NEW CIRCUIT SENSATION

CLASS 'B' STATIONS ASK HIGHER POWER

ARE ALLOWED TO CHANGE STATION CALL LETTERS

Broadcasters Want More Power to Help Them in Overcoming Summer Static Disturbances

Static Disturbances

WASHINGTON, D. C.—The department of commerce is giving favorable consideration to applications from owners of Class B broadcasting stations for permission to use higher power without requiring the increases to be made in steps of 500 watts as has been the practice heretofore, provided the stations are situated outside of congested receiving centers.

In taking this action the department is endeavoring to satisfy the demand of broadcast listeners that the use of increased power be permitted in order to overcome the existing static conditions.

WOC, Davenport, KFI, Los Angeles and KFKX, Hastings, are now on 2,000 watts power, while WEAF has raised to 2,500 watts.

Calls Can Be Changed

watts.

Calls Can Be Changed

The department also has received numerous requests recently from broadcasting stations in various parts of the country that they be allowed to change their call letters so that they will have some significance.

Officials see no objection to this, it is said, as long as those stations west of the Mississippi begin their call letters with a K and those east of the Mississippi begin their call letters with a W in accordance with the present custom. Changes can be made of course in cases where the new call letters do not conflict with those already assigned.



Another new circuit! Three winners in Radio Digest this year, and now another appears. Although this circuit embodies the old tuned radio frequency principle, it has a new angle to it. One of the oldest faults in a receiving set was the balancing out of capacity in the

This at last has been successfully accomplished in a new, revolutionary manuer! Radio Digest is publishing for the first time authentic data which will enable anyone to make a set using this new

Greater Range Tube for Tube

Greater Range Tube for Tube
Radio has made another noteworthy
step forward in its progress. The never
ceasing efforts of the many engineers
constantly working toward improvements
in Radio reception have met with success on one of the numerous problems
that have been encountered. Radio fans
can look forward next year to sets that
are much easier to handle, much more

(Continued on page 3)



COLHOUN, FAVORITE, WANTS NO GOLD CUP

WFAA MAN RESIGNS FROM 1925 ANNOUNCER RACE

Would Help Others—George Hay Keeps Lead While McNamee Draws Closer

Adains Colhoun, grand old man of WFAA, has repeated his act of 1924 and withdrawn from the 1925 Radio Digest Gold Cup Award for the world's most popular Radio announcer. Though a favorite with many and among the first sixteen leaders in the voting, Mr. Colhoun prefers to give his ardent supporters to the annonneer of the school of his choice

Other features of the week in the Gold Cup race are: George Hay keeps his lead, but Graham McNamee is following with a close second and decreasing the distance between himself and Hay every day; Henry Field polled a heavy vote and advanced to third place, putting the Hired Hand in fourth; Gene Rouse made a spectacular advance from ninth to fifth place, polling approximately 1,100 votes, the largest number by any candidate during the week.

Lambdin Kay climed to seventh from eighth, while H. W. Arlin slipped from fifth to sixth. Two other skids were N. Dean Cole, sixth to eighth, and W. G. "Bill" Hay, seventh to tenth.

New candidates in the top sixteen this Other features of the week in the Gold

"Bill" Hay, seventh to tenth.
New candidates in the top sixteen this
week who have "made the grade" from
obscurity are Richard Haller, thirteenth;
John Daggett, fourteenth, and Kolin
Hager, sixteenth.

Colhoun Explains Withdrawal

Colinous Explains Withdrawal
In the letter withdrawing from the
race for the solid 14-earat gold cup,
Adams Colhoun explained the motives for
his move. He said:
"Personally, I have no desire for either
the honor or the cup that goes with it.
WFAA has four announcers. We get

WFAA has four announcers. We get along famously.

"It would not enhance our good fellowship and splendid teamwork to have any one of the number declared the most popular announcer.

"To be frank about it, we know how good we are. What we want to know is what the public thinks of the fellows at the other stations. Millions of listeners have written WFAA, telling very plainly—with brutal frankness—what they think of us.

have written WFAA, telling very piainly—with brutal frankness—what they think of us.

"We mean to announce the contest, to take sides enthusiastically and to tell our audience who is our choice. But we are not to be considered under any circumstances nntil we are offered the job of president of the League of Nations."

True sportsmanship, Mr. Colhoun!

Standing of Sixteen Leaders at the close of last week was:

Position Manneart Station Vets
1, George D. Hes. WES. 1, 220
2, Graiton McNances Widt 3, 120
3, Graiton McNances Widt 3, 120
4, The Hirel Hand, WESS 1, 120
5, George Rouse Works 1, 125
6, H. W. Arfin, KDEA 1, 125
6, H. W. Arfin, KDEA 1, 125
7, Lambdin Kay, WCS 1, 125
11, Stanley Barnell, WCC 1, 125
12, Carles Enterich, WCC 1, 125
13, Stanley Barnell, WCC 1, 125
14, John Dugard, KBE 1, 1, 144
15, Stoff Finish, WCS 1, 1, 128
The norminations are decreasing in number, probably because the contest is nearly half finished, but still three new

The nominations are decreasing in number, probably because the contest is nearly half finished, but still three new names were entered last week as follows: CKCL, A. P. Howels; WBBR, Victor Schmidt; WGY, Asa O. Coggeshall. The total number of gold cup contenders is

now 158. Although the new nominees have a hard path to travel, one of them may be a dark horse and spring a real surprise.
Watch for the Gold Cup standing next issue!

How to Vote and Get Bonus

How to Vote and Get Bonus

Don't miss a single ballot, for when
these arc turned in to Radio Digest in a
group of CONSECUTIVE numbers, extra
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 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 bal-For each 8 consecutively numbered ballots your candidate will receive a bonus of 20 votes. For each 12 consecutively numbered ballots, 30 votes. For each 15 consecutively numbered ballots, 50 votes, and for each 22 consecutively numbered ballots, 50 votes, and for each 22 consecutively numbered ballots, 50 votes bonus will be allowed.

Send nominations or ballots to the GOLD CUP AWARD EDITOR, Radio Digest, 510 N. Dearborn St., Chicago.

Sir Charles F. Higham, Britain's most eminent advertising expert, is now in the United States engaging in a tea propa-ganda campaign. He will broadcast from a number of stations throughout the

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Looking Ahead

Comparisons of Tuned R.F. Circuits as they have never been taken up before, will pharisons of fund K.F. Credits as they have never been taken up before, will be the basis for Milo Gurney's next article in his exclusive "scoop" series. Reading these earlier articles you are taken through all the ideas, both good and bad, that have been advanced so that the logical "bridge" hook-up and its advantages can be understood when Mr. Gurney presents it. This he will do in the third or fourth article. Don't miss a single article!

CKY, Manitoba's Only Broadcaster, will be described in next week's issue. Why CKY, announced as CNRW when Canadian National Railways programs are given, is the only broadcaster in Manitoba, is a story in itself. Watch for the pictures and story of CKY.

s of Interesting Things Are Happening now in the 1925 Gold Cup Award for the world's most popular Radio announcer, so watch the standing from week to week. Will George Hay keep the lead, or will Graham McNamee pass him? Or perhaps some "dark horse" may top the crowd next week. Who knows?

The A. B. C. Radio Course being written by Professor Moreton will take in more instruments next week. The article in this issue presents ammeters of the thermal type so that the veriest novice grasps their construction and the installment scheduled for June 6 is equally clear and concise.

Newsstands Don't Always Have One Left

WHEN YOU WANT

Kadio

YOU WANT IT!

BE SURE OF YOUR WEEKLY COPY BY SUBSCRIBING NOW

SEND IN THE BLANK TODAY

Publisher Radio Digest, 510 M. Dearberg St., Chicago, Illaofa.
Picase find enclosed sheek M. O. for Five Deliars (Six. Foreign) for One Year's Subscription to Radio Digest, Hisstrated.
Name
Address
City

COUNTRY'S LEADERS IN CLEAR ETHER CRY

FIND VOTING BLANKS BACK KINTNER WAVE PLAN

Early Tabulations Show What People Want-Million Votes Goal of Campaign

CHICAGO.-The Kintner plan, as voted CHICAGO.—The Kintner plan, as voted upon by "Consensus of Opinion" ballots now appearing in Radio Digest, is recognized as the supreme cure for the present bad attack of ether congestion with which Radio is now suffering.

The vote shows it. Tabulations on the first 10,000 ballots received are far from complete, but there is no question but that:

first 10,000 ballots received arc tar trom complete, but there is no question but that:

1. The public does not favor granting additional wave bands to new 500-watt stations.

2. Instead of releasing new wave bands, time should be divided by the present 500-watt and lower power broadcasters.

3. Superpower broadcasting stations are well liked, and need not as long as they serve the public well, divide time with any other station.

4. Hetcrodyning and inter-station interference is very bad in nearly all sections of the United States.

5. The Kintter plan, or some similar scheme, is nuanimously favored.

6. The appointment of an unbiased, non-partisan broadcasting control board for the division of time between stations and the assignment of wave bands, etc., is favored.

Leaders Compliment Campaign

From far and near come testimonial letters complimenting Radio Digest on

the assignment of wave bands, etc., is favored.

Leaders Compliment Campaign

From far and near come testimonial letters complimenting Radio Digest on starting the campaign against broadcast congestion. The country's leaders eall it by far the most constructive work yet attempted in the Radio field.

Bolling Arthur Johnson, editor of the Lunber World Review, who for years has been considered a leader in editorial thought and a foremost figure in the lumber industry, has stamped his unqualified endorsement on the movement. He, like many other enthusiastic backers of the campaign man and authority to help.

H. M. Symons, deputy secretary of state of Wyoming, is another of the nation's leaders who has shown himself progressive to the extent of approving of the campaign. He adds, "I am not so familiar with some of the stations since the last allocation of wave lengths inasmuch as some of them heterodyne so badly that it is indeed painful to listen to them."

More Blanks Needed

Altbough the mail to Radio Digest is heavy with "Consensus of Opinion" voting blanks, at least a million votes are desired to make the proper impression on congress and show the legislators the state of affairs.

Many agencies are helping to distribute the blanks. Broadcasting stations, Radio clubs, manufacturers and dealers, and newspapers are joining in the battle and sending ont the blanks in their mail. Many of these people have gone to the expense of printing their own copies of the voting blank. Radio Digest has printed a large supply of the blanks, so that readers not wishing to multiate their copies, and non-subscribers can vote, but Radio Digest appreciates the sharing of the burden of printing expense which some of the volunteer eampaigners are doing.

After a long absence from the "mike." King George was heard recently at the opening of the Wembley exposition.

STATION GLEANINGS AND NEWSY BRIEFS

WGBS PRESENTS OLD PLAY TAKEN FROM SANSKRIT

WLW Starts Dinner Hour Concerts WJZ Broadcasts High School Courses—CKCL Opens

While many interesting dramatic offerings have come to the Radio audiences through the microphone of WGBS, there has rarely been any more nnusual than the Hindu drama, "Life After Death" recently broadcast. It is adapted from the early Sanskrit, and the original was written five thousand years ago.

A new feature will be given from the Crosley WLW superpower station when the Hotel Gibson orchestra under the direction of Robert Visconti, will hegin a dinner-hour concert on Monday, Wednesdays and Thursdays, from six to seven o'clock, Central Standard time.

Canadian Radio listeners were treated to an excellent program a few days ago when Toronto's latest broadcasting station, CKCL, went on the air for the first time. It is maintained by the Dominion Battery company, Limited.

Freeman H. Talbot, KOA studio director, will take the part of interlocutor in a minstrel show to be broadcast Friday evening, June 5, at 9:10 p. m. Central time.

Frank E. Daiton, one of the World's champion swimmers and owner of the Dalton School, New York, will continue his series of swimming lessons from WOR, every Monday.

"Faust," by Charles Gounod, was broadenst from WGBS Sunday night, May 17, at 9:30, in the series of specially adapted Radio grand operas sponsored by the Italian newspaper "Corriere D'-American."

Crosley Station WLW broadcast the opening performance of the entertainment season at the Cincinnati Zoological garden on May 25.

The Childs Cup Race held on the Harlem River, Saturday afternoon, May 23, was hroadcast by WGY and WJZ.

Station WJZ working in conjunction with the Board of Education of West-chester County has devised a system whereby high school subjects will be disseminated among the junior high school pupils of the East.

On May 28, WFAA broadcast a program of the Greek Letter men. A joint smoker of Beta and Omega Phis was held, after which the meeting adjourned to the Radio studio of the Dallas News and The Dallas Journal, from which the program was repeated, minus the smokes.

When large bands are heard from KFI it is suite probable that they are played.

it is quite probable that they are playing out on the roof underneath the stars, to prevent crowding.

Announcement was made recently by

FOLLOWS PATH OF FAMOUS MOTHER



Rita Breen, 10-year-old daughter of May Singhi Breen, famous banjo uke artist, who is well known at all the New York broadcasting stations.

RECEPTION RUINED BY INDISCREET BIRD

B OSTON.—An English sparrow who insisted upon building a nest in a small fuse box on a 5,000-volt power circuit to South Weymouth, resulted in Radio reception being broken up for several weeks over an area of several square miles. This came to light recently when trouble shooters of the Weymonth Light and Power company, searching for the interference for weeks, were attracted to a fuse box while hunting for the trouble. OSTON .-- An English sparrow who

RADIO BEATS PILLS AS SURE REDUCER

CINCINNATI.—To be able to weigh 28 pounds less than they have weighed for several years is the ambition of many feminine fans. That ambition of many feminine fans. That this is possible, is proven by the appearance in the Crosley WLW studio of Miss Emma Theye, 53 years old, who has been a member of the Y. M. C. A. Radio class in setting-up exercises. She lost the 28 pounds from February to April, hy following the instructions of William Stradtmann.

GIVE DANCING LESSONS FROM KYW



Edgar L. Bill, director of WLS, the Sears-Roebuck station, Chicago, that the Crown Point Woman's club won the award for the best woman's club program over

Special children's games, something new in Radio broadcasting, were played during the Sandman hour over KOA at Denver, Wednesday evening, May 13.

Mountain sides in West Texas' Alpine convention city reverherated with the music of more than 20 massed bands recently during the first official concert of the seventh annual convention of the West Texas Chamber of Commerce at Mineral Wells, Texas. The musicians were on the side of East Mountain overlooking Convention Hall, and the music swept down into the crowded streets with a crescendo surge. More than 1.500 bandsmen participated in the concert.

Most of the employes at the Mexican Gulf oil field workers camp at Tampico, Mexico, are pulling for the Pirates to win the National League pennant this year, and consequently have written to the Westinghouse Electric & Manufacturing company operating KDKA, at Pittsburgh, for a complete list of the hours at which the baseball scores are broadcast.

WDAG Musician-Composers Evoke Favorable Comment

Exore Favorable Comment
AMARILLO, Texas.—Much favorable
comment has been received by Station
WDAG as a result of the enterprise of
several of the regular performers who
have taken to writing and performing
their own music. Most of the musicians
are beginners as composers, but from the
volume and tone of fan mail wide applause and encouragement has been accorded them.

we now obtain. It will be possible with four or five tubes to accomplish the feats of volume and distance that now require 8 or 9.

There have been many problems before Radio scientists, among them being the elimination of static short wave transmission and a better means of reproduction than the present type of loud speaker. One of the most important to the Radio fan has been the improvement of the present type of fund radio frequency receiver. The neutrodyne, as developed by Prof. Hazelthe, was a step in the right direction. Sets were developed in which no attempt was made to neutralize the inherent capacity of the radio frequency amplifiers. Instead, either the number of turns of wire in the primaries of the conpiling transformers were reduced so that oscillation was impossible or resistances were inserted to introduce losses or keep down potentials. Now a new method of controlling the tendency of tubes to go into oscillation has been developed which promises a much brighter season ahead for Radio. The efficiency for each tube nsed as a radio frequency amplifier can readily be doubled or even tripled.

Three Circults Developed

An interesting feature of this new development is the fact that it has been working individually, the experiments of each being unknown to the others. Strange to say, the circuit developed by each series of experiments is practically like the rest although there are slight differences as to minor details. They are all based on the use of a device long known to electrical engineering, the AC Wheatson bridge. The inherent capacity within the tube and the unbalanced effect on each side of the tube can now be compensated at any wave length. This not only produces better results in the receiver if uncontrolled regeneration is permitted to pass back to the amening arctic.

Radio Digest has scooped the entire Radio Digest has scooped the entire Radio Digest has scooped the entire Radio Dress and secured an exclusive ac-

permitted to pass cack to the antenna circuit.

Radio Digest has scooped the entire Radio press and secured an exclusive account of this new development. The series of articles explaining the history of radio frequency amplification and this new circuit is begun in this issue by Milo Gnrney, well known in Radio circles as an authority, and will be found on page

GUESS-AGAIN-NIGHT LATEST FROM WLW

CROSLEY STATION TO HOLD CONTEST ON JUNE 1

Game Is to Guess Names of Artists Furnishing Numbers—Prizes for Winners

CINCINNATI.—How often do you hear a Radio fan say: "I don't have to wait for the call letters of that station. The moment I hear that voice for that orchestras, as the ease may be) I know the station I'm pulling in."

But he rarely has a chance to put his confidence to the test, for along comes the announcer and tells him all about it. The question is: does the listener really know?

Some months ago the Crosley Station

The question is: does the listener really know?
Some months ago the Crosley Station WLW here, ran the entire program without once telling its name or call letters, offering prizes to those who would write in to the unannounced station. The thousands of answers proved that the fans all over the country did know. But now WLW has devised a contest somewhat more difficult to solve. It will be called "Gness-Again-Night," and will offer an interesting riddle to faniand.
In order that those who listen may have some reward for their trouble, the Dayls Reflectograph company is giving some interesting prizes for the hest guessers.

Mow Contest Will Be Run And this is the way the contest will be managed:

How Contest Will Be Run
And this is the way the contest will be
managed:
Artlsts, performers, announcers, speakers, orchestrus and ensembles will be introduced by number. The selections will
be very short, and at varions times will
be very short, and at varions times will
be repeated so that the listener may
"guess again." The program Monday,
June 1, will run for an hour, from eight
to nine, Central Standard time, at Station WLW of the Crosley Radio Corporation. The guesses of the listeners
will be graded in percentages, and the
guesser receiving the highest per cent
will receive the first prize.

Frizes are to be furnished by the Davis
Reflectograph company as follows: First
prize, \$25.00 in cash; Second prize, \$10.00
in cash. In case of tie identical prizes
with that tied for, will be awarded to
each tying contestant.

For the next fifty best guessers, the
prize will be a Davis Reflectograph worth
\$5.00 each, shipped prepaid to the winner.
This instrument enables anyone to draw
with immediate accuracy, from living
mode, landscape, photography or anything
of that nature, and will be a joy to every
boy and girl, man and woman interested
in drawing or photography.

Alabama Polytech Gets

Alabama Polytech Gets

Alabama Polytech Gets

Powerful New Station

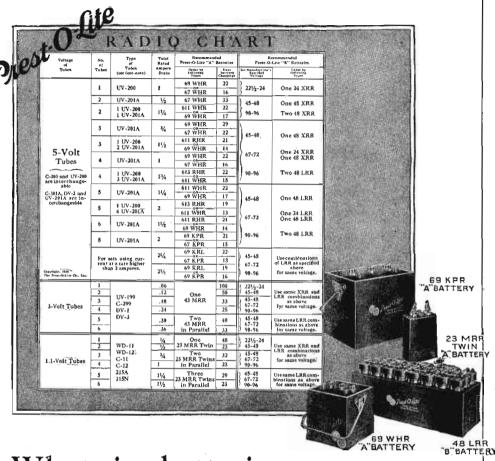
BIRMINGHAM, Ala.—The Alabama
Polytechnic institute, located at Anburn,
Ala., is to have one of the most powerful
broadcasting stations in the South. The
plant was given to the institute by the
Alabama Power company and was made
by the power company at Birmingham,
Ala. Dr. C. S. Yarbrough, major of Auburn, has donated to the institution a
plot of ground on which this glation will
he located.

BEFORE THE SEED AND RADIO PERIOD



2

2



What size batteries will work best in your set?

SELECTING storage batteries of the right two to four months without recharging. size and capacity is necessary, not only for the best reception, but also to arrange the time between chargings to suit vour convenience.

The Prest-O-Lite Chart now makes this easy. Illustrated above is the master chart showing Prest-O-Lite Radio "A" Storage Batteries for all sets. You will find, in the fifth column, the Prest-O-Lite "A" Battery that fits your set exactly. Two sizes are recommended, but the larger capacity battery will be found more desirable unless facilities for frequent and easy charging are provided. (The days between chargings are based on an average use of your set of three hours a day.)

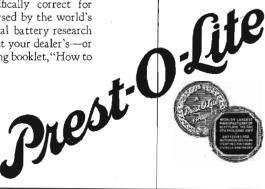
Use the "B" Battery combinations that give the plate voltage recommended for your set. These batteries will serve

You'll prefer Prest-O-Lite Storage Batteries because of their special features designed for better radio reception. Improved separators and plates insure steady, unvarying current and years of life. They're easy to recharge. Handsomely finished to go well with the finest sets. Prest-O-Lite Batteries offer you truly remarkable savings. Though standard in every respect, they are priced as low as \$4.75 and up.

Let the Prest-O-Lite Chart guarantee you batteries scientifically correct for your set. It is endorsed by the world's largest electro-chemical battery research laboratories. See it at your dealer's-or write for our interesting booklet, "How to

fit a storage battery to your set-and how to charge it.'

THE PREST-OLITE CO., INC., INDIANAPOLIS, IND New York San Francisco In Canada: Prest-O-Lite Company of Canada, Ltd., Toronto, Ont.





Write today for this free booklet

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•

Whether you have a one-tube set or most advanced multi-tube outfit, you'll find a fund of interesting information in our booklet, "How to fit a storage battery to your setand how to charge it."

This booklet gives you the complete Prest-O-Lite Radio Charttechnically accurate recommendations covering both "A" and "B" storage batteries for every type of set.

In addition, there is much vitally important data on battery care and upkeep-information that any radio fan will find of real value in keeping his set at its maximum efficiency. Write for your copy right now.

Wherein Announcer "GG" Tells About KFAB



You will never know the thrills of Radio until you own a

FRESHMAN MASTERPIECE



The Greatest Value ever Offered in a Radio Receiving Set

5 tube tuned radio frequency

embodying the 5 big features demanded in a perfect receiver

- Built of only the finest low loss material in a beautiful mahogany cabinet [or soft-toned leatherite];
- (It brings in far distant stations,
- Might after night at the same points on the dials,
- (With real loudspeaker volume,
- (And full throated, true to life tone.

Be sure the serial number is riveted on the sub-panel It is your protection and guarantee

Chas. Freshman Co. Inc.

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At all dealers

WGN TO BROADCAST **BIG MOTOR CLASSIC**

DEVOTEES OF IRON STEEDS TO HEAR WHOLE STORY

n A. Ryan to Describe Famous Indianapolis Speed Contest from Brick Oval



Every Detail to Be "Miked"

The hroadcasting will be done under the auspices of the Presto-D-Lite company of Indianapolis. Engineer Paul G. Neal of WGN has arranged for telephone communication between all of the microphone locations, and all "milkes" will be linked with the A. T. & T. telephone lines to the station in Chicago.

Every incident of the pageant, every motor roar and snort, every motor roar and snort, every not of the band music—and the band will number 1,075 pieces—you will receive from your loud speaker. The positions of the speeding cars will be given every twenty-five miles.

ing cars will be given every twenty-five miles.

It has been arranged to have the winner of the race speak to the Radio audience at its conclusion, while the cheers of the 150,000 fans are still ringing over the track. All of the celebrities present will be presented to the microphone.

Announcer Ryan will handle the spectacle for the listeners as he has done the Kentucky Derby, the Chicago Cubs baseball games and the "Big Tex" football contests. Mr. Ryan is known as the greatest sports broadcaster in the West.

TRANSMISSION BY DRY CELLS IS SUCCESSFUL

Tests from Plane at Great Lakes Are Satisfactory

Are Satisfactory

CHICAGO.—From the Great Lakes
Naval Training station, near here, the
first tests in history were made from an
airplane in flight, using the new 37-meter
Radio transmitter and receiver operated
by dry cells only were receutly made,
Heretofore, all airplane Radio equipment bas had its source of power from a
small generator which was driven through
a fan-shaped propeller by the force of the
wind. In other words, when the engine
and tho airplane were out of commission, so was the Radio. This new transmitter which is being tested is the first
of its kind and is one of the transmitters
which will he insed by the MacMillan polar
expedition which sails from Boston, Bunker Hill Day, June 17, under the auspices
of the National Geographic society.

The value of this type of equipment
can be immediately realized when it is remembered that the airplarius that are to
accumpany the MacMillan expedition will
fly over that great unexplored area lying
between Point Barrow and the North Pole,
in quest of new land.

British Will Broadcast an Independence Day Program

LONDON.—The British Broadcasting company hopes to arrange an exchange of greetings on Independence Day, July 4, In the form of specially arranged Radio programs between Great Britain and America. B. E. C. engineers are going into the question with their American colleagues, so that and hroadcast celebrations, if such are possible, will befit the occasion.

SUCCESS AT START AMBITION OF WIBO



Top to bottom: Harry Geise, Ted Fiorito

HICAGO.—WIBO, Nelsou Brothers and the Russo-Florito Orchestral Exchange here, is the latest 500-watt member of the Chicago station group.

watt memher of the Chicago station group. Opening May 20 with a stellar program given by forty artists, WIBO has already made its 226-meter wave length a popular position for many dials.

