Stephen LeMar, director.

KFVE, University City, Mo. (240), 10 p. m., concert, popular music, Brunswick-Balke-Collender company, Orchestra Romaine.

KFVE. University City, Mo. (24u), 10 p. m., concert, popular music, Brunswick-Balke-Collender company, Orchestra Romaine.
KLDS, Independence. Mo. (441), 8 p. m., Mrs. I. A. Smith, soprano; Thomas Holswerth, reader; Thelma Steele, planist.
KMA, Shenandoah, lowa (252), 6-7 p. m., May Flower orchestra; June and Jim Taylor, Bobbie Ross; flower talk, Lina Ferguson; 9-11, May's Mandolin musicians.

KSD, St. Louis, Mo. (545.1), 6:45 p. m., Abergh's con-

George Egbers, tenor; Carolyn Schlosser, reader; Tommy Reynolds, Irene Downing.

WLS, Chicago, III. (344.6), 6:30 p. m., Ralph Emerson, organist; 7, Iullaby time; 7:20, WLS trio present "A Trip to Ellis Island." Rex Maupin, director. "WLW, Cincinnati, Ohio (422.3), 12:15 p. m., Petrinella Trimbur, organist; 4, French lessons, Madame Ida Teimpidis; 6:30, twenty minute program artists. Armold Frank Schroeder studio; 8, The Famous Lyric male quartet; 8:30, Bob and Jim, the Crosley Hello Boys, in musical handshakes; 9, The Fornica concert orchestra, Wm. Stoess, director.

WMAQ, Chicago, III. (447.5), 6 p. m., Chicago theater organ recital; 6:30, Hotol LaSalle orchestra; 8, "Literary Sidelights." Harry Hansen; 8:20, Gustave Domandern, Swedish tenor; 8:40, travel talk, Clara E. Laughlin; 9, U. of Chicago lecture; 9:20, program, RWBB, Chicago, III. (250), 7-8 p. m., Trianon dio.

WMBB, Chicago, III. (250), 7-8 p. m., Trianon duo, Beatrice Teller, Lindsey McPhail, Clarence Jacobs, Mildred Mateika, Jean Ballard, Babbi and Barr; artists; 9-11, Trianon orchestra, Dell Lampe, conductor; A. Stephenson, Jimmy Eggert, Woodlawn theater orchestra; Armin F. Hand, conductor; Billie Hoff, popular program.

ular program.

WMC, Memphis, Tenn. (499.7), 8:30 p. m., program,
William Newton; 11, midnight frolic.

WOAW, Omaha, Nebr. (526), 6 p. m., classical; 6:30,
orchestra; 7:10, Radio review, Neal Jones; 9, classical;
10, orchestra; 12, Rialio Alarm.

WOC, Davenport, lowa (483.6), 7:30-8 p. m., Gold Dust
twins; 8-9, Eveready hour; 9-10, Harry Yeazelle
Mercer, tenor; Mrs. A. P. Griggs, contralto; Jeanette
Brewbaker, soprano.

Brewbaker, soprano.

WOK, Chicago, III. (217.3), 6-7 p. m., Genevieve Barry, Burnham, soprano; Clement Laskowski, tenor; LeRoy North, planist; Banks Kennedy, organist; 10-1, Kraft Harmony boys, harmony duet; Herman Sinaiko, violinist; Harriet Lee, contralto; Bill Hay, bass; Evelyn Johnson, contralto; Jack Armstrong, violinist; Wildey and Sheehan, harmony duet; Carl Stockenberg, harmonica soloist; Banks Kennedy, organist.

WORD, Batavia, III. (275), 8 p. m., Webster hotel concert trio; 8:15, World News digest; 8:30, Cosmopolitan School of Music; 9:30, Bible questions and answers.

answers.

WQJ. Chicago, III. (447.5), 7-8 p. m., Ralph Williams and his Rainbo Gardens concert orchestra; Henrietta Nolan, violinist; Clement Laskowski, tenor; Helen Holman, soprano; 10-1 a. m., Ralph Williams and his Rainbo Skylarks; Jerry Sullivan; Rose Vanderbosch, soprano and planist; Hal Lansing, ukulele soloist; Everett Opie, character reader; Brank Blasko, tenor; Will Rossiter, Mack sisters, Bert Davis, Merrill Carder, Alma Adair and artists; 1-2, Ginger hour, Ralph Ger, Alma Adair and artists; 1-2, Ginger hour, Ralph Williams, the Gingerman and Little

WSAI, Cincinnati, Ohio (325,9), 7.45 p. m., chime concert, Robert Badgley; 8, Eveready hour, WEAF; 9, Clifford Cook, beritone; Harry Nolte, tenor; Herbert Spangler, violinist; Ralph Briggs, planist,

#### Mountain Time Stations

CNRR, Regina, Can. (435), 8 p. m., Queen City man-

KOA, Denver, Cele. (322.4), 6:30 p. m., Herbert White and his Silver State orchestra; 7:30, News-Times

#### Pacific Time Stations

KFOA, Seattle, Wash. (454.3), 6:45-8:15 p. m., Rhodes Department store; 8:30, program; 9:30-11:30, Eddie Harkness and his orchestra.

# HELLO BOYS AMUSE LISTENERS AT WLW



#### Wednesday, October 21

(Continued from page 10)

(Continued from page 10)

WHN, New York, N. Y. (361.2), 7:39-8 p. m., Caravan club orchestra; 10-10:30, Roscland dance orchestra; 11:11:30, Silver Slipper revue and orchestra; 11:30-12, Ted Lewis and orchestra.

WJAR, Providence, R. I. (305.9), 7:30 p. m., U. S. Army band, WRC; 9, Waterman's Points of Progress, WEAF; 10, musical program.

WJR, Detroit, Mich. (517), 7 p. m., studio orchestra, Jean Golikette, director; 9, Burroughs hour.

WKAQ, San Juan, P. R. (340.7), 7-9 p. m., municipal band, Prof. Manuel Tizol, director.

WLIT, Philadelphia, Pa. (394.5), 4:39 p. m., Rosemary Ulrich, soprano; 7:30 p. m., Dream Daddy's bedtime stories; 8, concert, General Electric company; 10, Arcadia cafe dance orchestra; Chas. Master's dance box orchestra.

orchestra.

WMCA, New York, N. Y. (340.7), 6-6:30 p. m., Olcott, Vall; 6:30-7, Ernie Golden and his Hotel
McAlpin orchestra; 8:45-9, "Lord Allinbroke and
Rawstice." Jack Smiles; 11:30-12, Jack Smith, whisper-

Rawstice, "Jack Smiles; 11:30-12, Jack Smith, whispering baritone.

WNYO, New York, N. Y. (526), 7-7:10 p. m., market high spots; 7:10-7:30, dance program; 7:30-7:35, police alarms; 7:35-8, dance program; 8-9, Spanish lessons, V. Harrison Berlitz; 9-10, artist-pupil's recital; 10-10:30, plano duets.

WOO, Philadelphia, Pa. (508.2), 7:30 p. m., dinner music, Hotel Sylvania orchestra: 8, U. S. Army band; 8:30, Pooley period; 9, Waterman's Points of Progress, Napoleon; 10, Mary E. Vogt, organist; 10:30, Hotel Sylvania orchestra.

WOR, Newark, N. 1, (405.2), 6:15-6:17 p. m., "Words Often Mispronounced"; 6:17-7:15, music, Hotel Shelton; 7:15-7:30, sports talk, Bill Wathey: 8-8:15, topics of the day; Spencer Armstrong; 8:15-8:35, Carmen string trio; 9-9:15. Sam Siegel, mandelmist; 9:30-9:45, talk, George W. Wadsworth; 11-11:30, Floring and the string trio; 9-9:15. Sam Siegel, mandelmist; 9:30-9:45, talk, George W. Wadsworth; 11-11:30, Floring and the string trio; 10-9:15, sam Siegel, mandelmist; 9:30-9:45, talk, George W. Wadsworth; 11-11:30, Floring and the string trio; 10-10:10, Floring and the string and the

mental music. WTIC, Hartford, Conn. (475.9), 6:30 p. m., Hotel Bond trio and vocalists; 7:20, dinner music; 10, dance music, trio and vocalists; 7:20, dinner music; 10, dance music, Bill Tasillo's orchestra.

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

8, News orchestra; 9, dance program.

#### Central Time Stations

CNRW, Winnipeg, Can. (384.4), 8:10 p. m., Fort Garry hotel concert orchestra; 8:45, Transcona Shop's brass band; 9:45, supper dance, Fort Garry hotel; Al

band; 9:49, supper dance, Foto Gary boats, Kilgour.

KFAB, Lincoln, Nebr. (340.7), 5:30-6:30 p. m., Buick Little symphony; Belshaw's orchestra; 8:30-10:30, Beatrice quartet; Earl Watson, tenor; Belshaw's orchestra; Ralph Hall, ukulele soloist; Waikiki trio.

KFMX, Morthfield, Minn. (337), 9-10 p. m., musicale.

KFNF, Shenandcah, lowa (266), 7 p. m., concert, Henry Field Seed company.

KFVE, University City, Mo. (240), 10 p. m., Paul and Jack Snyder, Radio entertainers, Orchestra Romaine.

maine. KMA, Shenandeah, lowa (252), 6:45 p. m., domestic science timely topics, Le Ona Teget, June B. Case;

science timely topics, 19-11, Farnham trio.

KPRC, Houston, Texas. (296.9), 7:30 p. m., Blanchard's dance orchestra; 8:30, Mrs. Robert B. Collier, lyric soprano; 9, Eddie Syncopators; 10, Frank Tilton, pianist.

KSD. St. Louis, Mo. (545.1), 7 p. m., Rader's or-

chestra. KTHS, Hot Springs National Park, Ark. (374.8), 9-9:20 D. m., concert, Meyer-Davis orchestra, Lon Chassy, director; 9:20-9:30, contralto solos, Mrs. Byrd Rigsby; 9:30-9:45, New Arlington string trio; 9:45-10:15, dance concert.

KYW, Chicage, III. (535.4), 6:35-7 p. m., bedtime story, Uncle Bob; 7-7:30, dinner concert, Congress hotel: 7:33, "Entertaining Plans," Vivette Gorman;

7:45, "Safety First"; 8-9, musical program; 10-12:30, revue; Coon-Sanders Original Nighthawks; organ recital, Albert May Malotte.

WAMD, Minneapolis, Minn. (243.8), 7 p. m., Garrick theater symphony orchestra; 7:30, Jack Melerick, organist; 8, Marion Bearman, violinist; Harold Janesky, tenor; 10:30, Radisson Rondevo.

WBBM, Chieage, Ill. (226), 6-10 p. m., Samovar orchestra; Fair and Warmer duo; Torrid two; Blue Deuces; George Marbach, tenor; 10-12, Montmartre orchestra; Fair and Warmer duo; Torrid two; Blue Deuces; George Marbach, tenor; 10-12, Montmartre orchestra; Bert Davis, clown of the air; Bernard Gamson, violinist; Corrine Jordan and Vera Gilbert; Devon Comedy four; Honky Tonk Gloom Chasers; Joseph Raieff, pianist; Leona Hayes, harpist.

WCOO, Minneapolis-St. Paul Minn. (416.4), 6 p. m., Edison Day program, talks, R. F. Pack, E. W. Decker; 7, midweek church service, Rev. R. H. Newton; 8, program from WEAF, Points of Progress, Ipana Troubadours; 10:05, Golden Pheasant orchestra; 11:30, Eddie Dunstedter, organist.

WDAF, Kansas City, Mo. (365.6), 6-7 p. m., address, speaker, Health Conservation association; address, orchestra; 11:45-1, Merry Old Chief; Eddie Kuhn's Chicago, Ill. (370.2), 7-8 p. m., Oriole Orehestra.

orchestra; 11:45-1, Merry Old Chief; Editie Robins Kansas City Athletic club orchestra: Earl Coleman's orchestra: Florence Behrend, soprano; 9-10, Oriole orchestra: Florence Behrend, soprano; 9-10, Oriole orchestra: Correll and Gosden; Robert York, tenor; Oriole orchestra: Correll and Gosden; Robert York, tenor; Oriole orchestra.

WENR, Chicago, Ill. (266), 6-7 p. m., Rauland lyric trio; 8-10, All-American Pioneers; J. E. Peterson, bass; John Papa, concertina soloist; Archie Rawls, tenor; Floyd Falch, Vincent Vallee, tenor; 12-2, All-American Ploneers.

WGES, Oak Park, Ill. (250), 7-9 p. m., Richard Dale, bass; John Stamford, tenor; 11-2 a. m., Kampus Kollegians orchestra; Rose Sweeney, soprano; Frank Gallery, tenor; Lew Russell, Sue Olmstead, ukulele soloist; DeWitt & Owen; Evans Lloyd, baritone.

WGN, Chicago, Ill. (370.2), 6:30-7:30 p. m. Drake concert ensemble, Blackstone string quintet; 8-9, WGN string trio; 10-11, jazz scamper, Jack Chapman's and Blackstone orchestra.

WHAD, Milwaukee, Wis. (278), 6-7 p. m., Arthur Richter, organist; 8-10, Wisconsin Roof garden orchestra.

WHAS, Louisville, Ky. (399.8), 7:30-9 p. m., Barney

WHAD, Milwaukee, Wis. (278), 6-7 p. m., Arthur Richter, organist; 8-10, Wisconsin Roof garden orchestra.
WHAS, Louisville, Ky. (399.8), 7:30-9 p. m., Barney Rapp's orchestra.
WHB, Kansas City, Mo. (365.6), 7-8 p. m., musical program; automotive talk, John Burns.
WHO, Des Moines, lowa (526), 6:30-7:30 p. m., Reese-WHO, Des Moines, lowa (526), 6:30-7:30 p. m., Reese-Hughes orchestra; 7:30-9, Harry Armigido, banioist; Sam Caplan, violinist; Jim Blacksmith, harmonica soloist; "Old King Cole" and Leonard Kirkwood, harmony singers; Cornelius Ahern, baritone; 9-10, Corn Sugar orchestra; 10-12, dance program.
WKRC, Cineinnati, Ohio (422.3), 8 p. m., book review, Alice B. Coy; 8:15, Marion McKay and his orchestra; 8:45, popular studio features; 9:15, Marion McKay and his orchestra.
WLS, Chicago, Ill. (344.6), 6:30 p. m., Ralph Emerson, organist; 7, lullaby time; 7:15, WLS trio; 7:45, Ruth Olt, soprano; 8, Poet's corner, Wallace Bruse Amsbary; 8:15, syncopation hour, Ideal quartet; 9, Abe Lyman's College Inn orchestra; 9:10, Better Music hour, Clemons A. Hutter; 10, Abe Lyman's College Inn orchestra; 10:10, Westminster quartet; 11, Balph Emerson, organist.
WLW. Cincinnati. Ohio (422.3), 12:15 p. m., Trene

chestra; 10:10, Westminster quartet; 11, Raiph Emerson, organist.

WLW. Cincinnati, Ohio (422.3), 12:15 p. m., Irene Downing and Marjory Hebestreit, organ and piano duets; 4, "Shut-in Program"; 7, Hotel Gibson orchestra, Robert Visconti, director; 10, "Pep" concert, Phi Delta Theta of University of Cincinnati; 10:30, Trirdyn orchestra; 11:15, Johanna Grosse, organist.

WMAQ. Chicage, III. (447.5), 6 p. m., Chicago theater organ recital; 6:30, Georgene Faulkner, the story lady; 8, Northwestern university lecture; 8:30, General Electric night program; 9, WMAQ players.

WMBB, Chicago, III. (250), 7-8 p. m., Trianon duo, Beatrice Teller, J. Bodewalt Lampe, director; 9-11, Woodlawn theater orchestra, Armin Hand, conductor; Marquette banjo four, popular program.

a titian-haired favorite at KFWB. She plays her uku-lele Monday evenings.





WOC, Davenport, Iowa (483.6), 9-10 p. m., Ipana Troubadours; 10-11, Erwin Swindell, organist; Grace Huber-Lohmiller, soprano.
WOK, Chicago, Ill. (217.3), 10-1 p. m., Ned Miller, tenor; Herman Sinalko, violinist; Harriet Lee, contralto; Rita Mefawn, soprano; Cy Berg, ukulele soloist; Banks Kennedy, organist; Harold Morava, tenor; LeRoy North, planist; Harold Morava, WORD, Batavia, Ill. (275), S. p. m., Webster hotel concert trio; 8:15, I. B. S. A. choral singers; 8:30, address, Calvin H. Swingle.
WOS, Jefferson City, Mo. (440.9), S. p. m., address, George Pickens; musical program, Mrs. W. W. Bratton.

George Pickens; musical program, Mrs. w. w. Bratton.

WQJ, Chicago, III. (447.5), 7-8 p. m., dinner concert, Ralph Williams and his Raimbo Garden orchestra; program, Van Higgens family; 10-1 a. m., Ralph Williams and his Skylarks; Melodians, Esther Trostrud, mezzo-soprano; Fontella trio; Fred A. Jacobson, monologist; Tillie Miller, contralto; Clarence Theders, tenor; J. Edwin Peterson, basso; Sandy Meek, Scotch tenor; Harry Sosnick, planist, and artists; 1-2, Ginger hour.

hour.

WSAI, Cincinnati, Ohio (325.9), 7-8 p. m., Edison
hour of music; 8, WEAF Waterman Pen program; 9,
WEAF Ipana Troubadours; 10, Congress Playing Card string quartet.
WSUI, Iowa City, Iowa (483.6), 7:45 p. m., college of the air, Carpenter, Porter Ruckmick.

#### Mountain Time Stations

KFWA, Ogden, Utah (261), 9-10 p. m., program. Globe Mills; 10-11, musical program. Lion Coal company, Ellis Fuel company; 11-12, Olie Reeves and his or-chestra.

chestra.

(OA. Denver. Colo. (322.4), 6:30 p. m., Herbert White and his Silver State orchestra; 8, scientific football. Tom McNamara; 8:10, Edison Day, Blue Bell trio; Public Service company saxophone band; "Electricity on the Farm," Clare N. Stannard, Olinger male quartet; "Civilization and Electricity," Howard S. Robertson; Stewart A. Housman, reader; ROA orchestra.

Pacific Time Stations.

Pacific Time Stations

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

KFPG, Hellywood, Calif. (238), 5-6 p. m., home hour with Georgia Simmons and the naborhood children; 3-9, Maggie O'Shen, the blarney girl, and her entertainers in an hour of ballads; 9-10, KFPG concert orchestra, arranged by C. Harold Ramey.

KFWB, Hollywood, Calif. (252), 6-7 p. m., children's hour, Big Brother of KFWB; 7-7:30, Mutual Motors mirth contest; 7:30, microphone brevities; 8-9, Warner brothers' syncopators; Barbara Bunnell, blues singer; LeRoy Kulberg and his ukulel; 9-10, Kathryn Martin, soprano; Frank Pierce and Vic Beall, popular songs; Rogers' Hawaiian trio; 10-11, Warner brothers' frolic, direction Norman Manning.

KGO, Oakland, Calif. (361), 6-7 p. m., dinner concert, Sherman, Clay and company; 8, Arion trio; Wigginton E. Creed, president.

KGW, Portland, Ore. (491.5), 8-10 p. m., electric night, Edison's birthday; 10-11, Sherman, Clay and company.

KHI, Los Angelos, Calif. (405.2), 5:30-6:30 p. m., Leighton's Arcade cafeteria orchestra, Jack Cronshaw, leader; 6:30-7:30, history story, Prof. Walter Sylvester Hertzog, Dick Winslow, juvenile reporter, Mickey McBan, screen starlet; Helen Lem, singer; 8, Dr. Mars Baumgardt, scientific lecturer; 8:30-10:30, program, F. B. Miller Hudson-Essex dealer, arranged by J. Howard Johnson; 10:30-11:30, Art Hickman's Biltmore hotel dance orchestra, Frank Ellis, leader.

KNX, Hollywood, Calif. (336.9), 5:30-6:15 p. m., Wurlitzer pipe organ studio, Town Tattlet; 6:15, travel talk, W. F. Alder; 6:30-7, Awater Kent Radio orchestra, Paul Finstein, leader; 7-8, Ambassador hotel concert orchestra, Josef Rosenfeld, leader; 8-9, program, Security Trust and Savings bank; 9-10, program with a kick, Hercules Gasoline company; 10-11, hour of dance music.

KPO, San Francisco, Calif. (428.3), 6:40-7 p. m., Waldemar Lind and the States Restaurant orchestra;

a kick, Hercules Gusuma Mande music.

KPO, San Francisco, Calif. (428.3), 6:40-7 p. m.,
Waldemar Lind and the States Restaurant orchestra;
7-7:30, Rudy Seiger's Fairmont hotel orchestra; 8-9,
Atwater Kent artists; 9-10, Goodrich Silvertown Cord
orchestra; 10-11, Waldemar Lind and the States Restaurant orchestra.

taurant orchestra.

KWSC, Pullman, Wash. (348.6), 7:30-9 p. m., Cougar
Collegians; "Planning a Girl's Room," Gladys Gallup;
agricultural talk; book reviews, Alice Lindsay Webb.

#### Thursday, October 22

Thursday, silent night for: CHIC, CHNC, CNRA, CNRE, CNRO, CNRR, CNRT, CNRV, KFAB, KFAU, KFDM, KFMQ, KFMX, KFOA, KFVE, KFWA, KGW, KOA, KOB, KSD, KTCL, KWSC, PWX, WAHG, WCEE, WEAO, WEBJ, WHAD, WJJD, WLIT, WOR, WOS, WSUI, WTAM.

WOS, WSUI, WTAM.

Eastern Time Stations

KDKA, Pittsburgh, Pa. (309.1), 6:15 p. m., dinner concert; 7:45, "Through the Saragossa Sea and the Galapagos Island," Jay F. W. Pearson; 8, "History of Communication"; 8:30, "Edward MacDowell," Richard Kountz; KDKA Little symphony orchestra; bvan Lloyd quartet; 11:15, midnight concert.

WBBR, New York, N. Y. (272.6), 8 p. m., Watchtower instrumental trio; 8:10, Stanley Gohlinghorst, baritone; 8:20, Sunday school lesson; 8:40, Stanley Gohlinghorst, baritone.

WBZ, Springfield, Mass. (333.1), 6:30 p. m., Leo Reis-

man's Hotel Lenox ensemble; 7:05, Max Zides and his ukulele; 7:30, Winston Sharples, planist; 7:45, to be announced; 8, program, Noyes-Buick company; 9, evening of opera, Madame Vinello-Johnson.

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

WCAU, Philadelphia, Pa. (277.6), 6:30 p. m., Billy Hayes and his Cathay tea garden orchestra; 7:30, Snellenburg symphony orchestra; 8, Kenneth Carney, Hawaiian guitarist; 8:30, studio feature; 9, Barry O'Moore, Irish tenor; 9:15, Radio artists; 9:30, Frank Cook, old time songs; 10, Sesqui Centennial hour. WCTS, Worcester, Mass. (268), 8-8:30 p. m., Larkinites; 8:30-9 program from WEAF; 9-10, program; 10-11, Silvertown Cord orchestra.

WCX, Detroit, Mich. (517), 6 p. m., dinner concert, Book-Cadillac hotel; 8, musical program.

WEAF, New York, N. Y. (491.5), 4-4:15 p. m., Julius Behrendt, baritone; 4:15-4:45, Famous Players orchestra; 4:45-5; talk, Leonard Barron; 6-7, dinner music, Waldorf-Astoria; 7-7:30, services, Greater New York Federation of Churches; 7:30-8, Cushman's serenaders; 8-8:30, "The Larkinites"; 8:30-9, talk, George Elliott Cooley; 9-10, WEAF concert ensemble; 10-11, Silvertown Cord orchestra; 11-12, Vincent Lopez and his orchestra.

WEAR, Oleveland, Ohio (389.4), 7 p. m., Marjori Moore's Melody Maids; 8, RTD, program; 9, Chauncey Lee's orchestra; 10, Vincent Percy, organist.

WEAR, Oleveland, Ohio (389.4), 7 p. m., talk, Malcolm E. Nichols; 7:30, Chamber of Commerce organ recital; 8, WkAF; 11, talk, Malcolm E. Nichols; 7:30, Chamber of Commerce organ recital; 8, WkAF; 11, talk, Malcolm E. Nichols; 7:30, Chamber of Commerce organ recital; 8, WkAF; 11, talk, Malcolm E. Nichols; 7:30, Chamber of Commerce organ recital; 8, WkAF; 11, talk, Malcolm E. Nichols; 7:30, Chamber of Commerce organ recital; 8, WkAF; 11, talk, Malcolm E. Nichols; 7:30, Chamber of Commerce organ recital; 8, WkAF; 11, talk, Malcolm E. Nichols; 7:30, Chamber of Commerce

WGCP, New York, N. Y. (315.0), 3-9-30 D. m., indisace program.
WGR, Buffalo, N. Y. (319), 2:30-4:30 p. m., Buffalo Radio show program, featuring the Erlenbach orchestra; 6:30-7:30, Vincent Lopez Hotel Statler dance orchestra, Harold Gieser, director; 8-11, jointly with WEAF, including the Larkinites and the Goodrich Silvertown Cord orchestra.
WGY, Schenectady, N. Y. (379.5), 2:30 p. m., Stephen E. Boisclair, organist; 6:30, Ten Eyek trio; 7:45, Linda Noble, soprano; 8:15, U. S. Army band; 9:30, Royal hour, WJZ; 10:30, Stephen E. Boisclair, organist; organist.

