# que and Only Station Kaalo

Vol. XIII

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SATURDAY,

To the left: Carl Ruopoli "Colleg-ian's" orchestra, one of the regu-lar features at CKY. Below: D. P. R. Coats, man-ager and an-nouncer at CKY.



## BATTLE RUM WITH

## **WANT PATRON SAINT** FOR RADIO SCIENCE

FRENCH PAPER CONDUCTS AMUSING REFERENDUM

Many Suggestions Submitted for Approval of Judges—Joan of Arc One of Favorites

PARIS, France.—Nearly every other art has a patron saint of its own, so why not Radio? One of the large magazines in Radio? One of the large magazines in this city is conducting an amusing referendum to decide which saint shall be selected to take Radio under wing.

To date there are a number of strong candidate for the kener.

candidates for the honor. One contributor gives lengthy quotations from the "Histoire de Saint Antoine de Padoue" in sup-

port of his choice.

According to this history the saint while preaching in the streets of the little village of Saint Pierre des Quatre Chemins, was observed to appear suddenly in the the day with great vigor. This is taken by the contributor to show that Saint Antoine at this early date had solved the problem of transmitting both his voice and his image with convincing thoroughness.

sainte Jeanne d'Arc is proposed by many because she heard voices. But it was objected that she was only a receiver and never transmitted. Saint Antoine still seems to be leading the field, however. The contest has excited considerable interest in all parts of France.

**INSTALL SETS** IN VESSELS OF

Combine Code, 'Phone

**COAST PATROL** 

Hope to Anticipate Plans of Booze Smugglers and Dry Up Eastern Ports

By L. M. LAMM

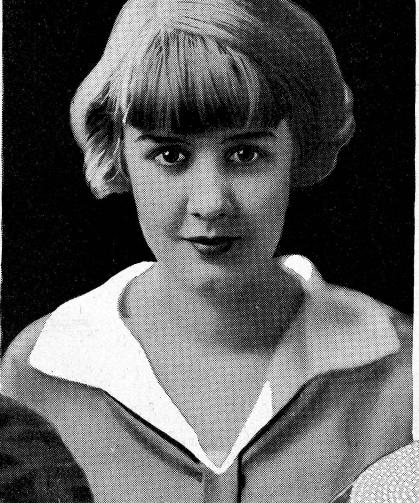
WASHINGTON, D. C.—Conviction that rum runners are using Radio com-munication between their boats and sevmunication between their boats and several illegally operated stations on shore has led prohibition officials to take steps in combatting the difficulty by a coast Radio system with which the runners can be met on their own ground.

These stations and marine sets will provide adequate means of communication between government land stations and the fleet of chasers now attempting to blockade the flow of liquor into the eastern states.

eastern states.

In connection with the use of Radio by liquor smugglers it is interesting to by Indoor smugglers it is interesting to note that about a year ago a station on the west coast was dismantled after it was proven that signals for the movement of the smugglers were being sent, using musical numbers as a code.

(Continued on page 2)





Above is Miss Corynn Kiehl, a talented and youthful planist, who is heard regularly from the Post Intelligencer station, KJR, in Seattle, Washington. To the left: Leyla Georgy, well-known actress, who was recently interviewed by "Terese" from WGBS in New York. To the right: Ada Belle Files, singer of operatic selections, who is heard from WGN, Chicago.

CONSENSUS OF OPINION VOTE
Send to Radio Digest, 510 N. Dearborn Street, Chicago
To be forwarded by Radio Digest to the Department of Commerce for the attention of members of Congress.
Scratch off whichever does not apply.
1. Do you want less class B (500 watts or more power) stations?Yes No
2. Shall B stations be reduced to 94 in number, so that they can be accommodated satisfactorily in the "ether roadways" now available
for the use of broadcasting stations?Yes No
3. How far away, approximately, is the nearest class B station?
4. Are you troubled by B stations heterodyning and interfering with one another?
5. Have you read a description of the Kintner plan?
6. Are you in favor of it or some similar plan which will help clear the air of the present "traffic" congestion?
7. Do you favor the appointment of an unbiased, non-partisan broad-casting control board for the settlement of all differences pertaining
to broadcasting and the interpretation of present or future Radio
legislation?
[이 살아하는 그렇다. 사람들 보는 그 모으면 하는 그 모든 사람들은 이 교수가 되는 그 모든 사람들이 되었다.
How many members Name
in your family?
Address
Are all of the same
mind as yourself? City, County, State
(Write to Radio Digest if more blanks are desired) 6-6-25

## M'NAMEE TOPS HAY IN GOLD CUP AWARD

"SOLEMN JUDGE" TRAILS AS CLOSE SECOND

Eleventh Week Brings Many Shake-Ups
—Positions of All But
Two Change

Graham McNamee, New York's favorite voice and WEAF announcer, broke down the famous lead which George Hay had held till now in the 1925 Radio Digest Gold Cup Award, and at the close of last week topped the list with "The Solemn Old Judge" close behind. The unexpected has happened. Competition is growing tense

Who will be the world's most popular announcer for 1925 when the smoke of battle has cleared? Who will be in the

top sixteen?
Less colorful, perhaps, than the wonderful race McNamee is giving last year's cup winner are other changes in standing during the week. But the positions of all but two of the sixteen leaders changed during the week.

Many Leaders Climb and Fall
The Hired Hand, WBAP, and Henry
Field, KFNF, interchanged places again this week, putting the former in third place and dropping the latter to fourth.

place and dropping the latter to fourth. H. W. Arlin, KDKA, displaced Gene Rouse from fifth place, and left his old post, sixth, to Rouse.

Lucky it would seem are seven and eleven, for the contenders who occupied those positions last week still hold them. They are Lambdin Kay, WSB, and Stanley Barnett, WOC, respectively.

W. G. "Bill" Hay, KFKX, made a recovery and climbed back from tenth to eight place. Meanwhile N. Dean Cole, WHO, came down from eighth to ninth. Charles Erbstein, WTAS, mounted two

Charles Erbstein, WTAS, mounted two

Three candidates whose names were not a the first sixteen last week, have made their appearance or reappearance in that group. These are Leo Fitzpatrick, WDAF, Fred Smith, WLW, and Frank S. Lane, KFRU.

Standing of Top Sixteen

The standing of the sixteen leaders with the total number of votes received at the close of last week is as follows:

Pos	ition Name and Station Graham McNamee, WEAF	Votes
1.	Graham McNamee, WEAF	6.365
2.	George D. Hay, WLS	5.901
3.	The Hired Hand, WBAP	3.819
4.	Henry Field, KFNF	3.502
5.	H. W. Arlin, KDKA	3.138
6.	Gene Rouse, WOAW	3.101
7.	Lambdin Kay, WSB	2.716
-8.	Lambdin Kay, WSB W. G. "Bill" Hay, KFKX	2.330
9.	N. Dean Cole, WHO	2.233
10.		1.976
11.		1.845
12.	Leo Fitzpatrick, WDAF	1.824
/13.		
	Fred Smith, WLW	1.774
15.	Robert Emery, WEEI	1.773
16.	Frank S. Lane, KFRU	1.607
The	re were no new nomina	tions las

Evidently the 158 nominees ready in the race are deemed enough by the invisible audience.

How to Vote and Get Bonus

Don't miss a single ballot, for when
these are turned in to Radio Digest in a
group of CONSECUTIVE numbers, extra bonus votes are allowed the announcer

bonus votes are allowed the announcer for whom you are voting.

The ballots, top of page two, numbered consecutively, will appear in each issue of the Radio Digest until the close of the contest, with the August 22 number.

Each of these ballots will count for one vote when sont in scarretaly. You can

vote when sent in separately. You can hold these ballots until you have 4 that are consecutively numbered, and when they are sent in a bonus of 8 votes will be allowed for your favorite announcer.

For each 8 consecutively numbered balor each 8 consecutively numbered ballots, your candidate will receive a bonus of 20 votes. For each 12 consecutively numbered ballots, 30 votes. For each 16 consecutively numbered ballots, 40 votes. For each 20 consecutively numbered ballots, 50 votes, and for each 22 consecutively numbered ballots, 60 votes bonus tively numbered ballots, 60 votes bonus will be allowed.

Send nominations or ballots to the

GOLD CUP AWARD EDITOR, Radio Digest, 510 N. Dearborn St., Chicago.

CKAC to Help Tourists

MONTREAL, Can.— Fans contemplating a trip to this city need not hesitate to bring along their receiving sets. CKAC will keep them posted as to the interesting points to visit, also the conditions of the roads.

All the Live News of Radio.

Questions and Answers...

#### British Air Performers Ask (and Get) Big Fee

Actor Receives \$1,100 for Single Radio Appearance

LONDON.—Broadcasting fees are rising rapidly here. Two years ago the British Broadcasting company offered world-famous artists as little as \$5 for "expenses." Quite recently an actor, who had been holding out for his price, was paid \$1,100 for performing in a short item in an evening's program from 2LO.

Distinguished artists belonging to the Actors' Union figure that each person who listens when a person of note is performing should pay him one-half cent.

#### CONGESTION VOTING **BLANKS NOW READY**

HICAGO.—Radio Digest's campaign CHICAGO.—Radio Digests Campus of for less broadcast congestion and a feasible plan for regulating the number of stations and their broadcasting schedules, still continues to hold the in-terest of thousands of Radio listeners

from coast to coast.

Although tabulation of the "Consensus of Opinion" votes has not kept pace with the rapid influx of these ballots, it is believed that over twenty thousand of believed that over twenty thousand of these have been returned to date. Radio Digest has prepared a large supply of printed "Consensus of Opinion" voting forms, which may be had by any listener in, Radio club or broadcasting station wishing to aid the campaign by distributing and collecting these votes. ing and collecting these votes.

#### Worse Congestion Ahead?

With regard to the crowded condition with regard to the crowded condition of the air, a recent bulletin from the department of commerce in Washington states that during the past month more than one hundred applications for new wave lengths have been received from organizations and individuals contemplating the argettion of new breadcast. ing the erection of new broadcasters.
Without the Kintner plan or some simi-

lar device to keep these stations under control, it is pointed out that Radio listeners are likely to be greeted with more chaos than ever before.

## Looking Ahead

Changing Regenerative Set to a Reflex.....

WAHG, "Wait and Hear Grebe," the Station of the Syncrophase Makers, will be pictured and described in next week's issue. WAHG has many features that make it stand out apart from other stations, and is always guided by the fertile brain of Heber MacDonald, staging some novel stunt. Watch for this.

CONTENTS

Radio Digest, Illustrated, Volume XIII, Number 9, published Chicago, Illinois, June 6, 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.

Recent Advances in Radio Frequency Amplification, Part II—by Milo Gurney....... 17

CKY, Manitoba's Unique Station....

Advance Programs for the Week.....

Directory of Radiophone Broadcasting Stations, Part IV.....

Going Further Into His Preliminary Study of Radio Frequency, which will lead to the revolutionary new method of balancing capacities around a vacuum tube, Milo Gurney, in his exclusive articles for Radio Digest, will next take up antenna compensation and the famous neutrodyne angle. Don't miss a single article of this series.

McNamee Passed George Hay in the Gold Cup Awai 1 this week, but will the famous announcer of WEAF's linked programs keep his lead? Things are popping in the contest. Watch for next week's standing.

What's the Solution to the Cross Word Puzzle given on page 7 this week? The solution will be published next week.

The Generation of Electrical Energy by batteries of the type known technically as primary cells—which in everyday language means all batteries other than storage—forms the basis of Professor Moreton's next "A. B. C." article.

#### Newsstands Don't Al Have One Left

WHEN YOU WANT

#### Digest Kadio

YOU WANT IT!

BE SURE OF YOUR WEEKLY COPY BY SUBSCRIBING NOW

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#### FIGHT RUM WITH RADIO

(Continued from page 1)

The government land stations presented no difficulty, but to provide a set which could be installed on the cramped little chasers and withstand the hard service it must necessarily receive, proved a hard question. None, or at least very few of the chasers carry men aboard who are familiar with Radio. No provision is made for carrying a regular operator. Apparatus would of necessity be compact and easily operated.

To meet this requirement, a special set has been designed by experts who have studied the conditions existing in the patrol boats.

The equipment is built to meet telephonic communication over the water for fifty miles in full daylight and telegraphic communication under the same condition for 100 miles. To fulfill the requirements for utmost simplicity, wave lengths rang-ing from 120 to 176 meters for the trans-mitters, 100 to 200 meters for the receivers, were adopted.

Telegraph keys will be installed on all

the sets so they may be used by those ships having personnel able to use them.

#### Will Not Hear Concerts

As it would be impractical to have the men on the boats listening in at all times, certain hours will be set aside in which orders and instructions will be inter-changed. The construction of the sets is designed for official use only and cannot be used for the reception of Radio concerts because of this construction.

The first sets will be installed within a short time and it is believed that as time passes the service will be able to learn a great deal about them and that new and

improved methods of operation will be evolved from actual operation.

By this new system of communication the coast guard will be put on an equal footing with the rum runner so far as information of movement and operation is concerned in the great battle of speed and wits.

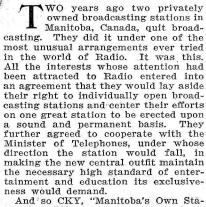
Scientists in South America are now using Radio to track down destructive worms.

## CKY, Manitoba's Unique and Only Station

Below is J. E. Lowry, Commis-sioner of Tele-phones in Manitoba and the pre-siding genius at CKY and an en-gineer of wide note.



One of the masts of CKY. Note the peculiar construction, not commonly seen in the United States



tainment and education its exclusiveness would demand.
And so CKY, "Manitoba's Own Station," at Winnipeg, was conceived.
Under the direction of the Dominion
authorities the station was planned
and erected. That it might be heard
without difficulty in all parts of the
country a 500-watt transmitter was
installed. installed.

But the agreement was not so popuar as might be visioned. While one part of the public lauded the move, another set up a hue and cry condemning it. The latter maintained that broadcasting rights should be open in Manitoba to all who desired to erect stations. The babel continued for some time. some time.

While this was in progress CKY was pioneering the project through. Today it is admitted by all those who Today it is admitted by all those who are fair minded that the experiment has been a success. Its advance and achievement in public has been steady and rapid. In educational work it is admittedly the leader in Canada. In entertainment it has reached a high rating and evoked much favorable comment.

The scope of its activity, as some might expect, is an exceedingly wide one. It ranges all the way from the broadcasting of the best music available to instruction and questions and answers for farmers.

The former entertainment is supplied by scores of individual artists and several orchestras and bands of Winnipeg. Under the direction of a comparatively small staff, the big field

In connection with the Agricultural college hundreds of queries from the farmers of the province are answered. Lectures on farm subjects of general interest and education are given at frequent intervals by instructors at the school. These range from poultry practice to crop rotation. In the afternoon, lectures on history,

mathematics, geography and innumerable other academic subjects are given

for the benefit of outlying and country schools, which are equipped with loud speakers. In this manner and on these lectures, much of the fame of the institution as an educational force has been founded.

CKY boasts of being the first station in Canada to broadcast a church service. It was done in 1923 for the first time and since that date it has become a regular feature. At present the station lists more than a score of churches from which services are broadcast in

So successful has the single station project worked out that recently a huge association, called "The Associated Radio of Manitoba" was formed. This consists of representatives of the Provincial Telephone System, the Radio trade and the listeners in. At present its attention is being directed to the study problems of interference and in making recommendations to the ference and in making recommendations to the

ference and in making recommendations to the government in cases where contention has arisen.

About the station proper. D. R. P. Coats is the manager and chief announcer. Mr. Coats is well known not only in this capacity, but also as an elocutionist of high ability. His reading from Service and Kipling has attracted wide attention. One of the first stations in Manitoba was erected by J. E. Lowry, commissioner of telephones in the Province of Manitoba and at present the director-general of CKY. It was as a result of Mr. Lowry's negotiations with the former staof Mr. Lowry's negotiations with the former sta-tions that the present plan was adopted and it was under his direction that the present wide Radio educational system was inaugurated. In passing it may also be said that to Mr.

Lowry belongs the credit for CKY's record in rebroadcasting long distance stations and for its great network of connections with remote control points. Although it is not generally known, CKY was one of the real pioneers in rebroadcasting. It was the first Canadian station to rebroadcast an American station successfully. In the latter work now it considerably outnumbers any other station in the Dominion Dominion.

Aiding Mr. Coats in the announcing and entertaining is Miss Lilian Shaw. According to Mr. Coats she is the offi-According to Mr. Coats she is the offi-cial accompanist, stenographer and is/ the only one known "who has accom-plished the difficult task of putting a musical lilt into the reading of market reports."

The mechanical and operating end of the plant is taken care of by "Bill" Duffield, former British Navy wireless

Taken all in all the station is one of the few real innovations in the Radio world, both from its unique position as the only station in a great province and from the variety and volume of material handled by its staff. Below is Miss Lilian Shaw, assistant an-nouncer and accom-panist at the Cana-dian station.

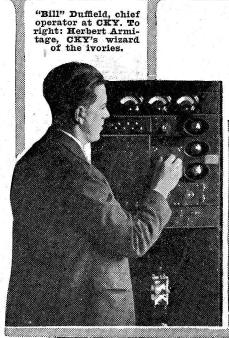
To the left: Carl Ruopoli "Colleg-ian's" orchestra, one of the regu-lar features at CKY. Below: D. P. R. Coats, man-ager and an-nouncer at CKY.

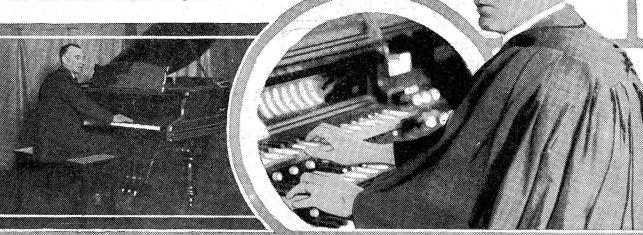


Prof. W. T. Allison, in charge of the edu-cational broadcast-ing program at CKY.



At the organ is Her-bert P. G. Fraser of the Fort Rouge Methodist Church, a regular feature.





## PLAN USE OF RADIO PLOTTING COUNTRY

AIRPLANES TO COOPERATE IN GIGANTIC TASK

Entire Project Will Take From Ten to Twenty Years—Estimated Cost \$50,000,000

WASHINGTON, D. C.—Airplanes and Radio will cooperate in plotting a complete topographical survey of the United States, work on which has been intermittently going on for forty-five years.

Army airplanes are to be utilized and the Radio will be extensively used for keeping in contact with these planes and receiving reports from them. This has come about as a result of the appropriation obtained at the last session of congress, and will cover annual stipends covering a period of twenty years, to complete the delayed work.

Under present plans there will be from

complete the delayed work.

Under present plans there will be from 800 to 900 men, about 275 of whom will be experienced engineers, working continually in the field during the summer of 1925. Next year funds sufficient to keep from 1,500 to 1,800 men busy during the spring, summer and fall are hoped for. Estimates put the cost of the entire work, which will continue for from ten to twenty years, at about \$50,000,000.

Herbert H. Hoover, secretary of commerce, is one of the advocates of the project. It will be in cooperation with his department that the planes will use Radio for innumerable purposes.

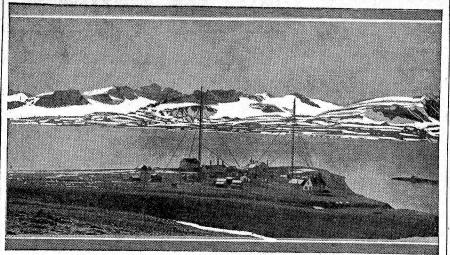
There is an increasing need for more extensive and better maps for the use of air pilots. They must be guided by ground features, and flight maps must be prepared which will constant.

air pilots. They must be guided by ground features, and flight maps must be prepared which will accurately locate such features. There is no such data for a large part of the country, and it can be obtained only by the completion of the topographical map.

Publishes Radio Photo Book

WASHINGTON, D. C.—"Vision by Radio-Radio Photo" is the title of a book just -Radio Photo" is the title of a book just published by C. Francis Jenkins, a local Radio inventor. The book takes up the work Mr Jenkins has done along the lines of sending photographs by Radio and discusses also similar work of others.

#### AWAY UP WHERE ICEMEN STARVE



The farthest north Radio station, which has Radiotelegraph equipment only, is this group of buildings at Greens Harbour, Labrador. It is one of the stations with which the last MacMillan Polar expedition communicated, and will be in communication with the next MacMillan expedition which on June 17 will leave the United States.

#### Foreign Notes

Research work is now going forward in the Soviet laboratories at Nijni-Novgorod, where it is said extensive preparations are being made to develop high power Radio tubes of the 100-kilowatt water-cooled

One lifeboat out of every ten carried on British steamers must be equipped with Radio sending apparatus.

Radio has gripped the entire city population of Russia and is beginning to spread to the rural districts, according to reports from Moscow.

To Sheffield belongs the distinction of having the first real Radio-equipped house in England. Every room is wired for Radio.

The Radio policeman is on his rounds in Britain. When a person moves, he is tracked down for non-renewal of his

#### Arrangement Complete to Mike British Turf Classic

LONDON.—The broadcasting of the Derby, the blue ribbon of the English turf and one of the most famous races in the world, has been definitely approved by Sir William Mitchell-Thomson, postmaster-general.

Arrangements have been made to lay a line along the track and to couple this up with an existing telephone circuit half a mile away. The actual microphone will be erected by the B.B. C. at the most suitable point to broadcast the shouts of the crowd, the thunder of the gallop-ing horses, and the hundred and one other sounds of this race of races,

#### CONTINUE SWIMMING INSTRUCTION AT WOR

Frank E. Dalton's Lessons Via Ether Prove Popular

NEWARK, N. J.-Frank E. Dalton's series of broadcast swimming instruc-tions recently inaugurated by WOR are being continued as a regular Monday evering feature. The course by Mr. Dalton is most seasonable, and after his first few Radio lessons it is the consensus of opinion that he has the faculty of imparting instruction on a subject which might very readily be considered impractical by

To create the atmosphere of the sea-shore while broadcasting, Mr. Dalton has ingenuously brought to the studio of WOR a "wave-making" machine, simi-lar to those used on the stage in marine

Scores of WOR listeners have written the Dalton Swimming school to the effect that the swimming instructions have given them confidence in the water which will add materially to their enjoyment during the coming summer season.

#### Motorcycle House-to-House Testers Awaken Sleepers

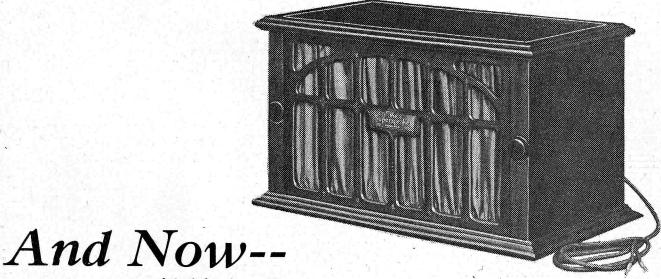
JOHANNESBURG, South Africa.

Light sleepers who were awakened at 3 a. m. by a motorcycle carrying two men rushing madly past and returning again in a few moments, had their anxiety and correspond to next day, when it are w moments, had their anxiety and curiosity relieved the next day when it was learned that the men were two Radio enthusiasts who were testing the relative reception, from Station KDKA, Pittsburgh, Pa., at their respective homes, which are some miles apart in different outlying residence districts. outlying residence districts.

#### Station WEW Celebrates

Station WEW Celebrates
ST. LOUIS, Mo.—A special program was
recently arranged at Station WEW, St.
Louis university, to commemorate the
fourth anniversary of Radio-telephonic installation. WEW is a pioneer broadcasting station in the United States and the
oldest station in Missouri, having entered
the field April 26, 1921.

Because dust is composed partly of metal, the volume of sound in the receiver will be cut down if the inside of the set is permitted to become dirty.



The Superspeaker Console

In Performance, it's a Superspeaker—enough said. In Appearance, it's the finest piece of Radio cabinet work you have ever seen.

Just what you'd expect from two years' experiment and development by an organization with a record of leadership in the field of loudspeakers.

See it! Listen to it! Enjoy its ability to improve the appearance and performance of your set.

Of finest American Walnut or the new Clairemount Mahogany-Top inlaid with Arlington Ivory-Leather composition grill, richly draped with silk—Volume controlled by ebony knob—Superspeaker-Vemco Reproducing unit—Superspeaker-material concealed horn with full floating mounting. Overall size 101/4 x 1734 inches, 10 inches high. Ask any Jewett dealer. Price \$40.00; west of the Rockies, \$42.50.

that the name implies. Recommended by experts everywhere. Price \$30.00.

The Jewett Superspeaker—All The Jewett Superspeaker Console—A handsome cabinet with Superspeaker performance. iough said Price West of the Rockies, \$42.50.

The Jewett Parkay Cabinet — With parquetry top. Puts the amateur on a par with the most exclusive cabinet worker. All sizes, prices to correspond.

The Jewett Micro-Dial — Makes tuning 50 times as accurate. Fits any set. Needs only a screw-driver to install. Price \$3.50.

JEWETT RADIO & PHONOGRAPH COMPANY 5668 TELEGRAPH ROAD PONTIAC, MICHIGAN

Factories: Allegan, Michigan—Detroit, Michigan—Pontiac Michigan

Canadian Sales Offices: Walkerville, Ontario

Export Sales Offices 116 Broad St., New York City

Jewett Quality Products

The Jewett Vemco Unit—Makes a loud speaker out of your phono-graph. The Reproducer used in the Superspeaker. Price \$12.00.

The Jewett Superspeaker Highboy Houses Radio set and all-batteries. Superspeaker built in. Takes Radio into the realm of fine furniture. Price \$130.00.

## PLAN TO STOP LAKE **BOAT INTERFERENCE**

#### RECOMMEND THAT STOP BE PUT TO SPARK NOISES

#### Practice of Transmitting Unofficial Conversation to Be Discontinued Under New Plan

DETROIT .- One of the most important agreements that has been reached since the advent of Radio was made by officials of the American and Canadian govern-ments in a conference held at Detroit re-cently at the instigation of the Canadian

government.

Spark transmission by lake boats and land stations will be moved out of the range of the broadcast listener and his set effective midnight July 15, 1925. There is nothing in Radio that has marred Radio reception for those residing in the Great Lakes region like the broad spark transmitters that have been used in handling

The recommendations made by the conference will be forwarded to the respec-

tive governments and undoubtedly they will be accepted. They are, as adopted: That all Canadian and American coast and ship stations on the Great Lakes open for general public service business must be equipped to work on a wave length of 715 meters which will be the normal wave

length of the station.

That the wave length of 875 meters is authorized for the handling of general public service correspondence. The use of this wave by coastal stations is op-

That communication between a coastal station and a station on shipboard or between ship stations shall be exchanged on the part of both by means of the same ways length wave length.

That for general public service, communications between ship and shore and ship and ship when working with stations other than the nearest station must be on a wave length of 875 meters or higher. Communications with a distant station will not be permitted if interference with the nearby station results.

That all correspondence transmitted from a ship or shore station will be in a regular message form and copies of these communications must be placed on

The practice of transmitting notes under the prefix SVC or carrying on unofficial conversation must be discontinued.

#### Make Movies in Studio

LOS ANGELES.—At Marion Davies' recent broadcast from KFI a motion picture record was made of the event. The entire department is wired for moving picture lights, and may be converted into a motion picture studio within a few

#### WOOD TELLS ABOUT THEATER FROM WBZ

L JOLSON is a nationally known celebrity of the footlights. The A celebrity of the footlights. The inimitable black-face comedian is known and admired by theatergoers the country over. But



after one sees him star in one of his productions that is the last one sees of "Al" Jolson. What does he do after the performance? Does he talk of in-teresting topics? Is he a thinker, or is he as he makes out to be on the stage, a natural comedian?

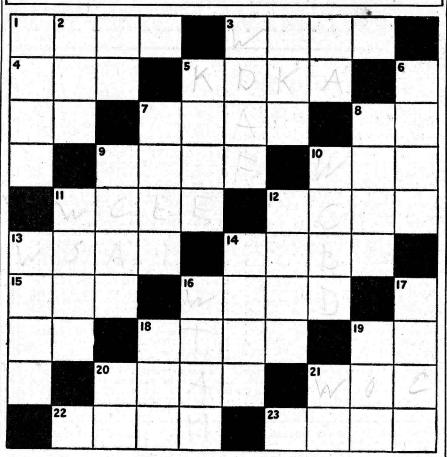
Many theater goers ask the same questions about other illustrious stars of the drama

A. L. S. Wood stars of the drama or musical comedy stage, but for the most part these queries go unanswered for years, unless one is afforded the privilege of making the acquaintance of members of the stage fraternity.

A. L. S. Wood, dramatic critic of the Springfield Union tells about them once every week at Westinghouse Station WBZ

Mr. Wood personally reviews every current theatrical production in the metropolitan cities once every so often. He interviews the actors, and every Thursday night at WBZ he tells the listeners of the shows he has seen. And he relates interest other with the show received. of the shows he has seen. And he relates intimate chats with the show people. He entitles his talks "At the Theaters," or "Down the Center Aisle," and they are appropriately named for they put the public right in the center aisle from where they can satisfy their curious minds as to "Al" Jolson or any other show-man of their fancy.

#### KNOW YOUR SLOGANS? SOLVE THIS



HIS cross-word puzzle was sent in by F. V. Chagnot of Youngstown, Ohio So far as is known, it is the first one using station call letters and slogans exclusively in the solution. The interlock is not perfect, but that is an impossibility because with one or two exceptions, all stations use calls of three or more letters Despite this fault the puzzle is interesting and should furnish quite a little sport and some teasers.

The solution will be published next week.

#### HORIZONTAL

- "Quality First."
  "The Island of Enchantment—Where the World's Best Coffee Grows."
  "The Land of Eternal Summer."
  "The Pioneer Broadcasting Station of the World."
- "Working for All Alike."
- "The Voice to the Millions."
   Big Brother of "Willie, Tommie, Annie and Sammie."
- "The Heart of Ohio."
  "United States Playing Card Co."
  "The Voice of the Great Lakes."
  "L. Bamberger & Co."
- "The Voice of the North Country."
  "Something for Everybody."
  "On the Dells of the St. Croix."
- "Where the West Begins and the State Where the Tall Corn Grows."
- "Three Weeks Below Quebec, Where Civilization Nearly Ends."
- 23. "The City Beautiful on the Old Missis sippi."

#### VERTICAL

- "Where Prosperity Begins.";
- "World Crier." "Night Hawks."
- "Your Service Station."
- "The Voice from the Heart of the Commonwealth."
- "The Friendly Voice."
- "Lincoln Hoot Owls."
- "Royal Order of Prevaricators" "Where God Rules, Man Prospers."
- 11. "In the Land of the Sky Blue Waters."
- Where All the Oceans Meet All the Railroads."
- 13. "Acknowledged by All Others to Be the Second Best Mining College in the World."
- "The College on the Hill."
- "The Voice from the Storage Battery."
- "Voice of the Prairies." "The Voice of the Capitol."
- 19. "The Sunshine State of America."

#### RADIO TEACHER IS NEW PROFESSION

#### Inaugurate Broadcast Instruction as Integral Part of Schooling at Oakland

SAN FRANCISCO.—Classroom instruc-SAN FRANCISCO.—Classroom instruction by Radio will now become an integral part of the Oakland (California) Public School's system, it was announced today. Experiments just concluded, which were commenced a year ago, have convinced school officials that broadcasting lessons into classrooms of several schools at one time is a valuable educational medium, worth continuing as regular thing, under careful supera regular thing, under careful super-

During the past year experiments were carried out with the cooperation of KGO, the Pacific Coast General Electric Station, located here, covering the general subjects of "Science," "Arithmetic," "Drawing," "Penmanship," "Creative Composition," "Thrift," "Vocational Counseling," "How to Read a Book," and "Manual Activities." Results attained are said to be astonishing, drawing and penmanship proving most easily adaptable to Radio. Each of the general subjects given were worked out for the fifth, sixth, seventh, eighth, ninth and tenth grades, with good success, according to Dr. Virgin Dickson, head of the Research Department of the Oakland schools.

Each lesson broadcast was carefully prepared by an expert, a supervisor par-ticularly skilled in his or her subject. Days were spent on a single lesson which required sometimes not more than fifteen minutes to give over Radio. All instruc- street in Dallas.

tors went to the KGO studio to teach their invisible classes. Proper notices, and instructions, were sent out by the department to ten principals whose schools were officially selected to listen in during the experiments.

#### Dallas Plans Greater **Broadcasting Station**

#### New Westinghouse Plant to Replace Old WRR

-Donations of more \$12,000 have already been received for the construction of a new municipally owned Radio broadcasting station for Dallas, Texas, which will replace the old plant, WRR, recently condemned because of its

Texas, which will replace the old plant, WRR, recently condemned because of its unfitness for further use.

WRR was the first municipally owned station in the United States and the second oldest in the world, according to a dispatch from the southern city.

The erection of the new plant was decided upon after the matter had been discussed by a committee of business men representing the city before Commissioner Turley. The new installation will be of the Westinghouse make, with a capacity of 1,000 watts, and will cost approximately \$18,000. Its construction will embody all the most advanced principles in Radio design and is expected to take its place as the finest broadcasting plant in the South. As yet no date has been set for the start in construction.

Suggestions for a slogan to be used in broadcasting are asked. They may be sent to W. J. Reid at 1603 Commerce street in Dallas.

tour the Middle West, Rocky Mountain states, and the Pacific coast. His western goal will be San Francisco.

Here he will sail to Australia, Asia, Continental Europe, and England will be next in order.

Speaking of his travelling companion, "Static," Mr. Davis said, "He's just a tramp—like myself."

"The Clown of the Air" began his career as a performer when as a youth he joined a circus as an acrobat. He almost became a dare-devil in a loop-the-loop act but was nearly drowned in a river in his first attempt. Casting aside dare-deviltry and acrobatics, be became a jockey, which occupation he pursued till vaudeville lured him to the footlights. Then along came Radio.

The car in which he will tour the world has on its top two miniature broadcasting station towers.

## GERMANY IS HIGHLY ORGANIZED IN RADIO

#### LISTENERS PAY LICENSE FEE OF \$25 ANNUALLY

#### High School Courses and Operatic Airs Part of Programs—Artists Paid for Services

BERLIN, Germany.—Radiocasting in Germany is an entirely different proposi-tion to what it is in America, or even in other European countries. The receiver's license costs \$25 a year, and it is collected weekly by a government official, who has power to confiscate the set of any license-holder who is in arrears with his payments and hold it until he is clear on the books again.

The twenty broadcast stations in operation are all owned by the government, but are leased to private companies, which are required to organize their programs on a much more elaborate scale than is the case in England.

#### Obtain Best Music

For his \$25 the licensee has access to all the best music in Germany. The great operas are transmitted in full from the principal opera houses, and the Berlin Philharmonic orchestra and other famous bands are always available.

Some of the stations have organized opera companies, which perform in miniature opera houses with full orchestras and accessories, and high fees are paid to secure the best artists.

High school courses are a regular fea-ture, and here again no expense is spared in securing the best available educationists on every subject. Eight different languages are taught in these courses and almost every branch of science. Thus for fifty cents a week a university curriculum is open to all.

Advertisements are transmitted freely at certain intervals, but no fan is allowed to listen to news for fear it should injure

#### Deny Secret Two-Way Radio Communication

#### Claim Experiments Are But Continued Research

- Sir William Mitchell-LONDON. Thomson, British postmaster-general, has issued a complete and emphatic denial of the statements circulated recently that two-way Radio telephonic communica-tion has already been established between America and England by means of a new

"This is not the case," declares Sir William. "The experiments so far made are a continuation of those announced to the press in May, 1924."

#### RADIO CLOWN PLANS TO ENCIRCLE WORLD

HICAGO.—Bert Davis, "The Clown of the Air," is leaving Chicago June 14 for a globe-encircling motor tour of all principle broadcasting stations in the United States, Australia, Asia, Continental Europe and

England. Accompanied only by "Static," a brown mongrel dog who likes everything but horses, Mr. Davis horses, will go in his especially equipped touring car first through the East, arriving in New York in late July

His itinerary then will bring him back to Chicago in the middle of August, from where he will tour the Middle West, Rocky Moun-



ing station towers.

## WSAI GIVES ANNIVERSARY PROGRAM

#### Saturday, June 6

Saturday, silent night for: AT9, CFAC, CHIC, CHNC, CHYC, CNRT, CKY, KFAE, KFDM, KFKU, KFKX, KFMQ, KFMX, WCBU, WCBU, WCS, WDWF, WBAP, WBBJ, WEEI, WGR, WHA, WHAD, WHAZ, WHB, WHO, WIY, WKAQ, WLIT, WOAN, WOI, WRBC, WTIC, WWJ.

#### Atlantic or Eastern Daylight Saving Time Stations

CKAC, Montreal, Can. (410), 7:30 p. m., Harry Salter and his Windsor hotel concert orchestra; 8:30, talk on the attractions of the Province of Quebee; 10:30, Harold Leonard's Red Jackets.

CNRO, Ottawa, Can. (435), 7:30 p. m., Uncle Dick; 8,



director of the Meyer Davis orchestra, is a violinist of n a tional repute. He is well known in the South. The Meyer Davis orchestra is a special Sunday feature at KTHS, Hot Springs National Sunday Facture of Springs National Spri Springs Na tional Park.

Chateau Laurier concert orchestra; 9, J. Hughes Johnson, pianist; Ernest Botton, bass; French horn soles, Simpson Green; Jean Boyle, sopranc; bagpipe soloist, Piper Sam Scott; F. J. Horning, violinist; reading, Lear Boyle. Piper Sam Scott; F. J. Horning, violinist; reading, Jean Boyle. WAHG, Richmond Hill, N. Y. (315.6), 12-2 a. m.,

dance music.

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

WBBR, New York, N. Y. (272.6), 8 p. m., Dr. Hans Haag, violinist. \$1:0, Fred Twaroschk, tenor; 8:20, Bible questions and answers; 8:45, Dr. Hans Haag, violinist.

WCAE, Pittsburgh, Pa. (461.3), 6:30 p. m., dinner concert, William Penn hotel; 8, address, 8:15, Prof. Otto Kaltels, planist; 8:30, concert.

WCAU, Philadelphia, Pa. (245), 6 p. m., Hotel Pennsylvania inter-fraternity dance orchestra; 8, recital; 10:30, Charles Verna's dance orchestra.

WEAF, New York, N. Y. (491.5), 6-7 p. m., dinner music, Waldorf-Astoria; 7-7:15, Lulu Phillips, soprano; 7:15-7:30, Maurice Nadelle, pianist; 7:30-7:50, "Trips and Adventures," Fred Turner; 7:30-8, Jules Schwarz, bartione; 8-8:15, Maurice Nadelle, pianist; 8:15-8:45, Huyler's Foremost Four; 8:45-8:55, Jules Schwarz; 8:55-9:25, Daisy Jean trio; 9:25-10:15, Mascato vocal ensemble; 10:15-10:30, Ralph Reichenthal pianist; 10:30-11, humorous half hour; 11-12, Vincent Lope's Hotel Pennsylvania orchestra.

Lope's Hotel Pennsylvania orchestra.

WFI, Philadelphia, Pa. (394.5), 3 p. m., Delco piano quintet; 4:30, Haggas Collegians dance orchestra: 6. Rey Elrae and his orchestra; 6:30, Bellevue Stratford concert orchestra; 7, beddine stories; 8:30, chorus redition of "Song of Songs," 2:30, Mandolin orchestra.

