RADIO TO COMBAT CRIME

MARCONI TO MARRY YOUNG ENGLISH GIRL

BECOMES ENGAGED DURING VISIT TO CORNWALL

Her Mother First Woman to Broad-cast to Australia During Test from Poldhu

LONDON, Eng. — Senatore Guglielmo Marconi, 49 years old, has become engaged to Elizabeth Narcissa Paynter, an 18-year-old Cornish girl. The romance of the engagement of the world-renowned inventor to this beautiful, dark-haired girl has seized the imagination of all Cornwall.

wall.

Miss Paynter became acquainted with Senatore Marconi while he was visiting her parents.

Miss Paynter's mother was the first woman to speak by Radiotelephony to Australia. Marconi was giving a private demonstration-from the Cornish station—Poldhu—and she sent a greeting to the Cornish people in the commonwealth. Miss Paynter is to be one of the debutantes at their majesties' court at Buckingham palace this coming season.



POLICE CHIEF CONFAB WILL SUPPORT USE

Will Flash Radio Photos

System Can Blanket World with Criminal's Identification in Half Hour

NEW YORK .- Crooks, beware! Radio

NEW YORK.—Crooks, beware! Radio is on the trail of criminals. No longer will these gentlemen of mystery be safe by simply fleeing from one country to another.

The latest safeguard of the law is Radio photography—the flashing of pictures and fingerprints from one station to another by means of Radio. Already transoceanic Radio photography has been proven successful.

Now the heads of police departments from forty-four nations will soon gather in convention to consider the advisability of establishing an international rogue's gallery. The proposal will be one of the main subjects for discussion at the impending International Conference of Police Chiefs, to be held May 12 to 16 in New York city.

Sends complete Identification

Sends complete Identification

Sends complete Identification

The Radio photograph transmission system rakes possible the sending of a criminal's identification card over distances of thousands of miles in less than half an hour. The card includes the criminal's front and side view photographs, his finger prints and other details of identification. In this country the new inventions by which photographs may be transmitted by Radio or over land lines are already being made use of by the police, and it is hoped to extend the service to all other countries. (Continued on page 2)

(Continued on page 2)



Left, Helen Jones, who sings regularly for the Hoot Owls and on other programs from Station KGW. Above, Madeleine Collins, prima donna from Convent Gardens of London. She appeared as star in "Matla" in Now York recently. She was heard from WMOA shortly afterward. Right, Sarah Zeigler, of the Zeigler Siaters, often heard from WQJ.

GOLD CUP STANDING CHANGES SLIGHTLY

CLOSE RACE EXPECTED AS BALLOTS COME IN

Fever of Contest Reaches High Pitch Early in Race—Four Groups Show Leaders

Excitement runs high in the Radio Digest second annual Gold Cup Award for the world's most popular announcer. From all parts of the country votes are coming in for the different announcers whose supporters are rallying to their cause.

Now is the time to show your appreciation for your favorite announcer who has entertained you consistently without thought of himself. Vote for him! Get your friends together and pool your votes. When they are in consecutive numbers, they are eligible for a bonus.

Groups Show Leaders

Groups Show Leaders
Leaders have been classified into four
groups. Get together, fans, and help put
your favorite announcer in the leading
group. It takes team work to do it, so
form a club and hoost your favorite an-

nouncer.

Here is just an idea of how they stand in the various groups. Quite a few changes have occurred since last week. Some candi-dates have advanced, while others have gone down the list. These groups are as

gone down the list. These groups are as follows:
First group: Geo. D. Hay, Graham MeNamee, Henry Field, The Hired Hand.
Second group: W. G. Hay, N. Dean Cole,
H. W. Arlin, Gene Rouse.
Third group: Adams Colhoun, Chas. Erbstein, Lambdin Kay, Robert Emery.
Fourth group: Robert Boneill, J. H. Jay,
E. W. Tyson, Jerry Sullivan.
If the announcer you admire is not in one of them, start right in and cast all your votes for him. Hold them until you have at least eight consecutive votes, and then send them in, thereby getting the advantage of the bonus votes.
The latest standing last week showed 121 contenders for the Cup. During the week, seventeen more candidates were nominated, bringing up the total to 138 announcers in the race.

The seventeen new possible winners—and every one has a good chance—are as follows:

follows:

follows:

CHIC. Rud Weste.
CBIC. N. S. Richards
KPAL George Hayles
KFL Hurold Isbell
KFLIT, George W. Young
KFRU, Stank Lana
KFRU, Stank Lana
WIP, Kal Bensitz
WHAP, W. B. Branch
WHAP, W. B. Branch
WHAP, W. B. Branch
WEIGH, Ledle Atlass

How to write announcer has not yet
been listed, forward your nomination of
him at once to the Gold Cup Award Editor, care of this magazine. No nomination blank is necessary.

How to Write and Get Bonns

ton blank is necessary.

How to Vote and Get Bonns
Don't miss a single ballot, for when
these are turned in to Radio Digest in a
group of CONSECUTIVE numbers, extra
bonus votos 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 ballots your candidate will receive a bonus
of 20 votes. For each 12 consecutively
numbered ballots, 30 votes. For each 16

consecutively numbered ballots, 40 votes consecutively numbered ballots, 40 votes. For each 20 consecutively numbered ballots, 50 votes, and for each 22 consecutively numbered ballots, 60 votes bonus will be allowed.

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

Most Powerful Set for Turkey

LONDON, England.—The Turkish gov-ernment has decided to build at Angora ernment has decided to build at Angora the most powerful Radio telegraph station in the world. Captain Edward Walker, former British army officer, is responsible for the plans. He is acting for the Radio Corporation of America.

RADIO COMBATS CRIME

(Continued from page 1)

(Continued from page 1)

The American system, which went into active use several weeks ago, includes only New York, Chicago and San Francisco at present; but it is planned to include many smaller cities in the near future. Photos and fingerprints of criminals are flashed across the country as soon as crimes are committed.

In this way police all over the nation are put on the lookout for criminals who have hitherto made their escape by rapid

have hitherto made their escape by rapid nave numerto made their escape by rapid getaways before definite means of identifi-cation could be sent out. But their flights cannot equal the speed

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Looking Ahead

KNX, "In the Heart of Movieland," will be the next station to be featured with numerous photographs and descriptive story of the purpose and people behind the project. "Hollywood is the place," according to a prominent and somewhat dignified New Englander, "where a bank president can come to work bareheaded, in knicker trousers and a jazzy sweater, without starting a run on his bank." Coming soon; feature stories and photographs of Stations CKY, KFAB, WGN, KFI, WAHG and WEMC. Watch for them.

Underground Antennas as Static Eliminators will be taken up next week by Edward T. Jones. This author has had articles on this subject in the Radio Digest before and the coming article shows the application of his system in limited areas. It differs greatly from that used by Dr. Rogers and was developed by Mr. Jones during the war.

sed-Eisemann Neutrodyne is one of the most widely distributed receivers of this type, so we know the next Operating and Trouble Shooting article will be of interest to thousands of our readers. No matter what neutrodyne you are using there will be much valuable data for you.

A.B.C. Radio Course by Professor Moreton has advanced to the stage where inductance and capacity are considered together in an alternating current cir-cuit. The next chapter shows the reactions obtained by the use of both and how these results can be controlled.

Newsstands Don't Always Have One Left

WHEN YOU WANT

Radio Digest

BE SURE OF YOUR WEEKLY COPY BY SUBSCRIBING NOW

SEND IN THE BLANK TODAY

Publisher Radio Digest, 510 N. Dearbora St., Chicago, Illaois,
Please find onclosed chesk M. O. for Five Dollars (Stx. Foreign) for One Year's Subscription to Radio Digost, Hustrated,
Name
Address
City

THOUSANDS OF FANS **VOTE TO BETTER AIR**

VOTE YES ON CONSENSUS OF OPINION BLANKS

Broadcasters and Radio Clubs Endorse Radio Digest Campaign—Ask for Blanks

CHICAGO.—Spurred on by Radio Digest's national campaign to clarify the air, and once for all provide some means for satisfactorily regulating Radio, tens of thousands of listeners have responded with "Consensus of Opinion" votes.

Not alone have these enthuslastic Radio fans filled and returned the voting blanks, but nearly 50 per cent have requested more blanks, in lots of from ten to 500, for the purpose of enlisting the aid of fellow fans. Many of these requests come from Radio clubs. Others are from broadcasting stations. All will be supplied with blanks. *

It is the earnest hope and aim of Radio It is the earnest hope and aim of Radio Digest to secure a vote of several millions of listeners. Armed with such a petition it will not be difficult for Secretary of Commerce Herbert Hoover to give the invisible audience what the majority desirance

Broadcasting Stations Endorse Campaign

Broadcasting Stations Endorse Campaign
The movement for less air congestion
has been officially endorsed by a great
number of broadcasting stations. None of
these have criticised the campaign. The
stations all agree that the "Consensus of
Opinion" vote is the most practical means
yet suggested for correcting the present
difficiencies of broadcasting.
The campaign is heralded by everyone
as one of the best things that ever happened to Radio.
The response from Radio fans bears out
the statement. While the tremendous mail
cannot be acknowledged, all letters and
blanks will be carefully classified and
filed, and requests for more blanks will
have inmediate attention.
A study of the voting blanks received
to date brings fourth some interesting
information.

Affirmative Replies Overwhelming

Affirmative Replies Overwhelming
Roughly speaking, 95 per cent of the votes are all in the affirmative, that is, every question asked is answered with "yes," regardless of whether the listener is all of 300 miles or but one mile from the nearest class B broadcasting station.

A few voters say no to question 1 (blank form above), but still are in favor of less congestion. The next six questions, from 2 to 7 inclusive, are almost always answered with yes. Sometimes, when the voter has not heard of the Kinterplan, question 5 is answered no, but the great majority of these "no's" vote yes to the next question, number 6.

Question 8 presents difficulties for many. Listeners often do not wish to list five disliked stations. Other voters answer as directed. The votes for and against various stations will bring many surprises when tabulated. It is interesting to note that the higher power class b stations with first rate programs, rank first in the minds of Radio listeners. Of course, these stations have a larger audience by reason of their power, so that must be allowed. Question 8 may seem unfair, but answers to it will amass much valuable Information.

Do you want better reception conditions?

Do you want better reception conditions:
Of course you do, so give all the spare
time you can to the promotion of this
movement. Get your neighbor to vote!

STATION GLEANINGS AND NEWSY BRIEFS

MOTHERS' DAY WILL BE OBSERVED BY MANY

Events of Illinois Legislature to Be Broadcast by WJJD—"Boys Friend" at KGO

Mothers' Day, Sunday, May 10, will be celebrated in a unique manner by WKRC (formerly WMH), Cincinnati, raised to 1,000 watts power with its change in call. Sons and daughters have been invited by the station to send in monthers' names, addresses, and songs desired. Both the names of the mothers and those sending these messages of love through the Radio entertainers will be read. Many old-Inshioned melodies have been chosen to fill the other this late Sunday hour from 10 to 12 p. m., Eastern time. The station is now owned by the Kodel Radio corporation.

Crosley Station WLW, Cincinnati, will also fittingly observe Mothers' Day, as will many other stations throughout the country.

"Baby Mine," a snappy farce comedy in three acts, is the dramatic production to be offered by EGO, Owkland, Calif., dramatic players Thursday evening, May 14. The plece will be presented in Radio form by Wilda Wilson church.

Belleving that a broadcasting station is a semi-public institution. WJJD at Moose-heart, Ill., has arranged for a weekly report of the events of the legislature at Springfiold, Ill., to be presented at 11:15 p. m., Eastern time, from its Chicago studio in the Palmer house.

Henry Purmont Eames, internationally famous lecturer and planist, recently opened a series of educational lectures in musical appreciation over WLS, Chicago, Ill. Fridays at 10 a. m., Eastern time is the schedule of these. This is part of the educational program mapped out for the WLS high school audience.

Monday morning, April 20, saw the inauguration of the Central X. M. C. A. "Devotion Period." At 7.30 a. m., Eastern time, this feature is given from Westinghouse Station KYW, Chicago, Ill. This is a daily fifteen-minute service sponsored by the Church Federation of Chicago, who arrange the program.

Baseball fans meed no longer wait for the morning paper to find out the results of the game the day before. Station WHN, New York, is uow broadcasting the results of the games each day.

Every Thursday evening from KCO, at 5:30, Pacific time, Geo. W. Ludlow, generally known as a "Friend to Boys," broadcasts what he calls "Sixty Minutes of Sense and Nonsense." He will not only talk about the sun, moon and stars, but other big things in the universe.

Lorado Taft, noted Chicago sculptor, whose materpleces have made him nationally famous, recently gave fans one of his characteristic talks from WLS. His topic was "Appreciation of Beauty."

A tea dance program featuring the Dixie Boys' orchestra can be heard every Sun-day afternoon from Station WBBM. This program is being broadcast from their studio in the Broadmoor hotel, Chicago.

Station ICYW, Chicago, Ill., has added two fun makers to the staff in person of Si Berg and Perc Congdon. They are heard on the Congress hotel program, broadcast at 12 o'clock midnight, Easteru time, every night.

Audlences of Stations WEAF, WJAR, WEEI, WTIC, WCTS and WFf gave fans a rare treat when they broadcast Rugglero Leoncavallo's "I Pagliacci" in tabloid form recently. This is one of several

loid form recently. This is one of several grand operas being broadcast from these stations regularly.

Viucent Lopez Pennsylvania hotel orchestra was heard playing recently under the auspices of the U. S. Schol of Music from WOR, Newark, N. J. The feature was well received by thousands of fans lhroughout the country.

For the first and only time in its bistory, the world-famous St. Olaf choir was heard recently from WCCO, Minueapolis-St. Paul. The concert was given to serve as an advertisement of the Norse Centenuial to be held in the Twin Cities from June 6 tn 9.

"The Chickering Artist Series," presented from Station WOR, Newark, N. J., has earned nationwide approval from members of the Radio audience, presenting as is does a higher type of artist than ordinarily found on Radio programs.

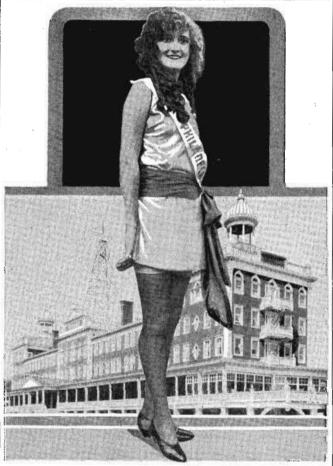
FIND NEW DEPOSIT OF RADIO CRYSTALS

SHOLT, Eng.—The newest place to look for crystals for your Radio sct, according to reports from this city, is in the sewerage disposal works. While blasting operations were going on there, workmen discovered debris with a queer crystal-like appearance. One man took a piece home and tried it in his set. As soon as he reported that it improved reception, there was a rush to the works like the famous Kloudike gold strike.

DIRECT AIRSHIP VIA RADIO THROUGH FOG

ONDON, Eng.—During an 800-mile experimental flight over the British Isles, which it had just completed, the newly constructed airship, R-33, cruised over fog banks waiting for the mist to clear so that the ship could be moored again. During the fog the ship was navigated entirely by Radio bearings picked up from directioning stations for more than half the fifteen hours the vessel was in the air. Again Radio helps!

MISS AMERICA OPENS NEW WHAR



Miss Ruth Malcomson (Miss America), winner of the first prize for the most beautiful girl in America at the Atlantic City Pageant of 1924, recently delivered the opening address at the dedication of the enlarged transmitter at Station WHAR, Atlantic City, N. J. In the background is the Seaside House, home of WHAE.

Broadcast Many Bands From Mineral Wells

Fifteen Hundred Musicians Participate in Mammoth Event

MINERAL WELLS, Texas.—Station WBAP, Fort Worth Star-Telegram, recently established a new mark in Radio broadcasting during the convention of the West Texas chamber of commerce when fifty massed bands, attending the convention, were broadcast by remote control each morning.

Fifteen hundred musicians gathered on the hillside of this city and played enmasse. This was the greatest aggregation of band musicians ever broadcast from any station.

One of the important features of the convention could not be broadcast. That was the biggest open air banquet ever held in Texas. Ten thousand peoplo sat down and had dinner on a ten-acre lot. A pageant followed depicting the finding of the curative waters which have made this city famous.

WASHINGTON, D. C.—An application for licensing a broadcasting station on the yacht "Idalla" has been filed with the Radio section of the department of commerce by Ray Newby of San Jose, Calif.

Station Changes

The following class B broadcasting stations have recently gone on the air; WHT, Wrigley building, Chicago, 111., and WSMB, Saenger Amusement company, New Or-leans, La. The latter station uses a wave length of 318.9 meters and is heard well in the North.

Class A licenses have been issued to WDOD, Chattanooga Radio company, Chattanooga, Tenn.; KQW, Charles D. Herrold, San Jose, Calif.; WIEE, Martinsburg Radio Broadcasting company, Martinsburg, West. Va.; WIEO, Nelson Brothers, Chicago, Ill.; WOWL, Owl Battery company, New Orleans, La.; WIBF, S. P. Miller Danoe activities, Wheatland, Wis.; WIEG, St. Paul's Protestant Episcopai church, Elkths Park, Pa.; WMBB, Trianon ballroom, Chicago, Ill., and WIED, X-L Radio Service, Joliet, Ill.

Station KWG, Portable Wireless Tele-phone company, Stockton, Calif., has been transferred from class C to class A.

NEW ORLEANS NOW ON AIR WITH WSMB

PICTURESQUE TOWNHEARD WELL IN NORTH

Studio Atop Maison Blanche Building Best That Money, Brains and Talent Could Produce

NEW ORLEANS.—Atop the Maison Blanche building in this city has been built a plant, dedleated to the ideals and service of the hest that money, brains and talent can give to Radio—Station WSSMP.

and thent can give to Radio—Station WSMB.

Artists, drapers, engineers and technicians have transformed the upper floor of this building into a cozy home for the new station. It was built for the future as well as for the present. Those in charge anticipating the progressive march Radio will make in this territory, once the people take if to their beatts and homes, and adopt it as a necessity in their daily lives.

This station went on the air April 21 with a program designated to the city of New Orleans, and featured by a stellar program of entertainment, including brief addresses by leaders in the city, professional and business life of the city and state.

state.

state.

The inighty fountain of entertainment, ready to be dapped at all times by the Saenger Amusement company, owners of the station, and a number of theaders in the South, gives one a brief idea of the scope and operating power necessary to man WSME.

man WSMB.
Actors, artists, musicians and the many allied units of entertainment will be brought into play for the pleasure of the unseen militions. Sports, science, market quotations, police bulletins and household aids, will intersperse the musical and voeal programs.

WLW CHIEF TO GO ABROAD FOR DATA

Fred Smith Will Investigate Inter-national Broadcasting Problems and Foreign Stations

cincinnati. — International broadcasting has become a definite fact instead
of a vague possibility sirée the advent of
the super power broadcasting stations.
The vast audience has been awakened to
the necessity of a more complete understanding among broadcasters of the different nations.
Fred Smith, studio director of Crosley
Station WLW here, is making the first
concrete step in the direction of personal
interchange of ideas. He is going to
Europe in June to study broadcasting. He
will visit England, Germany, Holland,
Switzerland, Erane, 1901-pium, Italy and
probably Russia.

probably Russia.

probably Russia.

Previous to joining the Crosley Radio corporation, Mr. Smith studied for eight years in the countries that be is going to visit. He will now take the advantage of his former experience, and will prepare a series of articles on broadcasting while in Europe. These articles will appear regularly in the Radio Digest.

Plan Exploration of Receiving Conditions

Radio Equipped Special Train Will Tour Country

BROOKLYN, N. Y.—From one end of the United States to the other, in Canada, and across the border to Mexico, summer broadcast receiving conditions will be studied through the 'Trade and Good Will Trip Through the Golden West' by the Brooklyn chamber of commerce.

Eric H. Palmer, noted newspaper man, is the 'ffirst Radio explorer,' who will multer this study. He will tune in on various stations en route, with a view to determine the strength of signals under all kinds of atmospheric conditions and under various environments.

A special train will be equipped for the journey. One of the cars will be used for a community room for meetings and the like. This car will be equipped with an elaborate Radio installation, and efforts will be made to tune in as many stations as possible.

Interference at Tacoma Now Finally Eradicated

TACOMA, Wash.—For two years the Tacoma smelter here has been causing fans a tremendous loss of sleep and good temper. Now, the life of a fan in this city is sweet, for the trouble has been eradicated. Officials of the plant, together with O. R. Rerfern, are responsible.

RADIO FADE-OUT IS **NEW WJJD FEATURE**

SONG TONED DOWN UNTIL

Jack Nelson Humors Fans with New Method of Signing Off at Mooseheart

Mooseheart

MOOSEHEART, Ill.—What movie fan doesn't know what a "fade-out" is? And now comes the Radio fade-out. When Jack Nelson was at old WDAP, he established the enstone of singing his song, "May You Laugh in Your Dreams," as the finale to the late programs, after all signing off announcements had been made.

He does the same now on the late programs of WJJD, where he is director and announcer, but Ralph Shugart, the engineer, has added a new twist which is receiving many comments.

When Mr. Nelson is half way through the song, it begins to decrease in volume until the last notes of his singing and playing fade away into silence. The effect is such that the listeners feel they are drifting linto space. One listener said that the only way he could describe it, was to say, "It makes me feel just as though I were dropping off to sleep in a clover field in the middle of a drowsy snmmer afternoon. Boy, he certainly gives me the spring fever!"

NEW WJAZ VOICE SOON GOES ON AIR

Distinctive Lighting Effects, New Type Mike and Luxurious Furnishings Mark Station

CHICAGO, Ill.—Distinctive developments in lighting effects will play an important and unusual part in new Zenith Station WJAZ, when it broadcasts from the new location in the Strauss building. The new studio will mark an epoch in the construction of Radio broadcasting apparatus. The entire twenty-third floor of the building will be utilized by the studio, reception room and executive offices of the Zenith Radio corporation. Acoustic experts have arranged interiors so that the delicate pitch of the violin and the deep resonant tones of the bass viol will all be harmoniously perfect in their transmission.

will all be harmoniously perfect in their transmission.

Dr. M. Lucklesh, well-known authority on lighting has been retained to develop something unusual in studio lighting. Lights—soft graduations of light and bold illuminative effects will make the atmosphere of this studio fit in with the mood of the selection being given by the artist. By means of motion picture photography, an audience will be thrown on a screen in a new and distinct form of microphone, so that the artists will be able to visualize an audience when before the microphone. Station WJAZ will be on the air within the next few weeks.

Expect Extension on Radio Monopoly Hearing in May

Monopoly Hearing in May WASHINGTON, D. C.—Word received here is to the effect that it is possible that the companies against whom the Federal Tuide commission has Issued a complaint ailleging Radio monopoly, may ask to have the ease postponed from May 18 until some future date. It is inderstood that a number of officials of the companies have made previous arrangements to leave the country. The case was originally set for March 18 but was postponed at the request of attorneys for the commission.

Edward H. Heas, an investigator of the trade commission during the early stages of its investigation into the Radio business made several years ago at the request of congress, has been delegated by the commission to assist Attorney E. L. Smith, who is in charge of the commission's complaint.

New Television Invention

New I elevision Invention

Demonstration by British

LONDON, England.—For the first time
in its history television has been publicly
and successfully demonstrated here. The
apparatus used was entirely different to
that which has from time to time been
used by newspapers for the rapid reception of photographs, and was absolutely
"in the rough."

The device undoubtedly transmitted an
instantaneous pleture without the use of
any code. The picture was flickering and
defective, and at present only simple pictures can be sent successfully.

The British post office Is endeavoring to eliminate code interference from the band now used for broadcasting purposes. It is proposed to put ship stations above the 400-meter band.

WOAW ANNIVERSARY BRINGS TON OF MAIL

MAHA, Nebr.—During the recent anniversary program from Station WOAW, located in this city, the inflood of mail was tremendous. It exceeded any other official or unofficial records made. In the brief period of nineteen hours more than 19,245 Western Union and 2,644 Postal telegrams had been received; 2,500 long distance and 2,100 local telephone cells were recorded, and in the course of the following week 158,458 post cards and letters were received.

Carnegie Tech Announces

Summer School in Radio
PITTSBURGH.—A six weeks' course in
Radio communication will again be featured this year at the summer school of
the Carnegie Institute of Technology here.
The College of Judustries will be in charge of the course.

CHICAGO'S "SILENT" **NIGHT NOW IS NOISY**

CLOSEBY STATIONS WON'T AGREE WITH LOCALS

HT Makes Proposition But WCEE, WTAS, WORD and WJJD Fail to Get Together

CHICAGO.—A lively debate over silent night in Chicago has again been settled—with the public losing.
With the recent opening of Station WHT, with studios in the Wrigley huilding, Chicago, and super-power station at Deerfield, Illinois, about thirty miles distant, officials of that station promised the mayor's Radio commission that WHT would observe the Chicago Monday silent night rule, providing other nearby stations with studios in Chicago did likewise. with the public losing.

With the recent opening of Station WHT, with studios in the Wrigley hullding. Chicago, and super-power station at Deerfield, Illinois, about thirty miles distant, officials of that station promised the mayor's Radio commission that WHT would observe the Chicago Monday silent night rule, providing other nearby stations with studios in Chicago did likewise.

The other stations with transmitters

Work of moving the transmitting apparatus and installation of the elaborate remote control system was completed by

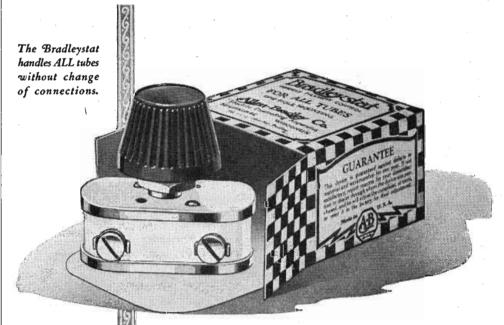
within fifty miles of Chicago and pickup studios in Chicago are WCEE and WTAS at Elgin, WCRD at Batavia and WJJD at Mooseheart, III.

All would not agree to remain silent on Monday night. The result is that WHT, in addition to the other closeby stations, is on the air Monday nights.

So the public loses again!

KFOA CLOSES FOR DAY MOVING TRANSMITTER

Engineers Work Hard to Finish Job Maintaining Schedule



Bradleystat

Two columns of graphite discs provide stepless, noiseless control.

Range of control is from 1/4 to 100 ohms, sufficient for all tubes without change of connections,

One-hole mounting for panels. Table mounting for baseboards.

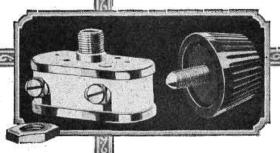
Extremely compact. Easily substituted for wire rheostats.

\$1.85 In Canada, \$2.50

There are many rheostats -but only one Bradleystat

The smooth, noiseless, stepless control of the Bradleystat is the outstanding characteristic that places this remarkable filament rheostat in the front rank of perfect radio devices. Many attempts have been made to duplicate Bradleystat performance by using substitutes for the scientifically-treated graphite discs, but without success.