Royal hour, WJZ; 10:30, Stephen E. Boisclair, orranist.
WHAR. Atlantic City, N. J. (275), 7:30 p. m., lecture
period: 8, Seaside hotel trie; 9, studio concert.
WHN, New York, N. Y. (361.2), 3:15-4:30 p. m., Lexington theater orchestra; 4:30-5, Miller, Piotti and Val.,
songs and piano; 7-7:30, Iceland orchestra; 7:30-8.
Cecil B. Kennedy's quintet; 8-8:30, Will Oukland's
Chatheau Shanley; 10-10:30, Caravan club orchestra;
10:30-11, Club Kentucky orchestra; 11-11:30, Swanes
club orchestra; 11:30-12, Bandbox orchestra and revue;
12-12:30, Ted Lewis and orchestra.
WIAR, Providence, R. I. (365-9), 8 p. m., Larkinites;
8:30, musical program, Donald MacDonald, director
and tenor; vocal and instrumental solos, ducks; 10,
Goodrich Silvertown Cord orchestra.
WIR, Detroit, Mich. (517), 7 p. m., studio orchestra,
Jean Goldkette, director; 9, Jean Goldkette's serenaders; 10, Jean Goldkette's Victor Recording orchestra.
WIAG. Sen Juan P. R. (340-7), 7:30-9 p. m., music,

Jean Goldkette, director; 9, Jean Goldkette, Stein Goldkette, and Jean Goldkette's Victor Recording orchestra.

WKAQ, San Juan, P. R. (340.7), 7:30-9 p. m., music, La Cafeteria.

WLIT, Philadelphia, Pa. (394.5), 2:30 p. m., Edna Wyatt Webster, soprano; 7:30, Dream Daddy's bedime stories.

WMCA, New York, N. Y. (340.7), 6-6:30 p. m., Olcott Vail; 6:30-6:45, Lulu Quinn Weyant, uke; songs; 7-7:30, Sunnyside orchestra; 7:30-8, Lanson's orchestra; 8:30-9, Snedden Weit, barliane; 9-9:15, Uke Bob McDonald; 10-10:45, Twelfth Street band; 11-12, Ernie Golden and his Hotel McAlpin orchestra.

WNYC, New York, N. Y. (526), 7-7:10 p. m., markethigh spots; 7:10-7:30, Club Arcady orchestra; 7:36-7:35, Dollee alarms; 7:35-8, Club Arcady orchestra; 8:10, studio program; 10:10-10:30, talk, Dr. Sydney N. Ussher; 10:30-11:30, orchestra.

WOO, Philadelphia, Pa. (508.2.), 7:30 p. m., Adelphia Roof Garden orchestra.

WOR, Newark, N. J. (405.2), 6:15-6:17 p. m., "Words Often Mispronounced"; 6:17-6:30, sports talk, Bill Wathey; 6:30-7:15, Hotel Shelton ensemble.

WPG, Atlantic City, N. J. (299.8), 6:30 p. m., sports, Billy Racap; 6:45, Arthur Scott Brook, organist; 7. Hotel Ambassador dinner music: 8, world-wide excursions, Alfred James P. McClure; 8:15, studio program; 9, Hotel Traymore concert orchestra; 10:30, Silver Slipper.

Slipper.

WRC, Washington, D. C. (469), 7 p. m., Shoreham hotel orchestra; 8, Smithsonian talk; 8:15, concert, U. S. Army hand William Stannard, leader, WiZ; 9:15, Army band, William Stannard, leader, WJZ; 9:15, announced; 9:30, WJZ Royal hour; 10:30, Meyer Davis LeParadis roof band.

WTIC, Hartford, Conn. (475.9), 6:30 p. m., dinner music, Hub Restaurant tric; 7:30, "Fall and Winter Motor Travel," Hon. R. B. Stoeckel; 7:45, dinner

muste.

WWI, Detroit, Mich. (352.7), 6 p. m., dinner concert;
8, concert from WEAF.

#### Central Time Stations

KFNF, Shenandoah, Iowa (266), 7 p. m., Bohemian band, E. L. Dorland, director.
KLDS, Independence, Mo. (441), 8 p. m., Annual Independence Chamber of Commerce banquet, speakers, Colvin Brown, Walter B. Weisenberger; Independence

(Continued on page 12)

# CELEBRATE EDISON'S BIRTHDAY; U. OF

#### Index to Popular Concerts

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

#### Eastern Time Stations

Eastern lime Stations
Saturday, October 17: 8:30, WGBS;
8:45, WEAF; 9, WEAF, WGBS,
WNYC; 9:30, WGBS; 10, WREO;
10:30, WEAF, WRC; 10:45, WEAF.

Monday, October 19: 7:30, WHN;
7:45, WAHG; 8, WGBS; 8:30, WOR;
8:45, WAHG; 9, WCAU, WEAF,
WGR, WOO; 9:15, WAHG; 9:30,
WGR, WHAZ; 10, WGR, WMCA; 11,
WLIT; 11:30, WHN; 12, WAHG; 1,
WAHG.

Tuesday, October 20: 7, WMCA; 8, WEAR; 8:30, WMCA; 9, WBZ, WEAR; 11, WHN; 11:30, WHN.

WEAR; 11, WHN; 11:30, WHN.

Wednesday, October 21: 7:30,
WAHG, WEBI, WHN; 7:45, WAHG;
8, WAHG, WEBJ, WEEI, WGCP,
WMCA; 8:15, WAHG, WGCP; 8:30,
WEBJ, WGCP; 9, WEBJ, WGCP,
WNYC; 9:30, WAHG; 9:45, WAHG,
WCAU; 10, WGCP; 11, WHN.

Thursday, October 22: 7:30, WEAF;
8, WCAE, WCTS, WEAF, WFI,
WMCA; 8:15, WBZ; 9:30, WCAU; 10,
WHN, WNYC; 10:20, WBZ.

Friday. October 23: 7:30 WEEI:

Friday, October 23: 7:30, WEEI; 7:45, WAHG, WGY; 8, WGCP, WJR; 8:30, WEEI, WGCP, WHN; 9, WGR; 9:15, WBZ, WGCP; 9:30, WAHG, WHN; 9:45, WGCP; 10, WLIT; 10:30, WHN, WLIT; 11:30, WHN, WTIC.

#### Central Time Stations

Central Time Stations

Saturday, October 17: 6:30, WFAA;
7:20, WLS; 7:30, WMBB; 8, WBBM,
WENR, WLS, WMAQ, WTAS; 8:30,
WGN, WLS; 9, KPRC, WBBM,
WENR, WGN, WMBB, WTAS; 9:30,
WEBH; 10, KFVE, WBBM, WMBB,
WOK, WQJ, WTAS; 10:30, WEBH;
11, KOIL, WBBM, WLS, WOAW,
WOK, WQJ; 11:30, WEBH; 11:45,
WDAF; 12, WBBM, WEBH, WENR,
WOK, WQJ, WSAI; 12:30, WBBM,
WEBH, WENR, WOK, WQJ, WSAI;
12:30, WDAF, WOK, WQJ; 1, WBBM,
WENR, WQJ.

Sunday. October 18: 7:30, KOIL:

WENR, WQJ.

Sunday, October 18: 7:30, KOIL;

8, WBBM, WTAS; 9, WBBM, WTAS;

10:15, KTHS, WTAS; 11, KTHS,
WTAS; 12, WBBM.

Monday, October, 19: 6, WBBM;

6:30, WFAA, WOAW; 6:45, WCCO;

8, WTAS; 8:30, KFAB, WOK; 9,
WMBB, WOK; 9:25, KTHS; 9:30,
KFAB; 10, KFAB, KFVE, WMBB,
WOK, WTAS; 10:30, WHT; 11, KOIL,
WHO, WOK; 11:45, WDAF; 12, WHT,
WOK.

Tuesday, October 20: 6, WOAW; 7:30, KPRC, WBAP; 8, WBBM, WSB, WTAS; 9, WBBM, WMBB, WTAS, WOAW; 9:30 WOAI; 10, KFVE,

WBBM, WHT, WMBB, WOK, WQJ, WTAS; 10:15, WSB; 10:30, WGN; 11, KOIL, WBBM, WFAA, WMC, WOK, WQJ; 11:45, WDAF; 12, WFAA, WHT, WOAW, WOK, WQJ; 1, WQJ.

Wednesday, October 21: 7, KFNF, WLS; 7:30, KOIL, WBAP, WHO; 8, WBBM, WTAS; 8:30, KFAB, WHO; 9, KPRC, WBBM, WHO, WMBB; 9:30, KFAB, WHO, WABB, WTAS; 10, KFAB, KFVE, KYW, WMBB, WOK, WQJ, WTAS; 10:30, KYW, WGN, WHT; 10:45, WSB; 11, KYW, WOK, WQJ, WSAI; 11:45, WDAF; 12, KYW, WBBM, WHT, WOK, WQJ; 1, WBBM, WHT, WOK, WQJ; 1, Thursday, October 22: 6:30, WEAA.

Thursday, October 22: 6:30, WFAA;
7, WOC, WSAI; 7:30, WBAP; 8,
WBBM, WHAD, WTAS; 9, KMA,
WBBM, WHAD, WMBB, WTAS;
9:30, KTHS, WOAI; 10, KMA, KYW,
WBBM, WMBB, WOK, WQJ, WTAS;
10:03, WLW; 10:30, WGN, WHT;
10:45, WSAI; 11, KOIL,
WFAA, WOC, WOK, WQJ, WTAS;
11:20, WLW; 11:45, WDAF; 12, WHT,
WFAA, WOC, WOK, WQJ, T, WQJ,
Friday, October 23: 6:30, WFAA.

WOK; 12:15, WLW, WQJ; 1, WQJ.

Priday, October 23: 6:30, WFAA; 8, WBBM, WLS, WOC, WTAAS; 9, WBBM, WDAF, WHAD, WOAW; 9:30, WTAS; 9:45, WLS; 10, KFVE, KYW, WOK, WQJ; 10:30, KYW, WGN, WHT; 10:45, WSAI; 11, KOIL, WMC, WOK, WQJ; 11:30, KYW; 11:45, WDAF; 12, WHT, WOK, WQJ; 1, WQJ.

Mountain Time Stations Wednesday, October 21: 10, KFWA. Friday, October 23: 10, KFWA.

#### Pacific Time Stations

Saturday, October 17: 8, KFWB, KNX; 9, KNX, KPO; 10, KFWB, KFI; 11, KNX; 11:30, KHJ, KTCL; 12, KNX; 12:30, KHJ; 1, KNX; 1:30, KHJ.

Sunday, October 18: 8, KHJ; 9, KFWB; 10, KFWB.

Monday, October 19: 9, KNX; 10, KFWB; 11, KFWB; 12, KFWB.

Tuesday, October 20: 8, KFWB, KNX; 9, KNX, KPO; 10, KFWB, KNX; 11, KFWB. Wednesday, October 21: 8, KGW, KPO; 9, KFWB, KNX; 10, KNX; 11, KFWB; 11, KNX.

Thursday, October 22: 8, KHJ; 9, KHJ, KTAB; 10, KFWB, KHJ; 11, KNX.

Friday, October 23: 8, KFWB; 9, KFWB, KHJ, KNX; 10, KFWB, KNX; 12, KFWB, KNX; 1, KNX.

11, The Cino male quartet, Musicone trio.

WMAQ, Chicago, III. (447.5), 6 p. m., Chicago theater organ recital; 6:30, Hotel LaSalle orchestra; 8, garden talk, James H. Burdett; 8:15, financial talk; 8:30, Association of Commerce talk; 8:40, talk, J. T. Palmer; 9, U. of Chicago lecture, br. Whit; 9:20, musical program, George T. Rees.

WMBB, Chicago, III. (250), 7-8 p. m., Trianon duo, Beatrice Teller, Lindsey McPhail, Paul Cadieux, Jean Ballard, Babbi and Barr, Mildred Maejka, Clarence Jacobs; 9:11, Trianon orchestra, Dell Lampe, conductor; Bille Hoff; Woodlawn theater orchestra, Armin, Hand, conductor; Jimmy Eggert, popular program, WMC, Memphis, Tenn. (499.7), 8:30 p. m., Cooper's Hawaiians.

Hawalians.

WOAW, Omaha, Nebr. (526), 6 p. m., classical; 7, Randall's Royal Fontenelle orchestra; 9, Sunshine

WOK, Chicago, III. (217.3), 10-1 p. m., Sandy Meek, tenor; Harry Sosnik, planist; Hernan Sinaiko, violinist; Harriet Lee, contralio; Bill Bourke, Somy Brown; Wildey and Sheehan; Banks Kennedy, organist; Bill Hav hove

Marie Wright, soprano; Lew Butler and artists; 1-2, Ginger hour.

WSAI, Cincinnati, Ohio (325.9), 7 p. m., Larkinites, WEAF; 7:30, "Pop" concert; 8, musical program; 9, Silvertown Cord orchestra, Joseph Knecht, director, WEAF

Mountain Time Stations
CNRC. Calgary, Can. (455.8), 9 p. m., C. N. R.'s symphony orchestra; Andy Davidson, tenor.
KOA, Denver, Colo. (322.4), 6.39 p. m., Herbert White and his Sliver State orchestra.
KUOM, Missoula, Mont. (244), 8 p. m., children's hour, Alberta Stone; Mrs. Lelia Paxson Hale, vocalist.

Pacific Time Stations

KFPG, Hollywood, Calif. (238), 9:30-10 p. m., Sylvia Szymanski, the blind cook; 5-6 p. m., home hour, Georgia Simmons and the naborhood children; 8-9, Harold Hynes, the wandering Jew, and his minstrels in baby blue hour; 9-10, Ruth Leonardi's golden melody hour.

in baby blue hour; 9-10, Ruth Leonardi's golden melody hour.

(KFWB, Hollywood, Calif. (252), 7:30 p. m., microphone brevities; 7:50, Jack Boaz, fishing scout; 8-9, program, Starr Piano company, Hollywood Rythma Kings and Ina Mitchell Bulter in arrangements of Gennett records; 9-10, program, Don P. Smith, Inc. Diana-Moon dance orchestra, Salvine Baiano, violinist, Sol Hoopii's junior Hawaiian trio, Dan Gridley, tenor: 10-11, Warner brothers' frolic, direction Norman Manning.

Manning.

KGO, Oakland, Calif. (361). 8 p. m., "The Fortune Hunter," KGO players; Cremona trio; 10-12, Ben Black's orchestra.

Black's orchestra.

KGW, Portland, Ore. (491.5), 7:45 p. m., Catholic Truth society,

KHI, Los Angeles, Calif. (405.2), 5:30-6:30 p. m., Leighton's Arcade cafeteria orchestra, Jack Cronshaw, leader; 6:30-7:30, history story, Prof. Walter Sylvester Hertzog; Dickie Brandon, Joyce Coad and Jane Hughes, screen Juvenlies; 8-10, program, Pacific Ready Cut Homes, Inc., arranged by Walter W. Biddick; 10-11, Art Hickman's Biltmore hotel dance orchestra, Frank

Ellis, leader.

KNX, Hollywood, Calif. (336.9), 5:30-6:15 p. m., Wurlitzer pipe organ studio, Town Tattler; 6:15, travel talk,
W. F. Alder, 6:30-7, Atwater Kent Radio orehestra,
Paul Finstein, leader; 7-8, KNX dinner hour program; 8-9, program, Globe Ice Cream company; 9-10,
program, Weber Baking company; 10-11, Ray West,
Cocoanut Grove dance orchestra from Ambassador hotel,
KPO, San Francisco, Calif. (428.3), 6:40-7 p. m.,
Waldemar Lind and the States Restaurant orchestra;

Down in the lower left corner is Radio Roy and his "uke," both well known to WAHG listeners. Carabelle Johnson, above, has long been a favorite with the Radio public. Her soprano voice may be heard Monday during the light opera hour at WTAM. May Zoller, right, will play her xylophone and look just like this Monday evening at WGY. Art Gillham, lower right corner, is that famous "Whispering Pianist." Although he whispers into the microphone thousands of people are able to hear him nightly. He is touring the middle west broadcasting stations at present. writer; 10:30, Loeser's dancing academy or-

chestra. WCTS, Worcester, Mass. (268), 8 p. m., program. WCX, Detroit, Mich. (517), 6 p. m., dinner concert. Book-Cadillac hotel; 10, Blue Room dance orchestra. WEBJ, New York, N. Y. (272-6), 7-7:30 p. m., Blenheim theater ensemble; 7:45-8, Philip Krumholz, tanon. tenor.

WEAF, New York, N. Y. (491.5), 6-7 p. m., dinner music, Waldorf-Astoria; 7-7:30, Gene Angraham's Great Notch Inn orchestra; 7:30-7:45. Sir Hobgoblin; 7:45-8, R. E. Peckham and Carl Roeder, pianists; 8-8:30, Happiness Candy Boys; 8:30-9, Eagle Neutrodyne trio; 9-10, "Spear and Company's Home Entertainers"; 10-10:15, Walter Preston, baritone; 10:15-10:30, Helen E. Vogel, violinist; 10:30-11, Crescent male quartet; 11-12, Meyer Davis' Lido-Venice orchestra.

11-12, Meyer Davis' Lido-Venice orchestra.

WEAR, Cleveland, Ohio (389.4), 7 p. m., F. W. Roberts Kindergarten hour; 8, talks; 8:30, dance program.

WEEI, Boston, Mass. (476), 7:15 p. m., talk, Malcolm E. Nichols; 8, Neapolitan broadcast; 8:30, Sager's half hour of hospitality; 9:15, Dorothy Curtis, pianist; Alessando Niccoll, violinist; Edna Holmes, soprano; 10, American House marimba band and orchestra; 11, talk, Malcolm E. Nichols.

WGBS, New York, N. Y. (315.6), 6-6:30 p. m., Uncle Geebee; 6:30-7, Anzel's Perl House orchestra; 7-7:15, "Radio Problems," Herman Bernard; 7:15-7:45, orchestra.

"Radio Problems," Herman Bernard; 7:15-7:45, orchestra.

WGCP, New York, N. Y. (315.6), 3-5:30 p. m., musical
program; 8-11, musical program.

WGR, Buffalo, N. Y. (319), 2:30-4:30, 6:30-7:30 and
8-10:30 p. m., Buffalo Radio show programs, including
Winger's Crescent Park entertainers; 9-9:30, broadcast
direct from the show studio; 10:30-11, Hewitt Rubber
company program; 11-1 a. m., Vincent Lopez Hotel
Statler dance orchestra, Harold Gieser, director.

WGY, Schenectady, N. Y. (379.5), 7 p. m. Albany
Strand theater orchestra; 7:40, "The Man on the Box."
WGY players; 10:30, WGY orchestra; Joseph Culhane,
tenor; Cyrill Cadieux, baritone.

WHAR, Atlantic City, N. J. (275), 7:30 p. m., fashion
talk; 8, Seaside hotel trio; 11:15, Strand theater
organ rectial.

WHN, New York, N. Y. (361.2), 7:30-8 p. m., "Cheer-

WHAR, Atlantic City, N. 1. (275), 7:30 p. m., fashion talk; 8, Seaside hotel trio; 11:15, Strand theater organ recital.

WHN, New York, N. Y. (361.2), 7:30-8 p. m., "Cheerful Philosopher," Burr McIntosh; 10:30-11, Roseland dance orchestra; 11:11:30, Rodeo club orchestra; 11:30-12, Alabam club orchestra; 12:12:30, Silver Slipper revue nad orchestra.

WIAR, Providence, R. 1. (305.9), 8 p. m., Philip Bronstein nad his Brown University orchestra; 9, Maine Creamery entertainers; 11. Providence-Billimore dance orchestra, Erwin White, director.

WIR, Detroit, Mich. (617), 7, m., studio orchestra, Jenvin White, director.

WIR, Detroit, Mich. (617), 7, p. m., studio orchestra, Jenvin White, director.

WKAQ, San Juan, P. R. (340.7), 7-9, p. m., entertainment, Porto Rican Atheneum.

WLIT, Philadelphia, Pa. (394.5), 7:30 p. m., Dream Daddy's bedtime stories; 10, Morning Glory concert; Arcadia cafe dance orchestra; Rufus and Rastus, songs; "A Night in Bohemia," Pen and Penefi club.

WLWI, New York, N. Y. (280.3), 8 p. m., talks on literature; special talks.

WMCA, New York, N. Y. (340.7), 6-6:30 p. m., Olcent Vall and his Hotel McAbjin orchestra; 9-10, Hardman hour of music; 10:03-10:15, "How to Drive Automobiles," Harry Raines; 11:15-11:45, Donald Flamm, dramatic critic.

WNYC, New York, N. Y. (526), 7-7:10 p. m., market high spots; 7:10-7:30, dance orchestra; 7:30-7:35, police alarms; 7:35-8, dance orchestra; 7:30-7:35, police alarms; 7:35-8, dance orchestra; 1-11:30, Ciro's orchestra.

WOR, Newark, N. I. (405.2), 6:15-6:17 p. m., "Words Often Mispronounced"; 6:21-6:30, sports talk, Bill Wathey; 6:30-7, Man in Moon; 7-7:30, Hotel Shelton ensuble; 7:30-8, Casino orchestra; 11-11:30, Ciro's orchestra.

Central Standard Time
Saturday, October 17:
S. Kgw, Wgy, Wmbb,
Wpg, Wtas; S. 305, Wlp;
S. 30, Webh, Wgy, Wsmb;
9, Weaf, Wmbf, Wmca,
Wdi, Wrc. Wreo, Wtas;
9:30, Weee, Wges, Wgn,
Wild, Wrc: 10, Kpo,
Kths, Wabg, Wcco,
Wkrc, Wmbf, Wreo, Wpg;
10:30, Webh, Wges; 11,
Kfwb, Koa, Wahg, Wcee,
Wfaa, Wild, Wkrc, Wec
11:15, Wdaf; 11:30,
Wges; 11:45, Wdaf; 12,
Kgo, Kgw, Khj, Knx.
Monday, October 19:
8, Wkrc, Wmbb, Wtas;
8:30, Weaf, Wsmb; 8:45,
Wor; 9, Weae, Wgr,
Wmbf, Wtas; 9:05,
Wahg; 9:25, Kths; 9:30,
Wcee, Wijd; 10, Kpo,
Wgr, Whn, Wmbf, Woaw,
War, 10:30, Weee,
Wid; 11, Who, Wkre;
11:30, Wijd; 11:45, Wdaf,
Tuesday, October 20:
Wmbt, Wdas; 9:29 Central Standard Time

Wtam; 10:36, Weee, Widam; 10:30, Wijd; 11:45, Wdaf.

Tuesday, Oetober 20:
8. Wmbb. Wtas: 8:30, Weau, Webh. Wij: 9, Wex, Weaf, W. Wij: 9, Wex, Weaf, W. Wij: 9, Wijd. Wtas: 9:30, Weee, Wges, Wgn, Wijd. Widas: 9:30, Weee, Wges, Wgn, Wijd. Kfwb; 11:30, Wijd. Kfwb; 11:30, Wijd. Kgo.

Wednesday, M. Sober 21: 8, Kgw. Whad, Whn, Wid. Word, Word, Word, Wijd. Wee, Webh. Was; 8:30, Kyw. Weau, Webh. Wijz. Wkrc, Wmad, Word, Wijz. Wkrc, Wmad, Word, Wijz. Wkrc, Wmad, Word, Wijz. Whad, Wijz. Whad, Wijz. Whad, Wijd. Wijd.

### Thursday, October 22

(Continued from page 11) Chamber of Commerce glee club; KLDS Radio or-chestra; Dorothy Cobb Murphy, reader; M. Dawson

Chamber of Commerce glee club; NLDS Radio orchestra; Dorothy Cobb Murphy, reader; M. Dawson Stephens, bass, (MA, Sheanadoal, lowa (252), 6-7 p. m., flower talk, Lina Ferguson; 9-11, Delmonico Dreamers. (PRC. Houston, Texas (296.9), 7:30 p. m., popular orchestra; 8:30, E. G. Rountree, bartione; 9, Richard A. Buck, accordion and harmonica specialty. (THS, Hot Springs National Park, Ark. (374.8), 9-9:30 p. m., familiar organ tunes, Lawson Reid; 9:30-10:15, dance concert, New Arlington orchestra, Lon Chassy, director; 10:15-10:30, cello and plano duets. (YW, Chicago, III. (335.4), 6:30-7 p. m., bedtime story, Uncle Bob; 7-7:30, Congress hotel dinner concert; 7:33-7:33, "Monthly Analysis of Farm Markets"; address; 8-8:20, good reading, Rev. C. J. Permin; 8:20-9:20, musical program; 9:20-10, "Putting the Thin Steak," John C. Cutting; 10-11:30, evening at home program; "Hollywood Headliners," Frank (Clark; Aerial Minstrels, Shorty Fall and Sen Kaney. (AMD, Minneapolis, Minn. (243.8), 6 p. m., George Osborn's orchestra; 7, Curb's the Limit army, Warren M. Tingdale, commander; 10:30, Radisson Rondevoo.

'ABBM, Chicago, III. (226), 8-9 p. m., Samovar or-chestra; Nate Caldwell, Jim Gleason, Charles Garland, Eddle Loftus; 9-10, Montmartre orchestra, Marie Mor-gott, harpist; Corrine Jordan, Vera Gilbert, Joseph Raieff, pianist; Devon Comedy four; 10-12, Paul Small, Doris Ryan, pianist; Bert Davis, clown of the air; Four Crows quartet.