WGBS, New York, N. Y. (315.6), 6-6:30 p. m., Uncle Geebee; 6:30-7, the Amphilons; 7:30-8:30, Armand Vecsey concert orchestra; 8:30-9, Adelina Yassri, sorrano, and Margaret Hamill, pianist; 9-9:30, Paul Ross, violinist; 9:30-10, Clare Schaeffer, bass; 10-10:30, Koltun plano quartet; 10:30-11:30, California Ramblers.

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

WHAR, Atlantic City, N. J. (275), 7:30 p. m., Society dance orchestra; 6:05, songs, Charles Higgins; 7, Uncle Wily's bedtime stories; songs, Margaret Keenan; 8, York Pennsylvania community night, featuring "The Gondoliers," York Operatic society; 10:05, Howard Lanin's dance orchestra.

dance orchestra. WJAR, Providence, R. I. (305.9), 7:05 p. m., studio program. WIZ, New York, N. Y. (454.3), 4-4:02 p. m., baseball scores; 4:02-4:30, Marvelian Serenaders; 4:30-4:32, baseball scores; 4:32-5:30, tea music; 5:30-5:32, baseball scores; 5:32-6, daily reports; 8:8:02, baseball

WLIT, Philadelphia, Pa. (394.5), 4:30 p. m., dance orchestra; 7:30, Arcadia cafe concert orchestra.

WMCA, New York, N. Y. (340.7), 8:15-8:25 p. m. talk, House of Health; 11-12, McAlpin hotel orchestra 12-12:30 a. m., Broadway Bright-Lights.

WNYC, New York, N. Y. (526), 7-7:25 p. m., Chateau Four; 7:25-7:30, baseball results; 7:35-7:45, talk; 7:50-8:30, Chateau Four; 8:30-9, song recitals; 9-9:30, Police quartet; 9:45-10:15, instrumental novelty. WOO, Philadelphia, Pa. (508.2), 4:45 p. m., organ recital, Mary E. Vogt; 7:30, A. Candelori's concert or-

chestra.

WOR, Newark, N. J. (405.2), 7:30-8 p. m., the Commanders; 11-12, Ciro's orchestra.

WPG, Atlantic City, N. J. (299.8), 6:40 p. m., final announcement winner of National Marble Tournament; 6:45, Arthur Scott Brook, organist; 7, Knickerbocker hotel dinner dance music, Bert Estelow, director; 8:30, special program, Vernon Room, Chalfonte-Haddon

#### Headliners of the Week

FEAST of music, features and fun is promised by Station WSAI from 4 p. m. Saturday until 4 a. m. Sunday morning, celebrating this station's second birthday and increase in power to 5,000 watts. All Cincinnati musical organizations will be represented. The Nitecaps on Lake Erie are ready to cruise again this Saturday night, and it promises to be a wild night for the ether waves.

Musicians interested in musical history will enjoy the primitive Russian program given Sunday by Lola Hughes, violinist, and Elfrieda Steindorff, soprano, assisted by the KGO Little Symphony orchestra. Arthur S. Garbett will explain the works of

these early Russians.

President Coolidge is honoring the Norse-American Centennial by appearing in person at the Minnesota State Fairgrounds. His talk, which is scheduled for 2:30 p. m. Monday will be broadcast by WCCO. The United States Marine band will play.

Tuesday Lucia de Lammermoor will be presented by the WEAF Grand Opera company. WEEI, WFI, WCAE, WEAR, WGR and WWJ will

broadcast this performance. Fans who miss the winter opera are enjoying these rare weekly treats. An Indian program illustrating the progress of the Indian in Iowa will be the Tuesday feature at WHO.

A Wampus program composed of

A Wampus program composed of thirteen new motion picture beauties will be the feature of the Wednesday program at KFI. Marie Dutton, a comedienne whose joyous stunts are popular in the East, will frolic at WBZ this same evening.

The Seaside hotel trio and the Shelburne hotel concert orchestra will remind fans of sweet breezes and the swell of ocean wayes at

and the swell of ocean waves at Atlantic City when they broadcast Thursday at WHAR. CNRM will also subtly remind the complacent fan that there are fascinating lands afar by featuring the White Star-Dominion Line orchestra.

Lovers of old-time songs will enjoy the Emmet Welch's Minstrels Friday at WLIT, Philadelphia. The Manguso family will entertain at WGR this same evening. Little Mary and Mike, whose pictures may be seen on page 11, are only two members of this talented family.

p. m., baseball results; 8:40-9:30, Lawson Reid, nist. organist.

WAMD, Minneapolis, Minn. (243.8), 9 p. m., open house night, Twin City entertainers; 10, Amateur night program; 11, George Osborn's Marigold garden or-

program; 11, George Osborn's Marigold garden orchestra.

WBAP. Ft. Worth, Texas (475.9), 7 p. m., interdenominational Sunday school lesson, W. F. Barnum.

WCCO, Minneapolis-St. Paul, Minn. (416.4), 6:05 p. m.,
Dick Long's Nankin cafe orchestra; 8:30, musical program, South Dakota program, Gov. Carl Gunderson;
Senator Peter Norbeck; 9, baseball; 10, Dick Long's.
Nankin cafe orchestra.

WDAF, Kansas City, Mo. (365.6), 6-7 p. m., address,
personal message, Roger W. Babson; Trianon ensemble;
11:35-1 a. m., Merry Old Chief, Plantation players;
Johnnie Campbell's Kansas City club orchestra.

WFAA, Dallas, Texas (475.9), 6:30-7:30 p. m., Mosley
Brothers banjo orchestra; 8:30-9:30, Reuben Davies,
planist; Daisy Polk, singer; 11-12, Adolphus hotel

WHAS, Louisville, Ky. (399.8), 3:15 p. m., baseball;

Fred J. Turner is heard every Saturday evening from WEAF, New York, in an interesting series of talks called "Trips and A dventures." Tune in and learn how to become the vagabond of vagabond today.



7:30-9 p. m., Arthur Findling, baritone; baseball.
WLS, Chicago, Ill. (344.6), 8-1 a. m., national barndance, Ralph Emerson, organist; Tony Corcoran, Margaret Garrity; Sears-Roebuck 4 Aces of Harmony; Williamson Brothers; Harmony Girls; Walter Peterson; WLS Harmony trio; Nubs Allan, contraito.
Grace Wilson, contraito.
WMC, Memphis, Tenn. (499.7), 7:30 p. m., baseball; 8:30, program, Elizabeth Hill.
WOAN, Lawrenceburg, Tenn. (282.8), 12:15-12:45 p. m., Vaughan Radio orchestra.
WOAW, Omaha, Nobr. (526), 6 p. m., George Haupt, organist; 6:20, Rialto symphony orchestra; 7, Brandeis tea room orchestra; 7:30, weekly address, Omaha Chamber of Commerce; 9, program; Il-15, Arthur Hays and his organ jubilee.
WOC, Davenport, lowa (483.6), 9-10 p. m., Blackhawk hotel orchestra; 10:42, Lonis Connor and his LeClaire hotel orchestra; 10:42, Lonis Connor and his LeClaire hotel orchestra; Peter MacArthur, baritone.
WSB, Atlanta, Ga. (428.3), 5-6 p. m., bedtime story, Bonnie Barnhardt; Criterion Harmony four; 6, Sunday School lesson, Dr. Marion Hull; 8-9, week end revue; 10:45, Journal Hired Help Skylark.
WSMB, New Orleans, La. (319), 6:30-7:30 p. m., dinner music; baseball; 8:30-10:30, concert.

#### Mountain Standard Time Stations KOA, Denver, Colo. (322.4), 9-12 midnight, Joe Mann and his Rainbow-Lane orchestra.

#### Pacific Standard Time Stations

Pacific Standard Time Stations

KFI, Los Angeles, Calif. (467), 5:30-6 p. m., Examiner's matinee program; 6-6:15, McDantels' nightly doings; 6:45-7, raditorial talk; 7-7:30, vocal pupils, Myra Belle Vickers; 7:30-7:45, Oscar Teel, concert barttone; 7:45, the Bookshelf, Miss Nancy; 8-9, Glendale, Calif. Chamber of Commerce from Examiner studic; 9-10, old folks evening at home, arranged by Glen Rice and George Frenser; 10-11, Packard Radio club, Way Watts and his ukulele, Carlson sisters, Dorothy Cleveland and others; 11-3 a. m., KFU midnight frolic, arranged by Don Mean.

KFWB. Hollywood, Calif. (252), 7-8 p. m., Vince Rose's original Hollywood Montmarte cafe dance or chestra; 8-9, program, Monte Mar Vista subdividers; 9-10, popular song hour, Charlie Wellman; Erickson sisters; Frank Stever and others; Warner Brothers syncopators 10-11, Warner Brothers frolic, direction Charlie Wellman.

KGO, Oakland, Calif. (361.2), 8 p. m., Swedish Singing

syncopators 10-11, Warner Brothers frolic, direction Charlie Wellman.

K60, Oakland, Calif. (361.2), 8 p. m., Swedish Singing society, Axel Pihlstrom, director; Thorvald Anderson, violinist; Herbert Linden, vocalist; Arthur Weiss, cello ensemble; Virginia Treadwell, contralto; Emil Lichtig, baritone; 'The Glug That Delivers the Goods,' Thomas A. Boyer; Ethel Isaacs, violinist; Matilda Spross, soprano; 10-1 a. m., Henry Halstead's orchestra.

KGW. Portland, Ore. (491.5), 6-8 p. m., dance music, Jack Souder's orchestra; 10-12, Herman Kenin's Multnomah hotel dance orchestra.

KHJ. Los Angeles, Calif. (405.2), 5:30-6 p. m., Leighton's Arcade cafeteria orchestra, Jack Cronshaw, leader; 6-6:30, Art Hickman's Biltmore hotel concert orchestra, Edward Fitzpatrick, director; 6:30-7:30, little storles American history, Prof. Walter Sylvester Hertzog; Helene Pierle, screen juvenile; Henrietta Poland, readings; Uncle John; Selina Sizer, soprano; Evelyn Potter, pianist; Opal Key, readings; 7:30-8:15, national oratorical contest winners broadcast, Biltmore hotel; 8:15-11, program, Los Angeles Soap company, arranged by J. Howard Johnson, presenting a miniature philharmonic orchestra, Earl Burtnett, leader; 11:30-2 a. m., Lost Angeles of KHJ, Majestic Six orchestra.

(Continued on page 9)

(Continued on page 9)

WORD, Batavia, III. (275), 8:30 p. m., orchestra music, hall; 10, Steeplechase Pier dance orchestra; 11, Knick-erbocker hotel dance orchestra.

#### Eastern Standard or Central Daylight

Saving Time Stations

(DKA, Pittsburgh, Pa. (309.1), 3:30-7 p. m., baseball scores; 8:45, concert.

(YW, Chicago, III. (535.4), 6-6:30 p. m., dinner concert, Congress hotel; 7-8, Mrs. Edna M. Grindon, soprano; Arthur W. Blake, tenor; Henrietta Nolan, violinist; Pearl Fairchild, pianist; 8:35-10:30, Congress classic.

Havana, Cuba (400), 8:30-11 p. m., studio

PWX, Havana, Cuba (400), 8:30-11 p. m., studio program.

WBBM, Chicago, III. (226), 8-12 midnight, Sandy Meek, Scotch tenor; Lester Kelsey, Paul Small, Tiny Dave Nudleman, Jerry Cromack, Crillon orchestra; Harry Sosnik, pianist; George Little, Larry Shay; Moline Sisters; Chick Castle.

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

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

WEAR, Cleveland, Ohio (339.4), 7-8 p. m., novelty dinner concert.

WEAR, Cleveland, Ohio (389-4), 7-8 p. m., novelty dinner concert.

WEBH, Chicago, Ill. (370.2), 7:30-8:30 p. m., Edgewater Beach Hotel Oriole orchestra; 9:30-10:30, Oriole orchestra, Marie Kelly, reader; Kay Ronayne; Langdon Brothers; 11:30-1, Oriole orchestra; Loos Brothers; 17:ank Sylvano, Banks Kennedy, Ned and Ches, Charlie and Gos.

WGES, Oak Park, Ill. (250), 5-7 p. m., Frank Greif, tenor; Bertie Gordon, soprano; Beulah Layden, violinist; Barl Wettland, pianist; 10:30-1, A. Cavallo and his 11 Master musicians; Coyne Electrical School serenaders; Ralph Olson, Hal Cowles, pianists; Sandy McTavish, Scotch comedian.

WGN, Chicago, Ill. (370.2), 6:30-7:30 p. m., Drake concert ensemble, Blackstone string quintet; 8:30-9:30, studio program; 10:30-11:30, Drake Hotel Terrace Garden program.

WGY, Schenectady, N. Y. (379.5), 8 p. m., "The Living Age," William Jacob; 8:30, Hotel Van Curler orchestra.

WHT, Deerfield, Ill. (399.8), 7-8:30 p. m., Genevieve B.

Age," William Jacob; 8:30, Hotel Van Curler orchestra.
WHT, Deerfield, Ill. (399.8), 7-8:30 p. m., Genevieve B.
Burnham, soprano; Bryce Talbot, baritone; Robert
Nead, pianist; Al Carney, pianist; 8:45-10:05, (238)
Elmer Kaiser's Riverview Park ballroom orchestra,
Al Carney, organist; 10:30-1, (399.8), Husk O'Hare's
Red Dragons; Al Carney, organist; Walker and Walsworth; duets, Wilkens and Martens; Si Berg, ukulele;
Ned Becker, humorist; Lottle Friedman, soprano;
Herbie Mintz, planist; Pat Barnes, reader; John
Clark, vocalist; Al Carney, organist.

WIJD, Mooseheart, III. (302.8), 10:30 p. m., P. M. Proteau, Golden trio, Sid Erdman, Edward Greaning, violinist; Angelina George, Geneva organ, Charley Straight's orchestra.

WKRC, Cincinnati, Ohio (422), 10 p. m., Zumstein Melody boys; 11, popular program.

Melody boys; 11, popular program.

WLW, Cincinnati, Ohio (422.3), 7 p. m., WLW dinner hour concert; Johanna Grosse, organist.

WMAQ, Chicago, Ill. (447.5), 6 p. m., Tilden Technical high school glee club; 8, Russell Pratt, Fred Daw; 8:30, Radio photologue, Finland; 9, Chicago theater. 8:30, Radio photologue, Finland; 3, Chicago theater.

WMBB, Chicago, Ill. (25b), 7-8:30 p. m., semi-classical
program, J. Bodewalt Lampe; Beatrice Teller and
Trianon ensemble; Ambrose Wyrick, Rita McFawn,
Hazel O'Neil; Armin, F. Hand and the Woodlawn
theater orchestra; 8:30-10:30, gala syncopation program, Dell Lampe and Trianon orchestra; Seattle
Harmony Kings; Fisher and Smith, Harold Stokes,
Charles Agne & Trianon syncopators, Florence Tenny,
Johnnie Keane, Bob Duffy.

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

WQJ. Chicago, III. (447.5), 7-8 p. m., Ralph Williams and his Rainbo Gardens orchestra; Everett George Opie, reader; Sheppard Levine, tenor; Helen Reed, accompanist; Doris Wall, soprano; Edwina Burchett, alto; 10-3 a. m., Ralph Williams and his Rainbo Gardens orchestra; Jerry Sullivan; Rose Vanderbosch; Meioddians; Hickey and Johnson; Bert Davis; Gladys Gale; Henri Therlen, Joe Verger.

WRC, Washington, D. C. (468.5), 7 p. m., Hotel Washington orchestra; 8, Bible talk; 10, Hotel Mayflower orchestra; 10:30, Crandall's Saturday Nighters.

WRED, Lansing, Mich. (285.5), 10-12 midnight, Essenberr's Melody dance orchestra; baseball.

WSAI, Cincinnati, Ohio (325.9), anniversary, program, 4 p. m., WSAI Radio chime concert, Robert Badgley; 4:10, Vox Ferro, solos, Robert S. Alter; 4:25, Mrs. Stella Kent, soprano; Marjorie Bland, accompanis; 4:40, popular songs; Groenke and Mischler; 5, WSAI Radio chimes; 5:15, address, John Omwake; 5:20, La Vergne Sims, soprano; 5:30, Edythe Tolken, violinist; 5:40, John Drury, baritone; 5:50, artist faculty, Cincinnati Conservatory of Music; 6:20, WSAI story lady, Mrs. Ethel Knapp Behrmann; 6:30, Hotel Sinton concert orchestra; Mrs. Edith Michaux Greene, soprano; 7:30, Elizabeth Durland Langhorst, soprano; 7:45, Lillian Tyler Plogstedt, organist; 8:45, Congress Playing Card string quartet; Ruth Heubach, soprano; 9:45, Cincinnati College of Music, Erich Sorantine, violinist; Frederick J. Hoffman, planist; 10, "Radio as an Educator," Dr. Frederick C. Hicks; 10:25, Clifford Lang, planist; 10:45, Grand hotel instrumental trio; Helene Kessing, soprano; George Clifford Cook, baritone; 11:40, address, Paul A. Greene; 11:50, Blcycle Playing Card sextet; Waldene Resse Johnson, violinist; 12:35 a. m. Lelia Lemar, planist; 12:50, Freda Sanker's Toadstool orchestra; 1:20, popular songs, Bert Lindsay, Kern Alyward, Billie White; 1:50, Freda Sanker's Toadstool orchestra; 2:40, songs, Conver, Wintersohl.

WTAM, Cleveland, Oh

WTIC, Hartford, Conn. (348.6), 5:55 p. m., baseball

#### WWJ, Detroit, Mich. (352.7), 3 p. m., Detroit News Central Standard Time Stations

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

KFNF, Shenandoah, lowa (266), 7:30 p. m., Holder-McElroy Old Time Ticklers.

KFNF, Shenandoah, lowa (266), 7:30 p. m., Holder-McElroy Old Time Ticklers.

KFRU, Bristow, Okla. (394.5), 7:30-8 p. m., International Sunday school; 9-12, music.

KFVE, University City, Mo. (240), 6-7 p. m., Radiocast Review of theaters, Romaine Fielding; 10, dance music. Orchestra Romaine; studio song entertainers; Steve and Lee; Ted and Marty.

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

KTHS, Hot Springs National Park, Ark. (374.8), 8:30-



Marjorie Moore's Melody Maids are weekly entertainers at WEAR, Cleveland. The girls with their varied programs of classical and jazz numbers have always been popular with WEAR audiences. They are as attractive to look at as they are to listen to.

## NITECAPS CRUISE AT WTAM SATURDAY

#### Saturday, June 6

(Continued from page 8)

KNX, Hollywood, Calif. (336.9), 5:30-6 p. m., Wurlitzer pipe organ studio; sports talk, Sid Ziff; 6:15-6:30, travel talk, W. F. Alder; 6:30-7:30, dinner hour music; 7:30-8, Wurlitzer pipe organ studio; 8-10, KNX feature program; 10-11, Abe Lyman's Cocanut Grove dance orchestra; 11-2 a. m., Hollywood screen-

Grove dance orchestra; 11-2 a. m., Hollywood screen-land night. KPO, San Francisco, Calif. (428.3), 6:30-7:30 p. m., Johnny Buick's Cabirians; 8-12, Art Weidner's dance orchestra.

#### Sunday, June 7

Sunday, silent night for: CFAC, CFAC, CKAC, CHIC, CHNC, CNRT, KFAB, KFAE, KFKU, KFKX, KFMQ, KFRU, KFOA, KOB, KSD, PWX, WAHG, WBAC, WCAE, WCEE, WDAF, WDWF, WEAO, WEBJ, WEBW, WFI, WGBS, WHA, WHAD, WHAS, WHAZ, WIF, WJAD, WLBL, WLIT, WMC, WOI, WOO, WOR, WRC, WSAI, WSMB, WTAM.

#### Atlantic or Eastern Daylight Saving

Time Stations

WBBR, New York, N. Y. (272.6), 10 a. m., Watchtower orchestra; 10:15, Fred Twaroschk, tenor; 10:35, Bible lecture, R. H. Barber; 11:15, Fred Twaroschk, tenor; 11:15, Watchtower orchestra; 9 p. m., Immanuel choir, instrumental trilo, choir.

WBZ. Springfield, Mass. (33.3), 9:55 a. m., Church of the Unity, Rev. Charles A. Wing; Philharmonic mate quartet; 8, Pierian trio; 8:30, Estye organ company concert.

concert. WCAE, Pittsburgh, Pa. (461.3), 6:30 p. m., dinner concert, William Penn hotel; 7:20, Roxy and his

WCAU, Philadelphia, Pa. (245), 5 p. m., Interdenominational church services, Rev. John W. Stockwell, pastor, Maude Hanson Pettit, musical director; 6 p. m., Hotel Pennsylvania concert orchestra; 7, Hotel Pennsylvania concert orchestra; 7, Hotel Pennsylvania concert orchestra.

WDWF, Previdence, R. I. (440,9), 5 p. m., Venetian serenaders, pipe organ recital.

WEAF, New York, N. Y. (491,5), 3-5 p. m., "Sunday Hynn Sing," Federation of churches; 7:20-9:15, Roxy and his gang, Capitol theater; 9:15-10:15, organ recital, W. A. Goldsworthy, St. Andrew's Episcopal church choir.

KDKA, Pittsburgh, Pa. (309.1), 10 a. m., First Church of Christ Scientist; 3 p. m., Dr. Charles Heinroth, organist; 3:45, Shadyside Presbyterian church; 6:30, Calvary Episcopal church.

KYW, Chicago, III. (335.4), 10 a. m., Central church service; 3-4 p. m., studio concert.

WBBM, Chicago, III. (226), 4-6 p. m., Doney's All Star Jazz orchestra; Harold Winston, tenor; Si Berg, ukulele soloist; Charlle Garland, pianist; Jerry Cromack; 8-10, Sandy Meek, Scotch tenor; Harry Sosnik, pianist; Ned Santry, Crillion orchestra, Lester Kelsey, Si Berg, Tiny Dave Nudelman; 12-1, midnight nut club frolic, Ralph Atlass, Tiny Dave Nudelman, Charlle Garland, pianist.

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

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

and the Boss's Own orchestra; 8-12, Radio concert, Joe Rudolph and the Boss's Own orchestra; Frank Morris, Polly Willis, Fannie and Eddie Cavanaugh.

Central Standard Time Stations

Central Standard Time Stations
CKY, Winnipeg. Can. (384.4), 7 p. m., Central Congregational church.
KFAB, Linceln, Nebr. (240), 4-5 p. m., church service.
KFDM, Beaumont, Tex. (315.6), 11-12 m., program;
8-9 p. m., sacred program.
KFNF, Shenandeah, 1a. (266), 2 p. m., Rev. and Mrs.
Hanley, Radio chaplains; 6:30, Golden Rule circle; 8,
Christian church.
KFRU, Bristow, Okla. (394.5), 9:30 a. m., Sunday
school; 11, sermon; 5 p. m., vesper service.
KFVE, University City, Mo. (240), 6 p. m., Radiocast
review, Romaine Fielding; 10, sacred song recital;
William Kerr, organist.

WRBC, Valparaiso, Ind. (278), 7:30 p. m., Immanuel Lutheran church services. WSB, Atlanta, Ga. (428.3), 11 a. m., First Presbyterian church service; 5-6, Sabbath service, Brazelton, Ga., quartet; 7:30, services.

Mountain Standard Time Stations

KOA, Denver, Colo. (322.4), 11:30 a. m., Augustana Lutheran church; 4 p. m., Augustana Lutheran church; 8, Augustana Lutheran church.

Pacific Standard Time Stations Pacific Standard Time Stations

KFI, Los Angeles, Calif. (467), 6:30, p. m., McDaniels'
nightly doings; 6:45, musical appreciation talk; 7-8,
from stage and studio of Metropolitan theater with
45 piece concert orchestra; 8-9, Sunday classic hour
of Italian songs, Neapolitan string trio; 9-10, Examiner, Southwest Athletic club orchestra; 10-11,
Thereon Bennett's Los Angeles dance orchestra.
KFWB, Hollywood, Calif. (252), 9-11 p. m., Screenland hour, presenting a number of popular players,
directors and entertainers.
KGO, Oakland, Calif. (361.2), 11 a. m., First Presbyterian church; 3:30 p. m., KGO Little Symphony
orchestra; 7:30, First Presbyterian church.
KGW, Portland, Ore. (491.5), 10:30-12 m., First Presbyterian church; 7:30-9, First Presbyterian church;
9-10, Edwards Dependable coffee concert.
KHJ, Los Angeles, Calif. (405.2), 6-6:30 p. m., Leighton's Aracle cafeteria orchestra, Jack Cronshaw, leader;
6:30-7, Art Hickman's Biltmore hotel concert orchestra, Edward Fitzpatrick, director; 7-7:30, organ
recital, Arthur Blakley, organist; 8-10:30, surprise
program arranged and presented by J. Howard Johnson.
KNX, Hollywood, Calif. (336.9), 7-8 p. m., First Pres-

son.

KNX, Hollywood, Calif. (336.9), 7-8 p. m., First Presbyterian Church of Hollywood; 8-9, Ambassador hotel, concert orchestra, Josef Rosenfeld, director; 9-10:30, program, Valhalla Mausoleum and Memorial Park.

KPO, San Francisco, Calif. (428.3), 6:35-7:30 p. m., Palace hotel concert orchestra; 8-3:30, Palace hotel concert orchestra; 8-3:30, Fairmont hotel orchestra.

#### Monday, June 8

Monday, silent night for: AT9. CKAC, CKY, CNRT. KFDM, KFMQ KFMX, KGW, KHJ, KLDS, KYW, FWX, WAMD, WBBM, WBCN, WCAU, WDWF. WEAO. WEBH, WEBJ, WFI, WGN, WGBS, WHAS, WHAZ, WJY, WKAQ, WLS, WMAQ, WMBB, WOC, WOAI, WQJ, WRC, WREO.

Atlantic or Eastern Daylight Saving Time Stations
CHNC, Toronto, Can. (357), 8:30 p. m., CHNC or-

chestra.

WAHG, Richmond Hill, N. Y. (315.6), 7:30-7:45 p. m.,
Thornton Fisher, sport talk; 7:45-8, banjo and piano,
Harold Von Der Heide and Charles LaRuffa; 8-8:15,
Pasquale Ferraro, baritione; 8:15-8:45,
pasquale Ferraro, baritione; 8:15-8:45,
yi.15-9:30, Harold Von Der Heide, Charles LaRuffa; 9:30-10, Synchrophase string trio; 10:15-10:55,



Ethel Sweeney (left) will be the soloist with Theodore J. Irwin, organist, Sunday, June 14, at KPO, San Francisco. Charlotte Nagel (above) is one of the Genevieve's Cave Women who have swooped down upon and conquered WTAM, Cleveland. They will hold sway for the summer. Grace G. Raine is the planist of the Bicycle Playing Card mixed quartet. She will appear on the special anniversary program this Saturday.

speaker.

WHAR, Atlantic City, N. J. (275), 9 p. m., Seaside hotel trio; 11, Strand theater.

WHN. New York, N. V. (360), 3-4 p. m., Queens County Christian Endeavor program; 5-5:30, Roseland dance orchestra; 5:30-6, Olcott Vail and his string trio; 10:45, Gem Razor entertainers; 10:45-11:15, Janssen's

10:45. Gem Razor entertainers; 10:45-11:15, Janssen's Hofbrau orchestra.
WIP. Philadelphia, Pa. (508.2), 7:15 p. m., services,
Holy Trinity church.
WIAR, Providence, R. I. (305.9), 7:20-9:15 p. m., Roxy
and his Gang; 9:15-10:15, organ recital, New York
studio.
WIY, New York, N. Y. (405.2), 8:15-9:15 p. m., Bernhard Levitow's Hotel Commodore orchestra.
WIZ, New York, N. Y. (454.3), 3:30-4 p. m., Chamberlain Women's quartet; 4-4:15, Lillian Seckendorf
Popper, pianist; 8-8:15, Max Kalfus, tenor; 9-9:30,
Lakewood Farm Inn ensemble; 10-10:30, Godfrey Ludlow, violinist.

JARKEWOOG FARM INN ensemble; 10-10:30, Godfrey Ludlow, violinist.

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

WLIT, Pililadelphia, Pa. (394.5), 2:15 p. m., Arcadia cafe concert orchestra.

WMCA, New York, N. Y. (340.7), 11-12:15 p. m., services, Christian Science church; 7-7:30, Ernie Golden and his Hotel McAlpin orchestra; 7:30-7:35, House of Health talk.

Health talk.

WNYC, New York, N. Y. (526), 4-5:30 p. m., band concert, Mall, Central Park; 9-11, Brooklyn Mark Strand theater program.

WOO, Philadelphia, Pa. (508.2), 10:15 a. m., services, Bethany temple; 2:15 p. m., Sunday school services, Bethany temple; 6:05, organ recital, sacred music, Clarence K. Bawden.

Eastern Standard or Central Daylight Saving Time Stations

AT9, Fort Bragg, N. C. (435), 6:45-7:45 p. m., concert, Fifth Field Artillery band.

Vic Lehman, tenor; Carl Linner, pianist; Dan Russo and Ted Fiorito.

WJJD, Mooseheart, III. (302.8), 12 midnight, Lillian Bernard, Flo Henry, Dick Vail, Les Cameron, Walter Fett. Charley Straight's orchestra.

WKRC, Cincinnati, Ohio (422.3), 6:45 p. m., Walnut Hills Christian church; 10, classical program.

WLW. Cincinnati, Ohio (422.3), 9:30 a. m., school, editorial staff of Sunday school publications, Methodist Book concern, Church of Covenant, Dr. Frank Stevenson; 7:30 p. m., service, First Presbyterian Church of Walnut Hills; Dr. Frederick McMillan; 8:30, Western and Southern orchestra, William Kopp, director; George Muhlhauser, tenor.

WMBB, Chicago, III. (250), 3-5 p. m., Sunday popular concert, Dell Lampe and Trianon orchestra; Trianon syncopators; Ambrose Wyrick, Hased O'Neil; Lindsey McFhal; Chyde Hager; 7-8:30, semi-classical program, J. Bodewalt Lampe; Bestrice Teller and Trianon orchestra; S:30-10:30, all Lame and Trianon rehestra; S:30-10:30, all Lame and Trianon rehestra; Seattle Harmony Kings; Alvin Fry, Geraldine Doyle, Morey Alswang, Armin F. Hand and the Woodlawn theater orchestra.

orchestra:

WQJ, Chicago, III. (447.5), 8-10 p. m., Rainbo Garden orchestra; Grace Nelson, planist; Alice Johnstone, planist; Gloria Burch, violinist; Juanita Swenk, soprano; Oscar Williamson, tenor; Harry Abernathy, accompanist; Vincent Gullotta, violinist.

WREO, Lansing, Mich. (285.5), 10-10:25 a. m., chimes, Belfry Plymouth Congregational church, Rev. Edwin W. Biship, pastor; 7:30, Central M. E. church, Rev. Frank Kingdon, pastor.

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

sacred chimes. WTAS, Elgin, III. (302.8), 2-5 p. m., Joe Rudolph

KLDS, Independence, Mo. (268), 11 à m., studio service; Aileen Reich, soprano; S. A. Burgess, contralto; Marian Campbell, contralto; A. R. Moler, tenor; A. B. Church, bass; sermonette, U. Green; 6:30 p. m., vesper service; sacred music; Robert Miller, organist; lectures.

per service; sacred music; Robert Miller, organist; lectures.

KTHS, Hot Springs National Park, Ark. (374.8), 11
a. m., First Presbyterian church; Frances Hardin, organist; 8:30-9:16, New Arlington Hotel Meyer Davis orchestra; 9:15, baseball; 9:25-10, New Arlington hotel orchestra; 10-11:30, Chuck Root's De Soto garden orchestra.

WBAP, Ft. Worth, Tex. (47.9), 11 p. m., frolic, Knickerbocker Buddies.

WCBD, Zion, III. (344.6), 8 p. m., male quartet, Mrs. Thomas, Mr. Barton; Mr. and Mrs. Richard F. Hire, violin duets; Mrs. J. D. Thomas, soprano; Daniel Mason, trombonist; Gerald Mason, cornetist; Carl Newcomer, marimba soloist; Mrs. Hire, Mrs. Ower, pianists; Mrs. Hester Robinson, reader.

WC60, Minneapolis-St. Paul, Minn. (416.4), 10:20 a. m., Plymouth Congregational church; 4:10 p. m., House of Hope Presbyterian church; 7:20, Second Church of Christ Scientist; 9:15, Norse-American Centennial program.

WDAF, Kansas City, Mo. (365.6), 4-5 p. m., classical

WDAF, Kansas City, Mo. (365.6), 4-5 p. m., classical music: 5-5:30, Sunday school lesson, Dr. Walter L. Wilson. Wis. (268), 4:25-5:30 p. m., Sunday

WFAA, Dallas, Tex. (475.9), 6:30-7:30 p. m., Radio Bible class, Dr. William M. Anderson; 8-9, First Baptist church; 9:30-11, Buddy's Blue Melody boys: WHAS, Louisville, Ky. (399.8), 9:57 a. m., organ music; 10, Fourth Avenue Presbyterian church; 4-5, concert, Ella Sharrard, director.

Ella Sharrard, director.

WHO, Des Molines, la. (526), 11 a. m., University Church of Christ; 4 p. m., program, Dean Holmes Cowper; 7:30, Reese-Hughes orchestra.

WLS, Chicago, III. (344.6), 6:30-7:30 p. m., Ralph Emerson, organist; 7-8, WLS Little Brown church.

WOAN, Lawrenceburg, Tenn. (282.8), 9-10 p. m., sacred orchestra, male quartet.

WOAW, Omaha, Nebr. (256), 9 a. m., Radio chapel service, Rev. R. E. Brown; 9, Florence Presbyterian church.

church.

WOC. Davenport, la. (483.6), 8-8:30 p. m., Trinity
Episcopal Cathedral, Rev. Rodney Cobb; 9:30-11:30,
Palmer Little symphony, Erwin Swindell, conductor.

WOI. Ames, la. (270), 10:45 a. m., college chimes; 11,
chapel services.

Kentucky Ramblers; 11:15-11:30, Kentucky Ramblers.
WBBR, New York, N. Y. (272.6), 8 p. m., Syrian.
Oriental musle, Toufic Moubaid, Elizabeth Awad;
S:10, vocal selections; S:35, "Harp of God," Bible
instruction; S:45, vocal selections, Syrian Oriental
musle.

Oriental music, Toutic Moubaid, Elizabeth Awad; S:10, vocal selections; 8:35, "Harp of God," Bible instruction; 8:45, vocal selections, Syrian Oriental music.

WEZ, Springfield, Mass. (333.3), 6 p. m., Capital theater orchestra; 8, William Kempf, violinist; 8:45, E. H. Bond, baritone; 9, Florence Shortsleeve Fay, violinist; Myrtle I. Ashe, pianist; Fabiola D. Richardson, soprano; 9:30, "At the Theaters," A. L. S. Wood; 9:45, baseball.

WCAE, Pittsburgh, Pa. (461.3), 6:30 p. m., dinner concert, William Penn hotel; 8, address, auspices Pittsburgh Personnel association; 8:30, concert; 11, flight of mythical dirigible, Press-Kaybee.

WEAF, New York, N. Y. (491.5), 6-7 p. m., dinner music, Waldorf-Astoria; 7-7.15, talk, Parks Conservation association; 7:15-8:30, program, Mark Strand theatre and studio, direction of Joseph Plunket; 8:30-8:45, Bordentown Industrial School male quartette; 8:45-9, health talk, Metropolitan Life Insurance company; 9-10, A. and P. Gypsies; 10-10:30, Blue Ribbon quartette; 10:30-11:30, Ben Bernie's Hotel Roosevelt orchestra.

WEEI, Boston, Mass. (476), 5:30 p. m., Jack Brown and his Chauve Souris orchestra; 6:30, Big Brother club; 7:15, musicale; 8, musicale; 8:45, Tower Health talk; 9, A. & P. Gypsies; 10, Blue Ribbon quartett, 11:1, surganos, Loretta Kerk, pianist; Reith McMullin, impersonations; 6:30, Bellevue Stratford concert orchestra; 7, bedtime stories.

WGBS, New York, N. Y. (315.6), 6-6:30 p. m., Uncle Geebee; 6:30-7:30, Lew Krueger's dance orchestra; 7, bedtime stories.

WGBS, New York, N. Y. (315.6), 6-6:30 p. m., Uncle Geebee; 6:30-7:30, Lew Krueger's dance orchestra; 7, bedtime stories.

WHAR, Atlantic City, N. J. (275), 7:30 p. m., Seaside hotel trio; 9, Shelburne hotel concert orchestra. WHAR, Atlantic City, N. J. (275), 7:30 p. m., Seaside hotel trio; 9, Shelburne hotel concert orchestra. D'Or orchestra; 7:30-7:35, health talk, Dr. Landis; 8-8:15, talk, "Storage Batteries," H. B. Shontz, 8-8:15, 418, S. Storage Batteries," H. B. Shontz, 8-15-8-15. Ruble Continued on page 1

(Continued on page 10)

## WAMPUS BEAUTIES HEARD AT KFI

#### Monday, June 8

(Continued from page 9)

dens Entertainment; 11-11:30, organ recital, Loew' Lexington theatre; 11:30-12, Silver Slipper revue and

orchestra.

WIP, Philadelphia, Pa. (508.2). 4:15 p. m., garden orchestra.

WIP, Philadelphia, Pa. (508.2). 4:15 p. m., garden talk, Chas. K. Hallowell; 6:05, Clarence Seamon's concert orchestra; 7, Uncle Wip's bedtime stories; "Control of Tuberculosis," pr. Ward Brinton.

WJAR, Providence, R. I. (305.9), 8 p. m., dance music; 9, A. & P. (309ps string ensemble.

WJZ, New York, N. Y. (454.3), 7-8 p. m., Bernhard Levitow's Hotel Commodore dinner concert; 8-8:10, Wall Street Journal review; 8:10-8:30, NYU Air college; 8:30-9:30, program, Landay Hall; 9:30-9:45, duets, Marie Nicholson, soprano; Elizabeth Gibbs, contraito.

wall Street Journal review; 5.10-5.30, N.10 Air conlege; 8:30-9:30, program, Landay Hall; 9:33-9-45, duets, Marie Nicholson, soprano; Elizabeth Gibbs, contralio.

WLIT, Philadelphia, Pa. (394.5), 4:30 p. m., Magazine corner, Mrs. B. F. Maschal; Marcella North, piarist; 7:30, Dream Daddy's bedtime stories; 8:30, concert, Hayden club; 9:30, concert from Stanley theater; 10, Arcadia cafe dance orchestra; Spike Hamilton's Barbary Coast orchestra direct from Young's Million Dollar Pier, Atlantic city.

WMCA, New York, N. Y. (340.7), 4-5 p. m., Paul Aleuri, Laurel House trio; 6:30-7:30, Ernie Golden and his Hotel McAlpin orchestra; 8-9, joint recital; Edward French, pianist; Herman Weinstein, violinist; 9:25-9:30, health talk; 10-10:30, McAlpin Radio Forum; 10:30-11, George Kohlmeier orchestra; 11:30-12, George Kohlmeier orchestra; 11:30-12, George Kohlmeier orchestra.