It is not strange that the Bradleystat maintains its supremacy among radio rheostats! It was developed by engineers who have designed graphite disc rheostats for over twenty years. Have you improved your set with Bradleystats? Try one, tonight.



<u>Alle</u>n-Bra<u>dle</u>y Co.

Electric Controlling Apparatus 290 Greenfield Avenue MILWAUKEE, WISCONSIN

وتصويحيون ويحدونو MAIL THIS COUPON

Please send me descriptive literature on the Brad-leystat and other Allen-Bradley radio devices.

tvame	•••	•	٠	•	• •	•	•	•	٠	٠	٠	٠	•	•	•	٠	٠	٠	•	•	٠	•	•	٠	•	•	٠	٠.	٠	٠	٠	٠	٠	٠	٠	•	٠	٠	٠	
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Operating and Trouble Shooting

For the Owner of a Marv-O-Dyne Model 612-C

THE Marv-O-Dyne is a five tube receiver manufactured by the Amher Manufacturing Corp. of New York the circuit employed is known as tuned radio frequency and, as will be noted in figure 1, there are 3 dials used for tuning, 2 smaller dials for making slight adjustments in the sensitivity and a voltmeter which shows the voltage applied either by the A battery or the B battery. This voltmeter is really quite a convenience, and will prolong the life of the tobes, as the operator can keep the filament voltage at 5 and this is the voltage which the manufacturers of tubes recommend.

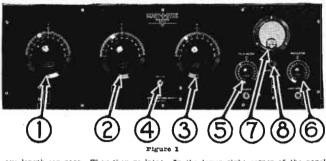
Accessories Necessary.

Accessories Necessary.

The accessories required with this out-fit consist of an antenna, a ground clamp, a six volt storage battery, a 90 volt B battery, a 4½ volt C battery and a loud speaker. A pair of head phones may be purchased also, if desired, but are not

purchased also, if desired, but are not essential.

Figure 1 shows the front view of this set, figure 2 shows the rear view with the cabinet removed, while figure 3 is the schematic wiring diagram. These three diagrams have been numbered so that the various parts are the same in the three illustrations. On top of the first coil to the left, which we have designated with the number 9, will be found a three point switch designated as 14. This is to be so need that the first dial can be made to read approximately the same as the other two. If there were no such switch, and a very long aptenna were used, the first dial would read considerably below the other two. The signals pass through this set from left to right, and behind dial they eeme to an obstruction in the form of a tuned circuit, which they can only pass when this circuit has been adjusted, by means of dial 1, so that it responds to the wave length of the desired program.



wave length can pass. They theu go into tube W for a second strengthening, which is known to the Radio man as amplification. Tube W passes the desired program into the few turns at the bottom of coil 11. It is intended that those turns at the bottom of coil 11 shall pass the program into the upper part of coil 11, which forms a third tunable circuit with condenser 3. When this third circuit has been adjusted by means of dial 3 to the desired wave length, the signals can enter tube X. Up to this point, the incoming program has all been in a form such that it could not be heard if put into a pair of head receivers or a loud speaker, and it is the purpose of tube X, which is known as a detector, to change the form of the signals so that they will actuate a pair of head phones.

Loud Speaker Amplification

this set from left to right, and behind dial 1 they eome to an obstruction in the form of a tuned circuit, which they can only pass when this circuit has been adjusted, by means of dial 1, so that it responds to the wave length of the desired program.

Having passed this first circuit, consisting of condensor 1 and coil 9, the music and voice enter tube V in which they are strengthened and passed to part of coil 10. Coil 10 is divided into two parts, and the upper end of 1t, in cenjunction with condenser 2, form another obstacle until dial 2 is set so the signals on the desired

In the lower right corner of the panel there are two places known as jacks, provided for plugging in the loud speaker; the first enables the user to connect in the loud speaker after tibe I was after tibe Y, while the second connects the loud speaker after tibe Z. The small dial 5, which the manufacturers have seen fit to call a Fill-A-Meter; is used to adjust the brilliancy of the tubes. While one connects over 6 volts to the plus A and minus A terminals, part of it is to be consumed by the instrument behind dial 5. The voltmeter identified by the number 7 enables the user to see just how much is absorbed by 5 and how much goes ont to the vacuum tubes. It will be found that as the Fill-A-Meter is advanced to the right, the volume of the signals will increase. When the needle has reached 5 or 5% it

will be found that there is no further gain in volume even though the dial is turned further and the voltmeter needle advances to a higher figure.

Sensitivity Control on First Two Tubes

Sensitivity Control on First Two Tubes

Item 6 is a control on the sensitivity of the first two tubes and it will soon be learned that this dial can he advanced further on higher wave lengths than it can on the lower ones, for maximum sensitivity. As this dial is turned to the right, the volume will increase until a point is reached at which a slight blurring occurs. This point will he reached sooner at lower wave lengths than at higher once. However, for maximum efficiency this dial should be turned to greatest response, just before the blurring occurs, for each new station tuned in. It local signals are too loud when the loud speaker is plugged into the jack furthest to the right the plug should be withdrawn and inserted in the other jack. It might seem to one, at first thought, that this would be a waste of energy but provision has been made, in the jacks themselves, so that the last tube is not lighted unless the speaker is plugged into the last jack.

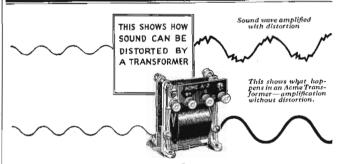
The voltmeter serves a double nse in this set as if one cares to learn the volt-

the last fack.

The voltmeter serves a double use in this set as, if one cares to learn the voltage being supplied by the B batterless at any time, it is only necessary to push in on knob 8 and the voltage of the B batterles will be indicated on the upper scale of the voltmeter. Releasing knob 8, a flicker of the needle will be noticed, and it is again indicating the voltage supplied the filaments of the tubes.

(Continued on page 20)

(Continued on page 20)



With ACME transformers you get amplification without distortion

WHEN you put a lot of time and money into WHEN you put a lot of time and money into a radio set you want to be sure that it will give the best results. You want to know that you can bring in the distant stations loud and clear, so that a roomful of your friends can enjoy it. You want amplification, but above all you want Amplification without Distortion. To do this, use amplifying transformers that increase the sound without spoiling the quality. The Acme A-2 Audio Frequency Amplifying Transformer is the result of five years of research by Acme Engineers. Whether you have a neutrodyne, superheterodyne, regenerative or Reflex, the Acme A-2 Audio Transformer will make your set better.

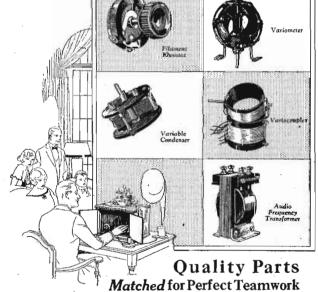
If you are not getting loud, clear, undistorted

If you are not getting loud, clear, undistorted radio change to Acme Transformers and note the difference.

Each Acme Transformer is tested in our factory and bears a guarantee tag; there are no Acme "seconds." Use Acme Transformers in the set you build. Insist on them in the set you buy. One of the big reasons why the Acmeflex Kitset gives such excellent results is that it uses Aeme Transformers.

Send the coupon today for our 40-page book, "Amplification without Distortion," which shows how to get the best results out of your set through proper amplification and also contains a number of valuable wiring diagrams that will help you build a set. Enclose 10c with coupon.

ACME APPARATUS COMPANY and Radio Engineers and Manufacturers Dept. N5, Cambridge, Mass.



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.

FEDERAL TELEPHONE MANUFACTURING CORP.

for amplification

The transformer is the mag-nifying glass of radio

١	ACME APPARATUS CO., Dept. N5, Cambridge, Mass.
	Gentlemen: I am enclosing 10 cents, (U. S. coin or stamps), please send me a copy of your book, "Amplification Without Distortion."
	Name
	Street
	CityState

CLUB BANQUET FOR ROXY AT WEAF

Saturday, May 9

Saturday, silent night for: CFAC, CFCA, CHIC, CHNC, CNRT, CKY, KFAE, KFDM, KFKU, KFKX, KFMC, KFND, KFND, KFMC, KFND, KFND, KFMC, KFND, KFND, KFMC, KFMD, KFND, KFMC, KFMD, KFMD, KFMC, WGAP, WGA

Atlantic or Eastern Daylight Saving Time Stations

Atlantic or Eastern Daylight Saving
Time Stations

CKAC, Montreal, Can. (410-7) fp. m., kiddies' stories;
7:15, talk, Dr. Walter G. Remedy; 7:30, Windownoted dinner concert; 5:30, studio program; dance pronoted dinner concert; 5:30, studio program; dance pronoted dinner concert. 5:30, studio program; dance proWAHG. Richmond Hill, N. Y. (315.8), 12-2 a. m.,
dance music, Howard Gredy and bis orchestas.
WBER. New York, N. Y. (27:4), 8 p. m., Dr.; 3:30
WBER. New York, N. Y. (27:4), 8 p. m., Dr.; 3:40
WBER. New York, N. Y. (27:4), 8 p. m., Dr.; 3:40
WBER. New York, N. Y. (410-8), 12-20
WGAC, Pitthurore, Pra. 146-15, 22-30
WGAC, P

Hotel Cartion Terrace orchestra; 8:30-9, Strand homerclesten.

WIP. Philadelphia, Pa. (508.2), 1 p. m., Karl Bninwttg.

Grandit; 3, Howard Salmon and his dance orchestra;

Ethel Salee, soloist; 4, Iris Virginia Guiber, surficalio ;

Flora Ribba, accompaniat; 0:15, Clastene Stemma, Strand Hotels, accompaniat; 0:15, Clastene Stemma, Strand Hotels, accompaniat; 0:15, Clastene Stemma, Strand Hotels, accompaniati; 0:15, Clastene Stemma, Strand Hotels, accompaniati; 0:15, Clastene Stemma, Strand Hotels, accompaniati, 0:15, Clastene Stemma, Strand Hotels, accompaniation of the Strand Hotels, accompanies of the Strand Hotels, accompanies of the Strand Hotels, accompanies of th

Program. WJZ, New York, N. Y. (454.3), 4-4:30 μ. μ., the Cres-



Norman White is one of the popular sone of the popular sone of the steep of the station is heard every night.

gemds Maudolin club; 4:32-5:30, tea music; 7:02-8, Fradde Ridn and Motel Astor orthestrs; 8-3:30, Wurstenderstra; 8-3:50-9:30, Lalk, Wirt W. Barnitz; 8-3:30-10, program of duta; Ehma Burthart, contraite, and William A. McDermoft, barthone; 10-10-20, Herman William A. McDermoft, January Charles, January Charles, 10-10-20, Herman William A. McDermoft, January Charles, 10-10-20, Herman William A. McDermoft, 10-10-20, Laure Charles, 10-10-10-10-20, Laure Charles, 10-10-10-20, Laure Charles, 10-10-10-20, Laure Charles, 10-10-10-20, Laure Charles, 10-10-10-10-20, Careft laik, Board of Edumental 18-21, 10-10-10-30, Careft laik, Board of Edumental 18-21, 10-10-10-30, Careft laik, Board of Edumental 18-21, 10-10-10-30, Laure Laik, Board of Edumental 18-21, 10-10-30, Laure Laik, Board of Edumental 18-21

mental sesser; sectors of 658.2), 11 a. u., organ recital, Mary E. Vogt; 12:62, Golden's cristal tes room or-clears; 4:65, organ recital, Mary E. Vogt, 10:60, organ recital, Mary E. Vogt, the Commonwealth of the Commonwealth o

unanders oftnesura; 19.70-12, from Circ's. WPG. Atlantic City, N. J. (298.8), 7 p. in., Hotel Krickerbocker dinner music; 8.30, Phyllis Rergus, story poens; Chalfonte-Haddon hall trio; 10, Paul Whitanan's Hotel Tanymer dance orchestra; 11, Hotel Kricker-bocker daues orchestra.

Motel. Traymore dence orchestra; 11, Hotel Kricker-bocker dave orchestra.

Eastern Standard or Central Daylight Saving Time Stations

GH10. Terento. Can. (337), 9 p. m., dance program, Triais Inc.

Philai France. Can. (337), 9 p. m., dance program, Triais Louder, Philaipural Philai

5:30, Skeads time for children; 5:30, Drake concert encouble, Blackatone string cultriet; 5:30-30; cheetrs, concert; 19:30-130, Drake horse dance or cheetrs.

WGY, Schenechdy, N. Y. (379-5), 5:30 p. m., dance music, Ben Bernie's Hold Robinsell ortheatrs.

WJB, Messeheart, HI, (302.8), 6:30-7:15 p. m., dance music, Ben Ordania's Joint Jones, describe that 7:15-8.

F. Brown, ordania's Joint Jones, describe that 7:15-8.

WHS, Chicago, HI, (344-9), 7:45 p. m., tullaby time, like Ford and Little Glenn; 8-1 a. m., mational time, like Ford and Little Glenn; 8-1 a. m., mational

Mocsieheari theater orchestra: 10:30-1 n. m., Garod studio night.

W.S. Chicago, Ill. (344.6), 7:45 p. m., tollaby time, studio night.

W.S. Chicago, Ill. (344.6), 7:45 p. m., tollaby time, studio night.

W.S. Chicago, Ill. (347.6), Wildler Peterman Book trick, Wooderbeam, W.B. old time studies; Catthener and Ingram; Ford and Glema, W.A.C. Chicago, Ill. (447.5), 6 p. m., Mothers' Day prosition; S. Russell Pratt, Fred Dawy 8:30, "A Pilettic Chicago Authors," Larry Hangen; 9, with the chicago Authors, "Larry Hangen; 9, with the chicago Authors," Larry Hangen; 9, with the chicago Authors, "Larry Hangen; 9, with the chicago Authors," Larry Hangen; 9, with the chicago Authors, "Larry Hangen, 9, with the chicago Authors, "

WORR, Batsata, HI, (255), 8-9 p. in., siee cutz, night WORD, Batsata, HI, (255), 8-9 p. in., keitzels "The Golden Ages' musical program.

WIL, Chienge, HII, (447.5), 8-4 p. in., keitzels "The Golden Ages' musical program.

7.* Ralph Williams and hit. Ralpho Gardens orticles and the Williams and hit. Ralpho Gardens orticles and the Williams and hit. Batsata, ontrailer, 19-2 a. m., Ralph Williams and hit Ralpho
Skylarks; Garden Rose Wassenbeech, planist, Global Sale, prima domas, Bort Durias, Henri Therien,
Globalos Sale, Pieduskans, Alfred Twees, Blakes, and
Johnages. Helodakus, Alfred Twees, Blakes, and

KTHS, Het Sprimm National Park, Ark. (37.45), 3:30-10 yr, 6 filtered sewert. Prant. States: Tedders: 10 yr, 7 filtered sewert. Prant. States: Tedders: Ted

S5-plece saxonhone band; 10-11, Packard Radio club. Nath and Lilah Carlson, Way Watts, Jack Kurtz, Krws. Hollywood, Calli. (262), 7:15-9 p. m., Pletkiora-Falishanks studie string courtet; Wartes Besuchamp, tenor; Dirothy Dodd, Mildred Dissert, pondar songs; Buller supranger of the property of the State of the State

dance music, Henry Halstend's orchestra. (GW. Portland, Orc. (491.3), 12:20 p. m., Rose City (GW. Portland, Orc. (491.3), 12:20 p. m., Rose City (GW. Portland, Orc. (491.3), 12:20 p. m., Leighton's Arcade calcute, archestra, fact Cronshaw, leader; (KH.), Less Angeles, Calif. (483.2), 5:20-6 p. m., Leighton's Arcade calcute, archestra, fact Cronshaw, leader; (Fw. Edward Flumstelle, diluscor, e. 30-7; 30, little storice American nature, Prof. Walter Sylvester Hertage, play, cylid public Edynth McGratti. Helendon, John, S-19, festure program, Los Angeles Son company, artanace by J. Howard John'son, 10-11:20. Art Hotgan's Editumer dance orchestra. Earl Burtnett, Six orchestra. (KH. Scattle Wagh. (384-41, 11-20 p. m., Post-Incellia KN.X, Heilywed, Calif. (338-3), 5:55-6:15 m. m., Wurllitzer pipe organ studio, 5:12 ZHr's sports talk; 6:15-7:20, dinner hour music, 7:30-8. Wurllizer pipe organ studio, 5:12 ZHr's sports talk; 6:15-7:20, dinner hour music, 7:30-8. Wurllizer pipe organ studio, 5:12 ZHr's sports talk; 6:15-7:20, dinner hour music, 7:30-8. Wurllizer pipe organ studio, 5:12 ZHr's sports talk; 6:15-7:20, dinner hour music, 7:30-8. Wurllizer pipe organ studio, 5:12 ZHr's sports talk; 6:15-7:20, dinner hour music, 7:30-8. Wurllizer pipe service dance orchestra. Organization of the service dance orchestra.



Here is the Palace theater string orchestra. This popular Fort Worth orchestra may be heard Mondays between 11 p. m. and 12 at WBAP. Its members are L. E. Faget, Carl Austermiller, Frank Dawkins, Dot Echols McCuthan and George C. Drum.

Washington orchestra; S. Bible talk; 10, Vincent Lopez's Hotel Mayduwer orchestra; 10:30, Crandall's Saturday nighters; 12, Sidney Seidenman's Colohlal Saturday nighters, 12, States, Serial round orchestra.
WREO, Lansing, Mich. (285.5), 10-15 midnight, daper

WHED, Lunsing, Mich. (285.5), 10-15 midolphi, dance crobestra.

WHEAL, Clickmatt, Ohio 2500, 7:55 m. m., children's, competental and control of the competence of the competen

director.

KFRU, Bristow, Okla. (394.5), 9-12 midnight, music.

KSD, St. Louis, Mo. (345.1), 7 p. m., Grand Central theater; 8:30, dance brushu, City club.

Martin's school; 10:35, Frank W. Ecolek, Jr., and his Nichtingule occhestra; 11:15, Arthur Hays and his origin jubiles. With Chawerperk In. (483, 6), 9-10; no. programs B. With Chawerperk In. (483, 6), 9-10; no. programs B. With Chawerperk In. (482, 6), 9-10; no. programs B. With Charles Consport and Ms. Lectaire noted originates; non numbers, Peter McArthur, WSB. Atlanta, Ge. (428, 3), 9-6 p. m. Criterion Harmony Four | Hellings to Ny. Bonnile Starthardti, 6, 19-10; no. programs B. Sarthardti, 19-10; no. programs B. Sarthardti, 19-10; no. programs B. Sartha

Mountain Standard Time Stations

OA. Server, Galo. 4322-4), 12-16. m. Philharmonic orbination with Mrs. Elizabeth Schaeffer Misserth, so-prant 1-2, midday dance program, 1-2, midday dance program, 1-2 in 1916. Daniels & Plather stores; 7-8, open-air twillelli concert, Storling High School band; 5-12, 3-6 hann, and his Rethibon-Lane orchestra.

Pacific Standard Time Stations (F), Lu Angelta, Callf. (497), \$400-0 p. m., Examiner, marked l'uk lour; \$6-51, McDaubley infective Johns \$7.554, Eksfloriat (alk; \$7-7.55, Lake Arrowiterd dance scientific Acarol Rankey, louder; 7.64-5, the Booksheff, Miss Scatey; \$8-9, Examiner; program, Downey, Callf. Miss Scatey; \$8-9, Examiner; program, Downey, Callf. Distriction of Commerce; 9-10, Catterine Thompson',

Sunday, May 10

Sunday, silent night fer: CFAC, CFCA, CKAC, CHIC, CHIC

WOR. WRC, WSAC, WSAI. Atlantic or Eastern Daylight Saving Time Stations CKAC. Montreal, Can. (410.7), 4:30 p. m., classical coo-

WBRR, New York, N. Y. (272.6), 10. a. h., Weich-tower orchestra; 10:20, Fred Franz, ceno; 10:20, "Why Has God Given Us a Blibe and Utbault, so tenoe; 11:10, Watchtower orchestra; p. n. t., 5. B. S. A. choral singers; 21:10, instrum-mal, attp. 22:0, 1. B. S. A. vocal quartet; 2:30, "was Jesse God?" H. B. Riemer; 10, 1. B. S. A. choral singers; 5:10, 10:20, J. S. A. choral singers; 5:10, 20:20, J. S. S. Choral singers; 5:10, 20:20, J. S. Choral singers; 5:10, 20:20, J. S. Choral

Charlie Well-man is one of the oldest of Radio artists. In fact, he first appeared at KYW, Chiat HYW. Chi-cago. Later he was Chief Lost Angel at KHJ. He is row not only the an-nouncer at KFWB, but also this sta-tion's pepplest entertainer.



of the Unity, Rev. Charles A. Wing; Philhormople male quariet; 7 p. m., Cooley Phasa orthistra; 8, Sanato quariet, Mary Kilcoyne, sourgen, Marian E. York, alto, Thomas Mahoney, tenor; John L. Flynn, baritone, Grace M. Nicholls, painsit; Madeline A. May, whistler; 8:30, Henry Quariet; 9, Boston en-semble.

Dallinge, Orace at. Nations, panets, anadeline a. Nations, panets, panetine a. Recording of the panetic panetic, panetic

wear, Very York, N. Y. (491.5), 3.5 p.m., "Scalar Hynn Sing," Felloration of Churches; 7:20-9:15. Read and his Charge, Capitol theater; 9:15-10:15, (****)

WEAF, New York, N. Y. (381.5), 3.5 p.m., 'Spendas Hymn Surger, 'Pellwicklon of Churchers, '120.5-11. Bloss and his state, 'Captiol theater: '9:15-10-15, cases in WELL Beston, Mass. (475.9), 7:20 p.m., Broad and his wang, '9:20, organ recital, 'Columbia univers, 'Sweden Street, '9:15-10-15, cases in Well, '9:15-10-15, cases in Well, '9:15-10-15, cases in Well, '9:15-10-15, cases from 'Wild William Charles, '9:15-10-15, cases from 'Wild William 'Broad, '9:15-10-15, cases from 'William 'Proceedings of the Charles, '9:15-10-15, cases from 'William 'Procedure' of the Charles, '9:15-10-15, cases from 'Grant Charles, '9:15-15, cases from '

director.
WOO. Philadeighia, Pa. (508.2), 10:15 a. m., services, (Continued on page 9)

Headliners of the Week

MAJOR S. L. Rothafel (Roxy) will be the guest Saturday night of the Sojourner's club banquet, which will be broadcast by WEAF and its obain of stations. Roxy's speech will be given in the best Roxy style and the whole banquet therefore promises to be worthwhile even though you cannot actually take part.

WKRC, the new Kodel Radio Corporation station at Cincinnati, will send Mothers' Day greetings via Radio for fans who are far away from home. Any son or daughter may request this station to sing his or her mother's favorite song. These teader messages will be sent out between 11 and 12 Sunday night.

messages will be sent out between 11 and 12 Sunday night.

The Henderson-Brown college of Arkadelphia will give an interesting program of popular classical selections Monday night at KTHS This little college has done much to distinguish itself in the musical world. The famous Jewish singing society of Cleveland, directed by Classics Defarrach, will also be itend this evening over the microphone of WTAM, Cleveland. Cleveland.

Cleveland.

A Scotch program as burry in its accents as anything given in old Scotland will be the Tuesday feature of KFI. Los Angeles, and to prove that the real Scotch flavor will be

there, Jock McGrip, comedian; Audrew MacTarvish, piper, and Mary McNabb, contralto, are the principal entertainers.

MeNabb, contraite, are the principal entertainers.

Mirtial strains played by one of the Dest bands in the Northwest will startle the peaceful alr about KGW, Portland, Wednesday, when the Seventh U.S. infantry band visits the station. The 7:30 p. m. program at WHO this same evening promises to be above the usual. The La Beneme trio, a bes Moines organization, and the American Legion Banjo club will furnish the entertainment.

"Baby Mine," a snappy farce comedy in three acts, is the dramatic offering of the KGO players this week. Reserve your seats early for Thursday night. How would you feel to be a student :Hd have your hest papers read to sieveal million people instead of hearing these read before twenty or thirty persons in a small classroom. Many taking the music course at WBZ, Springfield, will have this pleasure tonight. Tune in and hear the results of Radio teaching.

Young musicians of Wisconsin will have the pleasure of hearing their compositions played before a national audience Friday night. The winners in the annual Wisconsin high school music contest will contribute to the WHA program for this evening.

SEND YOUR MOTHER A SONG VIA WKRC

Sunday, May 10

(Continued from page 8)

Bethany Temple; organ recital, Ceroline Quigg; ser-mon, Rev. Gordon A. MacLenunn; 2:30, services, Bothany Sunday school; 6:05 recital of sared and old-time bymns, Clarence K. Dawden, organist.

Eastern Standard or Central Daylight
Saving Time Stations
KOKA, Pittsburgh, Pa. (309-1), 3 p. m., Dr. Charles
Helinroth, organist; 3:45, respor services, Shadyside
Prespictant durch; 6:30, Point Streeze Presbytests

Prestyterian dutrei; 6:30, Polnt Breeze Prestyterian Church. Church Chur

Lute's Ancelican church; 8:15. Dr. Price. Braugalist.
KFAB, Lincoln. Nebr. (240). s p. m., church services.
KFAB, Lincoln. Nebr. (260). s p. m., church services.
KFOM, Beaumont, Texas. (315.8). 11. a.m. First.
Baptist church: 9 n. m., Mother's Day program.
KFNF, Shenandah, Isen. (260). 10:15 3.m., First.
Ballo chaplains: 3, Mother's Day program. First.
Radio chaplains: 3, Mother's Day program. 10:30,
Golden Rute circle: 8, Christian church. 10:30,
School; II, sermon; 5 p. m., vespec.
school; II, sermon; 5 p. m., vespec. m., vespec boar.
KFRU, Bristow, Dtla. (394.5), 9:30 a. m., Sunday
school; II, sermon; 5 p. m., vespec. m., vespec boar.
KTHS, Hot Sorings National Park, Ark. (374.8), 11
a. m., First Presbyterian church: 8:49-10, New All
Inition hotel orchestra; 10-11. DeSoto Sorius &-piece
WAMD, Mineapolis-St. Paul, Minn. (243.8), 2 p. m.,
Pro-Cathedral churt; 3, nopular program; 9, popular

Pro-Cathodral choir; 3. noonlar program; 9, popular program.

WoBD, Mon, 111. (344.9), 8 p. m. mited quaset, etc.; 1. Miller, violance of the program of the

10-11, Packard Eight dauce orchestra, Bill Hennessy, leader, KFWB, Hellywood, Catif. (252), 0-11 p. m., Warner Brothers' movie right with prominent stars of pen, (80, 0 whitand, Calif. (861.2), 11 a. m., Pirst Methodist Eplement church; 3:30 p. m., KGO Little Symbnory orienters; 6:15, Sprorott, Lumbra anniversary des provincestra; 6:15, Sprorott, Lumbra anniversary des provincestra; 6:15, Sprorott, Lumbra anniversary des provincestra; 6:15, Sprorott, Lumbra anniversary des provincestra, 10:10,

5 P. m., Portland Connell of Christee; C. Collura collections of the Collumn Collection of March Collections of the Collection of Collections of Collections

Monday, May 11

usode audiest; \$3.5, health talk from New York; 9, A. & P. Gonder; 10. Blue Ribbon quariest.