Four Crows quarter.

(CBD. Zion, III. (344.6), 8 p. in., Ladies' cherns; harmonicas, celestial bell quartet; Alexander DePew, flutist; Mr. and Mrs. G. R. Sparrow, tenor and contralto; Messrs. DePew and Rendall, piccolo duettists; G. R. Sparrow, tenor; Olive Wright, planist; Louise Burgess, reader.

GCO, Minneapolis-St. Paul, Minn. (416.4), 7-7:30 p. m.. "The Larkinites"; 8. program from WEAF.

D. m., "The Larkinites"; 8, program from WEAF, DAF, Kansas City, Mo. (365.6), 6-7 p. m., address, Louis Mecker; Tell-Me-a-Story lady; Trianon ensemble; 11:45-1, Merry Old Chief; Carl Nordberg's Plautation players; Earl Coleman's Ambassador hotel orchestra; Eddie Kuhn's Kansas City Athletic club orchestra; Ted Meyn, organist. EBH, Chicago, III, (370.2), 7-8 p. m., Oriole orchestra; recital; 9-10, Oriole orchestra; Katherine Forbes, soprano; Beulah Ladon, violinist; 11-1 a. m., Oriole orchestra; stories, Wayne Myers; Paul Small. ENR, Chicago, III, (266), 6-7 p. m., Bauland lyric FNR, Chicago, III, (266), 6-7 p. m., Bauland lyric fic; 8-10, All-American Pioneers, Ray Hibbeler, Rose Kutta, Will Rossiter, Burt Davis; Strand Harmony Out.

our 5AA, Dallas, Tex. (475.9), 6:30-7:30 p. m., Baker notel orchestra: 8:30-9:30, Farmers' hour, Vaughan nale quartet: 11-12, Capitol theater players. SES, Oak Park, III. (250), 7-9 p. m., Katherine J'Brien, reader: Eleanor Kaplan, violinist; Margaret

Samuelson, pianist; Joy Small, whistler; Lucille Engel, violinist; 11-2 a. m., Sun Dodgers orchestra; Dorothy Knox, Reynertson sisters; Phil Wick, Watter Kirsch, Ben Kanter, Lew Butler, Parrish and Ward. WGN, Chicago, III. (370.2), 6:39-7:39 p. m., Drake concert ensemble, Blackstone string quintet; 8-9, WGN string trio; 10-11, Jack Chapman's and Blackstone dance orchestras.

WHAD, Milwaukee, Wis. (278), 6-7 p. m., Arthur

HINAU, MINAUREE, WIS. (270), U-1 p. m., ARTHUR RICHER, organist.
WHAS, Louisville, Ky. (389.8), 7.30-9 p. m., concert, auspices Samuel L. Riely: Sunday school lesson.
WHB, Kansas City, Mo. (365.6), 7.7.30 p. m., organ concert, Morrell Moore; 8-9, program, Fred Kammer, Shrine quartet; Hawaiian trio; 9-10, Walt Wood's Makers.

Melody Makers.

WHO, Des Moines, Iowa (526), 7:30-8 p. m., Raleigh quintet; 8-9, Bankers' Life trio; 11-12, Bankers' Life Little symphonic orchestra, Leon A. Dashoff, director. WKRC, Cincinnati, Ohio (422.3), 8 p. m., Pete Mincowsky, violinist; Al Kirschner, planist; Pep Golden, saxophonist.

WLS, Chicago, III. (344.6), 6:30 p. m., Ralph Emerson, organist; 7, Iullaby time; 7:15, program, faculty Glenn Dillard Gunn College of Music.

WLW, Cincinnati, Ohio (422.3), 4 p. m., plano recital, Adelaide Apfel and pupils; 7, dinner concert, Hotel Gibson orchestra; Robert Visconti, director; 10, three-minute message, Civil Service department, United States government; 10:03, The Doherty Melody Boys; 11, The Cino male quartet, Musicone trio.

program.

WOC. Davenpert, lowa (483.6), 7-7:30 p. m., Larkinites; 7:30, WEAF; 9-10, Silvertown Cord orchestra; 11-12, LeClaire hotel orchestra; Peter MacArthur, baritone.

Wildey and Sheeman, Market Bay, bass, Hay, bass, WORD, Batavia, III. (275), 8 p. m., Webster hotel concert trio; 8:15, Sunday school lesson; 8:30, Chicago

VORD, Batavia, III. (2/0), 8 p. m., websier note concert trie; 8:15, Sunday school lesson; 8:30. Chicago Musical college.

Vol. Chicago, III. (447.5), 7-8 p. m., dinner concert, Raibh Williams and his orchestra; Kenneth Sterling, Baritone; Tula Miller, soprano; Peggy Walbank, contralic; 10-1, Raibh Williams and his Rainho Skylarks; Jerry Sullivan, Rose Vanderbosch, soprano and pianist; Hal Lansing, ukulele soloist; Bert Davis; Balph Keim, planologist; Anne Keim, mezzo-soprano;

# 7-7:30, Rudy Seiger's Fairmont hotel orchestra; 8-9, George W. Caswell Coffee company; Radio Eight orchestra; John W. Miller, tenor; 9-10, studio program; 10-11, Jack Conkley's Cabirlans, KTAB, Oakland, Calif. (215), 8-10 p. m., studio program;

#### Friday, October 23

Friday, silent night for: CHIC, CHNC, CNRC, CNRM, CNRO, CNRR, CNRW, KFMQ, KGO, KLDS, KOB, KPRC, KUOM, WBBR, WCBD, WEAO, WF, WGBS, WIP, WKRC, WLW, WRC, WREO, WSAI, WSMB, WSUI, WTAM.

Eastern Time Stations

CNRA, Moncton, Can. (291), 8 p. m., bedtime story,
Aunt Ida; 9, Ladies' double quartet; CNRA dance
orchestra; Mrs. J. Clyde Stevens.
CNRT, Toronto, Can. (356.9), 6:30 p. m., Luigi Romanelli nad his King Edward hotel concert orchestra:
Hart House string quartet; 11, Luigi Romanelli and
his King Edward hotel dance orchestra.
KDKA, Pittsburgh, Pa. (309.1), 6:15 p. m., dinner
concert; 7:45, Radio chat No. 11, G. A. Scott; 9,
Teaberry time.

WahG, Richmond Hill, N. Y. (315.6), 7:30-7:45 p. m., Ruth Haym, sopruno; 7:45-8, Ulrich, Prendergast and Webb; 8-8:15, William Towson Taylor, baritone; 8:15-8:30, Serenaders Pleetrum quintet; 8:30-8:45, "Everyday Speech," Professor Richard E. Mayne; 8:45-9, Ulrich, Prendergast and Webb; 9-9:15, William Towson Taylor; 9:15-9:45, Serenaders Pleetrum quintet; 9:45-9:55, Ruth Haym; 10:15-11:15, Andy Asciutto's Paragon orchestra.

Paragon orcnestra.

WBZ, Springfield, Mass. (333.1), 6:30 p. m., Leo Reisman's Hotel Lenox ensemble; 7:05, members, Harvard glee club; 8. Alice Ruth Mulally, soprano; Alwyn E. W. Bach, bartione; Frederick L. Wade, tenor; Irene Akkins, pianist; 9, band, Boston Chapter De Molay; 9:45, Stella Marek Cushing, violinist; 10:50, Mc-Enelly's Singing orchestra.

WCAF Pittsburgh De (461.2), 6:30 p. m., Leo Reisman's March Pittsburgh Per (461.2), 6:30 p. m., Leo Reisman's March Pittsburgh Per (461.2), 6:30 p. m., Leo Reisman's March Pittsburgh Per (461.2), 6:30 p. m., Leo Reisman's March Pittsburgh Per (461.2), 6:30 p. m., Leo Reisman's March Pittsburgh Per (461.2), 6:30 p. m., Leo Reisman's March Pittsburgh Per (461.2), 6:30 p. m., Leo Reisman's March Pittsburgh Per (461.2), 6:30 p. m., Leo Reisman's March Pittsburgh Per (461.2), 6:30 p. m., Leo Reisman's March Per (461.2), 6:30 p. m., Leo Reisman's March Pittsburgh Per (461.2), 6:30 p. m., Leo Reisman's March P

WCAE, Pittsburgh, Pa. (461.3), 6:30 p. m., dinner concert, William Penn hotel; 8, address, Current motor topics; 8:30, Sequilla club.

WCAU. Philadelphia, Pa. (277.6), S p. m., Leedom sisters, Radio song birds; 8:15, talk on chiropractic, Dr. Doughty; 8:30, Kathryn O'Boyle, pianist; 9, Mr. Hill's Harmony four; 9:30, Remie Cormack, popular

#### DANCING

KF KM KS KT

QU Le WC( Bi Co les Pa WD/ Te Ra pla sas che

WEN

Sel sop WGE bar tra 6:4 Bro Coy WGN

con stri ma WHA Ric gar

Knx, Kpo, Wqj.

Friday, October 23:
8, Kyw. Weae, Wear,
Weel, Winbb, Wtas, 8:30,
Kyw. Weau, Webh, Whn,
Wmaq, Woo; 9, Kyw,
Weae, Wer, Weaf, Wgr,
Wmbf, Woaw, Wqj; 9:15,
Wahg; 9:30, Weee, Wgn,
Wijd, Wtas; 30, Kfre,
Whar,
Wibf; 10:30,
Webh, Wijd; 11,
Kfwb, Who; 11:45, Wdaf.

# J. OF MINNESOTA "PEP" FEST AT WAMD



DANCING

Central Standard Time
Saturday, October 17:
S. Kgw, Wgy, Wmbb,
Wpg, Wtas; 8:05, Why
S. West, West, Wmbb,
West, Wreo, Wtas;
S:30, Webh, Wgy, Wenb,
9, Weaf, Wmbf, Wmcs,
9:30, Weee, Wges, Wgn,
Wijd, Wre, 10, Kpo,
Kths, Weee, Wges, Wgn,
Child, Wro, 10, Kpo,
Khs, Weee, Wgs;
11:30, Wat;
11:35, Wdaf;
11:30, Kgw, Khj, Knx.
Monday, October 19:
8, Wkre, Wmbb, Wtas;
8:30, Weaf, Wsmb;
8:45, Wor;
9, Wcae, Wgr,
Wmbf, Wtas;
9:05, Wahg;
9:25, Kths;
9:30, Weee, Wijd;
10. Kpo,
Wger, Whn, Wmbf,
Woee, Wjid;
10. Kpo,
Wgr, Whn, Who,
Wiam;
10:30, Weee,
Wjid;
11:30, Wijd;
11:30, Wid;
11:30, Wijd;
11:30, Wijd;
11:30, Wijd;
11:30, Wdr;
11:30, Wijd;
11:30, Wold;
11:30, Wijd;
11:30, Wold;
11:30, Wijd;
11:30, Wold;
11:30, Wijd;
11:45, Wdaf,
Tuesday, October 20;
Wmbf, Wdars Central Standard Time

Wtam; 10:30, Week, Wijd; 11:40, Who; 11:30, Wijd; 11:45, Wdaf; 11:45, Wdaf, Wdaf; 11:45, Wdaf; 1

Knx, Kpo, Wdj.

Friday, October 23:
8, Kyw. Weao, Wear,
Weel, Wmbb, Wtas, 8:30,
Kyw. Weau, Webb, Whn,
Wmaq. Woo; 9, Kyw.
Weae, Wer, Weaf, Wer,
Wmbf, Woaw, Wdj; 9:15,
Wahg; 9:30/-Weee, Wgn,
Wijd, Wtas; 30, Kfre,
Whar,
Weee, Weh, Wijd; 11.
Kfwb, Who; 11:35, Wdaf.

cipal Atlantic City high school; 8:15, studio program; 9, Hotel Ambassador concert orchestra; 10:30, Silver

cipit Attains 23, 9, Hotel Ambassador concert orchestra; 10;30, Silver Slipper.

WRC, Washington, D. C. (469), 5 p. m., WRC's foolish entertainers; George F. Ross and Ellsworth Tompkins; 6, book reviews.

WTIC, Hartford, Conn. (475.9), 6:30 p. m., Young People's half hour; 7, dinner music, Emil Heimberger's Hotel Bond trio; 7:30, dinner music; 8:30, Travelers Ladies' quartet; Sylvia L. Richard, planist; Mary Zoller, Erlau H. Wilcox, Xylophonists; 10:05, Hotel Bond orchestra; 11:30, popular period; Mary Zoller, xylophonist; Ed. F. Mahoney, tenor; Helen I. Dischert, ukulele soloist.

WWJ, Detroit, Mich. (352.7), 6 p. m., dinner concert; 8, News orchestra; 9, dance program.

Central Time Stations
KFAB, Lincoln, Nebr. (340.7), 5:30-6:30 p. m., Buick
Little symphony; Belshaw's orchestra; 8:30-10:30, Utica

band. KFMX, Northfield, Minn. (337), 10-11 p. m., organ

KFMX, Northmen, mun. (266), 7 p. m., Sunday school restraints, 7:30, concert, Widney sisters.

KFVE, University City, Mo. (240), 10 p. m., Olin Gibson and Henry Miller, entertainers; Orchestra

Gibson and Henry Miller, entertainers; Orchestra Romaline.

KMA, Shenandoah, lowa (252), 9-11 p. m., musicale, May Seed and Nursery company.

KSD, St. Louis, Mo. (545.1), 7:30 p. m., "Commerce Hour," John Herget; 8:30, Notic's dance orchestra. KTHS, Hot Springs National Park, Ark. (374.8), 9-9:10 p. m., football results; 9:10-10, Meyer-Davis orchestra; Lawson Reld, organist; Meyer-Davis saxophonetric; 10-10:30, Southerners' orchestra.

KYW, Chicago, III. (535.4), 6:35-7 p. m., bedtime story, Uncle Bob; 7-7:30, dinner concert, Congress hotel; 7:30-8:30, Home Lovers' hour; 10-12:30, revue; Coon Sanders Original Nighthawks; Albert Hay Malotte, organist.

WAMD, Minneanolis, Minn. (243.8), 6 p. m., George Osborn's orchestra: 7, musical program, Minneapolis public schools; 8, football pep fest; 8:15, Minnesota male quartet; 10:30, Radisson Rondevo.

WBBM, Chicago, III. (226), 8-10 p. m., instrumental

quartet; 10:30, Radisson Rondevoo.

WBBM, Chicago, III. (226), 8-10 p. m., instrumental quartet; Leona Hayes, harpist; Devon Comedy four; Lew Russell; Pete Kules; Montmartre orchestra.

WCOO, Minneapolis-St. Paul, Minn. (464.4), 6:10 p. m., Biley's St. Paul hotel orchestra; 7:30, Minneapolis Community fand talk; farm lecture, dairy farming, lesson 1; 8, musicalc; 10:05, Arnold Frank's St. Paul hotel orchestra.

WDAF, Kansas City, Mo. (365.6), 6-7 p. m., address; Tell-Me-a-Story lady; Trianon ensemble; 8-9:30, Star's Radio orchestra; Itaf-I, Merry Old Chief, Plantation players; Earl Coleman's orchestra; Eddie Kuhu's Kansas City Athletic club orchestra; Earl Coleman's orchestra.

chestra.

WEBH, Chicago, III. (370.2), 7-8 p. m., Oriole orchestra; Uptown theater; 9-10, Oriole orchestra;
Katherine Forbes, soprano; Beulah Ladon, violinist;
10-1 a. m., Oriole orchestra; stories, Wayne Myers;
Paul Small.

enestra; Optown theater; 9-10, Oriote orenestra; Katherine Forbes, soprano; Beulah Ladon, violinist; 10-1 a. m., Oriole orenestra; stories, Wayne Myers; Paul Small.

WENR, Chicago. III. (266), 6-7 p. m., Rauland lyric trlo; Russell Hendrickson, cellist; Marie Tulley; 8-10, Frank Westphal nad his All-American Pioneers; Grace Hegseth; Floyd Fatch; 12-2, midnight frolic.

WFAA, Dallas, Texas (475.9), 6:30-7:30 p. m., Hauulea School of Hawailan Music; 8:30-9:30, Daisy Polk, soprano; Mrs. Juanita Blair Price, pianist.

WGES, Oak Park, III. (250), 7-9 p. m., John Rankel, baritone; Ruth Kalthoff, soprano; Emma Butler, contralto; Gladys Welge, violinist; John Stamford, tenor; 6:45-7, lecture, E. L. Richards; I1-2 a. m., Novelty Broadcasters' orchestra; Marie Wright, Evans Lloyd, Coyne Banjo trlo; Kenneth Nelson.

WGN, Chicago, III. (370.2), 6:30-7:30 p. m., Drake concert ensemble, Blackstone string quintet; 8-9, WGN words for the concert can be a concert ensemble, Blackstone string quintet; 8-9, WGN while words and Blackstone dance orchestras.

WHAD. Milwaukee, Wis. (278), 6-7 p. m., Arthur Richter, organist; 7:05, Bill Juhre's Radio Cartoon game; 8:30-10, Wisconsin theater revue.

WHAS, Louisville, Ky. (399.8), 7:30-9 p. m., concert, Louisville Music and Radio company; Gene Klingman, director; Sara King, pianist. WHB, Kansas City, Mo. (365.6), 7-8 p. m., Sweeney

WHB, Kansas City, Me. (365.6), 7.8 p. m., Sweeney orchestra.

WHO, Des Moines, Iowa (526), 7.30-9 p. m., program, Palo Alto Grange orchestra; 11-12, dance program, WLS, Chicago, III. (344.6), 6.30 p. m., Ralph Emerson, organist; 7, Iuliaby time; 7.15, "Southern Sonas," Rex Maupin, director; 7.45, Ruth Olt, soprano; 8, R. F. D. program; Evans Brothers' quartet; 9, Abe Lyman's College Inn orchestra; 9:10, Rodeleaver hour, Vivian Tripp, director; 10, College Inn orchestra; 10:10, Alice LaTarte, pianist; 10:25, Evans Brothers' quartet.

WMAQ, Chicago, III. (447.5), 6 p. m., Chicago theater organ; 6:20, Family Altar league; 6:30, Wide-Awake club program; 8, musical lecture, Mr. and Mrs. Marx E. Obendorfer; 8:30, White-Latarte, 10:00, Wide-Awake club program; 8, musical lecture, Mr. and Mrs. Marx E. Obendorfer; 8:30, White-Sung, Viciano Incapa lecture; 9:20, Elizabeth Stokes, soprano.

WMBB, Chicago, III. (250), 7-8 p. m., Trianon duo, J. Bodewalt Lampe, Beatrice Teller, Florence Rush, Joel Lay, Jean St. Anne; 9-11, Trianon orchestra, Dell Lampe, conductor; Edward Hines, Morey Alswang, Jack Murnane, Cecil and Esther Ward, Stokes and Agne.

WMC. Memnhis. Tenn. (499.7). 8:30 p. m., Atwater

Agne.

MGC, Memphis, Tenn. (499.7), S:30 p. m., Atwater
Kent Radio company; 11, midnight frolic.

WOAW, Omaha, Nebr. (526), 6 p. m., music review,
Hester Bronson Copper; 6:40, Gilbert Jaffy and his
little symphony; 7:10, sport talk, Ivan L. Gaddis; 9,
DeLuxe program.

little symphony; 7:10, sport talk, Ivan L. Gaddis; 9, DeLuxe program,
WOC, Daverport, lowa (483,6), 8-10 p. m., musical program, Schmidt Music House concert orchestra.
WOK, Chicago, Ili. (217.3), 10-1 p. m., Harry Davis, tenor; Hernan Sinaiko, violinist; Harriet Lee, contraito; Haymakers trio; Berger Wedberg, tenor; Armold B. Stephenson, musical saw solost; Rosemary Hughes, soprano; Ed Kemp, tenor; Banks Kennedy, organist; LeRoy North, planist.
WORD, Batavia, Ili. (275), 8 p. m., Webster hotel concert trio; 8:15, WORD Radio study club; 8:30, I. B. S. A. orchestra.
WOS, Jefferson City, Mo. (440.9), 8 p. m., "The How and Why of Radio Market News," Homer L. Gobble; musical program, Helen Tolson.
WQI, Chicago, Ill. (447.5), 7-8 p. m., Ralph Williams and his Rainbo Gardens orchestra; Everett G. Mitchell, baritone; Blanche Robinson, pianist; Maryl Larson, soprano; 10-1, Ralph Williams and his Rainbo Skylarks; West brothers, Hawaiian gultarists; H. Lucille Long, harmonica player; Parrish and Ward, harmony singers; Larry Shay; Keithley and Kauffer, singing



and playing; Electa Kind, soprano; Ed McGinnis, piano-accordionist; Lean Terrill, baritone; 1-2, Ginger hour.

Mountain Time Stations
Edmonton, Can. (516.9), 8:30-10:30 p. m., studio director, mandolin, guitar and orchestras.

KFAU, Boise, Idaho (278), 8 p. m., recital, Mrs. Leslie

KFWA, Ogden, Utah (261), 9-10 p. m., studio program. KOA, Denver, Colo. (221.), 9-10 p. m., studio program.
KOA, Denver, Colo. (322.4), 6.30 p. m., Herbert White and his Silver State orchestra; 7:30, Sunday school lesson; 8, scientific football, Tom McNamara; 8:10, dramatic features, Denver Community players; "He Man in the Stalls," "The Wonder Hat," "Her Tongue."

Pacific Time Stations

CNRV. Vancouver, Can. (291), 8 p. m., "Big Game Hunting in Canada," H. H. Melanson; 8:30, Signey G. Horton, baritone; Dorothy Notzel, pianist; Betty Newton, violinist; Belmont Cabaret orchestra.

KFOA, Seattle, Wash. (454.3), 6:45-8:15 p. m., Sherman, Clay and company studio program; 8:30-10, Times studio program; 8:30-10, Times studio program; 10-11:30, Eddio Harkness and his orchestra.

Times studio program, a training order to this orchestra.

KFPG, Hollywood, Calif. (238), 5-6 p. m., bome hour, Georgia Shumons and naborhood children; 8-9, KFPG concert hour; 9-11, Freeman Lang and his playmates, a frain

a frolte.

KFWB, Hollywood, Calif. (252), 7:30 p. m., microphone brevities; 8-9, California serenaders' dance orchestra, George Cronk, leader; Ray Kellogg and Bill Hatch, the jazz twins; 9-10, program, Paralta Photographic studios, Paralta orchestra, Drove Norton Lindsay, barltone; 10-11, Warner brothers' frolic, direction

stutions, Faralia officients, Drove Notion Indisay, bartione; 10-11, Warner brothers' froic, direction Charlie Wellman.

KGO, Oakland, Calif. (361), 6-7 p. m., dinner concert, Sherman, Clay and company.

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

KHJ. Los Angeles, Calif. (405.2), 5:30-6:30 p. m., Leighton's Arcade cafeteria orchestra, Jack Cronshaw, leader; 6:30-7:30, history story, Prof. Walter Sylvester Hertzog, Simon Waronker, 10-year-old violinist; Bettlemae Pfefferkorn, readings; Mickey DeLano, pianist; 8-10, program, Western Auto Supply company, arranged by J. Howard Johnson in memorium to father of Joseph Heindle, concert cellist; 10-11. Art Hickman's Biltmore hotel dance orchestra, Frank Ellis leader.

(Continued on page 14)

#### Index to Classical Concerts

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

#### Classical

Eastern Time Stations

Saturday, October 17: 6, WCX, WEAF, WMCA, WREO; 6:17, WOR; 6:30, WCAE; 7, WEAR, WNYC, WRC; 7:15, WEAF; 7:35, WEAF; 8, WBBR, WNYC; 8:15, WRC; 8:30, WCAE; 8:40, WBBR; 9:30, WEAF; 10, WEAF 10. WEAF.

Sunday, October 18: 6, WCAU; 6:30, WCAE, WOR; 7, WEAR; 7:20, WCAE, WCTS, WEAF, WEEI, WWJ; 8, WCTS, WEAF, WEEL, WWJ; 8, WBZ, WEAR, WGBS, WGCP, WKAQ; 8:30, KDKA, WBZ, WGCP; 9, WBZ, WEAR, WGY, WHAR, WNYC; 9:15, WCAE, WCTS, WEAF, WEEL; 9:20, WNYC; 9:45, WCTS, WGCP; 10, WNYC; 11, WHN; 11:15, WHAR.

Monday, October 19: 6, WCX, WEAF, Monday, October 19: 6, WCX, WEAF, WMCA, WREO, WWJ; 6:05, WIP; 6:30, CFCA, WBZ, WCAE, WGY, WTIC; 7, WEAF, WEAR, WHAR, WOO; 7:15, WEAF; 7:30, WEEI, WGY, WMCA; 8, WBBR, WBZ, WCAU, WCX, WHAR, WTIC; 8:15, WBZ, WHAZ, WNYC; 8:30, CHNC, KDKA, WBBR, WBZ, WGCP; 8:45, WEAF, WOO; 8:55, WBBR; 9, WBZ, WCAE, WEEE; 9:10, WLIT; 9:15, WGCP; 9:30, WBZ; 10, CHNC, WEAF, WOO; 10:10, WEEI; 10:15, WOO; 10:30, KDKA; 10:40, WEEI; 11, WHN.

WHN.