WNYC, New York, N. Y. (526), 7-7:25, Original Charleston Five; 7:25-7:30, baseball results; 7:35-7:40, health talk; 7:50-8, piano recital; 8-8:15, "Knotty Problems in Baseball," John B. Foster; 8:15-9:30, concert program; 10-10:30, Harry Ash's orchestra.

WOO, Philadelphia, Pa. (568.2), 4:45 p. m., organ recital, Mary E. Vogt; 7:30, Hotel Adelphia Roof Garden orchestra; 2, Mark Strand theater concert; 8:30, A. and P. Gypsies; 10:03, organ recital, Mary E. Vogt; 10:30, Vincent Rizzo's dance orchestra.

WOR, Newark, N. J. (405.2), 6:15-7:15 p. m., Ernie Krickett's orchestra; 7:15-7-725, sport talk; 8:30-9:30, Al Reid's hour; 9:30-10:30, Dr. Sigmund Spaeth's party; 10:45-11, two-man singing orchestra, Perry and Russell; 11:30-12, The Commanders.

Eastern Standard or Central Daylight Saving Time Stations

KDKA, Pittsburgh, Pa. (309.1), 2:30-7 p. m., baseball scores; 8:45, concerns, 2003.7, 8 p. m., WBAV orchestra.
WBAV, Columbus (293.7), 8 p. m., WBAV orchestra.
WBBM, Chicago, III. (226), 6-7 p. m., Crillon orchestra.
WCEE, Elgin, III. (275), 10:30-12 midnight, Joe Rudolph and the Boss's Own orchestra; Frank Morris, Polly Willis, Eddie and Fannie Cavanaugh; John

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

WEAR, Cleveland, O. (389.4), 7-8 p. m., musical pro-

WEAR, Lieverand, U. (305.47), 170 p. m., massac yargram, Loew's State theater.

WGN, Chicago, III. (370.2), 6:30-7 p. m., Drake concert ensemble, Blackstone string quintet.

WGY, Schenectady, N. Y. (379.5), 1 p. m., music, talk; 5:30, Hotel Ten Eyek orchestra; 6:15, "Home Caning," Prof. Lucille Brewer; 6:35, Spark's Circus program; band concert; 500 voice chorus; Mile. Duval, vocetiet.

ning," Prof. Lucille Brewer; 6:35, Spark's Circus program; band concert; 500 voice chorus; Mile. Duval, vocalist.

WHT, Deerfield, III. (399.8), 7-8:30 p. m., Evelyn Ehmborn, harpist; Robert Nead, pianist; Scola Aikman, soprano; Adele Brandt, contralto; Al Carney, organist; 8:45-10:50 (238), Elmer Kniser Riverview Park Ballroom orchestra; 10:30-1, (399.8), David Boyd, whistler; Walter Donovan, tenor; Carl Stockenberg, harmonica soloist; Brock Sisters; Alvin Fry, tenor; Milton Grossman, saxophonist; Heather and Stephenson; Al Carney, Husk O'Hare's orchestra; Northland trio:

WJJD, Mooseheart, III. (302.8), 10:30 p. m., Cantor A. Kritz, George Laffebre, J. I. Shuffitowski, Reneau Sisters, William Horowitz, Geneva organ, Charley Straight's orchestra; May Ward.

WKRC, Cincinnati, Ohio (422.3), 10 p. m., Benzol entertainers; 11, popular program; 12, midnight program, Kodel gang.

WLW, Cincinnati, Ohio (422.3), 7 p. m., dinner hour concert, Hotel Gibson; Hotel Gibson concert, Robert Visconti, director; 8:15, entertainment, Cincinnati Zoo; 9:15, violin and piano solos, Patricia and Margaret Conway; 9:30, Davis Reflectograph concert; Famous Lyric male quartet.

WMAQ, Chicago, III. (447.5), 2:45 p. m., Cubs-New York baseball; 6, Chicago theater organ recital; 6:30, Navy band.

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

Navy band. WREO, Lansing, Mich. (285.5), 10 p. m., baseball. WSAI, Cincinnati, Ohio (326), 10 p. m., Apollo mixed

quartet.

WTAM, Cleveland, Ohio (389.4), 6-7 p. m., Golden
Pheasant studio dance music; 8-9, Willard studio instrumental hour, Willard symphony; Walter Logan,
director; 9-11, Willard symphony and artists, ecerpts from "Aida;" 11-12, Public auditorium organ
recital; Edwin Arthur Kraft, organist.

WTAS, Elgin, III. (302.8), 8-10:30 p. m., Villa Olivia
Radio concert, Joe Rudolph, orchestra; Eddie and
Fannie Cavanaugh, Frank Morris, Polly Willis, John
Poat.

Poat.
WIIC, Hartford, Conn. (348.6), 6 p. m., Hotel Bond trio, Lois Randall, soprano; 6:50, baseball scores; trio, Lois Kanuan, 7, dinner music.

WWJ, Detroit, Mich. (352.7), 6 p. m., dinner concert, 8, concert from New York; 9, Detroit News orchestra.

#### Central Standard Time Stations

Central Standard lime Stations

KFAB, Lincoln, Nebr. (240), 7:30-9:30 p. m., Walkiki
trio; Colonians orchestra, Orville Andrews, Buick Warbler; Charles Kokesch, pianist.
KFKU, Lawrence, Kan. (275), 7 p. m., music; 7:15,
"The Story of Sand and Gravel Deposits;" Prof. R. St.
Knappen; 7:30, "Some Recent Blography and Autoblography," Prof. R. D. O'Leary; 7:45, Spanish
lesson.

lesson.

KFNF, Shenandoah, Ia. (266), 7:30 p. m., concert, Henry Field Seed company.

KFRU, Bristow, Okla. (394.5), 7-8 p. m., Oklahoma Educational hour; 8-10:30, entertainment.

KFVE, University City. Mo. (240), 6 p. m., Radiocast review, Romaine Fielding; 10, male quartet, T. G. Cosby, director.

KSD, St. Louis, Mo. (545.1), 9 p. m., Gardner Motor company Eight-in-Line entertainers: 10. American

Legion band of Belleville.

KTHS, Hot Springs National Park, Ark. (374.8), 8:30-8, 140, p. m., baseball; 8:30-9, New Arlington hotel orchestra; 9-10, concert, Alice C. Henniger, director.

WBAP, Ft. Worth, Tex. (475.9), 7:30-8:30 p. m., mixed program, North Texas Traction company; 9:30-10-45, popular music, Ward's "Trail Blazers"; 11-12, George C. Orum's Palace theater orchestra.

WCBD, Zion, III. (344.6), 8 p. m., concert quartet, Celestial bells; instrumental trio; Fred Faassen, organist; Alexander DePew, flutist; Mrs. H. E. Mayfield, soprano; Lillian Detienne, reader.

WCCO, Minneapolis-St. Paul, Minn. (416.4), 2:30 p. m., address, President Coolidge at the Norse-American Centennial; 4, baseball; 4:05, Readers (ub); 5:30, children's hour; 6, baseball; 6:45, F. & R. Family; 8, opening program; 9, baseball.

Mountain Standard Time Stations KOA, Denver, Colo. (322.4), 8 p. m., Fred Schmitt and his Rialto theater orchestra; 8:10, 8t. Anne Dramatic club, "The Alien Princess;" "Romeo and Juliet," KOA players; KOA orchestra.

Pacific Standard Time Stations

KFAE, Pullman, Wash. (348.6), 7:30-9 p. m., Theta Upsilon national sorority; Katherine Conner, cellist; Florence Lester, vocalist; Claribel Conner, Ruth Coates, violinists; Bernice Hamilton, reader; Donna Whitney, planist; Florence Lester, Dorothy Hutchison, vocalists; Spokane string tric; Tau Nu Kappa Bollermakers; "Care of Pet Animals," Dean E. E. Wegner; "Home Management at the Farm Women's Camp." Glades Gallup; "How to Engage in Farming with Limited Capital," George Severance.

KFI, Los Angeles, Calif. (467), 5:30-6 p. m., Examiner's matinee musicale; 6-6:15, McDaniels' nightly

## Baseball Scores

TABULATED below is a time table of the stations giving baseball scores this week. Stations are divided into the different standard times in use. The hours are given in the kind of time in use at each listed

Atlantic or Eastern Daylight Sav-ing Time Stations

Saturday, June 6: 4:30, WJZ; 5:45, WTIC; 5:30, WJZ; 7:25, WNYC; 8, WJZ.

Monday, June 8: 7:25, WNYC; 9:50, Tuesday, June 9: 7:25, WNYC; 50, WBZ.

Wednesday, June 10: 7:25, WNYC; 9:50, WBZ.

Thursday, June 11: 7:25, WNYC; 9:50, WBZ. Friday, June 12: 7:25, WNYC; 9:50, WBZ,

Eastern Standard or Central Day-

Eastern Standard or Central Daylight Saving Time Stations

Saturday, June 6: 2, WGY; 2:30,
KDKA; 2:45, KDKA, WMAQ; 2:30,
KDKA; 3:45, KDKA, WMAQ; 2:30,
KDKA; 3:55, WVJ; 4, WMAQ; 4:15,
4:30, 4:45, 5, WUJ; 4, WMAQ; 4:15,
WGN, WLS; 6:50, WTIC; 7, KDKA;
9:55, KDKA; 10, WREO.

Sunday, June 7: 6:55, WTIC.
Monday, June 8: 2, WRC; 2:45,
WMAQ; 3:30, KDKA; 3:45, WEAR;
3:55, WWJ; 4, KDKA, WMAQ; 4:30,
5, KDKA; 5:55, WTIC; 6, WGN,
WLS; 6:50, WTIC; 9:55, KDKA; 10,
WREO.

Tuesday, June 9: 2, WRC; 2:45,

WREO.
Tuesday, June 9: 2, WRC; 2:45, WMAQ; 3, 3:30, KDKA; 3:45, WEAR; 3:55, WWJ; 4, WMAQ; 4:30, 5, 7, KDKA; 6, WGN, WLS; 9:55, KDKA; 10, WREO.

KDKA; 6, WGN, WEB, V.J.,
10, WREO.

Wednesday, June 10: 2, WRC; 2:45,
WMAQ; 3, 3:30, KDKA; 3:45, WEAR;
3:55, WWJ; 4, 4:30, 5, WWJ; 6, WGN,
WLS; 6:50, WTIC; 7, KDKA; 9:55,
KDKA; 10, WREO.

Thursday, June 11: 2, WRC; 2:45,

KDKA; 10, WREO.

Thursday; June 11: 2, WRC; 2:45, WMAQ; 3, 3:30, KDKA; 3:45, WEAR; 3:55, WWJ; 4, 4:30, 5, KDKA; 6, WGN, WLS; 6:50, WTIC; 9:55, KDKA; 10, WREO.

Friday, June 12: 2:30, KDKA; 2:45, WMAQ; 3, 3:30, KDKA; 3:45, WEAR; 3:55, WWJ; 4, WMAQ; 4:30, 5, KDKA; 6, WGN, WLS; 6:50, WTIC; 9:55, KDKA; 10, KREO.

WDAF, Kansas City, Me. (365.6), 6-7 p. m., piano tuning-in number; Cecile Burton, reader; Plantation players; 8-10, around the town with WDAF; 11:45-1 a. m., Merry Old Chief, Plantation players; Charles Dornberger's Kansas City Athletic club orchestra. WEBW, Beloit, Wis. (268), 8:30-9:45 p. m., men's glee

Central Standard Time Stations

Central Standard Time Stations
Saturday, June 6: 3:15, WHAS;
3:30, WDAF; 4:30, WDAF, WFAA; 5,
WDAF; 6, WCCO, WDAF, WOC; 6:30,
WSMB; 8:30, KTHS.
Sunday, June 7: 4:30, WFAA; 6:45,
WOC; 9, WCCO; 9:15, KTHS.
Monday, June 8: 3:15, WHAS;
3:30, WDAF; 4, WCCO, WDAF; 4:30,
WFAA; 5, WDAF; 6, WCCO, WDAF;
6:30, WSMB; 8:30, KTHS; 9, WCCO.
Tuesday, June 9: 3:15, WHAS; 3:30,
WDAF; 4, WCCO, WDAF; 4:30,
WFAA; 5, WDAF; 6, WCCO, WOC;
6:20, WOAW; 6:30, WSMB; 8:30,
KTHS; 9, WCCO.
Wednesday, June 10: 3:15, WHAS;
3:30, WDAF; 4, WCCO; 4:30, WDAF,
WFAA; 5, WDAF; 6, WCCO, WDAF,
WCCO.
Wednesday, June 10: 3:15, WHAS;
3:30, WDAF; 4, WCCO; 4:30, WDAF,
WFAA; 5, WDAF; 6, WCCO, WDAF,
WCCO.
Thursday, June 11: 3, WDAF; 3:15,
WCCO.
Thursday, June 11: 3, WDAF; 3:15

WOC; WCCO.

WCCO.

Thursday, June 11: 3, WDAF; 3:15, WHAS; 4, WCCO, WDAF; 4:30, WFAA; 5, WDAF; 6, WCCO, WDAF, WOC: 6:20, WOAW; 6:30, WSMB; 9, KTHS, WCCO.

Friday, June 12: 3, WDAF; 3:15, WHAS; 4, WCCO, WDAF; 4:30, WFAA; 6, WCCO, WDAF, WOC; 6:20, WOAW; 6:30, WSMB; 8:30, KTHS; 9, WCCO.

Mountain Standard Time Stations

Monday, June 8: 6, KOA. Tuesday, June 9: 6:30, KOA. Wednesday, June 10: 6, KOA. Thursday, June 11: 6, KOA. Friday, June 12: 6, KOA.

Pacific Standard Time Stations Saturday, June 6: 6, KFOA.

Monday, June 8: 6, KFOA; 6:45,
KGO; 7:30, KGW.

Tuesday, June 9: 6, KFOA; 6:45, KGO; 7:30, KGW.

Wednesday, June 10: 2, 3, 4, KNX; 6, KFOA; 6:45, KGO; 7:30, KGW.

Thursday, June 11: 6, KFOA; 6:45, KGO; 7:30, KGW.

Friday, June 12: 2, 3, 4, KNX; 6, KFOA; 6:45, KGO; 7:30, KGW.

"Club.

WFAA, Dallas, Texas (475.9), 6:30-7:30 p. m., Roy
Leffingwell's orchestra; 8:30-9:30, Sweetwater violin
choir, Mrs. O. L. Cuthirth, director.
WHA, Madison, Wis. (535.4), 7:45 p. m., University
School of Music; "Logic and Life," Prof. M. C.
Otto.

School of Music; "Logic and Lite, From Otto.

WHAS, Louisville, Ky. (399.8), 3:15 p. m., baseball.

WHO, Des Moines, Ia. (526), 7:30-8 p. m., Mary Mack, popular soloist; Katherine Torey, pianist; 8-9, program, Dean Holmes Cowper, director; 11:15-12, organ recital.

WHO, Memphis, Tenn. (499.7), 8:30 p. m., Washington Syncopators.

NMO, mempins, 19mi. (1953), 6.30 p. m., 10.3. Syncopators. esberger (22.8), 12:15-12:45 p. m., orchestra; 9-10, orchestra, male quartets.

WOAW, Omaha, Nebr. (326), 6 p. m., Phyllis Griswold, organist; 6:30, McForry's popular period, Lillian Madsen, director; 6:45, orchestra; 9, program, Hannan-Van Brunt company, Ford dealers.

WOI, Ames, Ia. (270), 10 p. m., program of popular music.

WRBC, Valparaiso, Ind. (278), 7:30 p. m., music and

WSB, Atlanta, Ga. (428.3), 5-6 p. m., bedtime story, Bonnie Barnhardt; Georgian's orchestra; 8-9, music; 10:45, Warner's Seven Aces.

WSMB, New Orleans, La. (319), 6:30-7:30 p. m., dinner musicale, baseball, twilight tales; 8:30-10:30, Leslie George and his Patio Royal dance orchestra, Fuzzy-Wuzzy Twins.

doings; 6:45-7, raditorial talk; 7-8, California Serenaders dance orchestra, direction George Cronk; Sigmund Cachs, violin soloist; Rolfe Pratt, tenor; 8-9, songs of the old south with interesting bits about who wrote them; 9-10, program, Walter M. Murphy Motors company; Virginia Flohri, the Radio nightingale; Los Angeles string quartet; J. Roy Logge, baritone; 10-11, Examiner, Ray West and his Alexandria hotel dance orchestra.

gale; Los Angeles string quartet; J. Roy Logge, bartione; 10-11, Examiner, Ray West and his Alexandria hotel dance orchestra.

KFWB. Hellywood, Calif. (252), 6:30-8 p. m., program, John A. Evans corporation, Haclenda Park dance orchestra; 8-9, program, Cheek-Neal Coffee company, Maxwell House coffee string quartet, Harry Jackson, leader; Bill Hatch and Ray Kellogg, the Jazz twins; 9-10, Screenland dance orchestra; 10-11, Warner Brothers' frolic, direction Charlie Wellman.

KGO. Oakland, Calif. (361.2), 8 p. m., educational program; Amphion trio; 'Drainage of Farm Land," Prof. W. W. Weit; 'Class Room Instruction by Radio,' Dr. Virgil E. Diekson; 'To Think Without Confusion,' John Snape; 'Editorial Arrows,' Charles K. Field; 10-1, Henry Halstead's orchestra.

KGW. Portland, Orc. (491.5), 6-7 p. m., Frederick W. Goodrich, organist; 7:30-8, baseball.

KNX. Hollywood, Calif. (336.9), 5:30-6 p. m., Wurlitzer phpe organ studio; Sid Ziff's sports talk; 6:15-6:30, travel talk, W. F. Alder; 6:30-7:30, dinner hour program, Detmers Optical company; 7:30-8, program, Columbia Outfiting company; 8-9, KNX feature hour; 9-10, program, L. W. Stockwell company; 10-11, Goodrich Silvertown Cord orchestra, June Pursell, soloist; 11-12, Abe Lyman's Cocannut Grove dance orchestra, from Ambassador hotel.

KPO. San Francisco, Calif. (428.3), 6:15-6:30 p. m., baseball; 6:40-7:30, States Restaurant orchestra, 8-9, talk, Joseph D. Redding, American composer; Theodore J. Irwin, organist; 9-10, Studio program; 10-11, States Restaurant orchestra.

#### Tuesday, June 9

Tuesday, silent night for: AT9, CFCA, CHNC, CHIC, CHYC, CNRT, KFAE, KFKU, KFKX, KFNF, KJR, KLX, KOA, KOB, FWX, WAHG, WBAY, WBR, WBAY, WHAD, WHAZ, WKAQ, WOI, WOS, WRBC, WTAM.

Atlantic or Eastern Daylight Saving Time Stations

Time Stations

CKAC, Montreal, Can. (410), 7 p. m., talks on hygiene; 7:30, Windsor hotel dinner concert; 8:30, Montreal Press club entertainers; 10:30, Windsor Hotel Cascade room dance orchestra.

CNRA, Moncton, Can. (313), 8:30 p. m., Jewish concert, Y. M. H. S. of Saint John; CNRA orchestra.

WAHG, Richmond Hill, N. Y. (315.6), 12:30-1:15 p. m., missic, time signals and weather reports.

WBZ, Springfield, Mass. (333.3), 6 p. m., Leo Reisman Hotel Lenox ensemble; 8:15, Andre Savard, planist; 8:30, Old Timers' program; Katherine White, soprano; Bay State quartet; Patrick J. Gaffney, fiddler; Blanche Pickering, pianist; 9, Hotel Brunswick orchestra; 9:50, baseball.

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.

WGAU, Philadelphia, Pa. (245), 6 p. m. Hotel Penn-WGAU, Philadelphia, Pa. (245), 6 p. m. Hotel Penn-WGAU, Philadelphia, Pa. (245), 6 p. m. Hotel Penn-WGAU, Philadelphia, Pa. (245), 6 p. m.

Opera.

WCAU. Philadelphia, Pa. (245), 6 p. m., Hotel Pennsylvania Interfraternity orchestra; 6:30, Charles Verna's dance orchestra; 7:30, concert, N. Snellenburg & Co.; 8, talk, Clara Zillessen; 9:15, "What We See and Hear in Music," Maude Hanson Pettit; 10:30, Charles Verna's dance orchestra.

Verna's dance orchestra. WDWF, Providence, R. I. (440.9), 8:30 p. m., Arcadia

WDWF, Providence, R. I. (440.9), 8:30 p. m., Arcadia orchestra.

WEAF, New York, N. Y. (491.5), 6-7 p. m., dinner music, Waldorf-Astoria; 7-7:10, William J. Fagan, barttone; 7:10-7:30, Columbia University lecture; 7:30-8. Eagle Neutrodyne trio; 8-8:10, talk, Bank of America; 8:10-8:30, talk, "Why Worry" Bishop Phillip Cook of Episcopal Diocess of Delaware; 8:30-9, Gold Dust Twins; 9-10, Eveready hour; 10-11, grand opera, "Lucia di Lammermoor," WEAF Grand Opera company; 11-12, dance program.

WEBJ, New York, N. Y. (233), 7-7:30 p. m., Bert Roborn's orchestra; 7:35-8, Thomas Prytheich, tenor; Mildred Mayes, pianist; 8-8:10, railroad talk, G. T. Geer; 8:15-8:30, Sara V. Turits, soprano; 8:30-9, Ken Burdick, baritone.

WEEI, Boston, Mass. (476), 6:30 p. m., Big Brother club; 7:15, musicale; 8, musicale from New York; 8:30, Gold Dust Twins; 9, Eveready hour; 10, Grand Opera company.

company.

WFI, Philadelphia, Pa. (394.5), 3 p. m., talk, "Bringing the Bank Closer to the Public"; 6:30, Bellevue Stratford concert orchestra; 7, Radio Scout; 8, concert from WEAF; 8:30, Gold Dust Twins; 9, Eveready bour

hour.

WGBS, New York, N. Y. (315.6), Crete Carton, soprano; 6-6:30 p. m. Uncle Geebee; 6:30-7:30, Jersey Collegians; 8-8:30, Ellen Jane Thompson, soprano; 9-10, Y. M. C. A. musical program; Charles S. Lewis, Dianist; Charles W. Schroter, tenor; 10-10:30, May Singhi Breen and Peter de Rose; 10:30-10:40, interview with Paul Whiteman, Terese Rose Nagel; 10:40-11, Paul Ross, violinist; 11-11:30, Samuel Shankman, pianist.

WGB Ruffele, N. V. (310), 2:30-4:30 p. m. WCRES

11, Paul Ross, Violinist; 11-11:30, Samuel Snankman, planist.

WGR, Buffalo, N. Y. (319), 2:30-4:30 p. m., WGR'S afternoon program, A. J. Erisman, director; 8-11, joint broadcasting with WEAF, including William J. Fagan, baritone soloist; address, Bishop Philip Cook on "Why Worry"; Gold Dust Twins, Eveready hour, and operatic selections, "Lucia de Lammermoor."

WHAR, Atlantic City, N. J. (275), 7:30 p. m., Seaside hotel trio; 9, Hotel Shelburne concert orchestra; 11, Strand theater.

WHN, New York, N. Y. (360), 7-7:30 p. m., Colonial Aces; 7:30-7:35, health talk, Dr. Landis; 9:30-10, Palisades Amusement Park orchestra; 11:30-12, Club Alabam orchestra; 12-12:30 a. m., Parody club revue and orchestra; 18, (562.2), 4:05 p. m., Parsignis.

Hallsades Amissement Fark orchestra; 17:30-12, Chib revue and orchestra. 12-12:30 a. m., Parody club revue and orchestra. 24:10-12:30 a. m., Parody club revue and orchestra. 42:10-12:30 a. m., Parody club revue and orchestra. 7. Uncle Wip's bedtime stories; S. St. Alban's Glee club assisted by Girard Craftsmen male quartet; 9, plano recital, Florine R. Thanhauser; 9:30, talk, Harry Weir, city architect, Wildwood, N. J.; 10:95, movie talk, Eli M. Orowitz; 10:30, Howard Lanin's dance orchestra. WIAR. Providence, R. I. (305.9), 8:30 p. m., Gold Dust Twins; 9, Eveready hour. WJY, New York, N. Y. (405.2), 8:15-8:30 p. m., talk, "The Birds of Paradise," Lee S. Crandall of Zoological society; 8:30-8:45, George Dale, tenor; Herme Neely, accompanist; 8:50-9, Jefferson Memorial talk, Pauline Henkle. WIZ, New York, N. Y. (454.3), 7-7:15 p. m., Frank Dole's dog talk; 7:15-8, Joseph Strissof's Hotel Vanderbilt orchestrafi 8-8:10, Wall Street Journal review; 8:10-9:10, Wanamaker program; 9:30-9:45, A. Duques, clarinetist. WLIT, Philadelphia, Pa. (394.5), 2:30 p. m., "Care of Children," Mrs. Louis Love"; 7:30, Dream Daddy's Bedtime stories; 7:50, dramatic review, Allyn C. Saurer. WMCA, New York, N. Y. (340.7), 4:45-4:55 p. m.,

bedtime stories; 7:50, dramatic review, Allyn C. Saurer.

WMCA, New York, N. Y. (340,7), 4:45-4:55 p. m., beauty talk, Mme. Belle; 6:30-7:30, Aladdin dance orchestra; 8:15-8:20, health talk; 10-11, Chiropractic hour of music; 11-12, Ernie Golden and his Hotel McAlphn orchestra.

WNYC, New York, N. Y. (526), 6:50-7 p. m., market high spots; 7-7:25, song recital; 7:25-7:30, base-ball results; 7:35-7:50, talk, Mayor John F. Hylan; 7:50-8, piano recital; 8-8:15, talk; 8:15-9:30, special concert feature; 10-10:30, Five Messner Brothers; 10:35-11, Five Messner Brothers.

WOO, Philadelphia, Pa. (508.2), 4:45 p. m., organ recital, Mary E. Vogt; 7:30, A. Candelori's concert orchestra.

orchestra.

WOR, Newark, N. J. (405.2), 3-3:10 p. m., talk on modern poets, Dr. Leon Mones; 6:15-6:30, Lorraine orchestra; 6:30-7, Man in Moon; 7-7:30, Lorraine orchestra.

Eastern Standard or Central Daylight Saving Time Stations

AT9. Fort Bragg, N. C. (435), 9 p. m., dance orchestra. KDKA, Pittsburgh, Pa. (309.1), 2:30-7 p. m., baseball scores; 8:45, concert; 10:30, Grand theater. KYW, Chicago, III. (535.4), 5:35-6 p. m., children's bedtime story; 6-6:30, dinner concert, Congress hotel; (Continued on page 11)



The six smiling boys in this picture compose Dixle's most popular jazz and dance orchestra, the Patio Royal dance orchestra of New Orleans which broadcasts from WSMB, every Monday from 8:30-10:30 p. m. Their particular brand of syncopation is well liked in the South. The Patio Royal dance orchestra is composed of Leslie C. George, director and banjoist; Clarence Erath, pianist; William Bruan, Jr., cornetist; Arthur Luquet, cornetist; Evans Zevely, saxophonist, and Louis Uhle, drummer.

## MANGUSO FAMILY ENTERTAINS AT WGR

#### Tuesday, June 9

(Continued from page 10)

7-7:20, program, Chicago Musical college; 7:20-7:45, speeches, American Farm Bureau federation; 7:45-8:30, musical program; 9-10:30, evening at home. (BBM, Chicago, III, (226), 8-12 midnight, Sandy Meek, Scotch tenor; Harry Sosnik, pianist; Lester Kelsey;

and his Rainbo Skylarks, Ned and Ches, Tommy Jancosek, harmonic soloist; Mack Sisters, Will Rossiter, Nate Caldwell; 1-2, Ginger hour.

WRC, Washington, D. C. (468.5), 7 p. m., New Willard hotel orchestra; 8:30. "The Political Situation in Washington Tonight," Frederick William Wile; 9, "Over the Seven Seas"; 10, Le Paradis band; 11, Otto F. Beck, organist.

WREO, Lansing Mich. (285.5), 8:15-9:45 p. m., Reo broadcasting band; Wilisal trio; Alexander Gunn, planist; Isador Geffen, cellist; Wilhelm Harmens, violinist; Reo male glee club; 10, baseball.

WSAI, Cincinnati, Ohio (326), 6:45 p. m., chimes; 7, Hotel Sinton instrumental trio; 8, Evercady hour of music; 9, WSAI studio; Lillian Dent, soprano; Mary Steele, contralto.

WTAM, Cieveland, Ohio (389.4), 6-7 p. m., Hotel Statler concert orchestra; Maurice Spitalny, director.

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

WIIC, Hartford, Conn. (348.6), 6:55 p. m., baseball scores; 7, organ recital, Austin Organ company; 7:50, glee club, New Britain Normal school, Pauline Meyer, director; 8:10, 'Citizens' Military Training Camps,' Col. Emerson G. Taylor.

WUJ, Detroit, Mich. (352.7), 6 p. m., dinner concert; 7, concert from New York.

Central Standard Time Stations

Central Standard Time Stations CKY, Winnipeg, Can. (384.4), 8:30 p. m., French concert, Yvonne Thibault and party.

KFDM, Beaumont, Tex. (315.6), 7-7:30 p. m., children's

program; 8-10:30, musicale. KFMQ, Fayetteville, Ark. (299.8), 9 p. m., Fayette-ville Community chorus, Prof. H. E. Shultz, director. KFRU, Bristow, Okla. (394.5), 10:30-12 midnight en-tertainment.

6-6:30, Art Hickman's Biltmore hotel concert or-chestra, Edward Fitzpatrick, director; 6:30-7:30, little stories American history, Prof. Walter Sylvester Hort-zog, weekly visit of Queen Titania and Sandman from Fairyland, Louis F. Klein, auto-harp and har-monica; Chas. Leslie Hill, readings; Floryame Thomp-son, soprano; 7:30-8, Piggly Wiggly girls' string trio; 8-10, program, Ferguson Travel Service; 10-11, Art Hickman's Biltmore hotel dance orchestra, Earl Burt-nett, leader.

Hickman's Biltmore hotel dance orchestra, Earl Burtnett, leader.

KNX, Hollwood, Calif. (336.9), 5:30-6 p. m., Wurlitzer
pipe organ studio, Sid Ziff's sports talk; 6:15, travel
talk, W. F. Alder; 6:30-7:30, program, Globe Ice
Cream company; 7:30, style talk, Myers Siegel, Jr.;
7:45, health talk, Dr. Robt. T. Williams; 8-9, program, Ellie Catering company; Elite concert trio;
Louise Sullivan, contralto; 9-10, program, Independent
Furniture Manufacturing company; 10-12, movie night,
the Ambassador, Abe Lyman's Cocoanut Grove dance
orchestra.

orchestra. (RPO, San Francisco, Calif. (428.3), 6:40-7 p. m., States Restaurant orchestra; 7-7:30, Rudy Seiger's Fairmont hotel orchestra; 8-9, Norwegian male chorus; 9-10, popular program; 10-11, Johnny Buick's Cabirians.

#### Wednesday, June 10

Wednesday, silent night for: AT9, CFAC, CFCA, CHIC, CHNC, CKAC, CKY, CNRT, KFDM, KFKX, KFMQ, K6O, KLDS, KOB, WBAV, WBBR, WCAL, WCBD, WDWF, WEBJ, WEBW, WFAA, WFI, WGBS, WGY, WHAR, WHAZ, WJY, WMC, WOAW, WOI, WORD, WFE, WREC, WREO, WTIC.

WMCA, New York, N. Y. (340.7), 3:45-3:55 p. m., talk, Alvin Silver company; 4-5, Original Indiana Five orchestra; 6:30-7:30 Ernie Golden and his Hotel

WMCA, New York, N. Y. (340.7), 3:45-3:55 p. m. talk, Alvin Silver company; 4-5, Original Indiana Five orchestra; 6:30-7:30 Ernie Golden and his Hotel McAlpin orchestra.

WNYC, New York, N. Y. (526), 6:50-7 p. m., market high spots; 7-7:25, song recital; 7:25-7:30, baseball results; 7:35-7:50, talk, Mayor John F. Hylan; 7:50-8, piano rectalt; 8-9, concert program; 9-9:15, "Timely Topics," F. P. Bent; 9:15-10:30, concert program.

WOO, Philadelphia, Pa. (508.2), 4:45 p. m., organ recital, Mary E. Vogt; 7:30, A. Candelori's concert orchestra; 8, concert from WEAF; 10:03, organ recital, Mary E. Vogt; 10:30, Vincent Rizzo's dance orchestra.

WOR, Newark, N. 1. (495.2), 6:15-6:30 p. m., Tivoli orchestra; 7:30-8, Vincent Lopez' orchestra, U. S. School of Music; 8-8:10, topics of the day, Spencer Armstrong; 11-12, Chro's orchestra.

#### Eastern Standard or Central Daylight

Eastern Standard or Central Daylight
Saving Time Stations
KDKA, Pittsburgh, Pa. (309.1), 2:30-7 p. m., baseball;
8:45, Dry Slitz hour of music.
KYW, Chicago, Ill. (353-4), 6-6:30 p. m., dinner concert, Congress hotel; 7-8, Grace Hegseth, soprano;
Robert Hene, bartione; Marguerite Jaimeyfield, pianist; Joseph Kovacs, violinist; 9-11:30, evening at home, PWX, Havana, Cuba (400), 8:30-11 p. m., band stand,
WBBM, Chicago, Ill. (226), 8-10 p. m., Tell Taylor, Ned Santry, Charlie Garland.
WCELE, Elgin, Ill. (275), 10:30-12, midnight, Joe Rudolph and the Boss's own orchestra; Frank Morris, Eddie and Fannie Cavanaugh, John Poat.
WCX, Detroit, Mich. (516.9), 4:15 p. m., musical program; 6, dinner concert, Book-Cadillac hotel; 7, musical program.
WEAO, Columbus, Ohio (293.9), 7:30 p. m., bedtine



gram; 10-11, Metcalf Memoriai organ recent, H. Percy, WEBH, Chicago, III. (370.2), 7:30 p. m., Oriole concert orchestra; Lydia Lochner, contralto; 8:30, Frank Bordner, baritone; musical bits, Riviera theater; 9:30, Oriole dance orchestra; Dennis Sisters; Frank Magini, songs; 11:30-1, Oriole dance orchestra; Dennis Sisters; Frank Magini; Ted Fiorito, novelty pianis; Frank Bordner.

Oriole dance orchestra; Dennis Sisters; Frank Magini; sons; 11:30-1, Oriole dance orchestra; Dennis Sisters; Frank Magini; Ted Fiorito, novelty pianist; Frank Bordner.

WGES, Oak Park, III. (250), 516:30 p. m., Katherine Forbes, soprano; Edgar Scott, tenor; Edna Wallace, soprano; McDebitt Sisters; 6:30-7, bedtime stories, cornelia Duncan; 10:30-1, A. Cavallo and his 11 master musicians; Sammy McTavisch, comedian; Rudolph Hess, pianist; Sattelites orchestra; Coyne Electrical School serenaders.

WGN, Chicago, III. (370.2), 6:30-7:30 p. m., Drake concert ensemble, Blackstone string quintet; 8:30, studio program; 9, Radio interview with the weather man; 10:30-11:30, Drake Hotel Terrace Garden program; 9, Radio interview with the weather man; 10:30-11:30, Drake Hotel Terrace Garden program; 9, Radio interview with the weather man; 10:30-11:30, Drake Hotel Terrace Garden program; 9, Radio interview with the weather man; 10:30-11:30, Drake Hotel Terrace Garden program; 9, Radio interview with the weather man; 10:30-11:30, Drake Hotel Terrace Garden program; 9, Radio interview with the weather man; 10:30-11:30, WGY, Chamber Music ensemble; 9: "Over the Seven Seas"; 10, Meyer Drak; orchestra.

WHT, Deerfield, III. (399.3), 7-8:30 p. m., Dorothy Blum, soprano; Edward Kemp, tenor; Dorothy Wilkens, Thora Martens; Al Carney, organist; Agatha Karlen, reader; ballads, John Clark; 8:45-10:05, (238), Elmer Kaiser's Riverview Park Ballroom orchestra; 10:30-1, (399.3), Emil Rosseau, tenor; Ned Becker, gloom assassin; Eleanor Gilmour, soprano; Jane McConnell, contraito; Husk O'Hare's orchestra.

WHD, Mooseheart, III. (392.8), 10:30 p. m., Cosmopolitan quintet; 11, Doc Howard's WKRC entertainers. WLS, Chicago, III. (344.6), 6:30 p. m., Rahp Emerson, organist; 7:15, Cornhuskers; 7:45, hillaby time, Aunt Martha and Uncle George; 8, WLS theater, E. Warren K. Howe's classical program; 9, R. F. D. program; Jack Friedenberg, harmonic and banjo soloist; 10, WLS Harmony trio, Grace Wilson, contraito; 10:20, Williamson Brothers and Phil; 10

revue.

WLW, Cincinnati, 0. (422.3), 4 p. m., recital, pupils of Stuffregen studios; 7, dinner hour concert; 8, special program, talent from College Hill; 9, concert program, talent from College Hill; 9, concert programs.

or Sturresen status, 1, annual program, talent from College Hill; 9, concert program, Formica concert orchestra.

WMAQ, Chicago, III. (447.5), 6 p. m., Chicago theater organ; 6:30, Hotel LeSalle orchestra; 8, Harry Hanesen; 8:20, talk on city's water supply, Col. A. Sprague; 8:40, weekly talk, Association of Commerce; 8:50, lecture, University of Chicago; 9:15, Stevens Ladies'

recentre, University of Cinicago; 9:15, Stevens Ladies' chorus.

WMBB, Chicago, Ill. (250), 7-8:30 p. m., semi-classical program, J. Bodewalt Lampe, director; Beatrice Teller and Trianon ensemble; Ambrose Wyrick, Rita McFawn; Hazel O'Nell; Armin F. Hand and the Woodlawn theater orchestra; 8:30-10:30, Dell Lampe and Trianon orchestra; Johnnie Keane, Bob Lumpe and Trianon orchestra; Johnnie Keane, Bob Duffy, Geraldine Doyle, Charles Agne and Trianon syncopators, Fisher and Smith.

WQ1, Chicago, Ill. (447.5), 7-8 p. m., Rainbo Garden orchestra, Mrs. Adelaide Steeg, contralio; Leon Byram Reed, violinis; Mrs. A. Scott Armstrong, accompanist; Mildred Perlin, reader; 10-1, Ralph Williams!

program.

WMC, Memphis, Tenn. (499.7), S:30 p. m., program,
O. H. Muehler; 11, Harry Nichols, organist.

WOAN, Lawrenceburg, Tenn. (282.8), 12:15-12:45 p. m.,
Vaughan Radio orchestra; 9-10, Vaughan Radio orchestra; male quartet; Vaughan Recording male quartet.

chestra; male quartet; vaugnan Recording mare quartet.

WOAW, Omaha, Nebr. (528), 6 p. m., "Advice to the Lovelorn," Cynthia Grey; 6:20, baseball; 6:25, May Seed & Nursery company; 9, Fontenelle celebration association; 12, Rialto midnight froile.

WOC, Davenport, 1a. (483.6), 8-8:20, "Some Interesting Facts about Railroad Telegraphy," H. B. Perham.

WSB, Atlanta, Ga. (428.3), 5-6 p. m., Bonnie Barnhardt's bedtime story; music; 8-9, Vick Myers Melody artists, Dixie Sunbeams; 10:45, entertainment.