Harry Gelse, director and announcer who is famous as the "How-Do-You-Do Man," promises WIBO's audience several new features and novel surprises. He, with the assistance of Dan Russo and Ted Fiorito, co-conductors of the Oriole orchestra now playing at the Edgewater Beach hotel, WEBH, will endeavor to please listeners with the best obtainable programs. programs

programs. Engineer Philip Latin is responsible for the major part of the building of WIBO'S water-cooled tube transmitter. Besides the unique transmitter, the studio of the new station is novel in that it is walled with Celotex lumber, clalmed to have perfect acoustics for broadcasting. WBZ, Springfield, Mass., is one of the later studios which has employed Celotex lumber for walls and ceiling.

Ford and Glenn, WLS

Lullabye Troubadors to Make

CHICAGO.—Ford and Glenn, Station WLS lullabye troubadors, will leave here June 1 for an extensive tour of the coun-try. They will journey to the Pacific coast in automobiles and perform at various stations on the trip.

ous stations on the trip.

Both the youngsters and the grown-ups will miss these two entertainers while they are absent from their home station. Glenn, or little Glenn as he is more commonly known, is the leader of the WLS Cornhuskers, a group of musicians who entertain from this station. Most of all, they will be missed by the Iullaby listeners who are dependent on them to put them to sleep every night.

A Nevada Radio Fan? Never Heard of One!

KTHS Has Letters from All But "Silver State"

HOT SPRINGS, Ark.—Has Nevada a receiving set? Or is it possible that the great commonwealth known as the "Silver State" has never been invaded by the Radio bug?

A careful analysis of the inquiries received by the New Arlington hotel station here, KTHS, reveals that in a period of three months every stato in the union and several foreign countries have picked up the local station. But not a word from Nevada. Nevada.

Can it be that most of the Nevadans can it be that most of the Nevadans are too busy with domestic triangles to fall in line with America's favorite form of recreation and entertainment—the Ra-

McNAMEE WINS N. Y. ANNOUNCER CONTEST

NOSES OUT BROCKENSHIRE BY FOUR-TENTHS POINT

Barnett, Reed, Caslin, Squires, Granland, Haupt, Cross and Morgan Follow in Order

NEW YORK.—Graham McNamee of WEAF has been selected as the best all-round New York announcer by the Radio voice technique committee of New York university. McNamee nosed out Brockenshire of WIZ by the small margin of four-tenths of a point, the scores being 87.3 for McNamee and 86.9 for Brockenshire

This committee meeting terminated the series of three which were held during the past four months under the direction of R. C. Bordon and A. C. Busse, voice experts of New York university. to determine the ideal qualities to be looked for in Radio announcers. The aim of the committee, which is composed of Radio editors, dramatic crities, and members of the faculty of the university, is not to standardize the voice and art of broadcasting, but to point out fanils to be avoided and to determine what the public prefers to hear.

Make Phonograph Records This committee meeting terminated the

Make Phonograph Records

Make Phonograph Records
Special pluonograph records wero made
by Mr. Bordon and Mr. Busse of representative announcers from the following
nine New York stations:—WJZ, WEAF,
WGBS, WHN, WEBJ, WOR, WAHG,
WMCA, and WBBR. Each announcer
passed upon his own record and all those
entered in the cnntest bad been accepted
by the makers as fairly representative of
their work.

Ten men out of the number considered

Ten men out of the number considered

Ten men out of the number considered were chosen as the hest local announcers. In addition to McNamee and Brockenshire they are Barnett of WOR, Etect. of WJZ, Carlin of WEAF. Squires of WMCA, Granland of WEAF. Squires of WMCA, Granland of WEAF, Cross of WJZ and Morgan of WGBS.

The committee rated the records upon the points which were decided upon at earlier meetings as those most desirous for Radio announcing. They are as follows:—(1) Average rate of speaking—175 words a minute. (2) Pitch of voice—low middle range. (3) Announcements should he made with variation of rate, pitch and stress. (4) Manner of announcerformal but friendly. (5) Distinctness and enunciation. enunciation

ISAACS, EX-MARCONI AID, DIES SUDDENLY



moner for walls and celling.

d and Glenn, WLS
Artists, Start Tour

by Troubadors to Make
Extensive Auto Trip

CAGO.—Ford and Glenn, Station ullabye troubadors, will leave here for an extensive tour of the Carl of the Marconi drown will for an extensive tour of the country house at Virginia Water.

Eng., aged 59. He had been ill for several days. When the managing directorship of the Marconi company, and brother of the Earl of Reading, Viceroy of India, has just died in his country house at Virginia Water.

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The peace.

In 1910 he was invited by Senatore Marconi to hecome managing director of the Marconi company. During the 14 years he held the position, which covered an area of enormous Radio development, he played a part which, both from the physical and mental viewpoint would have heen an unbearable strain for most men.

men.

In the end he himself had to give in under the wearing, tiring work, which had been begun in an auxious and exciting atmosphere engendered by the raging political continued under high pressure until his retirement. He insisted that each colony, could be placed in direct touch with England by Radio, a view which was challenged by the Imperial Radio committee.

mittee. The Marconi company then demonstrated the possibility of direct communication with Australia by sending a message from Carnarvon, Wales. The Australian and South African governments then granted the Marconi company concessions to erect stations for direct communication with England, and the British government reversed its previous decision and decided to erect an immense station at Rugby.

PETE AND MULE ARE **FAVORITES AT KFDM**



GREBE OPENS BIG NEW STATION IN NEW YORK

Galaxy of Stars Participate in WBOQ Inaugural

WBOQ Inaugural

NEW YORK.—Opening of the new A.

H. Grebe station, WBOQ, was celebrated on May 14 when it went ou the air officially with a remarkable program, which included performers culled from almost every walk of professional life.

WBOQ has for the past several months been an experimental station. Recently it was decided to turn it into a regular broadcasting plant and the present beautiful and powerful studio and plant is the result. It operates on 500 watts over a wave length of 236 meters.

The Grebe company are also owners of Station WAHG, portable transmitters WGMU and WRMU and the two experimental stations, 2ZV and 2XE. WBOQ is located at Richmond Hill on Long Island and is operated through remote control from the studio in the Hotel Plaza.

Marie Dressler is the announcer. The station will broadcast a daily program.

Fan Asks Log Stamps Be Sent by Air Mail

Log Stamp Idea Takes Radio Fans' Fancy

CHICAGO.—The hours seem long from the time that a station is heard and a verification stamp, as proof of reception, is received. A fan in Denver, Colo, recently sent a latter to station WBZ in Springfield, Massachusetts, by air nail, with a request that a verification stamp be sent to him by return air mail.

The Ekko company, which originated the stamp idea, reports that over 260 stations are now supplied with stamps, and that a few of the large stations which on the two stamps are verifying reception and forwarding the letters to the Ekko company, which sends the stamps direct to the listeners. This list includes 80 per cent of the stations that are heard regularly and are received by the greatest number of fans. The stamp concern also states that new stations are being supplied with stamps at the rate of three or four a day.

Critics Acclaim Former KGO Actor's First Play

KGO Actor's First Play

SAN FRANCISCO.—From the Radio
drama to a successful playwright produclug on Broadway, New York, is the
story of Dan Totheroh, former star of the
KGO Radio players, known to millions by
the sound of his voice, whose play, "WMB
Bird," Is now running in Cherry Lane
playhouse, New York city.
New York critics were reported to be
enthustastic in their reception of the play
"Wild Birds" at its recent New York
opening, pronouncing the author "rich in
ideas," and his play "aglow with imagination and instinct, with new life full of
fresh strength."

MEMORIAL DAY PROGRAMS SATURDAY

Saturday, May 30

Saturday, silent night for: CFAC, CHIC, CHNC CHYC, CNBT, CKY, KFAE, KFDM, KFKU, KFKX, KFMQ, KFMX, KFMU, KHU, KICB, WBAP, WBAY, WCAU, WOBD, WCX, WDWF, WEAO, WEBJ, WEEL, WHO, WJY, WICAO, WLIT, WMAK, WOAL, WOAL, WOL, WOOL, WOO, WOS, WSAC, WSU, WTIC, WWI.

Atlantic or Eastern Daylight Saving

Time Stations

WAHG, Richmond Hill, N. Y. (315.6), 12-2 a. m., dance must.

WBBR, New York, N. Y. (272.6), 8 p. m., Theodore Arcastrone, violinist. 8:10-8, Bits Rozada, mezzo-eprano; 8:29, Bible auestlons and answers; 8:99, Rita Rozda; 8:30, Theodore Amstrone, violinist. WILL WGAE, Pittiburgh, Pa. (48.3), 8:30 p. m., WILliam Yang, Violinia, William Statistics, Statistics, Statistics, Statistics, Violinia, William Statistics, Statistic

concert. WEAF, New York, N. Y. (491.5), 6-7 p. m., dinner nausic. Waldorf-Astoria; 7-7:30. Mabelanus Corby, composer; Elizabeth Spencer, dramatic soprano; Wil-



Lillian Richards is one of the talentes of tal

liam Stamm, barltone; 7:30-7:50, "Trios and Adventures," Fred J. Turner; 7:50-8, J. J. Dervin, banjo soloita; 8:8-15, Mabolanna Corby, Elizabeth Stamms, St. 15-545, Euryler's Stamms, St. 15-545, Euryler's 9:15, J. J. Dervin, banjo soloita; 8:8-16, Mabolanna Corby, Elizabeth Grand William Stamms, St. 15-545, Euryler's 9:15, J. J. Dervin; 9:15-10, Richard Franklin, plansis; 10:18-13-8, Soder Hueck quattet, Lanning strigstric, 10:30-10:45, Richard Franklin, plansis; 10:45-11, Clay Fennsylvania oxcheyira. WGR's, New York, N. Y. (345.6), 3-4 p. m., 'Peter Rabbit,' Son Hagtines' Marionettus; Irima Rided, 50-10:50, New York, N. Y. (350.6), 3-4 p. m., 'Peter Rabbit,' Son Hagtines' Marionettus; Irima Rided, 50-10:50, New York, N. Y. (350.7), 30-10, Caraller Luid Cutamino, plants; 10-18-30, Helen Shore trio; 9-915, Olga Erika, soprano, 50-10, Caraller Luid Cutamino, plants; 10-18-30, Helen Shore trio; WGR, Baffas, N. Y. (319), 2:30-4:30 p. m., WGR's afternoon nuslecio, A. S. Erlsman, director. WGR, Baffas, N. Y. (319), 2:30-4:30 p. m., Seatido WHAR, Atlantic City, N. J. (275), 7:30 p. m., Seatido WHAR, Atlantic City, N. J. (275), 7:30 p. m., Seatido WHAR, Atlantic City, N. J. (275), 7:30 p. m., Seatido WHAR, Atlantic City, N. J. (275), 7:30 p. m., Seatido WHAR, Atlantic City, N. J. (275), 7:30 p. m., Seatido WHAR, Atlantic City, N. J. (275), 7:30 p. m., Seatido WHAR, Atlantic City, N. J. (275), 7:30 p. m., Seatido WHAR, Atlantic City, N. J. (275), 7:30 p. m., Seatido WHAR, Atlantic City, N. J. (275), 7:30 p. m., Seatido WHAR, Atlantic City, N. J. (275), 7:30 p. m., Seatido WHAR, Atlantic City, N. J. (275), 7:30 p. m., Seatido WHAR, Atlantic City, N. J. (275), 7:30 p. m., Seatido WHAR, Atlantic City, N. J. (275), 7:30 p. m., Seatido WHAR, Atlantic City, N. J. (275), 7:30 p. m., Seatido WHAR, Atlantic City, N. J. (275), 7:30 p. m., Seatido WHAR, Atlantic City, N. J. (275), 7:30 p. m., Seatido WHAR, Atlantic City, N. J. (275), 7:30 p. m., Seatido WHAR, Atlantic City, N. J. (275), 7:30 p. m., Seatido WHAR, Atlantic City, N.

WJAR. Providence, R. 1. (395.9), 7.95 p. 20., studio program.
WJZ. New Yerk, N. Y. (454.3), 3.45.30 p. 20., baseball parter—Valle vs. Primeiro from Yale field 4.354-122.
Asion for music, 2.998-212, baseball scores, 7-8. Hotel Astor fromcert ortheatts; 8.5.31, baseball scores, 8.03-8-15, baseball scores, 8.03-8-15, baseball scores, 9.03-8-15, baseball scores, 9.03-

procedure; 11-12, Entire voluces and an experiment of the control of the control

Memorisă Day propram.

Wor. Newark. N. J. (405.2), 7.30-8 p. m., The Comunifiers; 11.12, Gro's orthesiza.

Eastern Standard or Central Daylight

Saving Time Stations

CNRO, Ottawa Gan. (435.5), 7.30 p. m., beitline story
and tultaby, Aunt Agnes; S. Chateau Laurier concert
and tultaby, Aunt Agnes; S. Chateau Laurier
All Chateau Laurier, Agnes, M. Chateau
Baylor, B. Chateau Laurier, Chateau
Baylor, B. Chateau
Baylor

Headliners of the Week

LTHOUGH some stations will be

ALTHOUGH some stations will be silent Saturday, there will be programs. WIP schedules a program by the Stern Price Post 417, American Legion. Two exciting events will be broadcast Saturday afternoon, the Yale-Princeton baseball game from W1Z and WGY and the Indianapolis auto races over WGN.

This is Shrine week for Los Angeles and KHJ is the official Shrine station. A welcome program will be given Sunday night, directed by J. Howard Johnson. Tune in and listen to this program intended for the ears of Shriners approaching in special Radio-equipped trains.

WLW again broadcasts Monday concerts from the Zoo. Last Monday was the opening program. These concerts were much epicyed last summer and promise to be popular this year. The "F and R Family," composed of orchestras and headliners of the State theater, will be back on the air again tonight from WCCO. "Matter-of-Fact Eddie" Dunstedter plays the pipe organ. plays the pipe organ.

own orchestrs. Frank Morris. Eddle and Fannie Cavanaugh, Polty Willis. UCX. Detroit, Mich. (316.9), 4.15 p. m., musical pro-WEAR, Claveland. Olio (369.5), 7-8 p. m., Vincent II. Percy, organist.

The Davis School of Music will give the 6:30 p. m. program at WFAA this Tuesday. These programs are always given by the star pupils and faculty of this school and are always among the best programs of the worth. month.

among the best programs of the month.

Many stations are helping fans to choose their vacation trips. Tuesday CKAC is giving a talk on Quebec's most attractive points and Wednesday WBZ is pointing out the recreational attractions of New England. These talks will be instructive to the fan who wishes to travel East this number.

The U.S. Marine band has become a summer attraction at WRC on Thursdays and therefore at WJZ, WGY and WBZ. This band has a national reputation, gained through broadcasting.

Louis Joseph Vance has a wide circle of readers who will be glad to know that they may hear him talk Friday at WEAF. He will discuss the trials and tribulations of being an author and will give many valuable hints to young authors.

WTAM, Cleveland. Ohio (389.4), 8-7 p. m., Hotel Statler concert orthertra; 3-9, memortal program, Rabbl Abba Hillel Silver; 3-12, nortcly program, Art Hartske, Ev Jones and the Coo Coo club. WTAS, Elgin, HI. (392.9), 8-10-30 p. m., Villa Olivia Badio concert; Jee Rudelph and the Box's own or-clessta; Dollos and Fannic Cavansuph; Frank Mor-chesta; Dollos and Fannic Cavansuph; Frank Mor-Martind, Badio Cavansuph; Cavansuph; Walker WTIC, Hartond, Essen, G-46.6), 3-45 p. m., baseball scores.

Central Standard Time Stations B. Lincols, Nebr. (240), 11-12:30 a. m., midalghe

WEAR, Claveland, Olibe (369.3), 7-8 p. m., Vincent II. Percy, organist.

WEBH, Chleago, III. (370.2), 7:30-8:39 p. m., Ordele orchestra: 93:0-10-39, Orloo orchestra: Warfa Kelly, reader; Kay Romayno; Lancdon Brewertz, Maria Kelly, reader; Kay Romayno; Lancdon Brewertz, Maria Kelly, reader; Kay Romayno; Lancdon Brewertz, Strand, Banks Kennecky; Ned and Ches; Charlie and Gos.

WGES, Oak Park, III. (250), 5-7 p. m., classical program; Frank Grief, teny; Arto Thorpe, polanist Ruth Lyon, apprano; Ash Belle Files, contrallo; della bed-Cavillo and his 11 Master Musiclani; Coyne Efectical school Serenaders; planologues; Rajbh Olson and Hai Cowles; Saady McTavitsh, Scotic connection.

WGM, Chleage, III. (370.2), 19 a. m., Indiamazolis auto-stone string cultriet; 8:36-39, studio program, gran recital; 10:30-11:30, Drake Hotel Terrace Garden program.

Central Standard Time Stations

KFAB, Lineola, Nebr. (240), 11-13:26 a. m., ratinlight

KFAB, Lineola, Nebr. (240), 11-13:26 a. m., ratinlight

KFMF, Sheandooh, Iwa (266), 7:30 p. m., patiotic

concett.

KFWF, Sheandooh, Iwa (260, 7:30 p. m., patiotic

concett.

KFWL Station, Okt. (280, 5), 7:20-8 p. m., Interna
KFWL Station, 10:2, must.

KFWL, University City, Mo. (240), 10 p. m., Orchestra

Bornather: U-Citlans, Jona Artilas, Tod Gey, Marty

Livingston.

Livingston.

KTMS, Mct Hayrings National Park, Ark. (374,8), 8:30
5:30, p. m., baseball; 8:30-90, cocal recital, Mr. Harry

WAMO, Minesapolis, Minn. (283,8), 0 n. m., Land

O' Lales pusted; Larry Durm, encolar; Doby

Refmer, Charles Cordony; M:30, Martisold Gardens,

WAMF, Fort Worth, Texas (375,0), 7 p. m., Inter
demonstrational Sunday school lesson, Mrs. W. F.

Eggrandoniantional Sunday school lesson, Mrs. W. F. races, 6.304-1.30 p. m., 15race context, suscensis, 15race, 16-1.30 p. m., 15race context, suscensis, 15race, 16-1.30 p. m., 15race, 16-1

demonitational Sunday school lesson, also described by the Sarrum.

WCCO, Minneapolis-St. Paul, Minn. (416.4), 10 8. 72., Perceration Day program; 6, baseball scores; 8:50, direct concert. Dick Long's Nation cafe ortheesta 5:30, musicale; 10, Arnold Frank's St. Paul local orchesta.

WASF. Kansas City, Mo. (366.9), 2:50-4:30 p. m., where in the months of the concept of the concep

5:30, musicale; 10, Arnold Frank's St. Paul fotel orrhestra.
WOAF, Kansas City, Me. (345.6), 3:30-4:30 p. m., popular souriest; 5-7, piano tunina-in number on the Dup-Art; address, Buder W. Barber, M. Merry Old Chief, Plastation players; Eddie Ruhn's Kansas City (alb ordestra; Johnnie Campbell's Cansas City (alb ordestra; Johnnie Campbell's Cansas City (alb ordestra; January Cansas Cansas City (alb ordestra; January Cansas Cansas

WHAD, Milwaukee, Wis. (275), 8-7 p. m., Wisconsin theater organs. WHAS, Louisville, Ky. (399.8), 3:15 p. m., baseball 7:39-9, Corydon, Ind., night, Samuel L. Riely, director;

WHAS, Louisville, Ky. (399.8), 3.15 p. m. baseball; 7:30-9. Corydon: Ind. nisht, Samuel L. Bilely, director; baseball scores; WCO, Memphas, Chie of Membals.
WCA, Memphas Cibe of Membals.
WCA, Memphas Cibe of Membals.
WCAN, Lawrenceburg, Fenn. (482.8), 12:15-12:45 p. m., Yauthan Radio orchestre; S. 45 p. m., public new yorlod. Excuse Konecky; 6. deranate hour, Darid his Victor Recording orchestre; 7:39, weekly address. Omaha Chamber of Conneurors; 9, program, angeless Omaha Printing company; 11:15, Arthur Hays and WCC, Davenport, Iowa (483.6), 9:19 p. m., May Chambers, soprano; Watter K. Voss, bass; John Cavilla, violities; Howard Snyder, planist; 11:13, Lonis Conneuror and his LeClaire hotel orchestre; Peter Macarhur, WOI, Ames, Iswa (279), 12:29 p. m., college chimes: "Research in Engineering Economies," Frof. George M. Fuller. Ga. (423.3), 5-6 p. n., college chimes: "Research in Engineering Economies," Frof. George M. Fuller. Ga. (423.3), 5-6 p. n., Criterion Error (1998), Connect May Lunning; 10:16, Journal High Skyloris.
WSMB, New Lanning; 10:16, Journal High SMSMB, New Lanning; 10:16, Journal Homes music, baseball; 8:20-10:30, onnects.

Mountain Standard Time Stations

Mountain Standard Time Stations WA, Ogden, Utah (281), 4 p. m., Zenlih Radio RYOUNTAIN CALIBORIES

RFWA, Ogden, Utah (281), 4 p. m., Zenith Radio
Dealers' hour: baseball,
ROA, Oewer, Colo. (3224), 9-12 midnight, Joe Mann
and bis Rainbow-Lane orchestra.

Pacific Standard Time Stations a actific yearloaru lime Stations Fi, Los Angeles, Calif. (467), 5:30-6 p.m. Examin-or's musted matinee: 5-6:15, McDandel's nightly do-lugs: 6:55-7, Radiotorial talk: 7-7:45, California Sorenaders dance orchestra, George Cronk, leader,

Sigmond Sachs, violin solois; 7:45-8, the bookstelf, Miss Nancy; 8-9, Examiner; pension by punits of Zeelmer Conservator of Missir, 9-10, Margaret Artistics, 19-10, Margaret Artistics, 19-10, Margaret Artistics, 19-11, Packard Bado elub, Way Watts and its ukulele, Dorotty Cleenial, 30th amager, Jack Burs, planist, Folker and State of Missir, 19-11, Packard Bado elub, Way Watts and its ukulele, Dorotty Cleenial, 30th amager, Jack Burs, planist, frolle, screeniand entersines. M. M. 17-12 Margaret Monte Nobe Post American Legion; 8:30-10, Sodie KFOA, Sastille, Wash, (43-5), Manufeld Day program, Rainer-Nobe Post American Legion; 8:30-10, Sodie KFWS, Hellywood, Collit, (322), 7:35-90, D. m. program, Monte Mar Vista subdividers; 9-10, Southwest Athickle chib orthodrist, Erickon steers, Frenk Steventrolle, direction Charlie Wellman, Warner Brothers (500, Oakhand, Calif., (34):24, 4-5:30 p. m., Hostel St., Francis orchester; 8, studio program; Brussiels, John S. Mills, controlle; Realtice L. Sherwood, so-prace; Edna Unkowski, Rausian planist; Thomas Jussed Dermed, violutist; Paula Argermoned, occontrolle; 6, Portland hotel ordenter; 10, dance murdo. (KH), Los Angoles, Calif., (406.2), 5:50-6 p. m., Legis

E. Warren X. Howe gives a classical program twice a week at WLS, C hicago. Tues day he will superintend the production of "Philemon and Baucis." Thursday he has arranged to have three well-known artists appear.



ton's Arcade cafeleria orchestra, Jack Cronshaw, lesder; 6-6-30, Art Hickman's Billmore hotel consert orchesteries and the stories are stories and the stories and the stories and the stories are stories and the stories and

Sunday, May 31

Sunday, slient night for: CFAC, CFCA, CKAC, CHIC, CHIC

Atlantic or Eastern Daylight Saving Time Stations

Atlantic or Eastern Daylight Saving
Time Stations

CHYC, Montreal, Can. (410.7), 7 p. m., St. James
Methodist church, 5, Traymore guntel.

Methodist church, 5, Traymore guntel.

Methodist, 10:20, L. Marion Brown, sentanci 10:28

"The World Shall Be Fattablished," Fixed W. Frank;
11, L. Marion Brown; 11:10, string crickestra; 11:20, Wackflower orchestra; 10:10, the growth of the Trains;
12, L. Marion Brown; 11:10, string crickestra; 11:20, Wackflower orchestra; 10:20, The Fatta of Fat Things for All Nations," Fred W. Frank; 10, 1, B. S. A. choral singers; 20:10, Watchtower string quarter; 10:20,

WEZ, Springbed, Mas. (33.3), 9:55 a. m. South Congressfund church, for: Wilson P. Mood. orcanist; Mrs. Grace 6, Densyma, seprane; Mrs. Nora Clinder University of the Marion Congressfund Church, Rev. Wilson P. Mood. orcanist; Mrs. Grace 6, Densyma, seprane; Mrs. Nora Clinder W. Grace, Mrs. (33.3), p. 255 a. m. South W. G. Springbed, Mrs. (33.3), p. 255 a. m. South W. G. Springbed, Mrs. (33.3), p. 255 a. m. South W. W. G. Springbed, Mrs. (33.3), p. 255 a. m. South W. W. G. Springbed, Mrs. (33.3), p. 255 a. m. South W. W. G. Springbed, Mrs. (33.3), p. 255 a. m. South W. W. G. Springbed, Mrs. (33.3), p. 255 a. m. South W. G. Springbed, Mrs. (33.3), p. 255 a. m. South W. G. Springbed, Mrs. (33.3), p. 255 a. m. South W. G. Springbed, Mrs. (33.3), p. 255 a. m. South W. G. Springbed, Mrs. (33.3), p. 255 a. m. South W. G. Springbed, Mrs. (35.6), p. 250 p. m. "Sunday Hymn Sing," Februarden of Churches; 7:20-915, Rowy and his gane; 9:15, Menty R. Rebert, orcanist.