Tuesday, October 20: 6, WBZ, WCX, WEAF, WMCA, WREO, WWJ; 6:05, WIP; 6:17, WOR; 6:30, WCAE, WGY, WTIC; 7, WEAR, WEBJ, WGBS, WJR, WOR, WTIC, WWJ; 7:20, WTIC; 7:30, WCAU, WEAF, WOO; 7:45, WEBJ; 8, WBZ, WCAE, WCAU, WCX, WEAR, WEEI, WGR, WHAR, WRC, WTIC; 8:05, WNYC; 8:15, WEBJ; 8:30, KDKA, WBZ, WCAE, WCTS, WEAF, WEEI, WFI, WGR; 9, WCAE, WCTS, WEAF, WEEI, WFI, WGR; 9:15, WREO; 9:30, WBZ, WHN, WRC, WTIC; 10, WCAE, WCTS, WEAF, WEAF, WEEI, WFI, WGR; 9:15, WREO; 9:30, WBZ, WHN, WRC, WTIC; 10, WCAE, WCTS, WEAF, WEAR, WEEI, WFI, WMCA; 10:30, WGR; 11:15, WHAR.

Wednesday, October 21: 6, WCX, WEAF, WMCA, WREO, WWJ; 6:05, WIP; 6:30, WBZ, WCAE, WTIC; 6:45, WGY; 7, WEAR, WJR; 7:20, WTIC; 7:30, WEAF, WEEI, WOO; 8, WBZ, WCTS, WCX, WEAF, WEEI, WKAQ, WMCA, WWJ; 8:05, WNYC; 8:15, WCAU, WOR; 8:30, KDKA, WBZ, WCAU, WOR; 8:30, KDKA, WBZ, WCAE, WEAF, WOO, WOR; 8:45, WBZ, WCAU, WEBJ; 9, WBZ, WEEI, WGR, WOR; 9:15, WBZ, WCAU; 9:30, WNYC; 9:45, WOR; 10, WEAF, WEEI, WGR, WNYC, WOO; 11, WCAE.

Thursday, October 22: 6, WBZ, WCX, WEAF, WMCA, WREO, WJ; 6:05. WIP; 6:17, WOR; 6:30, WCAE, WGBS, WGY, WOR, WTIC; 7, WEAF, WEAR, WGBS, WJR, WJ; 7:30, WCAU, WEET, WHN, WOO, WRC; 7:45, WGY, WTIC; 8, WBBR, WGR, WGY, WTIC; 8, WBBR, WGR, WGY, WHAR, WIP, WTIC; 8:15, WNYC; 8:30, KDKA, WBZ, WCTS, WEET, WHN, WMCA, WREO; 8:40, WBBR; 8:45, WBZ; 9, WCAE, WCAU, WEAF, WEEI, WFI, WGR, WHAR, WNYC, WREC; 9:30, WREO; 10, WCAE, WCAU, WCAF, WGR, WGY; 10:15, KDKA; 11:30, WGY.

Friday, October 23: 6, WCX, WMCA, WREO, WWJ; 6:05, WIP; 6:30, CNRT, WBZ, WCAE; 7, WEBJ, WGY, WJR, WOR, WTIC; 7:30, WEEJ, WOO, WTIC; 7:45, WEBJ; 8, WAHG, WBZ, WCAU, WCTS, WCX, WEBJ, WEEJ, WTIC, WWJ; 8:05, WNYC; 8:10, WHAR; 8:30, KDKA, WCAE, WEBJ, WOO; 8:45, WAHG, WBZ; 9, CNRT, WBZ, WCAU, WEEI, WMCA, WOO; 9:30, WEEI; 10, WEEI, WNYC, WOO; 10:30, WGR, WGY; 11:15, WHAR. WOO; 10:30, WHAR.

Central Time Stations

Central Time Stations
Saturday, October 17: 6, KFAB,
WENR, WMAQ, WOAW, WOK; 6:15,
WCCO; 6:30, WGN; 7, KOIL, KSD,
KYW, WGN, WMBB, WQJ; 7:30,
WEBH, WHAS; 8, KFNF, KPRC,
KYW; 8:15, WCCO; 8:30, KYW,
KPRC, WFAA, WHAS, WMC; 9,
WKRC, WMAQ, WOAW, WOC; 9:15,
KPRC; 9:30, WOC.

Sunday, October 18: 6:30, KLDS, WHT; 6:45, WORD; 7, KYW, WLS, WORD; 7:30, WHO; 8, KFDM, KPRC, WCBD, WFAA, WGR, WQJ; 8:30, WLW; 9, WQJ; 9:10, KTHS; 9:15,

KLDS, WCCO, WHT; 9:25, KTHS; 9:30, WFAA, WOC; 10, KFVE, KTHS, WOC; 10:30, WHT; 11, WOC.

Many Many Commence

WOC; 10:30, WHT; 11, WOC.

Monday, October 19: 6, KFAB, KMA,
WHAD, WOAW, WOK; 6:30, WGN;
6:45, WOAW; 7, KFNF, WHT, WLW,
WMBB; 7:30, KOIL, KPRC, WBAP,
WHO; 8, KPRC, WHAD, WHO,
WLW, WORD, WOS; 8:30, KPRC,
WBAP, WFAA, WMC, WOAI; 9,
KFKX, KMA, KPRC, KSD, KTHS,
WHAD, WOAW; 9:30, KTHS; 9:45,
KTHS; 10, KFKX, KMA, KTHS,
WSAI; 11, WBAP, WSAI.

WSAI; 11, WBAP, WSAI.

Tuesday, October 20: 6, KFAB, KMA, WHAD, WMAQ, WOK; 6:05, WCCO; 6:30, WFAA, WGN, WLW; 6:45, KSD; 7, KFNF, KYW, WHT, WLS, WMBB, WQJ; 7:30, KOIL, WCCO, WHAS, WHO, WOC; 7:45, WSAI; 8, KFDM, KLDS, KYW, WCBD, WCCO, WLW, WMAQ, WOC, WORD; 8:30, KPRC, WGN, WLW, WMC, WOAI, WORD; 8:45, KYW; 8:50, WMAQ; 9, KFDM, KFMQ, KMA, KPRC, KTHS, WCCO, WHAS, WLW, WOC, WSAI; 9:25, KTHS; 9:30, WBAP; 10, KMC, KYW, WSAI; 11, WHO.

WHO.

Wednesday, October 21: 6, KMA, WHAD, WMAQ, WOK; 6:15, WLS; 6:30, KOIL, WGN, WHO; 7, KFNF, KPRC, KYW, WHT, WLW, WMBB, WQJ; 7:30, WHAD; 8, KPRC, KYW, WCCO, WDAF, WHAD, WMAQ, WOS, WORD; 8:30, PWX, KPRC, WGN, WOAI; 9, KMA, WCCO, WHAD, WLS, WMAQ, WOC; 9, KTHS; 9:25, KTHS; 9:30, PWX; 9:45, KTHS; 10, KMA, KTHS, WLS, WLW, WOC, WSAI; 10:10, WSAI; 10:30, WLW; 11, WHAD, WLW; 11:30, WCCO, WLW; 11:45, WLW.

Thursday, October 22: 6, KMA, WHAD, WMAQ, WOAW, WOK; 6:30, WGN; 7, KYW, WHT, WLS, WLW, WMBB, WOAW, WQJ; 7:30, KFNF, KOIL, WHAD, WHO, WSAI; 8, KLDS, WBAP, WCBD, WCCO, WOC, WORD, WSAI, WSB; 8:20, KYW, WMAQ; 8:30, KPRC, WFAA, WGN, WHAD, WMC, WOAI; 8:35, WMAQ; 9, KPRC, KTHS, KYW, WCCO, WHAD, WOAW, WOC, WSAI; 9:10, KTHS; 9:30, WBAP; 9:45, KTHS; 10, WBAP; 10:40, WLW; 11, WHO.

10, WBAP: 10:40, WLW; 11, WHO.

Friday, October 23: 6, WHAD, WMAQ, WOAW, WOK; 6:15, WCCO; 6:30, WGN; 6:50, WMAQ; 7, KYW, WHT, WLS, WQJ; 7:30, KFNF, KOIL, KSD, KYW, WBAP, WHAD, WHO; 8, KFDM, WCCO, WDAF, WHO; 8, KFDM, WCO, WDAF, WHAD, WMAQ, WSAI; 8:30, KFAB, WFAA, WGN, WHAD, WHO, WMAQ, WMC, WORD; 9, KFDM, KFKX, WHAD, WMAQ; 9:05, WCCO; 9:10, KTHS; 9:30, KFAB, KTHS, WBAP; 9:45, KTHS; 10, KFKX.

Mountain Time Stations Monday, October 19: 6:30, KOA; 8:10, KOA.

Tuesday, October 20: 6:30, KOA; 7:30, KOA.

Wednesday, October 21: 6:30, KOA; 8:10, KOA.

Thursday, October 22: 6:30, KOA; 9, CNRC.

Friday, October 23: 6:30, KOA; 8:10, KOA; 8:30-10:30, CNRE.

Pacific Time Stations

Saturday, October 17: 6, KFOA, KHJ; 6:30, KNX; 6:45, KFOA; 7, KNX; 7:30, KNX; 8:10, KGO; 8:15, KHJ.

Sunday, October 18: 6:30, KHJ; 6:35, PO: 7. KHJ, KNX; 8, KHJ, KNX, KPŎ; 9, KHJ, KNX; 10, KNX.

Monday, October 19: 6, KFOA, KGO; 6:30, KNX; 6:45, KFOA; 7, KPO; 7:30, KNX; 8, KGW, KHJ; 9, KGW; 10, KHJ.

Tuesday, October 20: 6, KFOA, KGO, KHJ; 6:30, KNX; 6:45, KFOA; 7, KNX; 8, KGO, KHJ; 8:30, KFOA; 9, KGW, KPO.

Wednesday, October 21: 6, KFOA, 8:30, KNX; 7, KNX; 8, KGO, KGW, KPO; 9, KGW, KPO.

Thursday, October 22: 6, KHJ; 6:30, KNX; 7, KNX; 8, KGO, KPO; 9, KGW, KPO.

Friday, October 23: 6, KFOA, KGO, KHJ; 6:15, KPO; 6:45, KFOA; 7:29, KFAE, KNX; 8, KHJ, KNX, KPO; 8:30, KFAE; 9, KPO.

### STATIONS IN ORDER OF WAVE LENGTHS USED

| Meters Call  |
|-------------|-------------|-------------|-------------|-------------|--|
| 215 KTAB    | 275.3 WJAS  | 315.6 WGBS  | 365,6 WHB   |             |  |
| 217.3 WOK   | 278 KOIL    | 319 WGR     | 370 CYB     | 416.4 WCCO  | 475.9 WBAP   |
| 226 WBBM    | 278 WCAU    | 319 WSMB    |             | 421 KIAF    | 475.9 WTIC   |
| 226 WIBO    | 278 WOQ     | 322.4 KOA   |             | 422.3 WLW   | 475.9 WFAA   |
| 240 KFVE    | 280.2 WNAC  | 325.9 WSAI  |             | 422.3 WKRC  | 480 CYL  |
| 240 WOAX    | 282.8 WOAN  |             | 374.8 KTHS  | 428.3 WSB   | 483.6 WOC  |
| 243.8 WAMD  | 285.5 WKAR  |             | 379.5 WGY   | 428.3 KPO   | 483.6 WSUI   |
| 250 WGES    | 285.5 WREO  |             | 379.5 WHAZ  | 434.5 CNRO  | 491.5 KGW  |
| 250 WMBB    | 288.3 KFKX  |             | 384.4 CKY   | 434.5 NAA   | 491.5 WEAF   |
|             | 288.3 WLWL  |             | 384.4 KJR   | 434.5 CFCN  | 499.7 WMC  |
|             |             | 340.7 KFAB  | 384.4 WMBF  | 435 AT9     | 508.2 KLX  |
|             |             | 340.7 WKAQ  | 389.4 WEAR  | 440.9 KLDS  | 508.2 WIF  |
| 266 KFNF    | 293.9 WBAV  | 340.7 WMCA  |             | 440.9 WDWF  | 508 2 WOO  |
| 266 WBCN    | 293.9 WEAO  | 344.6 WCBD  |             | 440.9 WOS   | 516.9 CJCA   |
| 268 WCTS    | 296.9 KPRC  | 344.6 WLS   | 394.5 WLIT  | 447.5 WMAQ  | 516.9 WCX  |
| 272.6 WBBR  | 299.8 KFMQ  | 348.6 KOB   | 394.5 WOAT  | 447.5 WQJ   |  |
| 272.6 WEBJ  |             |             | 399.8 WHAS  | 40          | 516.9 WJR  |
| 272.6 WFBH  |             | 348.6 WEEI  | 399.8 WHT   | 454.3 KFOA  | 526 WHO  |
| 273 KWKH    |             | 352.7 WWJ   | 400 PWX     | 454.3 WJZ   | 526 WNYC   |
| 273 WRW     | 305.9 KTCL  | 356.9 CFCA  | 405.2 KHJ   | 455 KTW     | 526 WOAW   |
|             | 305.9 WJAR  | 356.9 CHNC  | 405.2 WJY   | 461.3 WCAE  | 535.4 KYW  |
|             | 309.1 KDKA  | 361.2 KGO   | 405.2 WOR   | 467 KFI     | 535.4 WHA  |
| 275 WHAR    |             | 361.2 WHN   | 406 WBAR    | 468.5 WCAP  | The second secon |
| 275 WORD    | 315.6 WAHG  | 365.6 WDAF  | 410.7 CKAC  | 468.5 WRC   |  |
|             |             |             |             | 100.0 WEC.  | 545.1 KSD  |

# **WORLD COURT TALK NEW WLIT FEATURE**

"CRIME PSYCHOLOGY" ALSO EDUCATIONAL SUBJECT

Philly Station Maps Out Several Big Educational Projects for Coming Radio Season

PHILADELPHIA .- Station WLIT, one PHILADELPHIA.—Station WLIT, one of this city's five big broadcasting stations, has completed arrangements for the broadcasting of a number of big educational features during the coming winter. One of the biggest, will be the broadcasting of six talks on the "World Court and Its Present Status in the Senate," under the auspices of the Women's International League for Peace and Freedom. The speakers will be of national and international prominence, and authorities on this particular subject.

tenational prominence, and authorities on this particular subject.

Then, there will be a series of lectures on the "Psychology of Crime," conducted by Robert Edwin Pride, author, who has spent a number of years investigating various prisons and penitentiaries. One of the speakers will be "Bob" M. Mc-Kenty, former warden of the Eastern penitentiary, who has earned a national reputation through his fair dealing in penal matters. It is also hoped that Clarence Darrow, the famous Chicago lawyer, will be able to broadcast a talk on the psychology of crime. He was to have talked through WLIT's microphone last year, but the Loeb-Leopold case necessitated the cancellation of the engagement.

#### Current Events and Forum

Dr. George Earl Raiguel, lecturer at Columbia university, will continue his series of talk on "Current Events." Dr. Raiguel is an international traveler, noted for his clear, concise talks about things

for his clear, concise talks about things happening today.

The Sunday evening forum will again come into being with the beginning of the winter season. These meetings, so popular last year, are conducted along the lines of the "round table" idea. A subject is chosen, and then the speakers "round the table" give their individual and extemporaneous views, without referring to specially prepared papers on the subject. Everything is spontaneous and more or less argumentative.

The establishment of a Friendly Aid bureau for people in distress, is another feature, to say nothing of a series of five concerts by the Friends of Chamber Music.

There will also be a Radio study class

Music.

There will also be a Radio study class on music and music appreciation, to be broadcast biweekly. The classes will be conducted under the auspices of the National Federation of Music, and it is hoped that Francis Elliot Clark, of the Victor Talking Machine company, will be able to conduct these classes.

#### Plan Half Hour Programs to Feature Famous Composers

PITTSBURGH.—"Half hours with famous composers," a weekly program taking up the life story of noted musicians and giving some of their best loved music, is being given over Westinghouse Station KDKA on Thursday evenings at 8:20 eastern time.

ninghouse Station KDKA on Thursday evenings at 8:30 eastern time.
Richard Kountz, a Pittsburgh composer, is telling the Radio audience about the life of the different composers taken up in this series, while the KDKA Little Symphony orchestra and vocal soloists are presenting the music are presenting the music

#### Install Radio Amplifiers in Italian Senate Building

ROME.—Radio amplifiers have been installed in the Italian senate. The speeches from the government bench will be heard in the anterooms and notices broadcast throughout the building indicating the beginning of each speech with the subject and name of the speaker.

#### Friday, October 23

(Continued from page 13)

(Continued from page 15)

KNX, Hollywood, Calif. (336.9), 5:39-6:15 p. m., Wut lizer pipe organ studio. Town Tattler: 6:15, trave talk, W. F. Alder; 6:39-7, Atwater Kent Radio or chestra, Paul Finistein, leader; 7-7:30, dinner music 7:30, program, Eastern Outfitting company; 8-9, West Coast theaters by remote control; 9-10, Order of Optomistic Donuts; 10-11, dance music; 11-12, Rawest's Coccanut, Grove dance orchestra from Am bassador hotel.

KPO, San Francisco, Calif. (428.3), 8-11, Palace hote dance orchestra.

dance orchestra. KTAB, Oakland, Calif. (215), 8-10 p. m., program

RIAB, Oakland, Calif. (215), 8-10 p. m., program Breuner's, KTCL, Seattle, Wash. (305.9), 7-8 p. m., Simonds Savand Steel company; 9-10, Western Auto Supply and pany; 10:15-12, Jackie Souder's dance orchestra. (WSC, Pullman, Wash. (348.6), 7:30-9 p. m., Coopel sisters, marimba trio; talk, Rev. Norman, McCay 'Dressing up the Farmstead for Winter,' M. D. Armstrong.

#### Daggett and Artists Go on Hawaiian Trip

Chose KHJ Entertainers to Accom pany Chamber of Commerce

LOS ANGELES.—Another honor has been conferred upon KHJ, Los Angeles Times station. "Uncle John" Daggett, veteran studio director of that, station, and four musicians who appear regularly there have been selected by the Los Angeles chamber of commerce to accompany them on their annual excursion to the Hawaiian islands.

The lucky ones, in addition to Mr. Daggett, are Mary Newkirk Bower, soprano; Bernice Neal, cellist; Helen Mead Little, flutist, and Carolyn Le Fevre, violinist.

This annual excursion by the world's most energetic chamber of commerce is one of the big events of the southern California fall season. The party set sail on October 10 on the steamship City of Los Angeles which arrives at Honolulu October 16.

During their stay on the beautiful

During their stay on the beautiful islands the KHJ party will broadcast over KGU, the Honolulu broadcaster heard regularly on the Pacific coast.

#### WDAF POWER GOES IN 1,000-WATT CLASS TOO

Double Old Strength of Kansas City Star Plant

KANSAS CITY, Mo.—The Kansas City Star has announced the installation of a new and more powerful broadcasting station. The new transmitter now being installed is one thousand watts power, twice the power of the present WDAF set. The 1,000-watt station will be entirely new. The towers and antenna above the Star building will be the only part of the old equipment to remain. The 500-watt station now used by WDAF has been sold to the Hotel Lassen at Wichita, Kan. The old transmitter has an enviable record for distance. It was heard five times in London last year. It has also been received in South America, Australia and Alaska.

#### Something New for Kiddies in CNRW Radio Mystery Bag

WINNIPEG, Canada.—Youthful Radio winnifes, Canada.—routhin kadio fans found a new interest in listening to CNRW recently when the first of a series of "Grab Bag Parties" was staged with the cooperation of Aunt Aimee who have received and the children's helf hour now presides over the children's half hour which is a feature of every program every program broadcast from the Canadian national

broadcast from the Canadian national station in the Fort Garry hotel.

The party was limited to children under eight years of age, and was the first of many to be held during the next few months. A telephone call or telegram sent to Station CNRW during the broadcast is all that is necessary in the way of entrance fee, and the initial experiment along this line brought a flood of messages to the studio which kept Aunt Aimee busy for hours distributing prizes to the little fans.