WSMB, New Orleans, La. (319), 6:30-7:30 p. m., dinner music, baseball.

Mountain Standard Time Stations CNRR, Regina, Canada (356), 8-10 p. m., bedtime travel tale; H. J. Record concert orchestra.

Pacific Standard Time Stations

KFI, Los Angeles, Calif. (467), 5:30-6 p. m., Examiner's matinee program; 6-6:15, McDamiels' nightly dolngs; 6:45-7, radiotorial talk; 7-8, program, Hills Brothers; Starr Russell, the blue streak of Radio; Way Watts and his ukulel; Hills Brothers dinnerdance orchestra; 8-9. Examiner's program, Monrovia, California community orchestra; 9-10, Wilshire string trio, Agnes Kraemer, dramatic soprano; 10-11, Packard ballad hour, Billy and Polly Hall, Ashley Sisters, Ray Wood, Way Watts and others.

KFWB, Hollywood, Calif. (252), 7:45-9 p. m., program, Western Super-service garage, Marguerite Le Grand, concert pianist, Great Western male quartet, Erickson sisters; 9-10, feature program, Union Oil company of California; 10-11, Warner Brothers frolic, direction Charlie Wellman.

K60, Oakland, Calif. (361.2), 8 p. m., Kohler & Chase; Lina Torrano, accordionist; Elsa Behlow Trautner, soprano; Carey male quartet; Marino Ladies' orchestra; Ray Nealan, tenor; Nona A. Campbell, soprano; 10-1, Henry Halstad's orchestra.

KGW, Portland, Ore. (491.5), 7:30-8 p. m., baseball; 9-10, concert, Woolach and Powell company; 10-12, Herman Kenin's Multnomah hotel dance orchestra.

KHJ, Les Angeles, Calif. (405.2), 5:30-6 p. m., Leighton's Arcade cafeteria orchestra, Jack Cronshaw, leader; Pacific Standard Time Stations

10:39, Jack Myers' Musical Architects' dance orchestra.

WEAF, New York, N. Y. (491.5), 6-7 p. m., dinner
music, Waldorf-Astoria; 7-7:30, services Untited Synagogue of America; 7:30-7:45 Max Olanoff, violnist;
7:45-8, Mabel Rowland, impersonator; 8-9, U. S.
Navy Band, direction Lieutenant Charles Benter; 910, Ipana Troubadours; 10-11, Royal Little Symphony
11-12, Ben Bernie: Hotel Roosevelt orchestra.

WEEI, Boston, Mass. (476), 6:30 p. m., Big Brother
club; 7:15, talk; 8, Traveler Shoe concert; 8:30, M.
B. Cohan's half hour musical; 9, musicale; 10, De
Lancy Cleveland and assisting artists; 10:30, Joe Beal
and entertainers.

Lancy Cleveland and assisting artists; 10:30, Joe Beal and entertainers.

WFI, Philadelphia, Pa. (394.5), 3 p. m., Loretta Kerk, pianist; 6:30, Bellevue Stratford concert orchestra; 7 bedtime stories.

WBBS, New York, N. Y. (315.6), 6-6:30 p. m., Uncle Geebee; 6:30-7:30, Elite orchestra.

WGR, Buffalo, N. Y. (319), 2:30-4:30 p. m., WGR's afternoon program, A. J. Erisman, director; 9-10, musical program, Mr. and Mrs. Vernon Curtis; 10-10:15, Hawalian guitar duet; 10:15-10:30, George Phelps, popular soloist; 10:30-10:45, Rev. Samuel Artuck, tenor soloist; 11-1 a. n., supper dance music; Vincent Lopez Hotel Statler dance orchestra, Harold Gieser, director.

Vincent Lopez Hotel Statler dance orchestra, Balvin Gieser, director.

WHN, New York, N. Y. (360), 7:30-7:35 p. m., health talk, Dr. Landis; 8:15-8:39, Rubey Cowan, tenor; 9-10, Consolidated Dairy orchestra; 10-10:30 Roseland dance orchestra; 10:30-11, Palisades Amusement Park orchestra; 11:30-12, Silver Silper revue and orchestra; 12-12:30 a. m., Strand Roof orchestra.

WIP, Philadelphia, Pa. (508.2), 3 p. m., recital, students of Kurtz Vocal studios; 6:05, Benjamin Franklin concert orchestra; 7, Uncle Wip's beddime stories; St. Elizabeth's Parochial school band.

WJAR, Providence, R. I. (305.9), 7:30 p. m., New York studio.

studio.

WJZ, New York, N. Y. (454.3), 7-8 p. m., Cafe Boulevard orchestra; 8-8:10, Wall Street Journal review; 8:10-8:30, NYU Air College; 9:15-10:30, U. S. army program; 10:30-11:30, Monte Carlo Virginians.

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

band.
WLIT. Philadelphia, Pa. (394.5), 4:30 p. m., Magazine
Corner, Mrs. B. F. Maschal; Marcella North, pianist;
7:30, Dream Daddy's bedtime stories; 8, concert,
Brooklyn Square Glee club; 9, automobile talk; spelling bee for bank championship of Philadelphia; 10,
Arcadia cafe dance orchestra.

stories, Justice Carter; 8, Roberts string quartet; Zella Roberts, harpist; Mae Skinner, violinist; Ann Charles, violinist; Ethel Harris, cellist.

WEAR. Cleveland, Ohio (389.4), 7-8 p. m., concert, Hotel Cleveland orchestra; Ivan Francisci, conductor, Chicago, III. (370.2), 7:30 p. m., Oriole concert orchestra; Cyril Allen, cellist; Louis Bartlett, planist; "Books of the Day," Lewellyn Jones; 9:30, Oriole dance orchestra; Robert York, tenor; 10:30, brass quartet, Kay Ronayne, songster; II:30-1, songs, Gorman Brothers; Robert York, Kay Ronayne, WGES, Oak Park, III. (250), 5-6:30 p. m., Margaret Hayes, soprane; Bryce Talbot, barttone; Frank Grief, tenor; Howard NewnIller, pianist; 6:30-7, bedtime stories; 10:30-1, A. Cavallo and his 11 master musicians; Ralph Olson, pianist; Andrea Scarlatti, tenor; Coyne Electrical School serenaders.

WGN, Chicago, III. (370.2), 6:30-7:30 p. m., Drake concert ensemble, Blackstone string quintet; 8:30-9:30, studio program; 10:30-11:30, Drake Hotel Terrace Garden program.

WGY, Schenectady, N. Y. (379.5), 5:45 p. m., Abbary

studio program; 10:30-11:30, Drake Hotel Terrace Garden program.

WGY, Schenectady, N. Y. (379.5), 5:45 p. m., Albany Strand theater symphony orchestra; Julius Boxhorn, conductor; Floyd H. Walter, organist; 6:30, feature, H. (198.6), 7-8:30 p. m., Madame Emmy Ohl, soprano; Herman Bing, barltone; Oscar Heather tenor; Al Carney organist; ballads, John Clark; 8:45-10:05, (238), Elmer Kaiser's Riverview Park orchestra; 10:30-1, (399.8), Lydla Lockner, contralto; Brock Sisters; Al Carney; Husk O'Hare's orchestra.

contraito; Brock Sisters; Al Carney; Husk O'Hare's orchestra.

WID, Mooseheart, III. (302.8), 10:30 p. m., Emily Schneider, Clarence Harper, Rudy Patek, Geneva organ, Charley Straight's orchestra.

KRC. Cincinnati, Ohio (422.3), 8 p. m., weekly book review, reading course, Alice B. Coy; 8:15, Lelia LeMarr, planist; 8:45, special features; 9:15, Bob Groenke, Jim Mischler.

WLS, Chicago, III. (344.6), 6:30 p. m., Ralph Emerson, organist, Martha Meier, contraito; 7:15, Cornhuskers; 7:45, Iullaby time, Aunt Martha and Uncle George; 8, Blanch Belka, mezzo-soprano; Roy Coleman, tenor; 8:15, Lone Scouts; 8:45, WLS theater; 9, R. F. D. program; 10, Nubs Allen, contraito; 10:10, Czecho-Slovakian choral society, classical and national songs; 11, Cornhusker's orchestra.

WLW, Cincinnati, Ohio (422.3), 4 p. m., Shut-in program; 7, dinner hour concert, Hotel Gibson orchestra, Robert Visconti, director; 10, plano recital, "Scenes

WLW, Cincinnati, Ohio (422.3), 4 p. m., Shut-in program; 7, dinner hour concert, Hotel Gibson orchestra, Robert Visconti, director; 10, piano recital, "Scenes from Many Lands; 11, Organ concert, Johanna Grosse, WMAQ, Chicago, III. (447.5), 2:45 p. m., Cubs-New York baseball; 6, Chicago theater organ; 6:30, stories for children, Georgene Faulkner; 8, lecture, North-western university; 8:25, piano concerto, Carol Hurlbut, Kathleen McKittrick; 8:45, WMAQ players.

WMBB, Chicago, III. (250), 7-8:30 p. m., operatic program, J. Bodewalt Lampe, director; Beatrice Teller and Trianon ensemble, Ambrose Wyrick, Rita McFawn, Hazel O'Nell, Armin F. Hand and the Woodlawn theater orchestra; 8:30-10:30, Dell Lampe and Trianon orchestra, Cecil Ward, George Foraythe, (Continued on page 12)

(Continued on page 12)

## COOLIDGE'S TALK AT NORSE-AMERICA

#### 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.

#### Atlantic or Eastern Daylight Saving Time Stations

Saturday, June 6: 6:05, WIP; 7, WNYC; 7:15, WEAF; 7:30, WHAR; 8:15, WEAF; 8:55, WEAF; 9:30, WFI; 9:45, WNYC; 10:15, WEAF; 8:15, WEAF WFI; 9:45, 10:30, WEAF.

Sunday, June 7: 7:20, WCAE, WEAF, WEEI, WJAR; 9, WNYC; 10,

WHN.

Monday, June 8: 7, WNYC; 7:30, WHAR; 7:45, WAHG; 8:30, WOO, WOR; 8:45, WAHG; 9, WEAF, WEBI, WJAR; 9:15, WAHG; 9:30, WHN; 10, WMCA; 10:45, WOR.

Tuesday, June 9: 7:30, WEAF, WHAR; 8:30, CKAC, WCAE, WDWF, WEAF, WFI, WEBI, WJAR; 9, WIP; 10, WGBS, WNYC; 10:35, WNYC; 11, WGBS; 12, WHN.

Wednesday, June 10: 8:15 WAHG

Wednesday, June 10: 8:15, WAHG, WHN; 10, WGR; 10:15, WGR; 10:30, WEEL.

WEEI.
Thursday, June 11: 7:30, WEAF, WGBS; 8, WGR, WHN; 8:30, CKAC; 9, CHNC, WEAF, WGBS; 9:30, WGBS; 10, WHN; 12, WHN.
Friday, June 12: 6:30, WGBS; 7, WGR; 7:30, WHAR; 7:45, WAHG; 8, WAHG, WEAF; 8:15, WEBJ; 8:30, WAHG, WEAF; 9:30, WAHG, WEEI, WHN; 10, WGR, WLIT; 10:30, WLIT; 11:30 WHN; 12. WHN. WLIT; 11:30, WGR, WLIT;; 10:30, WHN; 12, WHN.

#### Eastern Standard or Central Daylight Saving Time Stations

light Saving Time Stations

Saturday, June 6: 6, WIBO; 8, WBBM, WIBO, WLS, WHAQ; 8:30, WMBB; 9, WBBM, WLS, WTAM; 9:30, WEBH, WBBM, WKRC, WLS, WQJ, WRC, WTAM; 10:30, WEBH, WGES, WJJD; 10:40, WSAI; 11, WBBM, WKRC, WLS, WQJ, WTAM; 11:30, WEBH, WGES; 12:35, WSAI; 1, WQJ; 1:20, WSAI; 2, WQJ; 2:40, WSAI; 1, WQJ; 1:20, WWJ; 8, WBBM, WTAS; 8:30, WTAS; 9, WBBM, WTAS; 8:30, WTAS; 9, WBBM; 9:30, WTAS; 11, WIBO; 10:30, WJJD, WTAS; 11, WIBO; 11:30, WTAS; 12, WBBM.

Monday, June 8: 6:35, WGY; 8, WTAS; 9, WTAS; 9, WTAS; 10:30, WJJD; 11, WKRC, WSAI, WTAS; 10:30, WJJD; 11, WKRC, SI, WKRC, WSAI, WTAS; 10:30, WJJD; 11, WKRC; 12, WKRC, WSAI, WKRC, WSAI, WTAS; 10:30, WJJD; 11, WKRC; 12, WKRC, WSAI, WKRC, WKR

WHAS; 10:30, WJJD; 11, WKRC; 12, WKRC.

Tuesday, June 9: 7, WSAI; 8, WBBM, WTAS; 8:15, WREO; 9, WBBM, WEAR, WTAS; 9:30, WEBH; 10:30, WEBH, WJJD; 11, WBBM, WKRC, WQJ, TWAS; 10:30, WEBH, WJJD; 11:30, WEBH; 12; WQJ; 12:30, WEBH; 1, WQJ.

Wednesday, June 10: 8, WBBM, WTAS, WWJ; 8:15, WKRC; 8:30, WEBH; 8:45, WKRC; 9, WBBM, WTAS; 9:15, WKRC; 9, WBBM, WTAS; 9:15, WKRC; 9:30, WEBH; 10, WTAS; 10:10, WSAI, WQJ; 10:30, WEBH, WJJD; 11, WQJ; 11:30,

WEBH; 12, WQJ; 12:30, WEBH; 1,

WEBH; 12, WQJ; 12:50, WEBH, 1, WQJ.

Thursday, June 11: 6:30, WSAI; 7:30, WSAI; 8, WBBM, WTAS; 8:15, WREO; 8:30, WEBH; 10, WBBM, WTAS, WQJ; 10:30, WEBH; 11, WBBM; 11:15, WLW, WQJ; 12, WEBH, WQJ; 1, WQJ.

Friday, June 12: 8, WBBM, WTAS; 8:30, WEBH; 9, WBBM, WTAS; 10, WEBH, WTAS, WQJ; 10:30, WJJD; 11, WEBH, WQJ; 12, WEBH, WQJ; 1, WQJ.

#### Central Standard Time Stations

Central Standard Time Stations
Saturday, June 6: 6:30, WFAA; 8,
WSB; 8:30, WSMB; 9, KFRU,
WAMD; 9:30, WSMB; 10, KFRU,
KFVE, WAMD; 10:45, WSB; 11,
KFAB; 11:45, WDAF.
Sunday, June 7: 9:30, WFAA;
10:30, WFAA; 11, WBAP.
Monday, June 8: 6:30, WOAW;
6:45, WCCO; 7:30, KFAB, WBAP,
WHO; 8, WCCO; 8:30, KFAB, WBAP,
WHO; 8, WCCO; 8:30, KFRU, WBAP;
10, WOI; 10:45, WSB; 11:45, WDAF.
Tuesday, June 9: 8, WSB; 9,
WOAW; 10:30, KFRU; 10:45, WSB;
11, KFAB; 11:30, KFRU; 11:45,
WDAF; 12, WOAW.
Wednesday, June 10: 7:30, KFAB,

WDAF; 12, WOAW.

Wednesday, June 10: 7:30, KFAB,
WHO; 8, KFRU; 8:30, KFAB, WSMB;
9:30, KFRU; 11:45, WDAF.

Thursday, June 11: 7, WOAW; 8,
WSB; 9, WOAW; 11, WFAA; 11:45,
WDAF.

WDAF. Triday, June 12: 7:30, KFAB, WHO; 8, WDAF, WSB; 8:30, KFAB, WFAA, WHO; 9, WCCO; 11, KFRU; 11:45, WDAF; 12, KFRU.

#### Mountain Standard Time Stations

Monday, June 8: 8, KOA. Wednesday, June 10: 8, KOA. Friday, June 12: 8, KOA.

Pacific Standard Time Stations Saturday, June 6: 8, KFWB, KNX; 9, KFWB, KNX; 10, KFI, KFWB; 11, KFI, KNX; 11:30, KHJ; 12, KFI, KNX; 12:30, KHJ; 1, KFI, KNX; 2,

Sunday, June 7: 8, KHJ; 9, KFWB; , KFWB.

10, KFWB.

Monday, June 8: 8, KFWB, KNX;
9, KNX: 10, KFI, KFWB, KNX.

Tuesday, June 9: 8, KFI, KHJ,
KNX: 9, KFI, KFWB, KHJ, KNX,
KPO: 10, KFWB, KNX; 11, KGW,

KNX.

Wednesday, June 10: 7:30, KFI; 8, KFWB, KGW; 9, KFI, KFWB; 10, KFWB, KGW, KNX; 11, KNX.

Thursday, June 11: 8, KHJ, KNX; 9, KFWB, KHJ; 10, KFI, KFWB, KHJ; 11, KNX.

Friday, June 12: 8, KFWB; 9, KFI, KFWB, KHJ; 10, KFWB, KNX; 10:30, KGW; 11:30, KGW.



#### Thursday, June 11

Thursday, silent night for: CHIC, CHNC, CHYC CNRT, KFAB, KFAE, KFDM, KFMX, KFOA, KOA, KOB, KSD, PWX, WAHG, WBAV, WCEE, WEAO, WEBJ, WEBW, WHA, WHAD, WHAZ, WJJD, WKRC, WRBC, WSAC, WTAM.

#### Atlantic or Eastern Daylight Saving

Time Stations
CKAC, Montreal, Can. (410), 4:45 p. m., cabaret, Windsor hotel; 8:30, C. N. R. entertainers.
CNRM, Montreal, Can. (411), 9 p. m., orchestra, White Star-Dominion line; Bessie Anderson, soprano; P. B. Coller, tenor.
WAHG Richmond Hill, N. Y. (315.6), 12:30-1:05 p. m., Bario Eddie.

Coller, tenor.

WAHG Richmond Hill, N. Y. (315.6), 12:30-1:05 p. m., Banjo Eddie.

WBBR, New York, N. Y. (272.6), 8 p. m., Watchtower instrumental trio; George Twaroschk, Carl Park, Malcolm Carment; 8:10, Carl Park, violinist; 8:20, Sunday school lesson, S. M. Van Sipma, 8:40, Malcolm Carment, clarinetist; 8:50, instrumental trio.

WBZ, Springfield, Mass. (333.3), 6 p. m., Leo Reisman Hotel Lenox ensemble; 7:30, U. S. Marine band; 9:40, "Bringing the World to America," Our World; 9:50, baseball.

WCAE, Pittsburgh, Pa. (461.3), 6:30 p. m., dinner concert, William Penn hotel; 7:30, Uncle Kaybee; 8, recital; 9, Atwaer-Kent Radio artists; 10, Goodrich Silvertown Cord orchestra.

WCAU, Philadelphia, Pa. (245), 6 p. m., Hotel Pennsylvania Inter-fraternity dance orchestra; 7:30, N. Snellenburg and Co. symphony orchestra; 7:30, Syrvices, dance orchestra.

WDBF, Providence, R. I. (440.9), 6:30-8 p. m., Narraganset hotel orchestra.

WEAF, New York, N. Y. (491.5), 6-7 p. m., dinner music, Waldorf-Astoria; 7:730, services, Greater New York Federation of Churches; 7:30-8, Cushman Serenaders; 8-8:30, special entertainment, Annual Dinner of Alumni association of Massachusetts Institute of Technology direct from Mechanics' Hall, Boston; 8:30-9, "Touring in a Packard Eight," George Elliott Cooley; "Touring in a Packard Eight," George Elliott Cooley; "Touring in crehestra.

WELL, Boston Mass. (476), 6:30 p. m., Big Brother at the property of the parket of the content of the content of the content of the content of the property of the property of the pennsylvania orchestra.

9-10, Atwater-Kent Radio Artists; 10-11, Silvertown Cord orchestra; 11-12, Vincent Lopez' Hotel Pennsylvania orchestra.

WEI, Boston Mass. (476), 6:30 p. m., Big Brother club; 7:15, musicale; 8, New York; 9, Atwater-Kent Radio artists; 10, Goodrich Silvertown Cord orchestra.

WF Philadelphia, Pa. (394.5), 3 p. m., Housewives' Radio exchange and gardon talk, Mahel Swint Ewer; 6:30, Bellevie Stratford concert orchestra; 7, bedtime stories; 8, content from WEAF; 9, Atwater-Kent Radio artists, 0, Silvertown Cord orchestra; 7, bedtime stories; 8, orchestra; 0, Silvertown Cord orchestra; Radio artists, 0, Silvertown Cord orchestra; Radio artists, 0, Silvertown Cord orchestra; House orchestra; 7:20-7:30, George Dale, tenor; 7:30-8:30, California Ramblers; 98:30-8:40, closing of play concest, Oliver Sayler; 9-9:30, Solomon Pinsler, planist; 9:30-10:30, Plocadilly theater program, 9:30-10:30, Plocadilly theater program, WGR, Buffalo, N, Y, (319), 2:30-4:30 p. m., WGR's afternoon program A J. Erisman, director; 6:30-7:30, plano recital; 8-11, joint broadcasting with WEAF including, annual dinner Alumni association of the Massachusetts Institute of Technology from Mechanics' Hall, Boston; the Tolessen circ; Atwater-Kent program, Goodrich Silvertown Cord orchestra.

WHAR, Atlantic City, N. J. (275), 7:30 p. m., Seaside hotel tric; 8, concert; 9, Shelburne hotel concert orchestra.

WHN, New York, N. Y. (360), 7-7:30 p. m., Silver

notel trio; 8, concert; 9, Shendume hote toncate of chestra.
WHN, New York, N. Y. (360), 7-7:30 p. m., Silver Slipper revue; 7:30-7:35, helath talk, Dr. Landis; 8-8:30, Will Oakland's Chateau Shanley; 9:30-10, Palisades Amusement Park orchestra; 10-10:30, Loew's vaudeville headliners; 12-12:30 a. m., Parody club revue and orchestra.

vue and orchestra.

WIP, Philadelphia, Pa. (508.2), 6:05 p. m., Benjamin
Franklin concert orchestra; 7, Uncle Wip's bedtime

stories; 8, Junior orchestra, West Philadelphia High School for Boys; 9, Lehigh Valley Railroad glee club; 11, Howard Lanin's dance orchestra.
WIAR, Providence, R. I. (305.9), 8 p. m., program from New York; 9, Victor presentation; 10, Goodrich Silvertown Cord orchestra.
WIY, New York, N. Y. (405.2), 8:15-8:25 p. m., talk, Field and Stream magazine; 10:30-11:30, Billy Wynne's Greenwich Village Inn orchestra.
WIZ, New York, N. Y. (454.3), 7-8 p. m., Bernhard Levitow's Hotel Commodore orchestra; 8-8:10, Wall Street Journal review; 8:10-8:30, NYU Air college; 8:30-10, U. S. Marine band; 10-10:30, staff recital, Keith McLeod, planist; Godfrey Ludlow, violinist; Milton J. Cross, tenor.
WKAQ, San Juan, P. R. (340.7), 8:30-10 p. m., musical concert, La Cafetera.

WKAQ, San Juan, P. R. (340.7), 8:30-10 p. m., musical concert, La Cafetera.
WLIT. Philadelphia, Pa. (394.5), 4:30 p. m., garden talk; 7:30, Dream Daddy's bedtime stories.
WMOA, New York, N. Y. (340.7), 11-12 p. m., Ernie Golden and his Hotel McAlpin orchestra.
WNYC, New York, N. Y. (529), 6:50-7 p. m., market high spots; 7-7:25, song rectial; 7:25-7:30, baseball results; 7:35-8, talk, Mayor John F. Hylan; 8-9, dance program, Harnett Donaldson and his orchestra; 9-10:30, concert program.

concert program.
WOO, Philadelphia, Pa. (508.2), 4:45 p. m., organ rectal, Mary E. Vogt; 7:30, Hotel Adelphia roof garden orchestra.

WOR, Newark, N. J. (405.2), 6:15-7:30 p. m., Tom Cooper's orchestra.

#### Eastern Standard or Central Daylight Saving Time Stations

Saving Time Stations

AT9, Fort Bragg, N. C. (435), 9 p. m., dance orchestra. 
KDKA, Pittsburgh, Pa. (309.1), 2:30-7 p. m., scores; 
8, program, National Stockman and Farmer studio; 
8:45, Teaberry time; 9:55, baseball; 10:30, concert, 
Pittsburgh Post studio. 
KYW. Chicago, III. (335.4), 6-6:30 p. m., dinner concert, Congress hotel; 6:35-6:53, speeches, American 
Farm Bureau federation; 7-7:20, "Twenty Minutes of Good Reading," Rev. C. J. Permin; 7:20-8:15, 
Adelaide Timereck, contratio; Jack Walker, teory, 
Katherine Johnson, soprano; Kathryn Bassi, harpist; 
8:20, "Why Is Corned Beef?" John C. Cutting 
9-9:30, evening at home. 
WBBM, Chicago, III. (226), 8-12 midnight, Maurice 
Silverman, tenor; Sylvia Galnic, soprano; Tiny Dave 
Nudelman, George Givot, Crillon orchestra. 
WCX, Detroit, Mich. (516.9), 4:15 p. m., musical program; 6, dinner concert, Book-Cadillac hotel; 7, musical program. 
WEAR, Cleveland, Ohio (389.4), 7-9 p. m., WEAF pro-

gram; 6, dinner concert, Book-Cadillac hotel; 7, musical program, 6, dinner concert, Book-Cadillac hotel; 7, musical program, 19-10, Metcalf Memorial organ recital, Vincent H. Percy; 10-11, musical program, 9-10, Metcalf Memorial organ recital, Vincent H. Percy; 10-11, musical program, order orchestra; Edwin Kemp, tenor; 8:30, musical bits, Riviera theater; 9:30, Oriole dance orchestra; Belle Forbes Cutter, soprano; Bellah Ladon, violinist; Leroy North, pianist; 11:30-1 Oriole dance orchestra; songs Paul Small; songs, Wayne Myers; Belle Forbes Cutter, soprano; Edwin Kemp, WaES, Oak Park, III. (250), 5-6:30 p. m., Edgar Scott, tenor; Katherine Forbes, soprano; Edwin Kemp, tenor; 6:30-7 bedtime story; 10:30-1, A. Cavallo and his 11 master musicians; Emily Liete, comedienne; Louis Butler, tenor; Edwin Barge, planist; Coyne Electrical School orchestra.

orchestra. WGN, Chicago, III. (370.2), 6:30-7:30 p. m., Drake concert ensemble, Blackstone string quintet; 8:30-9:30, studio program; 10:30-11:30, Drake Hotel Terrace Coardon program;

studio program; 10:30-11:30, Drake Hotel Terrace Garden program,
WGY, Schenestady, N. Y. (379.5), 5:30 p. m., program,
Hotel Ten Eyek orchestra; 6:35, "Artificial Bait," A. Stanley Talbott; 6:45, Troy Salvation Army band; W. J. Streader, bandmaster; 8, Marine band program; 10:30, organ recital, Stephen Boisclair,
WHT, Deerfield, III. (399.8), 7-8:30 p. m., Marilla Walsworth, soprano; Tony Corcoran, bartione; Margaret Garrity, pianist; Dorothy Wilkens, Thora Martens; Al Carney, organist; 8:45-10:05, (238), Elmer Kaiser's Al Carney, organist; 8:45-10:05, (238), Elmer Kaiser's Riverview Park Balliroom orchestra; 10:30-1, (399.8), Sandy Meek, tenor; Ned Becker, gloom assassin;

#### DANCE (Central T

(Gentral Ti Saturday, Jur Kgw, Wpg; 8: 8:30, Ksd, Wca Wgbs; 9, Kfw Wor, Wpg, Wi Wtas; 9:30, Kg Wrc; 10, Kf Kpo, Wahg, Wc Kfoa, Webh, K Kfab, Wamd, W Wreo; 11:45, V Kgo, Kgw, Kgw, K Kfoa; 12:50, Khj; 2:30, Kh, Monday, Jun

Khj; 2:30, Khj.

Monday, Jun
Wlit, Wnyc, Wi
8:15, Wahg; 8:
Weaf, Wmca,
Wsmb; 8:45,
Kfi, Wtas; 9:
Wjid, Wmca,
Wgr, Wtas; 10:
Wcee; 11, Kfw,
Wdaf; 12, Kfi, J
Kpo; 1, Knx.

Tuesday, Jun

Kpo; 1; Knx.
Tuesday, Jun
Wtas; 8:30, Ck
Webh, Wtp;
Weaf, Wmea, W
9:05, Wahg; 9:
9:30, Wbap, W.
Whn; 10, Wg
Wcee, Webh,
Kfab, Wbap;
Wdaf; 12, K,
Knx, Kpo, Wg
Kfoa.
Wednesday

Wednesday, 8, Whn, Wli Wwi; 8:39, Wy, Kfwb, Weaf, W Whap, Weaf, W Whop, Web, W Whop, Web, W Who, Web, W Who, Web, Who, Wj Web, 11, Ko Kpo; 11:45, W Kfi, Kpo, Wq Khi,

Kfi, Kpo, Khj.
Thursday, Jun Weaf, Weei, W Wiar, Wsai, W Webh, Wjy, Ws Wcau; 9, Kfw Wio, Wmca, W Webh, WJY, Ws
Weau; 9, Kfw
Wip, Wmea, W
9:30, Kfkx, W
Wsmb, Wtas;
Kfwb, Whn; 10:
Webh, Wtas;
Woe; 11:45, V
Kfi, Kgo, K
Kpo, Wdi,
Friday, June
Wear, Wilt, W
8:30, Wahg, W
W
Way, Weaf, W
W
Wit, W
9:13, Kths; 9:
Chrt, Wgn, V
Web, Wjid, V
Web, Wjid, V
Web, Wjid, V
Who; 11:45, K
Khi; 12:05, K

#### Wednesday, June 10

#### (Continued from page 11)

Morey Alswang, Gillis & Owen, Anna Fleming Kenney, Lindsey McPhail, Clyde Hager.

WOJ, Chicago, Ill. (447-5), 7-8 p. m., Rainbo Garden orchestra; Jean Ballard, contralto; Gertrude Wolf Quentin, soprano; Fayette Miller, baritone; 19-1, Rainbo Skylarks; Bert Davis, Clown of the Air; Melodians, Fred A. Jacobsen, Zeigler Sisters, Hickey and Johnson, Brundage and Kraemer; 1-2, Ginger hour.

hour. Washington, D. C. (468.5), 5-6:30 p. m., U. S.

Marine band.
WREO, Lansing, Mich. (285.5), 10 p. m., baseball.
WSAI, Cincinnati, Ohio (326), 7 p. m., Freda Sanker'.
Toadstool orchestra; 10, art talk; 10:10, Congress
playing card string quartet; Chester Miller, baritone;

Toadstool orcnesura, playing card string quartet; Chester Milner, playing card string quartet; Chester Milner, playing card string quartet; Chester Milner, playing card string, soprano.

WTAM, Cleveland, Ohio (389.4), 6-7 p. m., Phil Spitalny's dance orchestra: 8-10, Hruby conservatory faculty and students' program; 10-11, Hollennen hour, Carl Rupp and his Hotel Hollenden entertainers; 11-12, Euclid Beach orchestra.

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

Fannie Cavanaugh.
WTIC, Hartford, Conn. (348.6), 6:50 p. m., baseball s.

Detroit, Mich. (352.7), 6 p. m., dinner concert; etroit News orchestra; Anne Campbell, poet; 9, Goldkette's Victor Recording orchestra.

#### Central Standard Time Stations

KFAB, Lincoln, Nebr. (240), 7:30-9:30 p. m., Blue Triangle club.
KFNF, Shenandoah, Ia. (266), 7:30 p. m., concert from
Wales, Rev. E. W. Griffith.
KFRU, Bristow, Okla. (394.5), 8-10:30 p. m., entertainment.

tainment.

KFVE, University City, Mo. (240), 6 p. m., Radiocast review of theaters, Romaine Fielding; 10, thirty minutes of fun, Jack; request numbers, KFVE studio artists, Marty, Steve, Lee, Dave, Ted, Three Spooks.

KSD, St. Louis, Mo. (545.1), 7 p. m., Lyric Skydome, Silverman's orrheater.

KSD, St. Louis, mu. (vro.,), Silverman's orchestra. KTHS, Hot Springs National Park, Ark. (374.8), 8:30-8:40 p. m. baseball; 8:40, New Arlington Hotel Meyer Davis ensemble.

WBAP, Fort Worth, Texas (475.9), 7:30-8:30 p. m.,
musical program; 9:30-10:45, Fred Cahoon's Texas

WBAP. Fort Worth, Texas (4/0.39), 71.30-5.30 p. m., musical program; 9:30-10:45, Fred Cahoon's Texas hotel dance orchestra.

WCCO, Minneapolis-St. Paul, Minn. (416.4), 6 p. m., baseball; 7, midweek church service, Gloria Dei Lutheran church, Rev. E. E. Ryden, pastor; 8:30, University of Minnesota program; 9, baseball; 10:30, George Osborn's Original Nicollet hotel orchestra; 11:30, Eddie Dunstedter, organist.

WDAF, Kansas City, Mo. (365.6), 6-7 p. m., piano tuning-in number on the Duo-Art; speaker, auspices

Health Conservation association; address, speaker, Meat Council of Greater Kansas City; Tell-Me-a-Story Lady; Plantation players; 8-10, Star's Radio orchestra; 11:45-1, Merry Old Chief, Carl Nordberg's Plantation players; Charles Dornberger's Kansas City Athetic club orchestra. (535.4), 8 p. m., University School of Music; Frankin's Captive Spark and Modern Radio, Prof. E. M. Terry, WHAS, Louisville, Ky. (399.8), 3:15 p. m., baseball; 7:30-9 p. m., string division, K. & I. Terminal Railroad orchestra; University of Louisville banio quartet. WHO, Des Moines, 1a. (526), 6:30-7:30 p. m., Reese-Hughes orchestra; 7:30-9, Cleveland Six program; 9:45, Des Moines theater symphony orchestra; 9:45-11, Cleveland Six dance program.
WOAN, Lawrenceburg, Tenn. (282.8), 12:15-12:45 p. m., Vaughan Radio orchestra; 9:10, Vaughan Radio orchestra; male quartet.
WOG, Davenport, lowa (483.6), 6:50-7:10 p. m., "Children and Their Training," C. I. Dawdy; 9:10, musical program.
WSB, Atlanta, Ga. (428.3), 5-6 p. m., Bonnie Barn-WSB, Atlanta, Ga. (428.3), 5-6 p. m., Bonnie Barn-

program.

WSB, Atlanta, Ga. (428.3), 5-6 p. m., Bonnie Barnhardt's bedtime story; Georgian's orchestra; 10:45

hardt's bedtime story; Georgian's orchestra; 10:45 Georgian's orchestra. WSMB, New Orleans, La. (319), 6:30-7:30 p. m., dinner music, baseball; 8:30-10:30, entertainment. Mountain Standard Time Stations KOA, Denver Colo. (322.4) 8 p. m. Fred Schmitt and his Rialto theater orchestra; 8:10 "The Captain of Plymouth," comic opera; 10-12, Dave Ginsburg and his Argonaut orchestra.

Pacific Standard Time Stations

his Argonaut orchestra.

Pacific Standard Time Stations

KFAE, Pullman, Wash. (348.6), 7:30-9 p. m., Mary Cameron, pianist; Doris McReynolds, violinist; "Canine Distemper," Dr. George R. Fowler; "Modern Plant Doctors," George L. Zunder; "The Lost Art of Enjoying Oneself," Rev. R. W. Graves; "Interesting Washington Crop Records," Prof. E. G. Schafer.

KFI, Los Angeles, Calif. (467), 5:30-6 p. m., Examiner's musical half hour; 6-6:15, McDaniel's nightly doings; 6:45-7, musical appreciation talk; 7-7:20, detective story, Nick Harris; 7:20, "Outline of Science." David Nelson Clark; 7:30-8, half hour of Hawalian music, Hawaiian Four; 8-9, continuity program; Ventura Refining company; "Summer Flesta of Music and Song;" 9-10, Examiner: Wampus program, press agents of the screen industry; 10-11, Patrick-Marsh dance orchestra, Betty Patrick, soloist.

KFWB, Hollywood, Calif. (252), 7-8 p. m., program, Beverly Ridge company; Beverly Ridge Collegians dance orchestra; 8-9, program, Arrowhead Springs company; Lake Arrowhead string quartet; Bill Hath and Ray (Rellogg, the jazz twins; 9-10, Warner Brothers syncopators, Charles Beauchamp, tenor; 10-11, Warner Brothers frolic, direction Charlie Wellman.

KGW, Portland, Ore. (491.5), 6-7 p. m., dance music, Jackie Souder's orchestra; Jack Cronshaw, leader; 6-6:30, Art Hickman's Biltmore hotel concert orchestra, Lake Gward Ffiznatrick, director; 6:30-7:39, little stories American history, Prof. Walter Sylvester Hert-

## ICAN CENTENNIAL HEARD FROM WCCO

Louisville, Ky. (399.8), 3:15 p. m., baseball; D. New Albany night, Mrs. J. E. Harmon, Jr.,

director; baseball. WHO, Des Meines, Ia. (526), 7:30-9 p. m., music; 11-

12, dance program.

WMC, Memphis, Tenn. (499.7), 8:30 p. m., concert,
O. K. Houck Piano company.

WOAN, Lawrenceburg, Tenn. (282.8), 12:15-12:45 p. m.,
Vaughan Radio orchestra; 9-10, Vaughan Radio orchestra; belle district.

chestra; male quartet.

WOAW, mmaha Nebr (526), 6 p. m., every child's stry hour, Grace Sorenson; 6:20, baseball; 6:30, classical program; 7, Randall's Royal Fontenelle orchestra; 9, Sunshihe program, Loose-Wiles Biscut

chestra; 9, Sunshine program, Loose-Wiles Biscuit company,
WOC, Davenport, la. (483.6), 6:3016:50 p. m., sandman's visit; 7-9, program from New York; 9-9:20,
"Where the West Begins," Hon. Henry R. Rathbone;
Il-12, Louis Connor and his LeClaire hotel orchestra;
Peter MacArthur, baritone.
WOI, Ames, Ia. (270), 8:15 p. m. musical program.
WSB, Atlanta, Ga. (428.3), 5-6 p. m., Bonnie Barnhardt's bedtime story; 8-9, entertainment; 10:45, Dr.
Charles A. Sheldon, organist.
WSMB, New Orleans, La. (319), 6:30-7:30 p. m., dinner musicale; 8:30-10:30, serenaders.

Mountain Standard Time Stations CNRC. Calgary, Can. (435), 9-11 p. m., Arthur Powell, pianist; George Boothman, baritone; Jeanette Roney, coprano; Excellsior entertainers.

Pacific Standard Time Stations

[FI, Los Angeles, Calif. (467), 5:30-6 p. m., Examiner's musical half hour; 6-6:15, McDanlels' nightly doings; 6:45-7, radiotorial talk; 7-8, program arranged by Maude Reeves Barnard, mezzo-soprano; 8-9, Chickering Hall, Southern California Music company; 9-10, KFI Symphony players, Dorothy Woods, readings; 10-11, Examiner: Harry Moore's famous Ventura orchestra.

ings; 10-11, realization or chestra; RFWB, Hollywood, Calif. (252), 7-8 p. m., Vince Rose's original Montmarte cafe dance orchestra; 8-9, Lake Arrowhead dance orchestra, Carrol Huxley, leader; 9-10, popular hour, Miller's International Hawatian tio, Bill Hatch and Ray Kellogg, Parks Sisters and others; 10-11, Warner Brothers frolic, direction Charlie Wellman.