WF1, Philadelphia, Pa. (394.5), 1 p. m., Meyer Davis concent orchestrs; 3, talk; "Eefect Homes in Aparillars," Loretta Kerk, plantist; 6.30, Meyer Davis concent orchestrs; 3, talk; "Eefect Homes in Aparillars," Loretta Kerk, plantist; 6.30, Meyer Davis concent orchestration of Charleston & Charleston

come "Samon", concept writestars, T. Unde Wijr's bedtime stories, "The J'assurding of Small Pos," Dr. A.

A. A. Statistars, "The J'assurding of Small Pos," Dr. A.

A. Statistars, "The J'assurding of Small Pos," Dr. A.

A. Statistars, "A statist



Kay Macrae, coloratura soprano, gives weekly concerts at WMCA, New York, Since she began her Friday appearances at this station she has received many thousands of applause cards.

mans Evensetted Gotherat Convertant Methods and Southern and Southern Convertant William Kopp, director; sololist, Joseph Villo, harpist.
W18, Chicago III. (244.6), 7.30 p.m. Ratph Rmeraon, organist; 85:86, W7.8 Little Eleven church choi.
W18, Chicago III. (244.6), 7.30 p.m. Ratph Rmeraon, organist; 85:86, W7.8 Little Eleven church choi.
W18, Chicago III. (245.1), 10:30 a.m., served kyong, and south; B. M. Merc Bills lecture, Calvid and south; B. M. Merc Bills lecture, Calvid Southern Color of the Color of

Central Standard Time Stations CKY, Winnipeg, Can. (384.4), 7 p. m., service, St.

program; 5-5:30, Sunday school lesson, Dr. Walter L. Wilson.
Wilson.
WEMC, Berrien Springs, Mith. (285.5), 11 s. ra., studio chapel strices, Jeanstes Richardson; Rona Eby, fluits; Catharine Bogera, violinist; Prof. H. E. Koward, hous sermon, Factor W. R. French; 3-15. Radio Lighthouse choir; Dirs. Margaret Woft, plants; Encore Polony.

wFAA, Dallas, Tex. (475.9), 6-7 p. m., Radio Bible class, Dr. William M. Anderson; 8-9. City Tanale class, Dr. William M. Anderson; 8-9. City Tanale WHAD, Milwaukee, Wis. (273), 2-8 p. m., sindle pro-

Presilyterian church; 9:30-11, Ballew Brothers orchestra-WHAD, Milwauke, Wis. (275), 2-3 p. m., studio programs, which programs are strong and programs of the programs of the

wg01, fewa City, fewa (483.8), f. h. d. cityers nour;

9, femiliar hymns, William Education, fewer.

Mountain Standard Time Stations
CFAC, Galary, Can (443), 11 a.m., First Baptist
courter, Rev. Det. (32.34), 11 a.m., First Baptist
const cathedral; 3:30 p. m., 400 school children from
sixth grade, John C, Kendel, director; Charence Revnoldt, organist; 7:39, 8.1 John's Episcopic cathedral;

Facific Standard Time Stations

Kfl, Lea Anaeles, Calif. (467), 6:30 p. m., McDapleis' nightly deings; 6:35-7, musical appreciation, Edily;
2-3, from angles Calif. (467), 6:30 p. m., McDapleis' nightly deings; 6:35-7, musical appreciation, Edily;
3-5, from angles Calif. (467), 6:30 p. m., McDapleis' nightly deings; 6:35-7, musical appreciation, Edily;
3-7, from angles calif. (467), 6:30 p. m., McDapleis' nightly deings; 6:35-7, musical appreciation, Edily;
3-8, from angles calif. (467), 6:30 p. m., McDapleis' nightly deings; 6:35-7, musical appreciation, Edily;
3-8, from angles calif. (467), 6:30 p. m., McDapleis' nightly deings; 6:35-7, musical appreciation, Edily;
3-8, from angles calif. (467), 6:30 p. m., McDapleis' nightly deings; 6:35-7, musical appreciation, Edily;
3-8, from angles calif. (467), 6:30 p. m., McDapleis' nightly deings; 6:35-7, musical appreciation, Edily;
3-8, from angles calif.

Marion Par-tridge gives the crisp and entertaining pianologues at WWJ, the De-troit News station.

string trio; 10:10:10:35, dance music, the Criterions; 11:05-11:30, the Criterions; 12-2 a. m., special pro-

string this 19:18-18-15, does mustic the Citerious; 18:23 a. G., special program.

REAR.

REA

WOG, Philadelphia, Pa. (598.2), 12:92 p. n., i-idden's Chistal toa room ordiestra; 4:45, organ rectus, Mary K. Vodt; 7:20, A. Chistoprof poncut ordenia; 5:30, Mary E. Vodt; 10:30, Ben Mary E. Vodt; 10:30, Ben Woß, Newark, N. J. (408.2), marginal policy Woß, Newark, N. J. (408.2), marginal policy crans; 9:36-10:45, Sidumia Siwah, number orders and studio party; 10:35-11, PcZy and Russell, Wo-rans singing orchettra.

I. W. McLean, baritone, is popular with Buffalo fans. He will sing Wednesday, May 13, at WGR.

SCOTCH PROGRAM TUESDAY AT KFI

Monday, May 11

(Continued from page 9)

(Continued from page 9)

WHAZ, Trey, N. Y. (378.5), 8:15 p. m., Russell Sage college size club, 111, (392.8), 6:39-7:15 p. m., Albert F. Brown, organist; John Ceruy's orchestra; 7:16-8, Mossheart Novelly orchestra; "Child Care," M. P. Admis; 10:30-1 a. m., Gerod Stodio, p. a., poonday servies, Rev. Geo. H. Case, 6, W.L.W dinner hour concert; S. one hour of chamber music, arranger by Hie Rusbner; 9, Corenant Pluifathea give club; popular paper, "Explanation of How the Goldmith Official Laurie Ball 18 Made,"

WMAR, Lecknort, N. Y. (285.5), 8-9 p. m., mesteals; middight office reeduan; 11:30-1, Leew's State Oceatte.

WMAG, Chresso, Hl. (447.5), 4:30 p. m., Chicago High School Teachers' coundit; 5, Miss Whitz's Her Nange, State Chatter of the Child of t

WORD, Batavia, III. (275), 8:30 p. m., Morlock Sisters of Aurora: Edward Fitzgerald, planist: Mrs. Daver,



Joe Mann and his Rainbow-Lane orchestra are well known and liked in the Rocky Mountain region. The orchestra may be heard any Wednesday or Satura day or Later the General Electric company sation at Denver.

whistler; Bible beture, "Olorification of the Church," Cavire H. Swingte, "Olorification of the Church," Guite H. Swingte, "Olorification H. Swingte, "Olorification H. Swingte, "In Care of the Hands," Mrs. Margaret Reese Filking; 3-4, 0. p., "Bow Do You Market!" Helen Harrington Downing: "The Care of Your Hair," WRC. Weshington, to C. (488.5), 1-2 p. m. Siduey Sidennisha's Flor shall batel orchestra; 4, book retrieves, saugicos, League of, Aunoriean Pen Women, 4:20, plano cretal; 4:30, tes music, dieser Davis New WSAI, Cheminatt, Onic (359, 10 p. m., Union Certal choir; Waldene Johnston, violinist; Generiere Goodman, planist.

choir: Walder Johnston, violinist; Generiere Geooman, plantist.
WTAM. Cleveland. Ohio (389.4). 12:15-1:15 p. m. Euclid nusis studio lunch hour; 6-7, dinner dance, Guy Lombardo and his Royal Canadisms; 8-8, Wilhard studio instrumental hour. Wilhard Symbory. Walter studio instrumental hour. Wilhard Symbory. Walter Studio State of the Charlest Johnston Studio Studio Charlest Johnston Studio Studio Charlest Johnston Studio Studio Charlest Johnston Studio Studio Charlest Johnston Charlest Johnston Studio Charlest Johnston Johnston Charlest Johnston Charlest Johnston Charlest Johnston Johnston Charlest Johnston Johnston

st. Elgin, III, (302.8), 8-10:30 p. m., Villa Olivia concert; WTAS orchestra; Cavanaughs, Frank

Radio concert; WTAS ortnesses; Assassation, American Martin Strict, Cons. (348,0), 6 p. m., Emil Helm-berger's Hotel Joud 11to, 5:50, talk, Charles Lee; 5:40, Emil Helm-berger Hotel Joud 11to, 5:50, talk, Charles Lee; 5:40, Emil Helm-berger, Datt Bond 11to, Ben Rosenberg, Darltone, William Charles, S. cherolt, News principles, 3, empering News, Yark S. Deltoil, News principles, 3, empering News, News, News, Principles, 3, empering News, News, News, News, News, 2011.

Central Standard Time Stations

Central Standard Time Stations
KFAB, Lincoln, Nebr. (201), 7:30-320 p. m., slaft
artists, Orville Andrews: Collegiants orchestra: Verue
KF Ewell, associates wiscondive Walkidt Int. Piane tunling-fe-wamber; 7, nussie; 7:15, "The Buried Treasures
of Kamas, tile Story of the Salt Beds," Prof. R. S.
Duriser, 7-15, clementary Spanish.
KFKX, Hadrad, Nebr. (268-3), 0:30 p. m., dance
music, Rasho Britts University Six orchestra.
KFKX, Hadrad, Nebr. (268-3), 0:30 p. m., dance
music, Rasho Britts University Six orchestra.
County farm club.
Henry Field Seed company; 8:30, omert, Andrew
County farm club.
Nebr. (304-5), 7-8 p. m., educational
hour: S-1-90, musicale;
KIAF, Shitipok, Minn. (421), 8-9 p. m., chocus, muricival and the Salt Market Shitipok, Minn. (421), 8-9 p. m., chocus, muricival and the Salt Market Shitipok, Minn. (421), 8-9 p. m., chocus, muricival and the Salt Market Shitipok, Minn. (421), 8-9 p. m., chocus, muricival and the Salt Market Shitipok, Minn. (421), 8-9 p. m., chocus, muricival and the Salt Market Shitipok, Minn. (421), 8-9 p. m., chocus, muricival and the Salt Market Shitipok, Minn. (421), 8-9 p. m., chocus, muricival and the Salt Market Shitipok.

Klaff, Shitopo, Mina. (21), 8-9 p. m., chorus, muni-cipal band.
KAC, Manhattan, Kons. (341), 12:35 p. m., "Bindweed KAC, Manhattan, Kons. (341), 12:35 p. m., "Bindweed will associate the control of the control of the Williams." b. E. Willoughby, "Spray Dales," L. C. KSD, St. Louis, Me. (353-1), 7:30 p. m., "Natiunal Hosnital Day. "Dr. Louis F. Barliyaphan: 9, Gardour Motor company "Engle Links entertainers; 16, music

Horstial Day." Dr. Louis F. Barthashan; 9, Gardner Motor company Elliphi-Libu entertainers; 10, music lightersweat, Webster college. Per Ark. (374.8), 8:30-215 by March 1990 Ma

Trail Blazers; 11-12, George C. Ornan's Palace ordictera.

11. (244.6), 8 m. micred opartet: Mrs.
Thomas, soprano; Mrs. LaRoso, centralier i da Peterson, soprano; Mrs. LaRoso, contralier i da Peterson, soprano; Mrs. LaRoso, contralier, Richard Ellre,
vialinist; Lols Wiedman, reader; Edwin Sach, planist.
WCCO, Minneapolit-St. Paul, Minn. (446.4), 2:30 p. m.
Hai Keilar's Nankin cate orthesitz; 6:30, L. A. Cleusen, reader; S. Shearlun; Shept and Care of Wool;
Dalfe, Coffey; S.15, "Supplementary Pastures for
Dalfe, Coffey; S.15, "Supplementary Pastures for
Dalfe, Coffey; S.16, "Supplementary Pastures for
Dalfe, Coffey; S.16, "Supplementary Dalfe, Dalfe, Dalfe, Dalfe, Coffey, S.16, "Supplementary Dalfe, Dalfe, Coffey, S.16, "Supplementary Dalfe, Dalfe, Dalfe, Coffey, S.16, "Supplementary Dalfe, D

raib. Kansas City. Mo. (368.5), 3:30-4:30 p. m., ram. Newman and Royal theaters; 5-5:39. Boy sprogram; 6-7. (betile Burton, reader; Tell-Me-a-ty-Virgina) of the town of the town blavers. 11:45-1 a. m., Morry Old Chief, Planta-blavers.

Story heldy: Trianon ensemble: 8-10, around the town with WDAF: 11:45-1 a. m., Merry Old Chief, Plantation Diaverses Springs, Mich. (285.5), 8:15 p. m., Radio Listinbouse Music Makers, WFAA, Dallas, Texas (475.9), 12:30-1 p. m., Marlo R. Bolack, plants; 8:30-3-7:30, Ray Lettingwell's orthestra; WFAA, Dallas, Texas (475.9), 12:30-1 p. m., Marlo R. Bolack, plants; 8:30-3-7:30, Ray Lettingwell's orthestra; New Year, Marlo R. West, Marlo R.

popular music.

WOS, Jefferson Gity, Mo. (440.9), 8 p. m., a round table discussion of The Mi rout Law on Livestock and Poultry Feeds," Jovell Marce old time didding program, Jim Haley, Charly, Salag, WSE, Atlant, 6 ft. (428.8), 3-4 p. m. bedtime story.

Bonnie Barnbardt; 8-9, entertainment; 10:45, Warners SURA Accs. SURA Accs. City, lewa (483.5), 12:20 p. m., "The Friendship of Gothe and Schiller," C. H. Ibershift, 7:30, "Modern English," Thomas A. Knott, 7:45, "Current, Social and Economic Problems," Dale Yode:

Mountain Standard Time Stations

S. concert.

Mountain Standard Time Stations

KOA. Denver, Colo. (322.4). 8 p. m., Fred Schmitt and his Bilato theater octestria; 8:10. Derver Sender high schools; 330 students.

KOB. State. College, M. (344.5). 7:30.8-30. u., College, M. (345.5). 7:30.8-30. u., Kappet Kappet Gamma sorvity group: group senses Marguerite metal. Antia White; Refer Rat., Mirzier, Why "Preparing Picule Lancies." Marguerite Milierus, feeder: senses, Antia White; Refer Rat., Mirzier, Welder, W. (345.5). Research, M. (345.5). Research, M.

Helbewood Montmatte cale dance orchestra, Mel Pedrek, Feder Caill. (361.2), 11:30-1 p. m., husheon content. Pacific States Electric composit: 5, studio content. Pacific States Electric composit: 5, studio content. Pacific States Electric Composit: 5, studio content. Pacific States Electric Poolity Products." Prof. H. M. Busterfeisht; A. Lesson if Earchity. Wildaw Wilson Church; "Types of Selfing." B. J. Williams; "Chata About New Books," Jacque Herry Jackson; 10: Chata About New Books," Jacque Herry Jackson; 10: Chata About New Books, Jacque Herry Jackson; 10: Chata About New Books, Jacque Herry Jackson; 10: Chata About New Books, Jackson Lester, Selfing, 10: Chata About New Books, Jackson Lester, Selfing, 10: Chata About New Books, Jackson Lester, Selfing, 10: Chata About New Books, Jackson Lester, Jac

NAME SHOULD MAN (1894-9), \$20-2 p. h., Gordon NAME SHOULD MAN (1894-9), \$20-2 p. h., Gordon Deverana.

KLX. Oukland, Call (1898-2), 6-7 p. m. organ emperation of the control of the contr

Tuesday, May 12

Tuesday, silent night for: CFAC, CFCA, CHIC, CHNC, CNNT, KFAE, KFKU, KFKX, KFNF, KLX, KUA, KGAO, WEBJ, WERO, WEBJ, WHAC, WAD, WAD, WAS, WMAK, WNCA, WOI, Atlantic — F. wou, wos, wsac, wsul.
Atlantic or Eastern Daylight Saving
Time Stations
WAHG, Richmond Hill, N. Y. (315.6), 12-1:05 p. m.,
special program.

grand opera, "Risolato," WEAF Grated Opers consulty; 11-12, Meyer Devis Lide-Veniles orchestra. WEBI. New York, N. Y. (239), 7-139 p. m., Dan liarnet's orchestra. 7:45-8, Audien Lauder, soprano; 8-510, ralizond Call, G. T. (257); 8110-9, McLean's WEEI, Series, Mass. (475-8), 2 p. m., Johntu Bowles and the Napoli Four; 6-30, Big Brother elub. 7:15. Annette Blughes, soprano; 7:30, Dok Lisenbourr and Twins; 9, Everage hour; 10, opera ensemble. WFI, Philadelphia, Pa. (238-4), 1 p. m., Meyer Davis concert orchestra; 3, Caroline Boffman, plantis; 6, Ben Cohen and his Society orchestra; 6:30, Meyer Davis Communication of the Cohen Cohen and his Society orchestra; 6:30, Meyer Davis Cohen Cohen and his Society orchestra; 6:30, Meyer Davis Cohen Cohen and his Society orchestra; 6:30, Meyer Davis Cohen C

solos, Oleati Valli, 7,740, Hotel Alemac dance orricestra, 1,20-75, health talk, Dr. Lawdis, 7,35-5,
and Oleakard's Cantheau Shannester, 111,20d Crista
and Oleakard's Cantheau Shannester, 111,20d Crista
and Oleakard's Cantheau Shannester, 111,20d Crista
and Carlos
Alabam cristals; 121,123-30 a.m., 120d club revue
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Alabam cristals; 121,123-30 a.m., 120d club revue
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Alabam cristals; 121,123-30 a.m., 120d Club
Alabam Carlos Riks, accompania; 420. Marford Hinze
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ost. Newark, N. J. (405.2), 6:15-6:30 p. m., Hotel tine orchestra: 6:30-7, man in moon stories; 7-7:30,

Lorraine orchestra; 4:39 7, man in moon slottes; 7:7:30. Botte Lorraine orchestra. Bottel Lorraine orchestra. Eastern Standard or Central Daylight Saving Tirry Stations.

CKAC, Montreal, Can. (410.7), 1:45 p. m., Windsor hotel trio, M. Saiter, director; 4:30, Ho lessons, Prof. KORA, Pittsburgh, Pa. (309.1), 1:215 p. m., Luncheon concert. Scalze's orthestra; 11, concert, Pittsburgh Profit studies orthestra; 11, concert, Pittsburgh Profit studies of the trion of trion of the trion of trion of the trion of the

organisi; 7:45, lollaby time; 8, WLS Opera company, "Secret of Sussiano;" 8:45, fileon's Carobuskers; 9, 8, F. D. programi; 9:45, Medinah temple band; 10:15, WLS theeler; 18:38, Nubs Allan; 10:45, Grace Wilson; Barmony Cri. 17, Rwd and Glena time; 11:28, Solerans; Ford and Glena; Freus, Balph Emerson, organis; Ford and Glena; Freus, Balph Emerson, organis; Ford and Glena; 6, WLW Christmani, Ohis (42:23), 4 D. m. "Auction Birdge," Lucy Blackburn; 6, WLW dimer hour concert; 3:29, Hook's ordestrate; Parmons Lorie male quarter, S. 239, Hook's ordestrate; Violet Sommers, soloisi, Arthur Krecht, filter.

S. concert. program, use saves serving and the Ferinlica concept orchesters; Volet Sommers, solosis; Arthur concept orchesters; Volet Sommers, solosis; Arthur WMAQ, Chicago, III. (447.5), I. p. m., "Poultry Day." 4. American Red Cross talk, Dr. H. W. Gentles; 5. Iuliaby Jady, Mcs. Gene Burton; 6. Chicago these of the same of the

Marjorie
Haroum, contralto, daughter of the
South," is a
member of
ROXY's gang
at the Capitol
theater. New
York: She is
heard Sundays
when WEAp
with attions
all over the
East and Middle West.



Williams and his Rainbu Skylarks; Ned and thes; Will Rassiter; Mack Sisters; Yominy Jancock; 1:2, Motx Southers; Yominy Jancock; 1:2, Motx Gots hou; Cots ho

Cray, "selotit; 9, Dirieland dance orenexta, such particular beartions, will, Detroit, Mich. (332.7), 12:05 p. m., Jutes Klein's Hotel Stater orchestra; 8, Deriot Kower orchestra; 6, dinner concert; 8, concert from New York.

Central Standard Time Stations
KY, Winnipeg, Can. (384.4), 8:15 p. m., French concert, Younge Thibault and party, so Cert, Wincert, You KEAB, L rounders KFDM, E concert; rs.
Beaumnnt. Texas (315.6), 12:30 p. m., band;
7, chlidren's program; 8-10, Magnolia orchestra.

KFMQ, Fayetteville, Ark. (299.9), 0 p. m., students, H. E. Shuitz.

KFRU, Bristow, Okia. (394.5), 10:30-12 midnight, pourie and entertainment.

Leuis, Mo. (348.1), 8 p. m., Radec's or-chestra. Leuis, Mo. (348.1), 8 p. m., Radec's or-chestra.

KFRU. Bristee. Okin. (394.3). 10.30-12 midnight. paude and celeterisment.

KSD. St. Leuis, Mo. (344.3). 0, p. m., Rader's organist and celeterisment.

KSD. St. Leuis, Mo. (345.1). 0, p. m., Rader's organist. (345.2). 10.30. Nr. (345.2). 10.30. Nr

WOAL San Antonio, Texas (394.5), 8:30 pl m., "LaRobens." WOAL outerlainers; 8:30, Iliumie Joy's
outerlainers, WOAL outerlainers; 8:30, Iliumie Joy's
outerlainers, WOAL outerlainers; 8:30, Iliumie Joy's
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outerlainers, WOAL outerlainers, Advice to Laveloriner,
Centhio Gover, 6:32, May Seed & Ninestate Control
outerlainers, Centhio Gover, 6:32, Advice to Loveloriner,
Derans, reader; 10:15, Frank W. Hodes, Jr., and his
Nichtingsle orthesta.
WOC, Devenport, 10wa (484), 6:30-8:30 p. m., Program
WOC, Ames Iowa (270), 12:30 p. m., "What Town
Planning Means," Prof. R. 8. Wallia,
WSB. Altanta, Ga. (422-3), 5-s p. n., Huke Smith
Ponnar Bobernian, outerlainers, 13-15, 30, p. d.
NSMB. New Orleans, La, (319), 6:30-7:30 p. m.,
Liberty interfer organ; 8:39-10:30, de luize program.
WSUI, 16wa City, 16wn (485, 6), 12:30 p. m., "The

Strand theater.
(SUI, lowa City, lowa (483.6), 12:30 p. m., "The French Political Situation," S. H. Bush,

Mountain Standard Time Stations
OA, Denver Colo. (322.4), 3 p. m., matines for hot wives: 6-6:39, dinner concert, News-Times.

wives: 6-6:39, dinner concert, News-Times.

Pacific Standard Time Stations

KFI, Las Angeles, Callf. (487), 8:30-8 D. m. Examiner's
matines hour; 6-6:15. Molyanier's infathy doints; 6:85-7,
Radfordal talk; 7-8, program, Hills Bros. featuring
Hills Bros. dinner dance orchestra; 8-9. Ezaminer:
HICTERIOR, Callf. Dand, D-10, Seatch program, Jock
Species, tenor; Mary McNath, contralor, 10-11, Psckard
build hour, Billy and Polly Ball. Ashley staters,
L'rey Weberd, Callf. (252), 7:45-9 p. m., program,
(Continued on page 11)



The Laserow quartet will give a pleasaut recital Wednesday, May 13. This quartet has a reputation in the East and WLIT, Philadelphia, is featuring the program.

has a reputation in the East and WLIT

WBZ. Springfield, Mass. (333,33), 6 p. m., 1.98, Relaman's Hotel Leigut en symbol: 6:45, Violet Cheller,
Dan Ramany; 7:35, bedding story for the hi wine; 7:30,
Delta Ramany; 7:35, bedding story for the hi wine; 7:30,
Controller, 8:15, Maxime Blanche Archarbult, settance;
Lillian Mabow, Janatet, 9, Brunswick hour of Rusic,
CAEL, Mittheroft, 8a, 66(3), 5:30 n., dinner con8:30, Gold Dust Teins; 9, Evercady hour; 19, proutant
from New York (20), 6: 8 n., Hotel Ponting
from New York (20), 6: 8 n., Hotel Ponting
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Verner's dames orchestra.
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Verner London Archard Sanctor Chestra.
Verner's dames orchestra.
Ver

WCEE, Elein, III. (275). 10:30-12 midnight, Charlene's Star midnight dance program, Blackstone theater. WCX, Osteriol, Mich. (16:7), 2:13 p.m., muscled program; s., dinner concert, Book-Ledillae hotel; 10, the WEBY. Chrospe, III. (270, 27, 720-830 p.m., Orlow orchestra; Victor, Young, violinight, Riviera theater; 9:30-10:30, Orlote, synthesis; Frank Maglati, Tender, 10:30-10:30, Orlote, synthesis; Frank Maglati, Tender, Maglati, Banks, Kennedy, Jack Frankoll; Orlote officer; Rivers theater; WGA, Chicago, III. (370, 2), 5:30 p. m., Site 48ss - Machandar Charles and Chicago, III. (370, 2), 5:30 p. m., Site 48ss - Machandar Chicago, III. (370, 2), 5

Blacktone string cointel's \$590.930, Switt and suppary size chip; 10:30-11:30, Divise beld dance or chestra.

New York, Schunckton, N. Y. (200.0), P. D. m., "The Arise Control of the Con

"BABY MINE," SNAPPY COMEDY AT KGO

Tuesday, May 12

(Continued from page 10)

(Continued from page 10)

Coss-Cola Bottling company, Norman McNiell, actavidendal; Warner Brothers' syncopators; Ina Mitchell State of the College of the C

Wednesday, May 13

Wednesday, allent sight fer: CFCA, GHNC, CHIC, CNRT, CRAC, CRY, KFAB, KFDM, KFKU, KFKX, KFMQ, KGQ, WBAY, WBBB, WGAL, WGBD, WDWF, WEBI, WEBW, WFAA, WFI, WGBS, WGST, WGY, WHAZ, WIP, WIAO, WIY, WLBI, WMAK, WMG, WMGA, WOAI, WGAW, WOI, WGRO, WRC, WACC, WSCC.

prano, and Levis Burkow, riolinist; 3-3.10, interview with Marguerite Hartison by Terces Rose Nagel; 3:10-3:20, Isabel Henderson, suprano; 3:20-3:30, Jefferson Menorial talk: 3:30-3:40, Isabel Henderson; 3:40-3:50, burnane talk, Mrs. Levis Gouvernour Morris; 6-5:30, Lucio Geobee; 6:35-3:30, New York Times choral society.