WEZ, Poly W. York, N. Y. (49.55,) 3:20-4:20 p. m., Picadilly theater program.

(Continued on page 9)



Johnnie Buick's Amphians may be heard on the late Monday, Tuesday, Wednesday and Thursday programs of KPO, Hale Brothers, San Prancisco. They are noted for their peppy jazz and are popular with fans for Radio dances.

SHRINE WEEK PROGRAMS HEARD AT KHJ

Sunday, May 31

(Continued from page 8)

WGR, Buffalo, N. Y. (319), 3-4 p. m., resper service 4-5, John F. Gunderman, Jr., organist, 7:45, Central Presbyterian church organ rectial and service: Williams Wall Whiddit, organist, and Dr. Robert J. Macalpine, speaker.

4-5, John F. Gunderman, Jr., organse; 1-33, contact Prechystefan church organ rectal and service. William Wall Whiddlt, organist, and Dr. Robert J. Macalpine. Stocker Schools. 19, 1273), 9 p. m., Sestide beled tric; 13, Strand theater organ rectal. WHN, New York, N. Y. (360), 3-4 p. m., Guesse County Caristian Endesvor program; 4-30-5, program Music Lowes association, 5-400, Eventual dance or 10-45. Gem. Ikszor entertainers; 19:45-11:15, Jans-can's Robrary orchestra.

cheetra; 9.30-6, Oltout vall suid nis string two; 10:45, Gen Masor entertainers; 19:43-11:15, Jun-10:45, Gen Masor entertainers; 19:43-11:15, Jun-10:45, Gen Masor entertainers; 19:43-11:15, Jun-10:45, Lorentainers, 19:43-11:15, Organ recital, New York and Company of the Compa

studio.

MJY, New York, N. Y. (405.2), 8:15-9:15 p. m.. Bernhard Levitow's Hotel Commodore concert orchestra.

MJZ, New York, N. Y. (454.3), 9-10 a. m., children's hour; 10:40-10:50, chilmes troin Grace church; 3:30-4. Chambertain Women's quariet; 5:30-6, Dextra male wkaq, san Juan, P. R. (340.7), 8-10 p. m., municipa:

WLW, Cincinenti, Obie (422.3), 9:30 a. m., school, Editorial Staff of Sunday school Publications, Methediats Book concern; 11, services, Church of Corenant, Dr. Frank Stevenion; 7:30 b. m., services, First, Dr. Frank Stevenion; 7:30 b. m., services, First, William Kopp, diversion and Southern orchestra, William Kopp, diversion and Southern orchestra, William Kopp, diversion; J. WoRD, Batavia, Hi. (275), 10 a. m., hynns, secred some state of the second services, and second services, and second second second services, and second s

minister Presbyterian church; 9:30-11, Grace Methodist Bolscopal church, south.

WHAD, Milwaukee, Wis. (275), 2-3 p. m., Marqueste undressity sated program.

WHAS, Louisville, N., K. (393-8), 9:57 a. m., organ music;

WHAS, Louisville, N., K. (393-8), 9:57 a. m., organ music;

who, S. (393-8), 9:57 a. m., organ music;

WHO, Des Moines, Iowa (526), 11 a. m., University north service; 3 p. m., program, Dean Holmes Gowner;

7:39, Rests-Hughes orchestra.

WOAN, Lawreneburg, Ten., (526-8), 9:10 p. m., sacred orchestra, sulle quartel.

WOAW, Omaha, Nebr. (526), 9 a. m., Radio cheart.

orchestra, male quartet.

WOAW, Omaha, Nehr. (526), 9 s. m., Radio chapel service; 2:15 p. m., First Christian church orchestra; 9, musical chapel.

mustai chapel.
WDC, Oavenport. Issa (483.6), 8 p. m., services, Rov. Marmaduke Seymour; boy's choir. Secred Heart cathedral; 9:30-11:30, Palmer Little Symphony; Enwin Swindell, conductor. WOI, Ames, lowa (270), 10:45 a. m., chimes; 11, chapel services, Dr. Myron L. Boozer

WDS, Jefferson City. Mo. (440.9), 7:45 p. m., Episcopal church, Rev. G. E. Rennison, rector.

Monday, June 1

Menday, silent night for; CKAC, CKY, CNPT KFDM, KFMQ, KFMX, KGW, KHI, KYW, PWX, WAMD, WRBM, WBCN, WCAU, WDWF, WEAU, WEBH, WEBJ, WGN, WGBS, WHAS, WIY, WKAQ, WLEL, WLS, WMAQ, WNBB, WOG, WGAI, WQI WRC, WRED, WSAC.

Atlantic or Eastern Daylight Saving

Atlantic or Eastern Daylight Saving Time Stations

CKAC, Mantreal, Can. (440, 430 n. m., 100 lessons. WAHG, Richmond Hill, N. Y. (315, 50, 7:45-815 p. m., De Molay giet chin; 813-85, 30; Kornece J. Jaylor, De Molay giet chin; 813-85, 30; Kornece J. Jaylor, Station of the Charles, C

Sample; 'II, the PITES LAYDON: Blackwood of Conceptual WEAR, New York, N. V. (46), 50, 67, 5 m., dinner with the Wear State of Conceptual Wear, the Wear State of Conceptual Wear State; 'Ibe Ourse of Administrate; 'Al5-8, 90, reogram, Mark Armed Hystater, direction of Jean's Punkey, 2, 90, 90, Huns Statt, prints; Side 9, health tells, Maryachitz Life insurage containt, 9-10, A. P. Copter; 10-10-36, Right Edition quantat; (30-113), Bun Bernie and his Haird Papers will Conceptual Wear State of Conceptual Wear State of

Elibor matals; 10-51 39. hem Bernie ave de-Beauvell orchestra.

WEIL Beston, Mass. (475.9), 3 p. u., Sterling Inn amblers; A finger Slave; 5:30, Jack Brown and his Chauvre Souria seasoutra; 6:30, Big Broblor club: 7:13, neugacie; 5, employed; 5:30, Jack Broblor 1:13, neugacie; 5, employed; 5:30, Jack WFI. Philadelphia, Pa. (334.5), 6 p. m., dance music; WFI. Philadelphia, Pa. (334.5), 6 p. m., dance music;



Martha Ellen Abt, personal analyst and lecturer, photo at left, whose pioneering is creating great interest in medical circles. Mrs. Abt has broadcast from a number of stations, but her are recent appearances have been from WLS and WQJ, Chicago. Ret control of the control of

WTAS, Elgin, III. (302.8), 2:15-5 p. m., Joe Rudolph and the Boes's own onhecters: 8-12, Radio souccet, loc Rudolch and the Boes's own orchesters: Pranicioe Rudolch and the Boes's own orchesters: Pranicioe Rudolch and Bodie Cavanaugh, Colorain Goets. Wills, Faunte and Bodie Cavanaugh, Colorain Goets. Will. petrol. No. 1, n. St. Panicional Goets. Will. petrol. News orchesters: 6-29. Novy and his gang, Capitol Inester.

WSB, Atlanta, Ga. (428.3), 5-6 p. m., services, Clifton Presbyterian church choft; 7:30, services. WSUI, lowa City, lowa (483.6), 8 p. m., familiar hymns

Mountain Standard Time Stations MOUNTAIN STANDARY TIME STATEONS OA, Oskland, Calif. (3224), 1055 a.m., First Uniterial society: 4 p. m., Sunday afternoon music, Mrs. Faye Roswell, organist, 745, commemoration life and works of Raiph Walde Emercia.

wwi. Detroit, Mich. (332.7). 11 a. m. St. Panl's Enbissense tachedrai; 2 n. m., Dertol News orchestra; 5.29, Nory and his gang, Capitol theater.

Central Standard Time Stations

KFAB, Linceln, Nebr. (240), 4 p. m., Rev. F. A. Lens.

KFDM, Beaumont, Tens. (315.6), 11.12 m., sacred program, S-9 p. m., stared program, S

6:30, Bellevue Stratford concert orchestra; 7, bedifnie

6.30, Bellerus Stratford concert orchestra; 7, beddine stories.

WOBS, New York, N. Y. (315.9), 2 me 190 p. m., "Planning Your Summer Francy Work," Maheille Furrescore Strategy of the Program of the Pr

(Continued on page 10)

ganiet, 3-45, Sindwalde Preebyterfan church; 7, baces fauresie aerthee, Westlerchouse Technical stacht school. WBBM, Chicago, 18, (262), 4-6 p. m., tea donce program; Sandy Mess. South lenor; Jerry Cromack; Harry Sinnik, pinatis; 3-10, Sandy Mess. South tenor; Ned Santa; Reportson Sisters tho; Berry Sentik, planist; WBCN, Chicago, III. (26), 4-5 p. m., Lain & Son classical concert; 7-5, classical concert; 8-11, Midway orchesirs; Henry Vete, Jenor; Lakey and Gertals; Hungarian Harmonica twins.

WEAR, Cleveland, Ohito (389.4), 330-5 p. m., Sorvices, WEAR, Cleveland, Ohito (389.4), 330-5 p. m., Botel Chevaland Concessirs 3-10, evening hour program. WEBH, Chicago, III. (370-22, 7-9 p. m., artists program.

Central Methodist Episcopal chorels (March Methodist (March Methodist Episcopal Chorels (March Methodist (March March Methodist (March Methodist

Redio dust; 10, Paul Rador and start; 10: 330, tomo box; 10: 55, back tomo box; 10: 55, bac

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WLW BROADCASTING ZOO CONCERTS

Monday, June 1

(Continued from page 9)

(Continued from page 9)

WYC, New York, N. Y. (550), 7:710 p.m., piane recital; 7:10-7:20, baseball talk ton B. Foster; 2:35-7:30, baseball results; 7:35-7:30, talk piane; 7:36-7:30, baseball results; 7:35-7:30, talk piane; 7:36-7:36, talk piane; 7:36-7:36, talk piane; 7:36-7:36, talk piane; 7:36-7:36, and piane; 7:36, a

Eastern Standard or Central Daylight
Saving Time Stations
CHIC, Teronto, Can. (357), 8 p. m., mixed quartel

Toronto, Can. (357), 10 p. m., CHNC Little Symphony orchestra.

KOKA, Pittsburgh, Pa. (309.1), 2:30-5 p. m., baseball
scores every half hour; 8:45, concert; 9:55, basepall
WBAV, Columbus, Ohio (293.7), 8 p. m., Wild vor-

wBBM, Chicago, III. (266), 6-7 p. m., Crillon orchestra.

WCEE, Eigln. III. (275). 10:30-12 midnight, Joe Rndolph and the Box's Own orchestra; Frank Morris, Polly Willis, Eddle and Fannie Caranaugh; Coleman

Goetz. WCX. Detroit, Mich. (516.9), 4:15 p. m., innsical program; 6, dinner concert, Book-Cadillac botel; 5:30,

WCX. Debrait, Mich. (316.9), 4:15 p. m., inskical program; 6, dinner concert. Book Cadiliae hotel; 8:39, musical program.

WEAR, Cleveland, Dhio (389.4), 7:8 p. m., Loew's WEAR, Cleveland, Dhio (389.4), 7:8 p. m., Loew's WEAR, Cleveland, Dhio (389.4), 7:8 p. m., Loew's WEER, Cleveland, Dhio (389.4), 7:8 p. m., classical; Emilyi Velkev, viciliais; Loretta Clusuma, soprano; Will Anderswa; Hovalding guitarist; Henrietta Blackwell, Casullo and hat 11 Master Muschan; Sandy McTaviola, South concedien; planologues, Ralph Olson and Hall towers, Ewelly Heller, Leon. 290 p. m., Hotel Tarkey, South concedien; planologues, Ralph Olson and Hall towers, Ewelly Heller, E. Burra, soprano; William Dupson, cherri House, Cody, planiet; Life, H. H. Maplessdem, Troy High schools students and orchestra; B. Tytrasod Helster, director, S.45, "Naston: What H. Has Activities and the second Heller, Complished and its Present Status," Gaste E. Allboom, Complished and its Present Status, "Gaste E. Allboom, Complished and its Present Status," Gaste E. Allboom, Complished Helsten Bins, burtone, Wallet Donosea, towar, Carl Stundender, Barraporica sologit, Dictar Renders Helsten, Element Bins, burtone, Wallet Donosea, towar, Carl Stundender, Martin, planiet; 'John Clark', Al Carney, organista.

Al Carrey, organist,
Al Carrey, organist,
Willo, Monesbeart, III. (302), 10:30 p. to., Reneau
Status, George Girot, William Borowitz, J. I. Soufitowards, George Lee Pebre, Geneva organ, Charley
WKRC, Ginelmath, Ohio (222), 10 p. m., Caldwell and
Taylor Banzol Boys; 11, dance program: 12, Kodel

MNNO, Chlesimad, Onto (422, 1), p. m., channel and fatter.

Bancol Boys: 11, define program: 12, Kodel WLW. Cincinnat. Onto (422, 3), 7 p. m., dinner hour concert, Roled Gibson orderestry, Robert Viscond, diplomatic of the concert of the concert

ples stated and stated symptoms; 12-20, m., Villa Olivia Handle Stated and St

Radio concert, Joe Kuntaran, Polly Willis, Con-panie Caranapa, Frank Morris, Polly Willis, Con-nour, Goutt.

71C. Hurdford, Cenn. (348.6), 3-48 D. m., Danaball; 5-56, Daseball; 6, dinner music: Kmil Hambargari Huil, Rond Hrio: 6-30, Tene Schart, Suppano, 5-30, talk; clamber music, 7, avaida organ company; 2-30, talk; laddes quartet, Mrs. Airred Runde, Mrs. Gerrube Latinaw Jeinsten, Mrs. Airred Runde, Mrs. Gerrube Latinaw Jeinsten, Mrs. Kenneth Roberts, Mrs. Educont Turner; 9, Happiness Boys orchestrs: Martin and Staron:

Storen:

WWJ. Detroit, Mich. (352.7), 6 p. m., dinner concert
6, concert from New York; 9, Detroit News orchestra Central Standard Time Stations
B. Lincoln, Nebr. (240), 7:30-9:30 p. m., Colle



Charlotte Collar, soprano, is one of the frequent performers of the Marquett nnners of the Marquett of the Marquett of MHAD Milwaukee. Miss collar has a voice especially adapted for broadcasting, and for this reason has already a chieved a Badio resputation.

tans orchostra; Venne E. Powell, saxophonist; Orville Andewse, Bulck Warrier; Waisikt trio.
Andewse, Bulck Warrier; Waisikt trio.
K. W. Lawrence, Kan. (225), 659 p. m., piano uning-in number; 7, mulei; 1:15, "The Story of Ground Water," Prof. R. S. Enguppen, 1:38. "A. Night with uncle Reques," Myra Wall, 1:46, Strandw lesson, K. Martings Nebr. (2853), 1:39 p. m. Women's Company of the Market C

Ser eff amountain, strike, 120 p. m., Suitti-Relding orchestro, KFNC, Shennicah, Iowa (266), 7:30 p. m., Oklabona KFRU, Bristow, Oks. 10, 304.5), 7-8 p. m., Oklabona KFRU, Bristow, Oks. 10, 30 miertainoste, Christow, Oks. 10, 30 miertainoste, Christow, Oks. 10, 30 m., Gardner Moter company Electrin-Line enertainost; 10, Herric Township high school ind. (KHS, Hel Serin as dational Park, Ark. (374.6), 8:30-KHS, Hel Serin as dational Park, Ark. (374.6), 8:30-KHS, Hel Serin as dational Park, Ark. (374.6), 8:30-KHS, Hell Serin as dational Park, Ark. (374.6), 8:

Nation, places and proceedings of the control of th

semble; 11:45-1, Merry Old Chief; Plantation players; Charles Dornberger's Kansas City Athletic club or.

chestra. VFAA. Dallas, Texas (475.9), 6:30-7:39 p. m., Kidd Springs orchestra; 8:30-9:30, Mrs. Albert E. Smith, soprano.

NOUCAIO.

WHA, Madisen, Wis. (535.4), 7:45 p. m., musical program for children, University School of Music; Vilamins; Prof. H. A. Schootte.

WHAO, Milwacke, Wis. (275), 6-7 p. m., Milwauke Athletic club music; 8-10, Marquette university studio

WHAS. Louisville, Ky. (398.8), 3:15 p. m., baseball three-minute fashion talk, Peggy True. unree-minute Isibion talk. Pegzy Truc.
WHO. Des Moines, Iswa (326), 7:39, p. m. Iowa State
Drum corus, Spanish-Amerikan War Velerans; 8-9,
program, Dean Holmac Comper; 11:15-12, organ recivial.
WMO, Memphis, Tens. (400

elfal.

MMC, Memphis, Tenn. (499.7), 7:30 p. m., westly
farin talk, C. W. Watson; 8:30, Hotel Garges orchestra.

WOAN, Lawrenceburg, Tenn. (262.8), 12:15-12:45 n. m.,
orchestra; 9-10, orchestra; 9-10, orchestra, male quar-

orchestra; 9-10, orchestra; 9-10, orchestra, maw quantets, WOAW, Omaha, Nebr. (\$25), 6 p. m. Phyllis Grisvold, organist; 5:36, McCrory's possiar perfoct; 6:45, orchestra; 9, naval band; 10:36, orchestra, orchestra; 9, naval band; 10:36, orchestra, orchestra; 9, naval band; 10:36, orchestra, orche

Tuesday, June 2

Tweday slient night for: CFCA, CHNC, CHIC, CHYC, CNRT, KFE, KKK, KFKX, KFNF, KFNF, KFK, KGA, KGA, KGB, WAR, WAHG, WBAV, WBBR, WCAL, WCBD, WEAG, WEAG, WSST, WHA, WHAD, WHAZ, WIAD, WKAQ, WMAX, WOI, WOO, WOS, WSAC, WSUI, WTAM.

Atlantic or Eastern Daylight Saving Time Stations

CKAC, Montreal, Can. (410), 7 p. m., "Bygiene," in French and English; 7:30, Harry Salter and his Wind-son hotel concert orchestra; 8:30, slidle concert; "Que-bec's Mon. Attractive Points and Hints for Tour-ists;" 10:30, Harold Leonard's Rad Jucketz,

CNRA, Morton, Can, Cilly, Web, m. Chatham string ordinary yolins, M. Sentie, twois Babbineto, Viola McKendy, H. B. McDonald, Rev. F. H. Little-ionn; W. Chub MacLoon, M. Nicol, cellists; Coral MacLoon, Frances Miller, bas vocatil; H. B. McDonald, plantst; Bortha Fergus, soprann; CNRA dance orchestra.

program: 19:19-19:30, lecture service of Board of program: 19:19-19:30, lecture service of Board of program: W. Consection. 19:19-19:30, pp. 1 Eastern Standard or Central Daylight
Saving Time Stations

Daddy's bedtime stories: dramatic review. Allyn C.

KOKA, Pittsburgh, Pa. (309.1), 2:30-5 p. m., baseball scores every half hour; 7. baseball; 8:45, concert;

11 Muster Mustelans; Juno Lee, Kay Ronayne, Secunders,

WGN, Chicago, III. (370.2), 6:39-7:30 p. m. Draio concert erisoble, Blacksuce string quintest; 5:39-3:30, studio promise; 10:39-11:39, Drake Boiel Terrace WGY. Schneidagy, N. Y. (379-5), 5:20 p. n., "Some Leatins Tauxil by the 10-2 peach Crop." Handé B. Tharty, 5:39, dinner pretrum, Botel Van Curtier Williams, 10:39-11:39, Drain Promise, 10:39-11:39-

Heroize deliver, plantas, particular, part

W.W. Cheinati, Ohio (422.3), 6.8 p. m., 1900-180, v. W.W. Cheinati, Ohio (422.3), 6.8 p. m., 1900-180, program, boner of 75th Anniversary of the College of Pharmany's, 6. concert prisarian, counters of David Her Bertosprish company (*1878) for male quartet; 8:10 percentage of College of Pharmanes, 9. Cultury, prisaria, The Forest counter of College o

Indies choriti,
WM88. Chicage, III. (250), 7-1 io p. m., profilm
J. Bodewalt Lampe, director; Wolflawn heals orhallow, Armin F. Band, director is broken to the conhallow, Armin F. Band, director is a conhallow, and the conhallow of the conrector of the conrector of the conrector of the conhallow of t

Vincent Hiden, cellist, is one of the students of the State College of Washington. He is heard often over the microphone of KFAE, Pullman, and plays with professional skill.



Edna Cota and pupils; dialogues, Lyle Retterer, Sylviciar Sov. Lisis Gustafson, soprano; World Newstiens, Gull. Lisis Gustafson, Gunrell, Seroy Tranger, Assistant and his Rainbo Garden objective. Mark Lisis Gustafson, Control, Seroy Tranger, Assistant State Caldwell, Joy Dilber; 1 2 Ginger hour, Rainb Williams.
WRC, Washington, D. C. (458.5), 2 p. m., Washington, New York beselved Sume; 5:13, children's hour, Person New York beselved Sume; 5:13, children's hour, Person Sylvic Gustafson, Seroy Sylvic State State Control, State Gustafson, State Gustafs

ler concert orchestra,
WTAS, Elgin, IB. (302.8), 8-10:30 p. w., Joe Rudolph
(Continued on page 11)

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, May 30: 4:30, WJZ; 5:45, WTIC; 7:25, WNTC; Monday, June 1: 7:25, WNYC; 9:50, WEZ.

WBZ. June 2: 7:25, WNYC; 9:50, Tuesday, June 2: 7:25, WNYC. Wednesday, June 3: 9:50, WBZ. Thursday, June 4: 7:25, WNYC; 9:50, WBZ. Friday, June 5: 7:25: WNYC; 9:50, WBZ.

WBZ.

Eastern Standard or Central Daylight Saving Time Stations

Saturday, May 30: 2, WGY; 2:30, KDKA; 2:45, KDKA; 2:30, KDKA; 3:45, KDKA; 3:30, KDKA; 3:55, WWJ; 4, KDKA, WMAQ; 4:15, KDKA; 4:30, KDKA; 4:45, KDKA; 5:50, WWD; 4, KDKA; WGN, WLS; 7, KDKA; 6, WGN, WLS; 7, KDKA; 6, WGN, WLS; 7, KDKA; 3:45, WEAR; 3:45, WEAR; 3:45, WWAQ; 4:30, KDKA; 3:45, WWAQ; 4:30, KDKA; 3:45, WEAR; 3:55, WWJ; 4, KDKA; WHAQ; 4:30, KDKA; 3:45, KDKA; 3:45, WBZ; 3:45, KDKA; 3:30, KDKA; 3:45, WEAR; 3:55, WWJ; 4, KDKA; 4:30, KDKA; 5, KDKA; 5

KDKA: 3, KDKA: 3:30, KDKA; 3:45, WEAR; 3:55, WW4; 4, KDKA; WAAR; 3:55, WW4; 4, KDKA; MAG, 1:30, KDKA: 5, KDKA; 6, WGN, WLS; 7, KDKA: 10:93, WREQ; 2:90, KDKA; 3:45, WEAR; 2:55, WDKA: 3:45, KDKA; 3:45, WGN, WLS; 10:93, WREA; 3:45, KDKA; 6, WGN, WLS; 10:93, WREA; 6, WHAQ; 4:30, KDKA; 5, KDKA; 6, WGN, WLS; 10:93, WREA; 2:55, WM5; 3:45, WDKA; 3:45, WDKA; 3:45, WDKA; 3:45, WDKA; 3:45, WDKA; 3:45, WDKA; 3:55, WBA; 3:45, WDKA; 3:45, WDKA; 3:55, WBA; 3:55, WM; 4, WMAQ; 4:30, KDKA; 10, WREO.

Central Standard Time Stations Saturday, May 30: 3:30. WDAF; 4:30, WDAF; 5, WDAF; 6, WCCO, WDAF; 6:30, WSMB; 8:30, KTHS.
Sunday, May 31: 9, WCCO; 9:15, KTHS.
Monday, June 1: 4, WCCO; 6, WCCO; 6:30, WSMB; 8:30, KTHS; 9, WCCO.

WCCO.
Tuesday, June 2: 4, WCCO; 6:20, WOAW; 6:30, WSMB; 8:30, KTHS, Wednesday, June 3: 6, WCCO; 6:30, WSMB; 8:30, KTHS, Charletter, WCCO; 6:20, WCCO; 6:20, WOAW; 6:30, WSMB; 8:30, KTHS, WCCO; 6:20, WOAW; 6:30, WSMB; 8:30, KTHS; 9, WCCO; 6:30, WSMB; 8:30, KTHS; 9, WCCO; 6:30, WSMB; 8:30, KTHS; 9, WCCO; 6:30, WSMB;

chestra; bediime story, Bonnie Barnhardt; 8-9, music; 19:13, Warner's Svern Ares.

19:13, Warner's Svern Ares.

19:14, 19:15, 19

Mountain Standard Time Stations

(CDA, Oakland, Calif. (322.4), 8 p. m., Fred Schultt and his Rialto theater orchestra; 3:10, "United States Clitzens Military Training Canpe," Morrisch Phat-roth; ROA orchestra; Colorado Woman's college Electub.