Branch.

KPO. San Francisco, Calif. (428.3), 7-7:30 p. m., Rudy Seiger's Fairmont hotel orchestra; 8-8:50, Theodore J. Irwin, organist; Mrs. A. H. Patterson, soprano; 8:50-9, golf playing, Harold Sampson; 9-10, program, George H. Caswell Coffee company; 10-11, Johnny Buick's Cabirians.



#### DANCING (Central Time)

Gentral Time)

Saturday, June 6: 8,
Kgw, Wpg; 8:95, Wip;
8:30, Ksd, Weaus Webh,
Wgbs; 9, Kfwb, Weaf;
Wor, Wpg; Wqj, Wreo,
Wtas; 9:30, Kges, Wgn,
Wrc; 10, Kfve, Koa,
Kpo, Wahg, Weco; 10:30,
Kfoa, Webh, Wjid; 11,
Kfab, Wand, Wfaa, Woc,
Wreo; 11:45, Wdaf; 12,
Kgo, Kgw, Knx; 12:05,
Kfoa; 12:50, Wsai; 1,
Khi; 2:30, Khj.
Monday, June 8: 6,

Khj; 2:30, Khj.

Monday, June 8: 6,
Wlit, Wnye, Wias, Wwj;
8:15, Wahn; 8:30, Kfwb,
Weaf, Winea, Woo,
Wamb; 8:45, Whn; 9,
Kfi, Wtas; 9:30, Weee,
Wjid, Wmca, Wor; 10,
Wer, Wtas; 10:32, Kfoa,
Weee; 11, Kfwb, 11;45,
Wdaf; 12, Kfl, Kgod, Knx,
Kpo; 1; Knx.
Tuesday, June 88

Rpo; 1; Knx.

Tuesday, June 9, 8, Weas; 8:30, Chac, Weau, Webh, Wip; 19, Weau, Wex, Wear, Whoap, Weap, 9:15, Kths; 9:30, Wbap, Weee, Wen, Whn; 10, Wgr; 10:30, Weee, Webh, Wild; 11, Kfab, Whap; 11:45, Knx, Kpo, Wq; 12:05, Kfoa.

Maai; 12, Kgo, Khi, Knx, Kpo, Wqi; 12:05, Kfoa.

Wednesday, June 10:

\$. Whn, Wili, Wtas, Wwi; 8:30, Wcau, Webh, Whn, Wiz, Woo; 9, Kfwh, Weaf; Won; Wais; 9:05, Wahg; 9:30, Wcau, Whop, Wgn, Wcee; 9:45, Who; 10:30, Wgr, Whn; 10:30, Wgr, Whn; 10:30, Wgr, Wais; 11, Koa, Wgr, Khi, Kho, 11:45, Wdaf; 12, Kli, Kpo, Wdj; 12:30, Khi, Thursday, June 11: 8, Weaf, Weei, Wfi, Whn, Wiar, Wsai, Wtas; 8:30, Webh, Wiy, Wsmb; 8:45, Wcau; 9, Kfwh, Weei, Wfi, Whn; 10:30, Wcee, Weh, Whas; 11, Who, Woo; 11:45, Wdaf; 12, Kfi, Kgo, Khi, Knx, Kpo, Wqi, Friday, June 12: 8, Wear, Wilt, Wtas; 10: 30, Kfkx, Weee, Wgn, Wsmb, Wtas; 10, Cnrw, Kfwb, Whn; 10:30; Wcee, Weh, Was; 11, Who, Woe; 11:45, Wdaf; 12, Kfi, Kgo, Khi, Knx, Kpo, Wqi, Wras; 9:05, Wahg; 9:15, Kfis; 9:30, Cnre, Cnrt, Wgn, Whn; 10:30, Wcee, Wer, War, Wan, Woo; 9, Kfwh, Wcx, Weaf, Wear, Wiar, Woi, 9, Wsh, Wex, Weaf, Wear, Wiar, Wgn, Whn, Woo; 9, Kfwh, Wcx, Weaf, Wear, Wiar, Wgn, Whn; 10:30, Webh, Wjid, Woaw; 11:45, Wdaf; 12. Who; 11:45, Wdaf; 1

Agatha Karlen, reader; Husk O'Hare's orchestra; Al Carney, organist; Si Berg, ukulele soloist; Walter Donovan, tenor; Rita McFawn, soprano. WLS. Chicago, III. (344.6), 6:30 p. m., Ralph Emerson, organist, Martha Meler, contralto; 7:15 Cornhuskers; 7:45, Iullaby time, Aunt Martha nad, Uncle George;

WLS, Chicago, III. (344.6), 6.30 p. m., Ralph Emerson, organist, Martha Meier, contralto; 7:15 Cornhuskers; 7:45, Iullaby time, Aunt Martha nad, Uncle George; 8, WLS theater.

WLW, Cincinnati, Ohio (422.3), 4 p. m., French Lesson, Madame Ida Tcimpidis; piano recital, Adelaide Apfel; 7, dinner hour concert, Hotel Gibson orchestra directed by Robert Visconti; 8, Secretary Hawkins; 10, three minute message, Civil Service Department of the U. S. Government; 10:30, orchestra concert; 11:15 popular program, Irene Downing and Marjory Hebestreit; other features to be announced.

WMAQ, Chicago, III. (447.5), 2:45 p. m., Cubs-New York baseball; 6, Chicago theater organ; 6:30, Hotel LaSalle orchestra; 8, speaker; 8:15. Boy Scout program; 8:50, University of Chicago lecture; 9:15, Danish Workmen's Singing society.

WMBB, Chicago, III. (250), 7:30-8:30 p. m., semiclassical program, J. Bodewalt Lample; Beatrice Teller and Trianon ensemble; Ambrose Wyrick Rita McFewn, Hazel O'Neil, Armin F. Hand and the Woodlawn theater orchestra; 8:30-10:30, Dell Lampe and Trianon orchestra; Florence Tenny, Fisher & Smith, Charles Agne and Trianon Syncopators, Johnnik Keane, Bob Duffy.

WGJ. Chicago, III. (447.5), 7-8 p. m., Rålph Williams

Trianon orchestra; Florence Tenny, Fisher & Smith, Charles Agne and Trianon Syncopators, Johnnie Keane, Bob Duffy.

WQJ, Chicago, III. (447.5), 7-8 p. m., Ralph Williams and his Rainbo Gardens orchestra; Kenneth Sterling, tenor; Adeline Keller, contralto; Hazel Milne, planist; 10-1, Ralph Williams and his Rainbo Skylarks; Ila Shannabrook, soprano; Axel Christenson; Ned and Ches; Marie Wright, soprano; Lucas Sisters; Lew Butler; 1-2, Ginger hour.

WRC, Washington, D. C. (468.5), 7 p. m., Shoreham hotel orchestra; 7:30, U. S. Marine band; 8, Pan-American program; 10, Hotel Mayflower orchestra.

WREO, Lansing, Mich. (285.5), 8:15-9:45 p. m., Reo broadcasting orchestra; Russell Clark Northrup, planist; Thomas Metzger, flutist; Reo male quartet; local talent; 10, baseball.

WSAI, Cincinnati, Ohio (326), 6:30 p. m., Hotel Sinton instrumental trio; 8, Atwater Kent Radio artists; 9, Silvertown Cord orchestra.

WTAM, Cleveland, Ohio (339.4), 6-7 p. m., Hotel Statler concert orchestra; Maurice Spitalny, director.

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

WTIC, Hartford, Conn. (348.6), 6 p. m., Hotel Bond

chestra; Frank Morris, Polly Willis, Louis, Cavanaugh, Willo, Hartford, Conn. (348.6), 6 p. m., Hotel Bond trito; 6:50, baseball scores; 7, dinner music. WJ, Detroit, Mich. (352.7), 6 p. m., dinner concert; 7, concert from New York.

Central Standard Time Stations

Central Standard Hille Stations
CKY, Winnipeg, Can. (384.4), 9 p. m., program, CNRW.
CNRW, Winnipeg, Can. (384.4), 9 p. m., Kathleen Daly,
soprano; Fort Garry hotel trio; Kathleen Daly,
soprano; Emile Mignacca, violinist; Frank Redlich,
cellist; Warda M. August, accompanist; 10, dance

cellist; Warda M. August, accompanist; 10, dance program.

KFKU, Lawrence, Kan. (275), 6:50 p. m., piano tuning-in number; 7, music; 7:15, "Speed in Handling News," Prof. W. A. Dill; 7:30, "Interesting Blography, George Meredith," Prof. Sara G. Laird; 7:45, psychology, Dean R. A. Schwegler.

KFMQ, Fayetteville, Ark. (299.8), 7:30 p. m., "How the County Agents Assist in Farm Production and Marketing," R. Roy Reid; "What Does a State Owe Its Children," Dr. C. Reinoehl; "Municipal Progress vs. Personal Selfishness," B. F. Mullins.

KFNF, Shenandoah, Ia. (266), 7:30 p. m., concert, Humboldt, Neb., Junior Choir Presbyterian church.

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

organ.
KFVE, University City, Mo. (240), 6 p. m., Radiocast review, Romaine Fielding.
KLDS, Independence, Mo. (268), 8 p. m., program; E. N. Brinkman, contralto; C. B. Carpenter, soprano; Mrs. Herbert Spokesfield, pianist; "The Manufacture of Decorative Tile."
KTHS, Hot Springs National Park, Ark, (374.8), 8:308.8:40 p. m., baseball; 8:40-9:15, orchestra concert, New Arlington hotel; 9:15-10, Lawson Reid, organist.

Time Stations

CNRA, Moncton, Can. (313), 7:30 p. m., bedtime stories; 8:30, Mrs. Jack Rayworth, soprano; A. J. Mason, tenor; J. Gibson Davis, violinist; Bleanor Somers, soprano; R. J. Ward, reader; CNRA orchestra.

WAHG, Richmond Hill, N. Y. (315.6), 7:30-7:45 p. m., sport talk, Thornton Fisher; 7:45-8. songs, Bob Schafer and Fred Fisher; 8-8:15, plano duets, Helen and Betty Lasner; 8:15-8:30, the Davison Sisters; 5:30-8:45. Bob Schafer, Fred Fisher; 8:45-9, M. Lambertt, cellist; 9-9:15, John Finnegan, tenor; 9:15-9:30, Helen and Betty Lasner; 9:30-9:45, the Davison Sisters; 9:35-10, M. Lambertt, cellist; 9-9:15, John Finnegan; 10:15-10:30, Radio question box, William F. Dichl; 10:30-10:55, dance orchestra, Asciutto Brothers; 11:15-11:30, Asciutto Brothers.

WBZ, Springfield, Mass. (333.3), 7:45 p. m., "Poultry Flock Management," Prof. William C. Manahan; 8, Chickering studio; 9, Myrtle Atchinson Walmer, pianist; Stuart Lyman, violinist; 9:40, United States Naval history, E. S. R. Brandt; 9:50, baseball.

WCAE, Pittsburgh, Pa. (461.3), p. m., dinner concert, William Penn hotel; 8:30, Union High musical club. WCAU, Philadelphia, Pa. (425) 6 p. m., Hotel Pennsylvania Interfratemity dance orchestra; 6:30, Charles Verna's dance orchestra; 9:40, Sunday school lessons; 10:30, Charles Verna's dance orchestra; 6:30, Charles Verna's dance orchestra; 7:30-7:45, children's story, Blanche Elizabeth Wade; 8-8:30, the Happiness Boys; 8:30-9, Spear & Company home entertainers; 9-9:30, Adam Carroll trio; 9:30-9:45, Fenwick Newell, tenor; 11-12, dance program.

WEAR, Cleveland, O. (389.4), 7-8 p. m., children's hour; 8-11, dance music.

Friday, June 12

Atlantic or Eastern Daylight Saving

Time Stations

WEAR, Cleveland, O. (389.4), 7-8 p. m., children's hour; 8-11, dance music.
WEBJ, New York, N. Y. (233), 7-7330 p. m., Blenheim theater ensemble, direction of Sol Klein; 7:45-8, companied by Ruth Sneeberg; 8:15-9, Marvellan Alfred Seeger, baritone; 8-8:15, Mary E. Keller, acserendaer.

companied by Ruth Sneeberg; 8:15-9, Marvellan Alfred Seeger, bartione; 8-8:15, Mary E. Keller, ac-Serenaders.

WEI, Boston, Mass. (476), 6:30 p. m., Big Brother club; 7:15, muskeale; 7:30, program, Whiting's Milkemany; 8, program, Neapolitan Ice Cream commerce; 9, Howey Sylateria enterctainers; 9:30, Gray Gables musicale; 8 Valeteria enterctainers; 9:30, Gray Gables musicale; 8 Valeteria enterctainers; 9:30, Gray Gables musicale; 8 Sellevue Stratford concert orchestra; 7, bectime stories.

WGI, Priladelphia, Pa. (394.8), 3 p. m., Caroline Hoffman, planist; 6:30, Bellevue Stratford concert orchestra; 7, bectime stories.

WGBS, New York, N. Y. (315.6), 6-6:30 p. m., Uncle Geebee; 6:30-7. Clarence Williams trio.

WGR, Buffalo, N. Y. (315.6), 6-6:30 p. m., WGR's afternoon program, A. J. Erisman, director; 97-7:30, Winger's Crescent Park entertainers; 8-9, educational opera entertainment, 'Anima Allegro,' Vittadini, directed by Elinor D. Baker; 9-10, the Five Manguos in a musical program; 10-10:30, John Dodsworth, reader; May E. Bococck, planist; 11-1 a. m., supperdance music, Vincent Lopez Hotel Statler dance orchestra, Harold dieser, director.

WHAR, Atlantic City, N. J. (275), 7:30 p. m., Seaside hotel trio; 9, Shelburne hotel concert orchestra; 11., Strand theater.

WHN, New York, N. Y. (360), 7:30-7:35 p. m., health talk, Dr. Landis; 9:30-10, Clover Gardens entertainment; 10:30-11, Roseland dance orchestra; 11:30-12, Club Alabam orchestra; 12-12:30 a. m., Parody club revue and orchestra.

WIP, Philadelphia, Pa. (508.2), 3 p. m., musical program; 9, Maine Creamery hour; 11, Providence Biltmore hotel orchestra; 7. Uncle Wip's bedtime stories, WIAR, Providence, R. I. (305.9), 8 p. m., musical program; 9, Maine Creamery hour; 11, Providence Biltmore hotel orchestra; 7. Uncle Wip's bedtime stories, WIAR, Providence, R. I. (305.9), 8 p. m., musical program; 9, Maine Creamery hour; 11, Providence Biltmore hotel orchestra; 7. Uncle Wip's bedtime stories, 5.00 p. m. Marcella, North, planist; 7:30, Dream Daddy's bedtime

Journal review; 8:15-8:45, Wurlitzer musicale.

WLIT, Philadelphia, Pa. (394.5), 4:30 p. m. Marcella North, pianist; 7:30, Dream Daddy's bedtime stories; 8, book review, Allyn C. Saurer; 8:30, Emmett Welch's Minstrels direct from Atlantic city; 9:30, M. Volgarina; 9:45, Spike Hamilton's dance orchestra from Atlantic city; 10, Arcadia cafe dance orchestra; Morning Glory club concert; specialties by Rufus and Rastus; songs by Carl Zoehrns.

WMCA, New York, N. Y. (340.7), 6:30-7:30 p. m., Ernie Golden and his Hotel McAlpin orchestra; 9-10, Hardman hour of music.

WNYC, New York, N. Y. (526), 6:50-7 p. m., market high spots; 7-7:25, dance program; 7:25-7:30, baseball results; 7:35-7:50, resume of meeting of Board of Estimate; 8-9:30, concert program; 9:30-10:30, dance program.

woo, Philadelphia, Pa. (508.2), 4:45 p. m., organ recital, Mary E. Vogt; 7:30, A. Candelori's concert orchestra; 9, WOO orchestra, Robert E. Golden, director; 10:30, organ recital, Mary E. Vogt; 10:30, Vincent Rizzo's dance orchestra.

WOR, Newark, N. J. (405.2), 6:15-6:30 p. m., Hotel Lorraine orchestra; 6:30-7, Marn in Moon; 7-7:30, Hotel Lorraine orchestra.

#### Eastern Standard or Central Daylight Saving Time Stations

CNRT, Toronto, Can. (357), 5:30 p. m., Luigi Romanelli and his King Edward hotel concert orchestra; 8:30, Ye Olde Tyme Village quartet; Kriesson trio; 10:30, Luigi Romanelli and his King Edward hotel dance

orchestra. KDKA, Pittsburgh, Pa. (309.1), 2:30-7 p. m., baseball;

10-11, Warner Brothers frolic, direction Charile Wellman,
KGO, Oakland, Calif. (361.2), 8 p. m., California Music
Teachers' association, Irene Howland Nicoll, contraito;
Lillian H. Heyer, soprano; Esther Mundell, soprano;
Mme, Stella Vought, soprano; Allan Wilson, tenor;
Hendrick Gjerdrum, pianist; Lincoln S. Batchelder,
pianist; George Edwards, organist; Alice Guthrie
Poyner, violinist; Luther Marchant, baritone; 10-1,
Henry Malstead's orchestra.
KGW, Portland, Ore. (491.5), 7:30-8 p. m., baseball;
8-9, program, Yale Laundry company; 10:12, Herman
Kenin's Multnomah hotel orchestra.
KHJ, Los Angeles, Calif. (405.2), 6:39-7:39 p. m.,
little stories American history, Prof. Walter Sylvester
Hertzog, Dickie Brandon, screen juvenile and Uncle
John, Grace Crowner, pianist; 7:30, "Business Insurance," Chas. Lewen; 8-10, program, John Wright,
the Right Tallor, arranged by Uncle John; 10-10:30,
Valvoline trio; 10:30-1139, Art Hickman's Biltmore
hotel dance rechestra, Earl Burtnett, leader,
KNX, Hollywood, Calif. (336.9), 5:30-6 p.m., Wurflitzer
pipe organ studio, sports talk by Sid Ziff; 6:15, travel
talk, W. F. Alder; 6:30-7:30, dinner hour minsie;
7:30-8, one act play, KNX, players, Edward Murphey,
director, courtesy Jones Book store; 8-9, program,
Brents Furniture company; 9-10, KNX feature program; 10-11, Abe Lyman's Cocoanut Grove dance
orchestra from Ambassador hotel; 11-12, collegiate
hour, students of University of California, Southern
Branch.
KPO, San Francisco, Calif. (428.3), 7-7:30, p. m., Rudy
Seiger's Fairmont hotel orchestra: 8-8-80, Wand

orchestra.

KD.4, Pittsburgh, Pa. (309.1), 2:30-7 p. m., baseball; 8:45, concert.

KYW, Chicago, Ill. (535.4), 6-6:30 p. m., dinner concert, Congress hotel; 6:30-7:30, KYW's Evening American studio; 9-11:30, midnight revue, Paul Whiteman's Collegians; Albert May Malotte, organist.

WBAV, Columbus (293.7), 8 p. m., Columbus mandolinistica; Ben Bennett, baritone.

WBBM, Chicago, Ill. (226), 8-10 p. m., Al Furry, Frank Johnson, Sandy Meek, Lester Kelsey, Harry Sosnik Crillon orchestra.

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

WCX, Detroit, Mich. (516.9), 2 p. m., musical program; 10, dance music, Arcadia auditorium.

WEAR, Cleveland, Ohio (389.4), 3:30-5 p. m., musicale, Hotel Cleveland orchestra; Ivan Francisci, conductor; 9-10, evening hour, light opera selections.

WEBH, Chicago, Ill. (370.2), 7:30 p. m., Oriole concert orchestra; Florence Behrend, soprano; 8:30, violin trio; talk, Father Pernin; Cambridge Sisters; 9:30, Oriole dance orchestra; songs, Correll and Gosden; 9:30, Oriole dance with guitarist; 11:30-1, Oriole crichestra; Sandy Meek, Scotch tenor; Harry Sosneck, accompanist; Jack Penewell, twin guitarist; 11:30-1, A. Cavallo and his 11 master musicians; Rudolph Hess, Sandy McTavisch; Jimmy Eggert; Coyne Electrical School serenaders.

WGN, Chicago, Ill. (370.2), 6:30-7:30 p. m., proseconcer ensemble, Blackstone string quintet; 8:30-9:30,

McTavisch; Jimmy Eggert; Coyne Electrical School serenaders.

WGN, Chicago, III. (370.2), 6:30-7:30 p. m., Drake concert ensemble, Blackstone string quintet; 8:30-9:30, studio program; 10:30-11:30, orchestra.

WGY, Schenetady, N. Y. (379-5), 5:30 p. m., International Sunday school lesson; 7. Albany Strand symphony orchestra; Julius Boxhorn, conductor; Floyd H. Walters, organist; 6:45, WGY orchestra; 7:15, "Oliver Twist," WGY players; Ten Eyek Clay, conductor; 9:30, orchestra; George Harris, tenot.

WHT. Deerfield, III. (399.8), 7-8:30 p. m., Bryce Talbot, soprano; Genevieve Barry Burnham, soprano; Albert Carney, organist; Madame Emmy Ohl, soprano; Al Carney, organist; ballads, John Clark; 8:45-10:05, (238), Elmer Kaiser's Riverview Ballroom orchestra; Al Carney, organist; b1:30-1, (399.8), Fred Agard, tenor; Marie Wright, soprano; Bock Sisters; Husk O'Hare's orchestra.

WIBO, Chicago, III. (226), 2-4 p. m., popular program for Shut-Ins, Dan Ruseo, Ted Fiorito; 6-8, Harmony singers; Agatha Karlen, reader; Alvina, soprano; Dr. C. B. Roe, baritone; Carl Bertachinger, pianist. WIJD, Mooseheart, III. (302.8), 10:30 p. m., Senator Kessinger, Tom Loftus, Dick Vail, Lew Abbott, Geneva organ, Bill Benson, Charley Straight's orchestra. WLS, Chicago, III. (344.6), 6:30 p. m., Ralph Emerson, organist; 7:15, Cornhuskers; 7:45, Iullaby time, Abatt Martha and Uncle George; 8, Cornhusker's orchestra; 8:10, Wm. F. Antzen, tenor, Norwegian, Italian and English sonss; 8:25, soloists, mixed quartet, Harrison Technical high school; Maurice Bank, director; 8:45, drama; 9, R. F. D. program; 10, Cornhuskers; 10:15, Cornhuskers, Cubs. Reodity.

drama; 9, R. F. D. program; 10. Cornhuskers; 10:15; Westminster quartet; 11, Nubs Allan, contralto; 11:15. Cornhuskers.
Westminster quartet; 11, Nubs Allan, contralto; 11:15. Cornhuskers.
WMAQ. Chicago. III. (447.5), 2:45 p. m., Cubs-Brooklyn baseball; 6, Chicago theater organ; 6:30, Hotel Lasalle orchestra; 6:50 Family Altar league; 8, weekly wide-awake club; 8:30, musical geography. Mr. and Mrs. Allar E. Oberndorfer; 9, Christian Endeavor organ; 6:15, American conservatory.
WMBB, Chicago, III. (250), 7-8:30 p. m., semi-classical program, J. Bodewalt Lampe; Beatrice Teller and Trianon ensemble, Ambrose Wyrick, Rita McFawn, Hazel O'Neil, Armin F. Hand and the Woodlawn theater orchestra; 8:30-10:30, Dell Lampe and Trianon orchestra; Geraldine Doyle, Cecil Ward, Lindsey Mc-Phall, Art Linick and Lee Sims, Clyde Hager.
WQ. Chicago, III. (447.5), 7-8 p. m., Ralph Williams and his Rainbo Gardens orchestra; Albert M. Milton, Jr., tenor; Marie Watson Tilton, pianis; Helen Holman, soprano; 10-1, Ralph Williams and his Rainbo Skylarks; West Brothers; Zeigler Sisters; Lauretta Glles; Nate Caldwell; Brundage and Kraemer; Ila Shannabrook, soprano; 1-2. Ginger hour.
WREO, Lansing, Mich. (283.5), 10 p. m., baseball. WTAM. Gleveland, Ohio (389.4), 6-7 p. m., Austin Wylie and his Golden Pheasant orchestra.
WYAS, Elgin, III. (302.8), 8-10:30 p. m., baseball scores; 7, talk; 7:15, mixed quartet, Burton Hawley, accompanist; Robert Doellner, violinist; 8:30, Emil Heimberger's Hotel Bond orchestra.
WWJ, Detroit, Mich. (382.7), 6 p. m., dinner concert; 8, Detroit News orchestra; 9, Jean Goldkette's Victor Recording orchestra.

## Central Standard Time Stations Winnipeg, Can. (384.4), 8:30 p. m., studio pro-

CKY, Winnipeg, Can. (384.4), 8:30 p. m., studio program.
KFAB, Lincoln, Nebr. (240), 7:30-9:30 p. m., Esther Mills, soprano; Colonians orchestra; August Dietz; Frank Wilson, xylophonist.
KFDM, Beaumont, Tex. (315.6), 7-7:30 p. m., children's program; 8-10:30, Magnolia Petroleum Company's Refinery band.
KFRU, Bristow, Okla. (394.5), 11-1 a. m., informal frolic; Brown Derby club.
KFVE, University Gity, Mo. (240), 6 p. m.. Radiocast review, Romaine Fielding; 10, Duke with the Uke, review, Romaine Fielding; 10, Duke with the Uke, Warion Brown; Ucitians orchestra; William Kerr, organist; "What Radio Is Doing for the Business Man," David Franklin.
KSD, St. Louis, Mo. (645.1), 7:30 p. m., "Commerce Hour," Max Steindel, cellist; Esmeralda Berry Mayes, pianist, 8, Val R. Bang, flutist; Mrs. Charles Bang, soprano; Mrs. J. H. Boelling, pianist; 9, Vin James, pianist.

plantst.
(THS, Hot Springs National Park, Ark. (374.8), 8:30-8:40 p. m., baseball; 8:40-9:15, New Arlington-Meyer Davis instrumental quartet; 9:15-10:15, Como Hotel

gram, violin, piano, vocal; 9:30-10:45, Hall Ball string band.
WCCO, Minneapolis-St. Paul, Minn. (416.4), 6 p. m., baseball; 6:15, Original George Osborn's Nicollet hotel orchestra; 8, musicale; 9, baseball; Harry Snodgras, pianist; J. W. Whitten; 10, Dick Long's Nankin cafe

pianist; J. W. Whitten; 10, Dick Long's Nankin care orchestra.

WDAF, Kansas City, Mo. (365.6), 6-7 p. m., piano tuning-in number on the Duo-Art; literary talk, H. Clay Harvey; speaker, Kansas City children's bureau; Tell-Me-a-Story Lady; Plantation players; 8-10, golf lesson, Kansas City professional; 11:45-1, Merry Old Chief; Plantation players; Charles Dornberger's Kansas City Athletic club orchestra.

WFAA, Dallas, Texas (475.9), 6:30-7:30 p. m., Jefferson Law School orchestra; 8:30-9:30, DeWitt Mc-Murray's Minstrel show.

WHA, Madison, Wis. (535.4), 7:45 p. m., "Significance of Musical Organizations in the Secondary Schools," N. L. Church; "Summertime Reading," Dudley C. Brooks.

WHAS, Louisville, Ky. (399.8), 3:15 p. m., baseball; 7:30-9, concert, Bernice Lake, director.

WHO, Des Moines, Ia. (526), 7:30-9 p. m., Great Western Silver String serenaders; Helen G. Ross; Helen Birmingham, accompanist; 11-12, Reese-Hughes orchestra.

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

Birmingham, accompanist; 11-12, Reese-Hugnes orchestra;
WMC. Memphis, Tenn. (499.7), 8:30 p. m., Britling's
Cafeteria novelty orchestra; 11, frolic, Bob Miller.
WOAN, Lawrenceburg, Tenn. (282.8), 12:15-12:45 p. m.,
Vaughan Hadio orchestra; 9-10, Vaughan Badio orchestra; Vaughan Recording male quartet.
WOAW, Omaha, Nebr. (526), 6 p. m., musical review,
Hester Bronson Copper; 6:20, baseball scores; 6:30, orchestra; 7:10, current sport events, Ivan L. Gaddis;
9, program, auspiece Union Pacific R. R. company;
10:30, Brandeis tea room orchestra.
WOC, Davenport, Ia. (483.6), 8-9 p. m., musical program.

wsB, Atlanta, Ga. (428.3), 5-6 p. m., Bonnie Barn-hardt's bedtime story; 8-9, entertainment; 10:45, wsmB, New Orleans, La. (319), 6:30-7:30 p. m., dinner musicale. baseball.

Mountain Standard Time Stations

Mountain Standard Lime Stations

CNRE, Edmonton, Can. (516.9), 6 p. m., program,
MacDonald hotel; 7:45, children's half hour; 8:30,
Harry McAnsh and his orchestra.

KOA, Denver, Colo. (322.4), 8 p. m., Fred Schmitt and
his Rialto theater orchestra; 8:10, "A Trip Through
the Rockles," P. H. Reilly; Columbia male quartet;
"Orientation of a Tramp in Asia," J. G. Kretschmer;
KOA orchestra; vocal duets, Hulda Helen Edwards,
Ralph Freese; G. Ralph Crowder, planist.

Pacific Standard Time Stations

KFAE. Pullman. Wash. (348.6). 7:30-9 p. m., Boy

KFAE, Pullman, Wash. (348.6), 7:30-9 p. m., Boy Scout band, William P. Hanson, director; Margaret Miller, vocalist; Frances Lockwood, planist; "Swarm Control," B. A. Slocum; book clat, Alice Lindsey Webb; "Summer Care of Flower Gardens," Prof. O. M.

Control, Webb; "Summer Care of Flower Gardens," Prof. O. M. Morris.

KFI, Los Angeles, Calif. (467), 5:30-6 p. m., Examiner's matinee program; 6-6:15, McDaniels' nightly doings; 6:45-7, radiotorial talk; 7-8, Examiner program arranged by Jean Jacques; 8-9, Aeolian residence pipe organ recital, Dan McFarland, organist; 9-10, Isbell-Boyd string quartet, Gilda Marchetti, soprano; 10-11, vocal numbers by pupils of F. X. Arens.

KFWB, Hollywood, Calif. (252), 7-8 p. m., Vince Rose's, Hollywood Montmarte cafe dance orchestra; 8-9, program, Sjar Motor Car company of California; 9-10, program, the Crane company; 10-11, Warner Brothers frolic, direction Charlie Wellman.

KGW, 30, concert, Sherman, Clay & Sopa company; 10:30-12, Hoot Owls.

KGW, Portland, Ore. (491.5), 7.30-8 p. m., baseball; 9-10:30, concert, Sherman, Clay & Sopa company; 10:30-12, Hoot Owls.
KHJ, Los Angeles, Calif. (405.2), 5:30-6 p. m., Leighton's Arcade cafeteria orchestra, Jack Cronshaw, leader; 6-6:30, Art Hickman's Biltmore hotel concert orchestra, Edward Fitzpatrick, director; 6:30-7:30, little stories American history, Prof. Walter Sylvester Hertzog; play, pupils of Edyth McGrath, "Beautful Garden"; 7:45, talk, Judge Ira F. Thompson; 8-10, program, Western Auto Supply company, arranged by Howard Johnson; 10-11, Art Hickman's Biltmore hotel dance orchestra, Earl Burtnett, leader.

(Continued on page 14)

(Continued on page 14)

## An Evening at Home with the Listener In

#### STATIONS IN ORDER OF WAVE LENGTHS USED

Meters Call	Meters Call	Meters Call	Meters Call	Meters Call	Meters Call
226 WBBM	275 KFAU	313 CNRA	356.9 CHNC	405.2 WJY	468.5 WCAP
226 WIBO	275 KFKU	315.6 KFDM	361.2 KGO	405.2 WOR	468.5 WCAP
233 WEBJ	275 WABL	315.6 WAHG	361.2 WHN	406 WBAR	10000000000000000000000000000000000000
240 KFAB	275 WHAD	315.6 WGBS	365.6 WDAF	410.7 CKAC	475.9 WBAP
240 KFVE	275 WORD	319 WGR	365.6 WHB		475.9 WEEI
240 WOAX	275.3 WJAS	319 WSMB	370 CYB		475.9 WFAA
243.8 WAMD	278 WCAU	322.4 KOA	370.2 WEBH	421 KIAF	480 CYL
244 WABN		325.9 WSAI		422.3 WLW	483.6 WOC
250 WGES	278 WLBL	330 CYX	374.8 KTHS	428.3 WSB	483.6 WSUI
250 WMBB	278 WRBC 280.2 WNAC	333.3 WBZ	379.5 WGY	429.5 KPO	491.5 KGW
252 KFWB		336.9 KFMX	379.5 WHAZ	434.5 CNRO	491.5 WEAF
261 KFWA	285.5 WKAR	336.9 WCAL	384.4 CKY	434.5 NAA	499.7 WMC
261 KSL	285.5 WREO	336.9 WSAC	384.4 KJR	435 AT9	508.2 KLX
265.5 WMAK	288.3 KFKX	336.9 KNX	389.4 WEAR	435.5 CFCN	508.2 WIP
266 KFNF	293.9 KJS	340.7 WKAQ	389.4 WTAM	440.9 WDWF	508.2 WOO
266 WBCN	293.9 WBAV	340.7 WMCA	394.5 KFRU	440.9 WOS	516.9 CJCA
268 WEBW	293.9 WEAO	344.6 WCBD	394.5 WFI	447.5 WMAQ	516.9 WCX
270 WGST	299.8 KFMQ	344.6 WLS	394.5 WLIT	447.5 WQJ	526 WHO
270 WOI	299.8 WPG	348.6 KFAE	394.5 WOAI	454.3 KFOA	526 WNYC
272.6 WBBR	302.8 WJJD	348.6 KOB	399.8 WHAS	454.3 WJZ	526 WOAW
272.6 WFBH		348.6 WTIC	399.8 WHT	455 KTW	535.4 KYW
273 WHK		352.7 WWJ	400 PWX	461.3 WCAE	545.1 KFUO
273 WRW	309.1 KDKA	356.9 CFCA	405.2 KHJ	467 KFI	545.1 KSD

#### INSTRUCTIONS FOR USE OF TABLES

THE "Evening at Home with the Listener In" table is not difficult to understand and use. It is this fact that makes it so popular with the readers of Radio Digest. It is presented here in three different standard times; Eastern, Central and Pacific. Listeners using one of the three kinds of time named, should utilize the table printed in these times and the solution of the transfer of the table cannot show this.

Above is given a list of all stations in utilize the table printed in that time and so designated by its headline.

For listeners whose standard of time is not shown here, the following instructions should be remembered:
Listeners using Mountain time: Use

table for Pacific time but add one hour to every figure given. Can also use Central time table by subtracting one hour from every figure given.

Listeners using Eastern daylight sav-ing, or Atlantic time: Use Eastern time table by adding one hour to every figure

Listeners using Central daylight saving time: Use Eastern time table. No changes

Above is given a list of all stations in the "Evening at Home" tables, arranged in order of the wave lengths used (or supposed to be used) by the stations. This arrangement provides a handy index for the other tables.

The "Evening at Home" tables are corrected every week. The number of changes often run as high as thirty per cent of the whole. Keep the "Evening at Home" tables from the current issue at the side of your receiver. the side of your receiver.

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#### Friday, June 12

(Continued from page 13)

(Continued From page 13)

KNX, Hollywood, Calif. (336.9), 5:30-6 p. m., Wurltzper pipe organ studio, sports talk by Sid Ziff; 6:15, travel talk, W. F. Alder; 6:30-7:30, dinner hour music; 7:30-8, musical gens half hour by Eastern Outfitting company; 8-9, West Coast theaters; 9-10, program, Beverly Hills Nurseries; 10-11, KNX features program; 11-12, Abe Lyman's Cocoanut Grove dance orchestra from Ambassador hotel.

KPO, San Francisco, Calif. (428.3), 6-6:15 p. m., baseball; 6:15-7, Loew's Warfield theater; 7-7:30, Palace hotel dance and concert orchestra; 8-11, Gene James Rose Room Bowl orchestra.

#### UNIQUE STUDIO MAKES HIT WITH RADIOPHANS

Broadcast from Frontenac Brewery Brings Thousands of Letters

MONTREAL, Can.—The most unique studio in the world today is, beyond doubt, that of the Frontenac breweries of Montreal, which feeds remote control entertainment into super-power Station CKAC, La Presse, here.

CKAC, La Fresse, here.

In the very center of the big plant's wash room, complete ceiling and studio walls are lowered by a pulley system, whenever a show is to be hurled out of the Canadian 7,500-watter. The floor is covered with a rug, a few kegs of the small variety are rolled into place for sitting numposes together with a piane and then

purposes, together with a piano, and then the entertainers fall in line. The microphones are lowered in the same way and all is ready for the opening announcement. Not far away, some fifty yards or so, the amplifiers are stored in a sample room, resembling a Swiss Chaletbar.

Prizes offered by the Frontenac breweries are also of the popular order, so much so, that the managing director, Pierre Beaubien, had to award gold pieces, instead of the usual ten-gallon barrels, in order to favor American contestants and winners.

#### Virginia Judge with Roxy

NEW YORK.—Judge Clifton A. Woodrum of Roanoke, Virginia, representing the sixth district of Virginia in congress, made his debut as a member of Roxy's gang recently. He sang a number of old southern melodies.

#### Broadcast from Cathedral

LONDON, Eng.—Permission to broad-cast a service on June 5 from Canterbury cathedral, the cathedral presided over by the archbishop of Canterbury, primate of the Church of England, has been granted the Rritish Broadcasting company. to the British Broadcasting company.