WGR, Burlah, N. Y. (3:30, 30, 30, 30, 30)

prano, and Levis Burkow, violinisi; 3-3-10, interctors, and the state of the content of the content, and the state of the content of the content, and the content of the content, and the content of the content, and the content,

WBAP, Fort Worth Texas. (475.8), 12:05-12:30 p. m., music; 7:30-8:30, program, auspices Business and Professional Women's club; 9:30-10:45, Texas hotel

nuside; 7:30-4:30, program, ausplees Budness and Professional Wosten's cluc; 9:30-10:45. Tessas botols (COO). Minnespoils-St. Paul, Minn. (446-5), 10-35 a. m., "Packing the Plend Lunch," Besty Crocker: 2:30 p. m., mattines musicate; 4, playlet, Kelletter, and the program of the program of the program of the program of veal and Poultry. "High J. Tughes; 8:30, University of Minnesota program; 10:30, Dick Long's Nan-kin cate orchestra. WDAF, Kansas Cit; 7: plano tunder, site number; aid-detect, ausplees. Health Conservation association; speakint, Mark Council of Greater Kanips (Day). The program of the



Atlantic or Eastern Daylight Saving

Atlantic or Eastern Daylight Saving Time Stations

WAH6. Richmond Hill, N. Y. (315.6), 12-1:05 p. m., muslc; 8-81.5, songs and duets, Kirkpatick Sisters; \$1.18-8.9, 18.18 to Tevulchi, plants; \$2.90-3.5, Jack Bellin, Milling Joseph Tailer, and the second that the second trailer, and the second

W.A. Within Mr. P. 2013. 3. J. D. D., Stiner donNixon Istaluzado coletta 3.0, studio concert; 10.30,
Nixon Istaluzado coletta 3.0, studio concert; 10.30, studio concert; 10.30,

Norman Pearce, globe trotter and lect urer, is the Wednesday feature of the Post Intelligencer program at KIE, Seattle Mr. Pearce gives practical traveling advice.

8.359-9-35, COUTSE III REPRESENTATION OF THE MESSING I HEAVY P. Flick's 9.45-7.10-30, the Five Messing I WOD, Philadelphia, P.A. (508.2), 12-92 D. m., Golden's crystal tea room orchestra: 415, owasn recttal, Mary E. Voet; 7.30, A. Candelort's Hosel Adolphia concert orchestra: 8-30, ensured from WAFF. 10-35, organ cross-strain, 8-30, ensured from WAFF. 10-35, organ cross-strain, 8-30, ensured from WAFF. 10-35, organ cross-strain, 8-30, ensured from the Fig. 10-30, vincent linear's cross-strain, 9-30, ensured from the Control of the Dec. 10-30, proceedings of the Dec. 10-30, proceedings of the Post of

Spencer Arastrost: 10:15-10:30, Jascha Gurewich's saxophoze ensemble; 11-12, Citr's overlests.

Eastern Standard or Central Daylight Saving Time Stations

CKAC, Montreal, Can. (410.2), 7 p. m., kliddies' stories: 7:30, Windsor hotel dinner concert; 8:30, press ciub; 10:30, Windsor botel dinner concert; 8:30, press ciub; 10:30, Windsor botel dance corpram.

KDKA, Pittsburgh, Pa. (309.1), 7:45 p. m., aldress.

LTM: Charlest Can. (410.2), 7:45 p. m., aldress.

LTM: Charlest Can. (410.2), 7:45 p. m., aldress.

LTM: Charlest Can. (410.2), 8:40 p. m., dinner concert, Congress hotel; 7:73.8, Frances Elimete, corprama; Katherine Johnson, soprano; Maurice Kowsky, plania; promose J. Stophenson, 62:29 p. m., millimith concert, Congress hotel; 7:73.8, Frances Elimete, corprama; Stata band, WOAP, Washinston, D. C. (486.3), 6:30-10 p. m., Ceneral stat band, 10:255, 10:30-12 midnight, Charlene Star midnight, dance program. Blackstone theater.

WCX, Detroit, Mich. (516.7), 4:15 p. m., musical pro-

Shooting at the Moon," WLS theater; 10:15, Lucas isters; 10:30, Mr. and Mrs. Sweitzer; il, Ford and

S.25. Lester Manner, planiati, 9, WMAQ players, WORD, Batwal, III, (27), 8, 830 p. m., Sacred hymne, consts and ducit; Prayer meeting comments, Oscar A. WGI, Chicago, III, (447, 5), 64 g. n., "Advanced Domastic Science, III, (447, 5), 64 g. n., "Advanced Domastic Science Course," Halen Harrington, Dominar, Lower Good, Control Packing, Chicago, Control Packing, Chicago, Control Packing, Chicago, C

Central Standard Time Stations

Central Standard Time Stations

KFAB Lincoln Nebr. (240), 7:30-9:39 p. h., De

MADN Lincoln Nebr. (240), 30-9:39 p. h., De

KFAF, Silvandada, Iowa (265), 500 and the AIR

KFNF, Shenandada, Iowa (265), 500 and the AIR

KFNF, Shenandada, Iowa (265), 500 and the AIR

Sunday school, Mrs. L. P. Dean, director; 8:30, concert. Hopfing, J. Max Davis, director,

KFAF, String, Ohn. (394.5), 8-10:30 p. n. nusic

MADN, Minney School, 12-35 p. m., Postam,
men's club. Millan (421), 8-9 p. m., prostum,
men's club. Millan (421), 8-9 p. m., prostum,
men's club. Millan (343.1), 7 p. m., West End Lyria

KSAO, St. Louis, Me. (343.1), 7 p. m., West End Lyria

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KSAO, Me. (343.1), 10 p. m., West End Lyria

KSAO, Me. (343.1), 10 p. m., Wes

WHO. Des Meires, 1992. (\$28), 12:15 p. m., Y. M. C. A. Campine & Planeers, (\$400 - 12.5). Recent Hughes orchestra; 7:30-9, La Beleune trio; American Legion band clab; 9-945, Des Moines Theater Supphono orchestra; 9:45-12, dance program.

WGC. Davenport, Iowa. (460), 4-5 m., manifed program, violinate; Description of Parament, violinate; Description of National Conference, Service of Parament, violinate; Description of Rosett Medicary, violinate of Parament, violi

Mountain Standard Time Stations

KDA, Denver, Gele. (322-4), 12:25-12:55 o. m. Hlalio theater's Fred Schmitt and bis Halto theater Dave Glisburg and his Automato orchestre. Clisburg and his Automato orchestre. KOB, State College, N. M. (348.6), 7:30-8:30 p. m., college orchestra.

Pacific Standard Time Stations

Pacific Standard Time Stations
KFAE, Pulman, Wash. (348.6), 73.0-9 p. m., Treed-well archestrs; Co-ed trio, Heien Glans, planist, Lola Grahm, vidulati, May Alee Arnold, vecalist, "Basala, "Fuer L. J. Smith: "What is Worth States, "Fuer L. J. Smith: "What is Worth States," "Fuer L. J. Smith: "What is Worth Meril Responsibility to Crimina, Marchael Composition of Crimina, "Research Smith; "Cost of Fuebcling Milk," R. M. Miller, "R. Los Angoles, Calif. (467), 5:30-6 p. m., Essmither, and the states of th

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(Continued on page 12)

WINNERS ANNUAL WISCONSIN HIGH

Index to Popular Concerts

TABULATED 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.

Popular

Atlantic or Eastern Daylight Sav-ing Time Stations
Saturday, May 9: 6:05, WIP: 7, WNYC: 8:20, WNYC: 9:25, WBZ;
9:45, WGBS; 10:50, WGBS; 11:20,
WGBS; 10:50, WGBS; 11:20,

WGES.
Sunday, May 10: 7:20, WEAF,
WJAR; 8:30, WCAU; 9, WNYC; 9:45,
WAHG; 10, WHN, WNYC.
Monday, May 11: 8:15, WAHG;
8:30, WOO; 8:45, WNYC; 9, WEEI;
9:45, WAHG; 10:45, WOR; 12,
WAHG; 1, WAHG.

8:30, WOO; 8:45, WNYC; 9, WEEL;
9:45, WAHG; 10:45, WOR; 12,
WAHG; 1, WAHG.
Tuesday, May 18: 7:30, WEAF;
8:30, WCAE, WEAF, WEEL, WFI; 9,
WCAE, WCAU, WEAF, WEEL, WFI; 9,
WCAE, WAU, WEAF, WEEL, WFI;
Wednesday, May 13: 8, WAHG;
8:30, WEEL; 8:45, WCAU; 9, WAHG,
WHN; 9:45, WNYC; 10:15, WOR,
Thursday, May 14: 7:15, WEEL; 9,
KDKA, WCBS; 9:30, WHN, WNYC;
12, WLIT.

a, WLIT.

Fiday, May 15: 6:05, WIP: 7, WOR;
:45, WEBJ; 8, WEAF: 8:45, WAHG;
, WEAF, WEEI, WJAR; 10, WEAF;
1, WCAU.

11, WCAU.

Eastern Standard or Central Daylight Saving Time Stations
Saturday, May 9: 7, WLS, WONK;
S. WBCN, WS, WORD, WTAM: 9,
WBCN; 9: 30, WLS: 10, WECN, WQJ,
WTRDC; 10: 30, WJD; 11, WLS, WQJ;
12, KYW, WQJ; 1, WQJ,
Sunday, May 10: 7: 20, WWJ; 8,
WBBM, WECN, WTAM: 9, WBCN,
WTAM; 10, WBCN; 12, WJJD,
Monday, May 11: 10: 30, WJJD;
11: 30, WMAK.
Tuesdav, May 12: 7, WONK: 9: 25

Tuesday, May 12: 7, WONK; 9:85, WLS: 10, WQJ; 10:30, WJJD, WLS: 11, WLS: 1130, WQJ; 12, WQJ; 1.

WUS; 19, WQJ; 12, WQJ; 1, WQJ; 11, WUS; 1130, WQJ; 12, WQJ; 1, WQJ; 19, WGJ; 19, WGJ; 19, WGJ; 19, WGS; 1030, (FAAE; 8, WTAM; 8: 30, KFAE; 9, WLS; 9:10, WLS; 10, WUS; 10; WQJ; 11, WQJ; 11, WQJ; 11, WQJ; 12, WQJ; 1, WQJ; 11, WQJ; 12, WQJ; 10, WQJ; 11, WLW, WQJ; 12, WQJ; 1, WQJ; 11, WLW, WQJ; 12, WQJ; 1, WQJ; 10, WTAM; 7:30, KFAE; 7:45, WLS; 10, WQJ; 10:30, WJJD; 11, WQJ; 12, WQJ; 1, WQJ; 10; 40, WJJD; 11, WQJ; 12, WQJ; 1, WQJ; 10; 40, WJJD; 11, WQJ; 12, WQJ; 1, WQJ; 10; 40, WJJD; 11, WQJ; 12, WQJ; 1, WQJ; 10; 40, WJJD; 11, WQJ; 12, WQJ; 1, WQJ; 10; 40, WJJD; 11, WQJ; 12, WQJ; 1, WQJ; 10; 40, WJJD; 11, WQJ; 12, WQJ; 1, WQJ; 10; 40, WJD; 11, WQJ; 12, WQJ; 11, WQJ; 12, WQJ; 11, WQJ; 11, WQJ; 12, WQJ;

Central Standard Time Stations
Saturday, May 9: 6, WFAA; 7, KSD;
7:29, WLS; 8, WEBH, WGN, WTAS;
7:29, WLS; 8, WEBH, WGN, WTAS;
7:20, WEBH, WGN, WTAS;
7:20, WEBH, WGN, 19:30,
KFRU; 11, KFAB, WGBH, WQ1;
11:15, WLS; 11:30, WGJ; 11:45,
WDAF; 12, KYW, WEBH, WLBL;
12:30, WGJ; 1, KYW, WEBH, WLBL;
12:30, WGJ; 1, KYW, WEBH,
Sunday, May 10: 9, WAMD; 9:30,
WFAA; 10, KTHS; 11:45, WDAF; 12,
WHB.
Monday, May 11: 6:30, WOAW;

WHA. 10, KHRS; 11145, WDAF; 12, MOAMW; MOAMW; 6:45, WOAW; 6:30, KFAB, WEAP; 8, KFRU, WDAF, WTAS; 8:30, KFAB; 9, KSD; 9:30, WBAP; 10, KFRU, WOI; 11:45, WDAF, Treeday, May 12: 6:30, KFAB; 9:30, WEAH, WTAS; 8:30, KTHS; 9:30, KFRU, WTAS; 10, WEBH; 10:30, KFRU, WTAS; 10, WEBH; 10:30, KFRU, WDAF; 11:45.

MERU: 11, KFAB, WCEE: 11:45.
WDAF.
Wednesday, May 13: 7:30, KFAB;
KFRU, WTAS: 8:30, KFAB; 9,
WEBH: 9:30, WTAS: 10, WEBH: 11,
WCEE; 11:45, WDAF.
Thursday, May 14: 8, WEBH: 8:30,
WTAS: 8:40, KTHS; 9, WEBH: 10,
WAMD, WEBH: 11, KFRU, WFAA,
WFAB, WDAF, WEBH. WTAS: 8:30, KFAB,
WBAP: 8, WDAF, WEBH. WTAS: 8:30, KFAB, KFAB,
WBAP: 11, KFRU, WHAD; 9,
WOAW; 9:30, WTAS: 10, WAMD,
WEBH: 11, KFRU; 11:45, WDAF; 12,
KFRU.
Pacific Standard T.

Pacific Standard Time Stations



Wednesday, May 13

(Continued from page 11)

(Continued from page 11)

Winslow, Juvenile reporter; Baby Martel MecCornac,
Mickey McEan, severa jures; Baby Martel MecCornac,
Mickey McEan, severa jures; Baby Martel MecCornac,
Mickey McEan, severa jures; Baby Martel MecCornac,
Marchael Marchael McGarley, Baby Pogusta,
Rrandway Department store, arranged by J. Howard
Johnson; 19:30-11:30, Art Bichanara Biltmore hold;
Island Marchael McGarley, Baby McGarley, Baby McGarley,
Kl.X. Oakland, Calif. (598.2), 6-7 p. m., organ concert;
8-3, entertainment; 9-9:15, American theater ordestray,
Serial Marchael McGarley, McGarley, McGarley, McGarley,
McK.X. Hollyweed, Calif. (598.5), 6-5:05-15, p. m., Wurfliczer pipe eram studic; 6:15-7, dhner hour music;
7-5, Ambessade hotel concert cordestra; 7-7-codet; conpany; 9-10, program, Smith, Bichardson and Gilbert;
19-12, Hollywood compunity dance urbestra, B.m.,
KPO, Sae Francisco, Calif. (428.5), 4:305-5:30, T. States
Restaurant orrelettra; 7-7-30, Rudy Seder's Fairmonl
hotel urchestra; 8-9, Atwaler Kent artist program;
9-10, vern Kedsey, plantari 'Agne Hertzer, soprano;
19-11, Johnny Buick's Cabirians.

Thursday, May 14

Atlantic or Eastern Daylight Saving Time Stations WAHG, Righmond Hill, N. Y. (315.8), 12-1:95 p. m.,

WAHG, Richmend Hill, N. Y. (315.8), 12-195 p. m., special programs, N. Y. (272.5), S. D., Franck Wood, Rudist; 8:10, vocal selections; 8:20, dunday selections; 8:30, N. Van Sipna; 8:40, vocal selections; 8:50, Frank Wood, flutts.

Frank Wood, flutts.

(33.3), 6 p. m., Westinchouse Phillsswond Letts; 7:30, selfuns story for the kiddles; 7:15, "At the Theaters," A. L. S. Wood; 7:20, reading best poer, music coarse, Prof. Roy Dickmon Welst; 7:15, "At the Theaters," A. L. S. Wood; 7:20, reading best poer, music coarse, Prof. Roy Dickmon Welst, 7:15, "At the Theaters," A. L. S. Wood; 7:20, reading best poer, music coarse, Prof. Roy Dickmon Welst, 7:15, "At the Theaters," A. L. S. Wood; 7:20, reading best poer, music coarse, Prof. Roy Dickmon Welst, 7:20, and 1:20, and 1:

Humswick orchesirs.

WLAE, Pittaburgh, Pa. (461.3), 6:30 p. m. dinner cencert, Wilham Penn holei, 7:30, Un. m. dinner cencert, Wilham Penn holei, 7:30, Un. m. dinner Radio arists 10, Goodrich Silvertuwn Cord orchesirs.

WCAE, Pittaburgh, Pa. (228), 10:45 p. m., Jack W. Wilham, Penn holei, 7:30, United Raybe, 8, Moore's Cafesteria Radio review; 9, Atwaler Kent Radio arists 10, Goodrich Silvertuwn Cord orchesirs.

WCAE, New York, W. (2019), 4:415 p. m., Jack W. Wythes, soprano; 4:15-120, "Bookman Review," John Farrer; 4:30-1:55, Murchel Rabbi, 4:45-5, "The Last Fifty Years in New York," Henry Colling Brown; 6:7, dinner music, Waldwick Audora; 7:70-3, deerden, Greater New York Festeration of Churches, Greater New York Festeration of Churches, Galacter New York Festeration of Churches, Calumbia Ainterskil Jectore course, 8:8:50, Custman's Stemaders; 8:30-9, "Touring in a Packard Eight;"

9-19. Abouter Keni Badho artists; 16-11, Silvertonu Cord orchestra; 11-12, Vincent Lopez' Hotel Fennsylvania orchestra; 11-12, Vincent Lopez' Hotel Fennsylvania orchestra; 475-59, 1 E. D. n., assembly lamenten. Boston Chamber of Comparers; 2:36, Manusleu Franct Ferrita, pert; 2:16, Marie Bartlett, reader; 6:36, Bits Brethe; 115, Sagorés half hour of hospitality; 7:45, Barvel W. Garr, base; 8, from New York; 8:30, from New York; 9, Atwater-Kent Badio artists; 10, Goodrick Silvertown Cord orchestra. Will Philadelphia, Pa. (38-5), 1 p. m., Meyer Davis G. 33, Meyer Davis concert orchestra; 7, bedfilms stories; Alice McKimbone, planist; 8, concert from WEAF; 9, Atwater Kent Radio artists; 10, Goodrick Silvertown Cord orchestra.

Object yail, 171-20, State employ fever. Order of the control of t

society, W. H. Anderson, director: Florence Low, soprano, KFAB, Liggoln, Nebr. (240), 3 p. ni., Rialto Symphony

KFAE, Linolin, Nebr. (240), 3 p. n., Minito Sympony orchestra.
KFKU, Lawrence, Kan. (275), 6:50 p. n., piano hundral number: 7, music; 7:15, "Art. a Business Asset." Ropemary Extension: 3:50 The shory of the choicay, Leson XIX, Dean R. A. Schwoofer, Extension XIX, Dean R. A. Schwoofer, Mr. Hall.
KFMG, Fayetteville, Ark. (299.8), 9 p. m., musical program, Mr. Hall.
KFMG, Fayetteville, Ark. (299.8), 9 p. m., Shenauches, KFKX, Ghrandosh, Iova, Colonia, director: 5:30, consert from Machilla, lower, Johnsham, director: 5:30, consert

KFNF, Shenandosh, 1998. (266), 6:30 p. m., Shenandosh H. S. ordestur. Ruth Farnham, director; \$100, onner from Mandilla, lows, Johnnie Megara, director. First, Martine, Okia. (2045), 19:20-11:20 p. m., pipe KFD, St. Leuis, Mo. (343.), 19:20-11:20 p. m., pipe KFD, St. Leuis, Mo. (343.), 19:20-11:20 p. m., pipe KFD, St. Leuis, Mo. (343.), 19:20-11:20 p. m., pipe KFD, St. Leuis, Mo. (343.), 19:20-11:20 p. m., pipe KFD, St. Leuis, Mo. (343.), 19:20-12:20 p. m., pipe contestin. WAMD, Minneapolis-St. Paul, Minn. (243.8), 12:10-12:20 p. m., Gayle Wood, organist; 10 p. m., Mrs. Mable Jackson, WAMD, Minneapolis-St. Paul, Minn. (243.8), 20 p. m., musicale; 7:30-8:30, program, Dr. Richard Mandell; 9:30-10:35, College of Industrial Arts. Cusaries; 5:40-8:40, 19:30-10:35, College of Industrial Arts. Cusaries; 5:40-8:40, 19:30-10:35, College of Industrial Arts. Cusaries; 5:40-8:40, pipe college of Industrial Arts. Cusaries; 6:40-40, pipe college of Industrial Arts. Cusaries; 6:40-40, pipe college of Industrial Arts. Cusaries; 7:40-40, pipe

CNRC, Calgary, Can. (430), 9-11 D. m., C. N. R. Little Symphony orchestra; Mrs. Alf Carter, flutlat; B. Jove, claritectst. (822.4), 12:20-12:50 p. m., Rielto theater.

Pacific Standard Time Stations

KFI, Los Angeles, Callf. (467), 5:30-6 p. m., Examiner's musical half hour; 6:3-15. McFlantch' algebra deligner, understand the control of the control of the control Understand of Southern California; 8-9, program, Stand-ard Oil company of California; 9-10, program by re-mote centred from Calefornia Edil. Southern California

(Centra

Saturday, Ckae, Ked, Work, Ked, Work, Work, Work, Work, West, West, West, West, West, West, West, Med, Wahs, What Ked, Wahs, What Ked, Wahs, What Key, Khay, Khay,

Kox, Kpo, Friday, Friday, Si30, West, Wiz, Woot, West, West, 10, West, Wgs, Wgs, Wilt, Was, Who, Wjid, Who, Wjid, Wsai; 11:8 12, Khi, Kfoa; 1,

SCHOOL MUSIC CONTEST AT WHA



19, May 12:
10, Weav,
9, Kfi, Wex,
Wie: 9:30,
Wosi: 10,
Win, Wins;
10:30,
w: 11, Kfab,
Kfab, 11:45,
Kfi, Kgw,
12:05, Kfoa;
Pqj.

Music company; 10-11. Examiner: popular song bour. RF WS, Hollywook Child (232), 12-99 p. m., program, RF WS, Hollywook Child (232), 12-99 p. m., program, program of the p

Friday, May 15

Friday, silent night for: CFAC, CHIC, CHNC, CKAC, KFAB, KFKU, KFKX, KFMQ, WBBR, WBC, WCBO, WEAO, WEBY, WFI, WGBS, WGST, WHAZ, WIP, WKAQ, WLBL, WLW, WMAX, WMCA, WOAI, WOI, WGI, WRC, WBO, WSAI, WSUI

Atlantic or Eastern Daylight Saving Time Stations

Helen Asmundson, soprano, is the feature of the Milwaukee Athletic club dinner programs at WHAD, Milwaukee. Although WHAD is only a new station, Miss Asmundson has already become known to all Wisconsin Tans.

NEBI, Now York, N. Y. (233), 77-135, P. m., Blenbefm theater ensemble, direction of Sol Kiefer, S. S. 15, Liban Bauchan, Soprano, seconomical by G. Gerard Hugher: Solven Solven Brown and the Martin Tea Garden Buckinan, Soprano, seconomical by G. Gerard Hugher: Solven Solven

7:15-7:30, Hotel Lorraine orchestra.

Eastern Standard or Central Daylight
Saving Time Stations

CNR7, Terento, Con. (357), 6:30 n. m., Loigi Romanellt and his King, Edward helel concert orchestra;
8:30, Queen City Novelty instrumental troope; vocal
soles, Lorne Hanlon; Tom Pritchard, mandellinist;
Paul Mulliette, guitarias; 10:30, Luigi Romanelli and
his King Edward hotel concert orchestra.

RDK. Pittiburgh Pa. (399:1), 5:30 p. m., dioner
Somert. 55, address, University of Pittiburgh studio;
S. concert. 55, address, University of Pittiburgh studio;
KYW. Chicane, Ill. (355:4), 6-6:30 p. m., Coteress hotes;
9-12:30, midnight rows.

WBAV. Cetsmbus, Ohio (283:7), S p. m., cycle of old
time musick.

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.

Atlantic or Eastern Daylight Sav-ing Time Stations

Atlantic or Eastern Daylight Saving Time Stations

Saturday, May 9: 6. KDKA, WEAF,
WFI; 6:18, WIP; 6:20, CKAC, WHN;
T, WEAF, WPG; 7:09, WJAR, 7:50,
WEAF, WPG; 7:09, WJAR, 7:50,
WEAF; 8, WEBR, WIP, WJZ; 8:30,
KDKA, WCAE, WEBS, WJZ, WPG;
8:46, WEBR, WEAF; 3, WEAF, WFI,
10:30, WGBS, 11:05, WIF,
SUNGY, MAY 10: 6. WEAF, 6:00,
WJZ; 8:16, WJY, EV, 10, WGBS, WJZ; 9,
WJZ; 8:16, WJY, EV, 10, WGBS, WJZ; 9,
WBBR; 9:30, WGBS, WIP; 10,
WBBR; 9:15, WEAF, WJAR, 8:20,
WBBR; WGB, WIP; 10, WGR,
MORAY, MS, 11: 6, WEAF; 6:05,
WHP; 6:15, KDKA; 6:30, WFI, WHN;
T, WJZ; 7:15, WEAF; 7:30, WGR,
WHP; 6:15, KDKA; 6:30, WFI, WHN;
T, WJZ; 7:15, WEAF; 7:30, WGR,
WHP; 6:15, KDKA; 6:30, WGA; 10,
WEAF, WOR; 8:40, WLIT; 8:50,
WBBR; 9, WJAR, WMCA; 10,
WEAF, WGR; 8:40, WLIT; 8:50,
WBBR; 9, WJAR, WMCA; 10,
WEAF, WGR; 8:40, WLIT; 8:50,
WGAR, WGR; 10; WGAF,
WHO; 11, WGAF, WGAF,
WHY, WJZ; 115, WGAF, 115,
WFIF, WJZ; 115, WGAF, 115,
WFIF, WJZ; WHN; 115, WGAF, 115,
WFIF, WJZ; WHN; 115, WGAF, 115,
WEAF, WJZ, WHN; 115, WGAF, 115,
WEAF, WJZ, WHN; 115, WGAF, 115,
WEAF, WJZ, WHN; 116, WGAF, 116,
WGAF, WJZ, WJZ, 116, WGAF, 116,
WGAF, WJZ, WJZ, 116, WGAF, 116,
WGAF, WJZ, WHN; 116, WGAF, 116,
WGAF, WJZ, WJZ, 116,
WGAF, WJZ, WHN; 116, WGAF, 116,
WJZ, 116, WGAF

WCALY, 10, WEAF, 16:63, WOO; 10:30, WCAE, 16:63, WOO; 10:30, WCAE, WF; 6:15, KDCA; 6:30, WCAE, WF; 6:15, KDCA; 6:30, WCAE, WF; 6:15, KDCA; 6:30, WCAE, WF; WF; WHN; 7:15, WEEL; 7:30, WEAF, WF; WAR; 8:16, WYC; 8:30, KDKA, WEEL; 7:50, WYC; 8:40, WBER; 9, WCAE, WEAF, WEEL; WFF, WGBS, WEAF, WGBS; 11, WFF, WGBS; WEAF, WGBS; 11, WGBS, WEAF, WGBS; 11, WGBS; 12, WGBS; 11, WGBS; 11,

WIAR: 8:15, WIZ: 9:30, WAHG, WEBF; 10:03, WOO, WEAF.