#### AN EVENING AT HOME WITH THE LISTENER IN IN CENTRAL TIME

The content	l P		IN CENTRAL TIME									
For	C					-	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
Colon	C		CFC.	A Torente, Ont	356.	9 Silent	7:00- 8:	200			7:00- 8:55	Silent
Column	V		CHN	C Terente, Ont	356.	9 Silent	Silent	Silent 7:00-8:0	Silent Silent	Silent Silent	9:00-10:00 8:00- 9:00	Silent
CVL   Maries GPU, Not.   68   75   75   75   75   75   75   75   7	3		CKA	C   Montreal, Que Winnipeg. Man	410.	6:30-10:0	0 Silent	Silent	6:30-10:0	0 Silent	7:30-10:00	9:00-12:00 Silent
Company   Comp	)	11	CAR	Ottawa, Ont Mexice City, M	ex 370	5 7:30-12:3 10:30-11:4	0 Silent	Silent	Silent	7:30-12:30	Silent	Silent
CFP   Company	1	П	CYX	Mexico City, M	ex 330	Silent	-	Silent	8:00- 9:3	0 Silent	Silent	8:00- 9:30
Column	5	П	KFA	B Lincoln, Nebr	340.	7:45-8:5 7 5:30-6:3	5 6:00-7:0 0 4:00-5:0	00 7:45- 8:5 00 5:30-10:3	5 7:45-10:3	0 7:45- 8:5	7:00-10:30	7:45- 8:55
	7	Ш	KFI	Los Angeles, Ca	lif. 467	8:45- 2:0	0 6:00- 1:0	0 8:45- 1:0	0 8:45- 1:0	0 Silent 0 8:45-1:00	Silent	8:00-10:30
	7	11	KFM	Q Fayetteville, Ar	k 299.	8 Silent	Silent	Silent	9:00-10:0	7:30- 8:30	Silent Silent	9:00-11:00
Section   Column	)		KFO.	A Scattle, Wash	454.	8:00- 1:3	0 Silent	8:00-12:00	8:00- 1:00	8:00-12:00	Silent	7:30- 9:30
Column   C	,			E Univ'ty City,	Mo. 240	10:00-12:0	0:10:00-11:0	0 10:00-12:00	10:00-12:00	10:00-12:00	Silent	10:00-12:00
Column   C	wat	Ш	KGW	Oakland, Calif Portland, Ore	361.:	10:00- 2:00	5:30-11:0	0 10:00-12:00	0 10:00-12:0	8:00- 9:00	10:00- 2:00	8:00- 9:00
College		Ш	KHJ	Los Angeles, Ca	lif. 405.	Silent	7:00-8:0	0 Silent	9:30-10:00	9:00-10:00	Silent	10:00-11:00
Column		1	KJR	Seattle, Wash	384.4	10:30-12:00	9:15-11:0	0 9:00- 1:00	Silent	9:00-10:00	Silent	9:00-10:00
Control   Control   Elization   Control   Co	ve		KLD	Independence, i	Mo. 440.5	Silent	6:30-10:0	0 Silent	8:00- 9:00	Silent	10:00-11:00	Silent
Second   State College, N.   2004   State Coll	ie	;   ī	KNX	Hollywood, Calif	336.9	7:30- 4:00	9:00-12:3	0 8:30- 2:00	8:30- 2:00	7:30- 1:00		
Color   Colo	lay		KOB	State College, Council Bluffs.	N. 348.6	Silent	Silent	8:30-9:30	Silènt	Silent	7:30- 8:30 Silent	7:30-10:00 Silent
Column   C			KPO KPRO	San Francisco, C Houston, Texa	al. 428.3	8:35- 2:00	8:30-12:0	0 8:30- 1:00	8:30- 1:00	8:30- 1:00	8:30~ 1:00	9:00-1:00
CYTH    MC   Seattle, Wash.   45.5   Subreman	m,	1	(SL	St. Louis, Mo. Salt Lake City, I	545.1 Jt. 299.8	7:00-8:00 9:00-12:00	Silent 10:00-12:00	9:00-10:00 9:00-12:00	7:00-8:00 10:00-12:00	7:00- 8:00	Silent	7:00- 9:00
	au m-	K	(TCL	Seattle, Wash	305.9	8:50- 2:00	9:50-12:10	Silent	10:00-12:00 9:00-10:00	11:00- 1:00 Silent	11:00- 1:00	10:00-12:00
NAA   Ratio   Name   Sab.   Silent	er y;	1 7	(TW	Seattle, Wash	455	Silent	9:00-11:30	Silent	Silent	9:25-10:45	9:25-10:45	9:25-11:00
NAME   PART	D.	1 1	(WSC	Pullman, Wash.	348.6	Silent	Silent	9:30-11:00	9:00-12:00 Silent	Silent	8:00- 9:00	Silent
WARD   Richmand, N.Y.   315.6   1.00-1.10   5.00-1.1		IN	AA	Radle, Va	434.5	Silent	Silent	6:45- 7:00	6:45-7:00	7:00-1:30	7:00-11:30	7:00-12:30
WARD   Series with 1.6   475.8   790320   1.300-13.00   730-13.00   730-10.05   730-10	D	V	VAM	Richmond, N. Y.  Minneapolis, Mir	315.6	11:00- 1:00	Silent	6:30-1:00 Silent	Silent 10:00-11:00	6:30-11:00	Silent	7:00-10:00
WB RB   Start stand, Nr. 72, 87   50.00   50	ğin	W	VBAF	Sisiht, Wis					7:30-10:45	7:30-10:45	7:30-10:45	7:30-10:45
Wash   Scheen   Sch	1-	W	VBBN	Chicago, Ill	226	8:00- 2:00	4:00- 2:00		Silent	Silent	Silent	7:00- 8:00
WARD   Pithiburgh, P.A.   245   246   24		W	BCN	Chicago, Ill	266	9:00- 1:00	5:00-12:00	7:00-8:00 Silent	Silent 9:00- 1:00	Silent	7:00- 8:00	Silent
WGBD   Zinch   Minster	S	W	CAE	Pittsburgh, Pa	461.3	7:30-8:30	5:30- 7:20	7:30-11:00	7:00-10:00	5:00-8:55	5:00- 8:55	5:00- 8:55
WORD   Minester   Manual   Minester   Mine	1,	W	CAU	Philadelphia, Pa	278	Silent	4:00- 5:15	7:00- 9:00	6:20-10:30	7:00-9:00	5:30-10:30	6:00- 9:00 7:00-10:30
WCAF   Work   No.   1.00   1	t-			Minn-St. P., Min	n. 416.4	6:05-11:00	4:10-10:15	6:00-11:00	6:30-10:00	7:00-12:30		
WARD   Frevidence, R. I.   440,0   Silent   Si	e e	W	CX	Detroit, Mich	516.9	5:00- 6:00	Silent	5:00- 8:00	5:00-10:00	5:00- 8:00	5:00- 8:00	5:00-10:00
WEAD   Selection		W	EAF	New York, N. Y	491.5	Silent	Silent	Silent	7:30- 8:30	Silent	Silent	Silent
West   New York, N. Y.   27.5   Silent   Silen	,	W	EAR	Cleveland, Ohio	389.4	6:00-7:00	2:30- 9:00	6:00- 7:00	Silent 6:00-10:00	7:00- 8:00	7:00-8:00	Silent
1 WEAR Chicago, Ill.         286 (1908 - S.00)         6.390-1.300 (5.00-1.30)         6.300-1.300 (5.00-1.30)	S	W	EBJ	New York, N. Y	272.6	Silent	Silent	Silent		7:30-12:30	7:30-12:30	7:30-12:30
WF   Mex York, N, Y,   315, 8   590-1036   730   100   730   100	n	W	ENR	Chicago, III	266	6:00- 8:00	3:00-11:30	Silent	6:00-10:00			
WGCP   WCYCK, N. Y.   315,6   500-10.30   7:00-10.10	f	W	FBH	New York, N. Y	272.6	10:30- 1:00	4:00-7:00	10:30- 1:00	10:30- 1:00	10:30- 1:00	6:30-12:00 10:30-1:00 1	
WG N   Chicago, III   250   10:30   2:00   2:0		W	GCP	New Yerk, N. Y New York, N. Y	315.6	5:00-10:30	7:00-8:00	6:00- 6:15	5:00-10:30	5:00- 7:30	7:00-10:00 5:00- 7:45	Silent Silent
WHAP   Malason, Wis.   255,	r	W	GN	Oak Park, III Chicago, III	250 370.2	6:30-11:30	2:30-10:00	Silent Silent	10:30- 2:00	10:30- 2:00	10:30- 2:00 1	0;30- 2:00
WHAP	-	W	GY	Schenectady, N. Y	. 379.5	8:00-11:00	5:30- 9:00	5:30- 7:30	6:00-10:00	7:00-11:00 Silent	6:00- 9:00	7:00-11:00
WHAR   Cuttiville, Ky.   399.8   390.9   300.12015   Silent   730.9   390.9   300.11205   Silent   3		W	HAD	Milwaukee, Wis	. 275	6:00- 7:00	3:15- 4:15	6:00-10:00	6:00- 7:00	6:00-12:30		
WHN   Kenss City, Mo.   361.6   63.09.09   40.09.100   43.09.100		W	HA8	Louisville, Ky	399.8	7:30- 9:00	4:00- 5:00	Silent	7:30- 9:30	7:30- 9:00	6:30-10:00 7:30- 9:00	6:30-12:15 7:30- 9:00
Wilford   Chicago   III.   250   2	3	WI	HN	Kansas City, Mo New York, N. Y	365.6	Silent	8:00- 1:00	7:00- 8:00	Silent	7:00- 8:00	8:00-10:30	7:00- 8:00
WJAR   Prividence, R. I.   308.2   500.2   500.11:05   511   512   512   512   512   512   513   512   513   512   513   514   512   513   514		WI	HT	Deerfield, III	. 399.8	7:00- 1:00	12:00-10:30	7:30-12:00 Silent	7:30-12:00 7:00- 1:00	6:30-12:00	7:30-12:00	7:30-12:00
WIAS   Pittsburgh, Ps.   275.3   6.90-11:00   5.45-1	,	WI	P	Philadelphia, Pa	. 508.2	7:00-11:05	Silent	Silent	7:00-12:00	6:00-12:00 Silent	6:00- 3:00 7:00-12:00	3:00- 2:00 Silent
WJR	-	wı	IAS		-					0.00 77.00		- 200 V NO
Wind		W	IR	Mecscheart, III Detroit, Mich	302.8	6:45- 1:00 6:00-10:00	8:45-10:00 Silent	Silent	6:45- 1:00	6:45- 1:00	Silent	3:45- 1:00
WKAR   Lansing, Mich		W	Z	New York, N. Y.	454.3	6:00-10:30	7:00-10:00	Silent	7:30-10:15	Silent 8:30-10:30	7:30-9:00 7	:45- 8:45
WLS   Chicago, III		WI	KAR	Lansing, Mich	280.0	1:30- 1:00	Silent	6:00- 7:00	Silent	6:00- 8:00 7:00- 8:15	6:30-8:30 7 Silent 6	:00- 8:00
WLWL         Harrison         0.         422.3         6:00-8:00         7:30-8:30         7:00-9:00         7:00-10:00         7:00-10:00         7:00-11:00         8:00-10:10         Silent         7:00-8:00         Silent         7:00-10:00         7:00-10:00         7:00-10:00         7:00-10:00         7:00-10:00         7:00-10:00         7:00-10:00         7:00-10:30         8:00-11:00         8:00-11:00 </td <th></th> <th>WL</th> <td>S</td> <td>Philadelphia, Pa Chicago, III</td> <td>394.5</td> <td>Silent</td> <td>Silent</td> <td>6:30-10:00</td> <td>Silent</td> <td>6:30-10:00</td> <td>Silent 6</td> <td>:30-10:00</td>		WL	S	Philadelphia, Pa Chicago, III	394.5	Silent	Silent	6:30-10:00	Silent	6:30-10:00	Silent 6	:30-10:00
WMAG Chicago, III				Harrison, O New York, N. Y.,	422.3	6:00- 8:00	7:30- 9:30	7:00- 9:00	7:00-10:00	7:00-11:00	8:00-10:15	Silent
WMBF WMCA         Miami Beach, Fla. WMCA         384.4 (si0-11:00 foll-1:00				Chicago, III		8:00-10:00		Silent	8:00-10:15	8:00- 9:45		
WNCA New York, N. Y. 340.7         8:00-12:00         6:00-9:00         8:00-11:00         7:00-9:00         7:00-9:00         7:00-9:00         7:00-9:00         7:00-10:00         7:00-9:00         8:00-10:00         8:30-10:30         8:30-10:		WI	MBF MC	Miami Beach, Fla. Memphis, Tenn	384.4	6:00-11:00	6:00-11:00	6:00-11:00	6:00-11:00	6:00-11:00	3:00-11:00 6	:00-11:00
WOYC         New York, N. Y         526         6:00-9:30         8:00-10:00         6:35-9:30         6:30-9:30         8:30-10:30         8:30-10:30         8:30-10:30         8:30-10:30         8:30-10:30         8:30-10:30         8:30-10:30         8:30-10:30         8:30-10:30         8:30-10:30		WN	IAC	New York, N. Y. Boston, Mass	340.7 280.2	8:00-12:00	6:00- 9:00	8:00-11:00	7:00-11:00	8:00-11:00 8	3:00-11:00 7	:00-10:45
WOAN Damaia, Nebr.         328.8 silent WOAX         39.00-10:00 silent S		WO	AI	San Antonio, Texas	526	8:30- 9:30 8:30- 9:30	8:00-10:00 8:00-10:30	6:35- 9:30 8:30- 9:30	6:10- 9:30 8:30-10:30	6:30-9:30	3:35- 9:30 6	:30- 9:30
WOC         Davenport, Ia.         483.6         9:00-12:00         8:00-11:30         Silent 6:30-9:00         6:30-9:00         8:10ct 7:00-12:00         8:10ct 7:00-12:00         8:10ct 7:00-12:00         8:10ct 7:00-12:00         8:10ct 7:00-12:00         8:00-10:00         8:0	1	WO	AW	Omaha, Nebr	526	6:00-12:00	9:00-10:00	9:00-10:00 6:00-11:00	9:00-10:00 6:00- 1:00	9:00-10:00 g Silent	9:00-10:00 9	:00-10:00
WOOD WOOD WOOD WOOD WOOD WOOD WOOD WOOD			C	Davenport, la	483.6					0 00 00 001		
WOR WORN WORN, N. J.         278         8:00-11:00         S:00-9:15         Silent 5:15-6:30         Silent 5:00-10:30         Silent 7:00-11:00         Silent 7:00-10:00	L	WO	0	Philadelphia, Pa	508.2	8:30- 7:30	5:00-6:00			00 44 04		
Vos	Г	WO	R	Newark, N. J	405.2	5:15- 7:30	Silent	Silent   8 5:15- 8:30   8	3:00- 9:00 5:15- 6:30 5	Silent 7	:00- 9:00	Silent
WRC WREO Lansing, Mich	1	WO	S	Jefferson City, Mo. Atlantic City, N. J	440.9 299.8	Silent	8:00- 9:00	Silent 8:00-10:00	8:30-10:00 8 Silent 8	3:30-10:00 8 3:00-10:00	:30-10:00 8: Silent 8:	30-10:30 00-10:00
WSAI WSB WSB WSB WSB WSU I low City, Ia.         285.5 273         9:00-11:00 8:00-12:00         Silent Si	-	W Q W R	C	Chicago, III Washington, D. C	447.5	7:00- 3:00	7:00-10:00	Silent	7:00- 2:00 7	:00- 2:00 7	:00- 2:00 7:	00- 2:00
WSAI         Mason.         0	ŀ	WR	EO I	ansing, Mich	285.5	9:00-11:00	Silent	Silent 7	7:15- 9:00	Silent 7	:15- 9:00	Silent
WSMB New Orleans, La         319 (201-12:00)         7:30-9:15 (300-12:00)         8:00-12:00 (300-12:00)         8:00-12:00 (10:45-12:0			AI N	Mason, O	325.9	:00-12:00	3:00- 4:00 1	0:00-12:00 7	:45-10:30 10	:00-12:00 7	:00-10:00	Silent
WTAM         Cleveland, O	1	WS	MB N	low Orieans, La owa City, Ia	319 8	:30-10:30	Silent	8:30-11:30	Silent 8	:45-12:00 8 :30-10:30 8	:00-12:00 8: :30-11:00 8	00-12: <b>00</b> Silent
WWJ   Detroit, Mich   352.7   Silent   5:20-9:00   5:00-8:00   5:00-8:00   5:00-9:00   5:00-11:30   5:00-9:00	1	WT.	AM C	leveland, O	389.4 5 475.9	:00-11:00 Silent	Silent Silent	5:00-11:00 5 5:30- 8:00 5	:30- 6:00 5	:00-11:00 5	:00- 6:00 5:	00-6:00
		* W	a [£	etroit, Mich	352.7	Silent   5	:20- 9:00	5:00- 8:00 5	:00- 8:00 5			

#### FOLLOWING SPORTS THROUGH MIKE

## CARLIN, McNAMEE IN TWIN BROADCASTING

FAMOUS PAIR AT MIKE FOR BIG FOOTBALL GAMES

New Techniquie Will Enliven Radio Accounts of Exciting Eastern Gridiron Battles

NEW YORK.—The WEAF twin announcers, Phillips Carlin and Graham McNamee, will alternate in broadcasting descriptions on the WEAF schedule of the important intercollegiate football games, employing for the first time in sport announcing a new technique of cooperative observing and announcing. On Saturday, October 17, Phillips Carlin will be at the microphone at the Yankee stadium to describe the Army-Notre Dame game, while McNamee will work with him in observing the details of the play, which one man cannot possibly see for himself.

WEAF has the unique distinction of

WEAF has the unique distinction of having two announcers equally capable of handling a sport assignment and the advantages of having both on the scene are many. In the first place since both are experienced announcers and know what is necessary for a vivid description of the game, the one acting as observer of the game, the one acting as observer will be able to pick out the essential details much more effectually than the ordinary observer who might be carried away by the excitement of the game or by a feeling of partisanship.

How Two Will Work

Next since each will see all the games

How Two Will Work

Next, since each will see all the games on WEAF's schedule, the familiarity and knowledge of the teams will grow accumulatively with each succeeding game. For example, following the Army-Notre Dame game, Carlin will announce the Yale-Army contest and so will be extremely familiar with the Army line-up. It is evident that the success of the announcing will be practically dependent on both men. The man at the "mike" will observe the distance gained and the type of the play, while the observer will pick out the name of the man carrying the ball, the opponent who tackles him and

ball, the opponent who tackles him and the other details necessary for a clear understanding of what is going on.

#### Football Broadcasts

Saturday, October 17

Army-Notre Dame, WEAF (491.5), WGR (319), WGY (379.5), WJZ (454.3). Chicago-Northwestern, KYW (535.4), WBBM (226), WMAQ (447.5). Cincinnati-Otterbien, WSAI (325.9).

Harvard-Holy Cross, WBZ (333.1). Iowa-Illinois, WSUI (483.6). Michigan-Wisconsin, WGN (370.2).

Navy-Princeton, WCAP (468.5). New Mexico State College-State Teaches' College, KOB (348.6).

Ohio State-Chicago, WEAO (293.9). Oregon Aggies-Whitman, KGW (491.5) Pittsburgh-Gettysburg, KDKA (309.1). Rolla-Missouri, WOS (440.9).

Wabash-Minnesota, WCCO (416.4). Washington-Nebraska, KFOA (454.3), KFAB (340.7).

#### MORE STATIONS LIST **GAMES ON SCHEDULES**

KOB, KFOA and WSUI Announce Football Broadcasts

Three more stations have announced full schedules of football game broadcasts to be added to the already long list. Indications are that every progressive Radio station located anywhere near schools where the great autumn game is played is endeavoring to tie up with the athletic department in order that the less fortunate followers of the sport may see the games through the eyes of "Mike," the popular sport describer. The latest broadcasters to fall in line are KOB, the station of the New Mexico College of Agriculture; WSUI, whose call stands for the State University of Iowa, and KFOA, the Seattle Times plant.

Followers of the gridiron games via air will be exceedingly fortunate if they have receivers that will pick up KFOA in the daytime, because that station will broadcast the games of the University of Washington team. This organization has been making quite a name for itself during the past few years and the 1925

schedule includes every important eleven

on the western slope.

The schedules of the three stations mentioned above follow:

New Mexico, KOB (348.6) Oct. 17, New Mexico Aggies-New Mex-co State Teachers college. Oct. 24, New Mexico Aggies-Sul Ross

Nov. 14, New Mexico Aggies-Junior college, El Paso.
Nov. 26, New Mexico Aggies-New Mexico Military institute. 14, New Mexico Aggies-Junior col

Iowa State, WSUI (483.6) Oct. 17, Iowa-Illinois.

Oct. 31, Iowa-Wabash. Nov. 1, Iowa-Wisconsin

Washington, KFOA (454.3)

washington, LFUA (494.3)
Oct. 17, Washington-U. of Nebraska.
Oct. 24, Washington-Whitman.
Oct. 31, Washington-Washington Stat
Nov. 7, Washington-Stanford U.
Nov. 14, Washington-U. of California.
Nov. 26, Washington-U. of Oregon.

#### Announcer Gets Autograph of Author for His Reading

NEW YORK.—The world is small and with the modern means of Radio communication it is getting smaller day by

Announcer John B. Daniel is conducting a series of readings for the benefit of the blind and invalid of the Radio audience from Station WJZ here. On the morning following one of his recent readings, he found in his mail a very pleasant letter from the author of the story which he had read the afternoon before. The author thanked him for the splendid manner in which he had handled the reading and notified Daniel that he would receive an autographed copy of the story in the near future.

#### Seattle Has Interference Trouble

SEATTLE, Wash.—Difficulty is experienced by Seattle fans in eliminating the two local stations, KTCL and KJR, when attempting to get KGO, Oakland, Calif. There is also difficulty noticed in cutting out KFOA, Seattle, when searching the air for KPO, San Francisco. The increased power of the former station adds to the difficulty.

The progress of Radio was at first rather slow in Norway, but it is now taking rapid strides forward. The main society, "Kringkastingselskapet," has at ciety, "Kringkastingselskapet," has at present one broadcasting station at Oslo and is constructing two relay plants.

### Here's How to Eat to Be Football Star

Tom McNamara, KOA Gridiron Coach, Gives Sidelights on Training
—Outlines Menus

DENVER .- Secrets of physical fitness —an essential in tr<sub>15.11</sub>, s for the gridiron or any other gru and physical test—are knowing how and what to eat, according to Tom McNamara, internationally known

to Tom McNamara, internationally known football coach at KOA here.

"Drink plenty of water, don't hurry your meals and refrain from eating while fatigued," are a few of his tips to football players. "Another thing, warnings of certain theorists regarding overeating should not be considered too seriously."

In prescribing a diet for football players, Mr. McNamara favors the following: Morning: Fruit, cereal, milk or cocoa, bread, toast, rolls or biscuits and a protein food, either eggs, bacon or meat.

Noon: Vegetable or chicken soup, meat or meat substitutes, two green vegetables, potatoes, rice or macaroni, plenty of bread, one glass of milk or cocoa, fruit desserts and rice or bread puddings with

Night: Steak, lamb, fresh fish or roast beef, two green vegetables, potatoes, rice or macaroni, plenty of bread, milk, fruits in season and sometimes a salad or ice

Mr. McNamara's discussions are featured by KOA every Monday, Wednesday and Friday evening at 8 o'clock, moun-

#### Bureau of Standards Warns About Misuse of Its Name

WASHINGTON, D. C .- The attention of the bureau of standards has again been called to the frequent misuse of its name in connection with the sale of dry bat-teries for Radio receiving sets.

Claims have been made by some dealers that the superiority of their particular brands of batteries has been shown by tests made at the bureau of standards. These tests are made to aid the govern-ment in the purchase of batteries. The bureau does not publish the results.
Therefore, statements that any make or

brand of battery is superior as shown by tests made at the bureau of standards are unwarranted.



Patented Mar. 31, 1929

# The Doubletoroid Coil

"Doubletoroids" can be mounted at any angle or spaced at any distance.

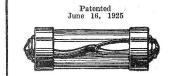
"Doubletoroids" make more selective sets possible, since they do not form miniature loop aerials.

'Doubletoroids" hold static and other disturbances to a minimum since no current from an external source can influence them.

### Outstanding Features of the Doubletoroids

Both primary and secondary are

The magnetic path is shortest. It is the most compact.



#### It's Variable

The Nonoise Gridleak improves reception because it can be adjusted for every station. Fits standard brackets. Absolutely noiseless. At all

Nonoise Gridleak

# Radio Foundation, Inc.

25 West Broadway

New York

# Building a Super? Ryan's Simplest Possible Super-het galiathelactine Radio Digest Publications 510 M. Dearborn St. - Unicago Full Size Drilling Templates-Loop Aerial Construction

NYONE who has built a crystal set or single-tuber can follow Mr. Ryan's concise, simply worded instructions and enjoy the range available only from a super-heterodyne. Every wire, every lug, is placed

his directions and you cannot go wrong.

The construction of loop aerials, storage "B" batteries, a charger and even the cabinet are gone into thoroughly. This manual covers the complete installation of a selective, quiet, long range Radio outfit. Send money order, stamps or currency to

Radio Diéest Publications

# Radio Diges

Published by the Radio Digest Publishing Company, Inc. 510 North Dearborn Street Chicago, Illinois
Telephone tate 4372, 4373, 4374, 4375

E. C. RAYNER, Publisher

Eastern Office, Park-Lexington Building, 247 Park Ave. New York. Telephones: Ashland, 8144, 8145, 8146

Member of the Audit Bureau of Circulations TRACES CHICAGO 241 PUBLISHED WEEKLY

SUBSCRIPTION RATES

Yearly in U. S. and Possessions and Canada, \$5.00
Foreign postage, \$1.00 additional.

Single copies, 10 cents

Saturday, October 17, 1925

### That Fourth Radio Conference

THE fourth national Radio conference will be held at Washington beginning Monday, November 9. Many important problems are to be discussed. The three previous conferences, without aid of the much delayed legislation (which is still delayed), solved many of the problems confronting broadcasting and helped Radio's progress to a great extent. It is believed that the fourth conference will do even more in the way of accomplishments than its predecessors.

Why should representatives of the public and all concerns interested in the Radio art, send their representatives to a conference at the national capital? What is to be gained by these representatives sitting at meetings lasting for a week of entire days? What is the good of all this talk when action is what we

We shall defend the national Radio conferences. We do not say that each of the three so far held have been of equal success, but at least much worth while has been achieved at each. If we were to sum-marize them, we would say that the first conference held before individuals or organizations could predict what Radio would be like today, did all that it could and all that was expected of it. The second conference, the most successful to date, accomplished more than was expected, and as a result, the Radio industry prospered and listeners were able to hear what they wanted when they wanted it, for the whole year following. The third conference, held last fall, however, was in our opinion a most miserable and hardly excusable failure.

The conferees last year met in good faith with a plan of action before them, as was the case in years previous. The biggest part of that plan was to provide an allocation system by which the present (at that time) broadcasters and the future stations would be assigned to wave lengths which would not conflict. The conference did not terminate that business, else we would not have that same problem before us at the fourth meeting. As a result, throughout the past winter, listeners were compelled to submit to the worst broadcast congestion and interstation interference it has ever had the misfortune to know. Did all this

help Radio? Hardly.

It is conservatively estimated by several well-known authorities that eighty per cent of the many sets re-turned last winter to dealers as unsatisfactory—lacking in selectivity-were not at all unsatisfactory or non-selective, but that the broadcast congestion was the root of all trouble. Think of it! Eighty per cent of returned sets were faultless, but returned nevertheless, just because the third Radio conference did not visualize the winter season and the results of an overcrowded air.

The limitation of stations and allocation of wave lengths is to be discussed (and acted on, we hope) at the fourth conference. Methods of doing that which will be proposed will no doubt number about the same as the number of representatives at the conference. Regardless of what plan is accepted, the conferees unable to have their plan accepted must remember that any plan is better than none at all, as was the case this last year.

Let us say, before someone accuses us of attacking Secretary Hoover, under whose jurisdiction Radio falls, that we think he has proved himself the most capable executive ever to hold a cabinet position. He has kept Radio level, despite its rapid growth, and has done it with hardly a law to help him. He has done all by obtaining the cooperation of the public, broadcasters and Radio manufacturers. If you have ever tried to get cooperation out of such a mixed group, you

know his task.

We still believe in the national Radio conferences, regardless of the failure to overcome a serious diffi-culty which loomed before the nation last year. Many other topics are to be thrashed out at the fourth of these meetings besides limitation of stations and the systematic allocation of wave lengths, and we hope that, in the rush, none of these which may prove vital during the ensuing year, is overlooked and left

to paralyze broadcasting.

Let's all get behind our various representatives to the coming meeting in Washington, and instruct them not to be spellbound, but TO ACT.

#### RADIO INDI-GEST

#### The Voice in My Radio

Tonight, in the magic of midnight In my study alone; Around my heart entwines a song,-Sung through a megaphone. The singing sounds like an angel,-I dream of other years, As through the air the dead days rise And fill my eyes with tears.

Atuned to the memory of long ago When she sang the old songs; And though she is far away from me Amidst the cities throngs Tonight, she seems to be singing to me; O God if she could know, That I am tuned in on the ether Across the hills of snow.

Through misunderstanding we parted Tonight, my heart's in tune; Thrilled to hear the songs from her soul Carols she used to croon; Who knows but God in heaven,-Sends her message to me That we might be united through love,-That binds Eternity.

RHEA SHELDON.

#### His Home Companion

It was a dark and stormy night. Alone, seated by the comfortable fire in his well appointed home, sat a an. He paid little heed to the raging and tearing gale without; he sat deep in thought. His train of thought centering on the beautiful music that filled the room.

Over in the corner she did her best to produce melodious tones that would take his mind off the day's

work and carry him to the opera, organ recital, dance hall, musical comedy and finally off to Dreamland. He turned toward her. She was pretty. He admired her, not only for the sweet voice that she possessed but for the beautiful effect she caused with the light falling on her beautiful effect she caused with the light falling on her that way. Not a blemish and such attractive curves. She was so very versatile, too. Just when he was about to nod off to sleep she broke in with a lively dance tune that set his foot a-tapping.

He was ready to admit that he was well pleased and did not begrudge the price he had paid for her.

Tomorrow he would tell the boys in glowing terms all about his new loud speaker.

D. N. M.

After that, Dave, we guess you had better fill the paste pot, there might be some more bears in them mountains!

#### Stanley, Shall I Jump?

(Continued from the other time)

Synopsis—(Last week's copies contain the story in full, so why should we waste space to tell you something for nothing when we might sell it to you for money? Yah, shure!)





"We were happy—Mae and I—and after a while the baby came. Oh how happy we were—Mae, the baby and I. But I could not leave my secret vice. Every night when all were sound asleep I stole off into the attic and made Radio sets. One night, after many trials, I hit upon the great idea—the superblooper. Flushed with success I dashed to the office of the Radio Corporation of Columbia and offered it to them in exchange for Radio tubes for the rest of my life. But alas! the slickers done me out of my idea and threw me out in the streets. After that drink got me—Coca-cola and Peruna soon made a mockery of what was once a proud man."