#### (FOR PACIFIC TIME)

-	(FOR PACIFIC TIME)										
	Call	Met.	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday *	Met.	Call
	AT9 CFCA	435 356.9	Silent Silent	3:00- 4:00 4:00- 5:00	Silent Silent	Silent 5:15- 6:15	Silent 5:15-6:15	5:00- 7:55 5:15- 6:15	Silent Silent	435 356.9	AT9 CFCA
1	CFCN	434.5 356.9	9:00-11:00 Silent	Silent Silent	Silent 5:30- 6:30	Silent Silent	Silent Silent	7:00- 8:00 Silent	Silent Silent	434.5 356.9	CFCN
	CKAC	516.9 410.7 384.4	8:00-10:00 4:30- 9:30	6:30- 7:30 1:30- 2:30	6:30- 8:30 Silent	6:30- 7:00 4:30- 9:30	5:00- 7:00 Silent	8:00-10:00 4:30- 9:30	7:00-11:00 Silent	516.9 410.7	CKAC
	CKY CNRA CNRO	313 434.5	Silent Silent 4:30- 9:30	5:00- 6:45 Silent Silent	Silent Silent Silent	5:30- 8:00 4:30- 5:30 Silent	Silent Silent 4:30-9:30	6:00- 7:00 Silent Silent	5:30- 8:00 4:30- 5:30 Silent	384.4 313 434.5	CKY CNRA CNRO
1	CYB	370	8:15- 9:45	Silent	Silent	7:15- 8:15 8:00- 9:30	Silent	Silent	Silent	370	CYB
1	CYL CYX KDKA	330 309.1	Silent Silent 4:45-6:55	Silent Silent 12:00- 4:30	Silent 7:15- 8:30 4:45- 6:55	Silent 5:00- 9:30	Silent Silent	Silent Silent 4:15- 9:00	8:00- 9:30 7:15- 8:45 4:45- 6:55	480 330	CYL CYX KDKA
	KFAB KFAE	240 348.6	9:00-10:30 Silent	2:00- 4:30 2:00- 3:00 Silent	5:30- 8:00 7:30- 9:00	Silent Silent	4:45- 6:55 5:30- 8:00 7:30- 9:00	Silent Silent	5:30- 8:00 7:30- 9:00	309.1 240 348.6	KFAB
	KFAU KFDM	275 315.6	Silent Silent	Silent Silent	7:00- 8:00 Silent	Silent 6:00- 7:00	Silent Silent	Silent Silent	7:00- 8:00 6:00- 7:00	275 315.6	KFAU KFDM
-	KFI KFKU	467 275	6:45-11:00 Silent	4:00-11:00 Silent	6:45-12:00 4:50-6:45	6:45-12:00 Silent	6:45-12:00 Silent	6:45-11:00 4:50- 6:45	6:45-12:00 Silent	467 275	KFI KFKU
I	KFKX	288.3	Silent	Silent Silent	7:30- 9:00 Silent	7:00- 8:00	Silent	7:30- 9:00 5:30- 6:30	Silent	288.3 299.8	KFKX
	KFMX	336.9 266	Silent 5:30- 6:30	5:00- 6:00 4:30- 7:30	Silent 5:30- 6:30	8:00- 9:00 Silent	7:00- 8:00 5:30- 6:30	Silent 5:30- 6:30	Silent 5:30- 6:30	336.9 266	KFMX
	KFOA	454.3 394.5	6:00-11:30 5:30-10:00	Silent 3:00- 5:00	6:00-10:00 5:00- 8:30	6:00-11:30 8:30-10:00	6:00-10:00 6:00- 8:30	Silent 8:30- 9:30	6:00-11:30 9:00-11:00	454.3 394.5	KF0A KFRU
	KFUO KFVE KFWA	545.1 240 261	Silent 8:00-10:00 Silent	7:15- 8:15 Silent 8:00- 9:00	Silent 8:00-10:00 8:00- 9:00	Silent 8:00-10:00 8:00- 9:00	7:15- 8:15 8:00-10:00	Silent Silent Silent	Silent 8:00-10:00 8:00-10:00	545.1 240	KFU0 KFVE KFWA
	KFWB KGO	252 361.2	7:45-12:00 8:00- 1:00	9:00-11:00 3:30- 9:00	6:30- 1:00 8:00- 1:00	7:45- 1:00 8:00- 1:00	8:00- 9:00 7:45- 1:00 Silent	7:45- 1:00 8:00- 1:00	7:45- 1:00 Silent	261 252 361.2	KFWB.
	KGW KHJ	491.5 405.2	6:00-10:00 6:00- 2:00	6:00- 8:00 6:30-10:00	6:00- 7:00 8:00-10:00	8:00-12:00 6:00-11:00	8:00-12:00 6:00-11:00	8:00-12:00 6:00-11:00	9:00-12:30 6:00-11:00	491.5 405.2	KGW
	KIAF KJR	421 384.4	Silent Silent	2:00- 3:00 7:00- 8:00	7:00-8:00 6:00-10:00	Silent Silent	7:00- 8:00 8:30-10:00	Silent 10:30-12:00	7:00-8:00 8:30-10:00	421 384.4	KIAF KJR
1	KJS KLX	293.9 508.2	Silent Silent	7:15- 9:30 Silent	Silent 6:00-11:00	8:00- 9:00 Silent	Silent 6:00-11:30	8:00- 9:00 Silent	Silent 6:00-10:30	293.9 508.2	KJS KLX
	KNX KOA	336.9 322.4	6:30- 2:00 8:00-11:00	5:00-11:00 3:30- 7:30	6:30-12:00 7:00-8:00	6:30-12:00 Silent	7:00-12:00 7:00-11:00	6:30-12:00 Silent	6:30- 2:00 7:00- 8:00	336.9 322.4	KNX KOA
	KOB KPO KSD	348.6 428.3 545.1	Silent 6:25-12:00	Silent 6:30-10:00 Silent	6:30-7:30 6:30-11:00	Silent 6:30-11:00	Silent 6:30-11:00	Silent 6:30-11:00	6:30-7:30 7:00-11:00	348.6 428.3	KOB KPO KSD
	KSL KTHS	261 374.8	5:00-7:30 7:00-10:00 6:30-7:45	8:00-10:00 6:30- 9:30	5:30- 9:00 7:00-10:00 6:30- 9:00	4:00- 9:00 8:00-10:00 6:30- 8:45	5:00- 6:00 7:00-10:00 6:30- 8:45	Silent 7:00-10:00 6:30- 8:45	6:30- 8:00 8:00-10:00 6:30- 8:45	545.1 261 374.8	KSL
	KTW KYW	455 535.4	Silent	7:00- 9:30	Silent	Silent	Silent	Silent	Silent	455	KTW
1	NAA PWX	434.5 400	4:00-10:30 Silent 5:30- 8:00	1:00- 5:00 Silent Silent	Silent 4:45-5:00 Silent	4:00- 8:30 4:45- 5:00 Silent	4:00-10:30 4:25- 5:40	4:00- 8:30 4:45- 5:00 Silent	4:00-10:30 4:45- 5:00	535.4 434.5	NAA PWX
1	WABL WABN	275 244	Silent Silent	Silent Silent	4:00- 6:00 7:00-10:00	Silent Silent	5:30- 8:00 4:00- 6:00 Silent	Silent 7:00-10:00	Silent 4:00-6:00 Silent	400 275 244	WABL
١	WAHG WAMD	315.6 243.8	9:00-11:00 8:00- 9:00	Silent 12:00- 8:00	4:00-10:00 Silent	Silent 8:00- 9:00	3:30 - 8:00 8:00 - 9:30	Silent 8:00- 9:30	4:00- 7:30 8:00- 9:00	315.6 243.8	WAHG WAMD
	WBAP WBAR	475.9 406	5:00- 6:00 Silent	9:00-10:00 8:00- 9:00	5:30-11:00 7:00- 8:00	5:30- 8:45 Silent	5:30- 8:45 6:00- 7:00	5:30- 8:45 5:30- 6:30	5:30- 8:45 Silent	475.9 406	WBAP WBAR
	WBBM WBBM	293.9	Silent 5:00-10:00	Silent 1:00- 7:00	5:00- 7:00 Silent	5:00- 9:00	5:00- 7:00	5:00- 9:00	5:00- 6:00 5:00- 7:00	293.9	WBAV
	WBBR	272.6 266	4:00-4:45 6:00-10:00	5:00- 6:05 2:00- 9:00	4:00- 4:50 Silent	Silent 6:00-12:00	Silent 5:00- 9:00	4:00-4:50 6:00-11:00	Silent 6:00-10:00	272.6 266	WBBR WBCN
	WBZ WCAE WCAL	333.3 461.3 336.9	3:30- 5:55 4:00- 5:30	3:00- 6:00 Silent 6:30- 8:00	3:30- 5:55 4:30- 8:00	3:30- 5:55 4:30- 7:00 Silent	3:30- 7:05 4:30- 7:30	3:30- 8:45 4:00- 7:00 7:00- 8:00	Silent 4:30-5:30	333.3	WBZ
	WCAP	468.5 278	10:00-11:00 Silent Silent	1:00- 7:00 1:00- 3:00	9:00-10:00 4:00- 8:30 Silent	Silent 3:20- 7:30	Silent 3:00- 9:00 3:00- 7:10	Silent 3:00- 7:45	6:30-7:00 4:30-9:00 3:30-6:40	336.9 468.5 278	WCAL WCAP WCAU
1	WCCO	344.6 416.4	Silent 6:00- 9:00	6:00- 7:00 5:45- 8:15	5:00- 7:30 4:00- 9:00	Silent 4:00- 7:00	Silent 4:00- 9:30	5:00- 7:30 4:00- 8:00	Silent 4:00-10:00	344.6 416.4	WCBD
l	WCX	516.9 365.6	Silent 4:00-11:00	Silent 2:00- 3:30	3:00- 6:30 4:00-11:00	3:00- 8:00 4:00-11:00	3:00- 6:30 4:00-11:00	Silent 4:00-11:00	3:00- 8:00 4:00-11:00	516.9	WCX
	WDWF WEAF	491.5	Silent 2:00- 8:00	1:00- 2:45 3:20- 6:15	Silent 2:00- 7:30	4:30- 5:30 2:00- 8:00	Silent 2:00-8:00	Silent 2:00-8:00	2:00-8:30 2:00-8:00		WDWF
1	WEAR	293.9 389.4 370.2	Silent Silent	Silent 6:00- 7:00	Silent 4:00- 5:00	Silent 4:00-8:00	5:00- 6:00 3:45- 4:45	5:00- 6:00 4:00- 8:00	Silent 4:00- 8:00	293.9 389.4	WEAD WEAR
	WEBN WEBN	233 268	4:30- 9:30 Silent Silent	4:00- 6:00 Silent 2:25- 3:30	Silent Silent 6:30-7:45	4:30- 9:30 4:00- 5:00 6:30- 7:45	4:30- 9:30 3:00- 5:00	4:30-9:30 Silent Silent	4:30- 9:30 4:00- 5:00	370.2 233 268	WEB1
1	WEEI	475.9 475.9	Silent	3:20-6:20	4:00- 7:00	4:00- 7:00	Silent 4:00- 7:00	4:00-7:00	Silent 4:00- 7:00	475.9	WEBW
	WFBH WFI	272.6 394.5	6:30-10:00 7:30-10:00 4:00- 7:00	4:00- 9:00 1:00- 4:00 Silent	4:30-7:30 7:30-10:00 Silent	4:30-10:00 7:30-10:00 4:00-6:00	Silent 7:30-10:00 Silent	4:30-10:00 7:30-10:00 4:00- 7:00	4:30-7:30 7:30-10:00 Silent	475.9 272.6 394.5	WFAA WFBH
	WGBS WGES	315.6 250	2:00-8:00 7:30-11:00	5:30-6:30 7:30-11:00	Silent	2:00-8:00 7:30-11:00	Silent 7:30-11:00	2:00- 9:00 7:30-11:00	Silent 7:30-11:00	315.6	WFI WGBS WGES
	WGN WGR	370.2	3:30- 8:30 Silent	6:00- 7:00 3:15- 4:30	Silent 4:30-7:30	3:30- 8:30 4:00- 7:00	3:30- 8:30 4:00- 7:00	3:30- 8:30 4:00- 7:00	3:30- 8:30 4:45- 7:00	370.2 319	WGN
1	WGST	270 379.5	Silent 6:30- 9:00	Silent 5:30-8:00	7:00- 8:00 3:30- 5:30	Silent 4:30- 9:30	Silent Silent	5:00- 6:00 4:30- 9:30	Silent . 4:30-8:30	270 379.5	WGST
	WHAD WHAS WHAZ	275 399.8 379.5	Silent 5:30-7:00	Silent 2:00- 3:00	4:00- 8:00 Silent	Silent 5:30- 7:30	4:00-10:30 5:30- 7:00	4:00- 8:00 5:30- 7:00	4:00- 8:00 5:30- 7:00	275 399.8	WHAD
١	WHB WHK	365.6 273	Silent Silent	Silent 6:00-11:00 4:30- 8:00	6:00- 8:00 5:00- 6:00 Silent	Silent Silent Silent	Silent, 5:00-6:00	Silent 6:00-8:30	Silent 5:00-6:00	379.5 365.6	WHAZ
	WHN WHO	361.2 526	3:00-10:30 3:30- 6:00 Silent	3:30 - 8:00 2:00 - 7:00	3:30- 8:00 5:30-10:00	3:30-8:00 5:30-10:00	Silent 3:30-7:00 4:30-9:00	3:00-8:30 3:30-8:00 5:30-10:00	3:00-7:00 3:30-8:00 5:30-10:00	273 361.2 526	WHK WHN WHO
ŀ	WHT WIBO	399.4 226	4:00-11:00 3:00- 5:00	4:00- 6:30 3:00- 9:00	4:00-11:00 Silent	4:00-11:00 3:00-12:00	4:00-11:00 3:00-12:00	4:00-11:00 3:00-12:00	4:00-11:00 3:00-11:00	399.4 226	WHT
	WIP	508.2 305.9	4:00- 8:05 Silent	Silent 3:20-6:15	Silent 4:00- 6:00	4:00- 9:00 3:30- 6:00	Silent 4:00-7:00	4:00- 9:00 4:00- 7:00	Silent 4:00-8:00	508.2 305.9	WIP WJAR
1	WIAS	275.3 302.8	Silent 3:45-10:00	Silent 5:45- 7:00	5:30- 8:00 3:45-10:00	5:30-8:00 3:45-10:00	5:30- 8:00 3:45- 7:00	4:30- 7:00 Silent	4:30- 7:00 3:30- 7:00	275.3 302.8	WIAS
	WJY WJZ WKAQ	405.2 454.3 340.7	Silent 3:00- 7:00 Silent	4:00-6:30 4:00-6:30 4:00-6:00	Silent 3:00-7:00 Silent	3:30- 7:00 3:00- 7:00 Silent	Silent 3:00- 7:00	3:30-7:00 3:00-7:00 4:30-6:00	3:30- 7:00 3:00- 7:00	405.2 454.3	WJY
	WKAR WKRC	285.5 422.3	9:30-11:00 7:00-11:00	Silent 3:45- 9:00	Silent 5:00- 7:00	Silent 7:00-11:00	4:00- 6:00 5:00- 6:15 5:00- 7:00	Silent 5:00- 7:00	Silent Silent Silent	340.7 285.5 422.3	WKAQ WKAR WKRC
1	WLBL	278 394.5	9:59-10:59 Silent	Silent Silent	Silent Silent	6:00-7:00 3:45-7:00	Silent Silent	6:00- 7:00 Silent	Silent 3:45- 7:45	278 394.5	WLBL
ı	WLS WLW	344.6 422.3	4:45-10:00 3:00- 5:00	4:30- 5:55 3:30- 5:30	Silent 6:00- 8:00	4:00-10:00 4:00-6:00	4:00- 8:30 3:00- 7:00	4:00-*5:55 6:00-8:00	4:00- 8:30 Silent	344.6 422.3	WLS WLW
	WMAK WMAQ		Silent 4:00-8:00	Silent Silent	5:00- 6:00 Silent	Silent 4:00-8:00	Silent 4:00- 8:00	7:00- 8:30 4:00- 8:00	Silent 4:00- 8:00	265.5 447.5	WMAK WMAQ
1	WMBB WMC WMCA	250 499.7	4:30- 7:30 6:30- 7:30 5:00- 8:00	4:00- 7:30 Silent 2:30- 4:00	Silent 6:30- 7:30 5:00- 8:00	4:30-7:30 6:30-10:00	4:30- 7:30 Silent	4:30- 7:30 6:30- 7:30	4:30-7:30 6:30-10:00	250 499.7	WMBB WMC
	WNAC	280.2 526	6:00- 7:00 2:30- 6:20	4:30- 6:30 5:00- 7:00	3:00- 5:00 3:00- 7:00 3:00- 6:20	5:00- 8:00 5:00- 7:00 3:20- 6:20	5:00- 8:00 3:00- 7:00 3:30- 6:30	5:00- 8:00 5:00- 7:00 Silent	5:00- 8:00 3:00- 7:00 3:30- 6:20	340.7 280.2 526	WMCA WNAC WNYC
	WOAI WOAW	394.5 526	Silent 4:00-10:15	5:30-8:30 4:00-8:00	Silent 4:00- 9:00	6:30 - 8:30 4:00 - 9:00	Silent Silent	7:30- 8:30 4:00- 9:00	Silent 4:00- 9:00	394.5 526	WOAI
1	WOC	483.6 270	4:30-10:00 Silent	6:00- 9:30 Silent	Silent 8:00-11:00	4:30- 7:00 Silent	4:30- 8:00 Silent	4:00-10:00 6:15- 7:15	4:30- 8:00 Silent	483.6 270	WOC
	WOO WOR	508.2 405.2	Silent 2:15-8:00	2:05- 4:30 Silent	4:00- 7:30 2:15- 8:00	Silent 2:15- 3:30	4:00- 7:30 2:15- 8:00	Silent 2:15- 3:30	4:15- 7:30 2:15- 3:30	508.2 405.2	W00 W0R
-	WORD WOS WPG	275 440.9	5:30-6:30 Silent	3:45- 5:00 5:30- 6:30	5:30- 7:00 6:00- 8:00	5:30- 6:30 Silent	5:30- 6:30 6:00- 8:00	5:30-6:30 Silent	5:30-6:30 6:00-8:00	275 440.9	WORD
1	WPG WQJ WRBC	299.8 447.5 278	3:00- 8:00 4:00-12:00 Silent	5:00- 7:00 4:00- 7:00 5:30- 6:30	3:00- 7:30 Silent 5:30- 6:30	3:00- 7:00 4:00-11:00	Silent 4:00-11:00	3:00- 8:15 4:00-11:00	5:00- 6:00 4:00-11:00	299.8 447.5	WPG
	WRC WREO	468.5 285.5	3:45- 9:00 Silent	Silent 4:30- 5:30	Silent Silent	Silent 3:45- 9:00 5:15- 6:45	Silent Silent Silent	Silent 3:45- 9:00 5:15- 6:45	Silent Silent Silent	278 468.5 285.5	WRBC WRC WREO
	WRW	273 336.9	6:00- 8:30 Silent	5:00- 8:30 Silent	6:00- 8:30 Silent	6:00- 8:30 Silent	6:00- 8:30 5:00- 6:00	6:00- 8:30 Silent	6:00- 8:30	273	WRW
1	WSAI WSB	325.9 428.3	5:00-10:30 6:00-10:00	Silent 5:30- 7:15	7:00-9:00 6:00-10:00	4:00- 7:00 6:00-10:00	7:00- 9:00 8:45-10:00	4:00-6:00 6:00-10:00	Silent Silent 6:00-10:00	336.9 325.9 428.3	WSAC WSAI WSB
	WSMB	319 483.6	6:30- 8:30 Silent	Silent 5:00- 8:00	6:30- 8:30 5:30- 7:00	Silent Silent	6:30- 8:30 5:30- 7:00	6:30- 8:30 Silent	Silent Silent	319 483.6	WSMB
	WTAS WTIC	389.4 302.8 348.6	3:00- 9:00 5:00- 7:30 Silent	Silent 5:00- 9:00 Silent	3:00- 9:00 5:00- 7:30 Silent	Silent 5:00- 7:30	3:00-10:00 5:00- 7:30	Silent 5:00-10:00	Silent 5:00- 7:30	389.4 302.8	WTAM WTAS
1	KWN	352.7	Silent		3:00-6:00	4:00- 6:00 3:00- 8:00	Silent Silent	Silent 3:00- 9:30	4:00- 6:00 3:00- 7:00	348.6 352.7	WTIC

#### Hindenburg Election Credit Goes to Radio

#### Broadcast Speeches Made Him Winner, Students Declare

LONDON.—Did Radio win the German presidential election for Field Marshal Von Hindenburg? In the excitement of the last few hours before the election, Hindenburg made his last great stump speech from Hanover Radio station. Over 400 miles away in London the British Broadcasting company relayed his speech—the first time a great political speech by a foreign personage has been obtained in

There are 60,000,000 people in Germany.
The Hanover station was audible to the whole country. Germany listened in, and then went off to the polls with the words of the old war leader fresh in its ears. Students of politics believe the history of the world may be marked in the next few years by the effects of that broadcast program from one aerial on a Han-

#### "Terese" Enters Contest For Patriotic Pilgrimage

NEW YORK.—The Thomas Jefferson Memorial Foundation is conducting a series of Centennial Elections as a prelimiies of Centennial Elections as a preliminary step in the observance of the 150th anniversary of the adoption of the Declaration of Independence, and the 100th anniversary of the death of its author, July 4th, 1926.

Successful candidates will be members to be presented in Electronic Control of Europe.

of the Patriotic Pilgrimage to Europe, with all expenses paid, sailing, July 4, 1925, on the S. S. Leviathan and returning July 30th on the S. S. Republic.
Miss Terese Rose Nagel, famous inter-

viewer at Station WGBS, is a candidate, and believing sincerely in this cause, has accepted a nomination and is now working to get votes and raise money for

#### Entertains Eskimos with Small Makeshift Receiver

SAN FRANCISCO.—Commissioned by the Canadian Government to erect a broadcasting station on Herschel Island, off the Youkon coast, Lieutenant H. A. Young, lost his supplies not long ago when the steamship "Lady Kindersley" hit an iceberg and went down. He managed, however, to gather bits of wire and parts and construct a Radio receiver, and now entertains himself and Eskimos and now entertains himself and Eskimos there with KGO programs.

## An Evening at Home with the Listener In

(FOR EASTERN TIME Or Cities Using Central Daylight Saving Time) (Tabular form and listings copy-righted. Reproduction is forbidden.) (FOR CENTRAL TIME) Call Saturday Sunday Tuesday Wednesday Thursday Friday Call Silent 9:1 AT9 CFCA CFCN ort Bragg, N. C. 8:00- 9:56 8:15- 9:15 10:00-11:00 Silent 11:00- 1:00 7:30- 8:30 9:00-10:00 Silent Silent 5:00- 6:00 6:00- 7:00 Silent 7:15- 8:15 Silent Silent 435 Silent 6:00- 7:0 Silent AT9 8:00- 9:5 7:15- 8:15 7:15- 8:15 8:15- 9:15 Silent Silent :30- 9:30 Silent Calgary, Alta. 434.5 Silent Silent 10:00-12:00 5:30- 9:30 Silent Silent Silent Silent Silent CHNC Silent 10:00-12:00 9:30-12:00 CJCA Edmonton, Can 9:30-11:30 9:30-10... Silent 8:00- 9:45 CKAC 0:30- 1:00 Silent Silent Silent Montreal, Qu Silent CKAC 8:00- 9:00 Silent 8:30-11:00 7:30- 8:30 CKY 6:30- 7:30 CNRA Silent Silent Silent Ottawa. Ont Silent 10:15-11:1 10:30-11:45 CYB Silent Silent Silent Silent CYB 10:00-11:30 CYL 9:15-10:45 CYX Silent Silent 9:15-10:30 10:00-11:30 Silent Silent Mexico City, Mex Silent 11:00-12:30 Silent 11:00-12:3 Silent Mexico City, Mex 10:15-11:45 6:45- 8:55 7:00-11:30 Pittsburgh, Pa... 3:00- 7:30 5:00- 6:00 7:15-12:00 KDKA KFAB KFAE KDKA 7:45-9:55 12:00-1:30 KDKA 6:45- 8:55 11:00-12:30 2:00- 6:30 4:00- 5:00 7:45- 9:55 8:00-12:30 7:45- 9:55 7:45- 9:55 Silent Silent Silent Silent 8:00- 9:00 8:45- 2:00 Silent 10:30-12:00 Silent Silent Silent Silent 9:45- 2:00 7:50- 9:45 10:30-12:00 Silent Silent 9:00-10:00 9:00-10:00 Boise, Idaho. Silent Silent 10:00-11:00 Silent Beaumont, Texas Silent Silent Silent Silent 8:00- 9:00 8:45- 2:00 Silent 9:45- 2:00 Silent Silent 9:00-10:00 9:45- 3:00 8:45- 1:00 8:45- 2:00 6:50- 8:45 Los Angeles, Calif. 7:00- 2:00 9:45-3:00 7:50-9:45 Silent Silent Silent Silent Silent Silent Silent KFKU 275 Silent Silent Silent Silent 9:30-11:00 Silent 9:30-11:0 KFKX Hastings, Nebr 288.3 10:30-12:00 KFKX 9:00-10:00 10:00-11:00 Silent 8:00- 1:30 10:30-12:00 Silent Silent Silent 9:00-10:00 7:30- 8:30 8:00-12:00 Silent Silent 7:30- 8:30 Silent Silent KFMQ Fayetteville, Ark. 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Hollywood, Calif.. 11:00-12:00 11:00-12:00 9:30- 3:00 9:45- 3:00 10:00- 3:00 9:45- 3:00 9:45- 3:00 10:00- 3:00 10:45- 4:00 11:00- 4:00 11:00- 90 9:00- 30 12:00- 2:00 6:30-12:00 10:30- 4:00 11:00- 4:00 10:45- 4:00 **KFWB** Silent 10:00- 2:00 8:00- 1:00 KGO 10:00- 2:00 10:00- 2:00 8:00-12:00 Portland, Ore. 9:00- 1:00 9:00- 5:00 9:00-11:00 9:00-10:00 11:00- 3:00 8:00- 1:00 8:00- 1:00 9:30- 1:00 8:00- 4:00 8:30-12:00 KHJ Los Angeles, Calif. 405.5 11:00- 1:00 9:00-10:00 8:00-12:00 Silent 9:00-10:00 Silent 9:00-10:00 3:00- 4:00 10:00-11:00 10:15-12:30 Silent 1:30- 3:00 11:00-12:00 Silent 9:30- 3:00 8:00-9:00 Silent Sihtipok, Minn ... Silent 8:00- 9:00 KIAF Silent 10:30-12:00 12:30- 2:00 8:00- 9:00 11:30- 1:00 Silent 9:00- 2:30 10:00- 3:00 10:00- 2:00 Silent Silent 8:00- 1:30 9:00- 2:00 9:00- 1:00 Silent 8:30- 1:00 Seattle, Wash. 9:00- 1:00 Silent 8:00-1:00 8:30-2:00 Silent 8:00-12:30 8:30-4:00 9:00-10:00 KLX KNX KOA 10:00-11:00 10:00-11:00 Los Angeles, Calif... Oakland, Calif.... Hollywood, Calif.... Denver, Colo.... Silent 9:00- 2:00 9:30- 3:00 Silent 9:15-11:30 293. Silent 11:00-12:00 Silent 8:30- 2:00 Silent Silent 7:00- 1:00 5:30- 9:30 Silent 8:00- 2:00 6:30-10:30 Silent 9:30- 3:00 Silent 8:30- 2:00 Silent Silent 8:30- 1:00 9:00- 1:30 9:30- 5:00 9:30- 5:00 11:00- 2:00 8:30- 4:00 10:00- 1:00 336. Silent 9:00-10:00 10:00-11:00 State College, N. M... San Francisco, Calif... Silent Silent 8:30- 9:30 8:30- 1:00 8:30- 9:30 9:00- 1:00 Silent Silent Silent 9:30-10:30 8:30-12:00 9:30- 1:00 9:30 - 2:00 7:30-11:00 9:00-12:00 8:30-11:00 St. Louis, Mo..... Salt Lake City, Utah... Hot Springs, Ark..... 8:00-10:30 Silent 10:00-12:00 6:00-11:00 7:00- 8:00 Silent 9:00-12:00 7:30-10:00 Silent 11:00- 1:00 8:00- 9:00 Silent 10:00-1:00 8:30-11:00 9:00-12:00 9:00-12:00 1:00- 1:00 9:30-11:45 8:30-10:45 9:30-10:45 8:30-10:43 8:30-10:45 9:30-12:30 KTHS 8:30- 9:45 9:30-11:45 9:30-11:45 9:30-11:45 9:00-11:30 3:00- 7:00 Silent Silent Silent Silent 455 535. 434. Silent Silent Silent Silent Silent 10:00-12:30 4:00- 8:00 Seattle, Wash.... Silent Silent Silent 6:00-12:30 6:45-7:00 Silent 6:00-8:00 Silent 6:00-9:30 10:00-11:00 Silent Silent Silent Silent 6:00-12:30 Silent 7:30-10:00 Silent 6:45- 7:00 Silent 6:00- 8:00 9:00-12:00 6:00-12:30 6:00-10:30 7:00- 1:30 4:00- 8:00 Silent Silent Silent Silent Silent Silent 3:00-11:00 7:00- 11:30 7:45- 8:00 7:00- 1:30 7:45- 8:00 Silent 7:00- 1:30 6:45- 7:00 6:45- 7:00 Silent 7:45- 8:00 7:25- 8:40 7:30-10:00 Silent Silent 8:30-11:00 Silent 7:00- 9:00 10:00- 1:00 7:00- 1:00 8:30-11:00 Silent Silent 6:00- 8:00 Silent Silent Silent 9:00-12:00 Silent 10:00-11:30 7:30-10:45 7:30- 8:30 Silent Silent 7:00- 9:00 Silent WABL 5:30-10:00 10:00-11:30 7:30-10:45 8:00- 9:00 Silent WABN 10:00- 1:00 12:00- 2:00 11:00-12:00 Silent 11:00-12:30 8:30-11:45 8:30- 9:30 11:00- 1:00 10:00-11:00 6:00-12:00 WAHG Silent 6:30-11:00 243. Silent 7:30-1:00 WAMD Minneapolis, Minn. Silent 8:30- 2:00 11:00-12:00 11:00-12:00 10:00-11:00 7:30-10:45 8:00-9:00 12:00- 1:00 11:00-12:00 8:30-11:45 Silent 7:00-8:00 Silent Silent Silent Silent Silent 7:00- 9:00 WBAV 293. Silent Silent 8:00-10:00 WBAV 8:00-9:0 Silent Silent 7:00- 7:50 Silent 6:30- 8:55 7:30-11:00 12:00- 1:00 7:00-11:30 Silent 3:00- 9:0 7:00-11:00 7:00-11:00 7:00- 9:00 WBBM 7:00-12:00 Silent WBBM Chicago, III.. 8:00- 1:00 4:00-10:00 8:00-12:00 WBBM 8:00-10:0 8:00-10:00 6:00-6:45 8:00-12:00 6:00- 6:50 Silent Silent 7:00-11:00 Silent WBBR 8:00-12:00 WBCN 8:00- 9:05 Silent 8:00-12:0 6:30-10:0 7:00-7:50 9:00-2:00 6:30-11:45 Silent Chicago III Silent 266 9:00-1:00 6:30-8:55 5:00-12:00 9:00- 1:00 8:30-9:00 WCAE 6:30-11:00 WCAP 5:30-8:40 WCAU WCBD pringfield, Mass.. 5:30- 7:58 5:30- 7:55 5:30- 9:05 6:30- 9:30 6:00- 9:00 3:00- 6:30 Silent 6:30- 9:00 Pittsburgh, Pa...... Northfield, Minn... Washington, D. C. Philadelphia, Pa... 6:30-10:00 6:00-9:00 9:00-10:00 7:00- 8:30 1:00- 2:00 WCAE 7:30-10:30 7:30- 8:30 7:00-10:00 10:00-11:00 9:30-11:00 4:00-10:00 4:00- 7:00 8:30-10:00 Silent Silent Silent 9:30-10:00 Silent 5:00-11:00 Silent Silent 6:20-10:30 Silent 5:20- 9:30 5:00- 9:10 5:00- 9:45 7:00-10:10 Silent 8:00- 10:30 7:00-10:45 6:30- 9:4 7:00- 9:30 2:30-10:00 WCBD Silent Zion, III..... Silent Silent WCBD 7:45-10:15 Silent 4:00- 5:30 3:00- 4:45 5:20- 8:15 6:00-12:00 5:00-10:00 6:00-1:00 4:00-10:30 4:00-10:00 WCX WDAF WDWF WEAF 8:45-11:15 Silent 5:00- 6:30 4:00- 5:45 6:20- 9:15 6:00-11:30 5:00- 8:30 6:00- 1:00 Silent Minn.-St. P., Minn. Detroit, Mich...... Kansas City, Mo..... 6:00-10:00 9:00-12:00 7:00-12:00 7:00-10:00 WCCO 7:00-12:30 7:00-11:00 7:00-1:0 6:00-11:0 WCCO Silent 6:00-1:00 Silent 4:00-10:00 Silent 6:00-1:00 5:00- 8:30 6:00- 1:00 6:00- 9:30 7:00- 2:00 6:00-11:0 Silent 7:00- 2:00 7:00- 2:00 Silent 5:00-11:00 8:00- 9:00 7:00-11:00 7:30-12:30 Silent 4:00-10:00 Silent 4:00- 9:30 Silent Silent 4:00-10:00 5:00-10:30 New York, N. Y 5:00-11:00 5:00-11:00 WEAF 5:00-11:00 8:00- 9:00 6:45- 7:45 7:30-12:30 6:00- 8:00 Silent Silent 2:00- 9:00 6:00- 8:00 7:00- 8:00 5:45- 6:45 6:30-11:30 Silent WEAO 6:00-10:00 WEAR 6:30-11:30 WEBH Silent Silent Silent Silent Columbus, Ohio.. Cleveland, Ohio.. Silent Silent Silent Silent 7:00- 8:00 6:00- 7:00 Silent 7:30-12:30 7:00-11:00 7:00-11:0 7:30-12: Silent Silent 8:30- 9:45 6:30-11:30 6:30-11:30 Chicago, Ill. 370. Silent 7:30-12:30 Silent 6:00- 7:00 8:30- 9:45 5:00- 7:00 Silent 6:00- 7:00 WEBJ New York, N. Y. 233 Silent 4:25- 5:30 Silent Silent Silent Beloit, Wis Silent 5:25- 6:30 9:30-10:45 WEBW Silent Silent 7:00-10:00 7:30-10:30 10:30-1:00 Silent Silent Silent 6:00- 9:00 6:30- 9:30 9:30-12:00 7:00-10:00 7:30- 1:00 10:30- 1:00 Silent 5:20- 8:20 6:00- 9:00 6:00- 9:00 Boston, Mass.. 475.9 Silent 6:20- 9:20 7:00-10:00 WEEL 7:00-10:00 9:30- 1:00 10:30- 1:00 8:30-12:00 9:30-12:00 6:00-11:00 Silent Dallas, Tex 7:00-12:00 7:30- 1:00 0:30- 1:00 9:30-12:00 4:00-7:00 3:00-4:00 2:30-9:30 10:30-2:00 3:00-6:00 9:30-12:00 9:30-12:00 2:00- 3:00 1:30- 8:30 9:30- 1:00 1:30- 9:00 2:00- 6:30 6:00-8:00 4:00-10:00 Silent Silent 6:00-9:00 4:00-11:00 7:00-10:00 Silent Silent Silent 5:00-11:00 Silent 5:00-12:0 WGBS 9:30-1:00 5:30-10:30 5:30-10:30 6:30-11:30 Silent 6:30- 9:30 Chicago, III..... Buffalo, N. Y. 6:30-11:30 6:30-11:30 7:00-10:00 7:00-10:00 7:45-10:00 Silent Silent 2:35-10:00 9:00-10:00 Silent 3:35-11:00 10:00-11:00 6:30- 8:30 Silent 7:30-12:30 Silent Silent 9:30-12:00 Schenectady, N. Y. WGY 8:30-11:00 5:30- 7:30 Silent 7:30-12:30 6:80-10:30 WGY
6:00-10:00 WHAD
7:30-9:00 WHAS
Silent
7:00-8:00 WHA
5:00-9:00 WHB
5:00-9:00 WHN
7:30-12:00 WHO
6:00-1:00 WHD 6:00-10:00 7:30-9:00 Silent 8:00-10:30 5:00-10:30 6:00- 7:00 7:30- 9:30 Silent Silent 5:30- 6:30 7:00- 8:00 8:30-10:00 Milwaukee, Wis.. Louisville, Ky..... 7:00-11:00 8:30-10:00 Silent 8:00-9:00 6:00-10:00 6:30-11:00 275 399.8 3:00- 4:00 7:00-11:00 6:00-10:00 6:00- 7:00 7:00- 1:30 7:00-11:00 WHAD 8:30-10:00 Silent Silent 6:00-1:30 6:30-9:00 Silent 7:00-2:00 6:00-8:00 8:30-10:00 7:30- 9:00 Silent 8:00-10:00 7:30-9:00 Silent Silent 9:00-11:00 8:30-10:00 Silent 9:00- 2:00 7:30-11:00 Silent Silent Troy, N. Y..... Kansas City, Mo... Silent Silent 8:00-9:00 Silent 9:00-11:30 8:00- 1:00 6:30-10:00 7:00- 8:00 5:00- 6:30 Silent 7:00- 8:00 5:00- 6:30 Silent 6:30-7:30 6:30-11:00 Cleveland, Ohio... New York, N. Y.. Des Moines, Ia... 5:00-12:30 5:00-12:30 5:30-8:00 Silent 6:00-1:00 5:00-7:00 6:00-10:05 Silent 6:30-10:00 7:30-12:00 7:00- 2:00 6:00- 3:00 6:30-11:00 5:30-10:00 5:30-10:00 5:30-10:00 5:30- 9:00 5:30-10:0 6:30-11:00 5:30-10:00 7:30-12:00 6:00- 1:00 Silent Silent 6:00- 8:00 4:00- 9:00 6:00- 8:30 7:30-12:00 6:30-11:00 6:00-1:00 7:30-12:00 5:00-10:00 8:30- 1:00 7:00- 2:00 8:30- 1:00 7:00- 2:00 8:30- 1:00 6:00- 1:00 5:00- 2:00 6:00- 1:00 Deerfield, III 5:00- 2:00 5:00- 1:00 Chicago, III...... Philadelphia, Pa 6:00-12:00 Silent 2:15- 3:15 5:20- 8:15 Silent 7:00-9:00 6:00-11:00 6:00-11:00 Silent 508.2 305.9 7:00-11:05 3:15- 4:15 7:00-12:00 Silent 7:00-11:00 6:00-10:00 WJAR 6:20- 9:15 WIAR 5:30- 8:00 6:00- 9:00 6:00- 9:00 Silent 6:30- 9:00 Silent 5:45-12:00 Silent 5:00- 9:00 Silent 11:30- 1:00 9:00- 1:00 7:30-10:00 5:45-12:00 Silent 5:00- 9:00 Silent 6:00- 7:00 7:00- 9:00 8:30-11:00 6:45- 1:00 Silent 6:00-10:00 7:00- 9:00 8:00- 9:15 WJAS 275. WJAS 7:30-10:00 7:30-10:00 5:45-12:00 6:30- 9:00 6:30-9:00 5:45-12:00 Pittsburgh, Pa. Silent Silent 8:30-11:00 8:30-11:00 Silent 7:45- 9:00 8:30-10:00 7:30-10:00 Silen 6:45- 1:00 8:45-10:00 6:45-[1:00 6:30-10:00 6:00-10:00 Silent Silent 10:00- 2:00 9:00-10:00 6:45-10:00 Silent 6:30-10:00 6:00-10:00 7:30- 9:00 5:30-9:00 5:30-9:00 5:00-9:00 Silent 6:00-7:00 Silent WKAQ WKAQ WKAQ WKAC WKCC WLBL 5:30-9:00 5:00-9:00 5:30- 9:0 New York, N. 'New York, N. ' Silent Silent 6:00-10:00 Silent 5:00- 9:00 6:00- 8:00 7:00- 8:15 7:00- 9:00 Silent Silent 6:00-10:30 5:00- 9:00 5:00- 9:0 6:00-10:00 7:00- 9:30 6:00-10:00 5:00- 9:00 Silent Silent 9:00- 1:00 8:00- 9:00 5:45- 9:00 6:00-10:00 Silent 7:00- 8:00 8:00-10:00 Silent Silent Silent 7:00- 9:00 Silent 7:00- 8:00 Silent Lansing, Mich. Cincinnati, O... 12:30- 2:00 Silent 6:45-12:00 Silent 5:45-11:00 Silent WKRC 8:00-10:00 8:00-10:00 Silent 278 12:59- 1:59 Silent 5:45- 9:45 6:00-10:30 11:59-12:59 Silent Silent 9:00-10:00 WLBL WLIT Silent WLS WLW 6:45-12:00 6:30- 7:55 5:30- 7:30 Silent Silent 9:00-11:00 Silent 5:00- 7:00 8:00-10:00 6:00-10:00 9:00-11:00 WLW Lockport, N. Y...... Chicago, III.......... Memphis, Tenn...... New York, N. Y. Boston, Mass...... New York, N. Y.... San Antonio, Texas Silent 6:00-10:00 6:30-9:30 8:30-12:00 7:00-10:00 Silent Silent 7:00-10:30 Silent 2:00-6:00 7:30-9:30 8:00-10:00 9:00-10:3 WMAK 265.5 Silent Silent Silent 7:00- 8:00 Silent 7:00-11:00 7:30-10:30 9:30-10:30 8:00-11:00 9:00-10:00 5:30-9:20 Silent 10:00-11:30 Silent WMAK 6:00-10:00 6:30- 9:30 Silent Silent 7:00-11:00 7:30-10:30 7:30-10:30 Silent 8:30-12:00 WMC 7:00-10:00 WMCA 5:00- 9:00 WNAC 5:30- 8:20 WNYC Silent WOAW 6:30-10:00 Silent WOL 8:30- 9:30 Silent Silent 7:00-10:00 Silent 9:30-10:30 7:00-10:00 7:00-10:00 8:00-11:0 8:00-11:00 8:00-11:00 6:00-10:00 6:30- 9:20 Silent 7:00-12:00 7:30-11:00 6:30- 8:30 7:00- 9:00 5:00- 9:00 5:30- 8:30 8:00- 9:00 4:30- 8:20 5:00- 9:00 5:00- 8:20 7:00- 9:00 5:20- 8:20 6:00-10:00 8:00-10:00 6:00-10:00 8:00-10:00 6:00- 9:20 6:20- 9:20 6:30- 9:30 Silent 7:00- 1:15 7:30- 1:00 Silent Silent 7:30-11:00 Silent San Antonio, Texas... Silent 7:30-10:30 Silent Silent 9:30-11:30 6:00-11:00 7:00-12:00 7:00-12:00 7:30-10:00 6:00-12:15 6:30-12:00 6:00-10:00 6:00-11:00 Silent Omaha, Nebr. Silent 10:00- 1:00 8:00-11:30 6:30-10:00 6:00-12:00 8:15- 9:15 Davenport, Ia., Silent 11:00- 2:00 Silent Silent Silent Silent Ames, la. 270 Silent Silent Silent Silent 7:00-10:30 6:15- 9:30 W00 4:15- 5:30 W0R 7:30- 8:30 W0RD 8:00-10:00 W0S Silent 4:05-6:30 6:00-9:30 Silent Philadelphia, Pa. Silent 5:05- 7:30 7:00-10:30 Silent 7:00-10:30 5:15- 9:00 8:30- 9:30 9:00-11:00 Silent 7:00- 2:00 Silent Silent Silent Silent 9:00-11:30 5:15- 6:30 8:30- 9:30 Silent 6:00-10:00 7:00- 2:00 Silent 6:45-12:00 WORD WORD WOS WPG Silent 5:45- 7:00 7:30- 8:30 4:15-10:00 7:30-9:00 8:00-10:00 4:15- 5:30 7:30- 8:30 5:15- 9:00 8:30- 9:30 Silent 6:00-11:00 Silent 6:45- 8:00 8:30- 9:30 5:15- 9:00 8:30-10:00 9:00-11:00 4:15- 5:30 7:30- 8:30 Newark, N. J... Batavia, III..... 4:15-10:00 7:30- 8:30 4:15-10:00 7:30- 8:30 5:15-6:30 8:30-9:30 Silent 5:00-10:00 Silent 5:00- 9:00 8:00-10:00 Silent 5:00-10:15 Jefferson, City, Mo... Atlantic City, N. J... 1:15- 9:00 5:00- 9:30 7:00- 8:00 WPG 2:15-10:00 Silent 6:00-1:00 5:00- 9:30 Silent 7:30- 8:30 Silent Silent 8:00-10:30 8:00- 9:00 6:00- 1:00 WQJ
Silent WRC
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WRC Chicago, III....... Valparaiso, Ind. 6:00- 1:00 Silent 6:00- 1:00 Silent 7:00- 3:00 Silent 7:00-10:00 7:00- 2:00 7:00- 2:00 Silent 8:30- 9:30 Silent 8:30- 9:30 Silent Silent 9:00-11:30 5:45-11:00 7:15- 8:45 5:45-11:00 Washington, D. C. 468.5 6:45-12:00 Silent Silent Lansing, Mich..... Tarrytown, N. Y... 7:30- 8:30 7:15- 8:45 Silent WREO WRW 8:15- 9:45 9:00-11:30 8:00-10:30 WRW 9:00-11:30 8:00-10:30 8:00-10:30 8:00-10:30 273 8:00-11:30 9:00-11:30 Silent Silent 8:00-12:00 Silent Silent 5:00- 6:00 7:00- 9:30 Silent 6:00- 9:00 8:00-12:00 Silent Silent 5:00- 6:00 Silent 6:00- 8:00 8:00-12:00 8:30-10:30 WSAC WSAI WSB WSMB WSUI WTAM WTAS Silent 8:00-1:30 9:00-1:00 9:30-11:30 Silent 9:00-11:00 8:00-12:00 8:30-10:30 7:00-8:00 9:00-11:00 10:45-12:00 8:30-10:30 Silent 2:00- 4:00 Silent 10:00-12:00 9:00- 1:00 9:30-11:30 Clemson Coll., S. C. 336.9 8:00- 9:00 WSAC Silent Silent Silent Silent WSAC Silent 2:00- 3:00 7:30- 9:15 Mason, O....... Atlanta, Ga...... New Orleans, La lowa City, Ia.... 3:00- 4:00 8:30-10:15 Silent 8:00-11:00 10:00-12:00 7:00- 9:00 9:00- 1:00 Silent 9:00- 1:00 9:00-1:00 8:00-12:00 11:45- 1:00 9:30-11:30 WSMB 8:30-10:30 Silent 9:30-11:30 WSMB Silent Silent Silent 5:00-6:00 7:00-10:00 7:30-9:00 5:00-12:00 WSUI Silent 7:30- 9:00 Silent Silent 6:00- 7:00 8:30-10:00 Silen 6:00-12:00 8:00-10:30 6:00- 7:00 WTAM 5:00-11:00 Sflent 5:00-11:00 Cleveland, O ...... Silent 8:00-12:00 6:00-12:00 6:00-1:00 8:00-10:30 6:00- 7:00 6:00- 9:00 8:00-10:30 7:00-11:00 7:00- 9:30 5:00- 6:00 7:00- 9:30 6:00- 8:00 7:00- 9:00 Elgin, Ill. 8:00-10:30 7:00- 9:00 6:00- 8:00 Silent 5:20-9:00 Silent Silent 6:20-10:00 Silent 6:00-11:00