Eastern Standard or Central Daylight Saving Time Stations

Saturday, May 9:6, WLW, WMAQ, WTAM, 8:45, WJID; 7, KYW, WQJ; 8, KYW; 8:30, PWX; 9, WHAZ, WMAQ; 9:35, KYW; 11, KYW.

Sanday, May 10: 6, WLS, WTAM, 6:45, WORD; 7, KYW, WBCN, WKQ; 130, WREO; 8, WQJ; 8:30, WLW; 9, WEAF, WGY, WQJ; 9:15, WLW; 9, WEAF, WGY, WQJ; 9:15, WMAQ; 7:30, WHEO; 8, WTIC; 7:35, WMAQ; 7:30, WAFE, WHIC; 7:35, WHAG; 7:30, KFAE; 8, WBAY, WLW, WORD, WTAM; 8:50, CHNC; 9, WLW, WWY, MAY; 6:50, WMAQ; 7, WEAF, WHEO; 8:45, WGY; 7, WLS, WQJ; 7:15, WLW, WWYAM, WJ; 6:30, WJD; 8:45, WGY; 7, WLS, WQJ; 7:15, WJJD; 8, WEAF, WLW, WORD, WJM; 8:10, WHMAQ; 9:10, WJM; 8:16, WLW, WHEO; 8:45, WGY; 7, WLS, WQJ; 7:15, WMAQ; 9:10, WMAQ; WHAY, WHAY

Thursday, May 14: 6. WGY, WLS, WLW, WMAQ, WTAM, WWJ: 6:46. WGY: T, WEAR, WGY, WQJ: 7:30, WGY, WKAQ: 8. WEAR, WGRD, WWJ: 8:30, WGY; 9:15. WAAQ: 10:03, WLW; 10:30; WGY. WAAQ: 8: 6. WGY, WLS, WMAQ, WTAM, WWJ: 6:30, WJJD: 6:40, WGY: 7. WGY, WLS, WJG: 7:540, WGY: 7. WGY, WLS, WGAQ: S:30, CNRT: 9:30, WGY. Central Standard Time Stations

Pacific Standard Time Stations
Saturday, May 9: 6, KGW; 6:15,
KKY, 6:45, KFOA; 7:30, KNX; 8,
KGO, KNX; 8,
KGO, KNX; 8,
KGO, KNX; 9,
KNX; 10, KNX; 10, KNX; 8,
Monday, May 10: 6:30, KHJ; 7,
KGW, KHJ, KNX; 10, KNX;
Monday, May 11: 6, KGW, KLX;
6:13, KNX; 10, KNX; 10, KNX;
KNX; 10, KNX; 10, KNX; 10, KNX;
KNX; 10, KNX; 10, KHJ; 10, KHJ;
KNX; 10, KFOA; KGW, KHJ,
KNX; 10, KFOA; KGW,
KHX; 10, KNX; 10, KGW,
KNX; KNX; 10, KNX; 10, KGW,
KNX; 10, KGW,
KNX; 10, KGW,
KNX; 10, KGW,
KNX; 10, KGW,
KNX; 10, KNX; 10, KGW,
KNX; 10, KGW, Pacific Standard Time Stations

Mountain Standard Time Stations Mountain Standard Time Stations
Monday, May 11: 7, KOA; 7:30,
KOB; 8, KOA.
Tuesday, May 12: 6, KOA; 7, KOA,
Wednesday, May 13: 7, KOA; 7:30,
KOB; 8, KOA
Thursday, May 14: 7, KOA.
Thursday, May 15: 7:30, KOB; 8:10,
KOA.

WCAP, Washington, D. C. (468.3), 7:30-19 p. m., "Science News of the Week;" 10-12, Wardman Park

"Science Many of the Week;" 19-12, Wardman Park holel ordestra, the Week;" 19-12, Wardman Park holel ordestra, the Week;" 19-12 subinight, Charlene Star mithing the dince profession, and the words of the Week; The Week of the Week; The Week of the Week; The Week of the

unsucial protein; 10:30-17:30, Don Bestor Drake danes orchestria.

WGY, Schonestady, N. Y. (379.5), 1 p. m., "Spring Feshions for Mon," Mark Haight; 6, Albary Strand heater orcinstra; Flord H. Watters, obusingly 6.35, backer; State college women's charge; 7, "The Sart-Ress." Harry Austin Bons, WGY players, WGY orchestra; 30), WGY orchestra, Mirz E. Dibble, 80, WGY orchestra, Mirz E. Dibble, 80, WLS, Chicage, Ill. (344.6), 7 p. m., Ralch Energun, organist; 7-45, Julibov June; 8, LaSsile Extendion niversity program, gles Julio, observed; 8:45, Gienn's Corporation of the Company of the C

An Evening at Home with the Listener In

INSTRUCTIONS FOR USE OF TABLES

INSTRUCTIONS FOR USE OF TABLES

The "Evening at Home with the understand and use. It is this fact that the understand and use. It is this fact that the understand and use. It is this fact that the understand and use. It is this fact that the understand and use. It is this fact that the understand and use. It is this fact that the understand and use. It is this fact that the understand and use. It is this fact that the understand and use. It is this fact that the understand and use. It is this fact that the understand and use. It is this fact that the understand and use. It is this fact that the understand use it is presented between the following instructions should be remembered:

Listeners using Mountain time: Use table for Pacific time but add one hour to every figure given. Can also use Central time table by subtracting one hour from every figure given. Can also use Central time table by adding one hour to every figure given.

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

On account of a number of cities being

Friday, May 15 (Continued from page 13)

planist; Edith Asb. soloist; George Jones, tenor; 8, West Hartford High School Ulris glee club; 9, 2mil Heinberger; Botel Bond cortestina (W1, Getreit, Mich. G5227), 12:05 p. m., Jules (Klein's Hotel Stuller orthestra; 3, Detreit News orthestra, 6, churar concert; 8, Detreit News orthestra; 5, etc. The Concert of the Co

Central Standard Time Stations

Winnipeg, Can. (384.4), 8:15 p. m., old tin trel show, United Commercial Travellers' associ-

minuted show. United Communicati Traveiers associations. Real, Lincoln, Nobr. (240), 7:308-300, D m. Kinife and Fork club; 8:309-300, Prof. and Mrs. Transchet; Mrs. Charles Jones, pinaist; Olive Fletcher, Queen of the Twories. Texas (315.6), 12:30 p. m. band concept; 7:7:304, dillorers hour; 8:40 p. band. KFMF. Shenandoen, Iowa (266), 6:30 p. m., ceneert, old time music, Clurrens Burnt, director; 8:308, concert, KFRU, Bristow, Okts. (394.5), 11:10 at m. Brown Derby club.

KIAF, Sihitipek, Minn. (421), 8-9 p. m., Camp Fire

KIAT, Sintipse, Minn. (421), 8-9 p. m., Camp Fire KSAC, Mashattan, Kans, (341), 12-55 p. m., "Final Spring Poisoning of Pocket Goubler," Roy Moore, "A Few Coultry United From Primerty," J. M. McAdams, National Bank of Commerce; A. Torgove, cellist; 8. Vin Jones, painsis; 9, program. (KTHS, Het Springs National Park, Ark. (374.8), 8-49-404. Moreover, painsis; 9, program. (243.8), 12 m., Gazie Wood, organist; 10, special supprise program. WBAP, Fort Worth, Toxias, (475.9), 12-05-12-20 p. m., Trast, Bilazora; 7.30-8.30, Kalph Pulley's Cancelland, 13-30-105-12, classical mulmers, Victor E. Access.

Grace Deppe, Girectory, 1985.

60vin.

60. Des Moines, Iowa (526), 7:30-9 p. m., Cuddle Semler, Soprano; Rednion Saylor, tenor; Margaret Leech, soprano; Williamson Sisters; 11-12, Reese-

Sember, soprano; Redmon Saylor, tenor; Margaret Leech, soprano; Williamson Silsters; 11-12, Resem-Hughas orchestra. No. 10, 12-30, p. m. Ar. Lundry-Williamson Silsters; 11-12, Resembly of the Control o

gram.

WEUL lows City, lows (483.6), 12:50 p. m., "Amana, the Community of True Inspiration," B. F. Sham-

Mountain Standard Time Stations

KDA, Gener, Cele. (322.4), 3 p. m., mattines for house-wives; 8, Fred Schmitt and liss Rilatio theater orchesters: 5:10. Altha Eta cluster, Ph Mu John musical traternity: "The American Composer," Dr. Edwin J. Stringham; "Man and Music," John C. Khon State College, N. M. (146.6), 7:29.4:39 p. m. popular Actiones course, Dr. D. S. Bobbinz; "Forest Highways," C. A. Long.

Pacific Standard Time Stations

Pacific Standard Time Stations
KFAE, Pullmann Wash. (346,), 7,30-9, p. m., Percy
Severance, askuphwaist; musical trio, Vairent Hiden,
cellist; Pierry Severance, flutter, Raymond Bowell, viating, Port. C. C. Johnson; "The Dutter of the
Owner, Contractor, and Architect," Prof. S. A.
Smith; "Dairy Barner, Don. G. Magruder; weekly
KFI, Lex Angeless, Calif. (4407), 150-69 p. Examiner's
musterial half bour; 6-6-15, Mellwately nightly dorings;
6-13-7, Radiorst task; 7-8, Examiner: Sonny Clays
Rytham Democal, 5-4, Acollan revisitince pipe organ
hour, Ecollywood string quarted, Bard, Schubert and
Schumann hounders: 10-11, vocal veetfal nf pupils of

KFWB, Hellywood, Callf. (252), 7:45-9 p. m., Drngram. Star Motor Car company of California, Bill Hatch, Ray

Kellorg, jazz plantst and riojinist; Lake Arrowhead dance ordicates and Charles Beauchaup, terror; 8-10, program, Cleer Lake Bighands company; error; 8-10, program, Cleer Lake Bighands company; 7-11ks string motion plants; 10-11, Warner Brothers' motion plants; 10-11, Warner Brothers' motion plants; 10-12, m., produced motion plants; 10-12, m., produced produce

club: S. University of Oregon extension lectures; y. concert. Sicreman, Club & company studie; 10. Hood Concert. Sicreman, Club & company studie; 10. Hood Concert. Sicreman, Club & company studie; 10. Hood Concert. Club. C

Lymna's Autonomous Christians (429.5), 1-2 p. in., Rudd of hotel, KPO, San Francisco, Calif. (429.5), 1-2 p. in., Rudd KPO, San Francisco, Calif. (429.5), 1-2 p. in., Rudd Scigris Fairmont hotel orchestra; 5:05-7, Loew's Warfield thealer; 7-7:30, Palace hotel concert; 8-11, Palace hotel concert.

PICK JUDGES FOR KDKA'S CONTEST

Melody Composed by 13-Year-Old Boy-Receives Commendation from Critics

PITTSBURGH, Pa.—Judges to decide the winning verses of the "Song of America" have been announced. They will be a composer, a musical critic and a leader in the teaching of music in the public schools in this city. The contest is being held by Station KDKA, located here.

The melody was composed by a 13-year-old singer and planist of Pittsburgh. The song will be published, using the verses the judges select as the best of all those summitted in the contest which closed April 30.

Open International Congress in Paris

First of Its Kind in History-Large Attendance

PARIS.—The first international Radio congress opened here recently with a large crowd of Radio enthusiasts in attendance. Both amateur and the professional operalors were present.

alors were present.

Many amateurs attended and had their call letters on cards conspicuously displayed on their lapels. Canadian cards predominated, but a large number of American amateurs attended. Several women were present, although the male sex outnumbered them by a large majority. Meetings were held in the afternoons of each day during the week, the rest of the time being spent sight-seeing the city and visiting historical places made prominent by the new science.

Kewanee Organizes Club

KEWANEE, III.—Chasing static and other atmospheric disturbances and elimi-nating some of the unpleasant features of listening in are the purposes of the new Radio club geing organized in this

(FOR PACIFIC TIME)

					(POR I	ACIFIC	, I III4II;	1			
Е,	Call	Met.	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	ı Met.	Call
8	AT9	435	Silent	3:00~ 4:00	Silent	Stient	Silent	5:00- 7:55	Silent	435	AT9
-	CFCA CFCN	356.9 434.5	SHent 9:00-11:00	4:00- 5:00 Bilent	Silent	5:15- 6:15 Silent	5:15- 6:15 Silent	5:15~ 6:15 7:00- 8:00	Silent Silent	356.9 434.5	CFCA
).	CHNC	356.9 410.7	Silent 4:30- 9:30	Silent 1:30 - 2:30	5:30- 6:30 Silent	Silent 4:30 · 9:30	Silent Silent	Silent 1:30 9:80	Silent Silent	356.9 410.7	CHCN
ιt	CKY	384,4	Silent	5:00- 6:45 Silent	Silent Silent	5:30 - 8:00 Sitent	Stient 4:30- 9:30	6:00 - 7:00 Sllent	5:80~ 8:00 Sileut	384.4 434.5	CKY
1-	CYB	370 480	4:30-9:30 6:30-7:00	Silent	Silent	6:30- 7:00 8:00- 9:30	Silent	7:00- 9:00 Silent	Silent	370	CYB
-	CYL	330	SHent SHent	Stlent	Silent 7:00-10:08	Silent	Silent Silent	Silent	\$:00- 9:30 6:00- 8:00	480 330	CYL
n I-	KDKA	309. I 240	5:00-6:30 0:00-10:30	3:45- 5:45 2:00- 3:00	5:00- 6:30 5:30- 8:00	5:00- 9:00 Sitent	5:00- 6:30 5:30- 8:00	5:00- 6:30 Silent	5:00-6:30 5:30-8:00	309. t 240	KDKA
s. n	KFAE	348.6 275	Silent Silent	Silent	7:30- 9:00 7:00- 8:00	Silent Silent	7:80- 9:00 Silent	Silent	7:30- 9:00 7:00- 8:00	348.6 275	KFAE
d	KFDM	315.6 468.5	Silent	Silent	Silent	6:00-7:00	SBent.	Silent	6:00 - 7:00	315.6	KFDM
F S.	KFI KFKU	275	6:45-I1:00 Silent	4:00-11:00 Silent	6:45-12:00 4:50-6:45	6:45-12:00 Silent Silent	6:45-12:00 Silent	6:45-11:00 4:50- 6:45 7:30- 9:00	6:45-12:00 Silent	468.5 275	KFKU
x	KFKX KFMQ	288.3 299.8	Silent	Silent Silent	7:30- 9:00 Silent	7:00- 8:00	Silent Silent	5:30-6:30	Silent Silent	288.3 299.8	KFKX KFMQ
е	KFMX	336.9	Silent 4:30- 7:00	5:00 · 6:00 4:80 · 6:00	Silent 4:30 - 7:00	8:00 - 9:00 Silent	7:00- 8:00 4:30- 7:00	\$1lent 4:30-7:00	Silent 4:30- 7:00	336.9	KFMX
f. r	KFOA	454.3 394.5	6:00-11:80 5:30-10:00	Silent 3:00- 5:00	6:00-10:00 5:00- 8:30	6:00-11:30 8:30-10:00	6:00-10:00 6:00- 8:30	Silent 8:30- 9:30	6:00-11:30 9:00-11:00	454.3 394.5	KFOA
t	KFU0 KFWB	545. l 252	Silent 7:45-12:00	7:15- 8:15 9:00-11:00	Silent 6:30- 1:90	Silent	7:15- 8:15 7:45- 1:00	Silent 7:45- 1:00	Silent 7:45- 1:00	545.1 252	KFU0 KFWB
t	KGO KGW	361.2 491.5	8:00-1:00 6:00-10:00	8:30 - 9:00 6:00 - 8:00	8:00 - 1:00 6:00 - 7:00	7:45- 1:00 8:00- 1:00 8:00-12:00	811ent 8:00-12:00	7:45-1:00 8:00-1:00 8:00-12:00	Silent 9:00-12:30	361.2 491.5	KGW
=	KHJ	405.2 421	6:00- 2:00 Silent	6:30-10:00 2:00- 3:00	8:00-10:00 7:00- 8:00	6:00-11:00 Sllent	6:00-11:00 7:00- 8:00	6:00-11:00 Silent	6:00-11:00 7:00- 8:00	405.2 421	KIAF
đ.	K1B	384.4	Silent	7:00- 8:00	0:00-10:00	Silent	8:30-10:00	10:30-12:00	8:30-10:00	384.4	K1B
g.	K18	293.9 508.2	Silent Stlent	7:15- 9:30 Silent	Silent 6:00-11:00	S:00-9:00 Silent	Silent 6:00-11:30	8:00-9:00 Silent	Silent 6:00-10:30	293.9 508.2	K/S
te.	KNX	336.9 322.4	6:30- 2:00 8:00-11:00	5:00-11:00 3:30-7:30	6:30-12:00 7:00- 8:00	6:30-12:00 Silent	7:00-12:00 7:00-11:00	6:30-12:00 Silení	6:30- 2:00 7:00- 8:00	336.9	KNX KOA
io	KOB KPO	348.6 429.5	Silent 6:25-12:00	Silent 8:30-10:00	6:30-7:30 6:30-11:00	\$11ent 6:30-11:00	Silent 6:30-11:00	Silent 6:80-11:00	6:30-7:30 7:00-11:00	348.6 429.5	K0B KP0
6,	KSD	545.1 261	5:00- 7:80 7:00- 9:00	Silent 8:00-9:00	5:30 - 9:00 7:00 - 8:00	4:00-9:00 8:00-9:00	5:00- 6:00 7:00- 8:00	Silent 7:00- 8:00	6:30-8:08 8:00-9:00	545.1 261	K\$D K\$L
y ic	KTHS KTW	374.8 455	6:30- 7:45	6:30- 9:30	6:30- 9:00	6:30- 8:45	8:30- 8:45	6:30- 8:45	6:30-8:45	374.8	KTH\$
śί	KYW	535.4	Silent 4:00-10:30	7:00- 9:30 1:00- 5:00	Silent	Silent 4:00-8:30	Silent 4:00-10:30	Silent 4:00-8:30	Silent 4:00-10:30	455 535.4	KTW KYW
1-	PWX	434.5 400	5:30- 8:00	Silent Silent	4:45- 5:00 Silent	4:45- 5:00 Silent	4:25- 5:40 5:30- 8:00	4:45- 5:00 Silent	4:45- 5:00 SHent	434.5 400	NAA PWX
3	WABL	275 244	Silent	Silent	4:00~ 6:00 7:00-10:00	Silent	4:00- 6:00 Sileni	\$1lent 7:00-10:00	4:00-6:00 Sflent	275 244	WASL
io	WAHG	315.6 475.9	9:00-11:00 5:00- 6:00	Silent 9:00-10:00	4:00-10:00 5:80-11:00	\$1lent 5:30 - 8:45	3:30- 8:00 5:30- 8:43	Sillent 5:30- 8:45	4:00 - 7:30 5:30 - 8:45	315.6 475.9	WAHG
8	WBAR WBAV	406 293.9	Silent	8:00- 9:00 Silent	7:00- 8:00 5:00- 7:00	Silent Silent	6:00- 7:00 Silent	5:30- 6:30 Silent	Silent 5:00- 6:00	406 293.9	WBAR
r-	WBBG	248 226	Silent 5:00-10:00	Silent 1:00- 7:00	5:00- 7:00	Silent 5:00- 9:00	5:00-6:00	Silent 5:00- 9:00	4:00-11:00	248	WBBG
er.	WBBR	272.6 266	4:00- 4:45	5:00- 6:05	Silent 4:00- 4:50	Silent	5:00- 7:00 Silent	4:00-4:50	5:00- 7:00 Silent	226 272.6	WBBM WBBR
3	WBZ	333.3 461.3	6:00-10:00 3:30-5:55	2:00- 9:00 3:00- 6:00	Silent 3:30- 5:55	6:00-12:00 3:30- 5:55	5:00- 9:00 3:30- 7:05	6:00-11:00 3:30- 8:45	6:00-10:00 Silent	266 333.3	WBCN WBZ
	WCAL	336.9 468.5	4:00 - 5:30 10:00-11:00	Silent 6:30- 8:00	4:30-8:00 9:00-10:00	4:30-7:00 Silent	4:30- 7:38 Silent	4:00-7:00 7:00-8:00	4:30- 5:30 6:30- 7:00	461.3. 336.9	WCAE
	WCAU	278	Silent Silent	1:00 - 7:00 1:00 - 3:00	4:00- 8:30 Silent	Silent 3:20- 7:80	3:00- 9:00 3:00- 7:10	Silent 3:00- 7:45	4:30- 9:00 3:30- 6:40	468.5 278	WCAP
1.	WCCO	344.6	Silent 6:00- 9:00	6:00 - 7:00 5:40 - 8:15	5:00 - 7:30 4:00 - 9:00	1:00- 7:00	4:00- 9:30	5:00- 7:30 4:00- 8:00	4:00-10:00	344.6 416.4	WCCO
6	WCX	516.9 365.6	Silent 4:00-11:00	Silent 2:00- 2:30	3:00-6:30 4:00-11:00	3:00 - 8:00 4:00-11:00	5:00 - 6:30 4:00-11:00	Stlent 4:00-11:00	3:00- 8:00 4:00-11:00	516.9 365.6	WCX
y	WDWF	440.9	Silent 2:00 8:00	1:00 · 2:45 3:20 - 6:15	Silent 2:00- 7:30	4:30 - 5:30 2:00 - 8:00	Silent 2:00- S:00	Silent 2:00- 8:00	2:00- 8:30 2:00- 6:00	440.9	WEAF
Š l,	WEAR	293.9 389.4	Silent Silent	Silent 6:00- 7:00	Silent 4:00- 5:00	Stlent 4:00- 8:00	5:00- 6:00 3:45- 4:45	5:00 - 6:00 4:00 - 8:00	Silent 4:00- 8:00	293.9 389.4	WEAR
- 1	WEBH WEB!	370.2 233	4:30- 9:30 Silent	4:00- 6:00 Silent	Silent Silent	4:30 - 9:30 4:00 - 5:00	4:30- 9:30 3:00- 5:00	4:30- 9:30 Silent	4:30- 9:30	370.2 233	MEBH
	WEBW	268	Silent	2:25- 3:30	6:00- 9:00	6:30- 7:45	Silent	Silent	4:00- 5:00 Silent	268	MEBM
٠	WEEL	475.9 285.5	Silent Silent	3:20- 6:20 6:15- 7:15	4:00 - 7:00 6:15 - 7:15	4:00- 7:00 Silent	4:00 - 7:00 6:15 - 7:15	4:00- 7:00 Stlent	4:00- 7:00 7:00- 8:00	475.9 285.5	WENC
	WFAA WFBH	475.9 272.6	6:30-10:00 3:00-9:00	4:00- 9:00 1:00- 8:30	4:30- 7:30 7:30- 9:30	4:30-10:00 7:30-, 9:00	8tlent 3:00- 9:30	4:30-10:00 3:00- 8:30	4:30- 7:30 7:30- 9:30	475.9 272.6	WFAA
E	WFI WGBS	394.5 315.6	4:00- 7.00 4:30- 8:00	Silent Silent	Silent	4:00- 6:00 5:00- 8:00	Silent	4:00~ 7:00 5:00- 7:45	Stlent	394.5 315.6	WEBS
	WGES	250 370.2	3:15- 7:00 3:30- 8:30	Stlen) 6:00 - 7:00	SHent SHent	Silent 8:30- 8:30	3:30-11:00 3:30-8:30	Stlent 3:30- 3:30	Sitent 3:30- 8:30	256 370.2	WGES
	WGR WGST	319 270	Silent Silent	3:15- 4:30 Silent	4:30 - 7:30 7:00 - 8:00	4:00- 7:00 . Silent	4:00- 7:00 Silent	4:00- 7:00 5:00- 6:00	4:45- 7:00 Silent	319 270	WOR
е	WHA	379.5 535.4	8:30- 9:00 Stlent	5:30 - 8:00 Silent	3:30- 5:30 5:45- 6:45	4:30- 9:80 Stlent	7:00- 8:00	4:30- 9:30 Silent	4:30~ 8:30	379.5 535.4	WGY
e	WHAD	275	Bilent	Silent 2:00- 3:00	4:00~ 8:00	8Hent 5:30 - 7:30	4:00-10:30	4:00-8:00	5:45- 6:45 4:00- 8:00	275	WHA WHAD
r	WHAZ WHB	379.5 365.6	5:30- 7:00 Silent	Silent	Silent 6:00- 8:00	Silent	5:30- 7:00 Stlent	5:30- 7:00 Silent	5:30- 7:00 Sitent	399.8 379.5	WHAS
š	WHK	273 361.2	Silent 3:00-10:30 Silent	6:00 -11:00 4:30 - 8:00 6:15 - 7:15	5:00- 6:00 Silent	SHent SHent 0:00~ 8:30	5:00- 6:00 Silent	6:00- 8:30 3:00- 8:30	5:00-6:00 3:00-7:00	365.6 273	WHE
-	WHO	526 508.2	Silent Silent 4:00- 8:05	6:15- 7:15 2:00- 7:00 Silent	3:00 - 8:00 5:80-10:00	5:30-10:00 4:00- 9:00	4:45- 8:30 4:30- 9:00	4:00-9:00 5:30-10:00	5:30- 8:30 5:30-10:00	361.2 526	WHO
9 8	WJAR	305.9	Silent	3:20- 6:15	Stlent 1:00- 6:00	3:30- 6:00	Silent 4:00-7:00	4:00- 9:00 4:00- 7:00	Silent 4:00- 8:00	508.2 305.9	WIAR
9	WIAS	275.3 302.8	Sijent 4:15-10:00	Silent 10:00-12:00	5:30- 8:00 4:15-10:00	5:30- 8:00 4:15-10:00	5:30; 8:00 4:15-10:00	4:30- 7:00 Silent	4:30-7:00 4:15-10:00	275.3 302.8	WJAS
4	WJY	405.2 454.3	Silent 4:00 - 7:30	Stlent 4:45- 5:45	Silent 4:00- 7:45	5:15 - 6:45 4:00 - 6:30	Silent 4:00- 7:30	4:80- 5:00 4:00- 7:30	3:30- 5:30 4:00- 7:30	405.2 454.3	YiW YiW
	WKAQ WKAR	340.7 285.5	Silent 9:30-11:00	4:00-6:00 Stjent	Sitent	Silent	4:00- 6:00 5:00- 6:15	4:30 - 6:00 Stlent	Stient	340.7	WKAQ
	WLBL	278 394.5	9:59-10:59 Silent	Silent Silent	Silent 4:00 - 7:00	6:00- 7:00 Silent	Silent	Silent	Silent 3:30- 3:00	278 394.5	WLBL
s	WLS WLW	344.6 422.3	3:20- 9:00 3:00- 5:00	2:30 - 3:55 3:30 - 5:30	Silent 6:00- 8:00	4:00- 9:00 4:00- 6:00	3:30- 7:00 4:00- 7:00 3:00- 7:00	Silent 6:00- 8:00	4:00-11:00	344.6 422.3	WLS
	WMAK	265.5	Silenz	Silent	5:00- 6:00	Silent	Sileni	7:00- 8:30	Silent		WLW
-	WMC	447.5 499.7	4:00- 8:00 6:30- 7:30	Silent Silent	Silent 6:30- 7:30	4:00~ 8:00 6:30-10:00	4:00- 8:00 Silent	4:00- 8:00 8:30- 7:30	4:00 - 8:00 6:30-10:00	447.5	WMAQ
	WNAC	280.2 526	6:00- 7:00 2:30- 6:20	4:30-6:30 5:00-7:00	3:00 - 7:00 3:00 - 6:20	5:00- 7:00 3:20- 6:20	3:30- 7:00 3:30- 6:30	5:00- 7:00 SHent	3:00- 7:00 3:30- 6:20	280.2 526	WNAC
0	WOAW	394.5 526	SHent 4:00-10:15	5:30- 8:30 4:60- 8:00	Silent 4:00 - 9:00	6:30 - 8:30 4:00 - 9:00	Stlent	7:30 - 8:30 4:00 - 9:00	Silent 4:00-9:00	394.5 526	WOAI
е	WOC	240 483.6	Silent 4:30-10:00	Sitent 6:00- 9:30	Silent Silent	6:15- 8:00 4:30- 7:00	61lent 4:30- 8:00	Silent , 4:00-10:00	6:00- 8:00 4:39- 8:00	240 483.6	WOAX
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-	WORD WORD	405.2 275	Silent 5:00- 6:30	Silent 8:45- 5:00	2:15- 7:00 4:00- 6:00	Silent 5:00- 7:00	2:15- 6:45 5:00- 6:00	Silent Silent 5:00- 7:00	4:15- 7:30 Silent	506.2 405.2	WOO
-	WOS WPG	440.9 299.8	Sitent 3:00- 5:00	5:30- 6:30 5:00- 7:00	6:00- 8:00 8:00- 7:30	Silent 3:00- 7:00	6:00-8:00	Silent	5:00- 7:00 6:00- 8:00	275 440.9	WORD WGS
- n	WRBC	447.5 278	4:00-12:00 Silent	4:00 - 7:00 5:30 - 6:30	Silent 5:30- 6:30	4:00-11:00 Silent	Silent 4:00-11:00	9:00- 8:15 4:00-11:00	5:00- 6:00 4:00-11:00	299.8 447.5	WPG
-	WRC	468.5 285.5	3:45- 9:00 SHent	Stlent 4:30- 5:30	Sitent	3:45 - 9:00 5:15 - 6:45	Silent	Silent 3:45- 9:00 5:15- 6:45	Silent Silent	278 468.5	WRBC
3	WRW	273	6:00- 8:30	5:00-8:30	Silent 8:00- 8:30	6:00- 8:30	Silent 6:00- 8:30	5:15- 6:45 6:00- 8:30	Silent 6:00- 8:30	285.5 273	WRED
f	WSAI	336.9 325.9	Stlent 5:00-10:30	Silent Silent	Silent 7:00- 9:00	Silent 4:00- 7:00	5:00- 6:00 7:00- 9:00	Sitent 4:00- 6:00	Silent Silent	336.9 325.9	WSAC
-	WSB WSMB	428.3 319	6:00-10:00 6:30- 8:00	5:30- 7:15 Silent	6:00-10:00 Sllens	8:00-10:00 6:30- 8:00	8:45-10:00 6:30- 8:00	8:00-10:00 Silent	6:00-10:00 6:30- 8:00	428.3	WSB WSMB
	WTAM	483.6 389.4	Silent 3:00- 9:00 5:00- 7:30	5:00- 8:00 Silent	5:30- 7:00 3:00- 9:00	Silent Silent	5:30-7:00 8:00-10:00	Silent	Silent Silent	483.6 389.4	WSUI
1	WTIC	302.8 348.6	Silent	5:90- 9:00 Silent	5:00- 7:30 Silent	5:06- 7:90 4:00- 8:00	5:00- 7:30 Silent	5:00-10:00 Silent	5:00- 7:30 4:00- 6:00	302.8 348.6	WTAS
-		352.7	SHent	4:20- 7:15	3:00- 6:00]	3:00- 8:00	Silent	3:00- 9:30	3:00- 7:00	352.7	wwj
5 i	Mus	sic	and spec	ech bros	deast fi	om i Au	strio ic	now prod	noine nie		rhich