"But what become of your wife?" asked the baby, tear in her blue eye as she kicked the family cat,

a tear in her blue eye as she kicked the family cat, "what become of the wife, I say?"

"She is now eking out a miserable existence winding low-loss coils for the self same soulless corporation that done me out of my idear."

"And the baby?" added Ma Rayjo, scarcely able to hold the cork back on a bottle of orange crush, "what becomes of baby squawker?"

"The baby is now posing for ads for this same corporation showing how happy home life can be made with electrical appliances."

"Here, kid," said Baby Rayjo, "here's a doughnut coil for you thickly powdered with arsenic trioxide. And the next time you invent something have your lunch checked at the baggage station. Then you can always get your feed back." always get your feed back.

Simianly yours,
THE THIRD TROMBONE PLAYER.



#### Ending the Worst Announcer's Contest

took a crack at a certain New Orleans announcer by nominating him for a place in the Worst Announcers' contest. Since then the mail has been crowded with letters telling us that the Louisianian who took said crevice was all wet. Maybe so, we don't know. He slammed the announcer for the long winded ballyhoo he gave the station owners. Since then we have been able to tune in this station ourselves on many occasions and find that the announcements are now short, thus automatically eliminating the more from the Western the station of thus automatically eliminating the man from the Worst Announcers' contest. But what we wanted to say was this: The contest is closed. We made a short announcement over the air the other night! The cup therefore goes to Indi-himself. There will be no recount.

#### Pointing the Way



#### Condensed BY DIELECTRIC

WCAP, Washington, put on the air a concert from the Wardman Park little symphony orchestra which I found to be one of the most enjoyable programs of the week. Those seated in the hall from which it was broadcast apparently entertained the same sentiments, for applause was generous and often spontaneous. Gretchen Hood pleased with her rendition of Gounod's Ave Maria, singing with expression and warmth. Grieg's familiar Peer Gynt suite was likeable if lacking in precision, while Mr. Landon's clear diction was another instance of what may be done by singers to enhance their favor with listeners. We should tune to more of them. should tune to more of them.

Does the broadcasting of fistic encounters between world reknowned boxers make a dent in the box office receipts or not? That is a question which does not require a lengthy answer, I think. If one liked that sort of entertainment and could attend, would he be content to hear only? No. I do not know the percentage of listeners who desire such a feature on their programs, but seldom it is nowadays that the wish is granted. WHN, New York, broadcast the altercation between Dave Shade and Mickey Walker. The static was bad that night, yet the exciting progress of the scrap kept one on edge. Mickey knew I would be listening in—so he won the decision.

Whether has flown the cleverness and originality that marked the paid advertising programs from the Los Angeles and Hollywood stations? It used to be we could turn to them with the assurance that the paid programs would be the best on the air and the advertising features presented in such a way that it did not detract from the musical part. Lately these programs seemed to be quite bald of originality and we miss the sugar coating. Perhaps it is just a summer slump and KHJ, KNX and KFWB will soon be with us again better and bigger than ever.

Scotch dialect has a fascination for most of us whether we be from Bonnie Scotland or not and Scottish airs have a lilt to them which breathes optimism. The majority of the programs broadcast by WNAC, Boston, find some interested listeners to each feature, while few can willingly miss their special broadcasting from theater, opera house, or the Checker Inn. One especially agreeable feature presented not long ago was the concert given by the Royal Scottish entertainers. That deserves mention.

Only admiration is possible when tuned to WTAM, Cleveland, for the splendid transmission from that station—regardless of the form of entertainment. There have been singers appearing before their mike whose contributions added little to the enjoyment of Radio auditors, though few occasions when orchestra concerts fell within that class. Rubenstein's Kammenoi Ostroff has a haunting charm all its own and loses none of it when heard by Radio, unless the or-chestration is at fault, which it certainly was not the other evening when presented through the Willard

Time spent in listening to one of the Quaker City broadcasting stations, WIP, was not wasted when we were treated to a well-balanced program of piano, violin, 'cello, and vocal selections by artists of at-tainment. Bertrand Austin knows his instrument (the 'cello) as Will Rogers knows his lariat; both compel their mediums to obey implicitly. A repitition of this style of program could displease no one.

# The Dos and Don'ts of Antenna Construction

# Part III—Construction of Outdoor Masts

By William Fenwick

N THE present article, the construc-tion of a suitable support for either or both ends of an outdoor antenna shall be described in detail. One which has always been quite popular among the amateurs, and which is also very strong, durable and—one of its best points—quite inexpensive, the total cost being well under \$10, is constructed as follows:

It consists mainly of three two-byfour's supported by guy wires (see figure 1). Although in the sketch a 41-foot mast is shown, this may be made higher or lower according to the builder's fancy but it is advisable not to lower it below

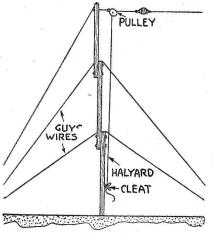


Figure 1

30 feet. The first and second sections are 18 feet in length and the top one, 10 feet. Each joint is bolted together with 4½-inch bolts and the overlapping at each joint is two feet, as shown in figure 2. Stranded Galvanized Guys

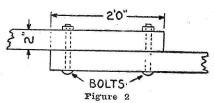
Stranded Galvanized Guys

Stranded galvanized iron, clothesline wire is excellent for the guy wires, as it possesses good strength and will not rust quickly. Four guy wires are fastened to each of the first two joints and one wire

Stranded Galvanized Guys

For masts over 50 or 60 feet in height, however, it is advisable to use some material other than wood for construction, as the strain at this height is too great for wood to withstand for a very long

to the top. This latter must be attached to the side opposite that of the pulley so as to take the strain of the aerial. For reteleving purposes, one insulator is sufficient to the side opposite that of the pulley so as to take the strain of the aerial. For reteleving purposes, one insulator is sufficient to the side opposite that the above, are those composed of size of Stock as to take the strain of the aerial. For re-ceiving purposes, one insulator is sufficient in each guy wire, although it is best to insert one every 20 feet if the antenna



is to be used for transmission as the absorbing power of the metal wires is much greater for the latter purpose.

Erecting Mast

Erecting the above mast, it should be remembered, is not a one-man job not can it be erected in the usual half hour. A hole one foot deep should be dug where it is to stand and the end slipped into place. Next, your two or three assistants should stand a great later. should stand a small distance away, each having hold of a guy wire, finally hoisting it into place, and then fastening each guy to a firm peg or stake driven into the ground, a fence, or to other surrounding objects which you consider strong enough.

The pulley should not be forgotten nor should the halyard, as it will mean an unpleasant climb to the top later, or possibly the undoing of the complete mast merely to secure the pulley in its proper

Why Not Iron Pipe?

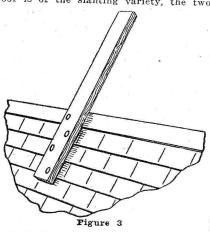
Although the beginner will perhaps fancy an iron pipe being better than a scantling, he will find on erecting that it is a much bigger proposition to install a 30- or 40-foot length of the former on account of its wabbliness; also it is more costly than wood.

Size of Stock

It might be asked, then, why a commercial station sometimes uses the type sketched in figure 1, having them several hundred feet in height. The research of the method shown in figure 4A. The hundred feet in height. The reason is that the guying necessarily has to be very elaborate and generally is beyond the capabilities of the average listener. More-over, there is seldom sufficient space around the mast's location for the fasten-ing of the numerous guy wires.

Slant Roof Mast

If the opposite end of the antenna is to be attached to the roof top and if the roof is of the slanting variety, the two



methods illustrated in figures 3 and 4.A show about the easiest ways of doing it.

If the peak runs at right angles to the antenna, a piece of wood, preferably a two-by-four, is fastened as in figure 3 with 5-inch screws. To add more strength the growns. strength, the screws should be driven in slanting as in figure 4B.

The exact length of the piece will depend on just how steep an angle the roof slants; the steeper, the shorter

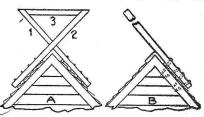


Figure 4

cross pieces (1 and 2) may be of two-by-

cross pieces (1 and 2) may be of two-py-four's or smaller stock in this case. The best length for these is approxi-mately five feet as the aerial wires can be stopped a few feet from them thereby providing ample clearance of the roof with the consequence that the support need be only two or three feet high. The cross piece (3) at the top may be

omitted if two wires are used, but is nec-essary if the antenna is a 1- or 3-wire

Precautions in Aerial Stringing

When installing your antenna keep the following foremost in your mind:

Do not under any circumstances run the aerial near to any wires which happen to be in the vicinity. If there are some such wires, have the aerial not less than 20 feet away from them are more if has such wires, have the aerial not less than 20 feet away from them, are more if possible. It is bad practice to cross wires at right angles, for should the top wires, carrying high voltage perhaps, collapse, right angular recarrying high voltage perhaps, conapos, the receiver may be damaged and ruined, and if the operator has the phones on and if the operator has the phones on the receive a serious shock. This is he may receive a serious shock. This is impossible, of course, if the antenna is disconnected from the set.

Remember, if the antenna is run close and parallel to power or telephone wires, a continual buzzing sound will always be present in the receiver.

(TO BE CONTINUED)

#### Underground Aerial Aid

I do not know whether I am original in this idea but I have never seen it published. I tried the underground aerial described in Radio Digest, and made an addition to it which improves it very much. I have a 75-foot long piece of No. 14. rubber and braid covered wire and of the state of the nuch. I have a 75-foot long piece of No. 14, rubber and braid covered wire and a No. 14 bare copper wire buried with it, 18 inches deep in the ground. (Editor's Note.—The depth should be 4 feet.) I insulated the end of the covered wire by suffice the end in a small bottle and fill-

and to the set I wound the bare wire around the other one.

while this does not completely cut static, it muffles it and cuts the harsh crackling. It is not directional and there seems little if any difference in volume



#### The Reader's View

Favors Superpower

In reply to the article written in the columns of the Radio Digest, issued August 29, pertaining to unnecessary in-Regist 29, pertaining to uninecessary interference, written by a professor of Rensselaer Polytechnic Institute and pertaining to WHA?m experiments in regard to Radio receptiffs, will state that I beg to differ with him.

He states in his article that Radio noises cannot be entirely eliminated except by sacrifices. He is correct, so to speak, in one sense of the word, but not as he states. He says that the problem consists in obtaining a low power level and that there is no need of superpower as the 500-watt station can be heard conas the solv-watt station can be nearly consistently throughout the cold weather all across the continent. He also states that to limit this noise they must limit the amount of power in the broadcasting medium and states that problem consists in the low power level.

in the low power level.

I differ with Professor Williams by upholding that superpower is far superior to any broadcasting since stations took the air. First, because it produces Radio reception clearer with less static and more volume. In linking several broad-casting stations together when there is something of national importance to be broadcast, instead of a benefit in any way, it is a hindrance to clear reception as it distorts the signals, whereas coming from one superpower station it has a direct force back of the broadcast and renders reception clear and distinct.

Static and all the other atmospherics are in the air and always will be, and the only way to eliminate this trouble-some bugbear to Radio reception is to build a receiver that will receive only the broadcasts clear and distinct.

You may say this cannot be done, but it is done as I have a set of my own construction which will receive all broad-casts through static and all other atmospheric conditions. As I stated, static and all other atmospheric conditions exist and always will and I can hear the same on this set, but it does not interfere with the reception inasmuch as the set sifts all reception right through this bugbear to Radio.—E. A. Lamb, Waterbury, Conn.

#### Against Chicago Silent Night

cago stations keep on the air every night

perselective one, but can tune out both KDKA and WCAE at any time although about nine miles distant and they hog the air sometimes the entire evening. If I want to hear them I have to tune them in

We do not have silent nights here in

I am a listener in to Chicago on the so-called "silent night" and I hope the Chiof the week.

I have a five-tube set. It is not a suthe same as other stations. the East and I for one do not want any. Radio SOLDER Sure is Safe and Simple
APPROVED BY

RADIO ENGINEERS
A Genuine Solder CHICAGO SOLDER COMPANY

4236 Wrightwood Ave., Chicago, U.S.A. Originators and World's Largest Man-ufacturers of Self Fluxing Solder

Your Dealer Can Supply You

One writer has said that there were tens of thousands of fans in the Chicago district who had costly sets that would like to have a silent night. I suppose he is right, but there are hundreds of thousands of fans that do not have costly sets that would not be able to get any good entertainment at all.

I am for entertainment every night. I do not care to listen to the local stations, I cut them out and get the ones I want. My vote is cast that way.

ant. My vote is cast that way. I have been a constant reader of Radio Digest for a long time and have obtained some very valuable information from reading it, some of which told how to cut out local station interference.—W. J. L., New Kensington, Pa.

#### Football's Not So Bad

Allow me to take exception to the published view of P. C. H., Stanford, Conn., in re the relative dangers of football and baseball.

I played four years in both sports while in high school and have played as a semi professional in both for four years since n my opinion it is fifty-fifty as to injuries.

There are just as many players hit by balls, spiked and run into, just as many break a leg sliding, take hard falls in base running and fielding in baseball, and the injuries, taken as a whole, are just as serious as in football.

as serious as in tootball.

How to fall in football and how to slide in baseball are the chief points players must know to avoid injury. Ask anyone who has played both. K. C. R., anyone who has played both. Mason, Mich.

Football Must Be Good In the "Reader's View" column recently, P. C. H., Stanford, Conn., says he is correcting an erroneous statement that you made about football not being any more dangerous than baseball. You were right at first. P. C. H.'s statement is very much in error.

If you will look at statistics you will

see that about four men are killed in baseball every year to one in football. Does that sound as if football is more dangerous?

Tell P. C. H. to watch the number of fatalities in football and baseball and then change his statement. P. L., Russellville, Ark.

#### An Undeserved Bouquet

Ever since your paper came on the news stands I have faithfully followed each issue with increasing enjoyment. Whenever I desire to have company listen

That advance program material is worth a year's subscription alone.

More recently I have chuckled over "Distilled by the Third Trombone Player," for he certainly takes a crack at "Dielec-

who seems to furnish plenty of material for his fire. I always read everything on the editorial pages and believe they represent

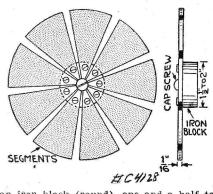
the future aim of listeners in and broad-casters—at least you are doing your share to help Radio broadcasting.

With best wishes for Radio Digest. W. V. C., Philadelphia, Pa.

#### Removable Spider Web Former

I am herewith describing an improved spider web coil form. The coil, instead of being wound on a cardboard or fiber form, is wound on an iron form (brass or aluminum would do as well), the seg-ments of which can be removed with great ease. Besides removing the seg-ments with greater ease, this form has the advantage of being able to withstand the use of large size wire such as Nos. 16 or 18, whereas other forms break when this size is used.

The segments, cut from a circular disk as shown in the sketch, are mounted to



an iron block (round), one and a half to each segment to the center block while another screw in the exact center further holds all the segments in place. Bolts extending through the block can be used instead of cap screws which, of course, require threading of the holes in the block. The edges of the segments are rounded to prevent cutting of the wires.

The finished form will be the same as any other spider web form in appearance, and winding is done as in winding other

to a good program, Radio Digest supplies similar coils. When a coil is wound, bind the station and date. little collodion on the places This will hold the coil towires cross. gether. The screws are then taken out and the segments removed with ease. A finished low loss coil remains.—Allen Bartlett, Milwaukee, Wis.

Bus Bar Eyelet Forming
This is an easy method of making a
good connection at the ends of bus bar
wiring which is much better looking at least than the soldered variety. Turn a well-formed eye in the end of the wire, the eye to be a little smaller than the threaded portion of the terminal post over which it is to go. With a smooth faced hammer, on a smooth iron surface, flatten the eye. It may be hammered down as thin as you may wish. This will give you a good flat surface.—W. C. VanNess, Fayette, Iowa.

It is better to get moderate, clear signals than loud, distorted one



### Become a Radio Expert

THIS is the time to get into Radio—the new, fast growing, uncrowded profession. Stop working long hours for small pay at work that is drudgery. Men from all walks of life are taking advantage of the big opportunities now open in this wonderful new industry. Salaries of \$100 a week—and more—not at all uncommon!

#### Learn at Home

You can train for this "big money" field right in your own home—in spare time. No matter how little you know about electricity or Radio, the National Radio Institute—the largest and oldest home-study Radio school in the world—established 1914—can quickly make you an expert through a marvelous method of practical instruction—which includes all necessary parts for building up-to-date receiving sets.

#### Big Demand Now

Almost every day we get urgent calls for our graduates. The big jobs hunt you when you are a Radio expert. Radio offers you more money than you ever dreamed possible—a chance to travel or to take any one of the many Radio positions all around you at home. Offers you a glorious future!

#### Send for FREE Book

Write today for free book "Rich Rewards in Radio." Tells all about this great new money-making field — and describes our

amazing practical method which trains you for the which trains you for the bigger paying jobs in Ra-dio. No obligation. Mail coupon now. National Ra-dio Institute, Dept. 55MB, Washington, D. C.



#### The National Radio Institute, Dept. 55MB, Washington D. C.

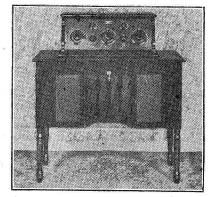
I am interested in Radio as a profession. You may send me, free and without obligation, your interesting book, "Rich Rewards in Radio," all information about your free time, home-study plan and about your free employment service. Also, the details of your Special

# The Console Master Speaker for ANY RADIO set

RETAIL PRICE \$49.50

Complete with Loud Speaker

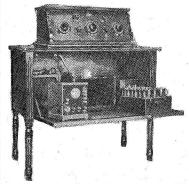
"Makes Radio a thing beautiful in your home"



One pull of the handle opens the front for adjustment of batteries or Loud Speaker Unit.

A magnificent table on which to stand your Radio Set with ample space to hold and conceal all batteries, charger, wires, etc. The Loud-Speaker is built-in, like a phonograph, and is vastly superior in tone to the old fashioned horn speaker.

No more ugly horns, or wires, or batteries visible, everything concealed—shut out of sight. Yet—everything instantly accessible! One pull of the handle opens the whole front for adjustments, etc. Ours is the only Console Speaker with this feature.



This is why the CONSOLE MASTER SPEAKER is the most practical Console Speaker Refuse imitations. sist on the genuine.

CONSOLE MASTER SPEAKER CO. 15 East 40th Street **NEW YORK CITY** 

Inquiries from responsible Dealers and Jobbers solicited.

# 'Traveler' Doughnut Coil Tuned R.F. Receiver

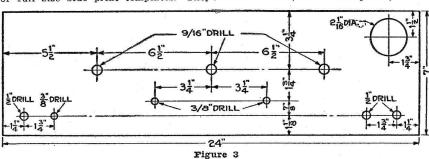
### Part II-Drilling and Assembly

By John G. Ryan

of this series are all at hand we are now ready to drill the front and sub-base panels and mount the various pieces of apparatus on them. The reader has two alternatives at this stage of construction; the directions and diagrams given below can be followed to lay out three full size drilling templates, or, he can write in to Department 5, Radio Digest, 510 N. Dearborn street, Chicago, Ill., and enclose 25c of the front panel with four little drops for full size blue print templates. They

used by the writer. Then, with a sharp screw driver and hammer, cut through the thin walls all the way round and the disk should drop out. Now with a half round file, smooth down the edges of the hole to the line. Figure 4 shows where each of the parts goes; the condensers should be mounted at an angle with the short edge of each horizontal. The jack in the lower right corner of figure 4 is a

FTHE parts listed in the first article of this series are all at hand we are now ready to drill the front and subase panels and mount the various pieces apparatus on them. The reader has two iternatives at this stage of construction; the directions and diagrams given below an be followed to lay out three full size appearance of the first article of the first article in from the ends of the front panel, as we separates each hole. This is the method used by the writer. Then, with a sharp at each end. Now, with the pencil, mark this stage of construction; through onto the back of the panel. Measter the distances these marks are from be followed to lay out three full size appearance of the first article in from the ends of the front panel, as we separates each hole. This is the method used by the writer. Then, with a sharp at this walls all the way round and the disk should drop out. Now with a half in walls all the way round and the disk should drop out. Now with a half in from the ends of the front panel, as we separates each hole. This is the method used by the writer. Then, with a sharp at this walls all the way round and the disk should drop out. Now with a half in from the ends of the front panel, as we separates each hole. This is the method used by the writer. Then, with a sharp at later going to take half an inch off the sub base. You diagrams are necessary to show the holes to will size the way round and the disk should drop out. Now with a half in from the ends of the front panel, as we separates each hole. This is the method the way of the will should be the way round and the disk should drop out. Now with a half in from the ends of the front panel, as we separates each hole. The method are later going to them the or make two terms of the sub base. You diagrams are necessary to show the holes to will slike into the cabinet.



will be sent promptly on receipt of this amount in stamps, silver, or money order. If the former course is chosen, figure 3 shows the exact location of all holes necessary on the front panel. To get these holes marked on the panel, first cut a sheet of paper to 24 by 7 inches for a template and then, with ruler and pencil, Now drill according to figure 3, starting



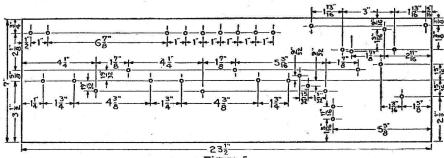
Figure 4

make a small cross where each hole is to go, following figure 3.

Bracket Holes

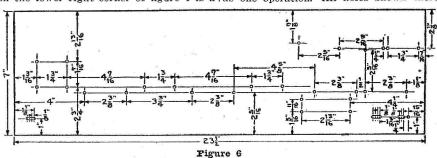
Bracket Holes

Bracket holes have not been shown in this illustration as these will vary depending on the brackets used. To get them just right, lay the front panel face down on the table; on it set the panel which is to be the sub base, with one long



edge down and so that one surface of the sub base is  $7_6$  inch from the edge of the front panel that will later be the bottom. The upper surface of the sub base will then be % inch from the bottom as the panel is  $7_6$  inch thick. Now place the brackets in the angle just formed.





circuit jack. It will be noted that the writer hung his baseboard on the underside of the brackets. These brackets were bought from the Chicago Salvage Stock Store, 509 S. State street, Chicago, at 15c

The sub base panel should now be cut to 23½ inches long by taking ½ inch off

four-spring two-circuit jack; that in the are for 6-32 screws and a No. 27 drill lower left corner is the filament control is correct. Then make the template as jack. The one next to it is the second two-circuit dock. The one next to it is the second two-circuit dock. are for 6-32 screws and a No. 27 drill is correct. Then make the template as per figure 6, paste it on, center punch and drill with as small a drill as will pass the bus wire you have purchased. This will be about 16 inch. To determine the positions of the bracket holes, and presuming you have the bracket not the front panel. you have the brackets on the front panel, place the sub base under the brackets so that the rear edge is 9 inches from the (Continued on page 20)

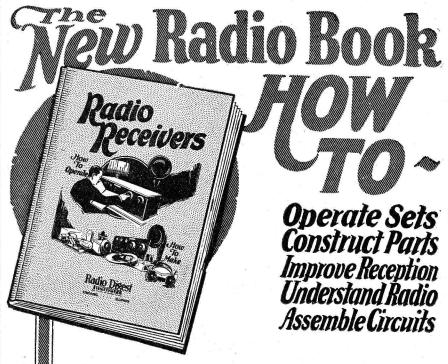
Tuning Through Static

The deafening effect of static when the sensitivity of a receiver has been increased to the utmost and one is tuning through for a distant station, may be decreased considerably by placing the phones just in front of the ears instead of directly over them. The fact is, that, even if the phones are placed completely off the ears, in front of them, the desired signals can be heard. signals can be heard.

phones are placed with the edge just over the ear opening, the desired program and announcements can be heard very distinctly, and the static will be found to be decidedly diminished not only causing less shock to the ear, but, in addition, causing much less interference to the reception.—H. A. Fanckboner, Terre Haute, Ind.

gnals can be heard.

However, for ordinary stations, if the if a crystal detector is used.



The greatest assemblage of facts and hints, from actual everyday practice, ever gotten together. Edited by the technical staff of Radio Digest, it supplies the demand for a book covering every phase of Radio. Starts at the beginning with simple explanation of Radio reception, with technical explanations of the different parts and leads right on to the more advanced instruction. A complete handbook serving as a ready reference in the Radio field. It gives suggestions on parts and sets which will prove to be a money saver. Blue prints and diagrams are essentially an important part of this book. Special chapter is devoted on "How to Operate," which gives detailed information on the operation of many well known sets.

A general information is vital to the knowledge of anyone interested in Radio. It gives a complete list of all broadcasting stations with a colored map showing their location. The workshop kinks will save you time and money. Now is the time to take advantage of this exceptional offer. Mail coupon today!

RADIO DIGEST, 510 N. Dearborn Street, Chicago, Illinois. Enclosed find \$5.00 for one year's subscription to Radio Digest. The new Radio Book, "Radio Receivers," will be mailed FREE, postage prepaid. This offer only good on subscriptions sent directly to this office, not through agents or agencies. Address ..