Pacific Standard Time Stations FAE. Fullman, Wash. (348.5), 7:30-9 p. m., Gladys
Fraset, violidist; vocal soles, students Prof. Merbert
Namyth; Vera Behilke, songrano; Marrie Behilke, tener,
Signer Dutton, soynano; Norman Benson, bartione;
Signer Dutton, soynano; Norman Benson, bartione;
Signer Dutton, soynano; Norman Benson, bartione;
Fromer, Dutton, soynano;
Soynan Benson, bartione;
Fromer, Dean E. R. Wegner; "Jone And Food
Markets," Dean E. R. Wegner; "Jone Recent Propusals
Affecting College Education," Frof. George A. Coe;
"Summer Care and Management of Pigs," Prof. R. T.
Smith.

KFI, Ess Angeles, Callif. (467), 5:30-6 p. m., Examiner, Shringe half hour; 6:6:15x. McDueles' nightly doings 6:15x7, musical appreciately talk; 7:8, Callfornia Serondorri dance orchestra, direction George Cronk; Signature of the Company: Tida Rohr, contraint, Los Angeles Zitter quartet; 9:10, programs Weber M. Murphy Motors company: Virtuia Fibila, Estio significance; Hollycompany: Virtuia Fibila, Estio significance; Hollycompany: Writina Fibila, Estio significance; Callycompany: West and Bits Alexandris hotel dance orchestra.

KFOA, Seattle, Wash. (454.3), 6:45-8:15 p. m., Sher-man, Clay & company program; 8:30-10, Times pro-

STAIN, Clay & company program: 8:30-10, Times program, 8:50-10, Times program, John & Calif. (232), 8:30-8, m., program, John & Esma corporation; 9: program, John & Esma corporation; 9: program; 10: p

Charlle Wellman.

K60. Oskida, Calif. (381.2), 2 n. m., studio musical puogram; 4-5:30, Henry Halstend'z dance orchestra; 8, Amphion tric, Dean Scott Donaldson, violinist; Winston Petty, cellist; Helen Eugenia Merchant, planist; resure for the Home; "Prof. C. L. Filmt; talts on situation cellinis, "Loyalty," B. J. Williams; "The chart of the Company of the Company of the Company and the Company Loyalty," B. J. Williams; "The chart should now hope the chart should not should not consider the chart should not chart should no

chate about new hoots. Joseph Harry Jackson; 10-1. x.

M. Benry Ballserd's overbesta.

K. G.W. Pertland, Ore. (491.5), 5-5-30 p. m., children's program; 6-7. organ rectlal, William Robbisson Hones.

K. G.W. Pertland, Ore. (491.5), 5-5-30 p. m., children's program; 6-7. organ rectlal, William Robbisson Hones.

K. H. Lins Angeles, Calif. (405.2), 7-8 p. m., Medinah Shribe band and chanter from Chicago. 8-10, programs. Rain Water Crystals company, arranged by G. Allison Poster Crystals company, arranged by G. Allison Poster Crystals and Learning Company.

K. M. J. Adaland. Calif. (590.2), 6-7 p. m., organ rectlal; heater octostar; 10, meeting, Lake Jerrist Ducks. Meeting Lake Jerrist Ducks. K. K. M. Hollywood, Calif. (336.9), 5-30-6 p. m., Wurttlaer Dipo organ studio. Speck tall; 6-10-6, 70-6, tured talk, W. F. Alder; (1201-120), dinner hour massic; 8-0, prosman, L. W. Sterkwell Manofacturing company; 9-10-10-10, 10

Vettil: 19230, Universe value and the second of the condition of the condi

Company.

WFI. Philadelphia Pa. (394.5). 6.30 p. m., Meyer Jasts contect of riestra; 7. Radio boys scont; 8. concett from Wilder: 530. Gold Dast Twins: 9. Ever-

W. J. Philadelphia, Pa. (394.5), 6.30 p. m., Meyer (1987) and the property of the property of

Nat. Brotman, bartione; Satirty Locason, accomponist.

172. New York, N. Y. (454.3), Mrs. Julian Heath;
18.29-10-23, Vogoes talks on etilopetic; 18-20-10-46,
18.29-10-23, Vogoes talks on etilopetic; 18-20-10-46,
18.29-10-24, Vogoes talks of the same talks of the s

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DAVIS SCHOOL OF MUSIC FROM WFAA

Tuesday, June 2

(Continued from page 10)

and the Boss's own orchestra; Frank Morris, Polly Willis, Eddie and Fannie Cavanaugh. Coleman Goetz. W II. Detroll, Micli. (352.7), 8 p. m., dinner concert; 7. concert from WEAF.

Central Standard Time Stations

Winnipeg, Can. (384.4), 8:30-8:45 p. m., Manitoba icultural college lecture; 8:45, J. A. Bandeld's

Agrendium; college fecture; 8:19, J. A. Bandeld's Agrendium; college fecture; 8:19, J. A. Bandeld's Agrendium; college fecture; 8:19, J. A. Bandeld's KFAB, Lincoln. Nebr. (240), 5-6, p. m., Schmoller, & Mueller program; 11-12:30, midrajkni rounders, KFAB, Bristow, Okla. (315.6), 17-130 p. m., children's KFRU, Bristow, Okla. (349.5), 10:30-19 midnight entertaloment. KLDS, Independence, Ms. (368), S. p. m., studio programs, College fecture; "Dealth Inventory," pr. Chas. KDS, McContestra; "Dealth Inventory," pr. Chas. KSD, St. Louis, Ms. (545.1), 6:30 p. m., Aberght's connect ensemble; Arne Arnesen, violialist. KTMS, Hot Springs Nations Park, Art. (374.8), 8:30-30-30, pp. m., Dazaball's S:30, New Artinction hotel contests and the state of the state of

Sido D. m., baseball; 8:20, recording to corchestra.
WAMO, Minneapelis Minn. (243.8), 9 p. m., Joseph Kindsall, bartione; Middred Garford, planist; Irving Winstown; Spuman trip; 10, George Cramer, William Harris, Glward Babcock, WAMD trio.

bassador, Abe Lyman's Coconnu Grore dance or-chestra.

(PO. San Francisco, Calif. (428.3), 3.39-4:30 p.m., Palace botel dance orchestra; 5.30-6:20. children's stery hour, Big Brother; 6.35-7, States Restatrant or-chestra; 7:7-30, Rudy Seifier's Fairmont hotel or-chestra; 8:10, U. S. Any band; Harold Sampson, golf expert; 10-11, Johnny Bulck's Cibirinas

W-denestay Cipit filmt far: CFAC CFCA. CHIC CHIC CRIST, SERAC, WEST, KEDM, KFKU, KFNX KFMO, KGO, KOB, WBAY, WBBH, WCAL, WCBS WOWF, WEAO, WEBW, WFAA, WFI, WGBS, WGST WGY, WHAR, WHAZ, WJAD, WJY, WLBL, WMAK WMC, WOAI, WOAW, WOI, WORC, WREC, NEC.

Atlantic or Eastern Daylight Saving

Atlantic or Eastern Daylight Saving
Time Stations
WAHG, Richmond Hill, N. Y. (315.6), 7.39-7.45 p. m.,
sport review, Thornton Pisher; 7:43-1, Banjo Eddie;
8-8:15, Arthur R. Cole, neor; 8:148-8.50, Trou.
Pishing, James Milce Plynn; 6:38-8:43, Plaufing
the Station of the Statio

Robert Tilton, tenor, is one of the singers who has become popular with the audience of KDKA. He helps keep up the standard of KDKA for good music.

feature program; 9-10, program, Independent Furniture
Manufacturing conpany; 10-12, movie night at the Annotacturing contacturing contact

Sisters: Maria Wight, sonono; 10:30-1 a. m., Covne Electrical achool surendors: Blue Devil orchester; Sandy McTool Surendors: Blue Devil orchester; Sandy McTool Surendors: Disc Devil orchester; Sandy McTool Surendors: Development ensemble, Blackston string quarter; 8:30-9:30, studio program; 10:30-11:30, Drake Hotel Torrace Garden program.

WHT, Chiesap, III, 10:30-11:30, Drake Hotel Torrace Garden program.

WHT, Chiesap, III, 10:30-11:30, Drake Hotel Torrace Garden program.

WHT, Chiesap, III, 10:30-11:30, Drake Hotel Program; 10:30-11

Minta, Al Carney, organis; Raneous Sherman, some; ballads, John Clark.

WIJD, Mosscheart, III, (302), 10:30 p. m., Liflian Hollins, John Rankel, Nato Caklevil, George Glot, Courtland Banks, Garera organ, Charley Straignt's orrbestra.



Harriett Cruise is called the "Oriole of the Air" at KFAB, Lincoln. She appears regularly at this station.

Minneapolis-St. Paul, Minn. (416.4), 4 p. m., nil; 6, baseball; 6:05, Biley's St. Paul hotel or-n; 7, program from WEAF; 8, musicale; 9,

bezeinil; 6, nascean.
Chestra; 7, Drogram (rom WEAR; c, chestra; 7, Drogram (rom WEAR; 7, C)
Me-a-Story Lady; Maudellen Littelfield, pindist; Trimone entemple; 11:45-1 a. m., Newman Nighthawk

(29a.A). 3:15 p. m., baseball;

(29a.A). 3:15 p. m., baseball;

Alamo theater organ: 7:30-9, Can Loon baseball scores. WHO. Des Moines, Iowa (526), 7:30-9 p. m., Handling

WHO, Des Moines, Iowa (226), r/200-2 D. m., ranoning ordestra.
WMC, Memphis, Tiena, (499-2), r/26, D. D. D. Weeldy health talk, Dr. E. E. France, S. 76, prouden, Mrs.
WolAM, Lawronceburg, Tenn. (22, 28), 12:15-17-26, m., vlougham, Radio orchestra; vole quartet; Vaugham Reserding male quartet.

cheefra; male quartet; Vauphan Reerding male quarters, when Very Origin, Nebr. (\$25.9), 6 pp., advice to the levelor. Cynchia Grey; 6:25, dinner program, May Seed and Nutery company; 9, to be announced; 10:30, or chestra.

WOC, Davenporf, Ia. (488.6), 3:330 p. m., bome unnagement schmidte; 8:30-5, WEEF program.

WOC, Davenporf, Ia. (488.6), 3:330 p. m., bome unnagement schmidte; 8:30-5, WEEF program.

WOS, Attention, Ga. (428.3), 5:6 p. m., bedtime story, Bennie Barnherdt; 5-9, Vick Myer's Molody ortists; 10:45, outertainment.

WSMB, Naw Orleans, La. (319), 6:50-7:39 p. m., dinner male, bedebal.

Pacific Standard Time Stations

dinner music, basebad.

Pacific Standard Time Stations

KFI, Lea Angeles, Colff. (407), 5:20.6 p. m., Inc. Lea Angeles, Colff. (407), Angeles and Colff. (407), Angeles and

when we want to the wear of th

WKRC, Cincinnati, Oho (422), 3 p. m., bold review, Alteo B. Coy; 8 Hs. Lelig Le-Mary, Gambis 5:45, popular sones; 9.35, Bay Greenke, Jim Miesells WLS, Chicago, III. (434.6), 4 Jay D. m., Fished polaristic Control of the Control of

W.W. Cincinnati, Ohio (422-3), 7 p. m. claner muz concert, Robel Olion orchestra, Robert Visconii, concert, 10. concert, 11. crian rectial, Johanna WMAQ, Chicago, III. (447, 5), 6 p. m. Chicago thesate orzan; 6:50. chor; the Faultiner, the Story Lady; 8, WMAQ, Chicago, III. (447, 5), 6 p. m. Chicago thesate orzan; 6:50. chor; the Faultiner, the Story Lady; 8, the Chicago, MAQ, Chicago, MAQ,

Baidwin Wathace college; 19-11. Hollender hour, Carl Rupp and his orbestar; 11-1 a. m., Phil Spitalm's Water State of the College of the College of the College Radio concert; Frank Morris, Polly Willia, Eddie and Fannie Ceransugh. Coleman Goetz. WTC, Hartford, Conn. (346.0), 5:55 p. m., baseball; 6. WWI, Detroit, Mich. (352.7), 6 b. m., dinner cyncert; 8, Detroit News orchestra: Anne Canpoell. Detroit News poet; 8, Jean Goldstella Victor Recording orchests.

Central Standard Time Stations

KFAB, Linceln, Nebr. (240), 7:30-9:30 p. m., Utica hand and eniertainers. KFNF, Shenadoak, ia. (266), 7:30 p. m., Shenandoah Business Men's Retailors Ass'n. KFGU. 61:5150. (2014), (394.5), 8:10:30 p. m., enter-

(Continued on page 12)

SPEEDWAY RACE FROM WGN; YALE-I

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, May 30; 7:30 WHAR,
8:15; WEAF; 10; WJZ.
Sunday, May 31; 7:20; WEAF,
WEEL, WJAR; 10; WHN.
Monday, June 1: 6:15; WOR; 7:30;
WEEL, WHAR; 8; WEEL; 8:16;
WAHG; 8:20; WAHG; 9; WEAF,
WEEL, WJAR; 10:45; WAHG;
T. WEAF, WJLT; 10:45; WAHG;
10:40; WEAF, WJET; 10:45; WAHG;
10:40; WEAF, WJET; 10:45; WHN;
8:16; WEBL; 8:30; WCAE; 13:5; WHN;
8:16; WEBL; 8:30; WCAE; WEAF,
WEEL, WFI; 9; WEAF, WEEL, WFI;
9:15; WIP; 11:30; WGBS; 12; WHN,
Wednesday, June 3: 6:15; WOR;
7:16; WEEL; 7:30; WHAR; 8; WEAF,
WHN; 9; WEAF, WFI;
WHAR; 9; WHAF; 10:10;
WGBS; 130; WHAR; 7:45; WAHG;
8:16; WJY; 8:30; WHAR; 7:45; WAHG;
8:16; WJY; 8:30; WEEL; 9; WEEL;
10; WEAF, WEEL, WHN, WLIT;
10:45; WEAF,

Eastern Standard or Central Daylight Saving Time Stations

| Iight Saving Time Stations | Saturday, May 30: 8, WBBM, WBCN, WLS, WMAQ, WMBB: 8:30, WBBB: 9, WBBM, WBCN, WLS, WTAM: 9:30, WBEH, WMBE: 10, WBBM, WBCN, WKC, WLS, WJJ. 10:30, WBEH, WBCN, WKC, WLS, WJJ. 10:30, WBEH, WBCN, WLS, WJJ. 10:30, WBCN, WB

WMAK: 11:30, WJJD; 12, WMAK; 12:30, WJJD.
Tuesday, June 2: 8, WBBM, WBCN; 12:30, WJJD; 19:30, WEBH; 10, WBBM, 9: WBCM; 9:30, WEBH; 10, WBBM, WGR, WKRC, WQJ; 10:30, WGBH; WJJD; 11, WBBM, WBCN, WKRC, WQJ; 11:30, WJDJ, WQJ; 12, WBCN, WQJ; 12:30, WJJD, WQJ; 12, WBCN, WBBM, WBCN, WMBB, WWJ; 9, WBBM, WBCN, WMBB, WWJ; 9, KYW, WBBM; 9:15, WKRC; 10, KYW, WBCN, WGJ, 11:25, WKRC; 10, KYW, WBCN, WGJ, 11:25, WKRC; 10, KYW, WJJD, WQJ, 12; KYW; 12:30, WBBM, WJJD, WQJ, 12; KYW; 12:30, WBBM; WJJD, WQJ; 12, KYW; 12:30, WBBM, WJJD, WQJ; 12, KYW; 12:30, WBBM; 10, WGCN, WGCN, WMBB; 8:50, WBCN, WGCN, WGCN,

WLW, WQJ; 12, WBCN, WQJ; 1,

WQJ. S. June 5: 7, WGR: 7:15, WGY: 8, WBBM, WBCN, WEAR, WMBB: 9, KYW, WBBM, WEAR, WGR: 10, KYW, WBCN, WQJ: 10:30, WJJD; 11, KYW, WQJ: 11:30, WJJD; 12, KYW, WQJ: 12:30, WJJD; 1, WQJ.

Central Standard Time Stations

Saturday, May 30: 6:15, WFAA: 8:40, KTHS; 9, KFRU; 11, KFAB; 11:45, WDAF: 12, WLBL. Sunday, May 31: 9, WAMD; 11. WBAP.

Sunday, May 31: 9, WAMD; 11. WBAP.

Monday, June 1: 6:30, WFAA; 1:30, KFAB, WBAP; 8, KFRU, WOS; 8:30, KFAB; 9:30, WBAP; 10, WOI; 10:30, WOO; 11, WBAP; 11:45, WDAF.

Treesday, June 2: 6:30, WFAA; 11:45, WDAF.

145, WAM; 10:30, KKFRU; 11, KFPLB, WMI; 11:45, WMFA; 11:45, WMFA; 10, KFRU; 11:45, WDAF.

Thursday, June 3: 6:30, WFAA; 11:45, WDAF, Thursday, June 3: 6:30, WFAA; 11. WFAA; 11:30, WFAA; 11:45, WDAF, Thiday, June 5: 6:30, WFAA, 7:30, KFAB; 8, WDAF, WG, 8:30, WHAD, WHO, WSMB; 10, KFVE; 11, KFRU, WMG; 11:45, WDAF.

Mountain Standard Time Stations Monday, June 1: 8, KOA. Tuesday, June 2: 8, CNRR; 9,

CNRR.
Wednesday, June 3: 8, KOA.
Thursday, June 4: 9, CNRC; 10,
CNRC.
Priday, June 5: 8, KOA.

Pacific Standard Time Stations

Saturday, May 30: 7:30, KHJ; 7:45, KFWB; 8, KFI, KHJ; 9, KFWB, KNX; 10, KFWB; 11, KHJ, KNX; 12, KNX. Sunday, May 31: 9, KFWB; 10, KFI, KFWR

Monday, June 1: 6:30, KFWB; 8, KFWB; 9, KFWB; 10, KFWB, KLX. Tuesday, June 2: 7:45, KFWB; 8, KFI, KHJ; 9, KFWB; 10, KFI, KFWB, KNX; 11, KNX.

Wednesday, June 3: 7, KFWB; 7:45, KFWB; 8, KFWB; 8:30, KHJ; 9, KFI, KFWB, KNX; 9:30, KHJ; 10, KFI, KFWB.

KFI, KFWB.

Thursday, June 4: 7:45, KFWB; 8, KFI, KGO, KNX; 8:30, KFWB; 9, KFWB; 10, KFI, KFWB; 10:30, KJR; 11, KNX.

Friday, June 5: 7:45, KFWB, KHJ; 9, KFWB; 10, KFWB; 10:30, KGW; 12, KNX; 1, KNX.



Arthur Hays is the organist who entertain Mrs. Julia Heath (below), the president of gives the daily menu during the women Villa, an Italian opera singer well known it fans by singing



ternational Sunday school lesson, S. M. Yan Shua; strong ternational Sunday school lesson, S. M. Yan Shua; st-0, Malcolou Carment, clarinelist, 8:50, Watchlower Instrumental trib.

Mass. (333.3), 8. p. m. Lee Belsman Hotel Lonce unember; 7:30, U. S. Martne band; 9, best, paper 'Business Psychology;' 9:50, baseball. WCAE. Pittsburgh, P. (461.3), 8:30 p. m. William MCAE. Pittsburgh, P. (461.3), 8:30 p. m. William (VAI. Pittsburgh, P. (461.3), 8:30 p. m. William (VAI. Pittsburgh, P. (425.5), 6. p. m. Moltel Pennsylvania concect orthestra; 7:30, N. Shellenburg and company symphony ordestra: 8, talk, Clara Zillasson; WCAU. Philadelphia, Pa. (425.6), 6. p. m. Forther and the state of the sta

big brother elub; 7:15, musicale; 8, from New York; 9, Asweate Freen Radio artiset; 10, Good-fee Silvertoow WFI, Philadeiphia, Pa. (394.5), 6:30 p. m., Bellerue Siratford concert orchestre: 7, bedture stories; 8, concert from WFI, 9, Advaster Kest Radio artists; WGBS, New York, N. Y. (315.6), 6:35 g. m., Uncle Gebese; 6:30-7, Pearl House orchestra; 7:10-7:39, "What he World 19 Dolty," Independent margin; 7:What he World 19 Dolty," Independent margin; 10-7:39, "What he would not be a second to the world of the World 19 July 10-7:39, "The World 19 July 10-7:39, "

semble, Atwater Each program, and Goodrich Silvertown Cord orchestra.

WHAR, Atlantic City, N. J. (275), 7:30 p. m., Seaside
hotel trio, 5, studio concert; 9, Shelbunn hotel concert

WHIN, New York, N. Y. (360), 77:80 p. m., Silver
Siloper jewie; 7:207-735, health talk, Dr. Landis; 88-3:0, Will Dakahud's Chateau Shanley; 8:30-16,
walderlike headliner; 10:30-11, Clarence Williams and
his trio; 12-19:30 s. m., Parody club revue and orther Fladedspile, Pa. (368-2), 8:65 m. m., Berthanti
Franklin concert orchestra; 7, Tuncle Wilo's bedline
stories; Walter Elsenberg, violinis; 8, prison talks,
Chanlain William Nisson Brenner; 8:15, 114th Inflate Concert orchestra; 75, Acads made ounter; 11,
WIAR, Providence, R. I. (305-9), 8 p. m., program from
New York; 9, Victor presentation; 19, Coordrich Stertown Cord orrhestra.

(405-2), 8:16-8:30 p. m., Field
and Stream talk; 10:30-1130, Billy Wynne's Greenwich
Villago Inn orchestra.

Wilso Inn occiecita.

Wilz, New York, N. Y. (45.2), 7.5 p. m. Berchard.
Levitow's, Rotel. Commotore accinestry; 3.8-10. Wall
Street Journal evelwe; 81.0-8.20, N.Y.U. Air college;
S.38-10, U. S. Marine band, WRC; 10-10-30, Wurlitser
mutrate; 19.0-11, Radio Francis, Wright and Besmutrate; 19.0-1, N. John Francis, Wright and Bescornect, La Carleora.

WLIT, Philadelphia, Pa. (394.5), 7.39 p. m., Dream
Duddy's bestime stories, (341), 3.5 p. m., popular
program; 11-12, Ernie Golden and his Hotel McAlpin
orchestra.

program; 11-12, Ernlo Golden and nie zuwei ausaus-orchestra. WNC, N. Y. (385) 6:50-7, D. m., Bartier, WNYC, New York, N. Y. (385) 6:50-7, D. m., Bartier, WNYC, New York, N. (385) 6:50-7, D. m., Bartier, WNYC, New York, N. (385) 6:50-7, D. m., Bartier, WNYC, New York, N. (386) 6:50-7, D. m., M. (385) 6:50-7, D. (385) 6:50-7, D. (385) 6:50-7, D. m., M. (385) 7:50-7, D. (385) 6:50-7, D. (385) 7:50-7, D. (385

Eastern Standard or Central Daylight Saving Time Stations

Saving Time Stations
CNRT, Ironato, Can. 333), 5:30 p. m., dinner concert,
Luigi Bomanelli and his King Bdward hotel concest
ordestria: 8:30, Acolian cuursti, Victor Artidos, frist
tenor; Lawrence DeFue, second tenor; Charles Silester,
hartione; Arthur VanderVort, bass; Arey Clarke, accommanist; Srick Bartano, cellist; 10:30, Luilal Romanellis câmco orchestra.
Reilis câmco orchestra.
Stockman and Farmer studio; 8:43, teabery time;
10:30, concert.
KYW, Chicago.
III (336), 3 p. m., frolic; 5:35-5,
Unde Bos; 6:4-59, dinner smoort, Congress hotel;
7:20-3:15, Kathring Johnson, soccano; Old H. Jord,
tanor; Meh Jones Harmony overlestra; 8:29, "Mest the

Summer with a Smile," John C. Cutting; 9-10:80, ovening at home program: Editwood headlines; Aerial WBBM, Chicago, III. (125), 8-13 midnight, Lester Kelsey, Harry Sonik, Jerry Cromack, Tiny Dave Nudleman, Crition ordestra, Maridean Borresen, Maurice Man, Crition ordestra, Maridean Borresen, Maurice

ovening at from program; adoltwood headthest, Jerkel, when the season of the season of

N. S. Chenge, 11. (344,6), 5-30 p. m., Raph Emerson, organist; 7:15. Cornhuskers uncert; 7:45. Initially time, Aunt Martha and Under George; 8. E. Waren K. Rowe's classical program; Hand Sins, planist; WLW. Olseidmail, 03bi (42,23), 7 p. m., dinner hour concert; Hotel Gibson orchestra, Robert Viscenti, director; 10, three-minute message, Civil Service Department; University of the Concept Corchestra, Bornard Corchestra, Concept Corchestra, Best Concept Corchestra, Concept Concept Corchestra, Concept C

Mareor, violinist; Mrs. While, accompanist; song hits programs, schwartz. WMAQ. Chicago theater of the programs of the programs. Programs of the programs of t

DANCI (Central T

Central Ti
Saturday, May
Wip: 8:30, K
Webb, Wiz: 9, 1
Wmcs. Wqi, Y
Wre; 10. Ki
Wshg, W am
Wkre; 10:30, K
10:45, Woaw,
Kyw, Wijd, W
11:30, Wsai; 11:
2, Kft, Kgo, F
Knr: 12:05,
Kfwb, Khj.

Monday, Juni Wkro, Wilt, W Wang: 8:30, W 8:45, Wiz: 9, J 9:15, Wor: 9:30, Wang, Weco, W Kloa: 11, K' 11:45, Wdaf; Kgo, Knx.