Music and speech broadcast from England have been picked up at Jessel-ton, British North Borneo, about 10,000 miles away.

Austria is now producing plays which have Radio as an integral part of them. The first of these plays is called 'The Radio Peabant'

An Evening at Home with the Listener In

	(FOR CENTRAL TIME) (FOR EASTERN TIME Or Cities Using Central) Daylight Saving Time)																	
Call	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Call	Location	Met.	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Call
AT9 CFCA	Silent Silent	5:00- 6:00 6:00- 7:00	Silent	Silent / 7:15- 8:15	Silent 7:15- 8:15	7:00-8:55 7:15-8:15 9:00-10:00	Silent Silent Silent	AT9 GFCA GFCN	Fort Bragg, N. C Torento, Ont Calgary, Alta	435 356.9 434.5	Silent Silent	6:00- 7:00 7:00- 8:00	Silent Silent	Sitent 8:15- 9:15	Stient 8:15- 9:15	8:00- 9:55 8:15- 9:15	Silent Silent	AT9 CFCA
CFCN CHNC CKAC	11:00- 1:00 Stient 6:30-11:30	Silent Silent 3:30- 4:30	Silent 7:30- 8:30 Silent	Silent Silent 6:30-11:30	Silent Silent Silent	Silent 6:30-11:30	Silent	CHNC	Teronto, Ont	356.9 410.7	12:80 - 2:00 Silent 7:30-12:30	Silent Silent 4:30- 5:30	Silent 8:30- 9:30 Silent	Silent Silent 7:30-12:30	Silent Silent Silent	10:00-11:00 Silent	Silent	CHNC CKAC
CKY CNRO	Silent 6:30-11:30	7:00- 8:45 Silent	Silent	7:30-10:00 Silent	Silent 6:30-11:30	8:00- 9:00 Silent	7:30-10:00 Silent	CKY	Winnipeg, Man	384.4 434.5	Silent 7:30-12:30	8:00- 9:45 Silent	Stlent	8:30-11:00 Silent	Silent 7:30-12:30	7:30-12:30 9:00-10:00 Silent	Silent Silent	CKAC
CYB	8:30- 9:00 Silent	Silent Silent	Silent Silent	8:30- 9:00 10:00-11:30	Silent Silent	9:00-11:00 Sllent	Silent 10:00-11:30		Mexico City, Mex Mexico City, Mex	370 480	9:30-10:00 Stlent	Silent Silent	Silent Silent	9:30-10:60 11:00-12:30	Silent Silent	10:00-12:00 Silent	Silent !1:00-12:30	CYB
KDKA	7:00- 8:30	5:45- 7:45	9:00-12:00 7:00- 8:30	7:00-11:00	7:00- 8:30	7:00- 8:30	8:00-10:00 7:00- 8:30	KDKA	Pittsburgh, Pa	330 309.1	8:00- 9:30	8ilent 6:45- 8:45	8:00- 9:30	Silent 8:00-12:00	8:00- 9:30	8:00- 9:30	9:00-11:00 8:00- 9:30	KOKA
KFAB	Silent Silent	4:00-5:00 Silent Silent	7:30-10:00 9:30-11:00 9:00-10:00	Silent Silent Silent	7:30-10:00 9:30-11:00 Silent	Silent Silent Silent	7:30- 9:30 9:30-10:30 9:00-10:00	KFAE	Pullman, Wash	240 348.6 275	12:00- 1:30 Sitent	5:00- 6:00 Silent	\$:30-11:00 10:30-12:00	Silent Silent	8:30-11:00 10:30-12:00	Silent Silent	8:30-10:30 10:30-12:00	KFAB
KFAU KFDM Kfi	SHent 8:45- 1:00	Silent 6:00- 1:00	Silent 8:45- 2:00	8:00- 9:00 8:45- 2:00	Silent 8:45- 2:00	Silent 8:45- 1:00	8:00- 9:00 8:45- 2:00	KFO M	Beaument, Texas Los Angeles, Calif	315.6 468.5	Silent Silent 9:45- 2:00	Sijent Sijent 7:00- 2:00	10:00-11:00 Silent 9:45- 3:00	Stient 9:00-10:00 9:45- 3:00	Silent Silent 9:45- 2:00	Silent Silent 9:45- 2:00	10:00-11:00 9:00-10:00 9:45- 3:00	KFOM KFOM
KFKU KFKX	Silent	Silent Silent Silent	0:50- 8:45 9:30-11:00 Silent	Silens Silens 9:00-10:00	Silent Silent Silent	6:50- 8:45 9:30-11:00 7:30- 8:30	Silent Silent Silent	KFKU KFKX KFMQ	Hastings, Nebr	275 288.3	Silent Silent	Silent Silent	7:50 - 9:45 10:30-12:00	Silent Silent	Silent	7:50- 9:45 10:30-12:00	Silent Silent	KFKU
KFMQ	Silent	7:00 - 8:00 6:30 - 8:00	Silent 6:30- 9:00	10:00-11:00 Silent	9:00-10:00	Si)ent 6:30 - 9:00	Silent 6:30- 9:00	KFMX	Northfield, Minn	299.8 336.9	Silent	Silent 8:00 - 9:00	Silent Silent	10:00-11:00 11:00-12:00	Silent 10:00-11:00	8:30- 9:30 Shent	Silent Silent	KFMX
KFNF KFOA KFRU	6:30 - 9:00 8:00 - 1:30 7:30 - 12:00	8ilent 5:00- 7:00	8:00-12:00 7:00-10:30	8:00- 1:30 10:30-12:00	8:00-12:00 8:00-10:30	Silent 10:30-11:30	8:30- 1:30 11:00- 1:00	KFOA	Shenandoali, Ia Seattle, Wash Bristow, Okla	266 454.3 394.5	7:30-10:00 9:00- 2:30 8:30- 1:00	7:30-9:00 Stlent 6:00-8:00	7:30-10:00 9:00- 2:00 8:00-11:30	Silent 9:00- 2:30	7:30-10:00 9:00- 2:00	7:30-10:00 Silent	7:30-10:00 9:00- 2:30	KFNF KFDA KFRU
KFU0 KFWB	Silent 9:45- 2:00	9:15-10:15 11:00-1:00	Silent 9:30- 3:60	SI)ent 9:45- 3:00	9:15-10:15 9:45- 3:00	Silent 9:45- 3:00	Silent 9:45- 3:00	KFUO	St. Louis, Mn	545.1 252	Silent 10:45- 3:00	10:15-11:15 12:00- 2:00	Silent 10:30-4:00	11:30-1:00 Silent 10:45- 4:00	9:00-11:80 10:15-11:15 10:45- 4:90	11:30-12:30 Silent 10:45- 4:90	12:00- 2:00 Stlent 10:45- 4:00	KFU0 KFWB
KG0 KGW	10:00- 3:00 8:00-12:00	5:30-11:00 8:00-10:00 8:30-12:00	3:00- 3:00 3:00- 9:00 10:00-12:00	10:00- 3:00 10:00- 2:00 8:00- 1:00	Stlent 10:00- 2:00 S:00- 1:00	10:00- 3:00 10:00- 2:00 8:00- 1:00	Silent 11:00 - 2:30 3:00 - 1:00		Oakland, Calif Portland, Ore	361.2 491.5	11:00- 4:00 9:00- 1:00	6:30-12:00 9:00-11:00	11:00- 4:00 9:00-10:00	11:00- 4:00 11:00- 3:00	Silent 11:00- 3:00	11:00- 4:00 11:00- 3:00	Silent 12:09- 3:30	KC0
KHI KIAF KIR	8:00- 4:00 Silent Silent	4:00 - 5:00 9:00-10:00	9:00-10:00 8:00-12:00	Silent	9:00-10:00 10:30-12:60	Silent 12:30- 2:00	9:00-10:00 16:30-12:00	KIAF	Sihtipek, 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	11:00 · 1:00 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	KHJ KIAF KJR
KIS -	Silent	9:15-11:30 Silent	Silent 8:00-1:00	10:00-11:00 Silent	Silent 8:00- 1:30	10:00-11:00 Silent	Silent 8:00-12:30	KJS	Les Angeles, Calif	293.9	Silent	10:15-12:30 Silent	Slient 9:00- 2:00	11:00-12:00 Sllent	Stient 9:00- 2:30	11:00-12:00	Silent 9:09- 1:30	KJS;
KLX KNX KOA	8:30- 4:00 10:00- 1:00	7:00- 1:00 5:80- 9:80	8;30-2;00 9:00-10:00	8:30- 2:00 Stlent	9:00- 2:00	8:30- 2:00 8Ment	8:30-4:00 9:00-10:00	KNX	Hnllywood. Calif Denver, Coln	336.9 322.4	9:30 · 5:00 11:00 · 2:00	8:00 - 2:00 6:30-10:30	9:30-3:00 10:00-11:09	9:30- 3:00 Silent	10:00- 3:00 10:00- 2:00	Silent 9:30- 3:00 Silent	9:30- 5:00 10:00-11:00	KNX
KOB KPO	Sileni 8:25- 2:00	Silent 8:30-12:00	8:30- 9:30 8:30- 1:00	Silent 8:30 - 1:00 6:00-11:00	Silent 8:30- 1:00 7:00- 8:00	Silent 8:30- 1:00 Silent	8:30- 9:30 9:00- 1:00 7:30-10:00	KP0	State Cnilege, N. M San Francisco, Culif	348.6 429.5	Slient 9:25- 3:00 8:00-10:30	Silent 9:39- 1:00	9:30-10:30 9:30- 2:00	Silent 9:30- 2:00	Silent 9:30- 2:00	81lent 9:30- 2:00	0:30-10:30 10:09- 2:00	KPO KPO
KSD KSL	7:00-9:30 9:00-11:00	Silent 10:00-11:00 8:30-11:30	7:30~11:00 9:00-10:00 8:30-11:00	6:00-11:00 10:00-11:00 8:30-10:45	7:00-8:00 9:00-10:00 8:30-10:45	9:00-10:00 8:30-10:45	7:39-10:00 10:00-11:00 8:30-10:45	KSL	St. Louis, Mo Salt Lake City, Utah Het Springs, Ark	545.1 261 374.8	8:00-10:30 10:00-12:00 9:30-10:45	Silent 11:00-12:00 9:30-12:30	8:30-12:00 10:00-11:00 0:30-12:00	7:09-12:00 11:00-12:00 9:30-11:45	8:00- 3:00 10:00-11:00 9:30-11:45	Silent 10:00-11:00 9:30-11:45	8:30-11:00 11:00-12:00 9:30-11:45	KSO KSL KTHS
KTW	8:30- 9:45 Silent	9:00-11:30 3:00- 7:00	Silent Silent	Silent 6:00-10:30	Silent 6:00-12:30	Silent 6:00-10:30	Silent 6:00-12:30	KTW	Seattle, Wash	455 535.4	Silent 7:00- 1:30	10:00-12:30 4:00- 8:00	Silent Silent	Silent 7:00- 11:30	Silent 7:00-1:30	Silent 7:00 - 11:30	9:30-11:45 Silent 7:00- 1:30	KTW
NAA PWX	6:00-12:30 Silent 7:30-10:00	Silent Silent	81fent 0:45- 7:00 Silent	6:45- 7:00 Silent	6:25-7:40 7:30-10:00	6:45- 7:00 Silent	6:45- 7:00 Silent	NAA	Radio, Va	434.5 400	Silent 8:30-11:00	Silent Silent	7:45- 8:00 Silent	7:00- 11:30 7:45- 8:00 Silent	7:00 - 1:30 7:25 - 8:40 8:30 - 11:00	7:00 - 11:30 7:45 - 8:06 Stlent	7:00- 1:30 7:45- 8:00 Silent	PWX
WABL	Silent Silent	Silent Silent	6:00- 8:00 9:00-12:00	Silent Silent	6:00- 8:00 Silent 5:30-10:00	Silent 9:00-12:00 Silent	6:00- 8:00 Silent 6:00- 9:30	WABL WABN WAHQ	Storre, Conn	275 244	Silent	Silent	7:00 - 9:00 10:00 - 1:00	Silent Silent	7:00- 9:00 Slient	Stlent 10:00- I:00	7:00- 9:00 Silent	WABL
WAHG WBAP WBAR	11:00-1:00 7:00-8:00 Silept	Silent 11:00-12:00 10:00-11:00	6:00-12:00 7:30-1:00 9:00-10:00	Silent 7:30-10:45 Silent	7:30-10:45 8:00- 9:00	7:30-10:45 7:30- 8:30	7:30-10:45 Silent		Fort Worth, Tex	315.6 475.9 406	12:00- 2:00 8:00- 9:00 Silent	Silent 12:00-1:00 11:00-12:00	7:00- 1:00 8:30- 2:00 10:00-11:00	Silent 8:30-11:45 Silent	8:30-11:00 8:30-11:45 0:00-10:00	Silent 8:30-11:45 8:30-9:30	7:00-10:39 8:30-11:45 Slient	WAHG WBAP WBAR
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A new broadcasting station will be constructed at Sao Paulo, Brazil, if the campaign now under way is successful, says an unofficial report received here.

French Radio stations are beginning to teach university courses by Radio.
Among them will be one in stenography, literature, popular science and history.

More than \$5,540,000 in license fees have been paid by British fans up to January. Of this amount, \$4,250,000 accrues to the British Broadcasting company.

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Vol. XIII

Saturday, May 9, 1925

Congestion Campaign Continues

Congestion Campaign Continues

Less congestion in the air is in sight, if the great response from listeners is indicative of a solution. And it is indicative, for when the desires of the public are consolidated and presented to congress in a concrete form, congress will act.

Radio Digest has taken a large task in hand. Remember, that the most conservative estimates allow two millions of Radio fans in this country. If a showing is to be made before congress, almost two millions of names must appear on the petition tendered.

The "Consensus of Opinion" voting blank will appear every week in this magazine. If you have filled and returned a blank, get your friends to fill the blanks as they appear. If you belong to a Radio club which you feel should consider this important question, get in touch with your president or secretary and suggest that he write to this magazine for a supply of blanks with which to take the votes of the club's membership. No stone must be left unturned in this gigantic effort to secure a representative referendum for better Radio. The voting blanks so far received are encouraging. Everyone agrees that something must be done to relieve the air of its present congestion. Everyone agrees that something must be done to relieve the air of its present congestion. Everyone agrees that some plan for limiting the number of stations is advisable. Everyone is in favor of an unbiased, non-partisan broadcasting control board for the purpose of regulating broadcasting.

It looks as though some real constructive work is under way. But, let us not rest on our oars, for there is much work to be done before the "Consensus of Opinion" vote can be called representative of the entire invisible audience.

Dressing Our Telegrams

Dressing Our Telegrams

Telegram reading is an evil—sometimes. Sometimes, because telegram reading can be done interestingly without being made boresome. The usual style of telegram reading, however, is in the evil class. "Program coming in fine" begins the hackneyed telegram. The audience of certain stations always expect his. "Play blank," continues the highly interesting piece of literature. The form has been so repeated as to mean nothing to the average listener.

Why not—it telegram reading is necessary—dress the announcement of telegrams in some interesting fashion? It can be done. It is not necessary to name specific stations that are succeeding in reading telegrams used to the stations that are succeeding in reading telegrams as foundation material and weave interesting stories or comment from them.

Down with the telegram readers. Let us have our telegraphed testimonials and requests in some hetter form. It certainly shouldn't be difficult for a versatile announcer to weave something better than "Program coming in fine" from the incoming applause.

Musical Taste Developed

E VIDENTLY broadcasts of musical programs have enhanced the sale of musical instruments. Dealers enhanced the sale of musical instruments. Dealers in musical goods see a marked increase in the demand and they cannot place the cause unless it is Radio. There are more than thirty million people in this country who play some musical instrument. When such a large population of players have their natural human interest in music stimulated by the Radio programs an increased demand for musical instruments in tot at all surprising. The past year has developed more home orchestras than ever before.

It is the belief of manufacturers of musical instruments that Radio will develop the musical taste of the people of this country much more rapidly than if Radio had not existed.

WKRC Assembles Artist Applause

WKRC, Kodel Radio corporation station in Cincinnati, has originated a splendid idea. The applause each day is assembled, copied and furnished to each performer appearing at the station on the night for which the applause was sent. More power to WKRC.

RADIO INDI-GEST

Grand Opening of Station BLAH



WALLA WALLA.—Station BLAH, was formally opened last night. Chief Kokomo made the presentation address and his speech was warmly welcomed by (A little boisterous, but nice, nevertheless)

tion address and his speech was warmly welcomed by the uatives. (A little boisterous, but nice, nevertheless). Forked Tongue was aunouncer. He has two tongues, so that he is able to talk in both English and Walla Wallain, at the same time. When the switch was thrown, opening the microphone, Forked Tongue started shouting: Help! Fire! Murder! Police! This was followed by a deafening crash and heated arguments from the natives. They claimed that Forked Tongue didn't make half as much noise as some of the announcers in the States.

If you hear those frantic cries for succor do not become dismayed or alarmed for it is merely Indi-Gest's method of letting you tune in before the station really begins operation. This is something novel in the way of broadcasting, and no doubt, it will be adopted by several stations before long.

The new plant is the most modern to be erected in a radius, as the erow flies in eircles, of 7,000 miles, and as there are no stations within a radius of 9,000 miles, there will be no interference. The powerful transmitting apparatus has a range of 3,000 cubic miles. The closest habitation to Walla Walla is 10,000 miles, so it should be easily tuned by those who go to the proper wave length. It is located on that tropical island of Walla Walla, in the midst of the great damp Pacific Ocean. Pacific Ocean.

To Karl Stefan, Announcer, WJAG

We have listened to announcers From the East and from the West, But Stefan. who lives at Norfolk, Is just about the best.

He tells us all about the markets, And the game of ball at Winner, The price of hogs at Bloomfield, And what he had for dinner.

We hear praises for the Printer's Devil; We don't say that it's a sin To praise the Norfolk Daily News, But where does "Steve" come in?

We hope you won't lose your job, Because you are the best Announcer in the North or South, In the East or in the West.

May you live long and prosper, Is our daily prayer and hopo, And we'll all smoke your stogies,* If they are made of rope.

How Many Stations Did You Catch? (Clipping from Casper,

Watson Radio Shop Has Complete Line of Fishing Tackle

Broadcasting

Over the waves on the ether
Love Messages I send;
They are answered and received,
Our thoughts together blend.
Over the infinite ether waves
I'm sending thoughts aglow;
And they are broadcast back to me
Eternally I know.

Together always, one in heart United soul to soul, It matters not a part or near The wireless we control;

For when two souls are mated, they
Receive and are in tune.
In waves of understanding
As ancient as the moon.
RHEA SHELDON.

The Test of a Tube

The lest of a lube

Dear Indi: Bill, up from the country, tistened patiently while the salesman in a big London Radio store expounded the virtues of various tubes which he spread out on the counter. Soleminly the customer picked up each in turn and shook it close to his ear. "Naw, naw," was his final verdict, "I ain't goin' to be had that way. I'll stick to my old one at home. It beads any of yours, 'cause it's got one of them electrons in it!"

LONDON MAN.

Vox Pop



Condensed By DIELECTRIC

One of the features booked by Station WCAE, Pittsburgh, is not unusual, though very pleasing: Blackstone theater orchestra music. It differs not at all from other like musical bodies but equals the best of them. Except for a few weird sounds, no one would suspect the flight of the 'mythical dirigible," which appears late in the program. You have the telegram reading (abomination) and usual jazz.

Another "sitting" on the wave of WOS, Jefferson City, Mo., produced a sedative effect with Jones and Oliver brothers filling the air. Their rendition of "Home Sweet Home" made the subject of the song sweeter, for it is there that one may tonch a dial—all tunscen! Here again was another outburst of telegraphic entertainment. How some folks like to share with the world their mastery of rhetoric, while any nouncers seem to fall for it. Ostensibly programs are for us all.

Station WTIC, Hartford, Conn., may not reach to all corners of the globe, yet it deserves mention here for certain reasons. When call letters are announced they usually are intelligible enought, but proper names and special announcements often are heard as a jumble. This station exercises care in whatever is said by the announcer so that guessing is unnecessary. What is presented meets with approval by most.

Possibly some of you listeners in failed to tune to Station WLW when the Cincinnati Orpheus club gave a concert with Miss Jeannette Vreeland, soloist. If you missed this, you missed a rare treat. Miss Vreeland is one of the most accomplished American concert artists appearing today, and on this occasion showed no signs of the suffering which must attend a sprained ankle. Her visible audience aecorded a merited ovation to the beautiful singing of a generous program.

We can check up another station broadcasting organ recitals for those who enjoy hearing this type of musical production. WMC, in Memphis, Tenn., is responsible for broadcasting organ music during the evening hours. It is possible to choose now as between several stations. Let your appreciation be known to the artists.

Presumably no one was disappointed who tuned to Station WNAC, Boston, and heard the program from Symphony Hall arranged by those in charge of the annual ladies' night of the hank officials' association. Paul Shirley's symphonic group was one of many splendid leatures.

Out where the chiropractors learn their gentle art you will find Station WOC, one of the originals, with diversity in program arrangement; having at the same time its dance programs designed to Iced the fancy of terpsichorean enthusiasts. One evening we heard dance numbers conveyed to us through this station in Davenport, Iowa, from Moline, Ill. Distance had no enchantment to loan, however.

We were all set for an attractive program from KFKX, to be given by the Kiwanis club, but had to be content with a change at the last minute. Instead, there was presented one of those ordinary jazz band outbreaks, which is becoming less and less appealing. The time is coming when any old jazz stuff will be curtly tuned out and some station with a better class of music tuned in and held.

Low Loss Tuned Radio Frequency Receiver

Part III—Complete Wiring Instructions

By George Walters

THE instructions in Part II carried the home constructor through the assembly of the front panel and sub base home constructor through the assembly of the front panel and sub base while the wiring diagram was presented for those able to continue work from a schematic. In this article we will therefore present figures 11 and 12, with more detailed wiring instructions for the beginner. Before the wiring is begun the coils should be set at the neutrodyne angle of 54.7 degrees. The following sugestion will help many readers to adjust their eoils to this angle. On a piece of light cardboard, lay off a triangle so that one side will be three inehes long and another side 4½ inches long. Between these two sides of the triangle there should be a right angle of exactly 90 degrees. If this triangle fs now placed before you with the 3-inch side at the bottom and the 4½-inch side vertical, the angle between the slanting side and the base line will be 64.7 degrees. This piece of cardboard can now be placed on the sub base just to the right of each coil and moved up so that the long slanting edge touches one side of the coil. The machine screw which fastens the coil to the brass mounting bracket should now be tightened to hold the coil at the correct angle. rect angle.

Leads From the Coil

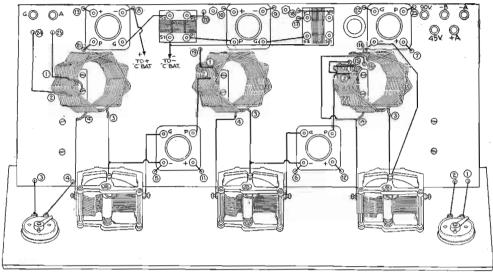
Leads From the Coil

In figure 11, the four leads from the coils have been numbered 1, 2, 3, and 4 to correspond to the numbers used on figure 5, which was part of the first article. It will now be necessary to drill 25 holes through the sub base, through which connecting wires can pass from the npper side to the lower. These holes have been numbered practically in the same order in which they will have to be drilled for a logical method of wiring. The negative A leads should be put in first, which makes necessary holes 1, 2 and 3 for the wire connecting the negative A binding post with the two rheostats and the wire which connects the right hand rheostat with the dotector and audio tubo sockets.