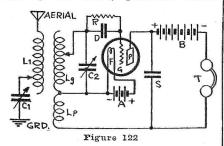
# A. B. C. Course in Radio Fundamentals

# Chapter XXX—Applications of the Electron Tube Oscillator—Continued

By David Penn Moreton

HE three electrode vacuum tube oscillator circuits have found wide application in undamped w ve Radio telegraph receiving as well increased most efficient methods of receiving undamped wave is the heterodyne method, which involves the generation at the receiving station of a high frequency alterwhich involves the generation at the re-ceiving station of a high frequency alter-nating current, having an adjustable fre-quency near that of the incoming un-damped oscillations. The generation of this high frequency current may be effected by means of a three electrode vacuum tube connected as an oscillator. It is possible to use a single vacuum tube for both detection of the incoming oscillations and for the generation of the local oscillation.

An arrangement operating with a single tube is shown in figure 122. The grid and plate circuits of the tube are coupled to each other by means of the coils  $\mathbf{L}_p$  and  $\mathbf{L}_g$ . The locally generated oscilla-



tions are set up in the circuit  $\mathbf{L_g} \check{\mathbf{C}}_2$ , and tions are set up in the circuit  $L_{\rm g}C_2$ , and the circuit is thus seen to be similar to the one shown in figure 113, in a previous chapter. The plate circuit is energized by the battery B and includes the telephones T. The incoming signals are received on a tuned antenna circuit coupled to the grid circuit of the tube. The grid circuit also contains a container B. also contains a condenser shunted by a high resistance R.

grid potential produced in this manner tube, which, when closed in the upper bring about audio frequency pulsations position, disconnects the coil  $\mathbf{L}_{p}$  and, when bring about audio frequency pulsations of the plate current which operates the method telephone receivers. This self-heterodyne reception using a single GROUND Figure 124

briefly as follows:

The antenna circuit is tuned to the frequency of the waves to be received. These waves then set up in this circuit, strong oscillations of their own frequency which, oscillations of their own frequency which, by induction, produce corresponding oscillations of the grid potential of the tube. But the tube being in an oscillating condition, locally generated oscillations are also set up. The locally generated oscillations are of the frequency of the circuit  $L_gC_2$ , which is adjusted to a frequence eligible different from that of the quency slightly different from that of the antenna circuit. There are, thus, two alternating electrical pressures of slightly different frequencies impressed upon the grid. The operation of the tube resulting from these two frequencies in such that a plate current having a beat frequency equal to the difference of the two fre-quencies is produced.

For suitable values of grid, plate and filament battery voltages, it is then possible to bring the direct current operating point of the tube where it will act as a r D rectifying detector for incoming oscilla-The tions while still oscillating. Variations in

operation of this circuit may be described tube for the operations of detection and oscillation generation is called the auto-dyne method of reception. The purpose of the condenser S is to bypass the locally generated high frequency oscillations which would otherwise be absorbed in the plate battery and telephone receivers.

The audo frequency, that is, the pitch f the sound in the telephone receivers, is directly dependent upon the original oscillating frequency. By using an audio frequency tuned telephone circuit, it is possible to increase greatly the intensity of the received signals and to increase considerably the selectivity of the re-ceiving circuit by the use of several tuned oscillatory circuits in succession.

A circuit illustrating this suggestion is

shown in figure 123, which differs from the circuit shown in figure 122, only in that the telephone receivers instead of that the telephone receivers instead of being directly connected to the plate cir-cuits of the tube, are connected to an oscillatory circuit coupled to the plate circuit, and tuned to the beat frequency, that is, to the difference between the fre-quency of the locally generated currents and of the incoming oscillations. and of the incoming oscillations.

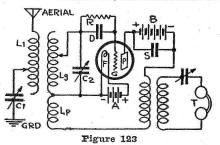
A circuit that might be called a uni-

versal receiving circuit is shown in figure 124. It comprises an antenna circuit tuned to the frequency of the signal tuned to the frequency of the signal waves being received, and three vacuum tubes in cascade. The first tube T<sub>1</sub> is coupled to the antenna circuit through its tuned grid circuit. There is a switch D connected in the plate circuit of the first modulators.—Editor's Note.)

closed in the lower position, connects the coil  $L_p$  in the plate circuit of the tube. When the coil  $L_p$  is disconnected the first tube acts as a high frequency amplifier and the circuit may be used for the reception of damped or modulated wave

With the switch D in the lower position, or when the coil Lp is connected in the plate circuit, the plate circuit is coupled plate circuit, the plate circuit is coupled to the grid through the coil L<sub>P</sub>, frequently called a "tickler coil." If this coupling is very loose, then the first tube acts as a regenerative amplifier, for use with damped wave signals. If the coupling of the plate and grid is close, the first tube generates oscillations, and is used for heterodyne reception of undamped waves.

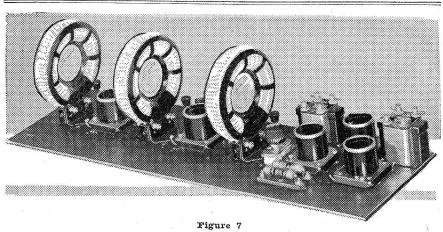
The second tube To is a rectifying de-The second tube  $T_2$  is a rectifying detector and the third tube  $T_3$  is an audio frequency amplifier. Choke coil coupling is shown in figure 124, but transformer or



resistance coupling may be used equally

well.

With the heterodyne method, the note in the telephone receivers may be adjusted as desired to correspond to the frequency at which the telephone receiver diaphragm is most sensitive, or to suit the ear of the receiving operator, or to be easily read through interfering signals from other stations so that interference from other stations is reduced to a minimum. A slight difference in the frequency of the interfering signal would give a note of entirely different pitch, or a note which would be entirely inaudible.



#### "TRAVELER" RECEIVER

Since first building and testing this set, and making the template drawing figure (Continued from page 19)
front surface of the front panel. Now mark with a pencil through the bracket boles and drill for 6-32 screws. The positions of the parts on the sub base are shown in the photograph figure 7.

and making the template drawing ngure 6, the writer found a way of simplifying the writing at the right end of the sub base which makes necessary three holes not shown in figure 6. To get their locations, mount the two audio frequency shown in the photograph figure 7.

(Continued on page 21)



The only man who doubts that a 3-tube set can give better results than a 5-tube set, is the man who has never made a performance comparison between the Crosley Super-Trirdyn and the best 5-tube set built.

Super-Trirdyn Regular, \$45

THE CROSLEY RADIO CORPORATION, Cincinnati, Ohio

BETTER · COSTS





# Complete Data for British Circuit

#### Fans Call for Details and Fill Writer's Mail

MAGINE yourself, fellow fan, a quiet, peaceful citizen of the sovereign state of Pennsylvania. You have an unusually good Radio circuit which gives you excellent results on DX and you decide

#### WORKSHOP KINKS EARN A DOLLAR-

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

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

that, for the good of all fandom, you will send it in to your favorite Radio magazine that all may try it. Nothing happens for several weeks, then suddenly you get an avalanche of mail to the extent of over 600 letters in a week. It is manifestly impossible for you ever to answer all that correspondence; you're not Sears-Roebuck nor Montgomery Ward. You hate to seem unobliging, yet you naturally can see no reason why you should be burdened with the work and expense of answering that pile of mail.

That is what happened to Mr. Joseph Stevenson when he contributed his kink and it was published in the August 29 Mr. Stevenson sent in the data with his kink but the technical editor purposely omitted it for two reasons. First, it did not appear necessary since it seemed to the editor that by this time most of the experimentally inclined knew the size condenser to use with certain coils, etc. Second, he wanted to see what the readers would do with it. The neces-sary information was all in Radio Digest copies of this year, particularly the issues of February 28 and March 21. This action is sincerely regretted now, and apologies are extended Mr. Stevenson for the inconvenience this may have caused





No. 31 Radio or All Purpose \$3.50

15 x 31 x 29". Substantial, rigid table that can be used for a thousand purposes.

our Radio Cabinets are furnished in the natural wood only. Beautiful color eard with instructions for finishing sent with each eabinet. Made of beautifully grained Fir Wood.



NEAT FIT K. D. CABINETS

Made in a variety of sizes sold knocked down, easily set up. Holes bored for every screw. No other cabioffer such

values.

Panel 7x 9" 7" deep \$1.80

Panel 7x12" 7" deep 2.00

Panel 7x14" 7" deep 2.20

Panel 7x16" 7" deep 2.30

Panel 7x18" 7" deep 2.30

Panel 7x12" 7" deep 2.40

Panel 7x24" 7" deep 2.50

Panel 7x24" 7" deep 2.70

Panel 7x28" 7" deep 2.70

Panel 7x28" 7" deep 3.70

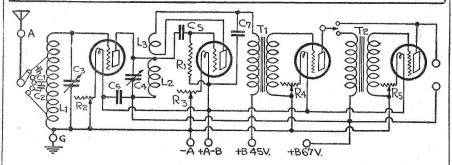
Panel 7x28" 7" deep 3.70 37 Cabinet 7 x 18" No. 37 Gabinet 7 x 18 manel, 9" deep. Battery Compartment \$10.50 10x11x18"..... \$10.50 and dictional door in front of panel forms arm rest when open......\$3.00 extra. No. 37—panel sizes 7 x 24", 7 x 26" and 7 x 28", Other sizes carried in stock. Prices on request.

Set up Complete Ready for Finish, Packed One Each in Carton At \$5.00 extra our Console Cabinets can be furnished with built-in loud speakers. The tone chambers of our speakers are made of Pyralin and give forth a full resonant tone. No better made; neat, compact, efficient.

Illustrated circular on request.

RADIO CABINET DEPARTMENT Express Body Corporation Crystal Lake, Illinois

### HOOK-UP THAT TUNES IN AMERICA

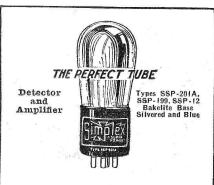


him. Here is the list of values for the various parts used in this circuit:

If the builder has two variable condensers of .00025 mfd. capacity for use as C3 and C4, the coils L1 and L2 should contain 99 turns of No. 22 dec. or 82 turns of No. 24 dec. wire if wound on 3-inch tubing. If the condensers available are .00035 mfd. the coils should contain 70 turns of No. 22 dcc. or 66 turns of No. 24 dcc. on this same size tubing. Should the condensers be of the .0005 mfd. size, the coils are to have either 55 turns of No. 22 dec. or 51 turns of No. 24 dec. wire on 3-inch tubes.

The fixed condensers C1 and C2 are to be of .00025 mfd. capacity, as is condenser C5. This latter unit may also be .0005 of the control of the turns depending on the size tubing used and the coil (among those listed above) with which it is to be used.

The grid leak R1 should preferably be variable, but if of the cartridge type, will be between 3 and 5 megohms depending on the tube used as detector. R2, R3, R4 and R5 are each 30-ohm rheostats. When choosing the audio frequency transformers T1 and T2, use care not to get two of too high a matic rear to get two of too high a ratio nor two of too low a ratio. For example you could have the first be a 6 to 1 and the second 2 to 1, or you could have both be 4 to 1 or 3½ to 1. Both should not be 6 to 1 or 2 to 1.



#### THE ELIXIR OF Set LIFE

Just as the neuron of the most vital organ of the UST as the heart is the human body—the tube is the most vital part of the radio set. The Simplex Super Power Tube performs its function in the radio set with the same sensitiveness, accuracy and regularity as a healthy heart in the human body.

Rejuvenate your set with the Simplex Super Power tubes, they mean longer life and better reception.

PRICE

Silvered tube . . . . \$2.00 Blue tube . . . . . . 2.50

GUARANTEE: Your dealer is authorized to exchange or return money for any defective tube within ten days.

Titania Manufacturing Company makers of the

"SIMPLEX SUPER POWER" RADIO TUBES 105 West 40th Street, New York City

There you have it all, readers, and let the technical department know how you come out. A number of those who took the trouble to figure out the probable constants themselves have advised splen-did results. You can use either the 201A or the 199 tubes; the antenna can be of any length between a 40-foot indoor and and a 110-foot outdoor installation. You do not necessarily have to use tube wound coils; space wound, spider web, basket weave, honeycomb or bank wound inductances may be employed.

# "TRAVELER" RECEIVER (Continued from page 20)

transformers and the socket which goes between them. The Fil. and Grid ter-minals of each transformer go toward the minals of each transformer go toward the rear while the P and G terminals on the socket also go to the rear. It will be noted that mounting holes for the right hand transformer have been drilled only for the holes in the transformer in the rear right and front left corners. With the pencil, mark through the hole in the rear left corner onto the sub base. Now mark a small cross on the sub base ¼ inch to the left of the rear left mounting hole of the left hand transformer. Another cross is to be marked just to the right



### **Bass Note Amplification** -at last!

AS THE world's oldest and largest exclusive transformer builders, we have led for years in extending the amplifying range of transformers to lower and lower frequencies. In the lower and lower frequencies. In the Autoformer we have finally perfected an instrument capable of (1) giving full amplification of those bass notes hitherto largely "lost"; (2) greater clarity on all signals; (3) improved reception of distant programs; (4) better volume control. Autoformer amplification is for those who seek the finest reproduction of programs to be had. It may be used with any set in place of the regular audio transformer hook-up. Full directions, with diagrams, supplied with each Autoformer. Dealers everywhere.

Write for Autoformer Hook-up Bulletin. THORDARSON ELECTRIC MANUFACTURING CO Chicago, U.S.A.

Unconditionally Guaranteed



All Frequency Amplifier

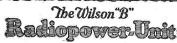
and slightly in front of the P terminal of the socket between transformers. Take off these three pieces of apparatus and drill holes at the spots just marked. Now with the sub base in front of you and the front edge nearest you, mount the Thorola C on the two holes at the left and with G and CN to be significant.

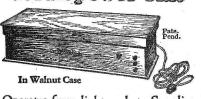
Thorola C on the two holes at the left end with G and GN to the right; the first radio' frequency amplifier socket comes next with P and G at the rear; then Thorola T-1 with G and A to the right; then another socket with P and G to the rear; next comes Thorola T-2 with G and A to the right; then the detector socket with P and G at the rear; then the second audio frequency amplifier socket with P and G to the right. These units are all in a straight line across the panel. The three instruments previously mounted The three instruments previously mounted and taken off can now be put on again. The Bradleyleak is mounted between and taken off can now be put on again. The Bradleyleak is mounted between Thorola T-2 and the socket to its right; the Bradleyleak terminals and condenser go to the right. It will be necessary to use two 4-36 machine screws one inch long for this. The Amperite units are mounted, each with a single flat head 6-32 machine screw, in the two holes in front of the detector socket.

The antenna and ground binding posts go in the two holes at the rear left corner of the sub base, while the other seven go in the seven holes about midway the length of the panel near the rear edge. Insert them, from left to right, plus 90, plus 45, minus B, plus A, minus A, plus C and minus C.

It will be noted from careful examination of figure 7 that the two sockets between the Thorola T-2, are raised above the right of Thorola T-2, are raised above the sub base about ¼ inch. The reader can do this or not, as he pleases. The writer slipped binding post nuts over (Continued on page 22)

(Continued on page 22)





Operates from light socket. Supplies the uniform voltage necessary for perfect reception. Absolutely noiseless. Guaranteed not to set up the slightest hum. No acid to spill. No moving parts to get out of order. Requires no attention. As easy to operate as switching on a light. Convenient and dependable. The least expensive plate current supply because of its long life. In handsome walnut case. Price complete, \$35.

Your dealer can supply you.

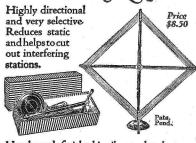
#### The Andrews Paddlewheel-Coil



Improves tone quality. Increases selectivity, range and volume. Losses are negligible. Has exceptionally high ratio of inductance to re-sistance with minimum distributed capacity.

Used in well-known receivers such as the Deresnadyne and Buckingham. Can be used in any standard hook-up. Ask your dealer for blue-prints of circuits employing this coil. Our Technical Dept. will answer inquiries.

Duo-Spiral Tolding Loop



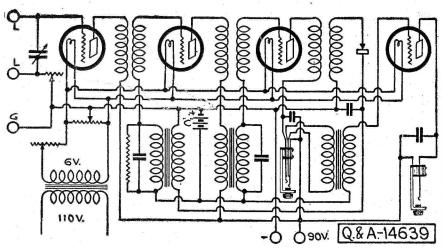
Handsomely finished in silver and mahogany. Easily portable. Has long handle and graduated dial. A special model for every circuit.

See these standard units at your dealer's or write for complete information.

Radio Units Inc. Maywood, Illinois

1306 First Avenue Perkins Elect. Ltd., Montreal, Toronto, Winnipeg

# **Questions and Answers**



110 Volts on Acme Reflex (14639) BKR, Cleveland, O.

I have a four tube Acme reflex receiver that has been giving me good service for some months. Your recent article on the use of 110 volts lighting current for the filament supply looks good to me but I cannot work out the circuit for applying it to my set. Will you please set me right on this? The diagram of my set is explosed. enclosed.

A.—While it may be subject to a few changes, we believe the diagram shown above will be correct for combining your set with the Cope unit described. The chief change lies in the potentiometer used to get the correct bias on the grid of the first tube. Since we no longer have D. C. line with 6 volts, this potentiom-

eter cannot be put across the filament circuit for securing grid bias.

It is now in the filament return of the first grid circuit where it introduces losses sufficient to keep the first tube

Make \$100 WEEKLY in spare time. Sell what the public wants—long distance radio receiving sets. Two sales weekly pays \$100 profit. No big investment, no canvassing. Sharpe of Colorado made \$955 in one month. Representatives wanted at once. This plan is sweeping the country—write today before your county is gone. OZARKA, Inc., 128D West Austin Ave., Chicago.

#### Wanted-

Commercial operator for 100-watt Radio station, in town of 100,000. Regular or part time. Radio department sales work in connection with the operating. Steady employment year round. Good salary. Pleasant place to work. Advise fully about yourself in first letter.

X. Y. Z., CARE OF RADIO DIGEST 510 North Dearborn St. CHICAGO, ILL.

#### Any Radio Map a Month Old Is Out of Date

Unless It Has a Monthly Supplimental Service THE AIR-LINE RADIO MAP and LOG With Patented Movable Mile Scale Has This Service

With Fatenied Movable Mile Scale Fias Inis Service
Lists stations by call letters, also by wave lengths.
UNIQUE BROADCASTING SCHEDULE. LOG shows
location; difference in time; power, meters and kilocycles;
spaces to list dial settings; time heard, distance, signal
strength. Whether you use outdoor aerial or loop,
direction of loop, phones or loud speaker.

An Individual Log for Every Station

If you do not find this the most complete serviceable
RADIO MAP and LOG published, we will refund your
money.

Price 50 Cents At your dealers, or sent postpaid. Dealers and Jobbers Write at Once. MULTIVIDER CO. ST. JOHN and ASKEW KANSASCITY, MO.



Lasts Indefinitely—Pays for Itself aconomy and performance unheard of before. Recharged at a negligible cost. Approved and listed as Standard by Beading Radio Authorities, including Pop. Radio Laboratories, Pop. Sci. Inst. Standards, Radio News Lab. Lefax, Inc., and other importance agents and and Captuped with Solid Radio Case, an Insurance agents acid and captuped with a heavy glass jers. Heavy, rugged plates. Order yours today an heavy glass jers. Heavy, SERVID.

rugged plates. Order yours today!

SEND NO MONEY wanted and we will ship day order is received. Extra Offer: 4 batteries in series (68 voite), \$12.76. Pay expressman after examining batterles. 5 per cent discount for each with order. Mail your order now!

Pay expressman after examining batterles. 5 per cent discount for cash with order. Mail your order now!

WORLD BATTERY COMPANY

1219 So. Wabash Ave. Dept. 76 Chicago. Ill.
Makers of the Famous World Radio "A" Storage Battery
Prices: 6-volt. 100 Amp. \$11.25; 120 Amp. \$13.25; 120 Amp. \$14.00.

All equipped with Solid Ituber Case.

Solvent Radio Dlala at 210
meters for the new 1000
wait World-Storage Battery
Batton, WSEC. Olicage
Watch for announcement.

WEAT - WGN - WUS - KHU - KGO - KFAF - WUMURK

oscillating. Its broaden the tuning slightly but not a great deal. The key wire to which all grids return and to which the negative B is connected may or may not have to be grounded but we believe it will, as shown

B Battery Eliminators
(14591) GG, Johnsonburg, Pa.
I would like to have your opinion of B battery eliminators and if there is one on

Better Edison Elements 7½ c pair. Sample 10c. Chapelle, Woodburn, Oregon.

Long Distance Radio \$2.95. Lambert's newest crystal success. No tubes. No batteries. No grief. Always ready. Works 600 miles. Fully guaranteed. We pay postage. Order direct from this ad. Leon Lambert, Wichita, Kansas.



Station after station pops in as you turn one dial.
More selective, distance
and volume. Daytime
service from distant stations.
All say 'NOTHING EQUALS IT.'

F. C. BRADLEY, Union, Miss.

#### Manufacturers! A Service You Need

director of sales and adver-

A personal producer with the following credentials.

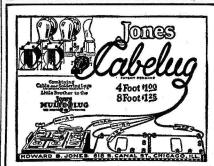
Wide experience with manufacturers' problems and how met, gained through manufacturing, advertising agency and publishing training.

Ability to create sales plans, that sell goods, knowledge of how to coordinate advertising and sales departments to pro-duce maximum results.

Thoroughly versed in radio, publisher and agency service. Willing to demonstrate ability. Will accept modest salary and share of increased profits.

Only well financed proposition considered.

Manufacturers invited to correspond with Box 200, care of Radio Digest, 247 Park avenue, New York, N. Y.



Announcing a new and very practical battery connector, the Jones Cabelug consists of a five wire coded cable, anchored to an insulated block, cable ends projecting from the block serving as terminals for the set leads. The block is permanently mounted on the panel or sub-panel, allowing the set builder to complete his wiring arrangement, and leaving nothing to connect but the battery ends. binding posts required.

HOWARD B. JONES CHICAGO 618 S. Canal St.

the market that you would advise me to

A.—You can, we are sure, buy with confidence the Balkite, Freshman, Gould, Philco or Cooper. The last named two also make combinations of A and B elimi-

#### "TRAVELER" RECEIVER

(Continued from page 21)

the mounting screws on those sockets, between the sockets and the sub base to raise them and reduce any dielectric absorption of energy by the sub base from the socket springs, and reduce the ten-dency of dielectric placed close to them to cause greater capacity between plate and grid springs.
(The wiring of the sub base and the

# 25 RADIO FREE

With World Radio Stamp Album and Log. Contains ruled spaces for stamps of stations in U. S., Canada, Europe, etc. Stick stamps in proper spaces as stations are heard. Also contains convenient Log and complete list of stations, call letters, wave lengths, etc. Send 35c for Album and get 25 genuine radio stamps. FREE.

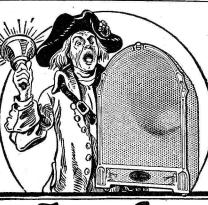
WORLD TRADING CO., Dept. 9417, 366 Wrigley Bldg., Chicago



### **COMPLETE 500 WATT TRANSMITTER** FOR SALE CHEAP

A transmitter favorably known from Coast to Coast and from Alaska to South America. Built by one of the country's foremost Radio Engineers.

Southern Equipment Company San Antonio, Texas



# Radio's Most Beautiful Speaker

WRITE today for illustrated description in colors of this beautiful instrument—"The Speaker with the Voice that Thrills." You will be delighted with the artistic stippled finish and the gorgeous colors of the Town Crier models in Green and Golden Polychrome. Ask your Dealer to shew yes a Town Crier—yes will recognize its surpassing excellence instantly.

PRIOR

\$17.50

\$18.50 West of the Reckies

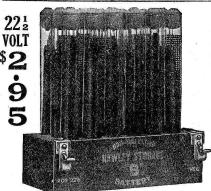
GALE RADIO LABS.

2513 Irving Park Blvd. CHICAGO

wiring between the sub base and front panel will be taken up next week by Mr. Ryan. This will complete the construction, and the fourth article will contain adjusting and tuning instructions.—Editor's Note.) tor's Note.)

Telegraphy—Both Morse and Wireless taught thoroughly. Big salaries. Wonderful opportunities. Expenses low; chance to earn part. School established fifty years. Catalog free. Dodge's Institute, Sixth St., Valparaiso, Ind.





It's OUT—Complete everlasting ready to run non-acid, non-sulphating 22½-rolt rechargeable "B" storage battery, \$2.95. Includes chemical. Does not lose its charge standing idle. Special 2-22½ rolts (45 volts) \$5.25; 90 volts \$10.00; 112½ volts \$12.50; 135 volts \$14.75; 137½ volts \$18.80. Nearly 3 years sold on a non-red tape, 30-day trial offer, with complete refund if not thoroughly satisfied. Further guaranteed 2 years. Knock down kits at still greater savings. Complete ready to run "B" battery charger \$2.75. Sample cell 35c. Order direct—send no money—simply pay expressman its cost on delivery, or write for my free literature, testimonials and guarantee. Same day shipments. My large 36-page radio goods catalogue 10c. B. D. Smith, 31 Washington Ave., Danbury, Conn.



# Radiophone Broadcasting Stations

## Corrected Every Week-Part III

#### FIND MISTAKES AND YOU'LL GET DOLLAR

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

#### United States (Cont'd)

NOTE.—The third part of the schedule list appears below. The fourth part which consists of the remainder of the list will appear next week.

WEBW, Beloit, Wis. 268 meters. 500 watts. Beloit \*College. Announcer, Glenn Armstrong. Sun, 4:30 pm, Central.

of the list will appear next week.