Tuesday, Jun
Wiar; 8:39, 1
V am d, W c g
Wmca, Wql,
Wgbs; 9:39,
Whn; 10:30,
Kfab, Who, 1
Webh; 11:45,
Kgo, Kgw, K
12:05, Kloa; 1,

Wednesday, J. Wang, Whad, W. Wali, 8:30, W. W. Wijz. Woo; & Weaf, -Wor, Wr. 9:30, Whn; 9:10, Kfi, Wgr, Wtam; 10:36, Wobh; 11, Wij 11:45, Wdaf, Khj, Klx, Knx Kfwb,

Thursday, Jul
Chnic, Weaf, Wi
VII, Wiar; 8::
8:45, Wean; 8::
Wenf, Whn, V
Wre; 9:15, Wan; 10:30, 3
Who, W mak
Wdaf; 12, K
Khl, Kpo; 12:
I, Kiwb, Knx

Friday, Jun. Wilt, Wwy; 8: Webb, Win, V 8: 45. Wahg; 9: 10: Weeo, W Wilt; 10:30, Kfl, Who, W 11:45, Klx, J. Khj; 1.-Kfwh.

Wednesday, June 3

(Continued from page 11)

KSD. St. Leuis, Mo. (545.1), 7 p. m., Lyric Skydome; Silverman's orchestra.

Silverman's orchestra.

1. St. Leuis, Mo. (545.1), 7 p. m., Lyric Skydome; Silverman's orchestra.

1. St. Leuis, Mo. (145.4), 1. St. Leuis, 1. St. Le St. Louis, Mo. (545.1), 7 p. m., Lyric Skydome;

trs; male quartet.

VOC, Oavenourt, la. (483.6), 4-5 p. m., Frances Armil, planist; Mary McLaffer, reader; 5-45-6, chimes concert, 6:30-6-0, Sambana's viait, Vai McLaughlin; 210. Mrs. Frank Ellout, oranist; string tric: Louis Dabm, cellist, Herbert Silberstein, vollolat; Alfred Behm, cellist, Herbert Silberstein, vollolat; Alfred Behm, cellist, Herbert Silberstein, vollolat; Alfred Dabm, Cellist, Herbert Silberstein, vollolat; Alfred Lohnson Directan.

1. Gabase Directan.

must, haseball; 8:30-10:30, entertainment.

Mountain Standard Time Stations
0A. Oskiand, Calif. (322-4), 8 p. m., Fred Schmitt and
bits Righto theater orthesters; 8:10, studio program,
control solot,
Lucile Foucle, Mrs. Honer, solot, association; control solot,
soprano; Richard Bynes, lenor; Jifra John
orader; negte spirituals, Mrs. I. A. Miller; 10-12,
Dave Ginsburg and his Argonaut orchesters.

Dare Ginburg and his Argonaut orchestra.

Pacific Standard Time Stations

KFAE, Pullman, Wash. (348.6), 7:30-9 p. m. Treadwell's orchestra; Maxine McCloy, reader; Spokens trio;
The Columbia River Basin Project, O. L. Waller:
The Columbia River Basin Project, O. L. Waller:
"Summer Peeding for Dairy Cowa," Don G. Magruder;
"Summer Peeding for Dairy Cowa," Don G. Magruder;
"Summer Peeding for Dairy Cowa," Don G. Magruder;
"Summer Peeding for Dairy Cowa,
"Summer Peeding for Dairy Cowa, "Response",
"Relation of Summer Cowa, "Relation o

ings; 8:45-7. Radiotorial talk; 7. Nick Harrit detective story; 7:20, Leobel Chappelle, character analyst; 7:30-8. Retta Eling Nelson, mezzo-sporano, Giendat Isidies ociet, Grace Burke, planist; 8-9. program, by the Examiner Radio girls; Modelve Bardy and fasa Jacques; 10-11, Patrick-Marsh dance orchestra, Betts Patrick, blues dinegr. 643, 6:458-8:16 p. m., Hopper Kelly company program; 8:30-10. Times music. (FWB, Hellywood, Calif. (322), 7:8- pm., program, Beretvridge company; 8-9. program, Arrowhead Canol Carwickel popular more; Charles Beauchters, Carol Carwickel popular more; Charles Beauchters, Carol Carwickel popular more; Charles Beauchters, 10-11, Warner Brothers frolic, direction Charles Wellman.

teber; 10.11, Warner Brothers frolle, direction Chartic Wellman.

13W. Portland, Ore. (491.5), 5-5.39 p. m., children; program; 6-7, Jack Souder's dance orchestra; 8-10, concert, Western Auto Supply company; 10-11, Sher-man, Clay and company studie centre.

concert, Western Auto Supply company; 10-11, Sherman, Clay and company studio concert.

KHJ, Los Angeles, Callf. (495.2), 5:30-6 p. m., Leighton's Arcade cafestria orderstra, Jack Cronshaw, leader; 1-6-8... Art. Hickman's Billmore hotel concert orteriors. American before the concert orteriors and the concert of the conc

Thursday, June 4

Atlantic or Eastern Daylight Saving

Atlantic or Eastern Daylight Dayling
Time Stations
CKAC, Montreal, Can. (410), 6:45 b. m., cabaret,
Windsor hotel tes rooms; 8:30, Canadian National
Railways centraliners.
CNRM, Montreal, Oan. (411), 0 b. m., orchestre, Band-

PRINCETON BASEBALL AT WJZ, WGY



WTAM, Cleveland. Ohio (389.4), 8-7 p. nz., Hotel Skitifer concert. ordestra. WTAS, Eqn. III. (382.9), 8-12 midnight, WTAS orchestra; Frank Morris, Yolfy Willis, Eddle and Fannic Cavanaugh, Coleron Gaw. WW.). Detroit, Mich. (382.7), 6 p. m., dianet concert; r. coccur. Thuil WASM.

NG

ime)
30: 8:05:
1, Ktis.
11, Weaf,
12: 9:30,
12: Kpo.
13: Kpo.
14: Kco.
15: Weco.
16: Weco.
16: Was,
17: Was,
18: Was,
18

8 1: 8, wj; 8:15, eaf, Wco; tli, Wlw; Whn: 10, gr; 10:30, b, Wjid; 12, Ff1, Do; 1,

o 2: 8.

Nobh: 0.

f, Wiy,

o; 9:15.

h; 10.

tw; 11.

f; 11:30.

rdaf; 12.

hj, Kno;

Ktwb.

ne 4: 8, par, Weel, 10, Webh; 1, Wamd, Viz, Wql, max; 10, Webh; 11, 11:45, 20, Kgw, 05, Kfoa;

7, concert from WEAF.

Central Standard Times Stations
CKV. Winnips, Can. (3844.). 8 p. m., CNRW program.
CRW. Winnips, Can. (384.). 8 p. m., CNRW program.
CRW. Winnips, Can. (384.). 8:30 p. m., beditime travel tales; 8, Fert Garry hotel two. Hazel Mills, corrance From Redich, cellist, Emess Caldwell, bartona 10, dague program.
KAB, Lincelin, Nebr. (240), 3-4 p. m., Bialto symphony

Union Star. KFRU, Bristow, Okla. (394.5), 10:30-11:30 p. m., pipe

KFRU, Bristow, Okla. (394.5), 10.30-11:30 p. m., pipe organ. KLDS, Independence, Mo. (268), 8 p. m., program, RLDS, Independence, Mo. (268), 8 p. m., program, Bentice (Irifilhi; address, Bon. J. Allee Prowiti. KTHS, Mot Sarinas National Park, Ark. (374.6), 8:40-39:10-9:30, ordinatra. WAMD, Minneapells, Minn. (243.9), 9 p. m., Earl Ondrey, Emor. Mrs. Molly Mullerand, soprantic; recently WAMD, Minneapells, Minn. (243.9), 9 p. m., Earl Ondrey, Emor. Mrs. Molly Mullerand, soprantic; recently WGBD, Zion, Ill. (344.6), 8 p. m., mixed quarter; Sarinas Grant Mann. Sartone, Miriam Holizingshead, Butlay, Arthur Rendall, clarinetis; George Barton, George Arthur Mann. bartone; Mariam Holizingshead, Butlay, Arthur Rendall, clarinetis; George Barton, George Arthur Mann. bartone; Januari, Herbert Hendrick, rendet St. Paul, Minn. (416.4), 4 p. m., baseball; passed baseball; 7-9, nadional program from WEAF: (9) baseball; 7-9, nadional program from WEAF: (9) baseball; 7-9, nadional program from WEAF: (9) baseball; 7-9, nadional program from WEAF: Minnas (118.6), 6-7, p. m., book talk.

basebad; 6. baseball; 7-9, mxllonal program from WEAR; 9, baseball; WDAF, Kansas Offs, Mo. (365,5), 6-7 p. m., book talk, Louis Medicit; Trianon ensemble; 11;3-51 a. m., Merry OM Chieft, Flantation observes; Johnnie Camp-WFAA, Dallas, Tex. (47-5), 8:307-30 p. m., 156rs Star Pire's seven-pires and inter; \$3:0-9:30, Minclindia quartet; 11-12, 1407sen chiusdre entertitalerer; Hafele Startet; Hafele

Vaugnan Mailo ordenstrus; 9-10, vaugnan italio orchestra; mile quartet.

WOAW, Omaha, Nehr; (320), 6 p. m., every child's
story hour, Grues Sierenson; 6-20, bassball scores; 7.

Seed and Nursery commence; 10:28 orchestra.

WOC, Davenport, 10wa (482,6) 5:48-80, m., house maraccennt schedule; 5:48-6, chilmeg 6:30-6:30, bedding
stories, Val McLaughill; 7-1; WFAF program; 1113. Lonis Conner and his LoClaire hotel orchestra;
WOI, Ames, 10wa (270). 5:15 p. m., musical procram
WSB, Atlantia, Ga. (428,3), 5-6 p. m., Vick Myer's
Molody arists; beddine story, Bonnie Barnhard; 8-2,
Skepbens county quartet; 10:45. Dr. Charles A. SheiNSMB, New Orjean, La. (319), 6:30-7:30 p. m., dinner musicale; 8:30-10:30, secendera.

Manuary Standard Time Stations

Manuary Standard Time Stations

not musicale; 8:30-10:30, seremadera.

Mountain Standard Time Stations

CNSC, Calpary, Can. (435), 7 D. m., beddine travel
tale. Mrs. Conquest; 3, C.N.R. Little Symphony orchestra; Ermest Floridation. violitait; Alf. Catter,
flottat; B. Jögre, charlzelair, Little Symphony orchestray, Ermest Redek lamn, dieters.

Goodrich Silvettown Cord orchestra; 19-11, Johnny Butch's Cabridians.

KBW. Portland. Orc. (491.5), 6-5-30 D. m., children's program; 2-3, Orcesonian concert orchestra; 19-12, KHJ. Loë Angelas, Calif. (495.2), 3:30-6 D. m., Leighton's Arzede cafeteria orchestra, Jack Cronbaw, Leider, 6-5-30, Art Hichman's Biltmore horel concert orchestrates and the capture of the the captu

31-12. Shriner's hour, presenting Shrine band and chanters.

(MX, Hollywood, Calif. (336.9), 5:30-6:15 p. m. Wurtter pine organ studio, Sid Ziff's cannets alik: 6:15-6:30, travel talk, W. B. Alder 6:19-7-20, posteroly, L. 7-30-6, programs, Jones Book store, one-ser play, K.Y. Alder 6:19-7-20, programs, Jones Book store, one-ser play, K.Y. Alder 6:19-7-20, programs, Jones Book store, one-ser play, K.Y. Alder 6:19-7-20, programs, Johnston, S. Alder 6:19-7-20, programs, Johnston, John

Friday, June 5

Friday, signt night for: CHNC, CHIC, CHYC, CKAC, KFKU, KFKX, KFMQ, KFMX, KGO, PWX, WBBR, WCBD, WEAO, WEAW, WFI, WGBS, WGST, WHAZ, WKAQ, WKRC, WLBL, WLW, WMAK, WOAI, WOI, WTC, WREO, WSAG, WSAI, WSUI, WTAM

Atlantic or Eastern Daylight Saving Time Stations

Time Stations

NRA, Moneton, Can. (33), 7:30- p. m., bettume stories; 8:30, C. N. R. Moneton Shors quartet. Robert J. McCharlet. Havatian oddistrix, tubule; 20d Southern Negro melodies; C. N. R. A. dance orchestra. (AHG, Richmond Hill, N. Y. (316.6), 7:45- R. P. M. Arthur F. Walter, baritone; 8:8:30, Burr Meinteth, the cheefful bilicaspher; 8:55-9, Thomas Ring, cornet, but the cheefful bilicaspher; 8:55-9, Thomas Ring, cornet, Canbertl, concert, et al.; 14:10-15, But 19:45-16, M. Lambertl, concert, et al.; 14:10-15, But 19:45-16, M. William F. Dieht; 10:15-10:35, Aschutto Brothers dance orchestra; 11:05-11:45, Aschutto Brothers dance orchestra; 11:05-11:45, Aschutto Brothers dance orchestra;

dance orchestra; 11:30-11:45, Asclutto Brothers dance orchestra; 11:30-11:45, Asclutto Brothers dance with the state of th

cital: 9-40. Sonday School lessons; 10-30, Charles Verma's dance orchestra.

WEAF, New Yerk, N. Y. (491,5) 6-7 p. m., dinner masc, Waldorf-Astoria; 7-715, "authoring," Lotia 7-7-75, "authoring," Lotia 8-7-75, "authoring," Lotia 9-7-75, "

Index to Classical Concerts

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

Eastern Standard or Central Day-

Monday, June 1: 8, CFAC; 8:10, KOA.
Tuesday, June 2: 6, KOA: 7:45, Wednesday, June 3: 8:10, KOA.
Thursday, June 4: 9, CFAC; 10, CFAC.
Friday, June 5: 8:10, KOA.

Pacific Standard Time Stations

Pacific Standard Time Stations
Saturday, May 30: 6, KFOA, KGW,
KHJ; 6:30, KNX; 6:45, KFOA; 8,
KGO, KNX; 8:30, KGOA, KNX; 9, KFI,
KGO; 10, KFI,
Sunday, May 31; 6, KHJ; 6:30,
KHJ; 7, KFI, KGW, KHJ, KNX; 7:30,
KPO; 8, KFI, KNX, KHJ, KPO; 8:30,
KPO; 9, KNX,
Monday, June 1: 6, KFOA, KGW,
KLX; 6:30, KNX; 6:45, KFOA; 7:30,
KLX; CFO; 9, KFI, KNX, KFO; KFOA; KIX,
KFO; 5, KFI, KNX, KFO; S; 5,
KLX,
Tuesday, June 2: 6, KFOA, KHJ;
Tuesday, June 2: 6, KFOA, KHJ;
Tuesday, June 2: 6, KFOA, KHJ;

KGW.
Thursday, June 4: 8. KFOA. KHJ:
6:30. KNX: 7. KFI. KFO7. 7:30. KNX:
8. KFI. KGW. KHJ. KPO; 9:30. KNX:
8. KFI. KGW. KHJ. KPO; 9:0. KFI.
Friday, June 5: 6. KFOA. KHJ.
KLX: 8:45. KFOA. 7:30. KNX: 8.
KFI: 8:30. KFOA. KJR: 9. KGW.
KNX: 9:15. KJR; 9:30. KJR: 10. KFI.
KNX.

atternoon musicale, A. J. Erleman, divelor; 7-7 [3], W. A. Winger's Croteent Park entertainers; 9-9 [3], rectail by the Misses Weiners and Freedin; 9-16 [10-30, Melodette Isalias' ordinates; 10:30-11, design musical projection, "BIL" Wilson; 11 1. m., stilloridance music, Vincort Loges Rock Stather dance ordertra, Heroid Glober, directors

dance minde, Vincent Lopes Hotel Statler dance orcinetra, Harold Gleier, director,
WHAR, Atlantic Gly, N. J. (27 John R. Seaside
WHAR, Atlantic Gly, N. J. (27 John R. Seaside
Straud thesis Submirms hotal concert orchestra; 1.
Straud thesis Submirms hotal concert orchestra; 1.
WHN, New York, N. Y. (360), 7:30-7.37 a. m., health
talk, Dr. Landis; 9:39-710, Clorer Guffens entertainment; 10:39-11 Resealing charce orchestra; 10:39-1
ment; 10:39-11 Resealing charce orchestra; 12:31:20 m., Faroly clab
revue and orchestra; 12:31:20 m., Faroly clab
Roberts Statistics orchestra; 7. Duele Why a beddient
stortical scarced source charce; or beginners department
WIAR, Providence, H. L. (305.9), S. p. m., nupsical programs; 9. Maine crassing hour; 11, Providence Billmore hotal orth citys.
WIAR (2005.) Tuping and providence or the statistics of the stati

WIZ. New York, N. Y. (454.5), 4:13-4:30 p. m., Myro-Claca, bartlone; 7:6. Savenin entendre; 8:8:10, Wall Street Journal evelve; 3:10-3:20, Excellent evelve; 3:10

WOO, Philadelphia, Pa. (608.2), 7:30 p. m., A. Can-delorl's concert orchestra; 0, WOO orchestra; 10, organ recital, Mary U. Vogt; 10:30, Vincent Rizzu's dance orchestra.

of Callings Sal

(Continued on page 14)

An Evening at Home with the Listener In

INSTRUCTIONS FOR USE OF TABLES

INSTRUCTIONS FOR USE OF TABLES

The periods given in 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 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; Uso table for Pacific time but add one hour to every figure given.

Listeners using Mountain time; Uso table to 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 Bastern daylight saving, or Atlantic time; Use Eastern time table by adding one hour to every figure given.

Listeners using Central daylight saving or the content of the whole. Keep 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 ourrent issue at the side of your receiver.

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

the side of your receiver.

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Friday, June 5

(Continued from page 13)

(Continued from page 13)

WOR. Newerk, N. J. (405.2), 9:13-6:30 p. m., Hotel Lorraine orchestra; 8:30-7. Man in Moon stories; 7:39, Hotel Lebrates orthestra.

Eastern Standard or Central Daylight Stations

KDKA, Pittsburgh, Pa. (309.1), 2:30-5 p. m. baseball sorres; 7, baseball; 8:45, consert.

KYW, Chicago, Ill. (320), 5:35-3 p. m., dinner oneset.

KYW, Chicago, Ill. (320), 5:35-3 p. m., dinner oneset.

KYW, Chicago, Ill. (320), 5:35-3 p. m., dinner oneset.

KYW, Chicago, Ill. (320), 5:35-3 p. m., dinner oneset.

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KYW, Chicago, Ill. (320), 5:35-3 p. m., dinner oneset.

KYW, Chicago, Ill. (320), 5:35-3 p. m., dinner oneset.

WBAY, Columbus, Onte (381.7), 5 p. m., m., musical norset.

WBAY, Columbus, Onte (381.7), 5 p. m., m., musical more oneset.

WCEE, Elgin, Ill. (275), 10:30-12 ultdnight, Joe Ru
Gold, Tavior, Herod Coll., Jimus, Eggett, Peggy Mc
Culters

WCEE, Elgin, Ill. (275), 10:30-12 ultdnight, Joe Ru
Gold, Tavior, Herod Coll., Jimus, Eggett, Peggy Mc
Culters

WCEE, Elgin, Ill. (275), 10:30-12 ultdnight, Joe Ru
Gold, Tavior, Herod Coll., Jimus, Eggett, Peggy Mc
Culters

WCEE, Elgin, Ill. (375), 10:30-12 ultdnight, Joe Ru
Houri, S-11, dance music, Arcadia Audioctions, musical program; 10:40-40, 10:30-40,

soptano. VHT, Chicago, III. (399.8), 7-8:30 p. m., classical program; 10:30-1, Husk O'Hare's Red Dragons; Al Carney, organist; John Clark; Herble Mintz; Ransoma

WHT, Chicato, III. 102-rov). The Chicato and Chicago. The Chicato and Chicago. The Chicago. The

program, J. C. Seaton Figure Company, Lord questions and answers.

Q. Chicago, H. (447.5), 7.5 p. m. Rajho Williams and his Rainbo Garden urchestra; Otls Pike Jeater, which is the property of the property o

baumonge and bremmer, take Calwest; 1-2, Ginger WREO, Lanisa, Mich. (285.5), 10 p. m., baschall. WTEO, Lanisa, Mich. (285.5), 10 p. m., baschall. WTEO, Lanisa, Mich. (285.5), 10 p. m., baschall. WTEO, Lanisa, Colombia, Calwest, Calwest,

Datchall: 6. baseball: 8:15. Original George Chappy.
Nicolita hotel ordinetts: 5:30 musicale: 8. baseball: 10. Original George Osborni: Nicolita hotel ordinetts: 8:30 musicale: 8. baseball: 10. Original George Osborni: Nicolita hotel ordinetts: WDAF, Kanasa City, Me. (365.6), 6-7 p. m., spouche: Rainasa City children's bureau; Trianon ensemble; 8. Plantation halves: Clarita Demburgers Results: City Allette club program: 11.51. Merry Olu Claid: Merry Olu Claid: Merry Olu Claid: Allette club program: Claid: Service of the Merry Olu Claid: Allette club program: Claid: Service of the Merry Olu Claid: Allette club program: Claid: Service of the Merry Olu Claid: Allette club program: Claid: Service of the Merry Olu Claid: Allette club program: Claid: Service of the Merry Olu Claid: Allette club program: Relation Claid: High School band. Olavis: Rainy Merry Olu Claid: Allette ordinetts: Service of the Merry Olu Claid: Allette ordinetts: Service of the Merry Olu Claid: Allette ordinetts: Service ordinetts: Allette ordinetts: Service ordinetts: Merry Olu Claid: Service ordinetts: Service ordine

Mountain Standard Time Stations
CNRE, Edmenton, Can. (316,9), 6 p. m., dinner pro
gram, MacDonald holel; 745, Jingles Kiddiets bedire
story; 8:30, program, winners of the Alberts musics
story; 8:30, program, winners of the Alberts musics
KOA, Oakland, Calif. (322,4), 8 b.
and his Riatio theater orchestra; 8:10, KOA player
mingstel show theater orchestra; 8:10, KOA player
mingstel show theater orchestra; 8:10, KOA player

Pacific Standard Time Stations FACINE STANDARD I IME STATIONS

(FAE, Pullman, Wash, (34.6), 7.39-9 p. m., Delt national surority; Virginia Crites, reader; Jean Sc Allgood, vectatist; Lois Criman, motion 102; Milled Allgood, vectatist; Lois Criman, motion 102; Milled Scrima, contratto, Dorothy Hutchison, Ruth Wikkin scriman; Fighting Garden Enemies; M. D. Arm Edding; talk on new boots, Alice L. Webb; "The Fee Wandeserven across of Degrade Culture Work," Dr. S. C.

steiner, talk on new books, Alice L. Webb; "The Beosewic Biopriance of Legune Culture Work," Dr. S. C.
Vandesavex.

Vand

7:35-2:35, studio, program; 9:45-10:30, Sweet's balirown.

No. 1997 of the control of the control of the control

No. 2007 of the control of the control of the control

Studies of the control of the control of the control

Beverty Hills Nurseries; 7:30-8, program of maister

gress Eastern Outfitting coupany; 8-6, West Control

Thesires by smoote control; 9-19, Order of the Cipto
Large Market of the control of the control of the control

Consmit Gauss dance control; 9-10, Order of the Cipto
Large Market of the control of the control

Consmit Gauss dance control; 9-10, Order of the Cipto
Large Market of the control

Consmit Gauss dance orchestra from Ambaissador hotel,

13-2 a. m., Wurlitzer Nissh Hawks.

(PO, San Francisco, Calil. (423-33, 3:30-4:45 p. m.,

Initractions in Auction Eliza, Heisen M. Hubbard;

4:30-4:39, Rody Selers's Fairment hotel orchestra 6:05
Room Bowl orchestra; 5-11, Gens Janes Rose Houn

Bowl orchestra;

Bottoit News orchestas, 9, Jean Godhette's Victor Recording correstra.