The next series of holes will begin

sockets.

The next series of holes will begin with number 10 for the positivo A leads and, when these have been put in, the grid and plate wires will be found to fit



in very easily. The wiring above the panel which connects the variable condensers, the coils and the sockets should be left to the last, as some of these wires be left to the last, as some of these wires must connect to the filament leads already put in. The C battery is not shown in figure 11 and its position is left to the builder's own personal proference. The points to which it connects are clearly indicated however. Tho connections to the variable condensers as shown in figure 11 might confuse some builders so it should be explained that these condeus-(Continued on page 18)

This Amazing New-Type Coil is Revolutionizing Radio Set Building

Three Great Advantages

The absence of an external field elim-inates the effect of the coll upon nearby eoils or adjacent wiring circuits.

The Circloid has no pick-up quality and is rendered immune from outside electrical influence.

Its efficiency is higher than auy other type of coli and losses are un-believably low.

Erla Balloon Circloid Radio Frequency

Transformer and Coupler

MODERN electrical sclence has discovered a new principle in radio frequency amplification—a new improved transformer that gives the most amazing results. In the coupon below—and let us send you the complete technical story.

4 vital improvements

improvements

The story of Circloid advantages is a fascinating study—even for those who are not interested in the total inter feet freedom from anny....
ference.
Another Circloid improvement is
greader staibility—smoothness of operation and sass of control.
The tengency of conventional receivers to galueal and how! uncontrol-

lably is due to excessive feed back between coils and wiring circuits.

With Circloids feed back of energy is climinated betweon coils and confined solely to the wiring eircults where it is subject to complete control. Thus perfect stability is obtained. Oscillation that is sudden and violeut in the average receiver, making it necessary to start tuning all over again, is now controllablo. Just the slight turn of one control and it is completely controlled.

But the most important of all Circloid improvements is its effect upon tone quality. Any radio engineer will tell you that excessive "feed back" is the greatest cause of distortion or blurring.

And Circloids.

distortion or blurring.

And Circloids, bocause they have no external field, eliminate stray feed back effects and do away completely with this princi-pal source of tonal distortion.
Only with the

.00 Each Pending Circloid principle can supreme musical clarity and fidelity of reproduction be obtained. No other radio set can offer you these exclusive advantages. No other set can offer these supreme achievements. \$4.00 Each

4 ways to buy the Circloid

Erla Circloid Transformers are offered for sale, \$4.00 each—in kits of three, \$12.00—in kits of three with Erla Condensers, \$21.50—and in Factory-Bilt Kits, \$49.50. They may be obtained direct from your nearest dealer. Or write direct for detailed information.

"Last night we heard the sweetest voice!"

FEW boast of having heard a powerful voice. Radio has grown up. It is now 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 skimmed.

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



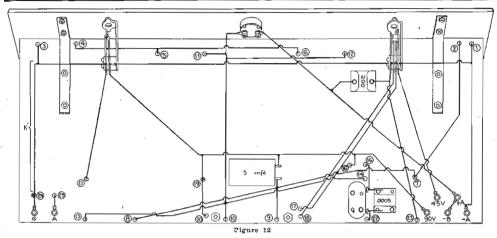
ERLA CIRCLOID

Radio Frequency Transforme

*Trade Mark Registered

o er	Electrical Research Laboratories, Inc. 2501 Collage Grove Ave Chicago, III. Gentlemen: Please send me detailed in- formation shout the new Eris Belloon Circloid Transformer.
=	Name
.	Address

SUB BASE WIRING OF WALTERS TUNED R. F. RECEIVER



LOW LOSS TUNED R. F.

(Continued from page 17)

res have binding posts on each side connected to the stator plates. If you find that your condensers have been so chosen that they will give very short connecting leads.

This wire was put in dotted lines because it is preferable not to uso it unless that the connect the grid binding post on these plates, connect each of the number 4 terminals on the collect the grid binding post on the following socket and then connect the grid binding post on the following socket and then connect the grid binding post on the following socket and then connect the grid binding post on the following socket and then connect the grid binding post on the following socket and then connect the grid binding post on the following socket and then connect the grid binding post on the following socket and then connect the grid binding post on the following socket and then connect the grid binding post on the following socket and then connect the grid binding post on the following socket and then connect the grid binding post on the following socket and then connect the grid binding post on the following socket and then connect the grid binding post on the following socket and then connect the grid binding post on the following socket and then connect the grid binding post on the following socket and then connect the grid binding post on the following socket and then grid binding post on the following socket and then grow read to the grid binding post on the grid binding post and to the use of this wire necessary.

This is the wire, also labeled K. in figure the wire in fact the lines be induced in the wire when either of these, binding post and the the use of this wire necessary.

This is the wire, also leded K. in fig Continued from page 17)
ers have binding posts on each side connected to the stator plates. If you find that your condensers have only one binding post on these plates, connect each of the number 4 terminals on the coils to the grid binding post on the plates, connect each of the number 4 terminals on the coils to the grid binding post to the following socket and then connect the grid binding post to the stator plates. This applies to the first two R.F. transformers only, and to the two radio frequency tube sockets. The third transformer has been cut away so that the connections which pass through holes 15 and 16 might be clearly shown. The builder may prefer to place his fixed condensers in other positions of the 5 mfd. and .092 mfd. condensers have been so chosen that they will give very short connecting leads.

In figure 12 it will be noted that the letter K has been inserted at the left edge of the drawing to designate the

from its binding post and touch it to the 45 volt binding post and also the 90 volt.

and a loud speaker plugged into the tack

at the left end of the front panel. The variable grid leak should be screwed down so that the resistance is low and the rheostates should both be turned through about three-quarters of their possible rotation. Turn the flament switch to the "On" position and a hissing sound should be board in the sense.

172-2000

about three-quarters of their possible rotation. Turn the filament switch to the "On" position and a hissing sound should be heard in the speaker.

Set the dials 2 and 3 at 50 and swing the dial one slowly back and forth over an arc from 30 to 70. If signals are not heard, set the dials 2 aud 3 at 60 aud swing the dial one between 40 and 80. This procedure should he continued up the scale and then at the lower end of the scale until a station is heard. Readjust all dials until maximum volume is secured and then adjust the rheostats for best results. After 2 or 3 comparatively strong stations have been tuned in so that the approximate positions of the dials for various wave lengths have been learned, look for a more distant station and get one in as loud as possible. Now turn the grid leak so that the pressure is loosened, and there is more resistance, and a point will be found where signals suddenly come in with nearly double the strength. This loosening of the grid leak should not be carried too far, however, as there will be a tendency for instability and harsh signals. The point of loudest reception should be found and the grid leak turned down just a little below this point, at which it can be left.

Eliminating High Pitched Hum

If there is a steady, unvaring high-pitched hum or whistle which is not affected by turning the dials it is probable that it is caused in the audio frequency part of the circuit. Ground the frames and shields of the audio frequency transformers by connecting them, on the uoder-side of the sub base, to the negative filament wiring. If this hum increases to a high-pitched squeal when the right han rheostat is turned up for good volume put in the wire K which should reduce or eliminate this noise.

If it is rather hard to find stations at first, this is not a fault of the receiver but a point in its favor, hecause the

ellminate this noise.

If it is rather hard to find stations at first, this is not a fault of the receiver but a point in its favor, hecause the sharpness of tuning is remarkable and is not found on any other receiver of the tuned radio frequency type which the writer bas seen. It is very probable that dlals 1, 2 and 3 will be found to ruu alike throughout the scale. If, for example, dial 1 reads 18, dial 2 reads 23 and dlal 3 reads 25 for a low wave length station, it will be found that dial 1 will read 88, dial (Continued on page 20)

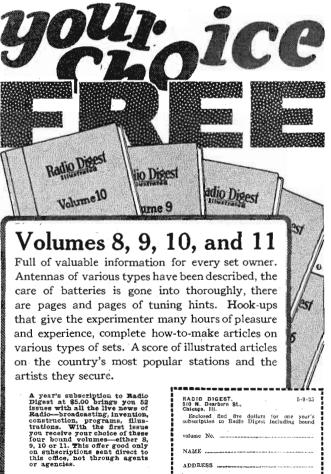
(Continued on page 20)





The Goode Tube Corporation (Dept. A)

Owensboro



Kentucky

A. B. C. Course in Radio Fundamentals

Chapter VII—Calculating the Capacity of Condensers

By David Penn Moreton

in which C is the capacity in micromicro-farads, t is the thickness of the dielectric between the plates in centimeters, S is the area of one side of one plate in square centimeters, and K is the dielectric con-stant of the dielectric.



Figure 37

The capacity of a condenser increases with an increase in the area of the plates that are exposed to each other, decreases with an increase in the distance between the plates, and increases and decreases with an increase and decrease in the value of the dielectric constant of the diolectric. The dielectric constant of all materials is expressed in terms of the dielectric constant of air which is considered a standard or reference material and has a dielectric constant of one.

For example, the capacity of a condenser composed of two brass plates each having an area of 100 square centimeters and separated a distance of 1/10 centimeter with air as the dielectric will bave a capacity of

 $0.0885 \times 1 \times 100$

= 88.5 Micromicrofarads

If these plates he separated by a sheet of mica having a dielectric constant of 6 the capacity of the condensor will be just six times as great as it is with air as the division of the condensor will be just six times as great as it is with air as the dielectric.

	Dielectric									
Material	Con	sta	nt							
Air	1.0									
Hard rubber	4.0	to	4.0							
Glass	4.0	to	10.0							
Mica	4.0	to	0.0							
Dry paper	1.5	to	3.0							
Celluloid	7.0	to	10.0							
Unglazed porcelain	5.0	to	7.0							
Wood, dry maple			4.5							
Shellac	3.0	to	4.0							
Bakelite		to	7.5							
Distilled water	81.0									

Several methods of representing a con-denser in a diagram are shown in figure

The majority of condensers are com The majority of condensers are composed of more than two plates and in such cases the eapacity is determined as follows. The expression for the capacity of two plates as given is multiplied by the number of plates less one to get the total capacity of the condenser. Let N represent the number of plates, then $0.0885 \times K \times S \times (N-11)$

- micromicrofarads

For example, a condenser composed of 11 brass plates, 2 centimeters by 5 centimeters and separated by mica 0.01 of a centimeter in thickness and having a dielectric constant of 6 will have a capacity

 $0.0886 \times 6 (2 \times 5) \times (11 - 1)$

0.01 =5810 micromicrofarads.

or 0.00531 microfarad.

papacity of the condenser will be just six mes as great as it is with air as the lelectric.

Dielectric of a Condenser

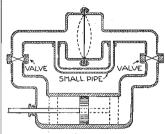
The dielectric constant of a material and the dielectrical properties, of the differ-

of the dielectric constant

Finding Dielectric Constant

The value of the dielectric constant of a material is determined by dividing the capacity of a condenser with the material as the dielectric by the capacity of the same condenser with air as the dielectric. The dielectric constant will depend upon the kind of voltage applied and the manner in which it is applied. For instance, if the condenser is charged from a direct-current source, such as a battery, the values of the dielectric constant found when the condenser is charged slowly will differ quite a bit from the values found when the condenser is charged rapidly. If an alternating current source of electrical pressure is used in charging the condenser the dielectric constant may differ considerably from the values determined by direct current. This difference becomes more pronounced as the frequency is increased and is quite appreciable for frequencies such as those used in Radio communication. For the hest results the conditions under which the material is to be used should be known and its dielectric constant determined if possible, under these conditions.

The materials used for dielectrics are not perfect insulators and they do allow a certain amount of electricity to pass through them. This condition in the electrical condenser corresponds to a diaphragm in the hydraulic condenser having small holes in it which will allow a certain amount of liquid to actually pass through them. This condition in the electrical condenser corresponds to a diaphragm be caused to move to the position shown by the right dotted line, by moving the piston toward the left end of the cylinder, the hydraulic condenser will be discharged. Now, if the valves be closed, the diaphragm will remain in a strained



rigne 38

or less rapid discharge of a condenser having a dielectric of low resistance after it is disconnected from the charging source. This property of a condenser which results in the condenser slowly discharging itself if allowed to stand after being charged is called the "leakage" of the condenser. Materials used in the construction of condensers differ greatly in their leakage values. For example, a condenser composed of plates separated by dry air as the dielectric will retain its charge almost indefinitely after it has been disconnected from the charging source, while a condenser having a leaky paper dielectric will discharge in a comparatively short time after it is disconnected from the charging source.

(Continued on page 20)

(Continued on page 20)

Send for it!

Before you build your set



E VERY RADIO FAN should have a copy of the "Shamrock Radio Builder's Guide Book." It contains carefully planned diagrams and complete instructions for building ten different circuits-at prices ranging from \$15.00 to \$50.00. Page 21 of this popular booklet describes a powerful little receiver-

THE SHAMROCK-HARKNESS Two-Tube Reflex

Operates a loud speaker—Two tubes do the work of five—Cuts battery cost 60%—Does not squeal, howl or radiate—Stations can be logged with utmost accuracy—Amazing clarity and volume!

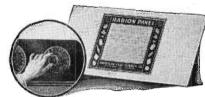
Insist on the genuine Shamrock Kit containing only genuine licensed Shamrock - Harkness parts. They are specially balanced, \$2 unconditional guarantee.

Also ask to see the improved SHAMROCK-HARKNESS THREE-TUBE COUNTERFLEX

The Wonder Set \$3950

1	SHAMROCK MFG. CO.,
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	Please send me a copy of "Shamrock Radio
٠,	Bullder's Guide Book' containing diagrams
	and complete instructions for building 10 sets
113	and complete instructions for outland to see
1	at prices ranging from \$15 to \$50. I enclose 10 cents (U. S. stamps or coln).
ī.	to cents (U. S. stamps or com).
٠.	Neme
	Naille
11.7	Address





"I selected it for its high insulating qualities

It cuts down the losses in the circuit"

THOSE were the exact words of a prize-winner in a radio set-building prize contest when asked why he used a Radion Panel. Like thousands of others, he had found by experience that there is a ratio by experience that there is a ratio by experience that there is nothing quite like Radion for real

Our engineers developed Radion Panels especially to order for radio. Losses from surface leakage and dielectrie absorption are exception-ally low. And low losses mean clearer reception, more volume and more distance.

Easy to work—moisture proof
—resists warping

Radion is easy to cut, drill and w. You need not have the slight-

"Building Your Own Set"
Our new booklet, "Building Your
Own Set," giving wiring dlagrams,
front and rear vlews, showing new
set with slanting panel, sets with the
new Raddon built-in horn, lists of
parts and directions for building the
most popular circuits — mailed for
ten cents.

AMERICAN HARD RUBBER COMPANY, Dept. DE-5, 11 Mercer St., New York City Chicago Office: Conway Bullding Pacific Coast Agent: Goodyear Rubber Co., San Francisco - Portland

ADION The Supreme Insulation

PANELS Dials, Sockets, Binding Post Panels, etc. American Hard Rubber Co. Dept. DE-5, II Mercer St., New York City. Please send me your new booklet "Building Your Own Set" for which I enclose 10 cents (stamps or coin).

est fear of chipping. Radion resists warping. It's strong. It's moisture proof. It comes in eighteen stock sizes and two kinds, black and mahoganite.

Radio dealers have the exact size you want. The use of Radion by the

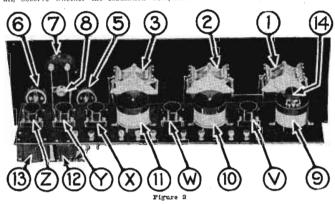
manufacturers of ready-built sets is almost invariably a sign of general good quality in that set.

Send for booklet "Building Your Own Set"

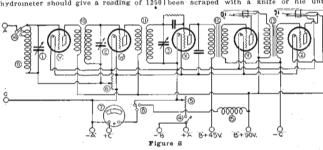
HOW TO OPERATE SET

(Continued from page 7)

Should the receiver fail to operate when first connected, there are a number of points which should be checked over in an effort to locate the difficulty. First of all, observe whether the insulation was



removed from the ends of the wires where they are connected to the binding posts on the set, the A battery and the B battery. While doing this, look also at the wire connecting the two 45 volt B battery units, as the writer forgot to do this recently when asked to locate the trouble in a set and only discovered it after almost taking the set apart. If all of the connections seem to be electrically perfect and all binding posts are screwed down tightly, test the 6-volt storage A battery with a hydrometer and the hydrometer should give a reading of 1250



to 1300 if the battery is supposed to be fully charged. The set will function on any reading down to 1150; if the hydrometer shows 1150 or less connect the battery to a charger and give it a charge of 8 to 10 hours, after which, test it again with the hydrometer. The reading will be higher but if it is not 1225 or better give it another 2 to 4 hour charge. The hydrometer should then show 1250 to 1300, 17 dry cell B batterless are being used (2 of 1300, 13 for a higher wave length station.

hydrometer should then show 1250 to 1300.

If dry cell B batteries are heing used (2 of the 45-volt type), each unit should show 44 to 45 if the batteries are new, and these units are useful so long as they each read volt units are being used (by each read volt units are being used they are useful until the voltage of each drops helow 17.

If examination of the hatteries does not bring the difficulty to light, attention should be directed to the lightening arresser. If one is connected to the antenna lead-in. Disconnect the lightening arresser and then disconnect the C battery from the receiver. Connect one terminal of the loud speaker to one end of the C battery and connect the other end of the C battery and connect the other end of the C battery and connect the other end of the C battery and connect the other end of the C battery and connect the other end of the

Continued from page 18)

2 will read 95 and dial 3 will read about 93 for a higher wave length station.

Due to the layout of the sub base and the ease with which you can get at the three air core radio frequency transformers, it will not be difficult to experiment with various types of oscillation preventers should the builder care to do so. If the builder cares to try neutrodons, tap at the 15th turn from filament end.

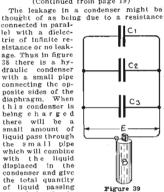
GRADIO RECONSTRUENTE DE DESTRUBRIDADOS DE ESTADA DE CONTROCA DE CONTROCA DE LA CONTROCA DE CONTROCA DE CONTROCA DE C

pep up your set with good tubes HEARIN' is believin'"-HEARIN' is believin'"—so goes an old adage. And if you switch to MAGNATRONS you, too, will agree, because MAGNATRONS do make a difference. More stable radio frequency amplification, clearer detection, and greater volume—those are the features which MAGNATRONS have to offer. Your dealer sells MAGNATRONS in the DC-199, DC-201A, and DC-199 large base types for only \$3. CONNEWEY ELECTRIC LABORATORIES

A. B. C. RADIO COURSE

(Continued from page 19)

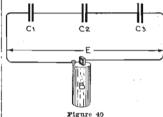
sistance or no leakage. Thus in figure
38 there is a hydraulic condenser
with a small pipe
connecting the opposite sides of the
diaphragm. When
this condenser is
being e harged
there will be a
small amount of
liquid pass through
the small pipe



small amount of liquid pass through the s m all pipe which will combine with the liquid displaced in the condenser and give the total quantity of liquid passing around the circuit. The displacement of the liquid in the condenser chamber will cease when the strain produced in the diaphragm is equal and opposite to the pressure produced by the piston. There will, however, be a flow of liquid through the small pipe so long as there is a difference in pressure between the ends of this pipe, and the liquid passing through this small pipe passes around the main circuit so long as the condenser is connected to the pump. It is quite evident that the total quantity of electricity passing by any point in the circuit, shown in figure 38, such as through the valves, will depend upon how long the elrcuit is closed. Hence in charging a leaky condenser there will be a greater movement of electricity in the circuit than that represented by the displacement of the diaphragm. Likewise a leaky condenser will not cause the same movement of electricity in a circuit on discharge that took place when the condenser was being charged, and this difference will increase a there is an increase in the interval of time between the condenser behaving on charge and discharge.

Some dielectric possesses a property called "absorption" which results in the condenser behaving on charge and discharge in the following manner. Suppose the hydraulic condenser shown in figure 38 be charged and the diaphragm displaced in position, which will result in the movement of a certain quantity of liquid

in the circuit, and the condenser remains connected to the piston and as time goes on the diaphragm moves farther and farther to the right then there will be an additional movement of liquid in the circuit. This condition is said to be due to absorption. If this same condenser be discharged the diaphragm will not return in its zero position immediately, although there is apparently no strain in the diaphragm. If, however, the condenser be allowed to stand on open circuit for a time a second discharge can be obtained from it and this process may be reported until the entire charge is removed from the condenser. The absorption of a dielectric results in a condenser taking a longer time to fully charge and also a longer time to fully discharge. The first discharge from a condenser when its terminals are connected is called the "free charge." In condensers made with such materials as air, oil and good mica as the dielectric the absorption is small, but it is quite large with such materials as glass and bakelite as the dielectric of a condenser are accompanied by the production of heat in the dielectric which represents a loss of energy. As a result of this loss in the dielectric, the output



of a condenser is never as great as the input.

Series or Parallel Combinations

Series or Farallel Combinations
Condensers are frequently combined in
series or parellel or a combination of
series and parallel, just as resistances
are combined. The capacity of a combination of condensers, however, is not
calculated in the same way as the resistance of a combination of resistances is
calculated.

alculated. In figure 39, there are threc condensers onnected in parallel to the terminals of battery B. All three of the condensers

(Continued on page 22)



"Europe with Lincoln Loop" writes Radio Expert

W. W. Roberts - Manufacturer's Agent and Radio Expert-Norfolk, Va., wrote us March 17, 1925:

h, WFOCE US ATMANDED TO THE MET AND THE ME

Lincoln 4-Point Tapped Loop \$8.00

The only moderate priced Loop of this type on the market. Fine for all types of "Superhelt"—and neutrodyne and tuned radio frequency sets, where an outside Aerial is in-practical. For the requirements of any set where it is desired to vary the inductance of

Lincoln Center-Tapped Loop \$6.50

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on the phones—with certainty and regularity—on the Crosley one-tube 50.
The radio which told the world that the MacMillan North Pole expedition was safe and sound. The radio that kept communication open to Leonard Weeks at Minot, N. D., when all other receivers failed.

There is nothing better than the Crosley 50 for the radio beginner.
There is nothing to excel it in value; unless it be the larger Crosley sets.
Stations always come in at the same place.
For sale by good dealers everywhere. Other models placed to the property of the same place.
For sale by good dealers everywhere. Other models placed to the Tricdyn Special with sloping panel, at \$65. All Crosley Radios are licensed under Armstrong Regenerative U. S. Patent I.118.3149. Prices quoted are without accessories.

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

The Crosley Radio Corporation Powel Crosley, Jr., President 5492 Sassafras St. Cincinnati, Ohio Crosley owns and operates Broad casting Station WLW

Circuit with Double Tuning Coil

Dry Cell Tubes Give Good Dancing Volume

The illustration shows a circuit for a double tuning coil and three stages of audio amplification. The general cry is, we cannot get enough volume for dancing

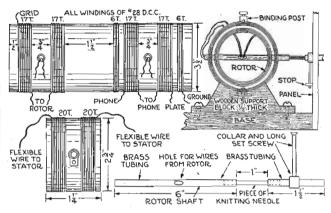
WORKSHOP KINKS EARN A DOLLAR-

THERE are many little kinks worked out at home that would ald your fellow Radio 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,
510 North Dearborn St., Chicago

by nsing dry cell tubes. With this hookup shown we get enough volume for
dancing upstairs and the set is on the first
floor. The music comes in quite clear. It
will be seen that the set is tuned in on
the detector and the first stage. These
all know these sets make noise and intwo tubes are run in parallel and they

DETAILS FOR MAKING THE COIL



I have tried a good many hook-ups from your magazine during the last eighteen months, but I have gone back to the old reliable. Even under the worst conditions you can get something and on a good night there is no limit.—W. G. Higgins, Lachine, P. Q., Canada.

Winding Low Loss Coils

Winding Low Loss Coils

In making low loss coils as described
by Mr. Fournier 1 found that the dowel
rod he mentions is something unknown
to the small town lumber yard. Large
nails or spikes of various sizes can be
obtained anywhere, and the size of the
spike determines the diameter so it is
possible to secure any size needed. By
using a piece of %-inch hardwood or
1-inch soft wood for the base, the spikes
will stand the strain of considerable tension in weaving the eoil. Holes should be
drilled a snug fit and when the coil is
finished, the spikes can be pulled out of
the coil and the board with a pair of
pilers. This is easier than trying to work
the coil off and by taking only one spike
out at a time the coil retains its shape
perfectly although it should be tied in one
or two places before drawing out the
spikes to keep it together.

Another kink which helps a good deal

spikes to keep it together.

Another kink which helps a good deal when more than one coil is to be built is to make hollow paper tubes which fit loosely around the protruding end of the spikes. These tubes are easily made by taking mentlaged paper strip and roiling to the right size as one would a cigarette. When the coil is built on the spikes which are covered by these paper tubes, the spikes may be pulled without fear of rubbing the insulation on the winding, and after the spikes have been pulled the coil is still snugly held together by the paper tubes although it is loose from the baseboard and is easy to sew together. After sewing the coil the tubes are easily pushed out and can be used over again. sewing the coil the tubes are easily slightly and do not touch properly; it pushed out and can be used over again.—
C. M. Tucker, Edgemont, South Dakota.

Welding Tube Filament With Regular Current

No doubt all Radlophans have experienced the bad luck of burning out a tube, usually just when an extra is not at hand. If you have patience and carefully follow these directions you can repair your burned-out tubes.

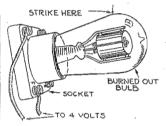
The method of dour this is cutto simple.

fully follow these directions you can repair your burned-out tubes.

The method of doing this is quite simple as can be seen in the illustration. The burned-out tube is placed in a socket and wires led to the filament binding posts, and these connected to the battery. About four voits is all that is required, and is often better than the usual six. The hulb is held in one hand, the other being used to strike the bulb as shown by the arrow in the illustration. The bulb should be held so that the plate is in the position shown. The bulb may require quite a lot of hitting before the broken filament will touch and weld. After the filaments touch the current will weld them together, but the tube will have to be handled with care so as not to jar them apart.

Bulbs repaired in this manner will givenearly as good results as new ones. They

Button repaired in this manner win give nearly as good results as new ones. They also inake excellent detectors, sometimes being better than the ordinary detector; tube, as they can use more current on the plate (If the tube is an amplifier). These

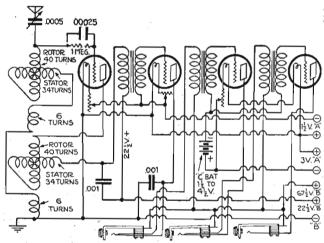


bulbs require much less current than the ordinary tube with almost as good results.

The bulbs described are those of the older make (UV-200 and 201), however the newer ones (UV-201A), may be repaired in this way in many cases.—Evermount Fisel, Lebanon Junetion, Ky.