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## What Makes a Good Program Director

LIKE all new industries, the broadcasting of enter-tainment and service has created a new series of vocations. One of the most important is that of program director. This post already has become so specialized as to achieve the dignity of a profession.

It is believed that there are now nearly fifteen hundred program builders in the United States. makes a good one?

The question is worthy of asking inasmuch as the policy of each station is often in the hands of the program director.

Persons with a good deal of the human element in them, who understand what interests the public, are best qualified for the task. Experienced newspaper-men who have seen life from all angles often meet this requirement.

Showmen do not always have the broad field of observation, of understanding of people, to fill the need. Advertising men, too, are likely to be one-sided and often commercial in their views. Radio men as a rule are thinking mainly of how far their station is reaching rather than how many people it is interesting.

Of course, any member of the mentioned classes can round himself out to have the necessary broad vision, but the trained newspaperman, the editor, already understands every class of human mind and this has an advantage over the other classes from which program

directors are made. While on the subject, let us suggest that in the future we shall call these people "program editors" rather than "program directors," for their work is necessarily that of editing what is submitted for broadcasting, and often going out and getting the "reading matter" that is necessary to entertain and serve the

#### Super Summer Reception

NOW that fifteen superstations are "turning on the juice" to overcome summer irregularities in reception, and at least seven more superstations are in the process of construction and plan to be on the air within from four to six weeks, the lot of the listener during the summer of 1925 is going to be remarkably improved over, and in fact, not even to be compared to, the past two summers in which broad-

Not an idle boast is this. Listen in.
You will hear—let's see—KDKA, WGY, WBZ,
WEAF, WOC, WLW, KFI, KGO, WSAI, KOA,
WHT, WCCO, KFKX, and WCBD. They are sure
because they are superpower stations. Then you are

because they are superpower stations. Then you are likely to hear almost a score of other stations that are putting 1,000 watts of power into the air.

Then there are at least six more superstations which will be on the air before long. These include WSB and Miami Beach with 2,500-watt sets, WJR, WLS and WJAZ with 5,000-watt sets, and KYW with a 25,000-watt transmitter. KYW's new voice, now being constructed, will be as powerful as her sister station KDKA, but of course the full 25,000 watts will not be used—at least not now.

station RDRA, but of course the run 25,000 waits win not be used—at least not now.

So the 1925 summer listener has a pick of at least twenty superstations, anyone of which is capable of overcoming the difficulties of summer weather and reaching out to all parts of the country

Don't pack away your set in moth balls-use it.

#### Clean Broadcast Advertising

**B**ROADCAST advertising must be clean, else a station's audience may suffer large decreases in number. A message from the National Vigilance committee of the Associated Advertising Clubs of the World emphasizes this point. The bulletin is being sent to station directors which says:

"Before you broadcast commercial material, be sure that it is not only interesting and true, but that the

advertiser is reputable.
"When you broadcast such material, tell your listen-

ers, in advance, what they are about to hear."
We are glad that the "Truth-in-Advertising" movement has been extended to Radio. There are already many stations which could apply this policy to good

#### RADIO INDI-GEST

#### The Mark of Progress

VILLAGE BANDS HURT BY RADIO

Wailing of Fiddles Vanishes and Cornet Practice Grows Listless as Farmers Twist Dials

#### BAND STANDS MAY DECAY

The band stands are decaying,

The Silver Cornets still, The brass-buttoned coats are covered with mould

And gone is the ancient thrill. The leader's baton is rusty, No more the piccolo flights

And once again the natives can sleep— Thank God—on Saturday nights.

Chorus) Oh, the old grey mare, she ain't what she used to be,
She ain't what she used to be, she ain't, etc.,
Or, "When You and I Were Young, Maggie," for soprano

Even at that we are willing to bet that some paint salesman will write to us in the coming week and want to know what paper that story was taken from. When he finds out he will pack his samples, limber up the beautiful lithographed catalog with the testimonials and rush forth to show the village fathers that there is no need of letting the bandstand decay, and that by saving the surface they can save all.

#### News Bulletins from Milwaukee Furnished in Cooperation with the Milwaukee Daily Beverage

(Beer up, my friend, beer up)

Armin Schwartemagen (Nonp.), who conducts a soft drink parlor, runs a single circuit set. The young man drink parior, runs a single circuit set. The young man made himself a public nuisance by squealing up the ether. The matter was brought to Mayor Bone's (Soc.) attention, who ordered Police Chief Baer (Soc.) to tell Sergeant Schultz (Soc.) to order Patrolman Weisskopf (Soc.) to tell Saloonist Schwartemagen to have said nuisance abated or maybe the Police Commissioner (Soc.) would perhaps have trouble to find him a soft drink parlor license this year, nicht wahr?

The Ten Commandments are showing at the Blatz theater at ten cents a commandment, the entire set \$1.50. "Du lieber Himmel," observed Mrs Strohsack, "for why pay that when Herr Voliva chucks us more commandments every Sunday afternoon than would fill the Blatz theater." the Blatz theater."

Unveiling ceremonies of the statue of Andy Volstead, which took place recently, were Radiocast over Station WSOL. Grateful citizens have made the statue possible. "He has shortened the hours of every brewery worker in Milwaukee," said Mayor Bone, "from 50 to Now they work two hours making near beer for Chicago and then they go home and work for Milwaukee, Hurrah for prohibition, whatever that is. It has made possible for everybody to own a Radio set, automobile, player plano, private yacht, summer home on the Maine coast, or what else will you have?"

The statue is of solid bronze, all except the head, which is ivory. The inscription reads, "From 1776 to 1919." This is to denote the era of American liberty.

Station WCAY, Milwaukee's Psychic Broadcasting Station, has a right good slogan. "When you hear nothing but the generator, you're listening to WCAY."

Ottfried Wurm got both coasts on his onetubodyne last night. "Detroit was good, but, oh boy, ya shoulda heard Racine!" he avers. Up and at 'em, Ott, and lets see you bring in Zion or some other foreign station.

Have you heard the latest song from Station WBEER, Schlitz Beverage Company, "When Father drilled the bakelite with a can opener?"

Mr. Murks, the city cobbler, thought sure he had a foreign station, but found it was only Brother Erb-stein of WTAS speaking in the language of departed

Kindly ask your steno what makes this durned Remington Standard No. 10 skip when operated at my normal speed of ten and ¾ words per minute. It ruins my otherwise perfect copy. Us authors sure got our troubles. It makes me sick.

Hoping you are the same,

THE THIRD TROMBONE PLAYER.

We always get a sense of satisfaction when we read the TROMBONE PLAYER. For a while we thought he had deserted us, but not so. On this screen next week we are prepared to present his masterpiece, "The Shooting of SingleTube McGrew." It will be illustrated, and set by Indi-Gest's most capable linotyper. Ten cents on all newsstands. (Adv.)

#### The Church-Goer

I must haste, I must haste, No time will I waste. In dressing a church full to charm.
Don't hunt for my shoe,
These bed slippers will do, And not combing hair does no harm.

I'll not wash, it's too late I'll not wash, it's too late,
I lack change for the plate,
And my housework is left in the lurch.
How I look, who should care,
No decorum is there, For I'm off to the Radio church. E. M. G.

Last lines are too commonplace. Therefore we will not have one.

#### Wire Grass



#### Condensed By DIELECTRIC

There are some refinements about broadcasting There are some refinements about broadcasting plays which are yet to appear. We have advanced somewhat since Radios first made their bow to the listening public in the matter of creating the play atmosphere. Just recently an excellent suggestion came to WGY, Schenectady, from a fan in Maine and every devotee of this station who tunes in the General Electric players will appreciate the advantage of linking a voice with a character at the outset of the play ing a voice with a character at the outset of the play. The comedy "The Sacrifice" was ably given and easily followed throughout.

Did you happen to tune to WEAR, Cleveland, while the Western Reserve university alumni concert was in progress? If not, you missed hearing men's singing under very favorable conditions; they being: good voices, good training and entertaining songs. This voices, good training and entertaining songs. This station does not hesitate to present features of the

Due to station interference and code, many fans living in the eastern part of the United States seldom are able to spend any part of an evening with Station KTHS, Hot Springs. They live in hopes. One of the best attractions lately offered from the station was the concert given by the 153rd Infantry band. It will bear a return engagement. bear a return engagement.

Following a vigorous day at the office, or elsewhere or that matter, it is indeed relaxing to get in tune with WSB, Atlanta, and let the announcer direct your entertainment. Those of us who had this station on a certain evening recently heard a pleasing soprano sing some of the typical southern melodies in a fascinating manner.

The time is now at hand when we can judge better whether or not increased power for our broadcast stations is worth while. To those who often tuned to KFI when that station was operating on 500 watts, the difference in strength and clarity should be quite apparent as the new transmitter is now shooting 2,000 watts nightly. One program in particular came through very fine the other evening. It was by a saxophone band of sixty pieces. After listening a while it seemed hard to realize that the same instrument so generally used to clown up in a dance orchestra is capable of used to clown up in a dance orchestra is capable of being used to better advantage. That soul-stirring march, "The Stars and Stripes Forever," was very effective.

Once again I have occasion to refer to a station in Cincinnati, WLW, to congratulte them upon securing the attendance at their studio of the Formica orchestra. This body of musicians is perhaps no better than many others one might mention but it because many others one might mention, but it chose a program in part presenting works of Charles Wakefield Cadman, one of America's foremost composers. The musicians had imbibed the spirit of Cadman, evidently.

From WCAP, Washington, Radio listeners recently had an offering of a girls' glee club singing numbers varying in character though not in careful presentation. The contralto voices were of very good quality and suffered no eclipse from the sopranos, as so often happens. In fact, the club was well balanced throughout and deserves commendation.

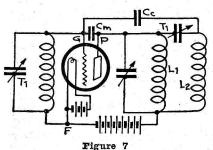
Anyone having seen as well as heard the opera "Samson and Delilah" (especially with famous artists) can close their eyes and picture the dramatic development of this opera while listening to a broadcast version. WEAF, New York, presented singers with fair understanding of Saint-Saens' score understanding of Saint-Saens' score.

## Recent Advances in Tuned R.F. Amplification

#### Part II—Circuits in the 1924-5 Receivers

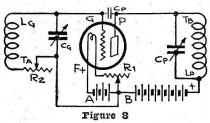
By Milo Gurney

BEFORE passing on to showing other than schematically, modifications and adaptation of Rice, Hartley and Hazeltine, it may prove interesting to digress a moment in calling your attention to circuit figure 7, which enjoys a marked likeness to Professor Hazeltine's circuit the only apparent difference being. circuit, the only apparent difference being circuit, the only apparent difference being the employment of a variable capacitance between the coils T1-L1 which comprise series resonant circuits. With this circuit at resonance the voltages in coils L1-L2 are in phase opposition and, by inserting T1 between the input circuit and the top of L2, compensation is accomplished. This circuit, which will be given in detail in a later article, should prove superior to either the Rice or Hazeline method of neutralization, even though tine method of neutralization, even though it is not a perfect compensator for wave lengths foreign to the resonance point of the coupled circuits. It, however, is easily constructed and offers much toward surprising efficiency, affording in theory a much closer counterpart of Hazeltine's regeneration limiting device than that indicated in the Rice method.



Reverting back to the more simple means exploited in tuned radio frequency means exploited in tuned radio frequency amplifiers wherein intentional losses are deliberately inserted, either in the primaries or secondaries, to absorb undesired values of regeneration one will readily note that in each method used it aguite apparent that the designer of the circuit made no intelligent attempt serted in the input circuit. This resistsance may be of the order of 1,000 ohms, must be variable and should preferably be placed as indicated at the low potential end of such input circuit. A partial readily note that in each method used it are input circuit. This resistsance is fixed in the input circuit. This resistsance is fixed in the input circuit. This resistsance in the input circuit. This resistsance is fixed in the input circuit. This resistsance is fixed in the order of 1,000 ohms, must be variable and should preferably be placed as indicated at the low potential end of such input circuit. A partial readily note that in each method used it is shown in figure 9, wherein the circuit made no intelligent attempt that the designer of the order of 1,000 ohms, must be variable and should preferably be placed as indicated at the low potential end of such input circuit. A partial readily note that in each method used it is shown in figure 9, wherein the circuit made in the input circuit.

toward providing neutralization, but introduced a loss, usually in the formoof a resistance, to accomplish or cover up a bad job, while often this method of resistor insertion has been used purely to dodge patent infringements. Among such means are the well known use of so-called stabilizers, high resistance transformers and potentiometers. No originality of these to the manufacturer and with the further assurance that they would not the further assurance that they would not and potentiometers. No originality of thought is expressed in any of these adaptations, while in general, and in a



greater or less degree, they are harmful because, while they do function toward nullifying the effect of over inter-stage regeneration, yet in doing so their adop-tion trends toward causing distortion and the limitation of selectivity, each result to be avoided if possible. It would, how-ever, be unfair to exclude a few diagrams showing some of the methods used and to advise as to which of these methods is most desirable should the experimenter desire to use them in an attempt to im-prove upon their application, which naturally is desirable.

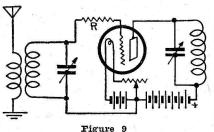
#### Insertion of Series Resistance

Figure 8 shows a typical input and output stage of a tuned circuit as used in tuned radio frequency amplification, in which it will be noted that a series variable non-inductive resistance is inserted in the input circuit. This resistance may be of the order of 1,000 chas

the further assurance that they would not hold as accurate or correct for the receiver you may construct. They are values as a guidance because the total losses essential for the securing of stabilization are quite obviously dependent upon the amount of regenerative reaction one deamount of regenerative reaction one desires to control, and varies with the maximum regenerative constants indicated as to be controlled in the completed receiver.

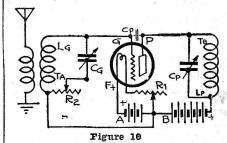
Shunt Resistance

Figure 10 shows a somewhat different method of loss insertion, it in effect being comparable with, and equivalent to, placing a variable shunt across the input circuit. This resistance should preferably also be variable and of the order of 1,500 to 2,000 ohms, though once the proper



resistor value is determined it may be locked as constant. The variable con-denser is of the standard two-plate value as it is not critical, and minimum or maximum value is not overly important. Of the two circuits, viz., 8 or 10, figure 8 is to be preferred, first because of its greater ease of construction and, secondly because the grid to filament resistance is not changed as in figure 10, hence the less likelihood of annoying distortion.

While some few experimenters have directed their efforts toward the shown insertion of resistors, both variable and fixed, in the input or grid to filament circuit, another school of thought has reversed the procedure through placing variable resistances in the output or plate circuit, some choosing their location ahead of the plate inductance or between it and the plate terminal, while others have



chosen to insert it between the plate return and the plus B battery feeding the plate. Irrespective of location, each remain as insertions of resistance and, while placing them in the plate or primary output circuit is less harmful than if they were placed in the grid or input circuit, they still remain as loss devises and do not, except in a measure, indicate a new thought or course of procedure toward the securing of ideal compensa-

They do, however, act in a measure as radio frequency chokes though evidently the thought prompting the procedure of such plate circuits resistance was to reduce the plate battery component and to at the same time accomplish this, if possible, without increasing the fundamental frequency of the primary in such a trans-

Perhaps it is well at this point to touch upon the interesting subject of coil ra-tios, i. e., primary to secondary in radio frequency transformers, wherein both primary and secondary are of approxi-(Continued on page 18)

## Getting Concerts WHOLE



Cabinet Model "C" \$30

It soon dawns on the owner of a Bristol Speaker that he is listening in on entire concerts.

That roving disposition to tune in every station on the map is due, much more than is generally supposed, to a yearning for really sweet music.

One reason radio music does not always sound sweet is that certain of the tones are out of tune.

Coming through a Bristol Speaker, all the tones are evenly in tune. The result is an arresting sweetness that "invites" you to stay through a concert to the end.

## BRISTOL AUDIOPHONE Loud Speaker

For \$25 and \$30 you can get a Bristol Speaker; and there are others as low as \$12.50. Ask your dealer to send one out. Write us for Folder No. AY-3022, telling why the Bristol is such a delight to the ear.

THE BRISTOL COMPANY, WATERBURY, CONN.

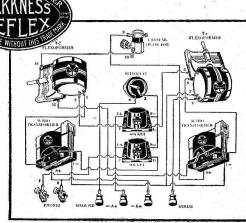


# Combination!

PRICE Complete Kit **\$35** 

Buy Only Genuine SHAMROCK-HARKNESS Licensed Parts

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#### Five-Tube Volume and Distance-Reflex Clarity Shamrock-Harkness Two-Tube Reflex

Here's a powerful little set! Two tubes do the work of five. Cuts Battery cost 60%. Gives consistent loud speaker reception within a radius of 1,000 miles—and we don't mean maybe!

This powerful little receiver is the result of months of investigation by Shamrock engineers to build the

SHAMROCK MANUFACTURING CO. Dept. 32-C, Market St., Newark, N. J.

SHAMROCI

Theset for the masses as well as the classes

\*\*\*\*\*\*\*\*\*

best features of the most powerful present-day circuits into one receiver -at the lowest possible cost!

Also ask to see the improved THREE-TUBE COUNTERFLEX The wonder set \$3950

SHAMROCK MFG. CO.,
Dept. 32-C, Market St., Newark, N. J.
I enclose 10 cents (U. S. stamps or coin) for copy of "Shamrock Radio Builder's Guide Book" containing diagrams and complete illustrations for building 10 sets at pricese ranging from \$15 to \$50.

#### TUNED R.F. ADVANCES

(Continued from page 17)

mately the same gauge and of equal in-sulation. The major portion of such transformers keep this ratio as high as posformers keep this ratio as high as possible, the average being close to 1 to 10 while the general practice is to insert the primary inside of the form holding the secondary and to maintain a spacing of about one-quarter inch between turns of the primary. In the construction of the radio frequency transformers for some of the circuits which I will show, two very radical departures from this usual method will be shown and the logical reason given for each method used; not with the intention of joining the army of "low the intention of joining the army of "low lossers" as a buck private, but rather with hopes of attempting to advance the science instead of wrecking it with purely mechanical tricks in place of electrical goodness. Am I in favor of low loss? Never! Merely as a name, but what I am in favor of is maximum power factor, almost a new wood in Radio and I want. almost a new word in Radio, and I want this power factor high in the completed receiver, rather than concentrating on one spot and loosing it in the next. Possibly I should not call spades spades, but rather I should not call spaces spaces, but rather use the more generic term shovels; however, low losses result in the very result our leading engineers are working night and day upon and, having faith in their ability to solve the problem, let us then look to them for our greater success rather than to the clever mechanic.

Primary to Secondary Ratio

Turn ratio, or the step up ratio fac-tor, in radio frequency transformers, in so far as believing that "the greater the ratio the greater the energy transference' has been proven as erroneous. By way of has been proven as erroneous. By way of illustration, if we have six turns in the primary winding and fifty-four in the secondary winding of a solenoid type of radio frequency transformer, our turns ratio would be high, one to nine, yet our transfer or inductance value would be comparatively low. To the contrary, should we increase the number of turns to say eighteen or a step up ratio of 1 to 3, equal to a third of our former value, the amplitude of inductance transfer from the amplitude of inductance transfer from primary to secondary would be at approx imate maximum.

imate maximum.

Hence, ratios, of themselves, are but relative terms and apparently have been considered too carelessly by many "low lossers." Not all, by any means, as in some circuit designs and, in particular, antenna input design, turns ratio efficiency with regard to its inductance transference is obviously and assentially high ference, is obviously and essentially high

While this factor is equally true in interstage coupling upon some types of cir-cuits, however, in general as we increase the turns ratio between primary and sec-ondary we decrease the tendency toward creating sustained oscillations and, in direct proportion, increase the inductance transfer factor. Therefore, unless one is prepared to determine the compromise his limitations command it is best that he look upon all few turn primary, or high ratio radio frequency transformers, as devices which will tax his ingenuity to-ward control unless his circuit design definitely prompts their use.

#### Mechanical Construction

Another feature of radio frequency design common to many makes on the mar-ket for which there appears no logical reason, and which but meant additional cost to the manufacturers, and infinitely hard construction to the home builder, is the practice of placing the primary windings within or upon the inside of the tube or secondary winding.

As I write this, I have before me a ra-dio frequency transformer so arranged as to mechanical arrangement of the entire coil that it shows clearly the maximum of mechanical ingenuity in its design and particularly, extreme cleverness and elaborate preparation for the placing of the primary inside the solenoid. With its secondary winding, it would be easily possible to present it as the finest mechanical effort in coil construction that I have seen, yet I cannot recommend it because the primary is too close to the center of the coil's magnetic field, which is another way of impressing upon you another danger point. Obviously, the ideal position would be outside of the secondary and as much out of its magnetic field as possible without destroying its inductive relation value. Therefore, in the radio frequency transformer which I shall describe later, an attempt will be made to picturize and describe a nearly standard radio frequency transformer as represent-ing the present advanced state of the science.

(How primary cells-commonly known erate electricity—is Professor Moreton's next subject. The chemical actions are simply explained.—Editor's Note.)

If your ground wire runs under the carpet, you soon will notice extra wear where the wire raises the carpet. To avoid this substitute brass ribbon for



#### Distance

on the phones-with certainty and regularity - on the Crosley one-tube 50. The radio which told the world that the MacMillan North Pole expedition was safe and sound. The radio that kept communication

that kept communication open to Leonard Weeks at Minot, N. D., when all other receivers failed.

There is nothing better than the Crosley 50 for the radio beginner.

There is nothing to excel it in value; unless it be the larger Crosley sets.

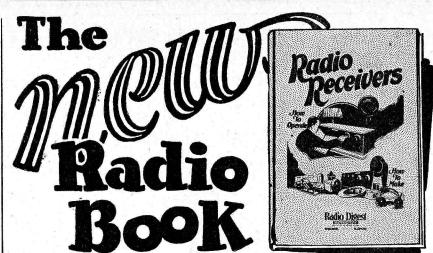
Stations always come in at the same place.

For sale by good dealers everywhere. Other models priced from the two tube 51, at \$18.50, to the Trirdyn Special with sloping panel, at \$65. All Crosley Radios Special with sloping paner, at \$65. All Crosley Radios are licensed under Armstrong Regenerative U. S. Patent No. 1,113,149. Prices quoted are without accessories,

Prices West of Rockies-Add 10% Write for Complete Catalog

The Crosley Radio Corporation

Powel Crosley, Jr., President 6491 Sassafras St. Cincinnati, Ohio Crosley owns and operates Broad-casting Station WLW



How to a understand radio, assemble circuits, improve reception, operate sets,

VERY phase of Radio reception gathered into one book at last! Explanation of elementary principles, directions for constructing parts, detailed how-to-build articles for the assembly of sets, operating directions on popular manufactured

Haven't you often wondered what all the spirals, wriggly lines and zig-zag lines were about on diagrams? A big chart shows you a picture of the part as you see it and, beside the picture, the symbol used in diagrams. Other articles show clearly just what happens within the mysterious little vacuum tubes that glow hour after hour within your set, apparently without change, yet pass every note of a jazz orchestra or soprano.

Antennas, for whose erection there are seemingly no rules, are covered fully; the reason for a long wire in some locations and a short one in others, is readily grasped by anyone. Crystal sets, one tubers, two tube reflexes, three tube regenerative and reflex outfits, four tube R. F. and neutrodynes, five tube assembliesall types are presented up to the nine tube "super," king of the air.

#### For the Man That Bought His Set

For the non-technically inclined there is a two-color broadcast map of the country, operating schedules of all the leading stations, call letters and power rating of every station on the air, suggestions for the care of batteries and tubes.

No matter what type of receiver you own, there are dozens of valuable suggestions on tuning, trouble shooting and operating. Your head receivers, loud speaker, antenna and certain parts within the set, require frequent cleaning, adjusting and care. Interference and its remedies are factors you should understand even though you care nothing about "what makes it go."

Compiled by the technical staff of Radio Digest, it represents the high lights of the past twelve months in the Radio field. All this data is indexed for ready reference and logically arranged. Only a few thousand have been printed and this offer will stand for a limited time. The only book of its kind and is FREE with one year's subscription to Radio Digest. This offer good only on subscriptions sent directly to this office, not through agents or

Subscription Department

## Radio Digest

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( ) Currency, for which enter my subscription to Radio Digest for one year and send me the book, "Radio Receivers."  Name  Address  (Typewrite or Print Clearly)		ed is \$5.00 i	n ( ) 1	м. О., (	) Check,
book, "Radio Receivers."  Name  Address	( )	Currency, for	r which er	nter my sub	oscription
NameAddress	to Radi	o Digest fo	r one year	r and send	me the
Address	book, "	Radio Recei	vers."		
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(Dept. A)

Owensboro

Kentucky

## A. B. C. Course in Radio Fundamentals

## Chapter XI—Electrical Measuring Instruments (Part 2)

By David Penn Moreton

the fundamental principle of the electrodynamometer type of ammeter is shown in figure 53. The current to be measured is sent through two coils, C<sub>1</sub>, C<sub>2</sub>, connected in series. One of the coils, C<sub>1</sub>, is mounted on bearings so that it may turn inside of the other coil, C2. Two coil springs, SS, control the position of the movable coil and at the same time provide an electrical connection to it. Now, when there is a current in the ammeter, the following conditions will exist. meter, the following conditions will exist. There will be a magnetic field produced inside of the stationary coil whose strength will vary directly as the value of the current in the coil. As a result of there being a current in the movable coil, and since it is in a magnetic field, there will be a force acting on the coil which will cause it to rotate against the force due to the springs. The coil will come to rest in a position such that the force due to the action of the current will be exactly equal to the force due to the springs. The deflecting force, or the force which moves the coil from its zero position, varies in value with the value of the current in the movable coil and the strength of the magnetic field inside the stationary coil, which in turn varies in value with the current in the movable is the same as the current in the movable. tatue with the current in this coil, which is the same as the current in the movable coil, or, the deflecting force will vary in value with the product of the current in the stationary coil and the current in the movable coil or, the current squared. The scale of the instruments, however, are usually marked to read the current directly. current directly.

Direction of Current No Worry

An instrument of this kind will always deflect in the same direction when there is a current sent though it, regardless of the direction of the current. When the

current is reversed in direction, there is a reversal of direction of the magnetic field within the stationary coil and at the same time there is a reversal of current in the movable coil and this double reversal results in the force acting on the movable coil remaining unchanged in direction.

When an instrument of this kind is

THE fundamental principle of the electrodynamometer type of ammeter is shown in figure 53. The current to measured is sent through two coils, c2, connected in series. One of the same in both cases. C1, is mounted on bearings so that may turn inside of the other coil, C2.

This difference in deflection is due to the notice of any magnetic field, other than a coil springs. SS. control the position of any magnetic field, other than another type of ammeter is principle upon which the circuit may produce as small another type of ammeter, known as the current in the interesting, and, likewise, higher values when the current is decreasing.

An ammeter is always connected in series in the circuit in which the current is to be measured, and in order that the introduction of the instrument.

This difference in deflection is due to the approach of any magnetic field, other than another type of ammeter, known as the current in the instrument, then their effect is not neutralized by the reversal of current and they cause an error in the indication of the instrument.

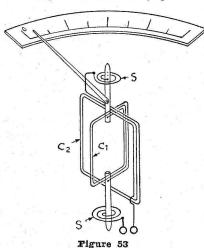
The fundamental principle of the electron of the pointer may be different with the current in the instrument, then their effect is not neutralized by the reversal of current and they cause an error in the indication of the instrument.

The fundamental principle of the electron of the pointer may be different with the current in the instrument, then their effect is not neutralized by the reversal of current and they cause an error in the indication of the instrument.

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The fundamental principle of the current in the instrument in the instrument in the instrument in the instrument in the current in the instrument.

The fundamental principle upon which the current in the instrument in the instr action of any magnetic field, other than the magnetizing action of the current in the instruments, which may exist in the region in which the instrument is located. Such magnetic fields usually produce a



different effect with the current in one direction than they produce with the current in the reverse direction, which accounts for the difference in deflection. When an alternating current is being measured, the effect of any outside magnetic fields is to increase the deflection for one alternation of the current is for one alternation of the current and to decrease the deflection an equal amount for an alternation in the opposite direction so that the actual or average de-flection is independent of the effect of the outside magnetic fields.

Of course, when the outside magnetic

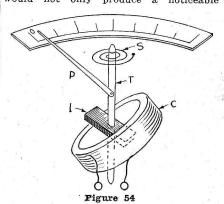
another type of ammeter, known as the 'magnetic vane' or "soft iron" type, oper-"magnetic vane" or "soft iron" type, operates, may be explained by reference to figure 54. A coil C carries the current to be measured, and this coil is mounted in an inclined position. A piece of soft sheet iron I is mounted on a shaft T, which is in turn mounted in a vertical position inside the coil C. A sping S holds the pointer P, which is attached to the shaft T, in its zero position. The piece of iron I is mounted on the shaft T with its planes making an angle of something like 45 degrees to the shaft and almost parallel to the plane of the coil, when the pointer is in its zero posicoil, when the pointer is in its zero position. Now when there is a current in the coil, a magnetic field will be produced within the coil and the piece of soft iron will be magnetized, and as a soit from will be magnetized, and as a result there will be a force acting on the piece of iron tending to turn it so that its longest dimension is parallel to the axis of the coil. The value of this force will, of course, depend upon the value of the current in the coil, increasing with an increase in current and decreasing with a decrease in the current. The direction a decrease in the current. The direction of the current in the coil has nothing to do with the direction of the force because the polarity of the piece of iron changes when the current is reversed and the deflecting force will have the same

What Happens with Direct Current

direction.

When an instrument of this kind is used to measure a direct current, the deflection may be influenced by stray magnetic fields as explained in the case of the electrodynamometer type of instruments. The magnetism in the piece of iron lags behind the current and this will cause the instrument to indicate lower values than it should when the current in

is to be measured, and in order that the introduction of the instrument into the circuit may produce as small an effect as possible, the resistance of the instrument should be very small in comparison to the resistance of the remainder of the circuit. A high resistance ammeter would not only produce a posteroble would not only produce a noticeable

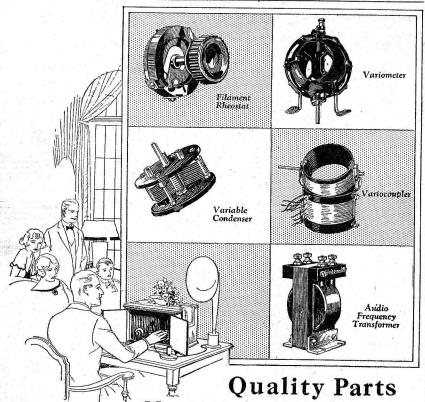


change in the total resistance of the circuit and hence the values of the current, but there would be a large loss in the high resistance ammeter in comparison to the loss that would occur in the low resistance instruments.

#### Use of Ammeter Shunts

When small currents are to be measured the total current passes through the coil or coils of the instruments. These coils and the electrical connections to them would be very cumbersome if they were made large enough to handle heavy currents, and in such cases use is made of what is called an ammeter shunt. The connection of the ammeter shunt is

(Continued on page 20)



Matched for Perfect Teamwork Your "pet" hook-up needs first quality parts-perfectly matched-to give you real radio.

Every Federal Standard Radio Part is designed, made, matched and guaranteed by Federal. That is why you find Federal parts in all the better hook-ups-that is why should insist on Federal parts when purchasing.

FEDERAL TELEPHONE MANUFACTURING CORP Buffalo, N. Y.





#### **Summer Static**

#### Now overcome by Volume! Enjoy Radio All the Year Around--This Way!

Kellogg Radio

Frequency Transformer

HOW often have you heard it said, "Well, the warm weather is coming on, I had better put my radio on the shelf. It will be of no use until Fall.

There is absolutely no way to eliminate all static from your radio recep-

tion, but today there is a way to reduce it to a point where it ceases to annoy. This new way to over-

come static is by volume. And volume can best be obtained by using trans-formers that will amplify weak signals to their greatest strength.

Here are the Kellogg audio and radio frequency ransformers. Kellogg Transformers give volume with clarity of tone.

The Kellogg radio frequency transformer is of the low-loss, high-efficiency type, incorporating important new features. It will operate at all

broadcast wavelengths with standard .00035 to .0005 variable condenser. For best results, however, we recommend the Kellogg .0005 low-loss variable con-denser. Kellogg R.F. Transformers at all radio dealers-\$2.35 each.