Central Standard Time Stations
CKY, Winnless, Cen. (384.4), 8:30 p. m., concert party from Carman.
KFAB, Lincoln, Nebr. (240), 7:30-93 p. m., Maryaville, Ransa, program.
KFDM, Beaumont, Teras (34.6), 7-7:30 p. m., chillength of the Company's Refinery Danis, Standard Standard Company's Refinery Danis, Standard Company's Refinery Danis, David Company's Refinery Danis, Company's Refinery

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at of	Call	Met.	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Met	Call
n-	AT9 CFCA	435 356.9	Silent	3:00 · 4:00 4:00 · 5:00	Silent Silent	Stlent 5:15- 6:15	Silent 5:15- 6:15	5:00- 7:55	Sfloat	435 356.1	AT9 CFCA
on	CFCN	434.5 356.9	9:00-11:00 Si)ent	Silent	Silent 5:30-6:30	Silent	Silent Silent	7:00- 8:00 Silent		434.5	CFCN
u- īs.	CJCA	516.9 410.7	8:00-10:00 4:30- 9:30	6:30 - 7:30 1:30 - 2:30	6:30 - 8:30 Silent		5:00- 7:00 Silient		7:00-11:00		CJCA
in ed	CKY	384.4	Silent	5:00- 6:45 Slient	Silent Silent	5:30- 8:00 4:30- 5:30	Silent	6:00- 7:00 Silent	5:30 - 8:00 4:30 - 5:30	384.4	CKY
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re	KDKA KFAB	309.f	4:45- 6:55 9:00-10:30	12:00- 4:30 2:00- 3:00	4:45- 6:55 5:30- 8:00	5:00- 9:80 Silent	4:45- 6:55 5:30- 8:00	4:15- 9:00 Stlent	4:45- 6:55 5:30- 8:00		
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er at	KFD M KFI	315.6 467	Silent 6:45-11:00	Silent 4:00-11:00	Silent 6:45-12:00	6:45-12:00	Silent 0:45-12:00	Silent 6:45-11:00	6:00- 7:00 6:45-12:00	315.6	K F D M
at	KFKU KFKX	275 288.3	Silent Silent	Silent	4:50 - 6:45 7:30 - 9:00	Silent	Silent	4:50- 6:45 7:30- 9:00	Silent	275 288.3	KFKU
re	KFMQ KFMX	299.8 336.9	Silent	Silent 5:00- 6:00	Silent Silent	7:00- 8:00 8:00- 9:00	Stient . 7:00- 8:00	5:30- 0:30 Silent	Stlent	299.8 336.8	
on is	KFNF KFOA	265 454.3	5:30- 6:30 6:00-11:30	4:30- 7:30 Silent	5:30-6:30 6:00-10:00	Silent 6:00-11:30	5:30- 6:30 6:00-10:00	5:39- 6:30 Silent	5:30- 6:30 6:00-11:30	266 454.3	KFNF
be	KFUO	394.5 545.1	5:30-10:00 Silent	3:00- 5:00 7:15- 8:15	5:00 - 8:30 Stlent	8:30-10:00 Bilent	6:00- 8:30 7:15- 8:15	8:30- 9:30 Slient	9:00-11:00 Silent	545.1	KFUO
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D's	KGO KGW	361.2 491.5	8:00-10:00 6:00-10:00	3:30- 9:00 3:00- 8:00	8:00- 1:00 6:00- 7:00	7:45~ 1:00 8:00~ 1:00	Silent	8:00-1:00 8:00-12:00	7:45- 1:00 SHent	252 361.2	KGO
tra.	KIAF	405.2	6:00- 2:00	6:30-10:00	8:00-10:00	8:00-32:00 6:00-11:00	8:00-12:00 6:00-11:00	6:00-11:00	9:00-12:30 6:00-11:00	405.2	KHJ
luf,	KIR	384.4	Silent	2:00- 3:00 7:00- 8:00	7:00 - 8:00 6:00-10:00	Silent Bilent	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 KIR KJS
all son	KLX	293.9 508.2 336.9	Silent Silent 6:30-2:00	7:15-9:30 Stlent 5:00-11:00	Silent 6:00-11:00 6:30-12:00	8:00- 9:00 8ilent	Silent 6:00-11:30	8:00- 0:00 Stient 6:30-12:00	Silent 6:00-10:80	293.9 508.2	KLX
rdy ill,	KOA KOB	322.4 348.6	8:00-11:00 Silent	3:30- 7:30 Silent	7:00- 8:00 6:30- 7:30	6:30-12:00 Silent Silent	7:00-12:00 7:00-11:00 Silon	Silent Silent	6:30- 2:00 7:00- 8:00 6:30- 7:30	336.9 322.4 348.6	KOA
ro- ic-	KP0 KSD	428.3 545.1	6:25-12:00 5:00- 7:30	6:30-10:00 SHent	6:30-11:00 5:30- 9:00	6:30-11:00 4:00- 9:00	6:30-11:00 5:00- 6:00	6:30-11:00 Stlent	7:00-11:00 6:30- 8:00	428.3	KPO KSD
ha	KSL KTHS	261 374.8	7:00-10:00 6:30- 7:45	8:00-10:00 6:30- 9:30	7:00-10:00 6:30- 9:00	8:00-10:00 6:30- 8:45	7:00-10:00 6:30- 8:45	7:00-10:00 6:30- 8:45	8:00-10:00 6:30- 8:45	261 374.8	K8L KTHS
lk; lob	KTW KYW	435 535.4	Silent 4:00-10:30	7:00- 9:30 1:00- 5:00	Silent	Silent 4:00-78:30	Silent 4:00-10:30	Silent 4:00- 8:30	Silent 4:00-10:30	455 535.4	KTW KYW
n., es-	NAA PWX	434.5 400	Sileot 5:30- 8:00	Silent	1:45- 5:00 Silent	4:45- 5:00 Silent	4:25-5:40 5:30-8:00	4:45- 5:00 Sileot	4::5- 5:00 Silent	434.5 400	NAA
on ra;	WABL	275 244	Silent Silent	Silent Silent	4:00- 6:00 7:00-10:00	Silent	4:00- 6:00 Silent	Silent 7:00-10:00	4:00- 6:00 Silent	275	WASL
16.	WAHG	315.6 243.8	9:00-11:00 8:00- 9:00	Silent 12:00- 8:00	4:00-10:00 Silent	Silent	3:30- 8:00 8:00- 9:30	Sifent 8:00- 9:30	4:00-7:30 8:00-9:00	315.6 243.8	WAHG
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	WBZ WCAE	333.3 461.3	3:30 - 5:55 4:00 - 5:30	3:00 - 6:00 Silent	3:30- 5:55 4:30- 8:00	3:30- 5:55 4:30- 7:00	3:80- 7:05 4:30- 7:30	3:30~ 8:45 4:00- 7:00	Silent 4:30- 5:30	333.3 461.3	WBZ
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An Evening at Home with the Listener In

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Call AT9	Saturday Silent	Sunday 5:00- 6:00	Monday	Tuesday Silent	Silent	7:00- 8:55	Friday Silent	AT9	Location Fort Bragg, N. C	Met.	Saturday	Sunday 6:00 - 7:00	Monday	Tuesday Silent	Wednesday	8:00- 9:55	Friday	Call
CFCA CFCN CHNC	Silent 11:00- 1:00 Silent	6:00- 7:00 Silent Silent	Silent Silent 7:30-8:30	7:15- 8:15 Silent Silent	7:15- 8:15 Silent Silent	7:15- 8:15 9:00-10:00 Silent	Silent Silent Silent	CFCA CFCN CHNC	Toronto, Ont	356.9 434.5 356.9	Silent 12:00- 2:00 Silent	7:00- 5:00 Silent Stlent	Silent Silent 8:30- 9:30	8:15- 9:15 Silent Silent	8:15- 9:15 Silent Silent	8:15- 9:15 10:00-11:00 Silent	Silent Silent Silent	CFCA CFCN CHNC
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KFMQ KFMX	Silent Silent 7:30-8:30	Silent 7:00- 8:00 6:30- 9:30	Silent Silent 7:30-8:30	9:00-10:00 10:00-11:00 Silent	Silent 9:00-10:00 7:30- 8:30	7:30- 8:30 Silent 7:30- 8:30	Silent Silent 7:30- 8:30	KFMQ KFMX KFNF	Fayetteville, Ark Northfield, Minn Shenandoah, Ja	299.8 336.9 266	Silent Silent 8:30- 9:30	Silent 8:09-9:00 7:30-18:30	Sitent Sitent 8:30- 9:30	10:00-11:00 11:00-12:00 Silent	Silent 10:00-11:00 8:20- 9:30	8:30 - 9:30 Silent 8:30 - 9:30	Silent Silent	KFMQ KFMX KFNF
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KIAF	8:00-4:00 Silent	8:30-12:00 4:00-5:00 9:00-10:00	9:00-10:00 8:00-12:00	Silent Silent	9:00-10:00 10:30-12:00	8:00- 1:00 Silent 12:30- 2:00	8:00 · 1:00 9:00-10:00 10:30-12:00	KIAF KJR	Los Angeles, Calif Sibtipok, Minn Seattle, Wash	405.2 421 384.4	9:00- 5:00 Silent Silent	9:30-1:00 3:00-4:00 10:00-11:00	8:00- 9:00 9:00- 1:00	9:00- 2:00 Silent Silent	9:00- 2:00 8:00- 9:00 11:30- 1:00	9:00- 2:00 Silent 1:30- 3:00	9:00- 2:00 8:00- 9:00 11:30- 1:00	KIAF
KTX K18 K1B	Silent Silent Silent	9:15-11:30 Silent 7:00- 1:00	Silent 8:00- 1:00 8:30- 2:00	10:00-11:00 Sileot 8:30- 2:00	Silent 8:00-1:30 9:00-2:00	10:00-11:00 Slient 8:30- 2:00	Silent 8:00-12:30 8:30- 4:00	KTX	Los Aogeles, Calif Oakland, Calif	293.9 508.2 336.9	Silent Silent 9:30- 5:00	10:15-12:30 Silent 8:00- 2:00	Silent 9:00- 2:00 9:39- 3:00	11:00-12:00 Silent	Silent 9:00- 2:30	11:00-12:00 Silent	Silent 9:00-1:30	KIS KLX KNX
KNX KOA KOB	8:30-4:00 10:00-1:00 Stient	5:30- 9:30 Silent	9:00-10:00 8:30- 9:30	Sileot Sileot	9:00- 1:00 SHent 8:30- 1:00	Silent Silent 8:30- 1:00	9:00-10:00 8:30- 9:30 9:00- 1:00	KOB	Hellywood, Calif Denver, Cala State College, N. M	322.4 348.6	11:00 - 2:00 Silent 9:25 - 3:00	6:30-10:30 Silent 9:30-1:00	10:00-11:00 9:30-10:30	9:30- 3:00 Silent Silent	10:00- 3:00 10:00- 2:00 Silent	9:30- 3:00 Silent Silent	9:30-5:00 10:00-11:00 9:30-10:30	KOA KOB
KPO KSD KSL	8:25 - 2:00 7:00 - 9:80 9:00 - 12:00	8:30-12:00 Silent 10:00-12:00	8:30-1:00 7:80-11:00 9:00-12:00	8:30-1:00 6:00-11:00 10:00-12:00	7:00-8:00 9:00-12:00	Stient 9:00-12:00	7:30-10:00 10:00-12:00	KPO KSD KSL	San Francisco, Calif St. Louis, Mo Snit Lake City, Utah	428.3 545.1 261	8:80-10:30 10:00-1:00	Silent 11:00- 1:00	9:30- 2:00 8:30-12:00 10:00- 1:00	9:30 - 2:00 7:00 - 12:00 11:00 - 1:00	9:30 - 2:00 8:00 - 9:00 10:00 - 1:00	9:30 - 2:00 Silent 10:00 - 1:00	8:30-11:00 11:00- 1:00	KPO KSD KSL
KTH8 KTW	8:30- 9:45 Silent	9:00-11:30 9:00-11:30 3:00- 7:00	8:30-11:00 Silent	8:30-10:45 Silent 6:00-10:30	8:30-10:45 Slient 6:00-12:30	8:30-10:45 Silent 6:00-10:30	8:30-10:45 Silent 6:00-12:30	KTHS KTW KYW	Hot Springs, Ark Seattle, Wash Chicago, III	374.8 455 535.4	9:30-10:45 SHent 7:00- 1:30	9:30-12:30 10:00-12:30 4:00- 8:00	9:30-12:00 Silent	9:30-11:45 Silent 7:00- 11:30	9:30-11:45 Silent 7:00- 1:30	9:30-11:45 Silent 7:00- 11:30	9:39-11:45 Sflent	KTHS KTW KYW
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WABL WABN WAHG	Silent Silent 11:00- 1:00	Silent Silent Silent	6:00 - 8:00 9:00 - 12:00 6:00 - 12:00	Silent Silent Silent	Silent 5:30-10:00	9:00-12:00 Silent	Bilent 8:00- 9:30	WABL WABN WAHG	La Cresce, Wis Richmond, N. Y.,	244 315.6	Silent 12:00- 2:00	Silent Silent Silent	7:00 - 9:00 10:00 - 1:00 7:00 - 1:00	Silent Silent Silent	7:90- 9:00 Si)ent 6:30-11:00	Silent 19:09- 1:00 Silent	7:00- 9:00 Silent 7:00-10:80	WABN
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WBAV	7:00-12:00	8:00- 9:00	7:00- 9:00 Sitent	7:00-11:00	7:00- 9:00 Silent	7:00-11:00 6:00- 6:50	7:00- 8:00 7:00- 9:00	WBBM	Chicago, III	293.9 226 272.6	8:00- 1:00 7:00- 7:45	Silent 4:00-10:00 8:00- 9:05	8:00-10:00 Silent	8:00-12:00	Silent 8:00-10:00	Silent 8:00-12:00	8:00-20:00	WBBM WBBR
WBBR WBCN WBZ	6:00- 6:45 8:00-12:00 5:30- 7:55	7:00- 8:05 4:00-11:00 5:00- 8:00	6:00 - 6:50 Stient 5:30 - 7:55	Silent 8:00- 2:00 5:30- 7:55	7:00-11:00 5:30- 9:05	8:00-1:00 5:30-10:45	Silent 8:00-12:00 Silent	WBBR WBCN WBZ	Staten Island, N. Y Chicago, III Sgringfield, Mass	266 333.9	9:00 - 1:00 6:30 - 8:55	5:00-12:00 6:00-9:00	7:00- 7:50 Slient 6:30- 8:55	\$11ent 9:00- 3:00 6:30- 8:55	Silent S:00-12:00 6:30-10:05	7:00-7:50 9:00-2:00 6:30-11:45	9:00- 1:00 Silent	WBCN
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WDWF WEAF WEAO	Silent 4:00-10:00 Silent	3:90- 4:45 5:20- 8:15 Silent	Silent 4:00- 9:80 Silent	6:30 - 7:30 4:00-10:00 Silent	4:00-10:00 7:00- \$:00	4:00-10:00 7:00~ 8:00	4:00-10:00 Silent	WEAF	New York, N. Y Columbus, Ohio	491.5 293.9	5:00-11:00 Sitent	6;20-9:15 Silent	Silent 5:00-10:30 Silent	5:00-11:00 Sitent	Silent 5:00-11:00 8:00-9:00	Silent 5:00-11:00 8:00-9:00	5:00-11:30 5:00-11:00 Silent	WEAF WEAD
WEBH WEBJ	Silent 6:80-11:30 Silent	2:00- 9:00 6:00- 8:00 Silent	6:00- 7:00 Silent Silent	6:00-10:00 6:30-11:30 6:00-7:00	5:15- 6:45 6:30-11:30 5:00- 7:00	6:00-10:00 6:30-11:30 Silent	6:00-10:09 6:30-11:80 6:00- 7:00	WEBH	Chicago, Ill New York, N. Y	389.4 370.2 233	Silent 7:30-12:30 Silent	3:00-10:00 7:00- 9:00 Silent	7:00- 8:00 Silent Silent	7:00-11:00 7:30-12:39 7:00- 8:00	6:45-7:45 7:30-12:30 6:00-8:00	7:00-11:00 7:30-12:30 Silent	7:00-11:00 7:30-12:30 7:00- 8:00	WEBH
WEEL	Silent	5:20- 8:20 6:00-11:00	8:30- 9:45	8:30- 9:45 6:00- 9:00 6:30-12:00	Silent 6:00- 9:00 Silent	5:00- 9:00 6:30-12:00	Stlent 6:00- 9:09 6:30- 9:39	WEEL	Boston, Mass	26B 475.9 475.9	Silent Silent 9:30-1:00	5:25- 6:30 6:20- 9:30 7:00-12:00	9:30-10:45 7:00-10:00 7:30-10:80	9:30-10:45 7:00-10:00 7:30-1:00	7:00-10:00 Silent	7:00-10:00 7:30-1:00	7:00-10:00	WEE
WFAA WFBH WFI	8:30-12:00 0:30-12:00 6:00- 9:00	3:00 - 5:00 2:00 - 3:00	6:30- 9:30 9:30-12:00 Silent	9:30-12:00 6:00- 8:00	9.20-12:00 Eilent	9:30-12:00 8:00- 9:00 4:00-11:00	9:30-12:00 Silent	WFBH WFI	New York, N. Y Philadelphia, Pa	272.6 394.5 315.6	10:30-1:00 7:00-10:00 5:00-11:00	4:00 - 7:00 3:00 - 4:00 2:30 - 9:30	10:30- 1:00 Silent	10:30- 1:00 7:00- 9:00 5:00-11:00	10:30- 1:00 Silent	10:30-1:00 7:00-10:00		WFBH WFI WGBS
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WGR WGST WGY	Silent Silent 8:30-11:00	2:00- 6:30 Silent 2:35-10:00	9:30-9:30 9:00-10:00 5:30-7:30	6:00- 9:00 Silent 6:30-11:30	6:00- 9:00 Silent Silent	6:00- 8:00 7:00- 8:00 6:30-11:30	6:45 - 9:00 Silent 6:30-10:30	WGST	Atlanta, Ga Schenectady, N. Y	319 270 379.5	Sitent 9:30-12:00	3:00- 7:80 Silent 3:35-11:00	7:30-10:00 10:00-11:00 6:30-8:30	7:00-10:00 Silent 7:30-12:30	7:00-10:00 Silent Silent	7:00-10:00 8:00- 9:00 7:30-12:90		WGST
WHA	Silent 6:00- 7:00	Silent 2:00- 3:00 4:00- 5:00	7:45- 8:45 6:00-10:00	Silent 6:00- 7:60 7:30- 9:30	9:90-10:00 6:00-12:30 7:30- 9:00	Silent 6:00-10:00 7:50- 9:00	7:45 - 8:45 6:00-10:00 7:30 - 9:00	WHAR	Madison, Wis Milwaukee, Wis Leuisville, Ky	535.4 275 399.8	Sijent 7:00-8:00 8:30-10:00	Bilent 3:00- 4:00 5:00- 6:00		Silent 7:00 - 8:00 8:30-10:30	10:00-11:00 7:00-1:30 8:30-10:00	Silent 7:00-11:00 8:30-10:00		0 WHAO
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WHT WIP WJAR	6:00-1:00 8:00-10:05 Silent	6:00- 8:30 2:15- 3:15 5:20- 8:15	6:00- 1:00 Blient 6:00- 8:00	6:00-1:00 6:00-11:00 5:30-8:00	6:00- 1:00 Sllent 6:00- 8:00	6:00-1:00 6:00-11:00 6:00-9:00	6:00-1:00 Sllent 6:00-10:00	WJAR	Philadelphia, Pa Previdence, R. I	508.2 305.9	7:00-11:05 Slicot	8:15- 4:15 6:20- 9:15	Silent 7:00- 9:00	7:00-12:00 6:30- 9:00	Silent 7:00-10:00	7:00-12:00 7:00-10:00	0 Silent	WIP WJAR
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WKAR WKRC WLBL	11:30 - 1:00 9:00 - 1:00 11:59 - 12:59	Silent 5:45-11:00 Silent	6:00- 7:00 7:00- 9:00 Silent	9:00- 1:00 8:00- 9:00	7:00- 9:00 Silent	7:00-9:00 8:00-9:00 Sllent	Stient	WLBL	Cincinnati, O Stevens Point, Wis Philadelphia, Pa	422.3 278	12:59 - 1:59	6:45-12:00	8:00-10:00 Silent Silent	9:00-10:00 6:45-10:0	8:00-10:00 Silent		Bilent	WKRC
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WMC WMGA	8:30- 9:30 7:00-10:00	Silent 1:00- 5:00 6:30- 8:30	8:30-9:30 7:00-10:00 5:00-9:00	8:30-12:00	Silent 7:00-10:00 5:00-9:00	8:33-9:30 7:00-10:00	8:80-12:00 7:00-10:00	WMC	Memphis, Tena New York, N. Y	499.7 340.7 280.2	8:00-11:00	2:00-6:0		8:00-11:0	0 Silent 0 8:00-11:00	9:30-10:3	0 9:30~ 1:0 0 8:00~11:0	0 WMCA
WNAC WNYC WOAI	8:00- 9:00 4:30- 8:20 Silent	7:00- 9:00 7:30-10:30	5:00- 8:20 Silent	5:20- 8:20 8:30-10:20	5:30 - 8:30 Silent		5:30- 8:20 Silent	WNYC	New York, N. Y San Antonio, Texas	. 526 . 394.5	5:30-9:20 Silent 7:00-1:15	8:36-11:3	6:00-9:20 Sllent	9:30-11:3	6:30-9:30 Silent		0 4:30- 9:2 0 Silent	WNYC WNAC
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Radio Digest

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Vol. XIII

Saturday, May 30, 1925

A New Sensational Circuit

R ADIO DIGEST this week presents a revolutionary Radio circuit. This publication has scooped the world in presenting first and exclusive information on the work of three well-known authorities who have been experimenting—independently—on the same identical scheme for improving tuned radio frequency am-

Radio Digest wishes to call the attention of its readers to the fact that this hook-up is a real improve-ment and development in Radio, and not a rearrangement and development in Radio, and not a rearrangement of the parts of some antique hook-up which has been improved mainly by the addition of the name of the man who dng it up from the archives of 1912 or even before then.

That is the policy of this publication—to be first with the latest, and to be sure it is the latest. As for accuracy, well, accuracy is to be expected from every publication, Radio or otherwise.

Pitch in and Help

Congestion of the air still remains with us. It will continue to do so until a righteously wrathful public decides to take some action. Evidently that time is almost here, for the campaign against congestion which this publication is waging, is meeting with unexpected success.

unexpected success.

Hundreds of newspapers, broadcasting stations and Radio clubs, and thousands of individual listeners are enlisting their help in this campaign. That is good, but it will take all of this help to get a representative vote from two million listeners on the subject. Have you expressed yourself? How about your neighbors with receiving sets? Pitch in and help to clarify the air. It is to your best interests.

Courtesy in Dividing Time

Courtesy in Dividing Time

"This is WCAE, Pittsburgh, signing off for the Inight. We hope you get KFI. Good night." Such is the polite farewell of a station which is dividing time with auother on the same wave length. WEBH, Edgewater Beach hotel, and WGN, the Tribune, Chieago, are two more station dividing time on the same wave length. They follow a similar courtesy in their sign-offs.

What a splendid way to handle a situation resulting from the large number of stations on the air! From the listener's standpoint such courteous broadcasters immediately rise in one's estimation.

Radio Versus Jazz and Gin

COMES a letter from a mother of eleven children addressed to KOA, Denver station of the General Electric company. "Your broadcasts are helping greatly to bring our children back to normalcy," says she. "They are solving the problem of keeping my family at home."

Radio versns gin, jazz and petting parties presents an interesting sidelight. The home was the original place of entertainment, but today it has competition in the form of antomobiles, dance halls, theaters and many other modern means of anusement. The up-todate methods of diversion are perfectly harmless providing the gin and petting parties are crossed out.

viding the gin and petting parties are crossed out.

But as a rule the latter accompany the former. The
good judgment of youth is not always developed to
the stage it should be, and so gin and petting parties
hold their sway. Unchaperoned, as modern practice
demands, our children are not restrained, but proceed
to taste life in its every form. Oftentimes the result

Is sad.

But now comes Radio as a competitive form of amusement. Children are staying home to listen in. Youth is holding its Radio dancing parties in the home, and is chaperoned by wiser heads.

It is said that for every evil there is a counter in the form of some good. Broadcasting seems to be the counter much needed by the country at this moment.

RADIO INDI-GEST

Somebody's Wrong

Now Armstrong Marconi Flewelling Whit Was tall and young and dark and slight, Until he'd had an awful fright, Which shriveled him and made him white.

Made him while and old and bent, Till he looked like the skeleton of a dent.

There'd been au awfully coolish Lent
Before he became shriveled and bent,
Which some people said was so terr'bul cold,
That he shook like the tongue of a mean old scold,
Until he settled like sugar or sand,
That you shake, till it packs, in the palm of your hand.
But that's a tale that's hard to believe,
'Cept, perhaps, on a Halloween eve.

Besides, I can tell the whole of the truth Direct as I got it from Benjamin Booth, Who claims that the same thing broke his tooth, And was one of those shortest of Radio waves, That's so short it's too wriggly for one that behaves.

White was so long he was right ou its tune,
And it took to him like soup to a spoon,
And wriggled and wriggled, till it shriveled him up
And left him as quick as a flea a dead pup,
'Cause when he shortened he went out o' tune,
Which happened not a bit of a minute too soon.

And it got out so quick when it left poor White,
That it didn't pay attention to where it would light,
And it hit poor innocent Benjamin Booth,
And busted his only good, undecayed tooth,
And that, you can believe, case it the whole of the
truth. 5XV.

The Onward March of Education
"-With no other form of amusement available, lumberjacks find that isolation in the forest is driving them into listening even to educational programs over the Radio."

C. W. R.

Where the A. T. & T. Dividends Come From

The Radio Bug

I've heard of hugs, large and small, But there's a new varlety that beats them all. They stick around just like a leech, And listen to the statle sereech.

Listen—Here's station XYZ, Now I wonder who that can be? He sits all hunched up like an owl And most generally wears a scowl.

I feel sorry for the poor wife, She lives on—but what a life. So give yourself a mental hug, If your husband isn't a Radio Bug. MARY SKORGA.

From an Inspired Press Agent

or Why Fred Was Disqualified

Why Fred Was Disqualified
Disqualified from speaking over Radlo KGO because
his false teeth made too much noise for the sensitive
microphone to ignore, Fred Mantle, San Franciseo landscape gardener, is today considering a silencing grid
to be used between the plates.
KGO control room operators declared the noise of
Fred's mouth crockery sounded like defects in their
broadcasting machinery for changing words and music
into electrical currents of varying intensities.

Radio in the Home

"What's that for?" inquired a puzzled wife, seeing her husband engaged in attaching a wire to the water

reply

reply.

"But surely," she protested, "there is no earth in that tap. Wouldn't it be better to use one of the flower pots?"