WEBW, Beloit, Wis. 268 meters. 500 watts. Beloit College, Announcer, Glenn Armstrong. Sun, 4:30 pm, Central.

WEBZ, Savannah, Ga. 263 meters. 50 watts. Savannah Radio Corp. Mon, Wed, Fri, 8:30 pm. Eastern.

WEEL, Boston, Mass. 348.6 meters. 500 watts. Edison \*Elec. Illuminating Co. Announcer, C. R. Emery. Slogan: "The Friendly Voice." Daily ex Sun, 6:43 am, exercises; 7:45, watch. Mon, 4 pm, 5:30, 6:30-10:30, 10:30. Tues, 3 pm, 4, 6:30-10, 10. Wed, 4 pm, 6:30-10, 10. Sun. 7:20 pm, 9:20. Eastern.

WEHS, Evanston, Ill. 205.4 meters. 20 watts. Robert E. Hughes.

WEMC, Berrien Springs, Mich. 285.5 meters. 500 watts. \*Emanuel Missionary College. Slogan, "The Radio Lighthouse."

WENR, Chicago, Ill. 266 meters. 1,000 watts. All-Ameri\*can Radio Corp. Announcer, Frank Westphall. Wed, Fri, Sat, 6-7 pm; 8-10; 12-2. Tues, Thurs, 6-7 pm; 8-10. Sun, 3-4 pm; 9:30-11:30.

WEW, St. Louis, Mo. 248 meters. 100 watts. St. \*Louis University. Daily ex Sun, 9 am, 10, 2, 5 pm, reports. Tues, Thurs, 7 pm, lectures, music. Sun, 7:30 pm. Central.

WFAA, Dallas, Tex. 475.9 meters. 500 watts. Dal-\*las News and Dallas Journal. Announcer, Adams Colhoun. Slogan, "Working for All Alike." Daily, 6:30-7:30 am, exercises. 10:30 am, reports; 12:30-1 pm, address; 2:30-3, 3:30-4, 4:30-5, reports, news; 5:30, children's hour; 8:30-9:30, concert, weather pm, wesper recital, sports. Thurs, Thurs, Sat, 11-12 pm, music. Sun, 6:30-7:30 pm, vesper recital, sports. Thurs, Thurs, Sat, 11-12 pm, music. Sun, 6:30-7:30 pm, vesper recital, sports. Thurs, Thurs, Sat, 11-12 pm, music. Sun, 6:30-7:30 pm, vesper recital, sports. Thurs, Thurs, Sat, 11-12 pm, music. Sun, 6:30-7:30 pm, vesper recital, sports. Thurs, Sun, 5:30, children's hour; 8:30-9:30, concert, weather service; 9:30-11, music. Central.

WFAM, Lincoln, Nebr. 275 meters. 50 watts. First Baptist church, Announcer, St. John Reynolds. Sun, 4:45 pm, markets. Central.

WFAM, Lincoln, Nebr. 275 meters. 50 watts. First Baptist church, Announcer, 5t John Reynolds. Sun, 4:45

Baptist church. Announcer, St. John Reynolds. Sun. 10:45 am; 7:30 pm, services; 4 pm, sacred music. Central.

WFBD, Philadelphia, Pa. 234 meters. 5 watts. Geth-semane Baptist church. Off the air in the summer. WFBE, Seymour, Ind. 226 meters. 10 watts. Van de \*Walle Music and Radio company. Announcer, John Van de Walle.

WFBG, Altoona, Pa. 278 meters. 100 watts. The Wm. F. Gable Co. Announcer, Roy F. Thompson. Slogan. "The Original Gateway to the West." Daily ex Sat. Sun. 11:45 am, music; 3:45 pm; 6:15. Mon. 7:15 pm, 7:30, 8:30, 10:30. Fri, 7:15 pm; 7:30, 8:30, 10:30. Fri, 7:15 pm; 7:30, 8:30, 11:15. Sat, 7:30 pm. Easfern. Y. 272.6 meters. 500 watts. Con-\*course Radio Corp. Announcer, Alvin E. Hauser. Slogan, "Voice of Central Park." Mon, Tues, Fri, 2-7 pm. Wed, Thurs, Sat, 2-8 pm. Mon, Sat, 11:30 pm. Sun, 5-8 pm. Eastern.

WFBI, Camden, N. J. 236 meters. 50 watts. St. \*John's university. Announcer, Hilary Doerfier, Slogan, "In the Heart of the Landscape Paradise." Sun, 7-7:30 pm. Central.

WFBI, Syracuse, N. Y. 252 meters. 100 watts. Onodaga Hotel company. Announcer, Ernest E. Chappell. Daily ex Sun, 12-1 pm; 6:15-7:15. Tues, Thurs, Sat, 10:12 midnight, Fri, 9-9:45 pm. Sun, 5-6 pm; 6:15-7:15. Eastern.

10:12 midnight. Fri, 9-9:45 pm. Sun, 5-6 pm; 6:10-7:15. Eastern.
WFBM, Indianapolis, Ind. 268 meters. 250 watts.
Merchants Heat and Light company. Announcer, John C. McPhee. Slogan, "The Convention City of America." Closed for the summer.
WFBR, Baltimore, Md. 254 meters. 100 watts. Fifth Infantry, Maryland National Guard. Slogan, "Home of the Star Spangled Banner." Announcer, H. J. Lepper. Mon, Wed, Fr. matince programs. Thurs, Sat, evening programs. Sun, morning program. Eastern. Thurs, Sat, evening programs. Sun, morning program. Eastern. WFBZ. Galesburg, III. 254 meters. 20 watts. Knox

college.
WFDF, Flint, Mich. 234 meters. 100 watts. Frank D.
\*Fallain. Slogan, "The Vehicle City." Fri, 8 pm.

\*Fallain. Slogan, 'The Vehicle City.'' Fri, 8 pm. Eastern.

WFI, Philadelphia, Pa. 394.5 meters. 500 watts. Strawbridge & Clothier. Announcer, John Vandersloot. Daily ex Sun, 10:15 am, reports; 10:30, music; 10:40, home service; 1-1:50 pm, orchestra; 1:50, reports; 3-4:30, concert; 6:30-7, orchestra. Tues, Thurs, Sat, 8, concert. Sun, 10:30 am, 7:30 pm, church services alternating. Eastern.

WFKB, Chicago, Ill. 317.3 meters. 500 watts. Francis \*K. Bridgman. Announcer, Horace Kehm. Daily ex Sun, Mon, 7-10 pm. Central.

WFRL, Brooklyn, N. Y. 205.4 meters. 100 watts. \*Robert Morrisson Lacey.

WGAL, Lancaster, Pa. 248 meters. 10 watts. Lancaster Elec. Supply & Construction Co. Announcer, J. R. Gaintner. Slogan: "World's Gardens at Lancaster. Wed, 11:15-1 am, organ. Eastern.

Gaintner. Slogan: "World's Gardens at Lancaster."
Mon. Wed, Fri, 5:45-6:15 pm, dinner concert. Wed,
11:15-1 am, organ. Eastern.

WGBA, Baltimore, Md. 254 meters. 100 watts. Jones
Elec. & Radio Mfg. Co., Slogan, "Watch Greater Baltimore Advance." Announcer, Winters Jones. Club
"Staying up with the Jones." Daily ex Sun, 12-1:30
pm. Mon, 7-8 pm, 9:30-12. Thurs, 7-12. Sun, 9:3011:30 pm. Every other Sun, 2-4 pm. Eastern.

WGBB, Freeport, N. Y. 244 meters. 100 watts. Harry
H. Carman. Sun, 10:45 am, church. Eastern.

WGBC, Memphis, Tenn. 266 meters. 10 watts. First
Baptist church. Announcer. M. L. Martin. Slogan,
"Radio Bible Class." Sun, 9:55 am, 7:30 pm.
Central.

WGBF, Evansville, Ind. 236 meters. 100 watts. The \*Finke Furniture Co. Announcer, Harold Finke. Daily ex Sun. 7:15 am, family after; 12:10 pm, weather, markets, news; 5:20, baseball. Tues, Fri, 8-10 pm, music. Fri, 11-12:30 am. Midnight Air Raiders. Sun. 9-10:30 am, service; 7:30-9 pm. music. Central. WGBG, Thrifton, Va. 226 meters. 10 watts. Breitenbach's Raido Shop.
WGBI, Scranton, Pa. 240 meters. 10 watts. Frank S. Megargee.

WGBI, Scranton, Pa. 240 meters. 10 wates. Lawrence MgBIK, Johnstown, Pa. 248 meters. 5 watts. Lawrence ew. Campbell. Daily ex Sun, 5-6:30 pm. Sat, 8:45-11:45 pm, dance music. Sun, 3-5 pm. Eastern. WGBL, Elyria, Ohio. 227 meters. 10 watts. Elyria Radio Assn.
WGBM, Providence, R. I. 234 meters. 30 watts. Theo. edges M. Saaty. Mon, 10 pm. Wed, Fri, 6:30 pm. Eastern.

Eastern. WGBQ, Menomines, Wis. 234 meters. 100 watts. Stout

Hastinute Wis 2-9 meters. 100 watts. Stout Institute:

WGBR, Marshfield, Wis. 229 meters. 10 watts. George S. Ives. Sun, 2-4 pm, 7-9. Central.

WGBS, New York, N. Y. 315.6 meters. 500 watts. Gimbel Stouth Stouth

WGBT. Greenville, S. C. 236 meters. 10 watts. Furman university.

WGBU, Fulford By-the-Sea, Fla. 278 meters. 500 watts. Florida Cities Finance Co. Chamber of Commerce. Announcer, Robert H. Nolan. Daily ex Sun, 12-1 pm, music; 6:30-7:30, 10-1 am. Sun, 9-11 pm. Eastern.

WGBW, Spring Valley, Ill. 256 meters. 10 watts. Walley Theater. Announcer, Verner Hicks. Thurs, 10-11:39 pm. Sun, 10:30-12 m. Central.

WGBX, Orono, Me. 252 meters, 100 watts. University of Maine.

WHB, Kanass City, Mo. 365,6 meters, 500 watts. Sweeney Auto & Electric School. Announcer, John T. Sweeney Auto & Electric School. Announcer, John T. Sweeney Auto & Electric School. Announcer, Dully ex Sun, 2:35 am 8.330, 8.35, 9.25, 9.25, 9.25, 0.10.25, 10.20,

WHBP, Johnstown, Pa. 256 meters. 100 watts. Johnstown Automobile Co. Announcer, J. C. Tully. Slogan, "The Voice of the Friendly City." Wed, 9 pm. Sat. 10 pm. Eastern.
WHBQ, Memphis, Tenn. 233 meters. 20 watts. Scien-Fellowship class. St. John's M. E. church. Announcer, Dr. George L. Powers. Slogan, "We Have Best Guartet." Cheese St. John's M. E. church. Announcer. Dr. George L. Powers. Slogan, "We Have Best Guartet." Cheese St. John's M. E. church. Announcer. Badio Rouse. Slogan, "That's Us. 7 mes, 8-10-30 pm. Thurs, 10-12 midnight. Sun, 2-4 pm. 9-11. Central.
WHBU, Anderson, Ind. 218.3 meters. 10 watts. Bing's "Clothing-Riviera Theater. Announcer, O. B. Robey. Slogan, "The Home of Chief Anderson." Daily ex Sun, 9-9-30 am. 12-12:30 pm. Wed, Pril, Sun, WHBW, Brillactphin, Pa. 242 meters. 100 watts. WHBW. Brillactphin, Pa. 242 meters. 100 watts. WHBW. Brillactphin, Pa. 242 meters. 50 watts. WHBW. West De Perc, Wis. 250 meters. 50 watts. St. Nobert's College.
WHDI, Minneapolls, Minn. 278 meters. 500 watts. Wm. Hood Dunwoody Industrial Institute. Announcer, Hal Marston. Mon, 8-9 pm. Wed, Fri, 9-10 pm. Central. WHEC, Rochester N. Y. 258 meters. 100 watts. Hickson Electric conpany, Inc. Announcer, J. F. Hitchook. Sci. 20:7:30 pm. Eastern.
WHK, Cleveland, Ohio. 273 meters. 250 watts. Radiovox Company, Winton hotel. Announcer, A. F. Hitchook. Sci. 20:7:30 pm. Eastern. WHK, Cleveland, Ohio. 273 meters. 250 watts. Radiovax Company, Winton hotel. Announcer, N. 12:00 pm. farm school; 4-5:30, 6:30-7:30. Thurs, 9-12 mid. Karnival Klub. Fri, 10-12, dance music. Sat. 12-3 am. Sin, 10:30 am, church service; 9-11 pm. Eastern. WHN, New York, N. Y. 360 meters. 500 watts. Lowe's State Baddeating Station Announcer, N. 12:00 pm. pm. 40 pm. 12-12 pm. 2:15-2:15, 3:24-5:30, 6:30-7:30, 12 mid. Karnival Klub. Fri, 10-12, dance music. Sat. 12-3 am. Sin, 10:30 am, church service; 9-11 pm. Eastern. WHN, New York, N. Y. 360 meters. 500 watts. Lowe's State Baddeating Station Announcer, N. 10:10 pm. pm. 10:10 pm. pm. 10:10 pm. pm. 10:10 pm. pm.

tral.
WIBP, Meridian, Miss. 209.7 meters. 5 watts. First
Presbyterian church.

Presbyterian church.

WIBR, Weirton, W. Va. 246 meters. 50 watts. TriState Radio Co. Announcer, W. D. Johnston. Slogan,
'The Town Where Everybody Works.' Fri, 8:30-11
pm. Sun, 2-3 pm. Eastern.

WIBS, Elizabeth, N. J. 202.6 meters. 20 watts. New
Jersey National Guard.

WIBT, New York, N. Y. 211.1 meters. 100 watts.

Orlando Edgar Miller.

WIBU, Poynette, Wis. 222 meters. 20 watts. The
Electric Farm.

WIBV, Henderson, N. C. 263 meters. 20 watts. Jewell

Radio Co.

Electric Farm.

WIBV, Henderson, N. C. 263 meters. 20 watts. Jewell Radio Co.

WIBW, Logansport, Ind. 220 meters. 100 watts. Dr. L. L. Dill.

WIBW, Logansport, Ind. 220 meters. 100 watts. Dr. L. L. Dill.

WIBX, Utica, N. Y. 205.4 meters. 5 watts. Grid-Leak, Inc.

WIBZ, Montgomery, Ala. 231 meters. 10. watts. Powell Elec. Co.

WIL, St. Louis, Mo. 273 meters. 250 watts. St. Louis Star and Benson Radio Co. Announcer, Billy Knight. Slogan, "Watch It Lead." Mon, Sat, 10-12 midnight. Wed, Fri, 9-11 pm. Thurs, 8-10 pm. Central.

WIP, Philadelphia, Pa. 508.2 meters. 500 watts. Gimbel \*Bros. Announcer, E. A. Davies. Slogan, "Watch Its Progress." Daily ex Sun, 7-7:30 am. 1-2 pm. 3-4:30, 6-6:45, music; 7-7:30, pm. Tues. Thurs. Sat. 8-12 pm, concert. Sun, 10:45-12 m, 4:15-5:30 pm. 7:45-9, 10-12. Eastern.

WJAD, Waco, Tex. 352.7 meters. 500 watts. Frank P. \*Jackson. Mon, Fri, 8:30-10 pm. Central.

WJAG, Norfolk, Nebr. 276 meters. 50 watts. Norfolk Daily News. Announcer, Karl Stefan. Slogan, "The World's Greatest Country Daily, and Home of Printer's Devil." Daily ex Sun, 12:15 pm; Sun, 3:30-6 pm. music. Central.

WJAK, Greentown, Ind. 254 meters. 100 watts. Clifford

WJD, Granville, O. 217.3 meters. 10 watts. Denison Univ. Announcer, Richard H. Howe. Fri, Sat, 5-6 pm, music, educational lectures. Athetics. Eastern. WJJD, Mooseheart, Ill. 302.8 meters. 500 watts. Loyal Order of Moose Station. Announcer, Jack Nelson. Slogan, "The Call of the Moose." Daily ex Sun, Mon, 3:50-4:39 pm, children's program; 6:45-8 pm, 10-20-71. Sun, 8:45-10 am, services; 10:45-12, services; 12:22. Caputr.

WJR, Detroit, Mich. 516.9 meters. 5,000 watts. Jewett Radio and Phonograph Co. Slogan, "Where Joy Reigns." Announcer, Leo Fitzpatrick. Daily ex Sun, 7-8 pn, 9-10. Thurs, 10-11 pm. Eastern.

WJY, New York City, 405.2 meters. 1000 watts. R.C.A. Announcer, J. Lewis Reid. Thes, Thurs, Fri, 7:30-11:30 pm, concert. Sun, 8:15-10:30 pm, Eastern. WJZ, New York, N. Y. 454.3 meters. 1,000 watts.

\*R. C. A. Announcer, Milton J. Cross. Daily ex Sun, 10-11 am, 1-2 pm, 4-6, entertainment; 7-11:30 pm, special program. Sun, 11, am-1 pm, church service; 2:30-5 pm, 7-10:30 pm. Eastern.

WKAA, Cedar Rapids, Ia. 278 meters. 500 watts. H. F. Parr, announcer. Mon, Wed, Fri, 4-5 pm; 8:30-10:30. Sun, 11 am, 5 pm, church service. Central. WKAF, Milwaukee, Wis. 261 meters. 250 watts. WKAF Broadcasting Co. WKAP, Cranston, R. I. 234 meters. 50 watts. Dutee Wilcox Plint, Inc.

WKAQ. San Juan, Porto Rico. 340.7 meters. 500 watts. Radio Corp. of Porto Rico. Announcer, Joaquin Agusty. Slogan, "The Island of Enchantment, Where the World's Best Coffee Grows." Wed, 8-10 pm, band. Intercolonial.

WKAR, East Lansing, Mich. 285.5 meters. 1,000 watts. \*Mich. State College. Announcer, Joaquin Radio Club (Portable).

WKBG, Chicago, Ill. 215.7 meters. 500 watts. Laconia Radio Club (Portable).

WKBG, Chicago, Ill. 215.7 meters. 500 watts. Shirley Katz.

WKBG, Chicago, Ill. 215.7 meters. 500 watts. Shirley Katz.

WKRG, Chicago, Br. 349.4 meters. 500 watts. Shirley Katz.

WKRG, Chicago, Br. 439.4 meters. 500 watts. WKBG, Chicago, Br. 439.4 meters. 500 watts. WKBG, Chicago, Br. 439.4 meters. 500 watts. Wisconsin Dept. 649.4 meters. 500 watts.

Thurs, 8 pm. Central.

WLIT, Philadelphia, Pa. 394.5 meters. 500 watts.

\*\*Lit Bros. Amouncer, Harry E. Ehrhart. Club, "Morning Glory." Dally ex Sun, 12:02 pm, music; 2, music.

Mon, 4:30 pm, 7:30, 8, 10. Tues, 11 am. Wed, Thurs,

4:30 pm. Wed, 7:30 pm, 8, 10, 11. Fri, 7:30 pm,

8:45, 10. Eastern.

WLS, Chicago, Ill. 344.6 meters. 500 watts. Sears, Roe\*

\*\*huck & Co. Amnouncer, George D. Hay. Slogan,

"World's Largest Store." Dally ex Sun, 9 am, 10, 11,

12, 1-2. Tues, 6:30-7:55 pm. Wed, 6:30-12:30 am,

Fri, 6:30-11:30. Thurs, 6:30-8:55. Sat, 12-12:45 pm,

Junior R. F. D. program; 7:45-1. Sun, 7:30-8:55.

Central.

WLTS, Chicago, Ill. 258 meters.

Junior R. F. D. program; 7:45-1. Sun, 7:39-8:55. Central.

WLTS, Chicago, Ill. 258 meters. 100 watts. Lane

\*Technical High school. Thurs, 1-2 pm. Central.

WLW, Cincinnati. O. 422.3 meters. 5000 watts. The

\*Crosley Radio Corp. Announcer, William Stoess.

Daily ex Sun, 10:45 am, 11:55, time; 1:30 pm. Daily

ex Sun, Fri, 7, dinner hour; 7:30, basebali; 6:55,

markets. Daily ex Sat, Sun, 7:45 am, morning devo
tions; 8, exercises; 12:15, program; 3, 4, reports. Mon,

Tues, 8-10 pm. Wed, Thurs, 10-12 mid. Sun, 9:30

am, 11, 7:30 pm. 8:30. Central.

WLWL, New York, N. Y. 288.3 meters. 1,000 watts.

\*Missionary Society of St. Paul the Apostle. Announcer,

James F. Cronin. Slogan, "For God and Country."

Sun, Tues, Fri, 8 pm. Eastern.

WMAC, Cazenovia, N. Y. 275 meters. 100 watts. C. B.

Meredith. No definite schedule.

WMAF, South Dartmouth, Mass.

Watts. Round Hills Radio Corp.

WMAK, Lockport, N. Y. 266 meters. 500 watts. Norton

Laboratories. Announcer, I. R. Lounsberry. Thurs,

11 pm, midnight serenaders. Eastern.

WMAQ, Clumbus, Ohio. 278 meters. 50 watts. First

Baptist church. Announcer, Dr. D. F. Rittenhouse.

Sun, 10:30-12 m, 7:30-9 pm, church services. Eastern.

WMAQ, Chieago, Ill. 447.5 meters. 500 watts. The Chi
\*\*aggo Daily News. Announcer, Roberty Whitney. Daily

ex Sun, Mon, 12-3 pm, 4-7. Daily ex Sun, Mon, 8-10

pm. Central.

WMAY, St. Louis, Mo. 248 meters. 100 watts. Kings
highway Presbyterian church. Slogan, "May Every By
Way Hear Kingshighway." Sun, '11 am, 8 pm.

Central.

WMAZ, Macon, Ga. 261 meters. 500 watts. Mercer

highway Presbyterian church. Slogan, "May Every By-Way Hear Kingshighway." Sun, 11 am, 8 pm. Central.

WMAZ. Macon, Ga. 261 meters. 500 watts. Mercer university. Announcer, Carey O. Pickard. Mon, Thurs, Fr1, 10-11 pm. Mon, Fr1, 9-10 pm. Tues, Thurs, 8-9 pm. Wed. 11-12. Eastern.

WMBB. Chicago, Ill. 250 meters. 500 watts. American "Bond & Mortgage Co.-Trianon. Announcer, Clyde Hager. Slogan, "World's Most Reautiful Ballroom." Daily ex Mon, 7-8 pm; 9-11. Sun, 3-5 pm. Central.

WMBF. Miami Beach, Fla. 38.4 a meters. 500 watts. "Fleetwood hotel. Daily, 7-8 pm, dinner concert; 8-8:15, news; 8:15-8:30, dance; 10-12. Eastern.

WMC, Memphis, Tenn. 499.7 meters. 500 watts. The Com"mercial Appeal. Announcer, Francis S. Chamberlin, Slogan, "Station WMC, Memphis." "Down in Dixie."
Club, "Midnight Frolic." Daily ex Sun, 9:45 am, Ved, 8:30 pm, program; Tues, Fri, 11 pm, Midnight frolic. Sun, 11 am, church service. Central.

WMCA, New York, N. Y. 340.7 meters. 500 watts. "Greeley Square Hotel Co. Announcer, A. V. Llufrio. Slogan, "Where the White Way Begins." Daily ex Sun, 11-12 m; 6:30-12 am. Sun, 11-12:15 pm; 7-10. Eastern.

Eastern.

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

WNAC, Boston, Mass. 280.2 meters. 500 watts. The \*Shepard Stores. Announcer, John J. Fanning. Daily ex Sun. 10.30-11.30 am, 12:53-2 pm, 4-5, 6-7:30, 8-10. Sun, 11 am, 1:30-3 pm, 3-4, 6:45-8:30. Eastern.

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

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

"Pioneer Broadcast of Omaha." Fri, Sat, 7:30-9 pm. Central.

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

WNAT, Philadelphia, Pa. 250 meters. 100 watts. Lenning Bros. Co. Announcer, Jess Brinton Young. Slogan, "We Nover Are Tired." Wed, 6:50 pm. Eastern.

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

(Note—The fourth part of the directory will appear next week.)

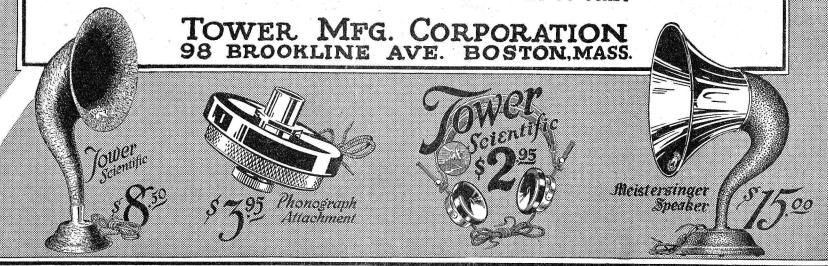


# Covers EVERY Chromatic in the Entire Scale

Equipped with an attractive fibre horn with  $8\frac{1}{2}$  bell, the Little Spitfire is light in weight though producing a volume equal to the highest priced Speakers. Horn and base are finished in black crystalline lacquer with nickel plated ferrule. Hear the Little Spitfire today! You will be agreeably surprised at its pure, clear tone and attractive appearance.

Wherever there are ears that hear there is a Tower Quality Product to Fit your Taste and Pocketbook.

ON SALE AT ALL GOOD DEALERS FROM COAST TO COAST



World's Greatest Loudspeaker Values