Importance of Perfect Contact

When soldering connecting wires to the When soldering connecting wires to the terminals of jacks for making connections to the telephones, it is important to keep soldering flux from running down onto the insulating segments which separate the different spring contacts. If the flux runs down into the insulating segments, it causes leakage and it is to this fact that many experimenters owe the trouble they have with their homemade sets. Use only enough flux for the soider to take hold. A thin film is enough. Another point to remember 1s to be sure that the contacts make and break properly when the wiring of the set is completed. Sometimes they get bent out of position



with a rheostat for each tube.

The second and third stage are run in series with one rheostat on three volts from two 1½-volt cells in series. The pianel is shelded with sheet copper and the rotor shafts are broken by a piece of bone knitting needle.

The set can be run without a ground, the shield thing its place, which also cuts out a lot of interference from the respectably on a bad night. The long set screw in the shaft collar is to act as a 4 to 1 and the jacks of the aon-solder type.

PANEL MOUNTING TYPE THORDARSONS -- AT SAME PRICES AS REGULAR TYPE Audio Frequency 2 - 1, .\$5.00 $3\frac{1}{2}$ - 1, \$4.00 6-1, \$4.50 Unconditionally Guarantsed Order directif AMPLIFYING TRANSFORMERS your dealer cannot supply Standard on the majority of quality sets THORDARSON_ELECTRIC MANUFACTURING CO. WORLDS OLDEST AND LARGEST EXCLUSIVE TRANSFORMER MAKES Chicago, U.S.A.

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What ruined your Reception last summer? "Static," the bugaboo of summer reception. Static cannot be entirely eliminated, because your set itself will pick up some. But the Kane Antennae will eliminate at least fifty per cent of your static, were you disgusted with your Radio Set last summer? With the Kane Antennae you will use it all emmmer long. All your power noises will be eliminated, and at least fifty per cent of your static.

Were you using a "low-grade" single wire aerial and ground last summer? Hook up to a Kane Antennae this summer and notice the difference. The system of counterpoise and transpositions on which the Kane Antennae is based gives you the greatest ratio of signal strength to static without adding complications to your set.

r set.
THE SIX REASONS
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- Why Your Receiving Set Should Be Hooked Up to A Kane Antennae. The strength of stanals is increased Security of Security 19 to the Security of Security 19 to the Sec

Gentlemen:

March 11, 1925

We have tried out your Kane Antennae, and found it does all you class
for it. (Signed) Yours truly, Butte Ignition Works, R. J. Bedson, Manage

The Kane Antennae enables you to get a 100 per cent return from your radio restment, because with the Kane Antennae you can use your radio set all

The Kane Antennae enables for the design of the control of the con

THE KANE ANTENNAE COMPANY, Aberdeen, Wash.

Ouestions and Answers

Static With Powerful Stations
(18410) VGM, Oklahoma City, Okla:
Summer is approaching and heretofore it has been almost impossible to have any reception in this locality during the summer due to the excessive static, however, almost all salesmen that come here now talk of the great results of 5000 watt stations that are going to be on the air this summer.

It is understood here that the powerful stations will eliminate static. If this is so it will be of great benefit to the Radio dealers of this country to have something from an authentic source in regard to these stations.

If you have such information at hand I shall greatly appreciate it if you will advise me of the locations of such stations, and if it is known what effect they will have on overcoming static?

A.—There is no reason why the use of high power stations should eliminate static. However, in receiving signals from high power stations the receiver will not need much amplification. In this way, while the station will come in loud the static will not be amplified. The following is a list of super power stations WEAP, WLW, KPI, WOC, WCBD, WSAI WCCO, KDKA, WBZ, WGY, KOA, KGO, WHT and KFKX. The following stations will also be super power stations soon: WLS and WSB.

Loop for a Neutrodyne
(13417) AWG, Halifax, N. S.
We own a five tube neutrodyne set and
would like to have instructions for a loop
aerial. We are about \$00 miles east of
Montreal and about \$50 miles from Schenectady, New York. We can pick np
KDKA and CNRA on the same dial settings. Do you recommend a loop aerial
to eliminate this difficulty.
A.—It is very possible that a loop constructed properly and used in the right

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

Get Rid of Static

Lambert's Static Stopper does the work. Particulars free

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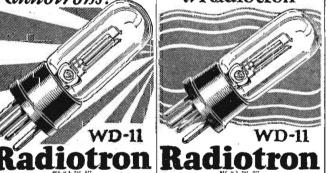
The SET-JAY BATTERY has met all tests and is endorsed and recommended by the Weshington Laformation Service Bureau and more than 20,000 ments, stricted Geremen Alatine connected elements, stricted Geremen Alatine connected elements, stricted Geremen Alatine connected to which the service Bureau and more than 20,000 mended. No drilling or wirting. Connected college under 1,000-pound pressure. Serve time, timper and money. 109-pound pressure Serve time, timper and money. 109-pound pressure severalled batteries, solid. Why pay more! Complete severalled batteries, solid with the service of the

WD-11

ask "are they genuine Radiotrons?"

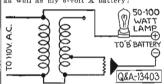
B. D. SMITH 31 Washington Avc.

It isn't a genuine WD-11 unless its a Radiotron



kind of a set will eliminate your trouble. You cannot, however, use a loop with a neutrodyne unless you shield the whole set and keep the loop at a distance from the receiver.

Battery Charger Windings
(13403) RCM, Portland, Oregon.
Will you please tell me how to wind
the transformer for the battery charger
as constructed by Jacques Fournier so
that I can charge my 90-voit B battery
as well as my 6-voit A battery?



A.—We herewith show a book-up for charging B batteries. If a rate greater than ½ ampere is desired you must use a larger lamp in place of the 50 watt lamp as shown.

A. B. C. RADIO COURSE

(Continued from page 20) C₁, C₂ and C₈, will be charged to the same potential E and the total quantity of electricity passing through the battery

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

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Danbury, Conn.

on charge will be equal to the sum of the quantities passing through the three condensers. Representing the total quantities passing through the total quantities by Q and the quantities passing through the three condensers C_1 , C_2 and C_3 by Q_1 , Q_2 and Q_3 , respectively, we may write the following expression $Q = Q_1 + Q_2 + Q_3$ now $Q_1 = C_1 \times E$ and $Q_3 = C_3 \times E$ and $Q_3 = C_3 \times E$ and $Q_3 = C_3 \times E$ Substituting these values for the various quantities in the first equation we may write the following expression $C \times E = C_1 \times E + C_2 \times E + C_3 \times E$ dividing this expression by E gives $C = C_1 + C_2 + C_3$. The total capacity of the three condensers in parallel is equal to the sum of their respective capacities. The capacity of any number of eondensers in parallel is $C = C_1 \times E + C_2 \times E + C_3 \times E$

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OWNESS, WEBO
OWNESS, WEBO
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State, City, Call Michigan (Continued) Port Huron, WAFD, WBBH Saginaw, WABM Saglaw, WABM WINESON:

Minneson:
Brotkentdge, KFUJ
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KFMT,
WAMD, WUU, WHDL, WLB
KL, Cleat, WFAM,
SI, Paul, AVF, MYS,
VILPINI, KFUZ
Mississippi:
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Bonne, BFGG

Berlington, WIAS

Coder Falls, KFLZ,

Bonne, BFGG

Berlington, WIAS

Coder Falls, KFLP, WJAM.

Davenport, WOC

Davenport, WOC

Does Moines, WHDE

Fort Dodge, RFEP, WSUI

Lamond, KFFV

Le Mers, KFCY

Marshallton, KFJB

Marcelso, RFLB

Marcelso, RFLB

Marcelso, RFLB

Marcelso, RFLB

Sioux City, KFMR, WEAU

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Houlton, WCBL

Maryland:

Bailinore, WCAO, WURM,
WFBR, WGBA
Takous Park WBES
Massachusetts:

BWNAC, WTAT
Heidenwise, WFIN, WNAB,
Heidenwise, WFIN,
Fail River, WGBH, WSAB,
WTAC, WTAT
Heidenwise, WFIN,
Fail River, WGBH, WSAB,
Mattapoisett, WBBG
Medford Hillside, WARC
Rosindate, WEBY
South Datronch, WMAF
South Datronch,
WAT
Tamino, WAT
Webster, WGBB Trenton, WOAX
New Mexico:
Albuquerque, KFLR
State College, KFRY, KOB New Mexico

Albannetue, KFRY, KOB

New York:

Carlon, WCRR, WGR

Carlon, WCAD

Kingston, WDBZ

Lockport, WAM

New York, WEBL

WYEL

WYA, WAM

WEBL

Schenetady, WCY

Schenetady, WCY

STRACHB

WEBL

TARTOWN, WIB

TARTOWN, WIB

TARTOWN

WEBL

TORE

TORE

WEBL

TORE

TORE

WEBL

TORE

TORE Cherlotte, WBT
Cherlotte, WBT
Fort Hragg, AT9
Rateigh, WFBQ
North Dakota:
Devils Lake, KDLR
Fargo, WDAY, WPAK

State, City, Call North Dakota (Continued) Grafton, RERH Grand Forks, KEJM, KERL bilo:

Bellsfontaine, WHRD

Bellsfontaine, WHRD

Canton, AGE, WHBC

Cambridge, WEBE

Circlinati, WAAD, WHAG,

WKRC, WSAI

Circletand, WDPM,

WEAR, WHBR, WHG,

WTAM, WHAR, WHER,

WTAM, WHAR, WHER,

WTAM, WHAR, WHER, WTAM
Columbus, WBAV, WCAH,
WEAO, WMAN
Dayton, AWS, WDBS, WEBT WEAO, WHAN
Dayton, AWE, WDBS, V
Elycla, WGBI,
Granville, WJD
Hamilton, WRK, WSRO
Harrison, WLW
Lims, WOAC
Mechanicature, WHRS Harrison, WLW
Lima, WOAC
Mechanicsburg, WHBS
Newarts, WBBA
New Lebanon, WGBY
Pomeruy, WSAZ
Springfield, WCSO
Toledo, WABR, WTAL
Wouster, WABW
Youngstown, WDBF Yongstown, WDBF

Oklahoma:
Britisw, KFRI'
Chickasha, KFRI'
Chickasha, KFRI
Fort Sill, KFRM
Norman, WNAD
Oklahom City, KFJF, KFQR,
Tuta, WLAL Oregon:
Astorts, KFJI
Corsellis, KFDJ
Hood River, KQP
Portland, KFBC,
KFBQ, KGW

Cransuo, WKAP
East Providence, WKAD
Pawtucket, WHIRE
Providence, WCSR, WEAN,
WGBM, WJAE, WDWF,
WSAD Profiteding, We Re. WEAP,
Profiteding, We Re. WEAP,
WEAD

South Carollina:
Charleson, WBBY
Cleasan College, WEAC
Green'lin, WGAT

South Dakota

Rapid City, WCAT
Vermillon, WEAI
Yankton, WNAX

Tennossee:
Henit, WU BU
Columbia, WDBW
Koaxville, WFBH
Lawreneeburs, WOAN
Koaxville, WFBH
Lawreneeburs, WOAN
Koaxville, WFBH
Lawreneeburs, WOAN
KOAXVIL, WHEA

Texasi, WCBQ

Texasi,
WCBQ

Texasi,
Auartillo, WDAG, WQAC
Austin, KFQM, WCM
Beaumont, KFDM
Deeville, KFBB

City, Texas (Continued)

College Station, WTAW Dallas, WFAA, WRR Denison, KFQT Dallas, WPAA, WRR
Denison, KFUT
Dablin, KFFL
Dablin, KFFL
Brott
WOTAR
BOT
WOTAR
KFLX, KFLL
Greenville, KFFM
WEAY, WRAA
OVERIES, KFFW
WEAY, WRAA
OVERIES, KFFU
San Antonio, WCAR, WOAI
San Antonio, WCAR, WOAI
San Benio, KFLU
Tyler, WOAF

Utah: Ogden, KFUR, KEWA Ealt Lake City, KDYL, KFOO, KFUT, KSL Vermont:
Burlingion, WCAX
Springfield, WQAE

Virginia:
Norfolk, WBBW, WTAR
Bedlo, NAA
Richmond, WBBL
Roanoke, WDBJ
Thriften, WGBG

Thiffon, WGBG
Washington:
Gierett, KEBL
Lacey, KGP
Nuth Band, KFBW
Olympia, KFBW
Sestite, KFW,
Sestite, KFW,
KFCL, KTW
Spokane, KFIO, EFFT
Trecone, KFIG, KGB, KMO
Walla Walla, KFQ
Takina, KFIQ
Takina, KFQ

Walla Walla, RFCF
Yakims, KFIQ

West Virginia:
Charleston, WPAZ
Marthaburz, WPDD, WIBE

Wisconshir,
Ashland, WIBD
Ashland, WIBD
Ashland, WBD
Prod to Let KFIZ
La Crosse, WABN
Madison, WHA, WIBA
Marshfeld, WGRR
Memonole, WBR, WHA
Memonole, WBR, WHA
Memonole, WFAR
Sperior, WFAR
Superior, WFAR
WALLE, WEBC
Wast de Pere, WHBY
Wheatland, WIBF

Wyoming: Laramle, KFBU Alaska: Junean, KFBU Hawaii: Honolulu, KGU, KYQ

Bonolulu, KGU, KTQ
Philippine Islands:
blunla KZKZ, KZEQ
Porto Rico:
San Juan, WGBO, WKAQ
Argentina:
Buenos Aires, Bl. LOR, LOV,
LOX, LOY, TCR
australia:

Adelaide
Sydney, 2BL, 2FC
Melbonne, 2AB
Perth, 6WF
Austria:
Venna, OHW, Radio Wlen,
Haves
Brazil: razil: Bahia, Sociedade de Bahla Belle Horizantes, Nat'l Telg.

Bellia Heckensum to Bania Service Service Rio de Jandiro, Praia Vernella, Sociedad de Rio de Jandiro Sao Paulo, Radio Bondefrantes Canadas Carlos, CHAC, CHA

State, City, Canada (Continued)

Janada (Continued)
London, CECW, CFLC, CIGC
Moneton, CNRA
Mont-Joll, CICM
Montreal, CFCF, CHYC, CJCL,
CKAC, CNRM
Nanaimo, CFDC
New Westinster, CFXO CKAC. CNRM
Nanalmo. CFXO
New Westenbusser. CFXO
New Westenbusser. CFXO
New Westenbusser. CFXO
New Westenbusser.
Regina. CRCC. CRCO. CNRO
Searboro. CFQC. CHUC. CNRS
Searboro. CFQC. CHUC. CNRS
Searboro. CFQC. CHUC. CNRS
Searboro. CFQC. CHUC. CRCC.
CTGCA. CHCC. CHCC. CTGC.
CTGCA. CRCC. CFCA. CHCC. CTGC.
Vancourer. CFCG. CFYC. CTCE.
Vancourer. CFCG. CFCC. CTCE.
Windipes. CRT. CNRW
Viledria. CFCG. CFCT. CHCC
Windipes. CRT. CNRW
Villedria. CFCG. CRCC. CRCC.

Chillet

Vina del Mar, ABC Santiago, CRC

Cuba:

Calbarien, 6EV
Tamaguer, TAZ, 7SR
Tamaguer, TAZ, 7SR
Cless de Avila, 7BY
Cless de Avila, 7BY
Cless de Avila, 7BY
Geffinger, 6BY, 6CX, 6DW,
6GR, 0GT

60H. GGT Colon. SEV Havana, PWX. Q3LC, 2AB, 2HY, 2HP, 2HS, 2JP, 2KP, 2MG, 2OK, 2OL, 2RY, 2TW, 2WW Sacus la Grande, 6HS Santiago, SAZ, SBY, SCX, SDW, 8EY, SFU, SGT, 8HS Tulnueu, 6KW, 6KJ

France:

Agen, Fr. Gov. Lyons, YN Paris, EPTT, Le Pelit Parisien

Paris, FPTT, Le Petit Parlsien Germany: Bertin, L. P., Vox Haus, Telefunken Ck. Rundfunk Destau, Schleitische Stewert-deutsche Rundfunkfenst stemischer, Ostmarken Rundfunk Munich, Dittelleutsche Rundfunk Munich, Buttelleutsche Rundfunk Munich, Statione Stund Munich, Statione Stund Nurenberg, relayed from Munich Stuttgark, Station

Great Britain:

Aberdeen, 2BD Belfast, 2BE Birmingham, 5 Belfast, 2BE
Birmingham, 51T
Bournemouth, 6BM
biredford, 20.5
birmedford, 20.5
birmedford,

Italy:

Italy:
Rome. IRO
Mexico:
Cithushus, CZE
Mizzilina, CYR, CYR, CYR, CYL,
Michigan, CZE
Mizzilina, CYR, CYR, CYL,
Michigan, CYR, CYR, CYL,
Mondely, MA
OURSE, CYR, CYR,
Mondely, MA
OURSE, CYR,
Michigan, CYR,
Wellington, 2YR,
Spain:
Rarcelons, PAJL
Wellington, CYR,
Michigan, CYR,
Michigan,

Harcelona, EAJL Madrid, PTT

STATION SCHEDULES

(Continued from last week)

Chile

ABC, Vina del Mar, Chilo. 400 meters. Radio Corp. of Chile. CRC, Santlago, Chile. 460 meters. Radio Corp. of Chile. Yalparaiso, Chile. Senor Fiacl do Munzo Roias. Cuba

PWX, Harans, Coba, 400 meters, 500 waits, Cuban Tele-phone Co. International Tel. & Teleg. Corp. Wed. Sat, 3:39-11 pm, music. Edition, Q21c, Harans, Chab. 250 meters 50 waits, Luis Casas. 2AB, Harans, Cuba. 240 meters 20 waits. Alberto S. Bu stamutel. 2BY, Hisana, Cuba, 300 meters, 100 watts. Frederick W. Borton. Borton.

Havanz, Cubz. 295 meters. 100 watts. Credito construcciones Co.

Havanz, Cubz. 180 meters. 20 watts. Julio Power. 21P, Havana, Cuba. 270 meters. 20 watts. Julio Power. 2KP, Havana, Cuba. 195 meters. 16 watts. George A. Undeaux. Lindeaux.

2MG, Havans, Cuba.

27 Gdilleran Saliss Muste Stare.

Announcer, Roger Morales.

20 waite. Manuel Stare.

Announcer, Roger Morales.

20 K. Havana, Cuba.

380 meters.

20 Waits.

Mario Gardia Vele.

20 Logarda Vele.

20 Logarda Vele.

20 December 15 waits.

20 meters.

20 waits. George A.

Water Start COURGO.

2RY, Havana, Cuba. 275 meters. 20 watts. Raoul Karman. Cusa De La Porte.

2TW. Havana, Cuba. 230 meters. 20 watts. Roberte E. Ramires. Ramirez.

2WW, Havana, Cuba.

Saens de Calshorra.

5EV. Colon, Cuba.

330 meters. 10 watts. Leopoido V.

Figueroa.

5Un, 9-11 pm.

Eastern.

6EV, Clentegos. Cuba.

350 meters. 100 watts. Jose daxe. Cienfuegos, Cubs. 176 meters. 20 waits. Antonio 60 W. Clenfuegos, Cuba. 225 meters. 10 watts. Eduardo Terry. Letty.

GEM, Cubwion, Cuba. 250 meters. 50 watts. Maria looch Always. Daily, 10:30 pm.

56R, Clettrems, Cuba. 250 meters. 10 watts. Luis del Castillo.

Toord

7-AZ, Cabsquery, Cuba. 225 meters. 10 waits. Pedro Nogueria.

7-BY, Clein de Artib. Cubz. 235 meters. 20 waits. Edge of the Standards V. Flicurence.

7-BY, Clein de Artib. Cubz. 235 meters. 20 waits. Küsarda V. Flicurence.

7-BY, Clein de Standards V. Flicurence.

7-BY, Clein de Standards V. Flicurence.

7-BY, Clein de Composition.

8-BY, Clein de Standards V. Flictin Broadcasting.

8-BY, Clein de Standards V. Flictin Broadcasting.

8-BY, Edge of Cubs. 246 meters. 20 waits. Alfredo

1-BY, Clein de Standards V. Flictin Broadcasting.

8-BY, Edge of Cubs. 246 meters. 20 waits. Alfredo

1-BY, Clein de Standards V. Flictin Broadcasting.

8-BY, Edge of Cubs. 246 meters. 20 waits. Alfredo

1-BY, Clein de Standards V. Flictin Broadcasting.

8-BY, Edge of Cubs. 256 meters. 1,500 waits. Britiab Broadcasting.

8-BY, Clein de Standards V. Flictin Broadcasting.

8-BY rro. Canaguey, Cuba. 225 meters. 10 watts. Pedro SOX, Snalingo, Cuba. 245 meters. 56 watts. Pedro T.

Margaritanes. Cuba. 25 meters. 56 watts. Pedro C.

Andur. Dalip. 4:30-8:30 man. 10:30-12.

SEV. Snalingo, Cuba. 130 meters. 75 watts. Eduardo

Mateos.

Sev. Snalingo, Cuba. 225 meters. 15 watts. Andress

SOT. Snalingo, Cuba. 250 meters. 50 watts. Juan F.

Chibas.

SHS, Snalingo, Cuba. 260 meters. 20 walts. Gillorino

Polinion Taxis.

Berlin, Germany, 505 meters, 700 watts.
Berlin, Germany, 250 meters, 700 watts.
Berlin, Germany, 250 meters, 700 watts.
Berlin, Germany, 250 meters, 100 watts.
Telefunken

Branks, Germany, 250 meters, 1,500 watts.
Telefunken

Branks, Germany, 250 meters, 1,500 watts.
Telefunken

Branks, Germany, 250 meters, 1,500 watts.
Telefunken

Mexico

Mexico

Telefunken

Mexico

Mexico

CVA, Mcxloo City, Mex. 185 meters. Pactido Liberal

Beyer.

Announcer, Hermann

Beyer.

CVA, Mcxloo City, Mex. 280 meters, 500 watts.

Rodrid, Soain, 335 meters, 1,500 watts.

Andrid, Soain, 335 meters, 1,500 watts.

CVB, Mexico City, Mex. 280 meters, 500 watts.

Spain

EAU, Bercelona, Spain, 255 meters, 100 watts.

Nodrid, Soain, 335 meters, 1,500 watts.

CVB, Mexico City, Mex. 380 meters, 500 watts.

EAIS, Seville, Spain, 355 meters, 100 watts.

Spain

EAIS, Seville, Spain, 355 meters, 100 watts

Great Britain

Soluri and Tobacco." Mon. Tues. Thors. 8-30 pm.
Esistem.
Sugar and Tobacco." Mon. Tues. Thors. 8-30 pm.
Esistem.
BAZ. Santiago, Cuba. 240 meters. 20 watts. Albreto
Brooki.
BRY. Santiago, Cuba. 250 meters. 160 watts. Albreto
BRY. Santiago, Cuba. 245 meters. 56 watts. Pedro T.
SANTIAGO. Santiago, Cuba. 245 meters. 56 watts. Pedro T.
SANTIAGO. Santiago, Cuba. 250 meters. 50 watts. Pedro C.
Andur. Dality. 4:30-8:30 m. 10:39-12.
SEV. Santiago, Cuba. 130 meters. 15 watts. Pedro C.
Manchester. Eng. 365 meters. British Broadcasting Co.
225, Jeeds. Eng. 366 meters. British Broadcasting Co.
226, Manchester. Eng. 375 meters. British Broadcasting Co.
227, Manchester. Eng. 375 meters. British Broadcasting Co.
228, Manchester. Eng. 375 meters. British Broadcasting Co.
238, Deckey Eng. 346 meters. British Broadcasting Co.
248, Manchester. Eng. 375 meters. British Broadcasting Co.
259, Manchester. Eng. 375 meters. British Broadcasting Co.
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257, Manchester. Eng. 375 meters. British Broadcasting Co.
258, Manchester. Eng. 375 meters. British Broadcasting Co.
259, Manchester. Manchester. Manchester. Manchester. Manchester. Manchester. Manchester. Manchester. Manch coding Co.
SMG. Notingham, Eng. 326 meters. British Broadcasting Co.
SNO, Necessite, Eng. 490 meters. British Broadcasting Co.
SPY, Pirononth. Eng. 335 maters. 200 waits. British Broadcasting Co.
SNG, Glasgow, Scot. 420 meters. British Broadcasting Co.
SNG, Glasgow, Scot. 420 meters. British Broadcasting Co.
SW, Cardiff, Wates. 351 meters. British Broadcasting 8/88, x-Shitage, Trance

FPIT, Paris, France

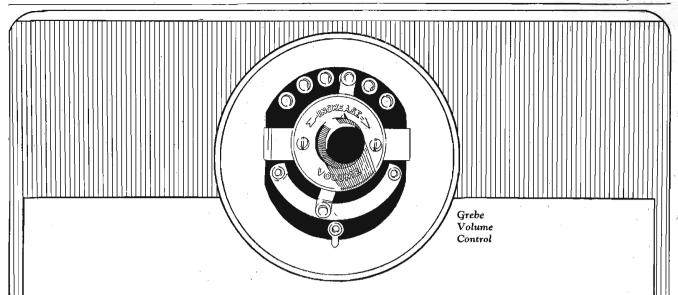
FPIT, Paris, France, 458 nesters, 500 waits. Superior School P. T. T. Announcer, M. Chanton, V. Lovan-la-Dous, France, 259 meters, French Government, France, 318 meters, 250 waits. French Government, France, 318 meters, 250 waits. French Government, France, Le Petit Parisien, 340 meters, 500 feet, Sheffield, Eng. 335 meters, British Broadcasting Co. France, Le Petit Parisien, 340 meters, 500 feet, Manual, Eng. 335 meters, British Broadcasting Co. ST. Stoke-on-Trent, Eng. 300 meters, British Broadcasting Co.

Buen, Tono. Tues, Sat, 7:30-3 pm. Thurs, 8-10 pm, concert. Mexicon. Mexicon

New Zealand

New Lealand

174. Auckland, New Zeiland. 299 meters. 209 watts.
Auckland Radio Serrice.
1714. Auckland, New Zeiland.
C. H. Pearlon for Neuwanine (Ldd.)
278. Weilington New Zeiland. 275 meters. 15 watts.
Wellington Brandinsters (Ldd.)
278. Gibborne, New Zeiland. 275 meters. 15 watts.
278. Gibborne, New Zeiland. 275 meters. 15 watts.
278. Gibborne, New Zeiland. 355 meters. 500 watts.
4XO. Duncdin, New Zeiland. 149 meters. Otago University.
4XO. Brandin, New Zeiland. 310 meters. 500 watts.
British Electrical & Engineering Co.



Controlling Audio Amplification in a New Way

WITH the Synchrophase, volume is controlled by an exclusive feature which makes possible six graduations of volume without changing the character of the sound. This is done gradually and not by the abrupt and distorting stage-to-stage method common to most receivers.

Sound can thus be modulated at will to please the ear.

Ask your dealer to demonstrate this and other Grebe features

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Exclusiveness is a virtue only as it benefits others.



All Grebe apparatus is covered by patents granted and pending.

Synchrophase with battery base. Also supplied without base for batteries.