LONDON BOBBY.

Progress in Radio Drama

In the Week's News





Condensed By DIELECTRIC

Last year when the survivors in the national ora-torical contest declaimed in the city of Washington, it was regarded as an auspicious beginning for arous-ing American youth to a new interest in matters concerning our national origin. Not only have the concerning our national origin. Not only have the school children profited therefrom, but citizens all over the country, whose Radio sets were tuned to the occasion. Again this year we have experienced a thrill of pride in the patent familiarity of boys and girls with the Constitution of the United States, as representative orators spoke before the President, Chief Justice, various government officials and the citizens present and listening in. Another triumph for broadcasting.

When you accustom yourself to ignoring the advertising sections of programs from WEAF, New York, many of the features of this station will be found excellent entertainment. During the recent Atwater Kent hour, vocalists and instrumentalists of real competence presented a program replete with good musical selections. Who cares whether it is the Glass Blowers' Brass band, National Fruit Venders' Orange orchestra, Pine Sisters' Catarrhal Wind quintet, or what not, inst so long as the music is good? what not, just so long as the music is good?

Seldom indeed is WSB, Atlanta, Ga., tuned in and out again with no addition to the evenings's enjoyment. This station was happy in the choice of the Clark uniresists entertainers, whose concert made a ready appeal to those fortunate in tuning in on time. Just a little less attention to the wired testimonials and more to selecting this class of program and the new station will double its clientele.

The World's Playground Station, WPG, carried the spirit of good fellowship from the Kiwanians, meeting in the Chalfont-Haddon Hall hotel in Atlantic City, to listeners north and south. Certainly, the aimable announcer for the Kiwanians took a flavor of the southland with him to Mike. Powel Evans displayed a voice of rich resonance and a sympathetic rendering of the old song, "Carry Me Back to Ole Virginny."

There is probably no one who has not heard of the There is probably no one who has not heard of the U. S. Marine band and enjoyed listening to it playing at the nation's capital. Another organization with official recognition is the U. S. Navy band, to which we are permitted to listen whenever WRC, Washington, can put it on the air. The former carries a greater distinction no doubt, but either will suffice to give any listener a pleasing program of music.

A feature which stands out preeminent in my memory of recent violin performances is the playing of Mr. Robinoff, through Station WOR, Newark, N. J. In the first place, this artist had the advantage of an instrument with a ravishing tone. He was master of the most formidable technical passages, such as the Kreisler arrangement for violin of the Sextet from Lucia, and in addition produced a tone of warmth and virility. It is these unusual features which keep the fan forever listening in hopes of finding more. And the best are becoming more frequently presented.

An outstanding example of the Radio playwright is Charles Hughes of London, who invented the thriller "The Mine Explosion," one of the most realistic plays ever broadcast. He also thought of the dramalet in which a man was heard singing in his bath, which was broadcast from a bathroom in a London hotel.

A. C. B. (LONDON)

WHAS, Louisville, Ky., gave us a pleasant surprise with the Asbury College men's glee clnb, possessing among its members some very good voices. If it is not out of place to suggest it here this particular glee clnb would add to their laurels through a little closer attention to nuance.

Our Own Q. and A. Man; Ask Him Q.—Do Little and Small drive to the broadcasting studios in a fliver?
A.—No, that was their broken down electric plano act you heard.

—and Other Men

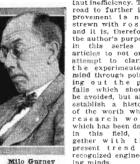
Peggy Hopkins Joyee, one of the theater world's most famous women, was interviewed from Station — —. Wednesday night. She discussed some of the trials and tribulations of being a poor little rich girl, continually followed by detectives and insurance men.

faucet. That, my dear, is the earth connection," was the

Recent Advances in Tuned R.F. Amplification

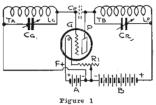
Part I—Hartley, Minor and Hazeltine

By Milo Gurney



No effort of this character would be of merit that did not also include fundamentals for continued experimentation by the thousands who take pride in constructing circuits representing the latest in Radio receivers and it will, therefore, be my greater pleasure to include with this series two, and probability. representing the latest in Kadio receivers and it will, therefore, be my greater pleasure to include with this series two, and probably three, relatively new tuned radio frequency circuits, each combining compensator or neutralizing methods which are improvements and not "lossers."

Tuned radio frequency circuits, properly constructed and correctly wired, represent



the application of the theory or principle of the well known wheatstone bridge for the securing of compensation or neutralization, and it is the use of this balance bridge principle which will form the basic theory not only of these new and more efficient offerings but also of the circuits which the author will present.

However, before explaining the theory of the wheatstone bridge principle, or presenting circuits using it, a historical survey covering the leading contributions to the science of tuned amplification occurs as important, as, without such a survey to guide us, progressive research would be impossible. In addition, it seems pertinent that the causes of excessive reaction beyond control should be clearly understood, not because regeneration is harmful, but rather in order that we may intelligently take full advantage of it. Regeneration from the plate or output circuit

intensely interesting experimentation, as reaction from the plate or output circuit

R ADIO. in the first mad rush of its popularity has, of necessity, created strange bed-fellows as is evidenced by the fast growing and not unpouled by the fast growing and not unpouled by the fast growing and not unpouled the first made the first made that the first made the

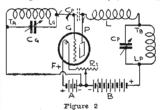
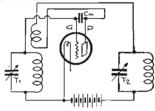


figure 2 is shown as proof that no change has been made in the fundamental of fig-ure 1 except that a portion of the plate circuit winding has been reversed, and, in the form shown, is the sehematic circuit of the Minor Superdyne.



rite stages for each tuning adjustment in the plate circuit; in other words, the ideal compensating device would be one which would change its compensation-automatically for each frequency of the plate circuit.

Without question, the majority of regeneration control devices now on the market comprise the introduction of resistance or loss naturals into either the input or output circuit, or both, so that the energy reaction, or feed back, from the plate to grid will be absorbed. This practice in itself would not be objectionable were it not that their insertion also usually causes distortion and certainly is opposed to the securing of selectivity, hence are not to be considered as other than undesirable makeshifts and totally unworthy of serious consideration singe they do not represent any attempt toward securing compensation or feed back control. Hartley (U. S. patent 1,183,875), is credited with the first effort among American in the continued on page 18)

Quality Parts 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 you should insist on Federal parts when purchasing.



"Last night we heard the sweetest voice!"

FEW boast of having heard a powerful. something to listen to, not to marvel at. We are now in the cycle of TONE!

The other day a man said he was just realizing that he had a hundred dollars worth of set and a dollar's worth of horn! His next move is to balance up his set with a good speaker.

The BRISTOL has all the volume you will ever want, but its fine point is TONE. It is good to listen to. The notes come in in tune. You receive a wealth of music from which the cream of tone has not been

For \$20, \$25 or \$30 you can get a Bristol Speaker, and there are others for less. Ask your dealer to send one out to the house. And let us send you folder No. AY-3022; it tells why the Bristol is the horn of

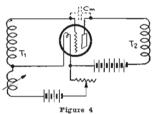
THE BRISTOL COMPANY, WATERBURY, CON



TUNED R.F. ADVANCES

(Continued from page 17)

(Continued from page 17) ican engineers toward current flow prevention or compensation of its effect (see figure 3) his plan embracing a reversed tickler or bucking magnetic coupling through the coil L, in series with the plate inductance. In operation, regeneration, in place of reacting npon the grid circuit, opposes the grid to plate capacity. While Hartley's method has been used with some success by experienced operators, yet, as it involves an attempt to balance capacity against inductance, with a ors, yet, as it involves an attempt to bar-ance capacity against inductance, with a resultant variance in its value of com-pensation with wave lengths, a constant critical changing of coupling is required which, in a large measure, has curtailed its commercial use except for those ob-sessed with much patience. This scheme,



when handled by an experienced operator, has few superiors, tube for tube, in fact but recently a French engineer by the name of Dalet has offered, as his contribution to the advancement of compensated tuned radio frequency amplifiers, an interesting circuit shown schematically in figure 4 which, in effect, is identical with Hartley's conceptions except that the reverse tickler, or bucking magnetic coil, is inserted in series with the minus A battery lead. This is admissable as an improvement as acting upon the low potential rather than the high of the circuit. In this connection I shall present, during this series, a modification of Dalet's idea which may appeal to those interested in research work as worthy of further investigation, it possessing much of experimental interest.

Some question may arise as to whether there is not a close relationship between Hartley's method of compensation and when handled by an experienced operator

Proven

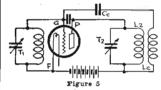
Superior By

Actual

Tests

Before placing the France Super-Charger on the market, it was given the most rigid tests in competition with other well-known chargers. At the end of the charger of the ch

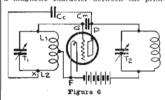
that of Hazeltine's and this query has been raised very often through confusing the Hartley compensated circuit with that of Rice (U. S. patent 1.134,118). No



similarity exists between the Hartley and the Hazeltine method, as Hartley clearly defines and indicates that his method of compensation is in the form of a reversed magnetic feed back, while that of Hazeltine varies in that it employs reversed capacity feed, or, in other words while each are reversed feed back schemes, one is magnetic and the other capacitive. There is, however, a marked mirror of samcness between the Rice and Hazeltine methods (see figure 5 and figure 6).

Rice ve. Hazeltine

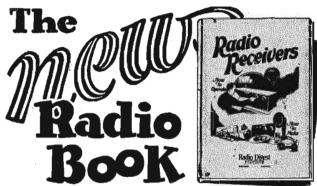
One will, however, note upon close analysis of figure 6 (Rice) and figure 5 (Hazeltine) a marked variance in the possible total compensation available in the two circuits which materially differentiates them. In the Hazeltine inethod, structural difficulties in the building of the coils or inductances allow leakage of a magnetic character between the prim-



and secondary windings, thus pre venting in a measure a constant voltage in opposition between the primary and secondary. Hence the neutralization cannot well be independent of the frequency, (Continued on page 22) (Continued on page 20)

UNIFORMITY VITAL IN TRANSFORMERS
Experienced set-builders agree that the trouble with most makes of transformers is lack of uniformity. Thordarrsons are the exception—they run absolutely alike, aboutely uniform; always "make up" prefetly; alway amplify evenly over the entire musical scale. That is one of the big resumes why leading raskers use more Thordaryon than all competitive transformers combined. Partial litt below:





How to ≈ understand radio, assemble circuits, improve reception, operate sets.

EVERY 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 outfits.

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 agencies.

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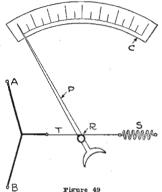
The FRANCE MFG. CO. 10329 Berea Rd. Cleveland, Ohio

Dealers and Jobbers: Write today for discounts and details of nur co-operation in selling this charger,

A. B. C. Course in Radio Fundamentals

Chapter X—Electrical Measuring Instruments

By David Penn Moreton



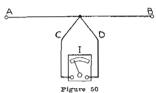
A NAMMETER is an instrument used of metal and for this reason they are the interest of the current in it and as a pointer attack of the interest of the current in it. In earning a finite the interest of the current in it. In earning a finite the interest of the current in it. In earning a finite the interest of the current in it. In earning a finite the interest of the intermediate of th

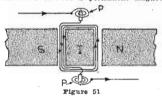
The pointer gives an indication of the exact value of the current in the wire AB.

Principle of "TC" Ammeters
The thermocouple, or "TC" type of ammeters makes use of the fact that when the junction of two dissimilar metals is heated, an electrical pressure is developed. A combination of metals used for this purpose is called a "thermocouple." The electrical pressure produced at the junction depends upon the kind of metals used and in general it varies directly as produced by an electric current than they are with a weak one. The two effects produced by an electric current that are imployed in the construction of practically all ammeters nsed in Radio work are the heating and the magnetic effect.

Radio Fraquency Ammeters

Currents of radio frequency are usually measured by means of Instruments which depend upon the heating of a wire or strip wire AB by the current which it carries.





Leadership



Of what importance is it to you as a user of radio transformers, to know that any particular brand, such as ALL-AMERICAN, has held continuously for a number of years the position of proven leadership in quantity of sales?

Simply this: that such an achievement is the best possible proof of continued satisfaction given to other users of ALL-AMERICANS. It is your assurance of highest quality.



The new Radio Key Book is ready for distribution. It contains a liberal education in modern radio reception and illustrates a number of approved hook-ups. Send 10 cents for it now, coin or stamps.

ALL-AMERICAN RADIO CORPORATION E. N. Rauland, President

2640 Coyne Street, CHICAGO, ILL.

Largest Selling Transformers in the World

Collapsible LOOP AERIALS



"Recommend It" SAYS R. W. COTTON Designer of Cotton "Super-Het"

R. W. Cotton, famed designer of the Cotton Superheterodyne, wrote us March 10, 1925, as follows:

Gentlemen:

I had the pleasure last wight of trying out one of your Center Tap Loops in conjunction with the "Cottor" Supers. The results obtained in the conformation of money represented by your Loop I do not know where in today's market the public can bottain sould value. Your Loop functions properly with my set and you may result to the conformation of the public can bottain sould value. You Loop sunctions properly with my set and you may sent to the conformation.

Sincerely your conformation is succeeded by the conformation of the confo

Lincoln Center-Tapped Loop \$6.50

For any set employing radio frequency amplification. Particularly adapted for "Super-hets" requiring a center tap.

Lincoln 4-Point Tapped Loop \$8.00

The only gooderate priced Loop of this type of the typ

BUY A LINCOLN LOOP

Sold by good dealers everywhers. If yourse
cannot supply you order direct giving your
dealer's name.

Lincoln Radio Corporation 224 North Wells St. CHICAGO



RADIO TUBE

GUARANTEED SATISFACTORY

All "GOODE" Tubes Sold Direct to the Consumer-No Dealer Profits

ONE--"Goode" Detector-Amplifism... \$1.89 THREE—"Goode"
Detector-Amplifiers.....

(All postage prepaid) The "Goods" Two-o-One A Tube amplifies or detects. It is a quarter ampere, five rolls, standard bassivered tube.

Send express or postal money order—New York draft—or personal check to—

The Goode Tube Corporation

Owensboro (Dept. A)

TUNED R.F. ADVANCES

(Continued from page 18) therefore, as the neutralization is progressive it is likewise obvious that over compensation or neutralization is easily pos-

pensation or neutralization is easily possible.

In the Rice method, figure 6, such neutralization is limited to only absolute compensation, and not on into over compensation, and not on into over compensation, and it is, primarily, the limited compensation possibilities of one as against the over compensation ability of the other in which there is a possible variance in these two most interesting studies, or examples, of opposed phase methods for the securing of neutralization. Thus the outstanding work and circuits comprising the research history up to around 1921 may be summed up in the efforts of Rice, Hartley and Hazeltine. Though Heising, Nichols, and Cowper, an Englishman, have secured a measure of uccess in this field, their results are not sing tabulated as a sufficient history has been given to point the progress made up to approximately the year 1921.

(Editor's Note.—The circuits and regeneration control devices of some of the best known sets on the market are taken up next week. Of greater importance, however, is Mr. Gurney's discussion of coil turn ratios, another means of preventing oscillation.)

OLD STORY SHOWS RADIO'S PROGRESS

Depends on Ground

To insure a proper operation of any receiver, it must be connected to a good ground in a proper manner. In the city the best ground is a water pipe. However, the connection should be made as near as possible to the point where the water as possible to the point where the water as possible to the point where the water pipe enters the house. If the water meter is located in the house the connection to the set should be made on the far side of the meter. A steam or water heating system is usually connected to the water supply, and in this case may serve as a ground. However, it is better to go direct to the water system, as just mentioned. The gas pipe also may be used for a ground. In this case make your connection as near as possible to the point where the pipe enters the building. If several systems are available try out one after another and use the one giving the best results.

Well Used for Ground

Where a piping system is not available, a ground may be obtained by dropping a copper plate to the bottom of a well, letting the plate rest on the clay bottom. Do not attempt to use a cistern, for in ordinary cases the water is too free from salts to make a good conductor. A rod may be divident into moist soil or a plate buried in moist earth. A ground of this type is usually very unsatisfactory, because you do not penetrate the earth farenough and sufficient contact is not made with the water. Very frequently such grounds become absolutely worthless in dry weather.

In case you have not a good pipe system on which to make your ground convention.

THE immenseness of the strides made by Radio within the last few years are more or less unnoticed until attention is called to the subject. The following article is such a reminder. It is an excerpt from a story in the Journal of the American Institute of Electrical Engineers published in July, 1920.

"Music can be transmitted by wireless in the same manner as speech or code signals. As an incidental result of research work on Radio telephony at the Bureau of Standards it has heen shown that music can be transmitted by wireless without loss of quality.

"The possibilities in this direction are great. With the aid of an ordinary telephone mouth piece as a transmitter, phonograph music has been sent out in an experimental concert. The music was heard by distant stations."

Notice the word "incidental" in the first paragraph of the quotation. Even at that time the most prophetic engineers had no conception of the Radio of today. It is the old story of the first steamboat, rallroad engine or airplane on a greater scale.

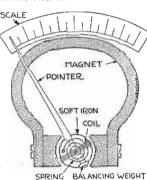
In 1924-25 Radio sales are expected to read \$370,000,000.

Proper Set Operation

(Continued from page 19)
the double purpose of conducting the current to the winding of the coil and controlling the position of the coil. A cylindrical piece of soit iron I is mounted between the poles N and S and this serves as a good magnetic path thus increasing the strength of the magnetic field in the air gaps where the sides of the coil are iocated. Now let us assume that there is a current established in the coil in the direction indicated by the arrow heads on the wire. The part of the coil near the N pole of the magnet has a force acting on it which tends to move the coil toward the observer or away from the paper. Likewise the part of the coil near the S pole of the magnet has a force acting on it which tends to move the coil of the magnet has a force acting on it which tends to move the coil near the S pole of the magnet has a force acting on it which tends to move the coil away from the observer.

A. B. C. RADIO COURSE

(Continued from page 19)



As a result of these two forces acting and since the coil is mounted between bearings at the center of its ends, there will be a tendancy for the coil to rotate. The coil is held in its zero position by the action of the two springs and these springs oppose any rotation of the coil for each value of current where the force due to the current and the force due to the current and the force due to the current and the force due to the springs balance each other. The movement of the coil in the magnetic field may be indicated by a pointer attached to the coil as shown diagramatically in figure 52 and the scale marked to read directly in amperes.

Instruments of this kind can be made very delicate and will respond to very small currents. Sometimes the scale is graduated in thousandths and even in millionths of an ampere and in such cases the Instrument is called a "Milliameter" (reading the thousandths of an ampere) and a "microammeter" (reading to millionths), respectively.

For very fine measurements the coil is suspended by a long fine strap at the top and bottom which replace the springs and pivot bearings. A small mirror is usually attached to the coil and the defection is measured by a reflected beam of light which moves over a graduated scale set up in front of the Instrument. An instrument of this kind is called a moving coil galvanometer.

The direction in which the moving system is deflected deepends unon the direction of the current and for this reason the instrument cannot be used in measuring alternating currents. If a fluctuating or pulsating direct current be sent through the instrument it will indicate the average value of the current.

(Editor's Note.—Professor Moreton's next article will explain instruments of the electrodynamoter type and magnetic vane type and magnetic va

Deaf in Church Hear

The direction of these forces in relation to the direction of the current and the direction of the magnetic field may be determined by means of the left hand in such the direction of the magnetic field and the middle finger in the direction of the magnetic field and the middle finger in the direction of the current in the wire. Then the thumb will point in the direction of the force acting on the wire. The forefinger, middle finger and thumb must be at right augles to each other.

Deaf in Church Hear

With a slogle change in the ordinary receiving set one minister gets his measure to deaf persons in the congregation. He placed an extra one-way jack on the panel and counceted it with the primary of the first amplifier. This is used for the ludd speaker horn, which, in this case, is based as a transmitter. The loud speaker is placed an extra one-way jack on the panel and counceted it with the primary of the first amplifier. This is used for the ludd speaker horn, which, in this case, is based as a transmitter. The loud speaker panel in the ordinary receiving set one minister gets his measure to deaf persons in the congregation. He placed an extra one-way jack on the panel and counceted it with the primary of the first amplifier. This is used for the ludd speaker horn, which, in this case, is based as a transmitter. The loud speaker horn, which are the primary of the first amplifier. The loud speaker horn, which are the primary of the first amplifier. The loud speaker horn, which is the primary of the first amplifier. This is used for the ludd speaker horn, which is the primary of the first amplifier. The loud speaker horn, which is the primary of the first amplifier. The loud speaker horn, which is the primary of the first amplifier. The loud speaker horn, which are the primary of the first amplifier. The loud speaker horn, which is the primary of the first amplifier. The loud speaker horn, which is the primary of the first amplifier. The loud speaker to deaf persons in the congregation.

Heaviside Layer and the Causes of Fading Now Being Tested in France

PARIS.—M. M. Lardry (8AO), a French amateur and scientist, has heen conducting important studies of fading and variable reception effects for many months, especially in connection with blind spots and the weakening of signals at sundown His experiments in transmission on a 200-meter wave length are especially incresting in view of their commercion with the theory of the Heaviside Layer.

The transmission set of Mr. Lardry is located near Le Mans, in a depression with a diameter of 500 meters and a depth of 30 meters below the surrounding plateau. There is an opening in the plateau to the south, so that the set is in the center of a horseshoe. When Mr. Lardry sent out messages, amateurs at short distances (40 to 60 miles) reported that nothing could be heard, with the exception of **amateurs* located in the direction of the opening of the horseshoe, who heard perfectly. Amateurs located that nothing could be heard, with the exception of **amateurs* located in the direction of the opening of the horseshoe, who heard perfectly. Amateurs located at long distances in every direction picked up the messages and reported excellent reception.

These experiments seem to confirm the Heaviside theory, which Mr. Lardry states is the only hypothesis werth considering. He believes, however, that the Heaviside Layer is not a geometric surface refracting the waves geometrically. The Heaviside Layer is not a geometric surface refracting the waves geometrically. The Heaviside Layer is not a geometric surface refracting the waves geometrically. The Heaviside Layer is not a geometric surface refracting the waves which travet directly along the soil are reinforced by reflected Radio waves with varying intensities, while meteorological perturbations near the receiving apparatans result in the "fading" of all waves, whether direct or reflected by the Heaviside Layer.

The French scientist lays a good deal of trouble at the door of the weather, who was a separated to furnish assistance to the sistance in the work he has initiated, and

Burn Tubes Low

In using oxide filament tubes, their filaments should be burned at as low a temperature as possible, even though it may be lower than the normal current rating as stated by the manufacturer. but it is more likely to tarnish.

turn my dials elsewhere. Keep up the good work.—Edward S. Lewis, St. Louis, Mo.

Good Radio Reception All Summer WITH THE KANE ANTENNAE

And the Proof?

Read This Letter

13.00

Gentlemen:

Some time and I received one of your Antennae for a Super Ret, and have irred it out both on a fully say it does all you claim. And more, too.

I am nextly this are place of business in the heart of the down town district, where I had not cut it out to the terrific power leakage, and even a Radiola Super could not cut it out.

The super received the super su

I am setting shetter reception here than I do at my home, where there is no interference to cented with receives what it means to set sood reception now, as I have never been able to make the set of demonstration before.

Thendring you again, and senting; you that I am a big booster for the Kane Antennae, I am, (Sisted) Very truly yours, Watson Radio Shop, A. M. Watson.

See for Yourself Just What the Kane Antennae is

We will sol) 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 facetory-built Antennae than build one yourself, we will take back the drawing and allow you full purchase price on an order for an Antennae. \$ 6.50

The Special Kane Antennae for Radiola Super-Het's The Regular Kane Antennae for all other sets that use a ground

Working Drawing with Instructions for Erecting, \$1.00 (Stamps Not Accepted)
Pestpaid to any part of the United States or sent C.O.O. when 25% of price accomp THE KANE ANTENNAE COMPANY, (Dept. C), Aberdeen, Washington



Simplifying Operation with Switches

Current Shift for Set. Battery and Receiver

The old method of connecting wires from the hatterles to the set has been eliminated to some extent, but there still remains the task of disconnecting wires when the battery is put on charge. The

WORKSHOP KINKS EARN A DOLLAR-

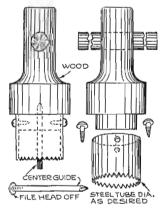
THERE are many little kinks worked out at home that would ald your fellow Radlo worker if only he knew about them. There are new hook-ups, new ways of making parts and various unique ways of operating sets that are discovered every day. Radio Digest is very much interested in obtaining such material. Send them in with full details including stamped envelope, so rejected copy may be returned. The work must be entirely original, not copied.

RADIO KINKS DEPARTMENT Radio Digest, 610 North Dearborn St., Chicago

only way to get around this difficulty is with the use of double throw switches. The illustration herewith shows a system of switches with a wiring diagram for connecting up the batteries to the charger and set so that all connections may remain intact. To change the current from the battery to the set and from the battery to the charger only requires the throwing of two double throw switches.—Chas. R. Hazel, Chakekoi, Pa.

Panel Hole Cutting Tool

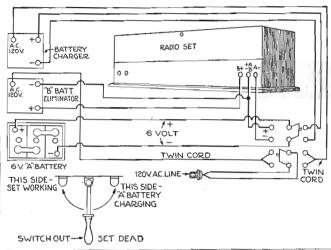
The common practice used in the cut-ting of large round holes in panel material is the drilling of a circular series of small holes and then cutting out the disk. This last operation is quite a problem and very often results in the splitting of the panel.