Kellogg audio frequency transformers give maximum volume with clear reproduction. They will build up the volume of any receiving set. This is due to the high quality materials used, expert workmanship employed and the special Kellogg process of manufacture. Kellogg audio frequency transformers are made in both shielded and

unshielded types ranging in price from \$3.50 to \$4.50.

Kellogg transformers may be obtained at all radio dealers.

#### KELLOGG SWITCHBOARD & SUPPLY CO.

Transformer

1066 W. Adams St., Chicago, Illinois

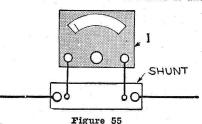
#### A. B. C. RADIO COURSE

(Continued on page 19)

shown in figure 55. The shunt is a very low resistance and the greater part of the current in the circuit passes through the shunt and only a small part of the current passes through the instrument I. The indication of the instrument I is, of course, due to the current through it, and if the relation of this current to the current through the shunt is known the total current in the main circuit may be decurrent in the main circuit may be de-termined by multiplying the indication of termined by multiplying the indication of the instrument I by a constant. The scale on the instrument may be marked to read the current in the main circuit and in such a case there is no need of a constant. In the use of an ammeter shunt the division of the total current between the shunt and the instrument must be known and the division of this current is not the same for direct current as it may be for an alternating current. as it may be for an alternating current, unless the electrical characteristics of the

shunt and the instrument are identical.

A voltmeter is an instrument used to measure the difference in the electrical pressure between the two points on an electrical circuit to which its two terminals are connected. For example, in figure 56, the voltmeter V is connected to the terminals of the resistance R and



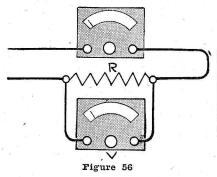
will give an indication of the value of the electrical pressure between the terminals of the resistance. The ammeter A will indicate the current in the main circuit, which will be practically the same as the current in the resistance R, provided the voltmeter takes a very small

A voltmeter depends for its operation upon some effect produced by an electrical current, just as in the case of the ammeter, and the only difference in their construction is that the voltmeter has a comparatively high resistance and the ammeter a comparatively low resistance. The deflection of the moving element of

Finer Selectivity Equip your receiving set with Apex Vernier Dials. They will greatly increase the efficiency of any set. Make tuning positive- bring in distant stations. Your dealer has them. If not, send \$2.00 for Royal Brass Finish — \$2.50 for Satin Silver Finish, or \$3.50 for DeLuxe Gold Plated (24k). APEX SUPER 5 This highly efficient tuned radio frequency receiver is most advanced in design and construction. An instrument that meets every critical expectation of the radio enthusiast. Housed in a highly finished walput cabinet, complete with Jones Multi-plug Bat-tery Cable. All settings highly gold plated. Sells for accessories.
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the voltmeter depends upon the current through the instrument, and, if the resistance of the instrument is constant, this current will vary in value as the electrical pressure between the terminals of the instrument changes.

A voltmeter may be constructed so that a full scale deflection of the pointer will be produced by several different voltages. For example, the resistance of a certain voltmeter may be such that an electrical pressure of 15 volts is required to produce a full scale deflection. Now if a second coil be placed in series with this instrument and the resistance of this coil is equal to the resistance of the voltmeter, then a pressure of 30 volts will be required to produce a full scale deflection of the pointer. This second coil may be placed inside of the containing



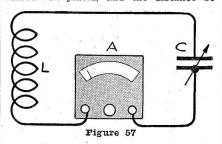
case of the instrument and a double marking placed on the scale, and a double set of terminals provided.

A wave meter is an instrument consisting of a variable condenser in series with a variable inductance and some means of indicating the maximum value of the current in the circuit. An instrument of current in the circuit. An instrument of this kind is used to measure the wave length of an oscillatory circuit by adjust-ing the inductance or capacity, or both, until the wave length is in resonance with the circuit to be measured. The resonance condition can be determined by means of the current indicating device in the meter, the current being maximum for esonance.

An ammeter is usually used to indicate the current, although in some instruments the detector being required to make the radio frequency currents above audibil-ity audible.

ULTRADURE MURDOCK **QZARKA** Planstiehl MICHIGAN Deresnadyne MALONE LEMON MASTER RADIO ADLER-ROYAL HARTMAN **AUDIOLA** EAGLE GLOBE AND MANY OTHERS Follow their lead TRANSFORMERS Standard on the majority of quality sets Build or replace with Thordarsons. Dealers every-where, Hook-up bulletins free. Write Thordarson Elec-tric Mfg. Co., Chicago.

The diagram of the wave meter is shown in figure 57. In order that a wide range of wave lengths may be measured it is customary to provide several different inductances of different sizes. The condenser is of the variable type with air as a dielectric and its capacity may be varied from room to the theorem. be varied from zero to the maximum value, which will depend upon the size, number of plates, and the distance be-



The condenser is provided with a dial which will give an accurate indication of the position of the variable plates of the condenser, and also its capacity. Now for each particular inductance there will be a range of wave lengths which may be measured by varying the capacity from its maximum value to its minimum value. A chart or curve usually accompanies each instrument which gives the relation between dial reading and wave length for each inductance. The inductances are most generally mounted outside the containing case of the instrument for ease in changing.

(Different types of batteries, their construction and special uses, will be taken up next by Professor Moreton. Primary cells, those which generate electrical energy by chemical action, are the subject next week.—Editor's Note.)

#### The Reader's View

#### Re Harmonica Contests

I noticed on the front page of the Radio Digest of May 2 that a harmonica contest is to be waged at Station WBAP.

The challenger, Mr. Wright, I have not met, but Mr. McBeth I met in Dallas winter before last, where the writer won first money at an adults' harmonica contest at Kieths, when my friend Borah Minevitch played. Mr. McBeth was there,

I am glad to see this spirit of rivalry now, and hope it will be all good natured. When I was a boy we sat on the rail fence and always featured the harmonica to help out the glee (?) club.

I would like the addresses of about four or five of the best harmonica players (aside from Mr. Minevitch) and would like to have them write me in care of Radio Digest. I want only ones who have played a number of years and are able to render jazz or classics.—I. J. Lockwood. Lockwood.

#### Tune Him Out

I was glad to see the article by Robt. Whitfield of Texas regarding those pests of the air, the telegram readers. Certainly, if anyone has a just cause to complain, Mr. Whitfield has, as the chief offender is leasted in his state.

Mr. Whitfield has, as the chief offender is located in his state.

I agree fully with Mr. Whitfield that the main object of these laudatory gushers is to hear their names announced over the Radio. Like him, when they commence reading the telegrams my hand invariably and instantly reaches for the dials; we have that satisfaction at least.—Thomas L. Farley, Thomaston, Ga.



## The Three Curses of Radio

## Power Noises, Static, Reradiating Squeals

The Kane Antennae absolutely eliminates all power noises. The Kane Antennae cuts real "static" and reradiating squeals

The Kane Antennae enables you to get the full benefit of your Receiving Set All Summer Long.

Another of our many satisfied customers proves our claims in the following letters.

#### "HE SUFFERED GRIEF AND PAIN"

Gentlemen:—

Referring to your Ad in "Radio Digest" in regard to your Antennae, I have a six tube Super Cenith operating on wet "A" Batt., and am troubled with power noises and static, being located within 75 yards of a 50,000-volt power line. Located in two-story building and have set on second floor. Depot is between two railroad tracks.

Kindly advise if you think your Antennae would help me out under the above circumstances, Kindly give dimensions of Antennae, that is, length and distance from ground lowest wires would be. It is almost imperative for me to run Antennae across railroad track.

Hoping to hear from you soon, (Signed) Yours truly, B. H. Beaver, Agent ATSF RR Co., Johannesburg, Calif.

#### "THEM DAYS IS GONE FOR EVER"

Gentlemen:— Johannesburg, Calif., May 6, 1925.

I have installed one of your Antennae which you recently shipped me, and find that it has eliminated all power induction from 50,000-volt power line within 150 feet of Antennae's location.

Several stations that I could not bring in at all on account of this power induction I now bring in clearly. Needless to say it has improved greatly reception from all stations.

Thanking you for promptness in filling order and wishing you success, I am, (Signed) Yours truly, B. H. Beaver, Agent ATSF RR Co.

See for Yourself Just What This Wonderful Antennae Is

We will sell you working drawing with instructions for erecting this wonderful
Antennae for a dollar bill. If, after looking over the drawing, you decide you
would rather have a factory-built Antennae than build one yourself, we will take
back the drawing and allow you full purchase price on an order for an Antennae.

The Special Kane Antennae for Radiola Super-Het's..... The Regular Kane Antennae for all other sets that use a ground 13.00

Working Drawing with Instructions for Erecting, \$1.00
(Stamps Not Accepted)
Postpaid to any part of the United States or sent C.O.D. when 25% of purchase price accompanies order. "HEAR AS YOU HAVE NEVER HEARD BLFORE"

THE KANE ANTENNAE COMPANY, Aberdeen, Wash.

## Radiophone Broadcasting Stations

#### Corrected Every Week-Part IV

#### 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. tions 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.

#### United States (Cont'd)

NOTE.—The fourth part of the schedule list appears below. Part five appears next week.

WNJ, Newark, N. J. 252 meters. 50 0watts. Radio Announcer, W. A. Bingenheimer. Slogan, "The Voice of Newark." Tues, Wed, Fri. Sat, Sun, 6-6:30 pm, 8:30-12, dance music. Eastern Partition.

Sat, Sun, 0-0:30 pm, 8-30-74, dance modern Daylight. WNYC, New York, N. Y. 526 meters. 1000 watts. New York Municipal Radio Station. Slogan, "Municipal Broadcasting Station of the City of New York." Daily 2-5 pm; 7:30 pm, 10:30, police; 7:35, entertainment; 10:30, weather. Sun, 9-11 pm, Mark Strand theater. Eastern Daylight.

WOAC, Llma. O. 261 meters. 50 watts. Page Organ Co. (H. P. Maus). Tues, Thurs, Sat, 7:30-8:30 pm. Central.

WOAC, Lima, U. 281 meters. 50 watts. Page Organ Co. (H. P. Maus). Tues, Thurs, Sat, 7:30-8:30 pm. Central.

WOAI, San Antonio, Tex. 394.5 meters. 1000 watts. Southern Equip. Co. (Evening News-Express). Announcer, J. G. Cummings. Slogan, "The Winter Playsround of America, Where the Sunshine Spends the Winter." Daily ex Sun, 10:30 am, 12:15 pm. 3. markets; 7:00, sports, markets. Tues, 8:30-10:30 pm. music. Sun, 11 am, church service; 7:45 pm, church services; 9:30-10:30, music Central.

WOAN, Lawrenceburg, Tenn. 282.8 meters, 500 watts. James D. Vaughan. Announcer, James D. Vaughan. Daily and Sun, 12:15-12:45 pm, concert. Daily ex. Sat. 9-10 pm, concert. Contral.

WOAW, Omaha. Neb. 526 meters. 1000 watts. Woodmen of the World. Announcer, "GR," Gene Rouse. Slogan, "The City Surrounded by the United States." Daily ex Sun, Wed, 12:30-2 pm; 5-7:30, 9-11. Sat, 11-12 midnight, dance. Sun, 9-10-35 am; 1:30-4 pm; 9-11. Central.

WOAX, Trenton, N. J. 240 meters. 500 watts. F. J. Wolff. Slogan, "The Voice from Trenton." Daily, wolff. Slogan, "The Voice from Trenton." Daily, and wolff. Slogan, "The Voice from Trenton." Daily, and slight.

11-12 midnight, dance. Sun, 9-10:45 am; 1:30-4 pm; 9-11. Central.

WOAX, Trenton, N. J. 240 meters. 500 watts. F. J. Wolff. Slogan, "The Voice from Trenton." Daily, 12:15 pm, weather, mid-weekly crop report. Eastern daylight.

WOC, Davenport, Iowa. 483.6 meters. 2000 watts. The Palmer School of Chiropractic. Announcer Stanley W. Barnett. Slogan, "Where the West Begins and in the State Where the Tall Corn Grows." Daily ex Sun, 12:57 pm, time; 1 weather, 1:15, lecture, (ex Sat), elosing markets, 3 (ex Sat), home hour; 5:45 pm, chimes; 6, bulletin, baseball; 6:30, (ex Tues), sandman. Wed, Fri, 4 pm. Tues, 6:30 pm, musice. Wed. Sat, 9 pm. Thurs, 7 pm. Fri, 8 pm. Thurs, Sat, 11 pm. dance music. Mon, silent. Sun, 1 pm. ordestra; 6:50 baseball; 8 pm, service; 9:30, music. Central. WoCl. Jamestown, N. Y. 275.2 meters. 15 watts. Hotel Jamestown, Inc. Announcer, Ernest H. Kleser. Slogan, "We're on Chatauqua Lake." Wed. 8 pm. Sun, 19:30 am, 7:30-9:30 Eastern. WoDA, Paterson, N. J. 202.6 meters. 10 watts. James K. O'Dea Radio & Victirola Shop.
WODA, Paterson, N. J. 202.6 meters. 10 watts. James K. O'Dea Radio & Victirola Shop. Wol. Ames, Ia. 270 meters, 500 watts, Iowa State College. Announcer, H. B. Deal. Daily ex Sun, 9:30 am, weather reports; 12:30 pm, chimes, market, weather, educational talks; 9:30, weather. Mon, 10 pm, informal program. Thurs, 8:15 pm, musical. Sun, 10:45 am, chimes; 11, chapel. Central.
WOO, Philadelphila, Pa. 508.2 meters. 500 watts. John Wanamaker. Announcer, Jos. N. Nassau. Daily ex Sun, 2:30 pm. Sunday school; 6, organ; alternate am and pm services. Eastern daylight.
WOQ. Holadelphila, Pa. 508.2 weather. Mon, Wed, Fri, 7:30-11 pm, music, concert. Sun, 2:30 pm. Sunday school; 6, organ; alternate am and pm services. Eastern daylight. Wol. Announcer, Jos. N. Nassau. Daily ex Sun, 8:30-10 pm. Sunday. Su

WPAR, False College. Annual Agricultural College. Agricultural College. Annual College. Agricultural College. Eastern. WPG. Atlantic City, N. J. 299.8 meters. 500 watts. Municipality of Atlantic City. Slogan, "World's Playgrounds," Mon, Tues, Fri, 7 pm. Tues, Thirs, Sat, 9 pm; 10, classics. Mon, 8 pm. Thurs, I pm. Sat, 6:30 pm. concert; 10. Sun, 3:15 pm. organ; 4:15, service; 10, service. Eastern daylight.

State College. Slogan: "The Voice of the Nittany Lion."

WQAA. Parkesburg. Pa. 220 meters. 500 watts. Horace A. Beale, Ir. Temporarily discontinued.

WQAC. Amarillo, Tex. 234 meters. 100 watts. Gish Badio Service. Irregular schedule.

WQAE. Springfield, Vt. 246 meters. 50 watts. Moore Radio News Station. Announcer, Ernest S. Newell. Slogan, "Among the Green Hills of Vermont." Sat. 11-1 am. Sun, 10:30 am., church service; 7 pm. service. Eastern.

WQAM. Mismi, Fla. 268 meters. 100 watts. Electrical Equip. Co. Announcer, Frederick W. Mizer. Slogan, "It is Alway June in Mismi." The Most Southern Radiocasting Station in U. S. Tues, Thurs, Sat, 10-12 midnight, music. Sun, 7:30-9 pm. Eastern.

WQAN. Scranton, Pa. 250 meters. 100 watts. Scranton Times. Announcer, T. V. Nealon. Slogan, "The Voice of the Anthracite." Daily ex Sun, 12:30-1 pm, 4:15-4:45, news, reports, music. Tues, Fri, 8 pm, enttertainment. Eastern.

Calvary Baptist Church. Announcer, R. E. Bogardus, Slogan: "The First Church Owned and Operated Broadcasting Station in the World." Sun, 11:30 am, 7:30 pm, church services. Eastern daylight.

W43, Lowell, Mass. 252 meters. 100 watts. Prince-Walter Company—Rainbo Gardens. Announcer, Jerry Sullivan. Daily ex Sun, 11-12 m, 3-4 pm, woman's hour. Daily ex Sun, Mon, 7-8 pm, 10-1, 1-2, Ginger hour. Sat, 10-3 am. Sun, 10:30 am, church service; 3-4 pm, 8-10 pm, music. Central daylight.

WRAA, Houston, Tex. 256 meters. 100 watts. The Rice Institute.

WRAA, Houston, Tex. 256 meters. 100 watts. The Rice Institute.
WRAF, La Porte, Ind. 224 meters. 100 watts. Radio Club, Inc. Announcer, Charles Middleton. Slogan. "The Voice of the Maple City." Mon, Thurs, Sun, 8:30 pm. Central.
WRAK, Escanaba, Mich. 256 meters. 100 watts. Economy Light Company, Announcer, Ken Voght. Slogan, "The Gateway to Cloverland." Mon, Fri, 8:30 pm. Eastern.

"The Gateway to Cloverland." MOU, FIL, CLOV PURE Eastern.
WRAL, St. Groix Falls, Wis. 248 meters. 100 watts.
Northern States Power Co. Announcer, D. H. Hiebert.
Slogan, "On the Dells of the St. Croix."
WRAM, Galesburg, Ill. 244 meters. 100 watts. Lombard
College. Mon, 9:30-11 pm. Fil, 89:350 pm. Central.
WRAV, Yellow Springs, O. 263 meters. 100 watts.
Antioch College. Announcer, Charles Hoffman. Wed,
8 pm, music; 9, educational. Sun, 7 pm. Central.
WRAW, Reading, Pa. 238 meters. 10 watts. Avenue
Radio & Elec Shop. Slogan, "The Schuylkill Valley
Echo." Announcer, C. M. Chafey Thurs, 10-11:30 pm.
Eastern.

Radio & Elec Shop. Siogan, The Schwitzer, Candeller, C. M. Chafey Thurs, 10-11:30 pm. Eastern.

WRAX, Gloucester City, N. J. 268 meters, 500 watts. Flexon's Garage. Announcer, Anna D. Flexon. Mon, Thurs, Fri, evenings, program. Eastern.

WRBC, Valparaiso, Ind. 278 meters, 500 watts. Immanuel Lutheran church. Announcer, Forrest Jones, Slogan, "World Redeemed by Christ." Mon, 7:30 pm. Sun, 7:30, church service. Eastern.

WRC, Washington, D. C. 468.5 meters, 1000 watts. Radio Corp'n of America. Announcer, George F. Ross. Slogan, "The Voice of the Capitol." Mon, Wed, Fri, 1-6:30 pm. Dues, Thurs, Sat, 1-12 midnight. Eastern.

WREO, Lansing, Mich. 285.5 meters, 500 watts. Reson Motor Car Co. Announcer, Roy E. Davis. Slogan, "Watch Reo." Daily ex Sun, 10 pm, weather. Tues, Thurs, 8:15 pm, music. Fri, 1-3 am, coast program; 8 pm, 10:30. Sat, 10-12 midnight, orchestra. Sun, 10 am, 7 pm, services. Eastern.

WRHF, Washington, D. C. 256 meters, 50 watts Washletton Radio Hospital. Daily ex Sun, 2:30 pm. Eastern.

WRHF, Washington, D. C. 256 meters, Sun, 2:30 pm. Invoton Radio Hospital. Daily ex Sun, 2:30 pm. Eastern.
WRK, Hamilton, O. 270 meters, 200 watts. Doron Bros. Elec. Co. Slogan, "The Oldest Station in Existence," Fri, 8:15 pm, music, lecture. Sun, 10:15 am, 7:30 pm. church services. Central.
WRM, Urbana, Ill. 273 meters. 500 watts. Univ. of Ill. Irregular Schedule. Broadcasts sports.
WRR, Dallas, Tex. 272.6 meters 350 watts. City of Dallas, Announcer, C. H. Garrett. Daily ex Sun, 11:30-12:30 pm, weather, music; 2:45-3:30, sports, markets, news; 7:39, police bulletins; 7:30-8:30 pm, music. Tues, 8:30-9:30 am. Sat, 12-2 am, organ. Sun, 10 am, church service. Central.
WRW, Tarrytown, N. Y. 272.6 meters. 500 watts. Tarrytown Radio Research Laboratory. Announcer, Frederick Koenig. Slogan, "Everything in Radio," Daily ex Sun, Wed. 9-11:30 pm. Mon, 7-8 pm. Wed, 10-11:30 pm. Sun, 8-9 pm, 10:30-11:30. Eastern daylight.

town Radio Research Laboratory. Announcer, Frederick Koenig. Slogan, "Everything in Radio." Daily ex Sun, Wed, 9-11:30 pm. Mon, 7-8 pm. Wed, 10-11:30 pm. Sun, 8-9 pm, 10:30-11:30. Eastern daylight.

WSAB, Cape Girardeau, Mo. 275 meters. 100 watts. Southeast Mo. State Teachers College. Mon, Wed, 3:30 pm. lecture: 9, concerts. Central.

WSAC, Clemson College, S. C. 336.9 meters. 500 watts. Clemson Agri. College. Announcer, H. E. Gaffney. Wed, 8 pm. Eastern.

WSAD, Providence, R. I. 256 meters. 100 watts. Fosters-Jewelers.

WSAG, St. Petersburg, Fla. 266 meters. 500 watts. Gospel tabernacle.

WSAI, Mason, O. 325.9 meters. 5000 watts. United States Playing Card Co. Announcer, P. A. Greene. Mon, 10-12 m. Tues, 7-10 pm. Wed, 10-12 midnight. Thurs. 8-10 pm. Sat, 8-10; 12-1:45 am. Sun, 3-4 pm. 8-10. Central daylight.

WSAI, Grove City, Pa. 229 meters. 250 watts. Grove City College. Announcer, Wm. L. Harmon. College activities. Wed. 7:30-9 pm, music, irregular programs. Eastern.

WSAN, Allentown, Pa. 229 meters. 50 watts. Allentown Call Pub. Co. Announcer, C. Fred Ritter. Tues, 7-10 watts. Spm. Eastern.

WSAR, New York, N. Y. 263 meters. 250 watts. City Temple. Thurs, 8-9:30 pm, Sat, 10:45-12 m. Sun, 7:30-930 pm. Eastern. WSAR, Fall River, Mass. 254 meters. 100 watts. Doughty & Welch Elect. Co., Inc. Announcer, Charles McCarthy Daily ex Sun, 12-1 pm. Wed. 7-3:30 pm. Sun, 10:35 pm. Eastern. Sun, 10:30 pm. Eas

"Watch Dayton's Broadcasting Station." Tues, Thurs. Sat, 8-10 pm. Sat, 11:45-12:30 am, dance music Central.

WSDE, Milwaukee, Wis. 246 meters. 100 watts. School of Engineering of Milwaukee. Announcer, O. W. Meissner. Slogan, "In the Land of the Sky-blue Waters." Daily ex Sat. Sun, 9-10 am, lecture; 1-3, pm, talk; 5-6:30, concert; 6-6:30, markets. Mon, Fr., 9-12 mid, music. Tues, Thurs, Sat, 7:30-9 pm, music. Sun, 9:30 am, service; 10:30-11:30; 1-3 pm; 7:30-8 s:30, services. Central.

WSRF, Broadlands, Ill. 233 meters. 10 watts. Dick's and Harden Radio Station. Announcer, "Red" Harden.

WSRO, Hamilton, Ohio. 252 meters. 100 watts. Radio Co. Announcer, Harry W. Fahilander. Tues, Fri, 8-10 pm, orchestra. Central.

WSUI, Jowa City, Ia. 483.6 meters. 500 watts. Univ. of Jowa. Announcer, Carl Menzer, Mon, Tnes, Wed, Thurs, Fri, 12:30-1 pm. Wed, 9-9:30 am. Mon, Wed, 7:30 pm, course; 7:45, lecture; 8, lecture. Sun, 7 pm, children's hour; 9-9:30, music. Central.

WSY, Aburn, Ala. 250 meters. 500 watts. Alabama Polytechnic Institute.

WTAB, Fall River, Mass. 266 meters. 100 watts. Fall River, Daily Herald. Daily and Sun, 6 pm, organ. Tues, Thurs, 8-10 pm. Wed, Sat, 5 pm. Eastern standard.

WTAC, Johnstown, Pa. 267.8 meters: 100 watts. Penn.

Tues, Thurs, 8-10 pm. Weu, Sav, standard.
WTAC, Johnstown, Pa. 267.8 meters. 100 watts. Penn. Traffic Co. Announcer, D. B. Cole. Mon, Fri, 7:30-10 pm. Eastern.
WTAL, Toledo, Ohio. 252 meters. 10 watts. Toledo Radio & Elec. Co. Announcer, E. R. Frank. Slogan: "The Gateway to the Sea." Daily ex Sun, 8:30 pm. Eastern.

Eastern.

YIAM, Cleveland, Ohio. 389.4 meters. 1,500 watts. Willard Storage Battery Co. Announcer, A. R. Herske, Slogan: "The Voice from the Storage Battery." Daily ex Sun, 6-7 pm, dinner program. Mon, 8-12 pm, concert. Wed, 8-1 am. Sat, 9-12 midnight, dance. Fastern.

cert. Wed, 8-1 am. Sat, 9-12 midnight, dance. Eastern. WTAP, Cambridge, Ill. 242 meters. 100 watts. Cam-bridge Radio & Elec. Co. Announcer, A. McIntosh.

WTAQ, Osseo, Wis. 254 meters. 200 watts. S. H. Van Gorden & Son. Announcer, Mrs. C. S. Van Gorden. Slogan: "The Voice of the Wilderness." Daily ex Sun, 10:30 am, 12:15 pm, 6:15, weather, markets; 6:30, code. Fri, Sun, 7:30 pm. Central. WTAR, Norfolk, Va. 261 meters. 100 watts. Reliance Electric Co. Announcer, J. K. Bohannon. Slogan: "Down in Old Virginia." Daily ex Sun, 5:55 pm, weather, tide reports. Tues, 7:30 pm, weekly review; 8-9, musical program. Eastern. WTAS, Elgin, Ill. 302.8 meters. 1,000 watts. Charles E. Erbstein. Slogan, "Willie, Tommie, Annie and Sammie." Daily ex Sun, Thurs, 8-11 pm. Thurs, Sun, 7-12, music. Central daylight. WTAT, Boston, Mass. 244 meters. 100 watts. Edison Elec. Illuminating Co. (portable). Announcer, Leon B. Hentz.

WTAT, Boston, Mass, 244 meters, 100 Watts. Elec. Illuminating Co. (portable). Announcer, Leon B. Hentlz.
WTAU, Tecumseh, Neb. 242 meters. 10 watts. Ruegg Battery & Elec. Co. Tues, 8:30 pm. Central.
WTAW, College Station, Tex. 270 meters. 250 watts.
Agricultural and Mechanical College of Texas. Silent during the summer.
WTAX, Streator, Ill. 231 meters. 50 watts. Williams Hardware Co., Radio Division. Announcer, N. B. Williams. Slogan: "Tappa Kegga Nails." Mon, 6:30-8 pm. Central.
WTAZ, Lambertville, N. J. 261 meters. 15 watts. Thomas J. McGuire. Mon, 8-10 pm, music. Eastern.
WTG, Manhattan, Kan. 273 meters. 50 watts. Kan. State Agri. College. Daily, 9:55 am, 4 pm, weather. Central.

Central,
WTHS, Flint, Mich. 218.8 meters. 250 watts. Flint
Senior H. S.

Central.

WTHS, Flint, Mich. 218.8 meters. 250 watts. Flint Senior H. S.

WTIC, Hartford, Conn. 348.6 meters. 500 watts. The Travelers Insurance Company. Slogan, "The Insurance City." Mon, 5:45-7:430 pm; These, Fri, 7-10:30; Wed, 5:45-6 pm; Thurs, 5:45-7:50. Eastern.

WWAD, Philadelphia, Pa. 250 meters. 100 watts. Wright & Wright, Inc. Announcer, H. W. Feyhl. Slogan, "Penn City Station." Mon, 7:45 pm. Thurs, 7:45 pm. Eastern daylight.

WMAE, Plainfield, Ill. 242 meters. 500 watts. Lawrence J. Crowley. Announcer, James J. Whalen.

WAO, Houghton, Mich. 263 meters. 250 watts. Michigan College of Mines, 63 meters. 250 watts. Michigan College of Mines, 8-10 pm, concert. Centre, markets. Thes. Thurs, 8-10 pm, concert. Centre, weather, markets. Thes. Thurs, 8-10 pm, concert. Centre, with Motor Co. Wed. 8-10 pm, music, lectures. Eastern.

WJ, Dearbour, Mich. 286 meters. 500 watts. Sastern. wy. J. Detroit, Mich. 352,7 meters. 500 watts. Sastern. Wy. J. Detroit, Mich. 352,7 meters. 500 watts. Sastern. Sun, 8-8:30 am, setting-up. exercises; 3:359, 46, bousehold hints; 10:23-10:30, weather; 11:55-12, time; 12:05-12:45 pm, music; 3:355, music; 3:355, 4-6, baseball scores, markets. Daily ex. Sun, 8-8:30 am, setting-up. exercises; 3:355, music; 3:356, 4-6, baseball scores, markets. Daily ex. Sun, 6-7, dinner concert; 8. music, Mon, Wed, Fri, 9 pm, orchestra. Wed, 10 pm, orchestra. Sun, 11 am, church service; 2-3 pm, concert; 6:20, Roxy and his central.

Argentina

#### Argentina

B-I, Buenos Aires, Argentina. Francisco J. Brusa.
LOR, Buenos Aires, Argentina. 350-410 meters. 500 watts. Cla Radio Argentina.
LOV. Buenos Aires, Argentina. 350 meters. 1,000 watts. Francisco J. Brusa.
LOW, Buenos Aires, Argentina. 325 meters. 500 watts. Grand Splendid Theater. Announcer, Luis Diaz.
LOX, Buenos Aires, Argentina. 375 meters. Radio Cultura.

LOX, Buenos Aires, Argentina. Cultura.
LOY, Buenos Aires, Argentina. Radio Nacional. Announcer, Osvaldo P. Valla.
TCR, Buenos Aires, Argentina. 325-300 meters. 100 watts. Francisco J. Brusa.

#### Australia

Australia.

2BL, Sydney, Australia. 350 meters. 5,000 watts.

Broadcasters Limited.

2FC, Sydney, Australia. 1,100 meters. 5,000 watts.

Farmer & Co., Ltd.

3AR, Melbourne, Australia. 480 meters. 1,600 watts.

Associated Radio Co., Ltd.

5CL, Adelaide, South Australia. 375 meters. 5,000 watts.

Central Broadcasters, Ltd.

6WF, Perth, Australia. 1,250 meters. 5,000 watts.

West Australian Farmers, Ltd.

#### Austria

Gratz, Austria. 404 meters. Ravag. Vienna, Austria. 530 meters. Ravag. Brazil

SPE, Rio de Janeiro, Brazil. 250 meters. 500 watts.
Dept of National Telegraphs.
Bahia, Brazil. Radio Sociedade do Bahia.
Belle Horizantes, Brazil. 500 watts. National Telegraph Service.
Rio de Janeiro, Brazil. 6,000 watts. Marconi (Radio Sociedade do Rio de Janeiro.
Sao Paulo, Brazil. 10,000 watts. Radio Bondeirantes.

Belgium

BAV, Haeren, Belgium. 1,800 meters. 1,000 watts.
Daily, 1 pm, 2, 4:50, 6:50, weather.
SRB, Brussels, Belgium. 265 meters. 1,500 watts.

#### British West Indies

Curacao, British West Indies. Department of Finance

#### Canada

(The power ratings of the following Canadian stations are given in "oscil-

Canadian stations are given in "oscillating" watts, rather than watts output—the method in which American stations are rated in this directory.

CFAC, Calgary, Alta, Can. 434.5 meters. 500 watts. Calgary Herald. Announcer, Fred Carleton. Daily ex Sun, 1 pm, news, markets, music. Daily ex Sat, Sun. 3:30-4:30 pm, music. Tess, 7:45-8:45 pm songs. Thurs, 9-11 pm, nusic. (CNRC). Friday, 7-8 pm, organ; 11-12, test. Mountain.

CFCA, Toronto, Ont., Can. 356.9 meters. 500 watts. Toronto Star. Announcer, E. J. Bowers. Daily ex Sun, 12 m., weather, news, stocks; 5:30-6 pm, news, bedtime story. Daily ex Sun, Fri, 8-9 pm, CNRT) Sun, 11 am, 7 pm, church services. Eastern.

CFCA, Montreal, P. Q., Can. 410.7 meters. 1500 watts. Marconi Wireless Telg. Co., Ltd. Announcer, C. Walter Darling. Daily ex Sun, 1-1:30 pm, stocks, music. Mon, Fri, 7:30-8 pm, 8-9, reports, music. Eastern.

CFCH, Iroquois Falls, Ont., Can. 499.7 meters. 250 watts. Abitioi Power & Paper Co., Ltd. Slogan. The Call of the North. Experimental station for CFCK, Edmonton, Alta., Can. 516.9 meters. 100 watts. Radio Supply Co., Ltd. Daily ex Sun, 4-5:50 pm. Mountain.

CFCM, Sudbury, Ont., Can. 4975 meters. Wed. 9 pm, Fri, Sat. 10 pm, Sun, (alternate) 11 am, 7:30 pm, service. Mountain.

CFCR, Sudbury, Ont., Can. 410 meters. 200 watts. Laurentide Air Service Ltd. Off the cir.

Tues, 11.30 pm, 11.30 pm, 12.30 pm, service. Sat. 10 pm, Sun, (alternate) 11 am, 7:30 pm, service. Mountain. GFGR, Sudbury, Ont., Can. 410 meters. 200 watts. Laurentide Air Service, Ltd. Off the air. GFGT, Victoria, B. C., Can. 329.5 meters. 250 watts. Victoria City Temple. Slogans, "Follow the Birds to Victoria," "Canada's First." Tues, Thurs, 7-8 pm, music. Wed, Frl, 8-9:30 pm, concert. Sun, 11 am, 7:30 pm, church services. Pacific. GFGU. Hamilton, Ont., Can. 340.7 meters. 5 watts. Jack v. Elliet, Ltd. Can. 340.7 meters. 750 watts. Henry Birks & Sons, Ltd. 248 meters. 750 watts. Henry Birks & Sons, Ltd. 248 meters. 75 watts. Thorold, Ont., Can. 248 meters. 75 watts. Thorold, Radio Supply. Daily ex Sun, 12-12:30 pm; 5-6. Tues, Thurs, Sat, S:30-10:30 pm. Sun, 11 am, church service; 2-4 pm, 8 pm, sacred concert, music. GFQC, Saskatoon, Sask., Can. 329.5 meters. 250 watts. The Electric Shop, Ltd. Announcer, D. F. Streb.

Slogan, "The Hub City of the West Where No. 1
Northern Hard Wheat Grows." Daily ex Sun, 12:15-2
pm, markets, reports, music. Tues, 9-11 pm. Thurs,
7:45-9 pm, address, music. Fri, 9-11:30 pm, dance
program. Sun, 11 am, church service. Mountain.
6FRC, Kingston, Ont., Can. 450 meters, 500 watts.
Queen's University. Discontinued temporarily.
6FXC, New Westminster, B. C. 291.1 meters. 20 watts.
Westminster Trust Co. and Hume & Rumble, Ltd.
Announcer, F. Sterling. Slogan: "Voice of the Fraser
River." Mon, Wed, Fri, 7:30-8:30 pm. Pacific.
6FYC, Vancouver, B. C. 410.7 meters. 100 watts. Commercial Radio, Ltd. Slogan, "Canada's Flourishing
Young City."
CHBC, Calgary, Alta., Can. 434.5 meters. 750 watts.
The Calgary Abertan. Daily ex Sun, Sat, 6-6:30 pm,
news, stock quotations, music. Mountain.
6HCM, Calgary, Alta., Can. 434.5 meters. 750 watts.
Riley & McCormick, Ltd. Slogan, "Western Canada's
Leading Leather Goods Store." Thurs, 8-9 pm. Mountain.

Leading Leather Goods Store," Thurs, 8-9 pm, Mountain,
HGS, Hamilton, Ont., Can. 30.7, meters, 100 watts,
HGS, Hamilton, Spectator. Amouncer H. Earnshav, Daily,
10-12 midnight, dance. Sun, 11 am, 7 pm. Eastern,
HIC, Toronto, Can. 35.9, meters, 500 watts. Northern
Ellectric Company, Announcer, Rudolph Wesse. AlterBetetric Company, Announcer, Rudolph Wesse. AlterHoll, Toronto, Can. 35.9, meters, 500 watts. Toronto,
Radio Research society. Announcer, R. H. Combs.
Mon. 8:30 pm. concert. Programs CHIC CKNC
HULC, Sastatoots Sus, Ganters, 250 watts. J.
Hernational Bible Students' association. Announcer,
E. G. Esson, Mon. Wed, 8-10 pm. Sun, 1-2 pm, 7:30-9.
CHXC, Ottawa, Ont., Can. 434.5 meters. 250 watts. J.
HYG, Gontreal, Que, Can. 410-96 meters, 500 watts.
Northern Elec. Co. Announcer, N. S. Richards.
Northern Elec. Co. Announcer, N. S. Richards.
Signan: "The Sunniest Spot in Stunny Alberta," Club,
"Isloo Hut," Daliy ex Sun, 12-45 pm, weather,
markets. Mon. Tues, Fri, Sat, 7:30-8 pm, children's
half hour, news. Mon. 8:30-350 pm, organ, Wedings, Fri, S:30-10:30 pm, CKNE program, Sat, 9-11
pm, orchestra. Sun, 7:30 pm, services, Mountain.
Off, Kitchener, Can. 329.5 meters. 250 watts.
Dr. J. L. P. Landry (Chief Announcer). Slogan:
"Three weeks below Quebee on the top of the
pm, and the sunday of the sun, 12-10 pm, orchestra. Sun, 7:30 pm, services, Mountain.
Off, Kitchener, Can. 329.5 meters. 50 watts.
Dr. J. L. P. Landry (Chief Announcer). Slogan:
"Three weeks below Quebee on the top of the
pm; 3:30-12. Eastern, 1 am. Mon, Wed, Fri,
pm; 3:30-12. Eastern and pm; 4 pm;

ABC, Vina del Mar, Chile. 400 meters. Radio Corp. of Chile. CRC, Santiago, Chile. 460 meters. Radio Corp. of Chile. Valparaiso, Chile. Senor Placi do Munzo Rojas.

#### China

Hongkong, China. Hongkong Hotel Company, Hongkong, China. Radio Communication Co. Macao, China. Portuguese Station. Shanghai, China. The Evening News.

#### Cuba

PWX, Havana, Cuba. 400 meters. 500 watts. Cuban Telephone Co. International Tel. & Teleg. Corp. Wed, Sat, 8:30-11 pm, music. Eastern. Q2LC, Havana, Cuba. 250 meters. 50 watts. Luis Casas. 2AB, Havana, Cuba. 240 meters. 20 watts. Alberto S.—Bustamante. 2BY, Havana, Cuba. 300 meters. 100 watts. Frederick W. Borton.

(The above listings complete the stations in the United States and part of the foreign broadcasters. Part V consists of a complete location index of stations and the remainder of the foreign list. This appears next week.)



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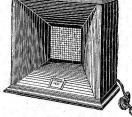
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