The tool illustrated is as simple in construction as is possible and requires very little time in constructing it. Al-though it is not Intended to be used con-tinuously, it will meet all requirements



CIRCUIT USED FOR CHANGING CURRENT



of the home mechanic in a satisfactory manner who has work of this nature. The principle part of the tool is turned from hard wood to the shape shown, with a shoulder on its lower end having the same diameter as the inside diameter of the tube used to accommodate it. A steel tube having the same outside diameter as the desired hole is secured and saw-tooth shaped teeth are filed on its lower end. This is then secured in place to the wooden piece with screws. A piece of nall is then inserted centrally in place in the wooden piece to act as a guide.

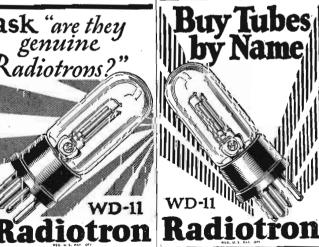
To use the tool, a hole having the same diameter as the nail is drilled through the panel in the center of the desired hole, the tool is placed in a bit brace and the nail inserted in the guide hole. Turn the brace in the usual manner.—Wm. J. Edmonds, Jr.—Whitehall, N. Y.

Test for Transformers

Test for Transformers
Occasionally it will be found that audioamplifying transformers are defective
either on account of a burnt-out winding
or a short between one of the windings
and the frame of the transformer. This
can be determined very easily by means
of a very weak dry cell and an ordinary
pair of head receivers. Connect the battery and receivers in sense is a sharp click
in the receivers, the winding is not burnt
out. The same process is repeated with
the other winding. Now test each binding
post and the frame of the transformer.
If there is a sharp click, there is a short.
If there is no click or a very small one,
tho transformer is O. K.

Insulation Aids

Wire insulation is a covering of cotton, silk or rubber, used to protect the wire from coming into contact with crossed parts of other live wires.



Where bare wires or metal parts carrying current are used, they are mounted on or protected by other insulating material, such as hard rubber, bakelite, fiber or porcelain, the latter being used principally for aerial insulation.

When wires are touching the building, as an aerial lead-in, they must be protected with additional insulation which is waterproof. This kind of wire is known as "weatherproof" and is used for exposed work,

It is not necessary to use insulated wire for the aerial because it is protected from current escapes by the porcelain or glass insulators which support it at each end. It is only where it enters the building that insulated wire, or better, a porcelain tube is used.

TODAY IS YOUR RADIO DAY

In addition to these features the current issues give you all the live news in Relife. Advance Becadeasting Station programs. Cornect and authoritative list of all Brandcaxting stations. The first and last wed by Redio.

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Small Soldering Iron

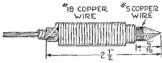
Small Soldering Iron

As I needed a small soldering iron for soldering Radio connections. I hunted my "junk" over for a bit of copper rod % inch in diameter, or thereaboute, but could not find anything within a mile of it.

The only thing offering any possibilities whatsoever, was a coil of number 5 copper wire, altogether too small a diameter for the purpose, but the only possibility available. A small fron I must have, and "necessity is the mother of invention."

A bit of this number 5 wire, 2% inches fong was field to a soldering tip at one end, and the other end affixed to a wire shank and handle, "just like it was a real soldering iron."

The number 5 wire was, of course, too small in diameter to retain heat at all satisfactorily, and here's where the "invention" came in.



With some bare number 18 copper wire, starting at the shank end of the copper bit, I wrapped a tight coil around the copper to within about A inch of the tip, a second coil backward over the first to the start, a third coil down again over the second, but not quite so far het the first, then back over the whole with a fourth coil to the starting point, where the end of the number 18 wire was secured by wrapping a few turns around the shank.

By this building on of extra metal, the heat retaining quality of the tool was increased to a point where it gave good satisfaction; probably not quite as great as if it were solid metal, but sufficient so it worked satisfactorily.—Chas. A. Pease, Monrovia, Cal. With some bare number 18 copper wire arting at the shank end of the copper

Refinishing Metal Horn

To take tinny sound out of a metal loud speaker horn, spatter it slowly with a mixture and para fin and salt to which a little vinegar has been added to make it adhesive. When the horn cools, apply several coats of flat black paint.



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Crosley own and operates Broadcasting Outloo! WLW

Questions and Answers

Power Line Interference
(13726) RMR, Jamestown, N. D.
How can we locate and eliminate interference which we think is caused by a
2300 volt power line?
A.—To eliminate this interference it
must be located first. It can be located
by means of a loop receiver. The receiver
should consist of a three circuit low loss
uner made to tune to wave lengths below
200 meters. The loop should be connected
to the primary directly, same as an antenna- and a ground are connected. The
whole receiver except the loop, should be
shielded with sheet iron. Galvanized Iron
is OK. The reason for this is to shield
it both against electromagnetic and electrostatic currents. The batteries should
either be enclosed within the shielded box
or clse the leads should be enclosed in a
woven copper braid. The phone cord
should be shielded also with a braid. All
of the shield should be connected to a
ground in some way. If it is to be used
in a car then connect it to the ear frame.
It can now be seen that if any signals are
received they will come through the loop
ony-and not through the wiring and the
coll in the set. When this is finished the
set should be placed on a ear and the car
can follow power lines around until the
interference is located. You should use
both the maximum and the minimum
points to locate this interference and
check one against another by approaching
the interference from different angles.
When the trouble is located it can be fixed
right there. It may be a defective wire or
a leaky insulator. Often the trouble can
not be seen. Often it is necessary to tear
down a whole telephone pole and put up a
new one.

Loop on a Neutrodyne

(13297), CAE, Cumberland, Md.

I have a neutrodyne which is arranged for use with a loop. At the present I do not secure very good results with it. Often by moving the loop I can produce squeals in the set. The loop, which does not have very much directional effect on stations close by, with other sets, acts different with the neutrodyne. I can tune in a nearby station and then, by moving the loop, loose it. Then by retuning the loop, loose it. Then by retuning the set get the station back again. Would you advise the use of an outside antenna instead of the loop? How long should the outside antenna be?

A.—We would advise the use of an outside aerial in place of the loop. The antenna should be about 75 feet long. The reason the loop is not a success with the neutrodyne is because it tends to interact with the neutroformers in the set, thus npsetting the effect of the neutralizers. If the set was shielded well, both panel and cabinet, you could probably use a loop with it.

The Law of Secrety
(13723) LL, Chicago, Ill.
What is the law of secreey in regard to
Radio messages?

(18723) LL, Chicago, III.
What is the law of secrecy in regard to Radio messages?
A.—The law of secrecy reads as follows: "No operator nor operators, nor person or persons, having the knowledge of any message transmitted or received at any station or stations shall publish nor divulge any part of the same message except to person or persons to whom the same may be addressed or to their authorized agents, except when forced to do so by a court of competent jurisdiction." This means that if yon hear a conversation on the air unless it is broadcast or else transmitted to you directly you must keep it secret. If you hear some amateurs conversing over the air you cannot legally yell your neighbor or friend about it. If you do you may go to jail for a year or pay a fine of \$2,000.00, or both at the discretion of the court.

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Is now being allotted on a new time of
BROADCAST RECEIVERS
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while the real series when the restriction of the cent restore your tube so that it operate satisfactority. If we are not successful, our charge is cally 25c. If we are not successful, our charge is cally 25c. The price for new tubes whon we can make yours a sood as new for only \$1.00.

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Q&A.-13547 B+45V. 90V

Mentrodyne Hookup (13547) FHJ, Richmoud, Va. Asks for a neutrodyne hookup with fila-ment control on the jacks and with the "X" wire added.

A .- The hookup appears on this page.

Howling in a Set

(13435) JON, Draper, N. C.

I have trouble in controlling my set.

When I tune in it howls and squeals.

Often there is a rumbling noise especially when I tune a station in very Ioudly.

What can be the matter?

What can be the matter?

A.—We could better advise you on your trouble if you sent us a diagram of your set indicating the rotary and stationary plates. It is very possible that these are connected wrong. Also it may be due to a microphonic noise. If you do not bave cushion sockets try lifting the loud-speaker off the table. Often the presence of the loudspeaker on the same table as the set causes rumbling noises. Your transformers may be unshiolded and placed too close together, so there is another chance for noises to occur.

Ganadian Stations Can Be Heard
In your December 20 issue I saw a
letter from—on page 30. He says that
in Kitchener they seldom hear Canadian
stations. Well we are about 20 miles west
of Kitchener and on a single tube set I
have heard clearly and distinctly stations
CKOC, Hamilton; CFCN, Hamilton; CNRO,
CFCA, CHNC, Toronto; CKAC, CHYC,
CNRM, Montreal; CNRO, CKOC, Oitawa;
CFKC, Thorold; CNRA, Moncton, N. B.;
CNRW, CKY, Winnipes.

CNRW, CKY, Winnipeg.

There has not been a program sent out from these stations in the last three months but what I have heard on my own set that fully deserved an applause card and their programs are equal to those sent out hy the majority of American stations.—Anthony S. Mendell, Elore, Ontario, Canada.

Broadcast Tuner
(13722) FF, Magnolia Springs, Ala.
I have a tuner which seems to work OK in every way except that it does not work above 30 degrees on the condenser. I get all of the broadcasting stations except those on the lower waves. The secondary of the tuner consists of 95 turns

PATENTS

The counts in applying for patents. Don't risk delay in protecting your ideas. Send sketch or model for instructions or write for FRED book, "How to Obtain a Patent' and "Record of Invention" form. No charge for information on how to proceed. Communications strictly confidential. Prompt, careful, efficient service. Clarence A. O'Brien, Registered Patent Attorney, 2009A Security Bank Bilds. (directly across street from Patent office), Washington, D. C.

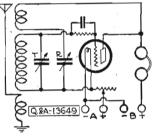


of number 26 wire on a 3-inch tube. What is the matter with the set?

A.—The trouble with your set is that you have too many turns on your secondary. It is no wonder that you do not get the lower wave stations. Reduce the number of turns on your tuner 'till you get stations such as KYW or KSD on about 95 on your dtall. You will then have no trouble getting the stations on the lower waves.

Weagent "X" Circuit
(13649) JRF, North Braddock, Pa.
Asks for hookup of the Weagent "X"

A.—The hookup appears on this page.
Tuning of this set is accomplished by
means of condenser T. The regeneration
ts controlled by condenser R. The tickler



coil is fixed a small distance away from the secondary. The regeneration control is independent of the tuning control and can be controlled without changing the tuning of condenser T.

ZELLERS RADIO LOG BOOK, 25 Cents. Zellers Company, Hooper, Nebraska.





Premier "LO LOSS" Tube Socket - Price 90 Cents

Write for free bulletin No. 94, de-seribing this radically different tube socket. Lowest insulation leakage, lowest capacity. Contacts always visible. Contact spring succentually de-tube prongs. New can-action tube lede makes intertion of tube casy and contact certain. "Mock-up" disprime free or request.

PREMIER ELECTRIC COMPAN 3810 Ravenswood Ave. Chicago,

PREMIER Quality
Parts Wavemeter Hookup (13635) TEL, E. Rutherford, N. J

Asks for the hookup of a simple wave-meter to be constructed at home.

A,—The hookup appears on this page.

The coll for the broadcast band consists



of about 65 turns of number 20 or 18 wire wound on a 2½-inch tube. The variable condenser is of .0905 mf. capacity. The lamp is a small flashlight bulb.

Mounting the Low Loss Oscillator (13669) SEH, Detroit, Mich. Please give me the details for mount-ing the low loss oscillator for use in the four filter super-het.



A.—The drawing on this page shows the method for accomplishing this. The shaped pieces are either brass or apper. The drawing should be turned 30 agrees to the left as this is secured to

Men to build radio sets in spare time. Leon Lambert, 501-H Kaufman Bldg., Wiehita, Kansas.

ELLCITE SUPER RADIO RECEIVER. No Tubes, A or B Batteries. Operates Speaker. Clarity, Distance. Write Elicite Radio Co., Box 193, Buffalo, New York.





J. J. Sepdels. American Radio Engineers 646 N. Michigan Ave., Dept. 88, Chicago

Radiophone Broadcasting Stations

Corrected Every Week-Part III

FIND MISTAKES AND YOU'LL GET DOLLAR

NE DOLLAR will be paid to the Radio fan reader of Radio Digest submitting the most errors rectory 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 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. Turn in corrections for ass 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. place name and address on each sheet. In case of tie, duplicate awards will be made.

United States (Cont'd)

NOTE.—The third part of the schedule list appears low. The fourth part which consists of the remainder the list will appear next week.

on one are with appeal next week.

WEAR, Chereland, Ohio, 389.4 meters, 1000 watts.

The Goodwar Tire & Rubher Co. Daily ex Sun, 11:30-12 m. Daily ex Sat, Sun, 3:30-4 pm, markets.

Tuer, Thuer, 7-3 pm, organ music; 3-10, music from Kew York. Sun, 1-2 pm, nuster; 3:30-5, masic.

New York. Sun, 1-e pun, musers, 190 waite. Darid-Fautern. City, In. 275 meters, 100 waite. Darid-eon Bros. Co. Announcer, B. M. Smith. Slotan, The Head of the form Belt. Daily ox sun, 9 aug. 11. 11. 22 m. 1 pin, 5, market, weather, spotts.

Corp. of America.
WEBM, Mobile, Ala. 229 meters, 100 watts, Radio Corp. of America. (Bortable.) 126 meters, 10 watts. Tate REAL Co. Americar, Joseph R. Tate. Stand Co. Americar, Joseph R. Tate. Stand Co. Americar, Joseph R. Tate. Standard Ellow Co. Contral.

Central. EBR. Buffalo, N. Y. 244 meters. 50 watts. H. H. Howell. Slogan, "We Estend Buffalo's Regards." Tues, Thurs, Sat. 8:30-11:30 pm. Sun. 12 m. 3 pm.

WEBR, Buffalo, N. Y. 244 meters, 50 waits, H. H. Howelt. Signan, "we getend Buffalo's, Regards." Tues, Thurs, Sale, Si30-11:30 pm. Son, 12 m. 3 pm. WEBT, Dayton, Olio, 256 meters, 5 waits, The Dayton Choop. Industrial High School. Announcer, Irwin Buffalo, Signan, Web Lings, Signan, Signa

WFB1, Collegerille, Minn. 236 meters. 50 watts. St. John's university. Annuancer, Blisty Deerfer, Slogan, John's university. Annuancer, Blisty Deerfer, Slogan, WFBK, Educater, New Hampshire. 23 meters. 100 watts. Dartmouth College. Annuancer, Robert Weiniz. WFBL, Syracuse, N. Y. 232 meters. 109 watts. Onco-Theory of the College of the

WFBJ. Galesburg, III. 203 mevers. So walls. Straw-berlage & Clothier Announcer, John Vanderslot. Daily ex Sun. 10:15 am. reports; 1 pm. ortestars; 1:50. reports; 3-4:30. concert; 6:50-7, orchestus; 1-7:30 pm. children's hout. Boy Scoots meeding (Thes.), Tues, Thurs. 8, concert. Sal. 8 pm. concert. Sun, 10:30 am; 1:30 pm. children's houter Sarless WFKB, Chinego, III. 227:3 meters. 100 walts. Francis K. Bedaumer.

T250 pm. children's hour. Boy Scouts' meaning (Tues.), Tues, Thins, S. concert. S. 28, 8 pm. concert. Sun, 10:38 an; 6:39 pm. chapter, 7:39, chard services. Sun, 10:38 an; 6:39 pm. chapter, 7:39, chard services. Sun, 10:38 an; 6:39 pm. chapter, 7:39, chard services. Sun, 10:38 an; 6:39 pm. chapter, 7:39, chard services. Reference of the chapter of t New Table 19 City, 1a. 275 meters, 100 wans son Bros. Co. Announcer, B. M. Smith. Slogan, 'The Heart of the Corn Belt.' Duily ex Sun, 9 un, 10, 11, 12 m, 1 pn, 5, markets, weather, sports, Call 11, 12 m, 1 pn, 5, markets, weather, sports, Call 11, 12 m, 1 pn, 5, markets, weather, sports, Call 11, 12 m, 1 pn, 5, markets, weather, sports, Call 11, 12 m, 1 pn, 5, markets, weather, sports, Call 11, 12 m, 1 pn, 5, markets, weather, sports, Call 11, 12 m, 1 pn, 5, markets, weather, sports, Call 11, 12 m, 1 pn, 5, markets, weather, sports, Call 11, 12 m, 1 pn, 5, markets, weather, sports, Call 11, 12 m, 1 pn, 5, markets, weather, sports, Call 11, 12 m, 1 pn, 5, markets, weather, sports, Call 11, 12 m, 1 pn, 1 pn

WGBM, Memorines, Wis. 29 meters. 10 wates. Scot. WGBM, Marshield, Wis. 29 meters. 10 wates. George N. Ires. Sun. 2-4 µm, 7-9. Central. WGBS, New York, N. Y. 315.7 meters, 500 wates. Ginbot States of the Marshield States of

8:36-13. Thurs, 8:30-1 am. Sat, 7:30-12. Sun. 3:30-430 mm; 9:30. Eastern Daylight.
WGBT, Hreenville, S. C. 230 meters. 15 watts. Furman WGBW. Species 231 meters. 11. 212.6 meters. 10 watts. Vallay Beater. Announcer, Versur Hielts. Thurs, 10-11:30 pm. Sun, 7:8-35 pm. Ceniar.
WGBW. Species 231 meters. 100 watts. University of Children 100 meters. 50 watts. The Urograms Nate commany. WGBS. Gast Earne, 120 meters. 500 watts. The Urograms Nate commany. WGBS. Gast Earne, 110 meters. 500 watts. Corne WGBY, New Lebonson, 100. 250 meters. 500 watts. Corne Sea. Sun, 5-7 pm. 10:30-12. Central daylight. WGB, Cheng, H. 370-2 meters. 500 watts. Corne Sea. Sun, 5-7 pm. 10:30-12. Central daylight. WGN, Cheng, H. 370-2 meters. 500 watts. Chicago Tribma. Announcer, Quin A. Ryun, Dally et Sun, 9:33 concept; 2:300. recking chair time; 5 ms. Meters. 5:30-5:77. Skecair time; 5:37, Hune Dally et Sun, Sat, 8:1 pm. 12:30. The Sun Sat, 8:1 pm. 12:3

Baker. Slogan. "Worlden for All Allies" Bally.

19:30 a.m. remorts, 12:30-1 p.m. address; 2:30-5, 3:30-4, 4:30-5, reports, news 3:30-5, 20-6, 4:30-5, reports, news 3:30-5, bettime swary; 3:30-30, 10:30-1, 10:30

10:45 am, 4-5 pm, church service. Mon night, stleet.

Wentzel Wilselnotton, Del. 366 meterz. 100 watts. Wilminston Elec. Spec. Co. Slogan. The First Breadcasting Station of the First City of the First State.

Wed., Sun. 9 pm. Eastern skylight.

Wed., Sun. 9 pm. Eastern skylight.

Wed., Sun. 9 pm. Eastern skylight.

Station Located at the Object tollege of science and
Station Located at the Object tollege of science and
Mon. 8:16-10:3 pm. sourcer, subcessional Eastern

Mon. 8:16-10:3 pm. sourcer, subcessional talks, features. Scood Monday of Mooth, 12-1:30 am. International test program. Eastern.

Swenney Aud & Elected School. Amounter, John T.

Schilling, Shigan. "Reatt of America." Daily ox
Sun. 8:25 an, 9:25, 1025, 112:9-12; 12:15, 12:05,
Sun. 8:25 an, 9:25, 1025, 112:9-12; 12:15, 12:05,
Sun. 12: m. thee; 2-3 pm. 3:265 pm. weather; 3-65
320. grait. Mon. Wed. Fit. 7-8 pm. Tug. There,
7-7:30, 8:10 pm. Sun. 9:45 am. 2-3 pm. 8:15. Cen
WHBA, OH City, Pa. 250 meters. 20 watts. Sindfer

T-730, 8-10 pm. Sun, 9-45 am, 2-3 pm, 8-12. Central, Oll City, Pa. 250 meters. 20 watts. Starfer WH8A Guardens, Pan, Was 240 meters. So watts. The Copps Co. Announcer, C. tv. Copps. Slogan, "Deewood Coffee Co. Monday, 7:30-9 pm. Central. WH8D, Canton, Otho. 254 meters. 10 watts. Rev. E. P. WH8D, Canton, Otho. 254 meters. 10 watts. Rev. E. P. WH8D, Bellefentaine, Ohio. 222 meters. 20 watts. Charlet W. Heward, Mannouncer, G. J. Alfallind, M. B. J. Line, W. G. 79-10 pm. Sat. 2-4 pm; 7-3. Central. Line, W. G. 79-10 pm. Sat. 2-4 pm; 7-3. WH8B, Hartisburg, Pa. 251 meters. 20 watts. John S. Wh8B, Hartisburg, Pa. 251 meters. 20 watts. John S. Watts. Deeps Ind. 222 meters. 20 watts. John S. Watts. Deeps Ind. 222 meters. 20 watts. John S. Watts. Charlet M. Starfer, W. Staffer, W. Staff

WHBG, Hartisburg, Fa. 231 meters. 20 watts. Johp S. Stann.
WHBH, Culver, Ind. 222.1 meters. 100 watts. Culver Millitary Anademy. Announcer, F. M. Schmidt. Mon. WHB, Chesaning, Mich. 227 meters. 50 watts. Chesan-inella meteric commany. Announcer. Arthur F. Wajser.
When the Commany. Announcer. Arthur F. Wajser.
Allo cresson-prop. Ind. 230 meters. 10 wetts. Love. Allo cresson-prop. Ind. 230 meters. 10 wetts. Love.

WHSP, Johntonn, Pa. 256 meters. 10 waits, Johnstown Automobile (3a, WHSQ, Menghis, Tenn, 232 meters, 10 waits, Men's Fellowship class. St. John's M. E. church. Wed, St. 17 master. Sun, 11 am. 7:45 pm. sortices. Con-

Mon, Wed, Fri, 10 am, household hints. Mon. Tues, 7:30-10 pm. Wed, 7:30-10:30 pm. Thurs, 7:30-11 pm. Fri, 8-10 pm. Sun, 7:20-10:15 pm. Eastern day-

Description of the control of the co

10:20 am, 10:40, 11:201, 11:35, 12:15 nm. 1, 13:0, 1:25, 3, 3:15, 4-5, 5:36-130, 8-10, Sun, 11-12 m, 4m-2 day 16:15, 3-4 nm. consect; 6:36-3:39, church. Endern day 16:15, 3-4 nm. consect; 6:36-3:39, church. Endern day 16:15, 3-4 nm. consect; 6:36-3:39, church. Endern day 16:15, 3-4 nm. consect. We develop the second of the second day 16:15, 3-4 nm. consect. We 8:39-39 nm. can muffer. Contral. WMAL, Omeha, Nobr. 2:38 neters. 500 watts. Central. WMAL, Omeha, Nobr. 2:38 neters. 500 watts. Central. WMAL, Omeha, Nobr. 2:38 neters. 20 watts. Tirst Christian church. Announcer, Perry V. Riley. Sun, WMAR, Butler, Mo. 2:31 meters. 20 watts. Tirst Christian church. Announcer, Perry V. Riley. Sun, The Little Broadensting Nation Around the Corner. Wet, 7:45 pm. Eastern Daylish. WMAL, Sander, Sun, Contral. Sunday 16:30 pm. central. WMAL, 7:45 pm. Eastern Daylish. WMAN, Vankton, S. D. 244 meters. 100 watts. Dakots Radio Apparatus Co. Dally ex Sun, 11:39-11:45 nm. markets, weather; 5-6 pm. music. Central.

(Note-The fourth part of the directory will appear next week.)



BETWEEN Alaska and the North Pole stretches an unexplored area one million square miles in extent—the last remaining "blind spot" on the face of the globe.

Over this vast area will fly, this summer, three great planes of the amphibian type, piloted by U. S. Navy air pilots and equipped with the most highly perfected scientific apparatus obtainable by the United States Government. This entire expedition, which has rightly been described as the greatest expedition of modern times, is under the direction of Commander Donald B. MacMillan.

The purpose of the expedition is the study and photographic charting of this unknown area—and—new tests in radio transmission and reception of unparalleled importance. The section to be explored has never been heard from by radio. Communication will of necessity be daylight communication, for in this area the days are six months long.

On an expedition representing so great a risk, both in capital and human life, only the best in radio equipment can possibly command a place. Once more, therefore, Mac-Millan chooses ZENITH exclusively, both for his ships and for the three great planes flying across uncharted seas of ice.

Thus, while the world awaits reports from this greatest ex-

Super-Zenith IX

pedition of modern times, it is worth remembering that the only way these reports can possibly be transmitted is by Zenith radio.

Never in all your life, it is safe to say, will radio apparatus require such outstanding performance as MacMillan requires of ZENITH in the Arctic. But can you imagine a more powerful point than the fact that Zenith receiving sets can deliver such performance, any time they're called upon to do so?

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we are not through. Our exclusive dealer's serviceman will call once a week or oftener if you want him. This costs you nothing. In other words, Zenith dealers have done your shopping for you.

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SUPER-ZENITH VIII—Same as VII except—console type. Price (exclusive of tubes and batteries) \$260

SUPER-ZENITH X—Contains built-in, patented, Super-Zentth Duo-Loud Speakers (harmonically synchronized twin speakers and horns), designed to reproduce both high

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peakers. atteries)	Pric	e (ex	clnsive	οĒ	tubes	and		Q 2	17	5
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